

**FY 2024-2026**

# **Missouri Department of Transportation Triennial Highway Safety Plan**

Teens taking  
**TRACTION**  
to prevent  
traffic crashes

—SHOW-ME—  
**ZERO**  
Driving Missouri Toward Safer Roads



## Highway Safety Plan

As a component of this Highway Safety Plan, the State of Missouri is applying for the following national priority safety program incentive grants:

405(b) Occupant Protection

405(c) State Traffic Safety Information System Improvements

405(d) Impaired Driving Countermeasures

405(e) Distracted Driving

405(f) Motorcyclist Safety

405(g) Nonmotorized Safety

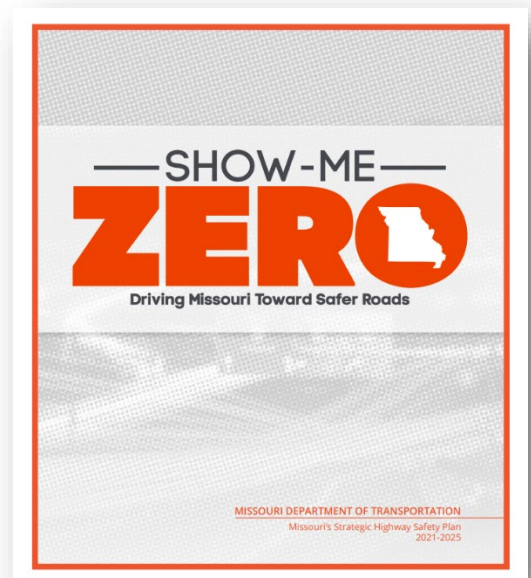
405(h) Preventing Roadside Deaths

405(i) Driver and Officer Safety Education

## Introduction

The mission of the Missouri Department of Transportation (MoDOT) is to provide a world-class transportation system that is safe, innovative, reliable, and dedicated to a prosperous Missouri. Safety is the preeminent value, and the department's goal is for everyone using the transportation system to reach their destination safely. Together, with partner organizations and citizens throughout the state, MoDOT seeks to eliminate fatalities and serious injuries resulting from a traffic crash on all Missouri roads.

For twenty years, MoDOT has joined other organizations in the state to form the Missouri Coalition for Roadway Safety (MCRS). The MCRS, with MoDOT's leadership, is tasked with implementing the state's strategic highway safety plan (SHSP), [\*Show-Me Zero\*](#). *Show-Me Zero* promotes a comprehensive approach of countermeasures across multiple disciplines to create a safe system. This approach was built on the foundation of the 4 E's of highway safety: education, enforcement, engineering, and emergency services. This approach also recognizes no single agency or organization can eliminate traffic fatalities. However, by working together to implement a safe system approach, distinct layers of protection can be deployed to create system redundancy and significantly minimize the likelihood of fatal or serious injury crashes. This begins with developing a culture that values safety above all else and compels users to practice safe habits. The MCRS believes such a culture is developed through a combination of public policy, public awareness, education, accountability, and care and respect for others road users. It is reinforced with proven countermeasures, such as equitable traffic enforcement,



infrastructure improvements, and emergency care. Because the MCRS believes all road users have a responsibility in creating safer roads, Missouri has embraced a 5<sup>th</sup> E of highway safety: *everyone*.

This is the foundation of *Show-Me Zero*. *Show-Me Zero* was designed to engage all Missourians in the mission to eliminate fatalities and serious injuries from Missouri's roadways. To support this, MoDOT has taken steps to intentionally engage people groups and communities in the state who have not historically been active participants in highway safety efforts, who may have been previously overlooked, or who are simply underserved in proportion to the number of resources available to improve highway safety. These efforts are further outlined in the Public Participation and Engagement and Partnership sections below.

*Show-Me Zero* has four emphasis areas: occupant protection, distracted driving, speed and aggressive driving, and impaired driving. In addition, the plan identifies three special road user groups who warrant special attention: pedestrians and bicyclists, teen drivers, and older drivers (age 65 or older). The emphasis areas and special road user groups influence which efforts to pursue when developing the Highway Safety Plan (HSP). This triennial Highway Safety Plan (THSP) outlines the behavioral programs and activities the state will pursue in FFY24-FFY26 as part of the comprehensive approach to implement *Show-Me Zero*.

## Highway Safety Planning Process

Missouri's State Highway Safety Office (SHSO) is housed in MoDOT's Highway Safety and Traffic Division. While many partner organizations play a crucial role in delivering a successful highway safety program, the SHSO is responsible for developing the state's THSP. Though many variables come into play, there are three core elements the SHSO relies upon most when selecting projects, activities, and countermeasures for inclusion in the THSP.

### 1) Data-Driven Problem Identification

Good problem identification begins with an adequate understanding of what's occurring on Missouri's roadways. Several variables are important to consider when assessing why crashes are occurring and what can be done to prevent them. This includes identifying who's typically involved in crashes, where and when crashes are most often occurring, and what circumstances or behaviors are frequently contributing to the crash. Knowing this information allows MoDOT and partner organizations to prioritize strategies that offer the most potential for reducing the number of severe crashes.

There are a number of data sources available to support crash analysis, including the Fatality Analysis Reporting System (FARS), the Missouri Crash Analysis Reporting System (MOCARS), MoDOT's Transportation Management System (TMS), traffic stop and citation data from state and local law enforcement, the US Census Bureau, the National Emergency Medical Services Information System (NEMSIS), attitudinal and observational surveys, court records from the Missouri Office of State Courts Administrator (OSCA), and licensing information from the Missouri Department of Revenue (DOR). Each of these sources offers unique opportunities to evaluate the crash problem in Missouri. In combination, these data sources can be especially effective in identifying specific behaviors, populations, locations, and seasons in which countermeasures are most appropriate. For example, overlaying crash data from MOCARS with roadway data from TMS allows the SHSO to better understand the types of roadways which experience the most crashes as well as the roadway characteristics most often associated with fatal and serious injury crashes. Likewise, data from law enforcement agencies and OSCA can be used to help identify project effectiveness and future areas of need. Similar relationships can be explored between other datasets to better understand Missouri's traffic crash problem, affected communities, and more specific problem identification.

Combing through such vast amounts of data can produce a variety of outcomes and, in some ways, makes it challenging to know where to begin. However, doing so can also help identify major themes and trends that are occurring as well as identifying very targeted areas to prioritize. In developing the SHSP, *Show-Me Zero*, MoDOT and the MCRS have already identified the core emphasis areas in Missouri for 2021-2025. Below is a summary of these priority areas with some of the more prominent data behind their inclusion. Data for other notable areas is also included. More data for each of these areas can be found online at [www.savemolives.com](http://www.savemolives.com).

- General Overview

- From 2017-2021, there were 4,737 traffic fatalities and 24,148 serious injuries on Missouri roadways.
  - The fatalities were nearly evenly split between rural (51%) and urban (49%) areas.
    - This is a significant change from 10 and 15 years ago when the percentage of rural fatalities was 58% and 69%, respectively.
- From 2018-2020, there were 2,789 traffic fatalities. Below is a breakdown of the fatalities by race, according to FARS:
  - White – 2,137 (76.6%)
  - Black – 473 (17.0%)
  - Hispanic or Latino – 87 (3.1%)
  - More Than One Race – 31 (1.1%)
  - All Others – 31 (1.1%)
  - Asian – 14 (0.5%)
  - American Indian or Alaska Native – 8 (0.3%)
  - Unknown – 8 (0.3%)
- According to 2020 US Census Bureau data, black Missourians are overrepresented in fatal traffic crashes (17.0% of fatalities compared to 11.3% of the population).
  - This disparity is even more pronounced in metropolitan areas.
    - St. Louis – 70.6% of fatalities compared to 42.8% of the population
    - Kansas City – 43.8% of fatalities compared to 25.8% of the population
  - This disparity is also more pronounced amongst pedestrian and bicyclist fatalities.
    - Statewide – 28.1% of fatalities compared to 11.3% of the population
    - St. Louis – 69.4% of fatalities compared to 42.8% of the population
    - Kansas City – 42.6% of fatalities compared to 25.8% of the population
- In 2022, preliminary data indicates there were 1,057 traffic fatalities and 5,047 serious injuries on Missouri roadways.

- Occupant Protection

- The statewide seat belt usage for Missouri is 88.9%. However, from 2017-2021, 64.9% of vehicle occupants killed in Missouri traffic crashes were unbelted. Therefore, unbelted motorists are significantly overrepresented in Missouri traffic fatalities.
- In 2022, preliminary data indicates there were 382 unbelted fatalities.
- Unbelted fatalities occurred at a higher rate amongst teens (71.6%) and pickup truck drivers and occupants (76.6%) compared to other vehicle occupants.
- The lowest seat belt use rates in Missouri are typically:
  - Amongst males (81.2%)
  - Amongst teens (71.8%)
  - Amongst pickup truck drivers (74.4%)

- In rural areas, particularly southeast and northeast Missouri
- On non-highways (arterial and collector roads)
- If everyone in Missouri buckled up, an estimated 250 lives would be saved each year.
- In 2021, the usage rate of child safety seats in Missouri was 91%. From 2017-2021, there were 74 children age 7 or younger killed in Missouri traffic crashes. Twenty-four percent of these children were not properly restrained in a child safety seat.

- Distracted Driving

- While distracted driving data is difficult to obtain, the number of recorded distracted driving fatalities has increased two of the last three years.
- In 2022, preliminary data indicates there were 85 reported distracted driving fatalities. Based on national research, observations, and feedback from the law enforcement community, the actual number of distracted driving fatalities is almost certainly higher, and probably to a significant degree.
- From 2017-2021, 62% of reported distracted driving fatalities occurred in rural areas.
- More than half of the individuals killed in Missouri distracted driving crashes are someone other than the distracted driver.
- Twenty-two percent of the distracted drivers in fatal crashes were between the ages of 15 and 24.
- Though Missouri law currently only prohibits texting and driving for drivers age 21 and younger, more than 70% of drivers involved in distracted driving crashes are age 22 or older.
- In a recent survey of Missourians, distracted driving was identified as one of the public's most concerning behaviors on Missouri roadways.
- In May 2023, the Missouri legislature passed a law prohibiting the handheld use of an electronic device for all drivers. The law, if signed by the Governor, will go into effect August 28, 2023.

- Speed and Aggressive Driving

- During the last 5 years, no behavior on Missouri roadways has contributed to traffic fatalities as frequently as speed and aggressive driving. From 2017-2021, there were 2,547 fatalities involving a speeding or aggressive driver, accounting for 53% of all traffic fatalities.
  - In 79% of these fatalities, the speeding or aggressive driver was a male.
- In 2022, preliminary data indicates there were 346 fatalities involving speed and 515 fatalities involving either speed or another aggressive driving behavior (following too close, improper passing, etc.).
- From 2017-2021, 56% of aggressive driving fatalities occurred in rural areas.
- Speed and aggressive driving are cited as a contributing circumstance in fatal crash reports more than twice as often as impaired driving.
- Speed is the most critical factor in crashes involving vulnerable road users, such as pedestrians and bicyclists.
- Feedback and citation data from law enforcement agencies indicate speeds are up significantly during the last 3 years.

- Impaired Driving

- Historically, impaired driving accounts for 20-25% of traffic fatalities in Missouri. From 2017-2021, 1,025 people were killed in an impaired driving crash accounting for 22% of the state's traffic fatalities.
  - In 82% of these fatalities, the impaired driver was a male.

- In 2022, preliminary data indicates there were 174 impaired driving fatalities. While this represents a decrease in impaired driving fatalities for the 3<sup>rd</sup> consecutive year, impaired driving still accounts for 16% of the state's traffic fatalities.
- From 2017-2021, 60% of impaired driving fatalities occurred in rural areas.
- Most impaired drivers are between the ages of 20 and 59.
- From 2012-2021, alcohol impaired fatalities dropped by 20%, but drug-impaired fatalities increased by 100%.
- Missouri legalized recreational marijuana in 2022.

- Pedestrians and Bicyclists

- From 2012-2021, pedestrian and bicyclist fatalities in Missouri increased by 44%.
- From 2017-2021, there were 621 pedestrians and bicyclists killed on Missouri roadways.
- In 2022, preliminary data indicates a record 130 pedestrians were killed on Missouri roadways.
- Pedestrian fatalities most often occur:
  - At night (73%)
  - In urban areas (77%)
  - Between July and December
- Pedestrian fatalities occurred at a higher rate amongst black Missourians when compared to other races, particularly in urban areas.
- Most pedestrians killed in Missouri traffic crashes are between the ages of 20 and 69, with ages 30-59 representing the largest portion.

- Young Drivers

- Traffic fatalities involving drivers ages 15-20 have increased each of the last 4 years.
- In 2022, preliminary data indicates there were 157 traffic fatalities involving a young driver, a 52% increase from 2018.
- Missouri teens have a lower seat belt use rate (71.2%) than the statewide rate (88.9%).
- Drivers age 21-25 accounted for another 134 traffic fatalities in 2022.
- Nine percent of the state's impaired driving fatalities in 2022 involved an underage impaired driver.

- Older Drivers

- Traffic fatalities involving drivers ages 65 and older have increased each of the last 3 years.
- In 2022, preliminary data indicates there were 259 traffic fatalities involving an older driver, a 42% increase from 2019.
  - 112 of these fatalities involved a driver age 76 or older.
- Older drivers account for the fastest growing age group in Missouri.

- Motorcyclists

- From 2017-2021, there were 620 motorcyclist fatalities in Missouri.
  - 91% of motorcyclists killed were males.
- Motorcycles represent only 2% of registered vehicles in Missouri but were involved in 14% of all fatal crashes.
- From 2017-2021, 53% of the motorcyclist operators involved in fatal crashes were unlicensed or improperly licensed.

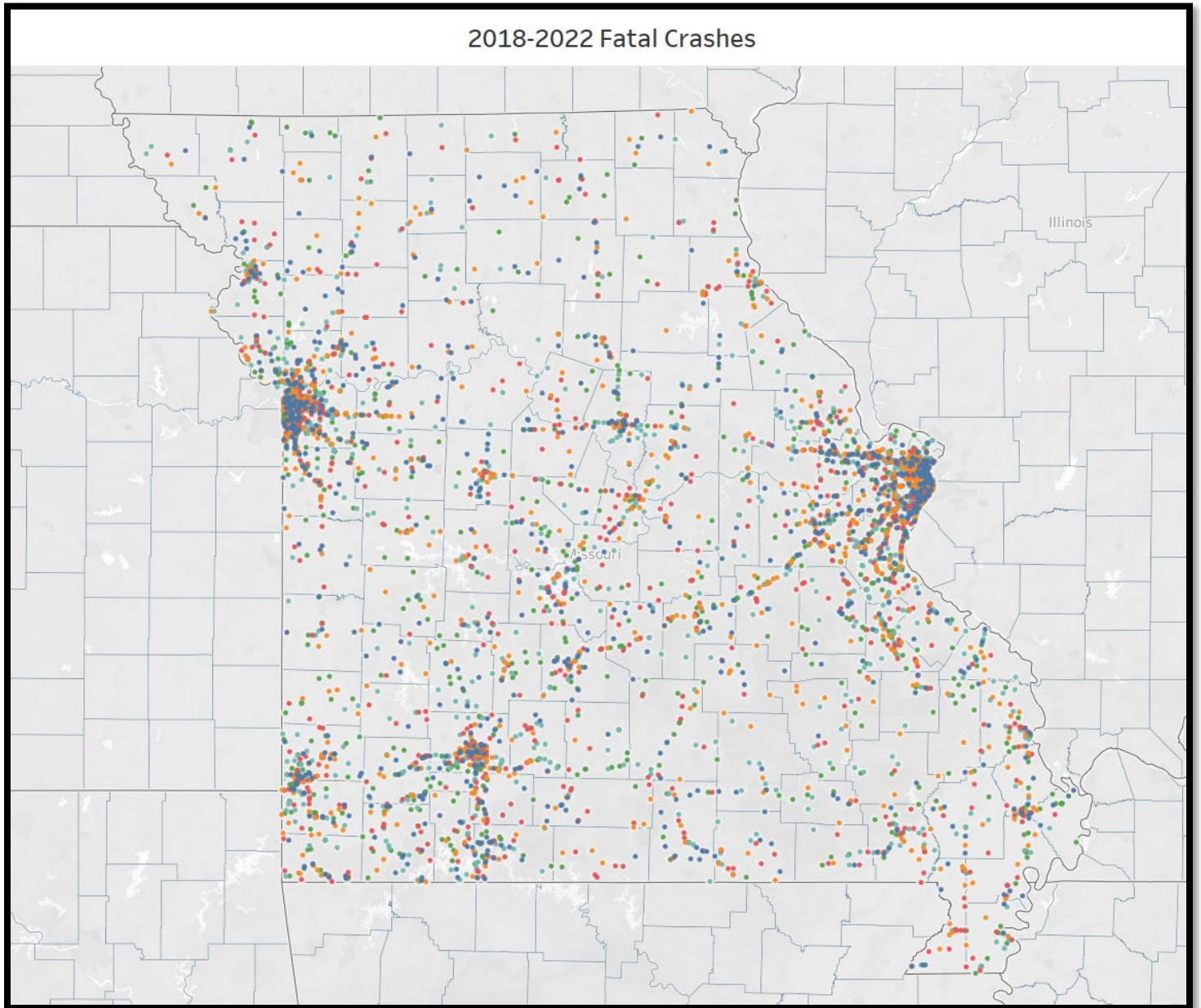
- In 2020, Missouri repealed its all-rider helmet law, allowing motorcyclists age 26 and older to ride without a helmet. Since the repeal, motorcyclist fatalities have increased by approximately 30%, and unhelmeted fatalities increased from 11 the year before the repeal to 82 the year after the repeal.
- In 2022, preliminary data indicates there were 153 motorcyclist fatalities in Missouri, 73 of which were unhelmeted.
- Commercial Motor Vehicles (CMV)
  - From 2017-2021, there were 706 fatalities in Missouri involving a CMV.
    - 568 (80%) of these fatalities were individuals not operating or riding in the CMV.
    - 80 of these fatalities were either a pedestrian (77) or a bicyclist (3).
  - In 2022, preliminary data indicates there were 162 fatalities in Missouri involving a CMV.
  - In more than half of CMV-involved fatalities, only the non-CMV driver is cited with a contributing circumstance to the crash.
- Drowsy Driving
  - Like distracted driving, data on drowsy driving fatalities can be difficult to obtain.
  - From 2017-2021, there were 87 reported fatalities in Missouri involving a drowsy driver.
    - Ninety percent of these fatalities involved a driver age 25 or older.
    - Seventy percent of these fatalities occurred in rural areas.
    - Sixty-seven percent of these fatalities occurred on a weekday.
    - Sixty-seven percent of these fatalities occurred on a non-highway (arterial or collector).
    - Fifty-seven percent of these fatalities occurred during the daytime.

The maps below are intended to provide a visual representation of where traffic fatal crashes have occurred in Missouri during the last 5 years. In particular, the maps show just how widespread the problem is, and that no county or geographic location is immune to the risk of a severe traffic crash. As such, while the THSP uses data-analysis to identify areas of overrepresentation or high frequencies of crashes, a need also exists to address highway safety throughout the state. As a result, the projects selected for FY24 as well as future years will include efforts to address traffic crashes in areas that are not necessarily considered overrepresented in the crash data.

