



# NATIONAL MOTORCYCLE SAFETY RESOURCE GUIDE

**MAY 2024**



---

# TABLE OF CONTENTS

---

<b>Introduction</b> .....	<b><u>3</u></b>
A Safe System Approach .....	<u>3</u>
Motorcycle Safety Facts .....	<u>5</u>
<b>Focus Area: Enhancing State Programs</b> .....	<b><u>6</u></b>
Data Resources .....	<u>6</u>
State Motorcycle Safety Program Assessments .....	<u>7</u>
Motorcycle Safety Coalitions .....	<u>7</u>
Equitable Programming.....	<u>8</u>
Leveraging Funding.....	<u>8</u>
Federal Advisory Committee .....	<u>10</u>
<b>Focus Area: Safer Riders</b> .....	<b><u>11</u></b>
Personal Protective Equipment.....	<u>11</u>
Equipping Law Enforcement Agencies for Engagement.....	<u>11</u>
Licensing & Training .....	<u>12</u>
Safe Riding.....	<u>12</u>
Motorcycle Maintenance.....	<u>13</u>
<b>Focus Area: Motorist Awareness</b> .....	<b><u>17</u></b>
Motorcyclists’ Safety is Everyone’s Safety .....	<u>17</u>
Bystander Care .....	<u>17</u>
<b>Focus Area: Safer Roads</b> .....	<b><u>20</u></b>
Law Enforcement Agency Engagement.....	<u>20</u>
Highway Engineering .....	<u>20</u>
Road Safety Audits .....	<u>21</u>
<b>References</b> .....	<b><u>22</u></b>

---

# INTRODUCTION

---

Since the introduction of the motorcycle in 1885, motorcycle riding has evolved as a popular mode of transportation. Motorcycling is enjoyed by millions of Americans and offers freedom, mobility and recreation—the chance to discover what lies over the next hill or around the next bend in the road. It is an economically viable form of transportation that provides affordable options. However, motorcycling also entails responsibilities, not only for motorcyclists, but also for others who share the road with riders.

Every year, thousands of motorcyclists are needlessly lost on our nation’s roadways. For the last 10 years, motorcyclist fatalities have remained at 14% of all traffic fatalities, despite representing 3% of all registered motor vehicles. Motorcycle fatalities occur 29 times more frequently than passenger car occupant fatalities, on a per-mile basis of travel. NHTSA estimates that helmets saved the lives of 1,872 motorcyclists in 2017 and that 749 more could have been saved if all motorcyclists had worn helmets.<sup>i</sup>

## A SAFE SYSTEM APPROACH

A commitment to raising public awareness about the importance of motorcycle safety and personal responsibility within a Safe System approach, while addressing equity issues, is important as NHTSA focuses on connecting with all road users. The Safe System Approach to eliminating fatal and serious injury crashes differs from conventional safety practices; it provides a safety net for the design and operation of the roadway system that prevents crashes in two ways: anticipating human error and accommodating human injury tolerance. Here’s what you need to know to bring the Safe System Approach to your community.<sup>i</sup>

The Safe System Approach focuses on the following key objectives:

- **Death/Serious Injury is Unacceptable:** The Safe System Approach prioritizes crashes that result in death and serious injuries, since no one should experience either when using the transportation system.
- **Humans Make Mistakes:** People will inevitably make mistakes that can lead to crashes, but the transportation system can be designed and operated to accommodate human mistakes and injury tolerances and avoid death and serious injuries.
- **Humans are Vulnerable:** People have limits for tolerating crash forces before death and serious injury occur; therefore, it is critical to design and operate a transportation system that is human-centric and accommodates human vulnerabilities.
- **Responsibility is Shared:** All stakeholders (transportation system users and managers, vehicle manufacturers, etc.) must ensure that crashes don’t lead to fatal or serious injuries.
- **Safety is Proactive:** Proactive tools should be used to identify and mitigate latent risks in the transportation system, rather than waiting for crashes to occur and reacting afterward.
- **Redundancy is Crucial:** Reducing risks requires that all parts of the transportation system are strengthened so that if one part fails, the other parts still protect people.

Making a commitment to zero deaths means addressing every aspect of crash risks through the five elements of a Safe System, shown below. These layers of protection and shared responsibility promote a holistic approach to safety across the entire transportation system.

The key focus of the Safe System Approach is to reduce death and serious injuries through design that accommodates human mistakes and injury tolerances.

- **Safer Road Users:** Encourage safe, responsible behavior by people who use our roads, and create conditions that prioritize their ability to reach their destination unharmed.
- **Safer Speeds and Roads:** Promote safer speeds in all roadway environments through a combination of thoughtful, targeted, context-appropriate outreach campaigns, judicious enforcement, the setting of appropriate speed limits and road design; as well as encourage safer behaviors and facilitate safe travel by the most vulnerable users, by designing roadway environments to accommodate human mistakes and injury tolerances.
- **Safer Vehicles:** Expand the availability of vehicle designs and features that help to prevent crashes and minimize the impact of crashes on both occupants and non-occupants.
- **Post-Crash Care:** Enhance the survivability of people in crashes through expedient access to emergency medical care.

