# Maryland Highway Safety Plan Federal Fiscal Year 2023

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# **Executive Summary**

On behalf of the Maryland Department of Transportation (MDOT), I am pleased to present Maryland's Highway Safety Plan (HSP) for Federal Fiscal Year (FFY) 2023. This plan outlines the upcoming activities and priority areas for the Maryland Highway Safety Office (MHSO), which is housed within MDOT's Motor Vehicle Administration (MDOT MVA), under the guidance of the MDOT MVA Administrator, Ms. Christine Nizer, who also serves as Maryland's Governor's Representative for Highway Safety.

In 2021, the dangerous driving behaviors that emerged during the COVID-19 pandemic continued. Despite an increase in VMT to 2019 levels, increases in speed, impairment, and distracted driving continued. As a result, 560 people died in traffic-related crashes on Maryland's roads. While this represented a small decrease from the previous year's total of 573, pedestrian and bicycle fatalities continued to comprise one-quarter of the state's roadway deaths and much work remains to reverse an emerging national increase in roadway deaths.

The past year saw a gradual return to normal of the state's highway safety programs. Following the strategies and action steps in Maryland's Strategic Highway Safety Plan (SHSP) the MHSO continued its focus on core emphasis areas such as impaired driving, speeding, occupant protection, distracted driving, and pedestrian and bicycle safety as well as new areas of focus such as autonomous vehicles. MHSO supported the development of more than ten local highway safety plans, the state's seatbelt use rate rose back above 91 percent, and outreach activities resumed in the schools and communities. Maryland's SHSP provides a Safe System framework that will support the collaborative efforts between MDOT business units and allied agencies. The SHSP continues to use a data-driven approach to set safety targets, to guide our investments, and to maximize the use of our resources to improve highway safety in the state.

As in previous years, the SHSP serves as a guiding document for this HSP. Both plans have been formulated through a close analysis of data along with the collaboration of diverse partners across the state. Projects outlined in this document have been selected for their ability to make the biggest impact toward accomplishing the goals set forth in the SHSP.

Maryland's network of highway safety partners is committed to raising the awareness of traffic safety issues and building a comprehensive and effective traffic safety program. I look forward to the implementation of the projects outlined in this HSP and continuing our work until there are zero deaths on Maryland roadways.

Sincerely,

Timothy J. Kerns, PhD

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# **Highway Safety Plan**

# Organizational Structure

Serving as the Governor's Highway Safety Representative and Administrator of the MDOT MVA, Christine Nizer provides overall leadership for the state's highway safety program. Dr. Tim Kerns, MHSO Director, reports directly to Administrator Nizer and manages a team of almost 30 professionals, with the assistance of Deputy Director, Myra Wieman.

The MHSO team also includes a Communications Manager; a Content and Engagement Specialist, an Office Manager; a Safety Programs Section; a Law Enforcement Services Section; a Partnership, Resources, and Outreach Section; and a Finance Section.

The Communications Manager and Content and Engagement Specialist establish the strategic direction for MHSO communication efforts, including education/media campaigns, correspondence, and social media platforms. Working closely with office staff, MDOT MVA Communications, and other partners, the Communications Manager provides further exposure for highway safety efforts through public relations and earned media. The Office Manager serves as administrative support to everyone in the office.

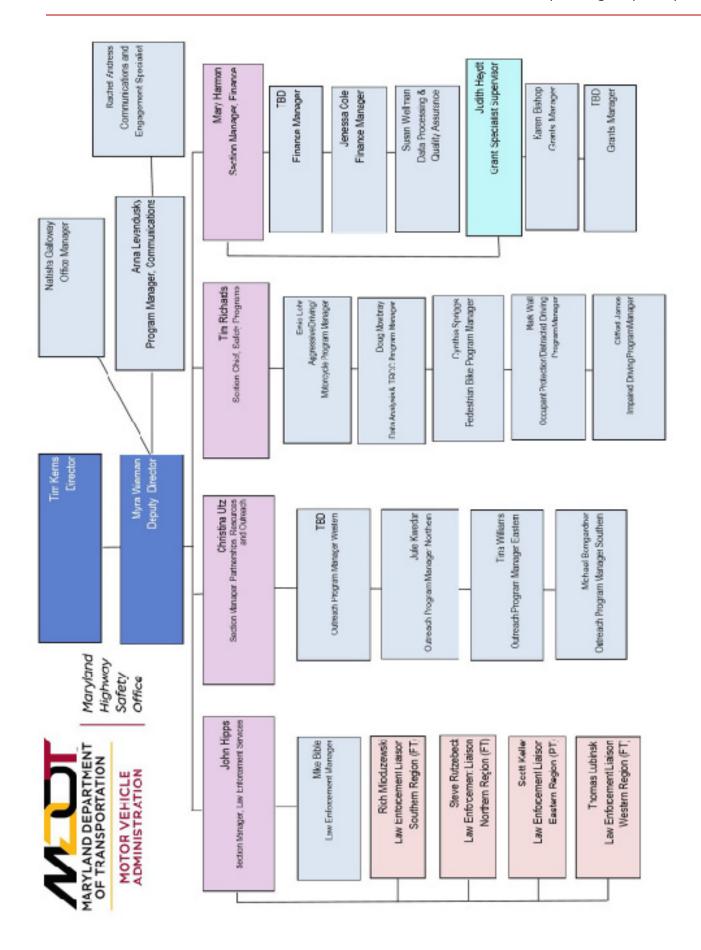
Safety Programs is comprised of a Section Manager and four Program Managers who specialize in Occupant Protection/Distracted Driving Prevention, Impaired Driving Prevention, Speeding and Aggressive Driving Prevention/Motorcycle Safety, and Pedestrian/Bicyclist Safety. This section also includes a Traffic Records Program Manager, who oversees the State Traffic Records Coordinating Committee (TRCC).