The maps also help demonstrate the relationship between rural and urban areas of the state. While a greater number of fatal crashes occur the most urbanized areas, there remain many fatal crashes in rural regions of the state. Furthermore, on a per capita basis, fatal crash rates are often highest in rural counties.

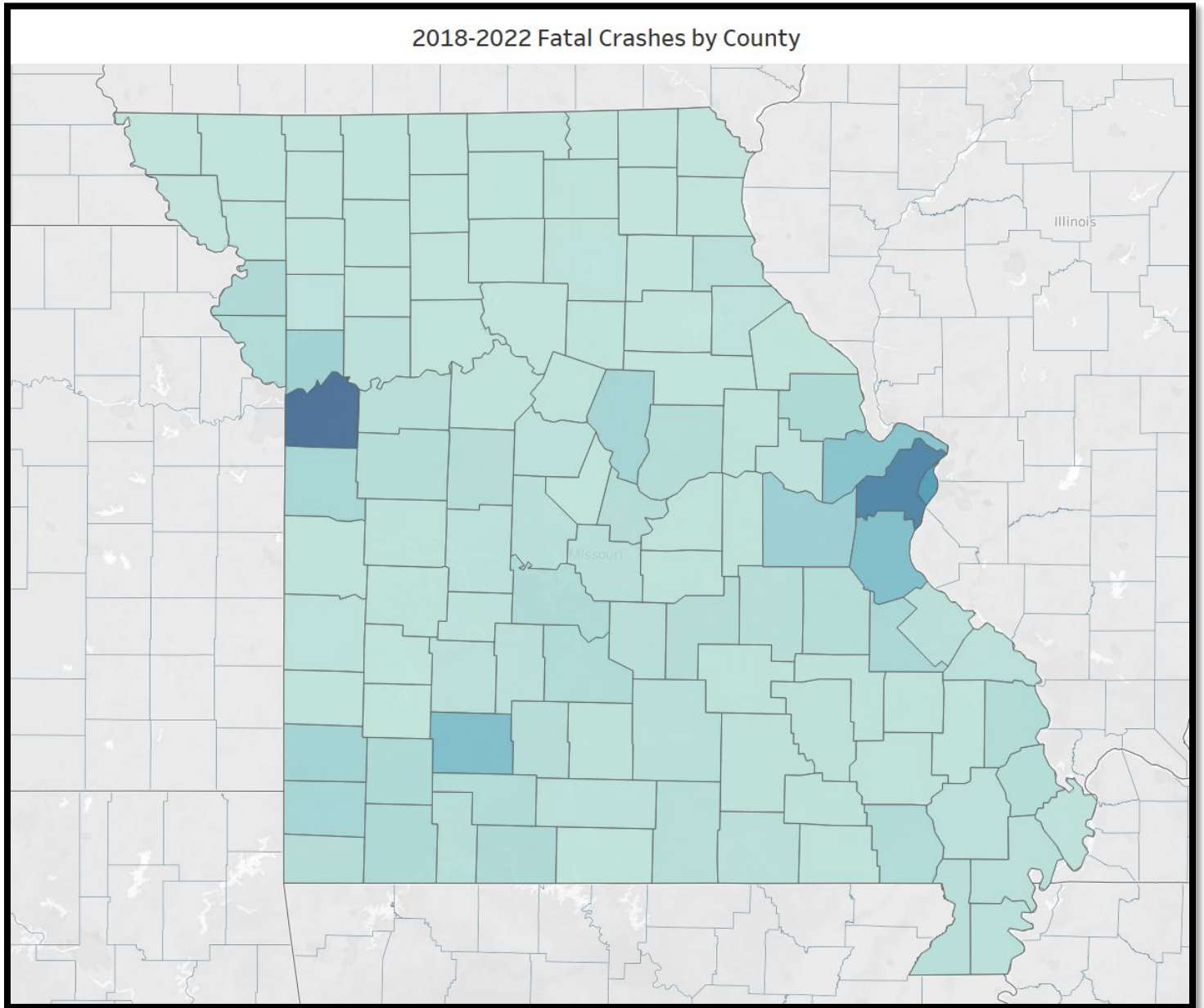
Map 1 – Missouri Fatal Traffic Crashes 2018-2022

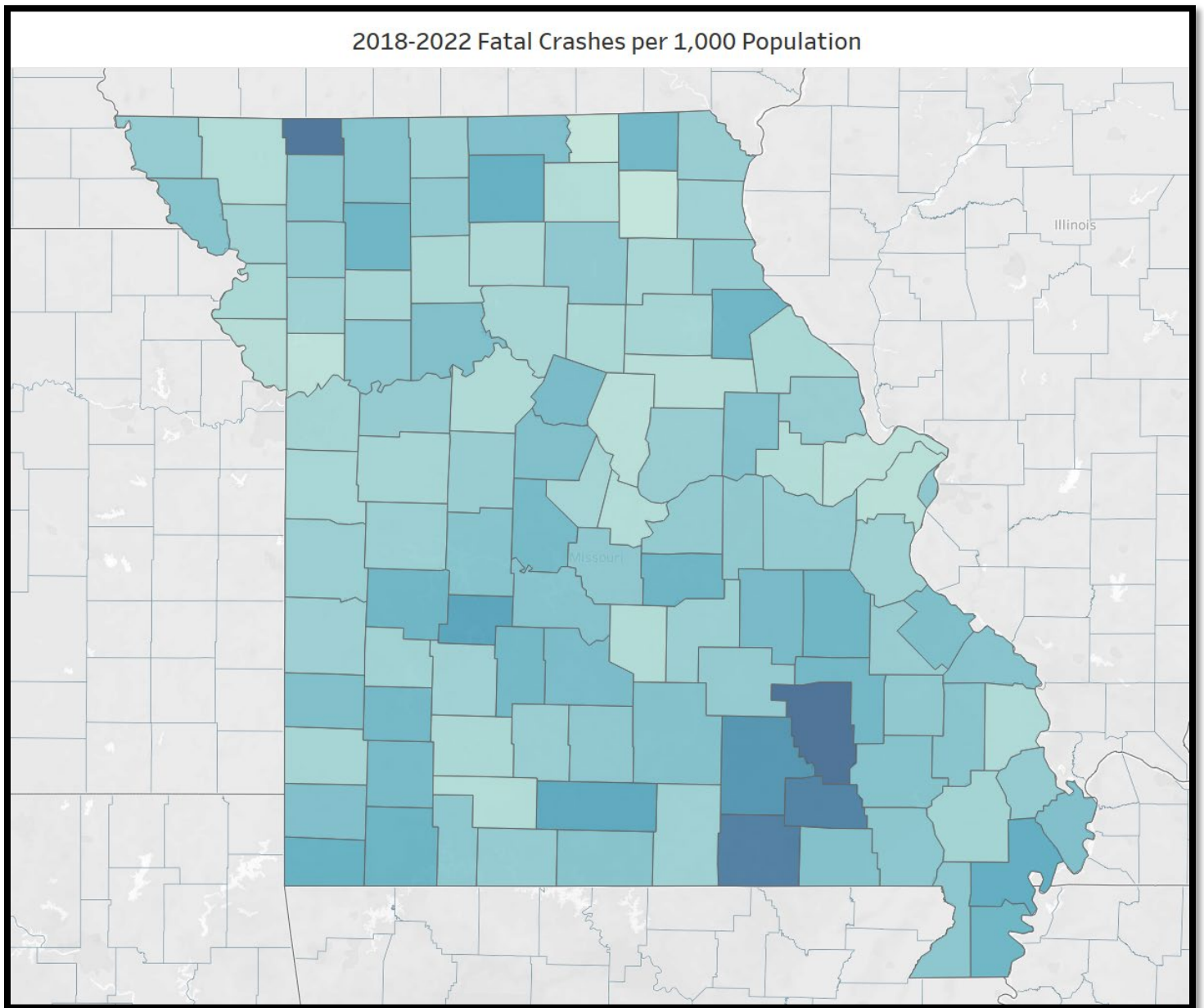
*Note: Each color represents a single year (2018, 2019, 2020, 2021, or 2022)*



Map 2 – Missouri Fatal Traffic Crashes 2018-2022 by County

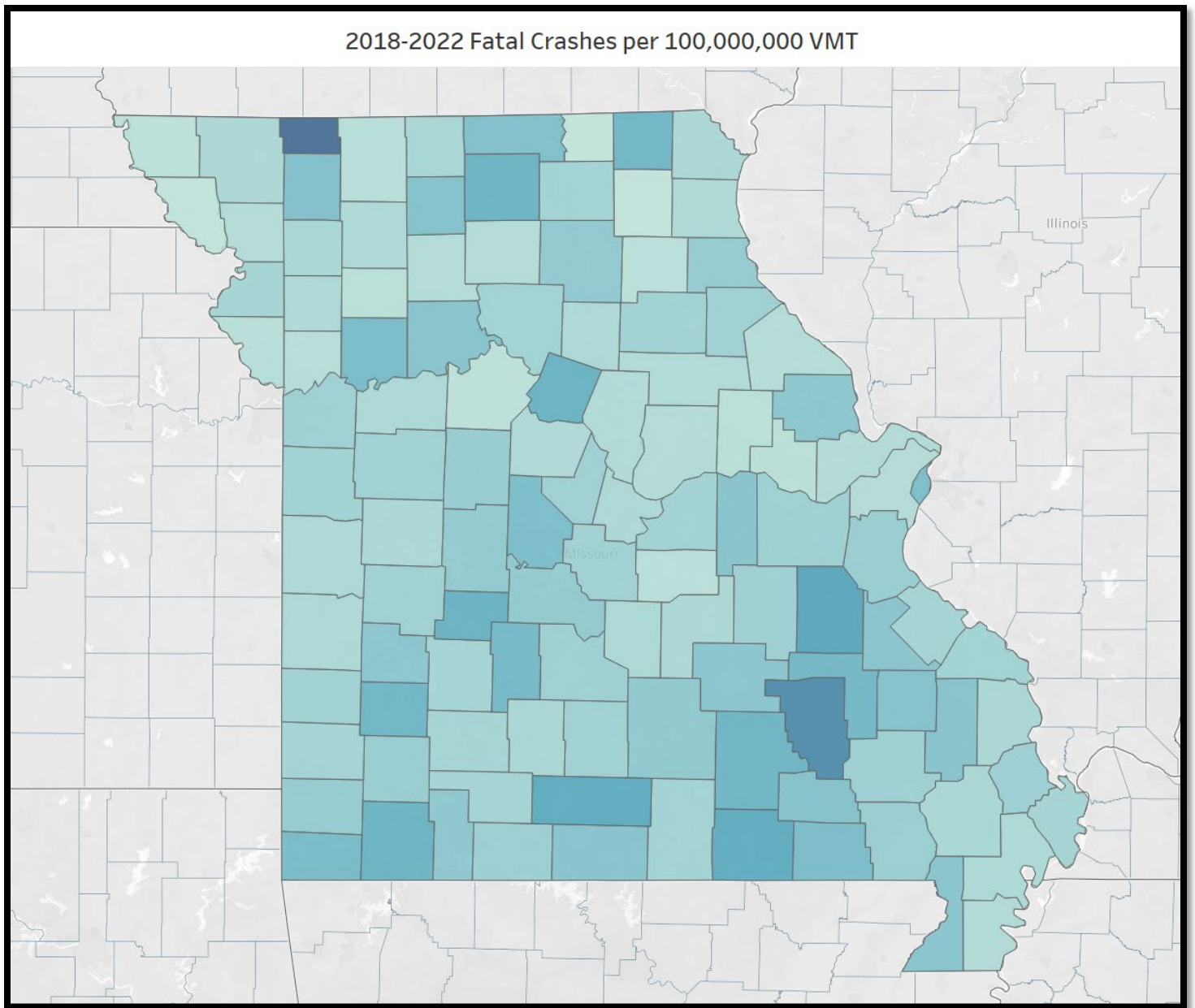
*Note: Darker shaded counties have a higher number of crashes than lightly shaded counties.*





Map 4 – Missouri Fatal Traffic Crashes 2018-2022 per 100 Million Vehicle Miles Traveled (VMT)

*Note: Darker shaded counties have higher rates than lightly shaded counties.*



## 2) Public Participation and Engagement

While data analysis plays a critical role in identifying problems and potential solutions, it's equally important to engage the public and consider their input during countermeasure selection. Every community is different, and what works well in one community may not be the best approach in another. In addition, it's important for citizens to buy into the efforts taking place in their community. This helps maximize effectiveness and promote sustainability of the program. Regular public engagement also helps prevent the SHSO from overlooking new opportunities and falling into a predictable cycle of planning the same activities year in and year out.

MoDOT has a strong track record of public engagement in road construction projects, and the SHSO seeks to do the same for the highway safety program. The SHSO is actively engaging the public, with some activities having been in place for years while others are relatively new.

When considering where THSP activities should take place, it should be noted projects must not be confined to only communities that have a higher frequency of traffic fatalities or an overrepresentation of traffic fatalities. While these locations warrant special attention, no county or city in Missouri is immune from the devastating impacts of severe traffic crashes. Year after year, traffic fatalities occur throughout Missouri on a large-scale basis and in ever-changing locations. This is clearly demonstrated in the 4 maps displayed above. In order to move toward the ultimate goal of zero traffic fatalities, the SHSO and its partners must seek to implement countermeasures in all parts of the state. Therefore, it's imperative the THSP continue to include programs and activities that serve a broad swath of Missourians.

At the same time, the SHSO recognizes there are communities in Missouri who are either not familiar with the highway safety program or who have not historically been engaged or participatory. While previous HSP's have been successful and inclusive, the SHSO desires to create a more localized and equitable highway safety program. In the same way *Show-Me Zero* is designed to engage all Missourians, the SHSO's goal is to engage more Missourians and secure further participation in the highway safety program, especially from communities most often exposed to traffic fatalities, communities overrepresented in traffic fatalities, and communities lacking access to highway safety resources. By engaging these communities, the SHSO can identify specific strategies and partners, making the highway safety program in these areas more equitable, relevant, and effective. Public participation allows the SHSO to do a better job supporting projects and activities that address the most pressing needs within a given community.

Considering both realities, some of the SHSO's public participation and engagement activities focus on all Missourians while other activities are intended to reach underserved, overrepresented, or overlooked groups. To determine which specific communities might warrant additional engagement, the SHSO uses a combined approach of data analysis and an overall assessment of where prior HSP activities have not historically occurred. When analyzing the crash data, three areas initially stood out:

1. Seat belt use rates in rural Missouri, especially southeast and northeast Missouri;
  - a. The SHSO used crash data (MOCARS) and the annual seat belt survey to identify counties in which the rate of unbelted fatalities were higher than the statewide average. Northeast and southeast Missouri counties regularly stood out in the data analysis. Please see Data-Driven Problem Identification, page 4 for more information.
2. An overrepresentation of black or African American individuals in Missouri fatal crashes, particularly in, but not only in, metropolitan areas and amongst vulnerable road users (i.e., pedestrians and bicyclists);
  - a. FARS data was paired with US Census data to identify populations and communities in which there were significant racial disparities in traffic crashes. The most notable disparities occurred in urbanized areas like St. Louis and Kansas City. The disparities are most pronounced amongst

vulnerable road users, especially pedestrians. Please see Data-Driven Problem Identification, pages 4-6 for more information.

3. Longer response times and less accessible trauma care in rural areas.
  - a. NEMSIS is a national repository that may be used to analyze response times to motor vehicle crashes, including details on the time of dispatch, time of transport, and time arrival at a trauma care center. While Missouri is in the early stages of exploring such data, DOT data from incident response times combined with national EMS data indicates generally longer response times and less accessible trauma care for rural areas. Given approximately 40% of fatal crash victims are alive at the time first responders arrive on scene, the SHSO is pursuing projects to help decrease the response times and the time needed to receive critical care at an equipped facility. To learn more about NEMSIS, please visit [www.nemsis.org](http://www.nemsis.org).

In addition, the SHSO also noted opportunities for improving accessibility to highway safety information within the Hispanic and Latino population, as well as developing public messaging that is more representative of the communities in which the message is being shared. Finally, the SHSO identified groups who do not always have equitable access to the highway safety resources that are available, including youth in the foster care system and low-income schools.

The SHSO has taken steps to initiate conversation and establish working relationships with entities who can assist in expanding the highway safety program to these affected communities. This includes, but is not limited to, local health departments, foster care agencies, community and faith-based organizations, ethnic-based organizations, youth organizations, and local planning organizations. It is the SHSO's desire to develop strong, ongoing relationships with these partners to ensure Missouri's highway safety program is equitable and meaningful for all Missourians.

Below is a summary of steps the SHSO has taken to ensure meaningful, public participation in development of the THSP. The input received from each of these efforts was considered when selecting the countermeasures.

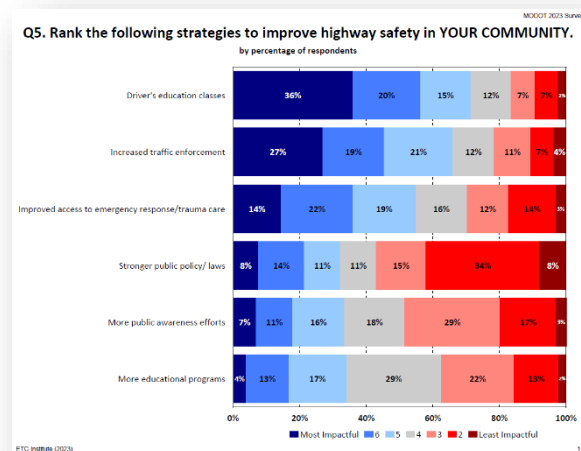
- SHSP Development
  - In 2020, MoDOT led an effort alongside partner agencies of the MCRS to develop the state's 5<sup>th</sup> SHSP, the *Show-Me Zero* plan discussed above. While the SHSP was developed 3 years ago and is a separate document from the THSP, the relationship between the two cannot be ignored. By design, the SHSP is the umbrella document under which other safety plans in the state should be guided. The Code of Federal Regulations (CFR) underscores this intrinsic relationship in part 924.9(a)(3)(x) when it states the SHSP shall "*provide strategic direction for other state and local/tribal transportation plans, such as the HSIP, the Highway Safety Plan, and the Commercial Vehicle Safety Plan.*"
  - In other words, the THSP, at its core, is shaped and directed by the emphasis areas identified in the SHSP. Therefore, even though this effort occurred prior to the development of this THSP, the public participation and engagement efforts involved in developing the SHSP inherently influence the THSP.
  - The SHSP was the result of the collective input from a diverse group of stakeholders, including representatives from different regions of the state, different disciplines, and different experiences. The group included more than 60 individuals from dozens of unique organizations. Together, these individuals, their agencies, and their partners all contributed to drafting, reviewing, and developing the SHSP. The group included representatives from:
    - City and county public works
    - Driver's education groups

- Federal agencies (National Highway Traffic Safety Administration, Federal Highway Administration, Federal Motor Carrier Safety Administration)
    - Insurance agencies
    - Local emergency response agencies
    - Local police departments
    - Local health departments
    - Metropolitan and regional planning organizations (urban and rural)
    - Safety-oriented organizations
    - State agencies (MoDOT, MSHP, DOR, Missouri Department of Elementary and Secondary Education, Missouri Department of Public Safety, Missouri Office of Prosecution Services, OSCA)
    - Universities
  - In addition to this working group, the draft SHSP was also shared with hundreds of other stakeholders for review and comment. While not specifically targeted toward any individual group or community, the draft SHSP was distributed to a number of organizations representing what would be considered affected communities, including organizations representing rural areas with low seat belt use and organizations representing urbanized areas with a disproportionate number of pedestrian fatalities. More than 70 responses were received, and each comment was reviewed and taken under consideration by the SHSO.
  - In the end, this process led to the development of the Show-Me Zero plan and the state's collective commitment to focus on a few key areas: occupant protection, distracted driving, speed and aggressive driving, impaired driving, pedestrians and bicyclists, teen drivers, and older drivers.
- Grant Application Workshops
    - For more than 20 years, the SHSO has been conducting grant application workshops. These workshops have two primary purposes:
      - Provide instruction to attendees on applying for a highway safety grant; and
      - Cultivate new partnerships for the highway safety program.
    - The workshops are held in multiple locations throughout the state and are open to any organization interested in applying for a highway safety grant. The workshops are publicly announced in advance, and the SHSO seeks to conduct the workshops in enough locations such that no one must travel more than 2 hours to attend.
    - In January 2023, workshops for FFY24 grant applications were held in 5 locations: Cape Girardeau (southeast Missouri), Chesterfield (St. Louis area), Springfield (southwest Missouri), Lee's Summit (KC area), and Jefferson City (mid-Missouri).
    - It is not feasible for SHSO staff to travel to every affected community for the grant application workshops. While these 5 locations were not specifically identified as underserved or overrepresented communities, they do represent some of the most suitable and accessible locations for receiving attendees from multiple communities within the area, many of which would be considered underserved or overrepresented communities.
      - For example, the Chesterfield location is located along a major highway and is less than 30 minutes from downtown St. Louis. Likewise, the Cape Girardeau location is along I-55 in southeast Missouri and within a short drive of many rural communities in the Missouri Bootheel.
    - Approximately 240 people attended the 5 workshops. In addition, the workshop was recorded and made available to anyone who was unable to attend a meeting in person.