Implementing the Safe System Approach is our shared responsibility, and we all have a role. Together, we can prevent crashes that claim the lives of our families, friends and neighbors who choose to ride motorcycles as their preferred, or in some cases, the only choice of transportation. It requires shifting how we think about transportation safety. Consider applying a Safe System lens to upcoming projects and plans in your state; put safety at the forefront and design to accommodate human mistakes and injury tolerances.

We must be more vigilant and do our part to reduce and eliminate these preventable tragedies. Remember, a safe motorcycle-riding environment is the responsibility of all roadway users.

Within the Motorcycle Safety Resource Guide, you will find resources you can immediately utilize to enhance your focus on motorcycle safety. These tools include elements of a Safe System Approach and support a year-round focus on outreach, education and raising awareness of motorcycle safety. You will find resources, messaging, visuals and activities that you can use to take action. Together, we all can work to make motorcycling more enjoyable, and more importantly, safer for all.

For more information on NHTSA Motorcycle Safety, email [NHTSASCD@dot.gov](mailto:NHTSASCD@dot.gov).

## MOTORCYCLE SAFETY FACTS

For the purposes of these facts, motorcycles include two- and three-wheeled motorcycles, off-road motorcycles, mopeds, motorscooters, mini bikes and pocket bikes. The motorcycle rider is the person operating the motorcycle; a passenger is a person seated on, but not operating, the motorcycle; and the motorcyclist is a general term referring to either the rider or passenger. Drivers or motorcycle riders are considered to be alcohol-impaired when their blood alcohol concentrations (BACs) are .08 grams per deciliter (g/dL) or higher.<sup>1</sup>

1. In 2022, there were 6,218 motorcyclists killed in traffic crashes, which represents 15% of total highway fatalities for that year and a 1% increase from 2021 (6,143).
2. Per 100 million vehicle miles traveled, motorcyclists were about 22 times more likely than passenger car occupants to die in a motor vehicle crash and 4 times more likely to be injured.
3. Speeding, like in all other years, was a major contributing factor to motorcyclist fatalities in 2022. Thirty-five percent of all motorcycle riders involved in fatal crashes were speeding, compared to 22% of all passenger car drivers, 15% of all light-truck drivers, and 6% of all large-truck drivers. Motorcycle riders 21 to 24 years old involved in fatal crashes had the highest speeding involvement at 51%.
4. Alcohol impairment also plays a significant role in motorcycle-involved crash fatalities, and 2022 was no exception. Of the 2,254 motorcycle riders who died in single-vehicle crashes that year, 42% were alcohol-impaired. Motorcycle riders involved in fatal crashes (killed and survived) had a higher percentage of alcohol impairment than any other type of motor vehicle driver (28% for motorcycle riders, 25% for passenger car drivers, 21% for light-truck drivers, and 3% for large-truck drivers). Forty-six percent of motorcycle riders killed in single-vehicle crashes that occurred on weekends were alcohol-impaired. Forty-two percent of all motorcycle riders killed in night-time were alcohol-impaired, compared to 16% of those killed in daytime crashes.
5. Wearing DOT-compliant motorcycle helmets save lives and reduce injuries. After three years of declines, motorcycle helmet use increased among motorcycle riders from 64.9% in 2021 to 66.5% in 2022. Similarly, among motorcycle riders with passengers, helmet use increased: 52.1% in 2021, and 58.3% in 2022.
6. Currently, 47 states, D.C., Guam, the Northern Mariana Islands, Puerto Rico, and the U.S. Virgin Islands have a helmet law for motorcyclists. Most other states require helmets for certain riders, and a few have no helmet law. Illinois, Iowa, and New Hampshire are the only states that do not have motorcycle helmet law<sup>2</sup>.
7. Helmet use continues to be significantly higher in states that require all motorcyclists to be helmeted than in those that do not.

---

1 In Utah, the legal BAC limit is 0.05.

2 The most current information on helmet use laws is available on the Governors Highway Safety Association (GHSA) website at [www.ghsa.org/state-laws/issues/motorcyclists](http://www.ghsa.org/state-laws/issues/motorcyclists).

## ENHANCING STATE PROGRAMS

Each state, in cooperation with its political subdivisions, tribal governments and other parties as appropriate, should develop and implement a comprehensive highway safety program reflective of state demographics, considering diversity, equity, inclusion and accessibility in achieving significant reductions in traffic crashes, injuries and fatalities on public roads. Explore the options below for actions you can take to enhance your state's motorcycle safety program.

### DATA RESOURCES

Each state should have centralized program planning, implementation and coordination to identify the nature and extent of its motorcycle safety problems, to establish goals and objectives for the state's motorcycle safety program and to implement projects to reach the goals and objectives. State motorcycle safety plans should collect and analyze data on motorcycle crashes, injuries and fatalities, and utilize the data to identify and prioritize the state's motorcycle safety problem areas, plan new programs and improve existing programming.