- The workshops share details of the highway safety program, including an overview of the crash problem in Missouri, a listing of eligible activities for grant consideration, important dates and deadlines, and how to apply for a grant using the Grant Management System (GMS).
- The workshops are also designed to solicit feedback and participation from communities by encouraging attendees to think about opportunities specific to their communities that may be eligible for grant funding. The workshops offer a great opportunity for attendees to ask questions and receive one on one assistance from the SHSO staff in putting together a compelling application for highway safety projects in their community. The workshops play a critical role in ensuring a diverse and comprehensive sampling of projects for consideration in the upcoming THSP.
- For 2023, the SHSO made an intentional effort to ensure more local groups were aware of the workshops, especially advocacy groups for underserved populations, community health departments, rural emergency responders, and metropolitan and regional planning organizations. As a result, the SHSO received and approved an increased number of applications from these groups in the THSP.

## • Public Opinion Surveys

- Over the years, the SHSO has conducted several public opinion surveys to better understand the attitudes of road users and the rationale for the decisions they make. Historically, these surveys were used to gauge the effectiveness of various highway safety campaigns, such as Click It or Ticket, and to measure the extent of any behavioral changes. The feedback helped ensure the message and public awareness efforts resonated with citizens in a meaningful way.
- In January 2023, the SHSO conducted a similar survey, but expanded the effort to also capture public opinion on the most important highway safety issues in Missouri communities. The survey also solicited input from respondents on programs, activities, and countermeasures the SHSO should consider pursuing.
- The survey was administered by a professional survey consultant to a stratified random sample of respondents throughout Missouri with a goal of completing no fewer than 3,000 surveys. The survey also sought to receive a distribution of responses that matched demographics of the state, ensuring overrepresented and underserved populations were included in the survey.
- A total of 3,940 completed surveys were collected and the overall results have a precision of at least  $\pm 1.6\%$  at the 95% level of confidence at the state-level.
- Specific goals were set for representative samples in each of MoDOT's 7 transportation districts: Northwest, Northeast, Kansas City, Central, St. Louis, Southwest, and Southeast. This ensured demographic representation from each district.
- The survey was made available online, and an initial invitation to participate was sent to randomly selected households using a postcard that included a link to the online survey, a toll-free number where residents could have the survey administered in English or Spanish over the phone, a URL for the online survey, and a QR code that would direct respondents to the online version of the survey. This is an example of an accessibility measure.



- Additional follow-ups including text messages and phone calls were made to underrepresented populations that do not typically respond to survey requests to ensure they were included as part of the final survey sample.
- The results are statistically significant in each of the 7 districts, meaning statistically significant comparisons can be made across all 7 districts.
- The results of the survey can be found in Appendix A.
- The results indicate Missourians are most concerned about:
  - Distracted driving (84%);
  - Impaired driving (64%); and
  - Speed and aggressive driving (60%).
- Survey respondents were also asked to rank strategies they believed would be most effective for improving traffic safety. Their top 3 suggestions were:
  - Driver's education (71%);
  - Increased traffic enforcement (67%); and
  - Improved access to emergency response/trauma care (55%).
- Specific to excessive speeds, respondents favored:
  - Increased traffic enforcement (80%);
  - Increased awareness/education (71%); and
  - Automated enforcement (66%).
- In addition to the public opinion survey, the SHSO also surveyed existing highway safety partners and grant recipients to obtain their input on the most important issues and to garner suggestions for new strategies and/or partners to engage. There were 111 responses received with the top 3 concerns being:
  - Speed and aggressive driving;
  - Distracted driving; and
  - Impaired driving.
- Both surveys provided input from the public that was taken into consideration alongside crash data and potential partnerships when evaluating projects for FFY24. Of specific consideration were efforts to support educational opportunities for new drivers and response times and emergency care in rural areas. The surveys also supported continued implementation of traffic enforcement activities and public awareness efforts.

- Regional Coalitions

- In 2004 and alongside development of the state's first SHSP, MoDOT partnered with dozens of organizations throughout the state to form the Missouri Coalition for Roadway Safety (MCRS). At its core, the MCRS was designed to be the local and public-engagement component of Missouri's highway safety program. To encourage participation at the local level, the MCRS established regional coalitions in each of MoDOT's transportation districts. To this day, a regional coalition exists in each of MoDOT's 7 transportation districts, and a couple of these regional coalitions have even formed subregions within their respective areas to



better serve local communities. The regional coalitions meet on a regular basis (either bi-monthly or quarterly) and are open to any local organization seeking to partner in the mission to eliminate traffic fatalities.

- The regional coalitions take an organic, localized approach to engage their communities in a meaningful way, identifying the highway safety problems most prevalent in their respective areas and then developing an action plan to raise awareness and promote participation in mitigating the problem.
- Activities of the regional coalitions vary by district, but they each include a diverse group of stakeholders and take a multi-disciplined approach to improving safety. Typical activities include, but are not limited to, advocating for local public policy changes to improve safety, hosting and participating in public education and outreach events, organizing school programs, providing training, supporting emergency response needs, and promoting equitable traffic enforcement. Participation in the regional coalitions by local communities and organizations has directly led to highway safety activities in these areas.
  - For example, the southeast regional coalition recently identified high schools in their region with teen seat belt use rates well below the statewide average. Malden High School, identified by the Missouri Department of Elementary and Secondary Education as a rural, low-income school, had a seat belt use rate of only 56% (2022 Missouri Teen Seat Belt Survey). The southeast regional coalition engaged the Malden Department of Public Safety and the high school, and, together, the entities collaborated to formulate a plan for increasing seat belt use. The organizations met with city officials who responded by passing a primary seat belt ordinance. Then, officers spent time at the school handing out literature and safety reminders to students, encouraging them to always wear their seat belts. This is a great example of identifying a need through data analysis, engaging the affected community, and partnering together to implement a solution.
  - In a similar example, the northwest regional coalition received input from Northwest Missouri State University that a noticeable percentage of students on campus were not wearing helmets or following traffic regulations when riding motorcycles and mopeds. Thus, in this scenario, the need was identified by the affected community itself. With support of the university, the regional coalition organized a target paid media campaign to reach students with reminders about the importance of wearing helmets and practicing safe riding habits. Both of these examples demonstrate how the regional coalitions are rooted in an ongoing conversation with local communities to improve highway safety.
- Participation in the regional coalitions is open to any organization, providing a simple and efficient means for citizens to be engaged in the state's highway safety efforts. As noted above, a special emphasis has been placed on engaging more groups through the regional coalitions, particularly from public health departments, local planning organizations, community and faith-based organizations, and advocates for underserved populations.
  - Following the 2023 Equity and Engagement Summit (see below), each regional coalition coordinator was provided contact information for summit attendees and encouraged to invite them to their next meeting. Likewise, summit attendees were each provided the contact information for their local regional coalition coordinator.



- The efforts, experiences, and outreach of the regional coalition have a direct impact on soliciting future activities for the THSP as well as implementing and participating in existing THSP programs and projects. The regional coalitions also provide critical feedback to the SHSO which helps shape future versions of the THSP.

- Equity and Engagement Summit

- On May 2, 2023, MoDOT and the MSHP hosted the state's first ever Equity and Engagement Summit for Traffic Safety. The idea for the summit was the result of a SWOT analysis the SHSO conducted alongside the National Highway Traffic Safety Administration (NHTSA) and other safety partners. Following the SWOT analysis, MoDOT and the MSHP collaborated to plan a summit specifically focused on engaging underserved communities throughout Missouri on the issue of highway safety. This idea came about for two primary reasons: 1) minority communities are overrepresented in pedestrian fatalities, particularly in urban areas (see Data-Driven Problem Identification pages 4-6); and 2) minority communities have not historically participated in Missouri's highway safety program relative to other communities. Therefore, the desire was to ensure the highway safety program was equitable and accessible to all Missourians and to also foster new relationships with groups that had not historically participated in SHSO activities.
- For the last 10 years, the MSHP has been working to strengthen relationships with community leaders, especially in underserved areas. These relationships were leveraged to begin a dialogue with community leaders about highway safety issues in their areas and to solicit their input on how the SHSO could better support safety efforts in their communities. Fifty-three individuals participated in this inaugural event held on the campus of Lincoln University, one of the state's historically black colleges and universities (HBCU).
- The turnout was significant, with community leaders attending from multiple parts of the state, including St. Louis, the Bootheel (southeast Missouri), Kansas City, Springfield, St. Joseph, and mid-Missouri. Attendees included individuals from faith-based organizations, non-profit community groups, ethnic-based organizations, foster care, youth organizations, state agencies, cultural centers, and more. Included in attendance were several members of Missouri's Hispanic community and accessibility measures were put in place to ensure bilingual individuals were present should they be needed to facilitate conversation. A list of the summit attendees can be found in Appendix B.
- The group was enthusiastic, engaged, and genuinely excited about opportunities to partner with the SHSO in reaching their communities. The morning of the summit was spent reviewing the crash problem in Missouri and providing an overview of the SHSO program. The afternoon was spent listening to attendees and brainstorming ideas for future activities, countermeasures, and accessibility measures. Some initial takeaways from the summit included:
  - Making more highway safety resources and materials available in Spanish;



- Creating public messaging that is more representative and relevant for the communities in which it is shared;
    - Developing stronger relationships with schools in affected communities; and
    - Partnering with faith-based organizations and ethnic-based organizations to promote safety messages and resources.
  - This summit is intended to be the first step in developing a long-standing relationship with these community leaders and their counterparts to ensure these communities are increasingly included and engaged in SHSO activities. While the next steps will be ongoing, the SHSO has already followed up to help address some of these concerns, including working to make sure highway safety resources are accessible in Spanish. In addition, three follow up events have already been scheduled in local communities, each a direct result of the summit.
  - With the summit occurring after the review and selection of THSP projects for FFY24, the SHSO proactively set aside funding in the THSP knowing additional activities and projects would result from the summit. These projects will be programmed over the course of the year and will focus on addressing key needs identified during the summit. For example, several attendees expressed interest in developing public messaging for their local schools and neighborhoods. Likewise, many attendees expressed a desire to incorporate traffic safety for teens in their existing community programs. This project will support these efforts moving forward.
  - Photos from the event can be found [here](#), and a recap from the Governors Highway Safety Association [here](#).
- Town Halls and Other Public Interactions
    - On May 24, 2023, the SHSO met with Vitendo 4 Africa, a non-profit organization whose activities are directed toward empowering communities through educational and outreach programs in Missouri and in Africa. This meeting was a direct result of the Equity and Engagement Summit discussed above. The meeting resulted in a plan to send 16 students and 2 advisors from Vitendo 4 Africa to a 2023 TRACTION youth conference, a project included in the THSP. These students represent 4 different high schools in St. Louis and will form the largest team to participate in the history of the TRACTION conference.
    - On June 21, 2023, the SHSO met with the Hispanic Leaders Group (HLG) of Greater St. Louis. This meeting was a direct result of the Equity and Engagement Summit discussed above. The meeting furthered the relationship between the SHSO and the HLG and included additional discussion on immediate opportunities to develop a last partnership. The most immediate need identified was making more of the SHSO publications accessible in Spanish, something the SHSO will be undertaking as part of this THSP. Representatives of the HLG are also planning to attend the state's annual Highway Safety and Traffic Conference on September 25-27 in Columbia, MO. This will provide another opportunity to connect and continue working together to better serve the Hispanic population in Missouri.
    - On June 28, 2023, the SHSO piloted a town hall meeting in the northeast part of the state where seat belt use rates are lower than the statewide average. This location was selected because over 80% of vehicle occupants killed in this rural region were unbelted (FARS Data), significantly higher than the statewide average. The town hall format was chosen as a neutral, informal way to connect with community members and allow for two-way conversation. The SHSO shared information regarding the concerning trends, and community members were provided multiple ways to give feedback on potential solutions, including a physical comment card available at the meeting and a QR code for an online comment form. The town hall was open to anyone who wished to attend, and several methods were used to communicate the details of the event.

MoDOT issued a news release, promoted the event on social media, and also contacted local outlets to help make sure the event was sufficiently advertised.

- The event took place in a public setting (local community building) and was held in the evening to accommodate more participation. While the number of attendees was lower than desired, three media outlets were present, covering the event and making the information available to entire area. In addition, the local police department, fire department, and regional planning coalition each had representatives at the meeting.
- The content included an overview of the crash problem in Missouri, including the emphasis areas of the Show-Me Zero plan: occupant protection, distracted driving, speed and aggressive driving, and impaired driving. The format of the event also afforded ample opportunity for citizens to share concerns, ideas, and general feedback, including handouts with a QR code for electronic submissions at a later time.
- Following the pilot town hall, the SHSO will debrief, seek to improve the process, and schedule additional town halls in other parts of Missouri. The next town hall is tentatively planned to take place in southeast Missouri, another low belt use region.
- In early 2023, the SHSO engaged numerous foster care agencies throughout Missouri to assist foster youth in obtaining driver's education that was not easily accessible to them. Working together with these agencies and the Governors Highway Safety Association (GHSA), the SHSO supported providing 25 foster youth with a certified driver's education course. This project is still ongoing and is occurring throughout the state. A similar project has been programmed in the THSP that will continue and expand the SHSO's efforts in providing highway safety resources and driver's education to foster youth and other underserved youth in Missouri.
- To help improve response times and access to trauma care in rural areas of the state, the SHSO has made a more concerted effort to engage emergency response agencies and fire departments. These responders play a critical role in providing crash victims timely care, yet they are often volunteer based and lacking in resources. By making these agencies more aware of programs and resources, the SHSO has seen an increased participation from emergency responders in the grant application process. For FFY24, the SHSO has projects with several fire and emergency response agencies to help address this issue.
- The SHSO and its partners also routinely engage citizens at public events where the message of highway safety is promoted to all attendees. Examples include sporting events, fairs and festivals, holiday gatherings, parades, motorcycle rallies, and more. These events provide a great opportunity for SHSO staff and MCRS partners to both educate the public and receive input on solutions that might be most effective. At some of these events, surveys are even administered to the attendees to capture public feedback.



- Future Efforts

- Going forward, the SHSO will continually explore opportunities to engage the public and solicit input in developing a THSP that is equitable and effective. The goal is to engage more Missourians and secure further participation in the state's highway safety program, especially from communities most often exposed to traffic fatalities, communities overrepresented in traffic fatalities, and communities lacking access to highway safety resources.

- As noted previously, the SHSO has already participated in and scheduled additional follow up events from the Equity and Engagement Summit. These events will take place in local communities. The premise for the follow up events is to strengthen the relationships that were previously made at the summit while also establishing new relationships with additional community leaders in each region. These community leaders will form the basis for identifying, developing, and implementing future activities and countermeasures associated with the set-aside project in this THSP. Of course, this will also form the basis for additional projects in the outer years of this THSP.
- The SHSO has also had discussions with the MSHP about hosting another statewide summit in 2024. Though most of the work will occur at the local level working with individual partners, there remains value in bringing the collective group back together on occasion to reconnect, share ideas, and brainstorm new opportunities.
- As noted above, the SHSO also intends to conduct additional town hall meetings in areas where specific behaviors or groups are overrepresented in the crash data. For example, the next town hall meeting will likely occur in southeast Missouri and focus on increasing seat belt use.
- The regional coalitions will continue to engage organizations and individuals who are representative of and connected to affected communities as identified through ongoing data analysis. The regional coalitions will be key partners in connecting with attendees from the summit, regional follow up events, and the town halls to ensure the participants are supported and equipped to help implement highway safety programs in their communities.
- The SHSO will also continue to conduct public opinion surveys to help gauge program effectiveness, solicit input from citizens, and change messaging and project selection as necessary to raise awareness of Show-Me Zero and the simple actions everyone can take to make Missouri roads safer. These efforts are consistent with Show-Me Zero's goal to engage all Missourians in the mission of highway safety.
- Finally, on January 19, 2023, Governor Parson signed Executive Order 23-01 to establish a Master Plan on Aging to help reduce age and disability discrimination, eliminate barriers to safe and healthy aging, and help Missourians age with dignity. The Executive Order created an advisory council to assist the Missouri Department of Health and Senior Services (DHSS) develop a statewide master plan by December 31, 2025. MoDOT will participate on the council with a specific focus of ensuring transportation options for aging Missourians are considered.

### 3) Partnerships

Where data and public participation form the primary basis for which activities the SHSO will pursue, effective partnerships are the essential component in delivering a successful program. The SHSO is a relatively small team with limited capacity to address each program area and engage the entire state. By partnering with other organizations, the likelihood of developing and delivering a THSP that is data-driven, informed by public participation, and effective is greatly enhanced. Conversely, if the SHSO cannot find suitable partners to help implement a desired program, the ability to address an issue supported by the data analysis and/or public engagement may be limited.

The SHSO works diligently to increase the number of partnerships throughout the state and has been fortunate to work with a myriad of safety partners over the years. Last year, the SHSO partnered with approximately 190 distinct organizations to implement 428 projects as part of the FY23 HSP.

For FFY24, the SHSO has worked to establish new partnerships with a special emphasis on engaging local planning organizations, local health departments, and advocacy groups in underserved communities. This year, the SHSO received 511 grant applications from 229 distinct organizations. This includes several applications from new applicants, including those from the groups listed above. In the end, a record \$26 million is being

awarded for 446 different projects for FFY24. These partnerships include, but are not limited to, police departments, health departments, driver's education groups, emergency response agencies, judicial organizations, local planning organizations, safety councils and safe community groups, cities and counties, student outreach organizations, foster care agencies, state agencies, hospitals, railroad safety organizations, universities and education groups, and a variety of highway safety advocacy groups.

## Project Selection

### Grant Application

Combining the results of the data analysis, public feedback, and potential partnerships, the SHSO seeks to develop an annual plan of projects and activities to support the program goals. The vast majority of this work is accomplished by awarding grants to partners who possess the ability to help deliver desired outcomes.

To facilitate this process, the SHSO conducts an open solicitation for grant applications each January. As noted above, grant application workshops are held each year to help potential applicants better understand the grant program, the application process, and the timeline for awards. Workshop participants are provided a packet explaining the program, the types of projects that are eligible, and an overview of statewide crash data. Potential applicants are given instruction on how to further retrieve traffic crash data for analysis through the Missouri State Highway Patrol's web site.

In addition, the purpose of the highway safety program is discussed to help the potential applicants understand how their efforts are imperative in order to impact the fatality reduction goal. Program areas are identified, and the electronic GMS and on-line reporting systems are demonstrated. These workshops are also used to share any new contract conditions, application process changes, or legislative changes that may impact the grant programs. Applications are accepted through March 1.

### Application Review – Data Analysis and Public Input Assessment

After March 1, SHSO staff review the applications relative to their specific areas of expertise. During this preliminary review, staff assess the applications to determine their relevancy toward meeting the highway safety goals as identified by the data analysis and public feedback. Applicants are contacted if clarification is needed, and a business case is prepared to support whether the application should be funded in full, in part, or not at all.

To assist the evaluation of applications, crash rankings are provided for all cities, counties, and unincorporated areas in the state for where the project will be implemented. In addition, the projects are evaluated to determine how well they support any public feedback received as well as the SHSO's desire to expand programming into all areas of the state, particularly in historically underserved communities.

### Application Review – Risk Assessment

The SHSO has been conducting a risk assessment on all applications as required by federal guidelines since 2015. Beginning in FY21 an additional layer of risk assessment was added per MoDOT's own requirements. As SHSO staff review all grant applications, they take many factors into consideration, such as:

- Does the project fall within the national priority program areas?
- Does the project address a key emphasis area identified within the SHSP?
- Is the project likely to reduce traffic fatalities and serious injuries?
- Does the project help address safety in an underserved community or for an overrepresented population?
- Does the project help promote the message and strategies of Show-Me Zero to new communities?
- Does the problem identification sufficiently document problem locations, crash statistics, targeted populations, demonstrated need, and the impact on their community?
- Have proven countermeasures been proposed?
- Is the project helping the state deliver a highway safety program that is equitable for all users?
- Will the project help satisfy requirements the federal regulations?

- Are innovative countermeasures proposed and, if so, is an effective evaluation component included?
- Are any local resources proposed to match the federal funds?
- Does the applicant propose developing partnerships in order to expand the reach of their program?
- Is the local government or administration supportive of the proposed project?
- If equipment is requested, will the equipment support a project activity?
- Is there sufficient funding in the budget to support the project?
- Has the applicant performed satisfactorily in previous grants with the SHSO?
- Has the applicant's risk of noncompliance with federal statutes, regulations, and the terms and conditions of the sub-award been considered for factors such as:
  - The applicant's prior experience with the same or similar sub-awards;
  - The results of previous audits including whether or not the applicant receives a Single Audit in accordance with Subpart F-Audit Requirements of this part, and the extent to which the same or similar sub-award has been audited as a major program;
  - Whether the applicant has new personnel or new or substantially changed systems; and
  - The extent and results of federal awarding agency monitoring?

Upon completion of the individual reviews, the entire SHSO staff meets to discuss the applications to ensure consistency, identify which projects offer the most potential to achieve program goals, and to determine the level to which each application should be funded.

## **Performance Report and Performance Plan**

Though many variables influence outcomes, performance measures help identify key trends and gauge progress. It should be noted results don't necessarily indicate a countermeasure's effectiveness. For example, while progress toward a goal may stall or even regress, it's possible the regression would have been worse if not for the countermeasures that were implemented.

Currently, Missouri is on track to meet 6 of the 12 performance targets established in the FY23 HSP. For measures C-1 through C-11, it's important to note the progress results for 2017-2021 should not be directly compared to the FY23 target value. The FY23 target value represents the target for the 5-year period ending with 2023. Since results for 2022 are still preliminary and results for 2023 are still incomplete, it's not possible to measure progress by comparing the 2017-2021 data to the FY23 target.

Instead, the SHSO must consider preliminary 2022 data and the benchmark previously set in the FY23 HSP for the 5-year period ending with 2022. Using this data allows the SHSO to evaluate progress compared to established benchmarks. Where preliminary data for 2018-2022 is at or below the 2022 benchmark established in the FY23 HSP, the SHSO has determined those measures to be on track. All other measures are considered off track.

For example, the FY23 target for measure C-1, total traffic fatalities, is 948.2. The actual results from 2017-2021 are 947.4. While this is seemingly already below the FY23 target, preliminary data for 2022 shows a significant increase in fatalities which will, of course, impact the 2018-2022 and 2019-2023 5-year rolling averages. In fact, the preliminary 2018-2022 data shows a 5-year average higher than the benchmark established for 2018-2022 in the FY23 HSP. Therefore, even though the 2017-2021 data is below the FY23 target, the measure is considered off-track.

For measure B-1, this is an annual measure which does not utilize a 5-year rolling average. However, results for 2023 are not yet available, and it is not appropriate to compare the 2022 results to the FY23 target. Instead, the

SHSO has compared the 2022 results to the 2022 benchmark set in the FY23 to determine the measure is on track.

Performance Measure:	FY 2023 HSP Performance Report				
	Target Period	Target Year(s)	Target Value FY23 HSP	Progress Results	On Track to Meet FY23 Target
C-1) Total Traffic Fatalities	5-year	2019-2023	948.2	2017-2021 FARS 947.4	No
C-2) Serious Injuries in Traffic Crashes	5-year	2019-2023	4,848.7	2017-2021 MOCARS 4,829.6	No
C-3) Fatalities/VMT	5-year	2019-2023	1.212	2017-2021 FARS 1.236	No
C-4) Unrestrained Passenger Vehicle Occupant Fatalities, All Seat Positions	5-year	2019-2023	388.5	2017-2021 FARS 385.2	Yes
C-5) Alcohol-Impaired Driving Fatalities	5-year	2019-2023	276.8	2017-2021 FARS 265.4	Yes
C-6) Speeding-Related Fatalities	5-year	2019-2023	362.4	2017-2021 FARS 373.4	No
C-7) Motorcyclist Fatalities	5-year	2019-2023	143.4	2017-2021 FARS 127.4	Yes
C-8) Unhelmeted Motorcyclist Fatalities	5-year	2019-2023	53.6	2017-2021 FARS 29.4	Yes
C-9) Drivers Age 20 or Younger Involved in Fatal Crashes	5-year	2019-2023	118.1	2017-2021 FARS 115.4	No
C-10) Pedestrian Fatalities	5-year	2019-2023	115.8	2017-2021 FARS 109.0	No
C-11) Bicyclist Fatalities	5-year	2019-2023	12.9	2017-2021 FARS 8.0	Yes
B-1) Observed Seat Belt Use for Passenger Vehicles, Front Seat Outboard Occupants (State Survey)	Annual	2023	90.0%	2022 88.9%	Yes

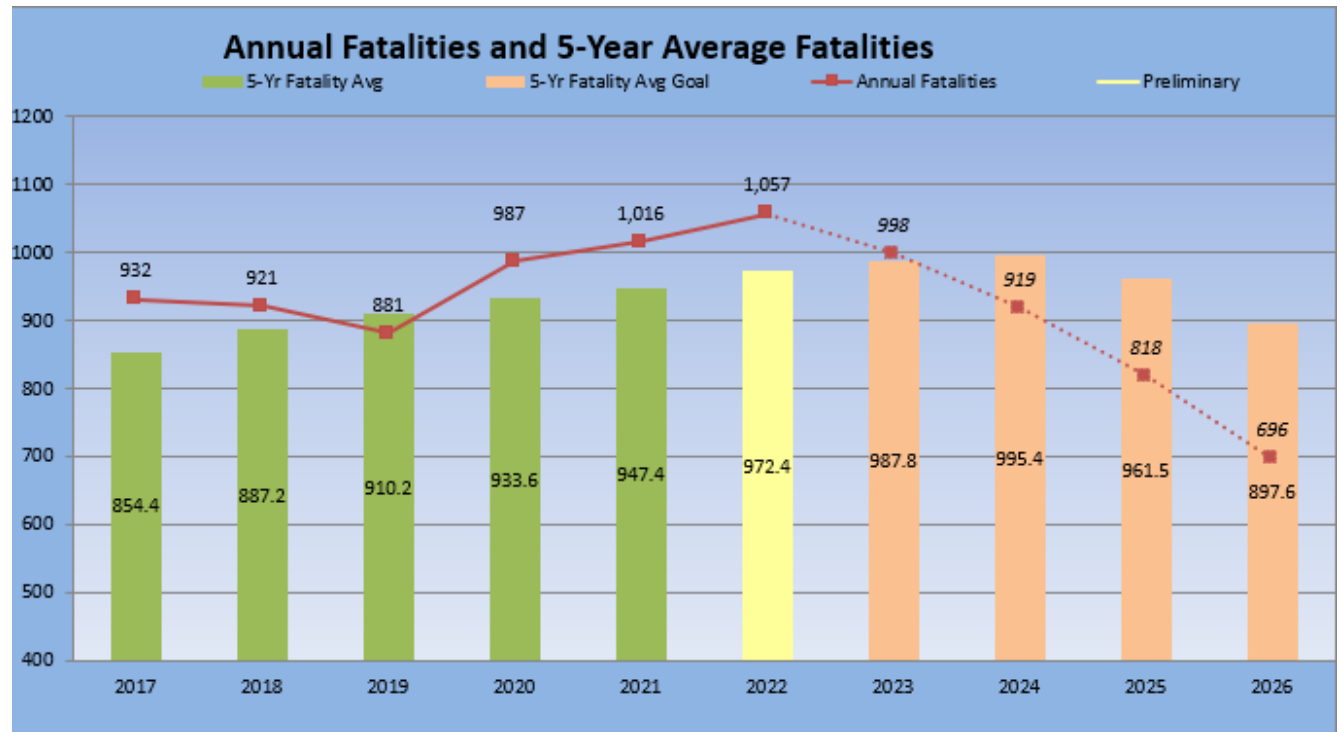
Going forward, Missouri has maintained the goals of 0 traffic fatalities by 2030 and 0 serious injuries by 2040 for the THSP. While ambitious, these goals set the tone for what the state is seeking to do: get everyone to their destination safely.

The charts below outline, for each performance measure, the historical results and the necessary targets for achieving the overall goals. The charts include both the annual number of fatalities and/or serious injuries and the 5-year average, including the targets for 2023-2026.

The Code of Federal Regulations (CFR) part 1300.11 requires states to provide quantifiable performance targets that show constant or improved performance compared to current safety levels, including annual benchmarks for each year covered by the THSP. Missouri has set targets based on improving results in each of the subsequent years (2023, 2024, 2025, and 2026). With the annual targets established, the targets for the 5-year averages were then calculated accordingly.

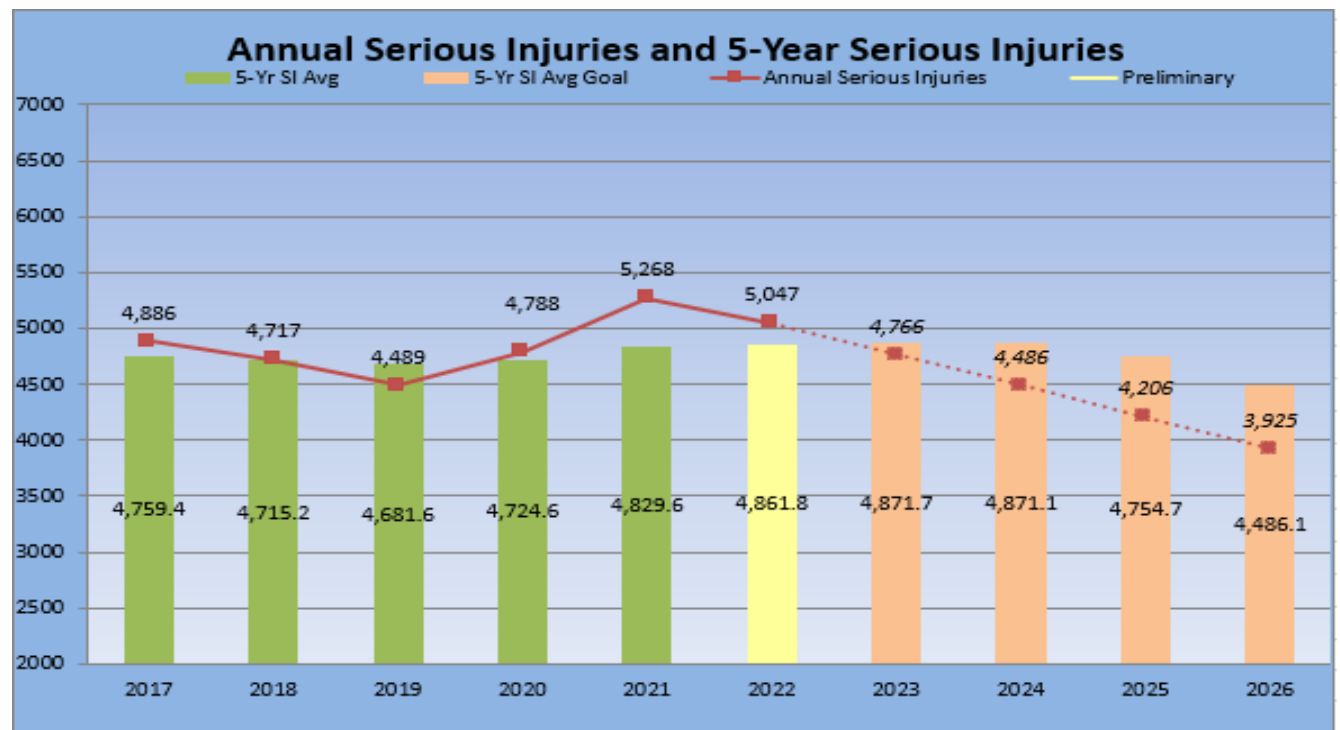
Because overall fatalities have increased in each of the past 3 years (2020, 2021, and 2022), the 5-year averages in some categories will increase over the next few years even if the annual fatality numbers experience significant declines. As a result, in some cases, the 5-year average target for 2022-2026 is higher than the baseline 5-year average of 2017-2021. However, in these instances, the 5-year target for 2022-2026 is still based on an improved performance in each of the upcoming years (2023, 2024, 2025, and 2026). Therefore, even if the 5-year target for 2022-2026 is higher than the 5-year average from 2017-2021, the target should still be considered to show constant or improved performance compared to current safety levels. This is true for measures C-7 through C-11 as well the measures for older driver fatalities and railroad fatalities.

## C-1) Number of traffic fatalities (FARS)



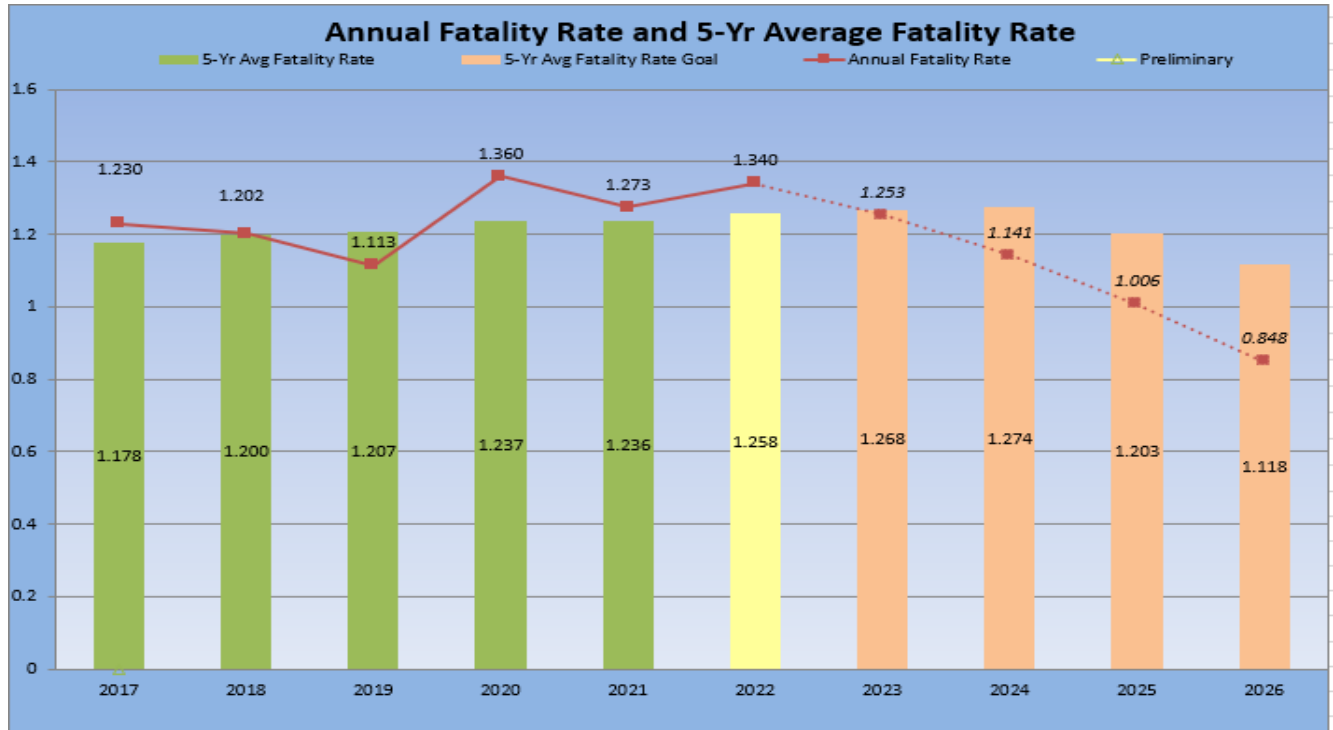
Based on a goal of 0 fatalities by 2030, Missouri is setting a five-year average fatality target of 897.6 by December 31, 2026.