To explore factors contributing to motorcycle fatalities in your area, visit the [National Center for Statistics and Analysis \(NCSA\)](#).<sup>ii</sup> NCSA is an office of the U.S. Department of Transportation's National Highway Traffic Safety Administration (NHTSA), responsible for providing a wide range of analytical and statistical support to NHTSA and the highway safety community at large. The [NCSA website](#) includes various tools, publications, resources and data that you can explore.

- [Fatality Analysis Reporting System \(FARS\) Data Tables](#): The FARS encyclopedia includes all the information in the Traffic Safety Annual Report tables, plus additional information and a finer level of detail.
- [Fatality and Injury Reporting System Tool \(FIRST\)](#): FIRST is a tool that allows you to build custom queries of fatal/injury crashes and generate the results in the form of tables, charts or GIS maps. It also lets you export output into Excel or PDF.
- [Crash Data Publications \(CrashStats\)](#): NCSA's crash data resource page, a search engine for all of the latest and legacy NCSA publications, such as Traffic Safety Fact Sheets and Annual Motorcycle Helmet Use Results. This tool allows you to search publications by title, topic, document type or published year.
- [Fatal Motor Vehicle Crash Data Visualization Tool](#): This portal provides interactive and user-friendly dashboards for motorcycle safety and other highway safety areas. These visualizations include multiple dashboards with information on fatal motor vehicle traffic crashes and fatalities based on data from NHTSA's FARS. FARS contains data on every fatal traffic crash in the 50 states, the District of Columbia and Puerto Rico. To be included in FARS, a crash must involve a motor vehicle traveling on a public trafficway and must result in the death of a vehicle occupant or a nonoccupant within 30 days of the crash.
- [National Emergency Medical Services Information Services \(NEMSIS\)](#): This dashboard shows serious injury crashes (as opposed to fatal ones). Note how you can select in the "type" field on the left to show data for motorcycle crashes only. This is now publicly aggregated by region (not state). However, states can work with their state EMS for more refinement. \*This is a non-NCSA datasource.

This data can be used in your social media messages to promote motorcycle safety throughout the year.

## MOTORCYCLE SAFETY—DEVELOPING YOUR PROGRAM THROUGH DATA AND COLLABORATION COURSE

NHTSA developed this course to support motorcycle safety programs in learning how to use data for problem identification and intervention development, while fostering collaborative stakeholder relationships. To learn more about the program and how to register, visit [NHTSA's Transportation Safety Institute](#).

## STATE MOTORCYCLE SAFETY PROGRAM ASSESSMENTS

[NHTSA's Safety Assessment Program](#) is a tool NHTSA offers to states to review and examine specific components of its comprehensive motorcycle safety program, providing insight and tools to refine and improve programming to advance traffic safety.<sup>ii</sup> The assessment is a cooperative effort among NHTSA, the State Highway Safety Office (SHSO) and other agencies or offices, such as the Department of Motor Vehicles, the Department of Public Safety, the Department of Transportation or the Department of Education, which contributes to the state's motorcycle safety program efforts. A team of external subject matter experts conducts a thorough assessment of the motorcycle safety program using an organized, objective approach and well-defined procedures that:

- Provide an overview of the program's status in comparison to pre-established criteria.
- Note the program's strengths and opportunities.
- Provide useful recommendations for improvements.

The program assessment criteria are based on the [Uniform Guidelines for State Highway Safety Programs](#) that are periodically updated and augmented by best practices in motorcycle safety. Although a comparison is made to existing criteria, the state may also request assistance that addresses unique concerns and identifies the need for specialized expertise on the assessment team.

Upon completion of the assessment, the team briefs the state on its major findings and recommendations and provides a comprehensive final report. NHTSA encourages the state to share the report with its traffic safety partners and to use the report's recommendations in its future safety planning. To request a program assessment, please contact your designated [NHTSA Regional Office](#).

## MOTORCYCLE SAFETY COALITIONS

It is important to understand what a coalition is and why coalitions are so crucial to achieving your goals. By most definitions, a coalition is considered an organization of diverse interest groups with a set goal and common purpose. A coalition provides a forum for integrated countermeasure selection by:

- Networking
- Identifying the problem
- Identifying countermeasures
- Developing a plan
- Coordinating countermeasure implementation and monitoring and evaluating its effectiveness

When building a coalition, you want to ask yourself three questions:

1. Who can address these areas?
2. Who has a stake in the problem?
3. Who has the ability/power to take action?

In order to develop an organization of diverse interest groups, it's vital that the coalition be representative of multidisciplinary partners. Partnerships should include:

- State Highway Safety Offices
- Engineering (public employees, officials, agencies, transportation planners, public works employees, Department of Transportation)
- Education (schools, training)
- Enforcement (law enforcement agencies, law enforcement liaisons)
- EMS (hospitals, urgent care centers, emergency care services)
- Motorcycle rights organizations
- Manufacturer organizations
- Victims/Victim advocates
- Non-traditional stakeholders

## EQUITABLE PROGRAMMING

The U.S. Department of Transportation is committed to pursuing a comprehensive approach to advancing equity for all. Applying equity across all highway safety programming efforts is essential. These resources will help highway safety stakeholders grow their understanding and application of practices in planning and engagement that support equitable transportation.

- Advancing Racial Equity and Support for Underserved Communities Through the Federal Government: [Executive Order 13985](#)
- [U.S. Department of Transportation Equity Action Plan](#)
- [Promising Practices for Meaningful Public Involvement in Transportation Decision-Making](#)

## LEVERAGING FUNDING OPPORTUNITIES THROUGH COLLABORATION

Collaboration among agencies and organizations responsible for, or impacted by, motorcycle safety issues should include exploring funding opportunities. DOT funding programs have specific requirements that activities and projects must meet. Eligibility must be determined on a case-by-case basis. See links to guidance for more information, and continue to monitor for updates.



## NHTSA Programs

- NHTSA [402](#) (23 U.S.C. 402): Project activity must be included in the state's highway safety plan. Contact the State Highway Safety Office for details.
- NHTSA [405](#) (23 U.S.C. 405): Funds are subject to eligibility, application and award. Project activity must be included in the state's highway safety plan. Contact the [State Highway Safety Office](#) for details. The [Bipartisan Infrastructure Law](#) expanded the eligible use of funds for a Section 405 Nonmotorized Safety grant beginning in FY 2024. See [23 U.S.C. 1300.26](#). For prior year grant awards, FAST Act eligible uses remain in place.

## FHWA Programs

- [ATIIP](#) (IIJA § 11529): Subject to appropriations. Projects costing at least \$15,000,000 to develop or complete active transportation networks and spines, or at least \$100,000 to plan or design for active transportation networks and spines.
- [CRP](#) (23 U.S.C. 175): Projects should support the reduction of carbon dioxide emissions from on-road highway sources.
- [CMAQ](#) (23 U.S.C. 149): Projects must demonstrate emissions reduction and benefit air quality. See the CMAQ guidance for a list of projects that may be eligible for CMAQ funds. CMAQ funds may be used for shared-use paths, but not for trails that are primarily for recreational use.
- [HSIP](#) (23 U.S.C. 148): Projects must be consistent with a state's [Strategic Highway Safety Plan](#) and (1) correct or improve a hazardous road location or feature, or (2) address a highway safety problem. Certain noninfrastructure safety projects can also be funded using HSIP funds as specified safety projects.
- [NHPP](#) (23 U.S.C. 119): Projects must benefit National Highway System (NHS) corridors and must be located on land adjacent to any highway on the National Highway System (23 U.S.C. 217(b)).
- [PROTECT](#) (23 U.S.C. 176): Funds can only be used for activities that are primarily for the purpose of resilience or inherently resilience-related. With certain exceptions, the focus must be on supporting the incremental cost of making assets more resilient.
- [PLAN](#) (23 U.S.C. 134 and 135): Funds must be used for planning purposes, for example: Maps: System maps and GIS; Safety education and awareness: for transportation safety planning; Safety program technical assessment: for transportation safety planning; Training: bicycle and pedestrian system planning training. Transportation planning associated with activities would be eligible, SPR and PL funds are not available for project implementation or construction.
- [NSBP](#) (23 U.S.C. 162): Discretionary program subject to annual appropriations. Projects must directly benefit and be located on or near an eligible designated scenic byway.

## OST Grant Programs

- [RCN](#): Combines [RCP](#) (IIJA § 11509 and div. J, title VIII, Highway Infrastructure Programs, para. (7)), which provides funds for planning grants and capital construction grants that relate to a transportation facility that creates a barrier to community connectivity and [Neighborhood Access and Equity Grant Program](#), Inflation Reduction Act (IRA) § 60501; enacted as Pub. L. 117-169, 23 U.S.C. 177, which provides funds for projects that improve walkability, safety and affordable transportation access and funding for planning and capacity-building activities in disadvantaged or underserved communities.

- [SMART](#) (IIJA § 25005): Provides grants to eligible public sector agencies to conduct demonstration projects focused on advanced smart community technologies and systems in order to improve transportation efficiency and safety.
- [SS4A](#) (IIJA § 24112): Discretionary program funds regional, local and tribal initiatives through grants to prevent roadway deaths and serious injuries. Projects must be identified in a comprehensive safety action plan (§ 24112(a)(3)).
- [Thrive](#) (Department of Transportation Appropriations Act, 2022 (Pub. L. 117-103, div. L, title I): Technical assistance, planning and capacity-building support in selected communities.

## FEDERAL ADVISORY COMMITTEE: MOTORCYCLIST ADVISORY COUNCIL

The purpose of the Motorcyclist Advisory Council is to provide information, advice and recommendations to the Secretary of Transportation and to the administrators of the National Highway Traffic Safety Administration and the Federal Highway Administration (FHWA) on transportation issues of concern to motorcyclists, including:

- Motorcycle and motorcyclist safety
- Barrier and road design, construction and maintenance practices
- The architecture and implementation of intelligent transportation system technologies.