## C-2) Serious Traffic Injuries (MOCARS)



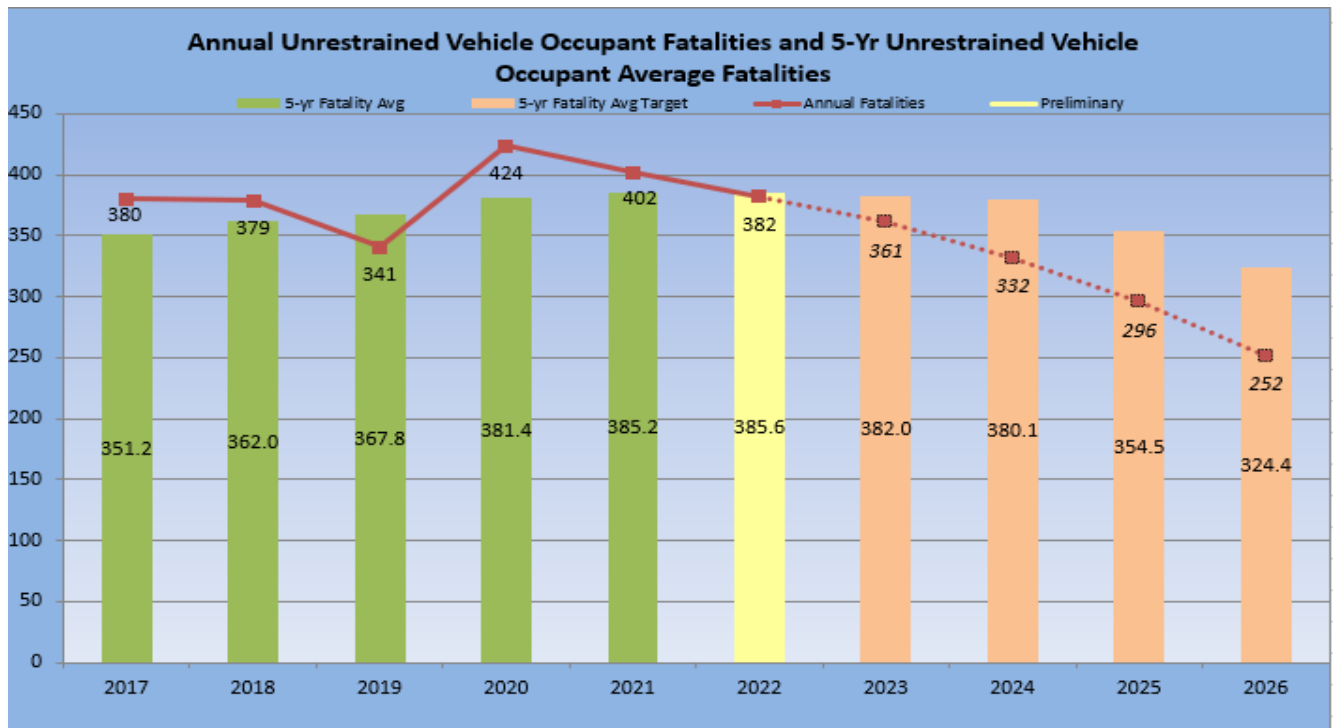
Based on a goal of 0 serious injuries by 2040, Missouri is setting a five-year average serious injury target of 4,486.1 by December 31, 2026.

### C-3) Fatalities / VMT (FARS/FHWA)



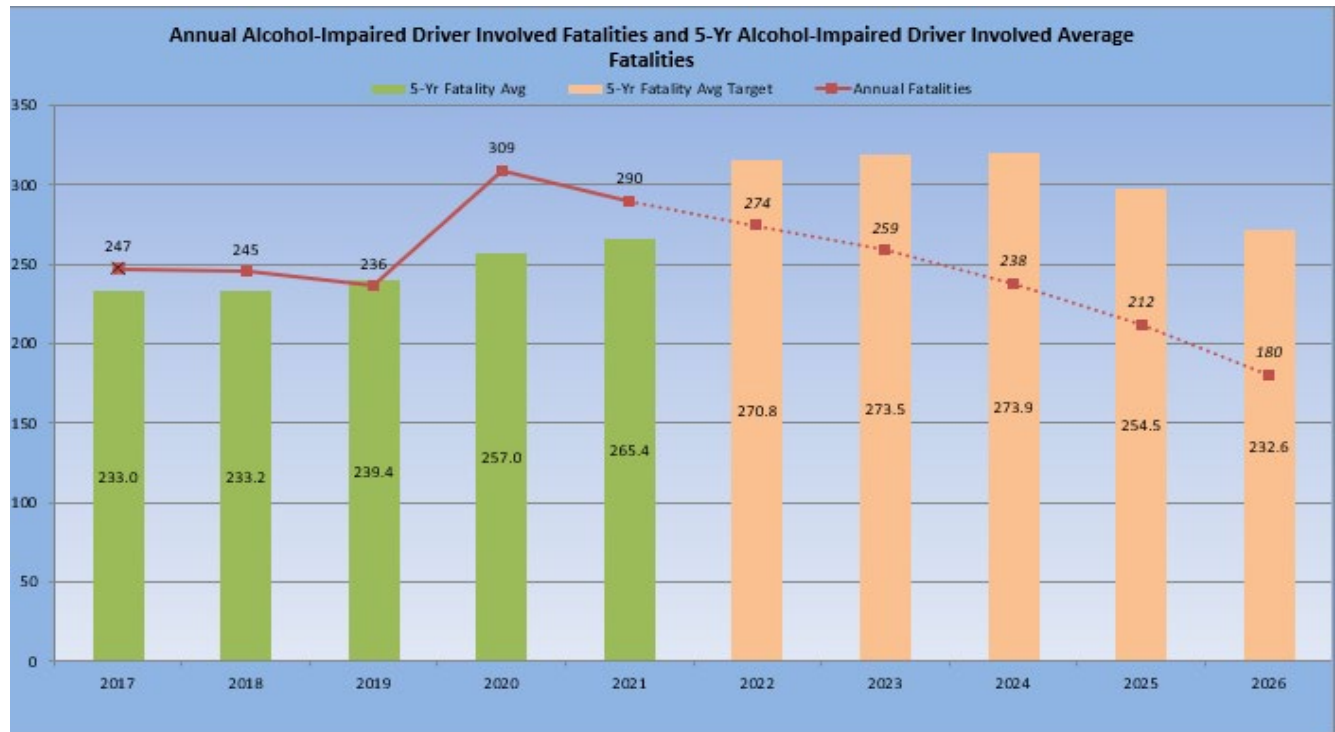
Based on a goal of 0 fatalities by 2030, Missouri is setting a five-year average fatality rate target of 1.118 by December 31, 2026.

### C-4) Unrestrained Passenger Vehicle Occupant Fatalities (FARS)



Based on a goal of 0 fatalities by 2030, Missouri is setting a five-year average unrestrained fatality target of 324.4 by December 31, 2026.

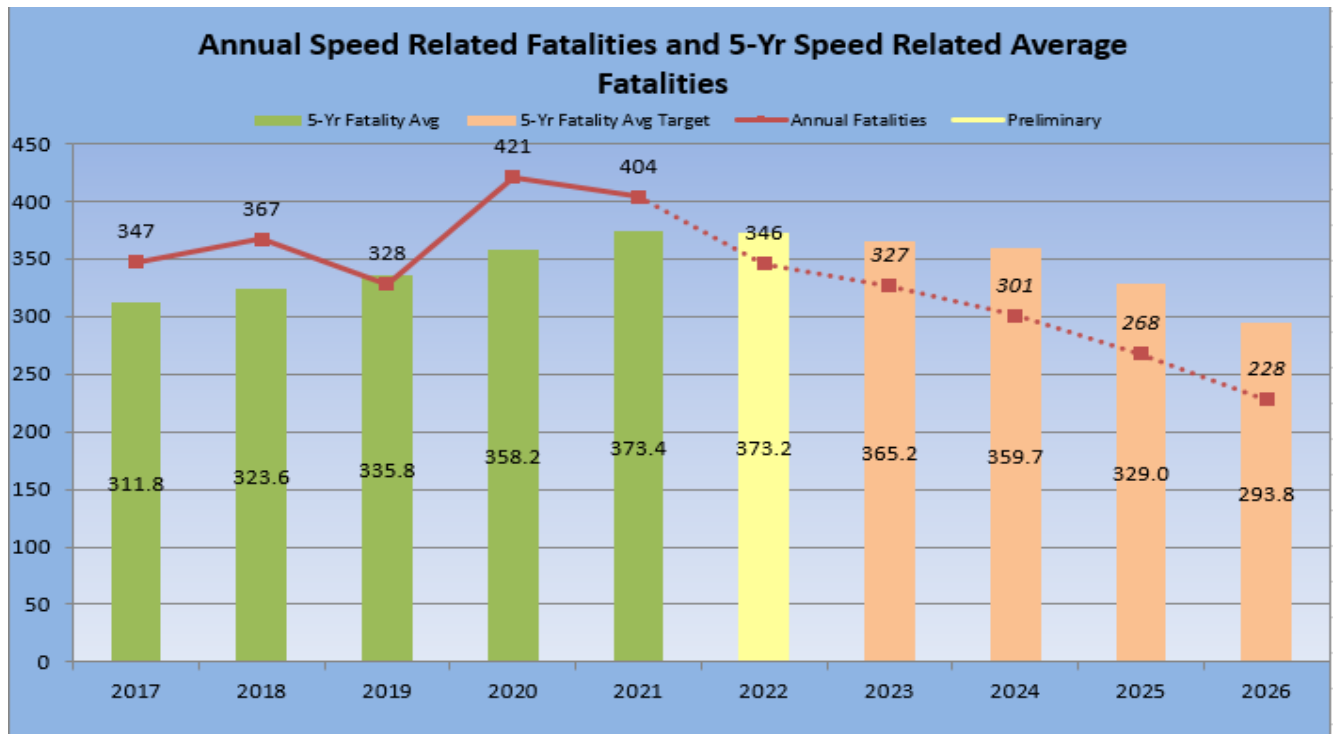
## C-5) Alcohol-Impaired Driving Fatalities (FARS)



Based on a goal of 0 fatalities by 2030, Missouri is setting a five-year average alcohol-involved fatality target of 232.6 by December 31, 2026.

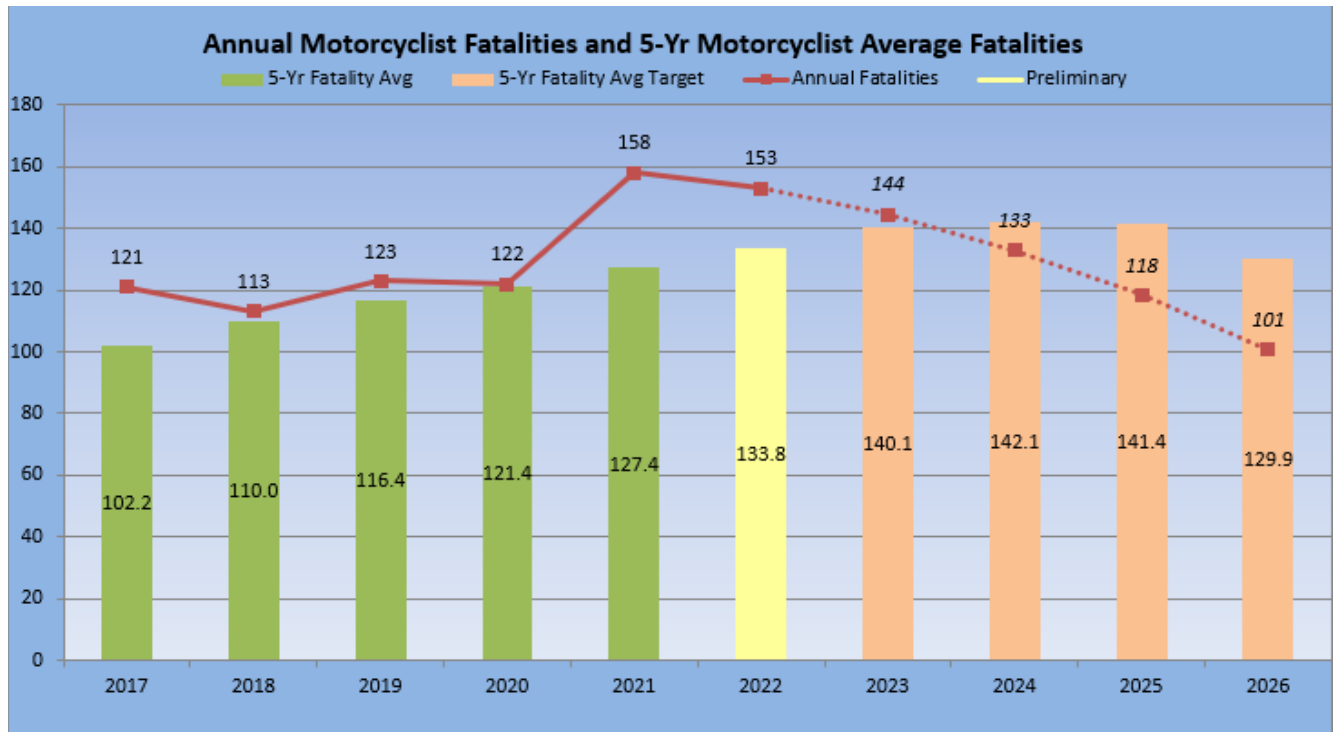
*Note: Because FARS reports alcohol-involved fatalities based on BAC data and not simply whether alcohol was marked as a contributing circumstance, the SHSO is not able to use preliminary 2022 state data to gauge progress on this measure. Instead, 2021 data from FARS is being used to gauge progress. In addition, the 2022-2026 targets are still based on the 2021 data instead of the preliminary 2022 data.*

## C-6) Speeding Related Fatalities (FARS)



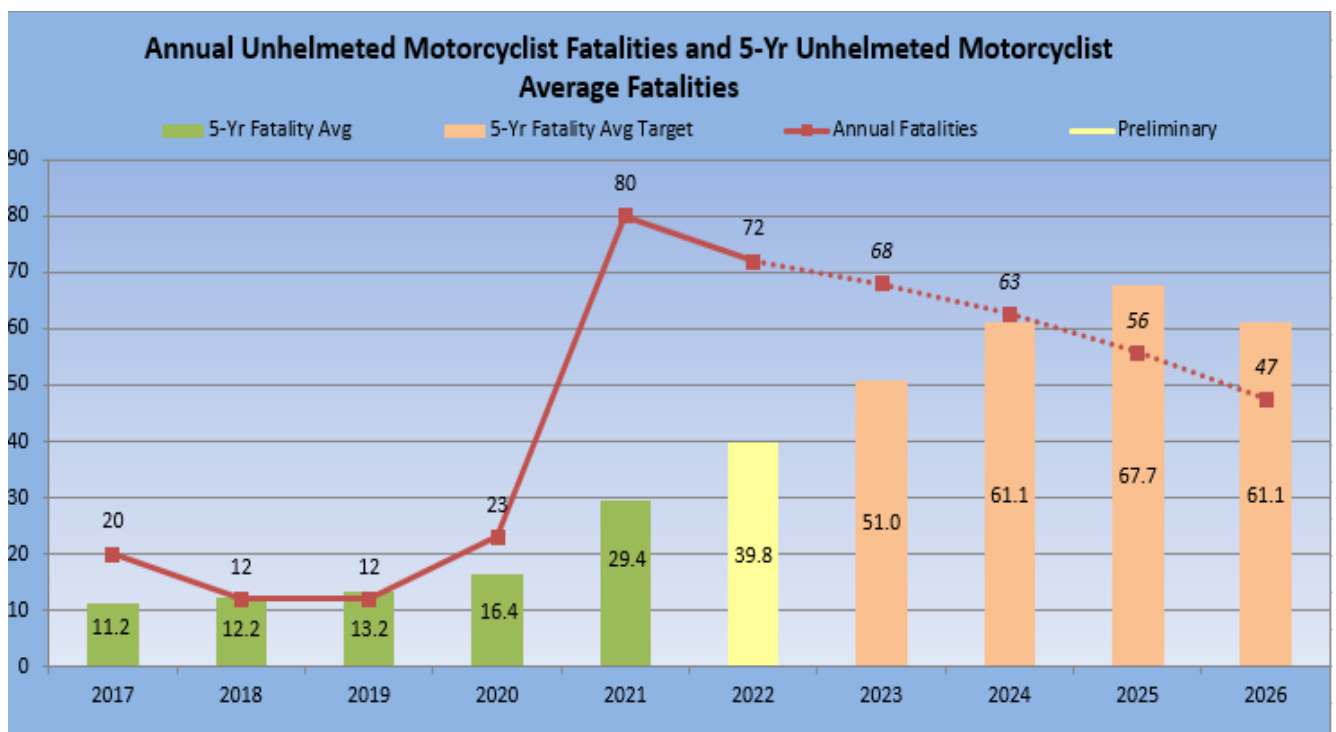
Based on a goal of 0 fatalities by 2030, Missouri is setting a five-year average speed related fatality target of 293.8 by December 31, 2026.

## C-7) Motorcyclist Fatalities (FARS)



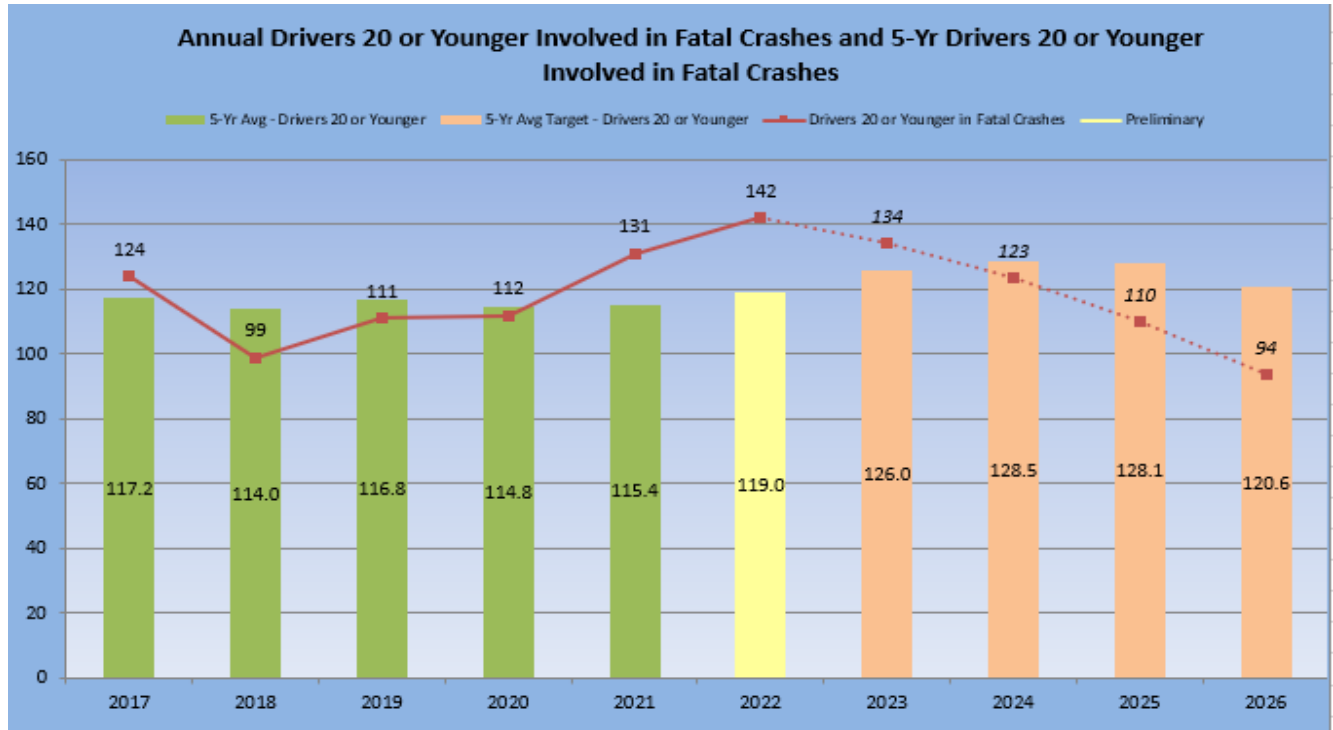
Based on a goal of 0 fatalities by 2030, Missouri is setting a five-year average motorcyclist fatality target of 129.9 by December 31, 2026.

## C-8) Unhelmeted Motorcyclist Fatalities (FARS)



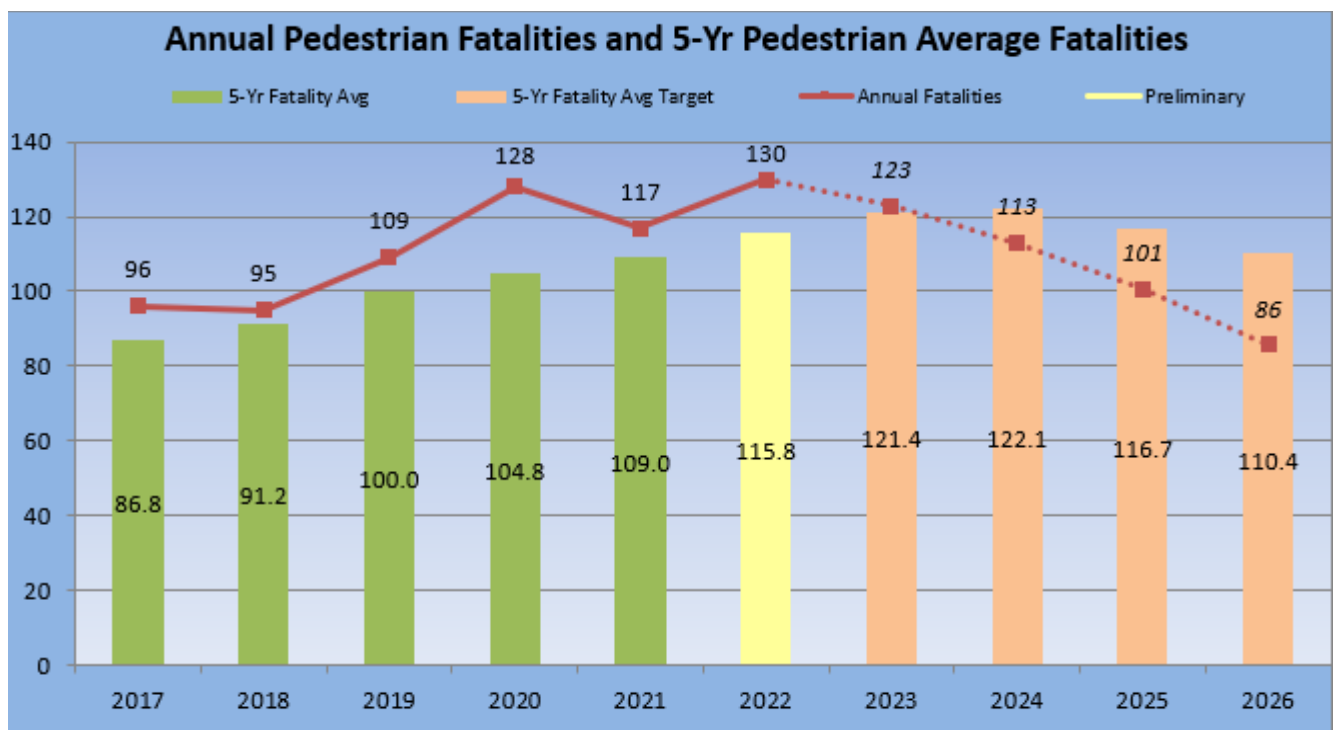
Based on a goal of 0 fatalities by 2030, Missouri is setting a five-year average unhelmeted fatality target of 61.1 by December 31, 2026.

## C-9) Drivers Aged 20 or Younger Involved in Fatal Crashes (FARS)



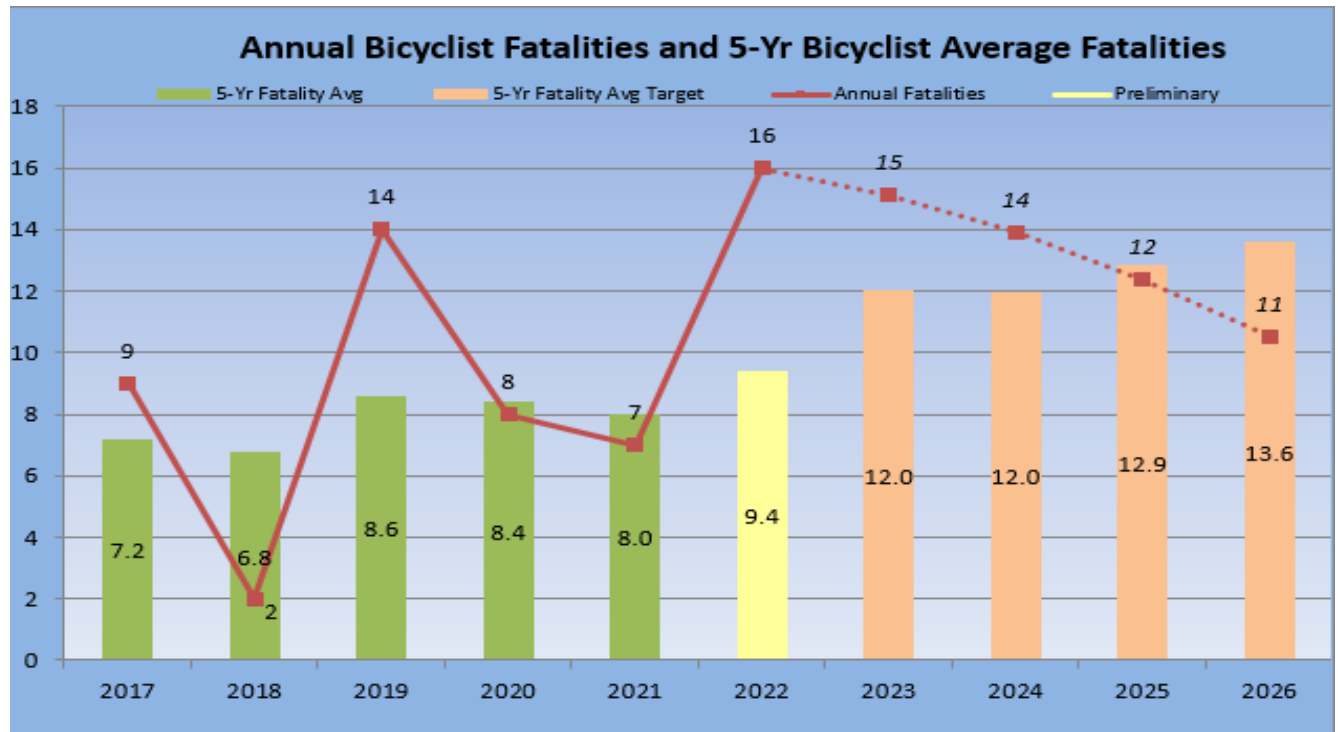
Based on a goal of 0 fatalities by 2030, Missouri is setting a five-year average target of 120.6 fatalities involving a driver age 20 or younger by December 31, 2026.

## C-10) Pedestrian Fatalities (FARS)



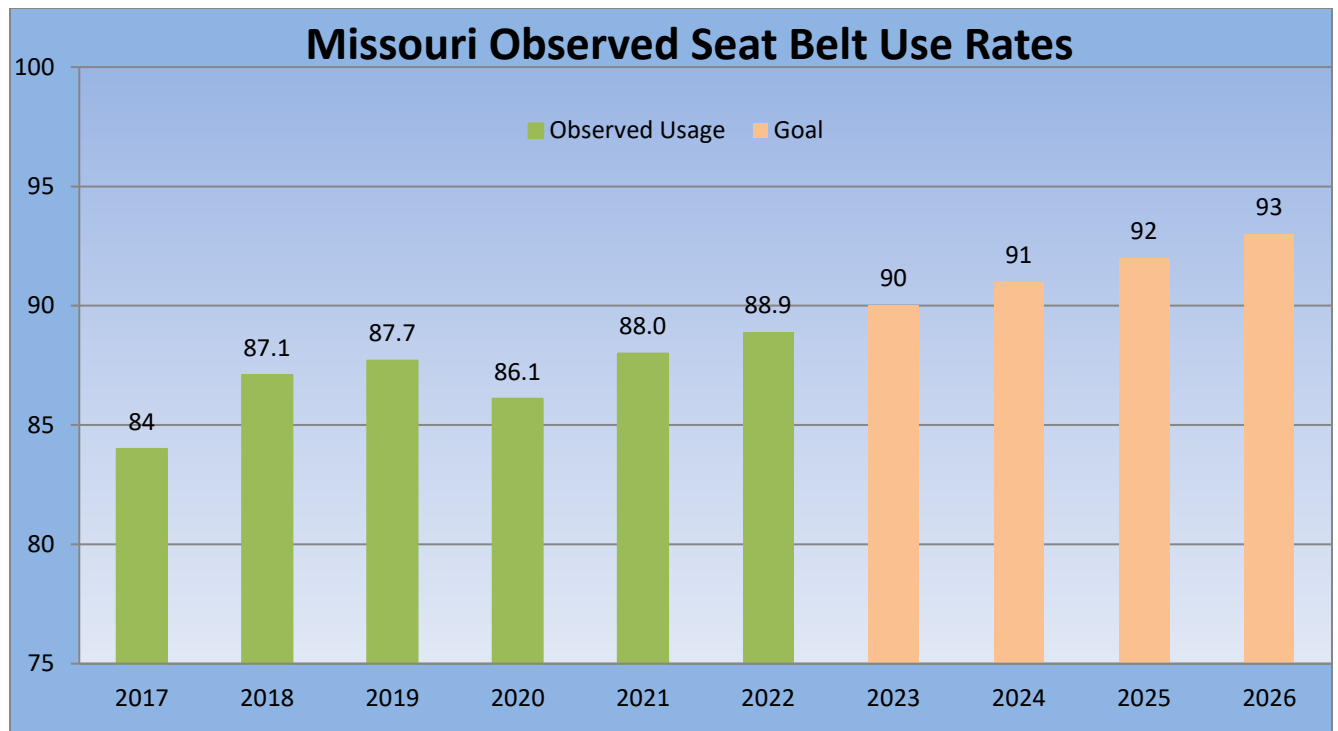
Based on a goal of 0 fatalities by 2030, Missouri is setting a five-year average pedestrian fatality target of 110.4 by December 31, 2026.

## C-11) Bicyclist Fatalities (FARS)



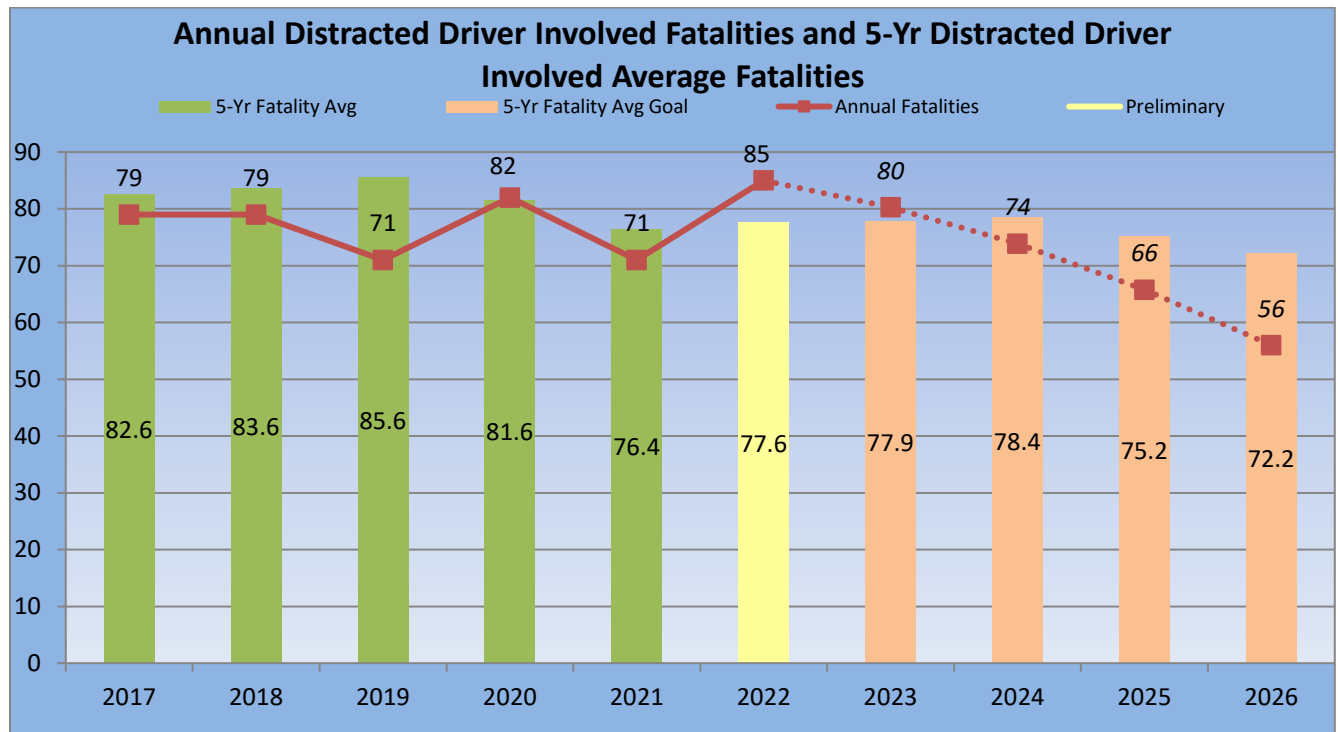
Based on a goal of 0 fatalities by 2030, Missouri is setting a five-year average bicyclist fatality target of 13.6 by December 31, 2026.

## B-1) Observed Belt Usage (Observed Seat Belt Use Survey)

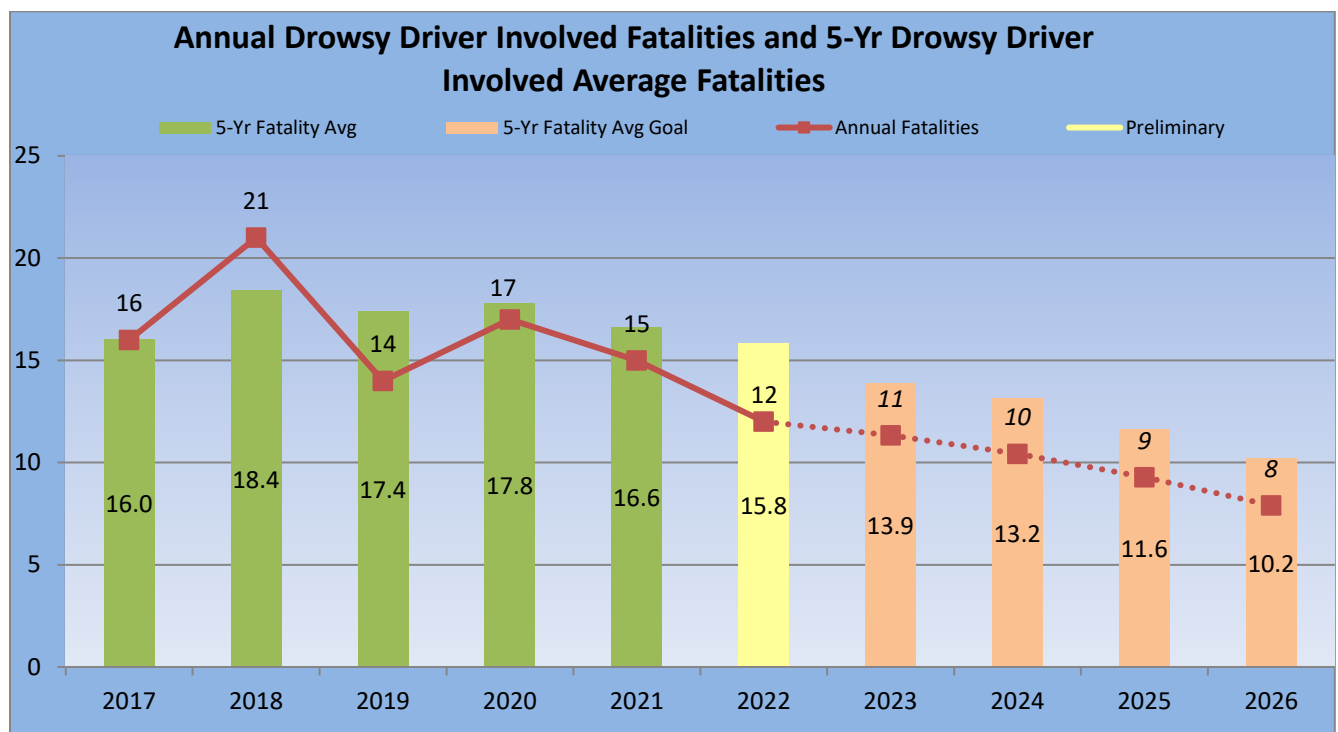


Missouri's goal is to increase statewide observed seat belt use of front seat outboard occupants in passenger vehicles 1 percentage point annually from the 2022 calendar base year rate of 88.9% to 93.0% by December 31, 2026.

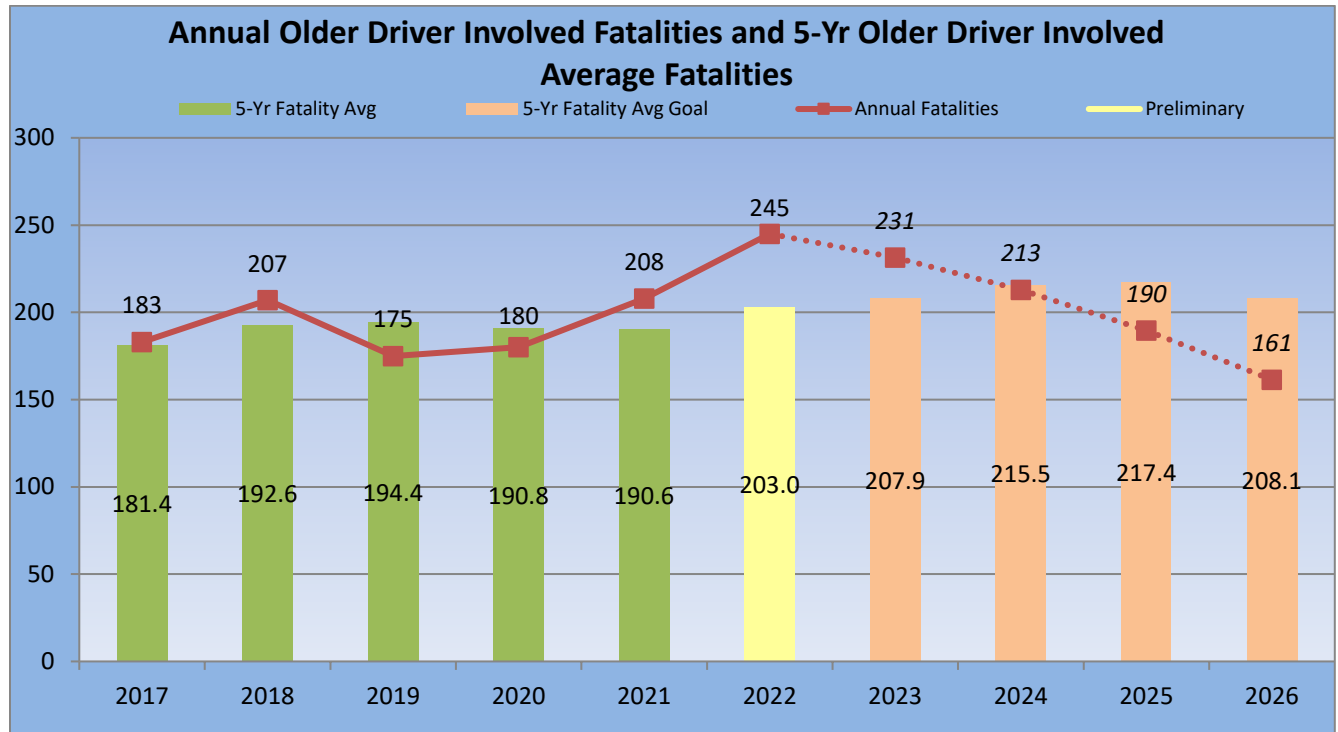
In addition to measures C1-C11 and B-1, the SHSO has also established targets for 4 other program areas: distracted driving, drowsy driving, older drivers, and railroad safety.