The Council's duties include the following:

- Provide advice on transportation safety issues of concern to motorcyclists consistent with the statutorily specified advising duties.
- Provide a forum for the development, consideration and communication of information from a knowledgeable and independent perspective.
- No later than October 31 following the calendar year in which the Council is established, and not less than once every two years thereafter, submit to the Secretary a report containing recommendations of the Council regarding:
  - ▶ Motorcycle and motorcyclist safety
  - ▶ Barrier and road design, construction and maintenance practices
  - ▶ the architecture and implementation of intelligent transportation system technologies

Committee meetings are open to the public and will be announced in the [Federal Register](#) and listed on the [NHTSA events page](#).

Additional information and records are available through the [FACA Database](#), including a list of committee members when it becomes available. For more information, questions should be directed to [MotorcyclistAdvisoryCouncil@dot.gov](mailto:MotorcyclistAdvisoryCouncil@dot.gov).

Please visit [FHWA's MAC webpage](#) to access past research reports, noteworthy practices, MAC recommendation reports and meeting minutes of the five MAC committee meetings, previously held by FHWA.

# SAFER RIDERS

Making a commitment to zero traffic deaths means addressing all aspects of safety through the following five Safe System elements that, together, create a holistic approach with layers of protection for road users: safe road users, safe vehicles, safe speeds, safe roads and post-crash care.<sup>iv</sup> The safer road users element of a Safe System encourages safe, responsible behavior by people who use our roads and create conditions prioritizing the ability to reach their destination unharmed. Below are materials that can be used to promote safe riding in your community.

## PERSONAL PROTECTIVE EQUIPMENT: ENSURE YOU ARE PROTECTED

### HELMET SAFETY

Head injury is a leading cause of death in motorcycle crashes. If you're ever in a serious motorcycle crash, the best hope you have for protecting your brain is a motorcycle helmet. Always wear a helmet that meets the U.S. Department of Transportation (DOT) Federal Motor Vehicle Safety Standard (FMVSS) 218. Look for the DOT symbol on the outside back of the helmet. Snell and ANSI labels located inside the helmet also show that the helmet meets the standards of those private, non-profit organizations. Learn more about [choosing the right helmet](#).

### PROPER RIDING GEAR

Arms and legs should be completely covered when riding a motorcycle, ideally by wearing gear designed for motorcycle riding. In addition to providing protection in a crash, protective gear also helps prevent dehydration. Boots or shoes should be high enough to cover your ankles, while gloves allow for a better grip and help protect your hands in the event of a crash. Wearing brightly colored clothing with reflective material will make you more visible to other vehicle drivers.

## EQUIPPING LAW ENFORCEMENT AGENCIES FOR ENGAGEMENT

Each state should involve state and local law enforcement agencies in its motorcyclist safety efforts, and actively engage with the motorcyclist community for the promotion of safe riding practices.

NHTSA developed the Motorcycle Safety Law Enforcement Course to provide law enforcement officers an understanding of motorcyclist behavior and enforcement concepts related to motorcycle safety so that they have the knowledge and confidence to increase their contact with motorcyclists. The Motorcycle Safety Law Enforcement Course will supplement existing coursework available to traffic enforcement officers by providing cues for presenting operational strategies for making safe and efficient traffic stops and engaging with the motorcycle community. To learn more about the program and how to register, visit [NHTSA's Transportation Safety Institute](#).

## **LICENSING & TRAINING: ENSURE YOU ARE LICENSED, ENSURE YOU ARE TRAINED**

One significant way to reduce the chances of injury and death is to participate in motorcycle training. Just like driver education courses, there are a variety of motorcycle training courses that cover the essential skills a rider needs to safely operate a motorcycle. Training is vital to safety and developing your riding skills. Each state should include strategies in its motorcycle safety plan to encourage operators and passengers to get licensed, seek training and wear proper motorcycle protective equipment (including DOT-compliant helmets) when riding a motorcycle.

## **SAFE RIDING: ENSURE YOU RIDE SOBER AND STAY BELOW THE SPEED LIMIT**

### **IMPAIRED RIDING**

Impaired motorcycle operation is a significant contributing factor in motorcycle crashes. States should ensure that programs addressing impaired driving include an impaired motorcyclist component. The following programs should be used to reach impaired motorcyclists:

- Community traffic safety and other injury control programs, including outreach to motorcyclist clubs and organizations
- Youth anti-impaired driving programs and campaigns
- High-visibility law enforcement programs and communications campaigns
- Judge and prosecutor training programs
- Anti-impaired-driving organizations' programs
- College and school programs
- Workplace safety programs
- Event-based programs, such as motorcycle rallies, shows, etc.
- Server training programs

### **EFFECTIVE COLLABORATION**

Collaborate and partner with restaurants and establishments frequented by motorcyclists to develop efforts that address impaired motorcycle operations (motorcycle storage pods).

Develop event-based campaigns that may be used at motorcycle rallies, shows, motorcycle nights and by motorcycle dealerships, clubs and organizations to address risky riding.

## SPEED

Addressing speed is fundamental to the [Safe System Approach](#) to making streets safer, and a growing body of research shows that speed limit changes alone can lead to measurable declines in speeds and crashes. In alignment with the Safe System approach, achieving safe speeds requires a multifaceted, equitable approach that leverages road design and other infrastructure interventions, speed limit setting, education and enforcement.