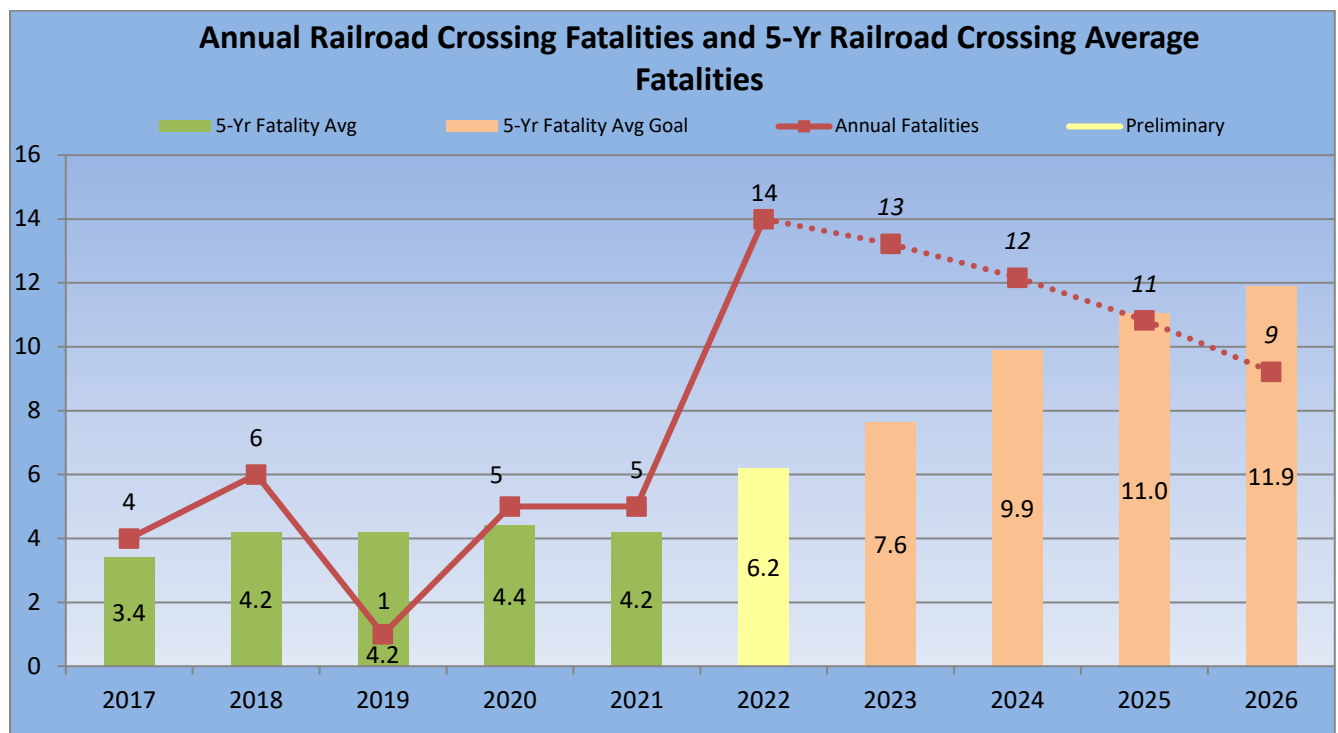
Based on a goal of 0 fatalities by 2030, Missouri is setting a five-year average distracted driving fatality target of 72.2 by December 31, 2026.



Based on a goal of 0 fatalities by 2030, Missouri is setting a five-year average drowsy driving fatality target of 10.2 by December 31, 2026.



Based on a goal of 0 fatalities by 2030, Missouri is setting a five-year average target of 208.1 fatalities involving a driver age 65 or older by December 31, 2026.



Based on a goal of 0 fatalities by 2030, Missouri is setting a five-year average railroad crossing fatality target of 11.9 by December 31, 2026.

# Program areas

## Communications

### **Strategies:**

Public Information and Education

### **Problem:**

One of the challenges to improving highway safety is the sheer number of people who use the transportation system. Nearly all Missourians use the transportation system in one way or another, and when that many variables are introduced into the equation, it is a challenge to prevent all the behaviors and actions that can lead to a crash. In particular, the behaviors of low seat belt use, low helmet use, distracted driving, speed and aggressive driving, and impaired driving are all significant contributors to traffic crashes in Missouri.

While many of the projects in this THSP will directly impact specific groups, there are many Missourians who will not be reached through a direct interaction with a highway safety program. However, each of them still has a role to play in improving the safety of Missouri's roadways. The SHSO desires to reach all Missourians and create a culture that values safety above all else when using the transportation system.

### **Countermeasures:**

- Mass media campaigns, communications, and outreach
  - Impaired driving – 3 stars, Countermeasures That Work (CTW) 1.5.2
  - Occupant protection – 5 stars, CTW 2.3.1
  - Speed and aggressive driving – 3 stars, CTW 3.4.1
  - Distracted driving, pedestrians/bicyclists, motorcyclists, young drivers, older drivers, CMVs, work zones
    - Based upon the proven success of public awareness campaigns for impaired driving, occupant protection, and speed, the SHSO will conduct similar campaigns for other program areas identified in the SHSP. Missouri has experienced statewide success with its own Buckle Up Phone Down (BUPD) campaign. Through a variety of different messaging techniques, 83% of Missourians now indicate they are familiar with BUPD and seat belt use has increased consistently since its implementation. The Uniform Guidelines also encourage the use of communications and outreach, including mass media.

The Show-Me Zero plan is committed to engaging all Missourians with the highway safety message. To accomplish this, one of the most significant components of this THSP is a public communications plan. Using a variety of paid media and other public outreach efforts, the SHSO will reinforce the core messages of Show-Me Zero to a broad swath of Missourians, prompting them to remember simple actions save lives:

- Buckle Up
- Phone Down
- Slow Down
- Drive Sober

Highway safety messages will be perpetuated through traditional media platforms (TV, radio, print) as well as through digital (streaming TV, radio) and social media avenues. In addition, the messages will be communicated using out-of-home venues such as billboards, event venues, transit stations, and the like. Missouri is strengthening its investment in public awareness by contributing additional state funding through the MCRS. More Missourians than ever will be exposed to the simple actions they can take to personally help eliminate traffic fatalities.

### **Targets:**

Because of its cross-cutting nature, the communications and outreach plan will impact each of the identified performance measures. With exception of the seat belt usage rate target, the targets shown below are based on a target date of December 31, 2026. The benchmark data is based on the 5-year average from 2017-2021.

- Decrease traffic fatalities from a 5-year average of 947.4 to 897.6
- Decrease serious injuries in traffic crashes from a 5-year average of 4,829.6 to 4,486.1
- Decrease the traffic fatality rate from a 5-year average of 1.236 to 1.118
- Decrease unbelted fatalities from a 5-year average of 385.2 to 324.4
- Decrease alcohol-involved impaired driving fatalities from a 5-year average of 265.4 to 232.6
- Decrease speed-related fatalities from a 5-year average of 373.4 to 293.8
- \*Decrease motorcyclist fatalities from a 5-year average of 127.4 to 129.9
- \*Decrease pedestrian fatalities from a 5-year average of 109.0 to 110.4
- \*Decrease bicyclist fatalities from a 5-year average of 8.0 to 13.6
- \*Decrease unhelmeted motorcyclist fatalities from a 5-year average of 29.4 to 61.1
- \*Decrease young driver (age 20 or younger) fatalities from a 5-year average of 115.4 to 120.6
- Decrease distracted driving fatalities from a 5-year average of 76.4 to 72.2
- Decrease drowsy driving fatalities from a 5-year average of 16.6 to 10.2
- \*Decrease older driver fatalities from a 5-year average of 190.6 to 208.1
- \*Decrease railroad crossing fatalities from a 5-year average of 4.2 to 11.9
- Increase statewide seat belt use from 88.9% in 2022 to 93% by 2026

*\* Note: Though the 5-year average increases in these targets, each target still reflects improved performance on an annual basis from 2022 to 2026. See charts in the performance plan for more details.*

### **Estimated 3-Year Funding Allocation:**

- \$3,600,000; BIL 402
- \$1,100,000; BIL 405(b)
- \$5,500,000; BIL 405(d)
- \$500,000; BIL 405(e)

### **Project Considerations:**

- Crash data
- Geography
- Sociodemographic data
- Affected communities/populations
- Mass reach

## **Distracted Driving**

### **Strategies:**

Public Information and Education, Enforcement

### **Problem:**

There is a growing body of evidence which suggests distracted driving is becoming an increasingly large contributor to traffic crashes. While many drivers drive distracted, it is often difficult for law enforcement to determine a driver was distracted after a crash. As a result, the reported number of distracted driving crashes are widely considered to be underreported. In addition, national research and telematics data indicate the problem is occurring much more frequently.

In 2015, the National Safety Council found that cell phones are involved in an estimated 27% of all car crashes. According to a recent Naturalistic Driving study by Virginia Tech Transportation Institute, a risk for being involved in a critical incident is 23 times greater if the driver texts while driving.

From 2017-2021 in Missouri, 8% of fatal crashes involved a distracted driver. Twenty-two percent of the distracted drivers involved in fatal crashes in the last five years were between 15 and 24 years of age. The number of reported distracted driving fatalities has increased two of the last three years. In 2022, preliminary data indicates there were 85 reported distracted driving fatalities.

Notably, more than half of the individuals killed in Missouri distracted driving crashes were someone other than the distracted driver. Twenty-two percent of the distracted drivers in fatal crashes were between the ages of 15 and 24. Though Missouri law currently only prohibits texting and driving for drivers age 21 and younger, more than 70% of drivers involved in distracted driving crashes are age 22 or older. In a recent survey of Missourians, distracted driving was identified as one of the most concerning behaviors on Missouri roadways.

### **Countermeasures:**

- High-visibility cell phone and text messaging enforcement – 4 stars, CTW 4.1.3
  - Current Missouri law only prohibits texting and driving for drivers age 21 and younger. However, in May 2023, the Missouri legislature passed a bill that would prohibit the handheld use of electronic devices for all drivers. Pending the Governor’s signature, this law would go into effect on August 28, 2023.
- Communications and outreach
  - Based upon the proven success of public awareness campaigns for impaired driving, occupant protection, and speed, the SHSO intends to conduct similar campaigns for distracted driving. Missouri has also experienced statewide success with its own BUPD campaign, indicating public awareness and messaging remains an effective countermeasure. The Uniform Guidelines encourage the use of communications and public awareness for other program areas.
- Youth programs
  - The SHSO believes it is important to educate youth on the risks associated with distracted driving. Feedback from the public engagement efforts indicate the same. Educating youth on the risks of distracted driving is consistent with *Show-Me Zero*’s goal of reaching all Missourians, and educational efforts are a foundational layer of utilizing a safe system approach. The Uniform Guidelines also include school programs as a critical component of prevention.

**Targets:**

- Decrease distracted driving fatalities from a 5-year average of 76.4 (2017-2021) to 72.2 (2022-2026)

**Estimated 3-Year Funding Allocation:**

- \$1,600,000; BIL 405(e)

**Project Considerations:**

- Crash data
- Public engagement feedback
- Geography
- Sociodemographic data
- Mass reach
- Uniform Guidelines – Highway Safety Program Guideline 4

## **Drowsy Driving**

### **Strategies:**

Public Information and Education

### **Problem:**

Like distracted driving, drowsy driving is most likely an underreported behavior. AAA published a report in 2014 which attributed 6% of all crashes and 21% of all fatal crashes were due to driver sleepiness. A more recent report published by AAA estimated a driver who obtained fewer than 4 hours of sleep the prior night was 11 times more likely to be involved in a crash. Furthermore, AAA's 2015 poll reported 31.5% of adults surveyed admitted to driving drowsy within the past 30 days.

In Missouri, a total of 83 drowsy driving fatalities were reported from 2017-2021. Preliminary data indicates there were 12 drowsy driving fatalities in 2022.

### **Countermeasures:**

- Education
  - Presentations and workshops on factors that cause drowsy driving and how to mitigate it will be conducted in schools and businesses. This will help young drivers and employees who travel better understand the risks associated with driver fatigue how they can make better life and health choices to reduce instances of driving drowsy. The Uniform Guidelines No. 4 also suggest driver's education programs should cover fatigued drivers.

### **Targets:**

- Decrease drowsy driving fatalities from a 5-year average of 16.6 (2017-2021) to 10.2 (2022-2026)

### **Estimated 3-Year Funding Allocation:**

- \$150,000; BIL 402

### **Project Considerations:**

- Crash data
- Sociodemographic data
- Affected communities/populations
- Solicitation of proposals

## **Impaired Driving (Drug and Alcohol)**

### **Strategies:**

Prevention, Public Information and Education, Enforcement, Prosecution, Treatment

### **Problem:**

Substance-impaired drivers contributed to 22% of Missouri's traffic crash fatalities during the past five years. Alcohol remains the primary contributor to substance-impaired driving crashes; however, the number of persons under the influence of prescription medications and/or illicit drugs has increased significantly over the past decade. With recreational marijuana now legal in Missouri, there are concerns this trend will continue.

Male drivers were more likely than females to be involved in substance-impaired driving crashes. During the past five years, males were responsible for 81.7% of substance-impaired driving fatalities. Ten percent of the children less than 15 years of age, who were killed in motor vehicle crashes over the last five years, were riding with a substance-impaired driver.

Depending on the jurisdiction, impaired driving offenses in Missouri are prosecuted differently. Prosecutors and judges may not always be aware of the severity of the impaired driving problem or how to best provide treatment for an offender.

### **Countermeasures:**

- High visibility saturation patrol – 4 stars, CTW 1.2.2
- Breath test devices – 4 stars, CTW 1.2.3
- Integrated enforcement – 3 stars, CTW 1.2.5
- DWI courts – 4 stars, CTW 1.3.1
- Court monitoring – 3 stars, CTW 1.3.3
- Offender alcohol assessment/treatment – 5 stars, CTW 1.4.1
- Ignition interlocks – 5 stars, CTW 1.4.2
- Mass media campaigns – 3 stars, CTW 1.5.2
- Zero-tolerance law enforcement – 3 stars, CTW 1.6.2
- Alcohol vendor compliance checks – 3 stars, CTW 1.6.3
- Enforcement of drug-impaired driving – 3 stars, CTW 1.7.1
- Law enforcement liaisons (LEL)
  - It is important law enforcement officers be aware of the impaired driving problem in Missouri and the steps they can take to remove impaired drivers from Missouri roads. Law enforcement liaisons help make officers aware of available training, programs, and resources they can use to prevent impaired driving in their communities. LEL's also recruit agencies to participate in the Drive Sober or Get Pulled Over national mobilization and other impaired driving initiatives. This effort directly supports other highly rated countermeasures in CTW, such as high-visibility saturation patrols and integrated enforcement. In addition, CTW identifies judicial outreach liaisons (JOL's) as beneficial to the 4-star countermeasure of DWI Courts. LEL's serve a similar function for enforcement agencies. The Uniform Guidelines also encourage states to utilize LEL's as part of their enforcement program.
- Law enforcement training
  - It is important law enforcement officers be aware of the impaired driving problem in Missouri and the steps they can take to remove impaired drivers from Missouri roads. This countermeasure will provide training for law-enforcement to conduct both active impaired

driving enforcement as well as impaired driving investigations and crash investigations involving impaired drivers. This effort directly supports other highly rated countermeasures in CTW, such as high-visibility saturation patrols and integrated enforcement. The Uniform Guidelines include training as an important component of the criminal justice system.

- Judicial training
  - It is important judges be aware of the impaired driving problem in Missouri and the steps they can take to help reduce recidivism, prevent future offenses, and keep road users safe. Training can educate judges on proven countermeasures for consideration in their own jurisdictions, such as DWI treatment courts and traffic offender programs. This countermeasure will provide training to keep Missouri's judiciary up to date on impaired driving court cases and state laws. This effort directly supports other highly rated countermeasures in CTW, such as DWI treatment courts and traffic offender programs. The Uniform Guidelines also include training as an important component of the criminal justice system.
- Prosecutor training
  - It is important prosecutors be fully aware of the impaired driving problem in Missouri and the steps they can take to help reduce recidivism, prevent future offenses, and keep road users safe. Training can educate prosecutors on proven countermeasures for consideration in their own jurisdictions, such as DWI treatment courts and traffic offender programs. This countermeasure will provide training to keep Missouri's prosecutors up to date on impaired driving court cases and state laws. This effort directly supports other highly rated countermeasures in CTW, such as DWI treatment courts and traffic offender programs. The Uniform Guidelines also include training as an important component of the criminal justice system.
- Youth programs
  - The SHSO believes it is important to educate youth on the risks associated with impaired driving. While the countermeasure only receives a 2-star rating in CTW, educating youth is consistent with *Show-Me Zero's* goal of reaching all Missourians, and educational efforts are a foundational layer of utilizing a safe system approach. The Uniform Guidelines include school programs as a critical component of prevention. In addition, public feedback supports the continuation of youth programs.
- Highway safety office program management
  - The SHSO supports several impaired driving countermeasures through coordination of enforcement, training, and educational opportunities. This support is crucial to ensure resources are made available and programs are delivered.

### **Targets:**

- Decrease alcohol-involved impaired driving fatalities from a 5-year average of 265.4 (2017-2021) to 232.6 (2022-2026)

### **Estimated 3-Year Funding Allocation:**

- \$20,600,000; BIL 154 (Open Container)
- \$10,300,000; BIL 405(d)

### **Project Considerations:**

- Crash data
- Geography
- Sociodemographic data
- Affected communities/populations
- Uniform Guidelines – Highway Safety Program Guideline 8
- Solicitation of proposals

## **Motorcycle Safety**

### **Strategies:**

Public Information and Education, Training

### **Problem:**

In 2020, the state of Missouri repealed its universal helmet law for motorcyclists. The helmet law now only covers those under 26 years of age, or anyone only operating on a permit and is only allowed as a secondary offense. As a result, motorcyclist fatalities have sharply increased. In particular, unhelmeted motorcyclist fatalities have increased by more than 600%.

Between 2017 and 2021 in Missouri, there were 620 motorcyclists killed in Missouri traffic crashes. Motorcycles represent only 2% of the registered vehicles in Missouri but were involved in 14% of all fatal traffic crashes from 2017-2021.

An area of concern is the number of unlicensed and improperly licensed motorcycle operators involved in crashes. Between 2017 and 2021, 53% of the motorcyclist fatalities involved an unlicensed or improperly licensed motorcycle operator.

### **Countermeasures:**

- Mass media campaigns, communications, and outreach
  - Based upon the proven success of public awareness campaigns for impaired driving, occupant protection, and speed, the SHSO intends to conduct similar campaigns for motorcycle awareness, including encouraging the use of helmets, riding sober, and for other motorists to look twice/watch for motorcycles. The Uniform Guidelines also encourages the use of communications and public awareness for motorcycle safety, including mass media.
- Motorcycle rider training
  - While CTW only rates motorcycle training as a 2-star countermeasure, the SHSO believes it's important for riders to be sufficiently trained prior to operating a motorcycle. Missouri data indicates more the half of the motorcyclists killed in Missouri crashes were either unlicensed or improperly licensed. The Uniform Guidelines also encourage states to establish a state motorcycle rider education program.