Roadway design and other infrastructure factors play a significant role in managing speeds and can deter excessive speeding behaviors from occurring in the first place. Speeding increases both the frequency and severity of crashes, yet it is both persistent and largely accepted as the norm amongst the traveling public. Promote safer speeds in all roadway environments through a combination of thoughtful, equitable, context-appropriate roadway design, targeted education, outreach campaigns and enforcement.

## MOTORCYCLE MAINTENANCE: ENSURE THE SAFETY OF YOUR RIDE

Riding a motorcycle is among the riskier modes of transportation. Not only does operating a motorcycle require more physical skill and strength than driving a passenger vehicle, but motorcycles also lack a protective structure, offering the rider virtually no protection in a crash. States should take a proactive approach in informing motorcyclists about proper motorcycle maintenance to ensure a safe ride and develop relationships with stakeholders, specifically motorcycle dealerships equipped to repair.

Use [NHTSA.Gov/Recalls](https://www.nhtsa.gov/recalls) as a resource to check for NHTSA recalls on motorcycles and helmets in preparation for riding, and encourage riders to visit local dealerships if their vehicle needs to be repaired as part of a recall.

## SOCIAL MEDIA GUIDANCE

All of the graphics and videos below can be utilized across social media platforms to promote the important safety messages about riding a motorcycle. They can be downloaded from [TrafficSafetyMarketing.gov](https://www.traffic-safety-marketing.gov) and uploaded to Facebook, Instagram or X (formerly Twitter) depending on what platforms your organization uses.

We encourage developing messages to accompany these graphics to help convey the importance of motorcycle safety. Messaging can include data points, general motorcycle safety messaging, raising awareness of Motorcycle Safety Month or any other information your organization thinks the public needs to know. Using #MotorcycleSafety on your social channels will help your organization participate in the larger conversation around motorcycle safety.

Here are some sample social messages:

- Head injury is a leading cause of death in motorcycle crashes. Make sure you wear a helmet every time you ride. #MotorcycleSafety
- Proper riding gear protects you from more than a crash. Be safe as you ride. #MotorcycleSafety
- 36% of motorcycle riders involved in fatal crashes in 2021 were riding without valid motorcycle licenses. Check your license and make sure it is current. #MotorcycleSafety
- Drinking and riding your motorcycle don't mix. Ride sober or get pulled over. #MotorcycleSafety
- Ride at a safe speed to make it home safely and keep the road safe for others. #MotorcycleSafety
- Make sure you have everything you need to ride safely, like your helmet, protective gear and motorcycle license. #MotorcycleSafety
- Look up your VIN at [NHTSA.gov](https://www.nhtsa.gov) to keep riding safely. #MotorcycleSafety #CheckForRecalls
- Your ride matters. Make it a safe one by following the speed limit. #MotorcycleSafety

# SOCIAL MEDIA ASSETS

Download the graphics below at: [Traffic Safety Marketing](https://www.nhtsa.gov/traffic-safety-marketing)

## Personal Protective Equipment



Alt text: Multiple helmet styles with text encouraging riders to “choose the right helmet for you.”



Alt text: A checklist reminding riders that helmets have safety ratings.



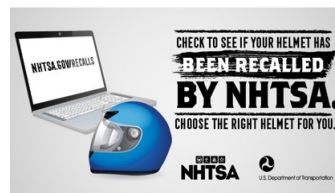
Alt text: A checklist reminding riders of all items they need for a safe ride.



Alt text: Multiple heads showcasing that like heads, motorcycle helmets come in different shapes and sizes.



Alt text: Helmet showcasing DOT sticker reminding riders to look for the sticker when buying their helmet.



Alt text: Laptop and helmet reminding riders to check for recalls.

## Safe Riding



Alt text: A checklist reminding riders of all items they need for a safe ride.



Alt text: Video advertisement showing the consequences of riding impaired



Alt text: A bright graphic showing a motorcycle rider riding on a road with a reminder to keep up to date on licenses.

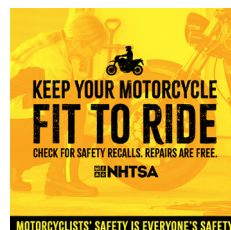


Alt text: A bright graphic showing a motorcycle rider riding on a road with a reminder not to speed.

## Motorcycle Maintenance



Alt text: A checklist reminding riders of all items they need to check on their bike before riding.



Alt text: A bright graphic showing a motorcycle rider checking their bike reminding riders to check for motorcycle recalls.



Alt text: Illustrated motorcyclist & driver with “Motorcyclists’ Safety is Everyone’s Safety” text



## SPANISH SOCIAL MEDIA ASSETS

Download the graphics below at: [Traffic Safety Marketing](#)



Alt text: Motociclista conduciendo recordando a los conductores que deben mantener sus licencias actualizadas.

Motorcyclist riding reminding riders to keep their licenses up to date.



Alt text: Motociclista conduciendo en una carretera con un recordatorio de no exceder la velocidad

Motorcyclist riding on a road with a reminder not to speed.



Alt text: Motociclista revisando su moto, recordando a los conductores verificar si hay retiros de seguridad.

Motorcyclist checking their motorcycle, reminding riders to check for safety recalls.

## Motorcyclists' Safety Is Everyone's Safety



Alt text: Motociclista y conductor ilustrados con el texto "La seguridad de los motociclistas es la seguridad de todos"

Illustrated motorcyclist & driver with "Motorcyclists' Safety is Everyone's Safety" text

Here are some sample social messages:

- Asegúrate de tener todo lo que necesitas para conducir con seguridad, como tu casco, tu equipo de protección, y tu licencia de motocicleta. #SeguridadEnMotocicletas

Translation: Make sure you have everything you need to ride safely, like your helmet, protective gear and motorcycle license. #MotorcycleSafety

- Tu viaje importa. Hazlo seguro siguiendo el límite de velocidad. #SeguridadEnMotocicletas

Translation: Your ride matters. Make it a safe one by following the speed limit. #MotorcycleSafety

- Busca tu número de placa o VIN en NHTSA.gov para seguir conduciendo con seguridad #SeguridadEnMotocicletas #RevisaRetirosDeSeguridad

Translation: Look up your VIN at NHTSA.gov to keep riding safely. #MotorcycleSafety #CheckForRecalls



# MOTORIST AWARENESS

Being a responsible motor vehicle operator is essential in reducing crashes and injuries. Motorcycle operators and motorists need to understand their role in the safe operation of motor vehicles. Motorcyclists must drive responsibly, obey the law and take the necessary actions to protect themselves in the traffic mix. Motorists must be aware of motorcycles in the traffic mix, situations where conflicts may occur and their responsibility to protect all roadway users.

## MOTORCYCLISTS' SAFETY IS EVERYONE'S SAFETY

State motorcycle safety programs, communication campaigns and state motor vehicle operator manuals should emphasize the issues of rider conspicuity and motorist awareness of motorcycles. These programs should address:

- Daytime use of motorcycle headlights
- Brightly colored clothing and reflective materials for motorcycle riders and motorcycle helmets with high daytime and nighttime conspicuity
- Lane positioning of motorcycles to increase vehicle visibility
- Reasons why motorists do not see motorcycles
- Ways that other motorists can increase their awareness of motorcyclists

States should promote materials focused on motorists' awareness of motorcyclists to educate road users on common behaviors they may see when sharing the road with motorcyclists, and to raise motorcyclists' awareness of highway safety signage while riding, including road construction and detours, which may affect the safety of their ride.

In addition to the graphics, videos and sample messaging below, you can access sample variable message boards and other resources to promote motorist awareness of motorcycles at [TrafficSafetyMarketing.gov](https://www.traffic-safety-marketing.gov).

## BYSTANDER CARE

Post-crash care focuses on the provision of the best care to prevent injuries from becoming fatal, on-scene safety, transport of victims to higher levels of care, traffic incident management training, technologies to improve responder and motorist safety, National Emergency Medical Services Information Services and shortening the time it takes EMS to respond on-scene with the most appropriate care. When involved in a crash with a motor vehicle, motorcycles lack a protective structure. With virtually no protection in a crash, motorcyclists are likely to sustain serious or fatal injuries. Motorcyclists likely need immediate care when injured, and the longer it takes to get care, the more likely a fatality or permanent disability. Better post-crash care requires optimal Emergency Medical Services (EMS).

As fellow riders may be the first on-scene of a crash, some states support programs which aim to reduce injuries and fatalities to motorcyclists through first response education. These programs provide education such as basic first aid, first responder skills and safe helmet removal training programs for riders in the event of a crash.

## SOCIAL MEDIA GUIDANCE

Encourage all road users to be mindful of sharing the road with motorcyclists by sharing the graphics and videos below on your organization’s social media platforms. They can be downloaded from [TrafficSafetyMarketing.gov](https://www.traffic-safety-marketing.gov) and uploaded to Facebook, Instagram or X (formerly Twitter) depending on what platforms your organization uses.

We encourage either utilizing the sample messages on [TrafficSafetyMarketing.gov](https://www.traffic-safety-marketing.gov) or developing your own messages to accompany these graphics to help convey the importance of motorcycle safety for all road users.

Here are a couple of sample social messages to address the general public:

- Always make sure you’re aware of your surroundings on the road. Motorcyclists can often be in your blind spot and easily missed. Motorcycle safety is everyone’s safety. #MotorcycleSafety
- If you witness a crash involving a motorcyclist, immediately call 911 to get them the emergency assistance they need. Motorcycle safety is everyone’s safety. #MotorcycleSafety

## SOCIAL MEDIA ASSETS

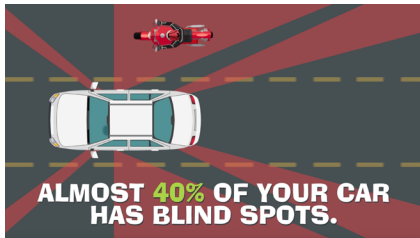
Download the videos below at: [Traffic Safety Marketing](https://www.traffic-safety-marketing.gov)

### Bystander Care

[Bystander Care Video](#) – this can also be found on Traffic Safety Marketing under the “video” section of Pedestrian Safety.