### **Targets:**

- \*Decrease motorcyclist fatalities from a 5-year average of 127.4 (2017-2021) to 129.9 (2022-2026)
- \*Decrease unhelmeted motorcyclist fatalities from a 5-year average of 29.4 (2017-2021) to 61.1 (2022-2026)

*\* Note: Though the 5-year average increases in these targets, each target still reflects improved performance on an annual basis from 2022 to 2026. See charts in the performance plan for more details.*

### **Estimated 3-Year Funding Allocation:**

- \$100,000; BIL 402
- \$600,000; BIL 405(f)

### **Project Considerations:**

- Crash data
- Geography
- Sociodemographic data
- Mass reach
- Uniform Guidelines – Highway Safety Program Guideline 3

## **Non-motorized (Pedestrian and Bicyclist)**

### **Strategies:**

Public Information and Education, Training, Enforcement

### **Problem:**

Walking and bicycle riding are essential modes of transportation for many Missourians. Many Missourians do not have access to a personal vehicle, are not physically capable of driving, simply decide not to drive, or delay licensure. Many of the urban areas like St. Louis, Kansas City, Springfield, and Columbia have growing pedestrian and bicyclist networks.

Motor vehicle crashes involving pedestrians and bicyclists account for 13% of Missouri's traffic fatalities and have increased by 44% since 2012. When a non-motorized user is involved in a traffic crash, the potential for injury or death is significant. For example, from 2017-2021, pedestrian involved crashes comprised just 1% of all crashes but accounted for 11.6% of all traffic fatalities and 6.1% of all serious injuries in Missouri.

From 2017-2021, pedestrian fatalities were most prevalent in urban areas (77%) and at night (73%). Pedestrian fatalities occurred at a higher rate amongst black Missourians when compared to other races, particularly in urban areas. There is also a higher frequency of pedestrian fatalities between July and December compared to other times of the year. Most pedestrians killed in Missouri traffic crashes are between the ages of 20 and 69, with ages 30-59 representing the largest portion.

The SHSO is also monitoring trends in crashes involving other non-motorized road users, such as those operating electric bicycles, scooters, and utility vehicles. Over the course of the THSP, the SHSO will be looking for emerging trends and opportunities to implement appropriate countermeasures through additional partnerships and programs.

### **Countermeasures:**

- Elementary-age child pedestrian/bicyclist training – 3 stars, CTW 8.2.1
- Pedestrian safety zones – 4 stars, CTW 8.4.1
- Enforcement strategies – 3 stars, CTW 8.4.4
- Mass media campaigns, communications, and outreach
  - Based upon the proven success of public awareness campaigns for impaired driving, occupant protection, and speed, the SHSO intends to conduct similar campaigns for pedestrian and bicyclist awareness. Public feedback supports raising public awareness regarding pedestrian and bicyclist safety, with a record number of pedestrians being killed in two of the last three years. The Uniform Guidelines also encourages the use of communications and public awareness for pedestrian and bicyclist safety, including mass media.

### **Targets:**

- \*Decrease pedestrian fatalities from a 5-year average of 109 (2017-2021) to 110.4 (2022-2026)
- \*Decrease bicyclist fatalities from a 5-year average of 8.0 (2017-2021) to 13.6 (2022-2026)

*\* Note: Though the 5-year average increases in these targets, each target still reflects improved performance on an annual basis from 2022 to 2026. See charts in the performance plan for more details.*

**Estimated 3-Year Funding Allocation:**

- \$350,000; BIL 402
- \$2,127,000; BIL 405(g)

**Project Considerations:**

- Crash data
- Sociodemographic data
- Geography
- Mass reach
- Affected communities/populations
- Uniform Guidelines – Highway Safety Program Guideline 14

## **Occupant Protection (Adult and Child Passenger Safety)**

### **Strategies:**

Prevention, Public Information and Education, Enforcement, Training

### **Problem:**

During 2017-2021, 64.9% of drivers and occupants killed in crashes in Missouri were unrestrained. The percent of unrestrained teens killed is even higher at 71.6% while pickup truck drivers and occupants are even higher yet at 76.6%.

Missouri's observed seat belt use rate of 88.9% in 2022 is below the national average of 91.6%. Teen seat belt use is of particular concern coming in at just 71.8%, approximately 17% lower than the state average. Furthermore, seat belt use remains lowest amongst males, on non-highways, and in rural areas, particularly southeast and northeast Missouri. If everyone in Missouri buckled up, an estimated 250 lives would be saved each year.

### **Countermeasures:**

- Short-term, high-visibility enforcement – 5 stars, CTW 2.2.1
- Integrated nighttime seat belt enforcement – 4 stars, CTW 2.2.2
- Sustained enforcement – 3 stars, CTW 2.2.3
- Communications and outreach – 5 stars, CTW 2.3.1
- Strategies for low-belt-use groups – 4 stars, CTW 2.3.2
- Strategies for older children – 3 stars, CTW 2.6.1
- Strategies for child restraint and booster seat use – 3 stars, CTW 2.6.2
- School-based programs – 3 stars, CTW 2.7.1
- Inspection stations – 3 stars, CTW 2.7.2
- Law enforcement liaisons (LEL's)
  - It is important law enforcement officers be aware of the occupant protection problem in Missouri and the steps they can take to improve the use of seat belts and child restraint systems. Law enforcement liaisons help make officers aware of available training, programs, and resources they can use to prevent unrestrained occupants in their communities. LEL's also recruit agencies to participate in the Click It or Ticket national mobilization and other occupant protection initiatives. This effort directly supports other highly rated countermeasures in CTW, such as high-visibility enforcement. The Uniform Guidelines also encourage states to utilize LEL's as part of their enforcement program.
- Highway safety office program management
  - The SHSO supports several occupant protection countermeasures through coordination of enforcement, training, and educational opportunities. This support is crucial to ensure resources are made available and programs are delivered.

### **Targets:**

- Decrease unbelted fatalities from a 5-year average of 385.2 (2017-2021) to 324.4 (2022-2026)
- Increase statewide seat belt use from 88.9% in 2022 to 93% by 2026

### **Estimated 3-Year Funding Allocation:**

- \$350,000; BIL 402

- \$5,000,000; BIL 405(b)

**Project Considerations:**

- Crash data
- Sociodemographic data
- Geography
- Mass reach
- Affected communities/populations
- Uniform Guidelines – Highway Safety Program Guideline 20
- Solicitation of proposals

## Older Drivers

### **Strategies:**

Public Information and Education

### **Problem:**

Traffic fatalities involving drivers ages 65 and older have increased each of the last 3 years. In 2022, preliminary data indicates there were 259 fatalities involving an older driver, a 42% increase from 2019.

Older drivers are the fastest growing age group in Missouri, and statewide data reveals the number of Missourians age 65 or over is projected to grow exponentially during the next 7 years, bringing the total number of older adults to an estimated 1.4 million (source: Missouri Office of Administration). This represents an 87% increase in older adults since the year 2000. Many Missouri counties can expect 1 in 4 of their residents to be age 65 or older by the year 2030.

On January 19, 2023, Governor Parson signed Executive Order 23-01 to establish a Master Plan on Aging to help reduce age and disability discrimination, eliminate barriers to safe and healthy aging, and help Missourians age with dignity. The Executive Order created an advisory council to assist the Missouri Department of Health and Senior Services (DHSS) develop a statewide master plan by December 31, 2025. MoDOT will participate on the council with a specific focus of ensuring transportation options for aging Missourians are considered.

### **Countermeasures:**

- Courses for older drivers – While this is only rated 2 stars in CTW, the SHSO believes it's important to continue educating Missourians on the signs to look for when assessing an older driver's ability to safely operate a vehicle. The number of older drivers is increasing dramatically, and resources on this issue are limited.

### **Targets:**

- \*Decrease older driver fatalities from a 5-year average of 190.6 to 208.1

*\* Note: Though the 5-year average increases in these targets, each target still reflects improved performance on an annual basis from 2022 to 2026. See charts in the performance plan for more details.*

### **Estimated 3-Year Funding Allocation:**

- \$200,000; BIL 402

### **Project Considerations:**

- Crash data
- Sociodemographic data
- Uniform Guidelines – Highway Safety Program Guideline 13
- Solicitation of Proposals

## **Planning & Administration**

### **Strategies:**

N/A

### **Problem:**

Associated costs for federally funded planning and administration (P&A) include staff travel, travel, contract award meetings, office supplies, excluding those that are not allowable under federal rule and administrative payroll. Federal participation does not exceed 50% of the total cost of P&A. Federal P&A does not exceed 18% of the total 402 funds reimbursed.

### **Countermeasures:**

- N/A

### **Targets:**

- N/A

### **Estimated 3-Year Funding Allocation:**

- \$700,000; BIL 402

### **Project Considerations:**

- N/A

## **Railroad Safety**

### **Strategies:**

Public Information and Education, Enforcement

### **Problem:**

Missouri is home to the second and third largest hubs for rail traffic in the nation. While railroad fatalities occur less frequently in the state, there remains a need to educate drivers on safely crossing railroad tracks.

From 2017-2021, there were 21 rail-crossing fatalities in Missouri. Preliminary data indicates there were 14 rail-crossing fatalities in 2022, a 180% increase from 2021.

### **Countermeasures:**

- Railroad safety education
  - Railway crossing fatalities generally do not represent a significant number of overall fatalities in Missouri, but they spiked significantly in 2022. This countermeasure provides outreach to the driving public as well as enforcement to reduce these types of crashes. Through safety presentations, positive enforcement, and grade crossing collision training, Missouri intends to use railway safety education to reduce the overall number of fatalities.

### **Targets:**

- \*Decrease railroad crossing fatalities from a 5-year average of 4.2 (2017-2021) to 11.9 (2022-2026)

*\* Note: Though the 5-year average increases in these targets, each target still reflects improved performance on an annual basis from 2022 to 2026. See charts in the performance plan for more details.*

### **Estimated 3-Year Funding Allocation:**

- \$50,000; BIL 402

### **Project Considerations:**

- Crash data
- Geography
- Mass reach
- Solicitation of proposals

## **Roadway Safety (General)**

### **Strategies:**

Public Information and Education, Emergency Response, Engineering, Training

### **Problem:**

In addition to the specific program areas noted throughout the THSP, the SHSO also supports several activities that are cross-cutting and impactful in addressing several areas. These activities support the other program areas in a variety of ways, often supporting more than one program area. Examples include the annual statewide Highway Safety and Traffic Conference, a statewide coordinator of the MCRS, and activities supporting the timeliness and effectiveness of first responders. These activities help ensure the overall highway safety program is well supported and comprehensive.

The SHSO will also be working to elevate the attention given to heat stroke prevention for children. Through education, outreach, and public awareness, the SHSO will seek to ensure Missourians know the risks associated with children left unattended in vehicles and simple steps they can take to ensure this doesn't happen. Specific efforts will include paid media, event booths, and window thermometer stickers distributed as part of child passenger safety activities.

### **Countermeasures:**

- Support for first responders
  - Often overlooked, emergency response plays a critical role in promoting the survival of crash victims. Research and data have both shown the benefits of victims receiving emergency care in a timely manner. These activities will help improve response times and address critical care needs for crash victims, particularly in rural areas.
  - Provide for roadside safety strategies such as digital alert technology, enforcement and education of the Move Over law.
- Communications and outreach
  - There are limited programs for educating Missourians on the risks of leaving children unattended in vehicles. The SHSO will consider projects to increase the education, outreach, and public awareness of heat stroke prevention for children as required in federal regulations.
  - Programs will also be developed to educate law enforcement and the driving public on interacting with each other during traffic stops
- Highway safety office program management
  - The SHSO supports several countermeasures through coordination of the MCRS, training, and educational opportunities. This support is crucial to ensure partners are informed, resources are made available, and programs are delivered in an equitable manner.

### **Targets:**

- Decrease traffic fatalities from a 5-year average of 947.4 (2017-2021) to 897.6 (2022-2026)
- Decrease serious injuries in traffic crashes from a 5-year average of 4,829.6 (2017-2021) to 4,486.1 (2022-2026)
- Decrease the traffic fatality rate from a 5-year average of 1.236 (2017-2021) to 1.118 (2022-2026)

**Estimated 3-Year Funding Allocation:**

- \$4,500,000; BIL 402
- \$530,000; BIL 405(h)
- \$2,210,000; BIL 405(i)

**Project Considerations:**

- Geography
- Emergency medical services data
- Affected communities/populations
- Solicitation of proposals
- Uniform Guidelines – Highway Safety Program Guideline 21

## **Speeding and Speed Management**

### **Strategies:**

Public Information and Education, Enforcement, Training

### **Problem:**

During the last 5 years, no behavior on Missouri roadways has contributed to traffic fatalities as frequently as speed and aggressive driving. From 2017-2021, there were 2,547 fatalities involving a speeding or aggressive driver, accounting for 53% of all traffic fatalities. Speed and aggressive driving are cited in fatal crash reports as a contributing circumstance more than twice as often as impaired driving, and feedback and citation data from law enforcement agencies indicate speeds are up significantly during the last 3 years.

### **Countermeasures:**

- Communications and outreach – 3 stars, CTW 3.4.1
- Sustained enforcement
  - While enforcement is only listed as a 2-star countermeasure in CTW, it remains one of the most effective methods for reducing the prevalence of excessive speeds. Speed and aggressive driving accounts for more than twice as many Missouri traffic fatalities as impaired driving. Like the effectiveness of enforcement on impaired driving, the enforcement of excessive speeding is a critical measure for improving roadway safety. In addition, speed limits are rated as a 5-star countermeasure. Speed limits are most effective when enforcement is also present. The Uniform Guidelines also include enforcement as an important component of the speed management program.
- Law enforcement training
  - It is important law enforcement officers be aware of the speed problem in Missouri and the steps they can take to remove aggressive drivers from Missouri roads. The Uniform Guidelines also include training for law enforcement officers as an important component of the speed management program.
- Law enforcement liaisons (LEL's)
  - It is important law enforcement officers be aware of the speed problem in Missouri and the steps they can take to remove aggressive drivers from Missouri roads. Law enforcement liaisons help make officers aware of available training, programs, and resources they can use to prevent aggressive driving in their communities. LEL's also recruit agencies to participate in speed-related mobilizations. This effort directly supports other countermeasures, such as enforcement and education.
- Highway safety office program management
  - The SHSO supports several speed-related countermeasures through coordination of enforcement, training, and educational opportunities. This support is crucial to ensure resources are made available and programs are delivered.

### **Targets:**

- Decrease the number of speed-related fatalities from 373.4 (2017-2021) to 293.8 (2022-2026)

### **Estimated 3-Year Funding Allocation:**

- \$16,000,000; BIL 402

**Project Considerations:**

- Crash data
- Geography
- Sociodemographic data
- Solicitation of proposals
- Uniform Guidelines – Highway Safety Program Guideline 19

## **Traffic Records**

### **Strategies:**

Data Collection and Analysis

### **Problem:**

The Traffic Records Coordinating Committee (TRCC) of the MCRS plays a role in the creation, approval, and evaluation of data improvement projects to support the highway safety program. Data analysis is a crucial component of ensuring a state's highway safety program is effective and relevant. The TRCC prioritizes projects and activities to ensure the highway safety program is supported with adequate data tools.

The Missouri Traffic Records System works towards a formal data quality program with performance indicators for each of the six core system areas. Projects are selected based on recommendations from the most current assessments and their ability to meet six characteristics: timeliness, accuracy, integration, uniformity, accessibility, and completeness.

These projects are evaluated on an annual basis to ensure they are in compliance with project milestones and their ability to improve the state's traffic records data systems.

### **Countermeasures:**

- Highway safety office program management
  - The SHSO will coordinate support for the TRCC, training, processes, and equipment to improve crash records.
- Improve integration between one or more highway safety databases
  - Maintaining accurate crash data is essential to manage the data-driven programs of the SHSO. These projects will affect data in all core performance measures by assisting agencies in moving to more accurate electronic reporting and maintaining accurate databases.

### **Targets:**

- Decrease traffic fatalities from a 5-year average of 947.4 (2017-2021) to 897.6 (2022-2026)
- Decrease serious injuries in traffic crashes from a 5-year average of 4,829.6 (2017-2021) to 4,486.1 (2022-2026)
- Decrease the traffic fatality rate from a 5-year average of 1.236 (2017-2021) to 1.118 (2022-2026)

### **Estimated 3-Year Funding Allocation:**

- \$5,500,000; BIL 405(c)

### **Project Considerations:**

- Crash data
- Emergency medical services data
- Court data
- Citation data
- Solicitation of proposals
- Uniform Guidelines – Highway Safety Program Guideline 10

## Young Drivers

### Strategies:

Public Information and Education, Enforcement

### Problem:

Traffic crashes are the leading cause of death among youth in Missouri, accounting for 13% of traffic fatalities during the last five years. Making matters worse, traffic fatalities involving drivers ages 15-20 have increased each of the last 4 years. In addition to inexperience, young drivers have also shown a tendency to exhibit more risky driving behaviors such as speeding, distracted driving, drowsy driving, impaired driving, and failing to use seat belts. Missouri teens have a significantly lower seat belt use rate (71.2%) than the statewide average (88.9%). Also, 9% of the state's impaired driving fatalities in 2022 involved an underage impaired driver.

The top 5 contributing circumstances attributable to young drivers of motor vehicles involved in 2017-2021 Missouri fatal and serious injury crashes were:

- Driving Too Fast for Conditions
- Failure to Yield
- Improper Lane Usage/Change
- Speed Exceeded Limit
- Distracted/Inattentive Driving

### Countermeasures:

- Enforcement of GDL and zero-tolerance laws – 3 stars, CTW 6.4.1
- School programs
  - The most efficient way to educate youth and young drivers on traffic safety is through school programs. These programs allow for engagement with a large percentage of youth and also provide the opportunity for effective and sustainable peer-to-peer outreach. Public feedback indicates ongoing support for youth and school programs. These programs are also supported by the Uniform Guideline No. 4.
- Driver improvement programs
  - While formal driver's education programs are only rated 2 stars in CTW, there are a variety of other youth programs aimed at equipping new drivers with education and skills to ensure they operate vehicles in a safe manner. These programs are critical in ensuring youth are aware of the traffic safety issues, understand how they can avoid such risks, and are empowered to encourage other young drivers to do the same through peer-to-peer outreach. Public feedback indicates ongoing support for youth and school programs. These programs are also supported by the Uniform Guideline No. 4.
- Highway safety office program management
  - The SHSO will coordinate support for a variety of young driver programs.

### Targets:

- Decrease young driver (age 20 or younger) fatalities from a 5-year average of 115.4 (2017-2021) to 120.6 (2022-2026)

*\* Note: Though the 5-year average increases in these targets, each target still reflects improved performance on an annual basis from 2022 to 2026. See charts in the performance plan for more details.*

**Estimated 3-Year Funding Allocation:**

- \$5,000,000; BIL 402

**Project Considerations:**

- Crash data
- Geography
- Sociodemographic data
- Affected communities/populations
- Mass reach
- Solicitation of proposals
- Uniform Guidelines – Highway Safety Program Guideline 4