## Blind Spots



## Braking



## Hard to See



## Intersection Dangers



## Motorcyclists' Safety Is Everyone's Safety



# SAFER ROADS

States should incorporate highway and traffic engineering components in their comprehensive motorcyclist safety effort. The needs of motorcycle operators and the operating dynamics of a motorcycle must be considered during the design, construction, operation and maintenance of public roadways. The data collected by the highway and traffic engineering agencies will also support research and strategies to improve the safety of the roadways and the interaction of all road users. Collaboration between state highway personnel, law enforcement agencies and road users to ensure that roadways are safe for motorcyclists is important in ensuring safer roads.

## LAW ENFORCEMENT AGENCY ENGAGEMENT

Each state should involve state and local law enforcement agencies in its motorcyclist safety efforts, and actively engage with the motorcyclist community in the promotion of safe riding practices. These engagement efforts can include:

- Define, communicate and plan for support of the role law enforcement will play in the state's motorcyclist safety effort.
- High-visibility and targeted education and enforcement projects (e.g., impaired riding, proper license, excessive speed, novelty helmet, helmet use for minors) that correlate to data-identified motorcyclist safety problems.
- Create a law enforcement advisory committee that would encourage all the state's law enforcement agencies to be active participants in the state's motorcyclist safety effort and to share resources to complete motorcyclist safety activities and projects.

## HIGHWAY ENGINEERING

Safer Roads focuses on designing roadway environments to mitigate human mistakes, account for injury tolerances, encourage safer behaviors and facilitate safe travel by the most vulnerable users. It is a critical element of any motor vehicle crash reduction program, but is especially important for the safe movement of all road users with considerations unique to motorcyclists. States should use national guidelines for constructing infrastructure that incorporates consideration of motorcyclist safety in all new or improved transportation projects and follow all federal regulations on accessibility.

Incorporate the use of motorcyclist-friendly roadway barriers, pavement markings, traffic control devices and traffic flow technology when constructing, maintaining and repairing roadways. For guidance, explore [FHWA's Motorcycle Safety](#) webpage, which includes resources such as [Motorcycle Safety Noteworthy Practices: Infrastructure and Engineering](#). This report contains summary information on nine infrastructure based countermeasures intended to improve motorcyclist safety. The countermeasures are presented as noteworthy practices that are in use currently by one or more state departments of transportation.

## ROAD SAFETY AUDITS

While most transportation agencies have established traditional safety review procedures, a [road safety audit \(RSA\)](#) or assessment is unique. RSAs are performed by a multidisciplinary team independent of the project. RSAs consider all road users, account for human factors and road user capabilities, are documented in a formal report and require a formal response from the road owner. The Federal Highway Safety Administration (FHWA) works with state and local jurisdictions and tribal governments to integrate RSAs into the project development process for new roads and intersections and also encourages RSAs on existing roads and intersections.<sup>iv</sup>

The aim of an RSA is to answer the following questions:

1. What elements of the road may present a safety concern: to what extent, to which road users and under what circumstances?
2. What opportunities exist to eliminate or mitigate identified safety concerns

RSAs can provide numerous benefits—including a reduction in the number and severity of crashes due to safer designs, reduced costs resulting from early identification and mitigation of safety issues before projects are built, increased opportunities to integrate multimodal safety strategies and proven safety countermeasures, expanded ability to consider human factors in all facets of design, increased communication and collaboration among safety stakeholders—and provide an objective review by an independent multidisciplinary team.

RSAs can be performed in any phase of project development, from planning through construction. Agencies may focus RSAs specifically on motorized vehicles, pedestrians, bicyclists, motorcyclists or a combination of these roadway users. Agencies are encouraged to conduct an RSA at the earliest stage possible, as all roadway design options and alternatives are being explored.

---

# REFERENCES

---

- i. National Center for Statistics and Analysis (NCSA) Tools, Publications and Data  
<https://cdan.dot.gov/>
- ii. Uniform Guidelines for Highway Safety Programs: No. 3, Motorcycle Safety  
<https://one.nhtsa.gov/nhtsa/whatsup/tea21/tea21programs/pages/MotorcycleSafety.htm>
- iii. NHTSA Data Webpage  
<https://www.nhtsa.gov/data>
- iv. NHTSA Safety Program Assessment Webpage  
<https://www.nhtsa.gov/highway-safety-grants-program/safety-program-assessment>
- v. FHWA Safe System Webpage  
<https://highways.dot.gov/safety/zero-deaths>
- vi. FHWA Highway Safety Data Analysis and Tools: Road Safety Audits Webpage  
<https://highways.dot.gov/safety/data-analysis-tools/rsa/road-safety-audits-rsa>
- vii. FHWA Countermeasures: Road Safety Audits Webpage  
[https://safety.fhwa.dot.gov/provencountermeasures/road\\_safety\\_audit.cfm](https://safety.fhwa.dot.gov/provencountermeasures/road_safety_audit.cfm)