The Law Enforcement Services Section works directly with the police community across Maryland to increase and maintain support for highway safety and to assist in managing law enforcement-related highway safety grants. Led by a Section Manager, this section includes four Law Enforcement Liaisons (LELs) and a Law Enforcement Manager.

The Partnerships, Resources, and Outreach (PRO) Section includes a Section Manager and four Outreach Program Managers. This team has responsibility for engaging local highway safety partners and furthering the implementation of local Strategic Highway Safety Plans. The staff manages outreach programs for large employers, military installations, schools and universities, and young and older drivers.

Led by a Finance Section Manager, the Finance team oversees financial operations and grants administration. The Grants & Projects for Safety (GPS) E-Grants Management System, allows for grant documentation and processing. The section has a grant specialist supervisor, two grant managers, two finance managers, and a data processing quality assurance specialist.

A full organizational chart for the MHSO is pictured below:



# **Highway Safety Planning Process**

To accomplish its grants administration mission, the MHSO undertakes a 12-month process to complete its highly detailed Maryland HSP based on problem identification that encompasses the statewide challenges and local support. The following table outlines the estimated planning calendar for the MHSO's HSP development process:

Month	Activity
January	<ul> <li>Problem identification – review program data and targets to identify safety issues to be corrected with previous and new grant partners.</li> <li>Debrief and analyze the previous year's program results with grant partners.</li> <li>Apply funding formula and algorithms to allocate potential local funding to jurisdictional partners.</li> <li>Open the MHSO grant application period.</li> </ul>
February – March	<ul> <li>Convene grant-writing training and discussion sessions to assist potential grantees with grant submission.</li> <li>Identify any gaps in existing problem-area strategies and request feedback as needed from stakeholders for further analysis.</li> <li>Develop MHSO internal projects.</li> <li>Begin drafting the HSP components.</li> </ul>
April – May	<ul> <li>Determine estimated revenues and establish a draft HSP budget.</li> <li>Review grants and make selections.</li> <li>Send annual highway safety summit and fatality media release.</li> </ul>
June	<ul> <li>Review selected grants with GR for approval.</li> <li>Conduct MHSO final internal review of the HSP to verify compliance with federal requirements, competencies, and accuracy.</li> <li>Submit HSP for approval to the GR and then to the National Highway Traffic Safety Administration (NHTSA) by June 30.</li> </ul>
July – September	<ul> <li>Notify chosen grant applicants and obtain final agreements.</li> <li>Conduct pre- and post-award meetings with chosen grantees.</li> <li>Problem identification – review new program data and targets to identify safety issues to be corrected and determine funding distribution and overall direction of the programs.</li> <li>Debrief and analyze the previous year's program results with MHSO teams.</li> </ul>

# Begin implementation of approved HSP as of October 1. Implement new Federal Fiscal Year grants. Develop Annual Report. Continue conducting post-award meetings. Submit Annual Report by December 29. Identify partners, program goals and priorities, program area direction, overall strategies and direction of Maryland's traffic safety policy and program, and potential individual program strategies.

In November 2021, Congress passed the Infrastructure and Jobs Act (IIJA) also referred to as the Bipartisan Infrastructure Law (BIL). As we await the final rules pertaining to BIL, this HSP refers to requirements set forth in the FAST Act.

#### **Problem Identification Process**

The MHSO's HSP development process is designed to target highway safety problems by using relevant data sources, estimates of funding levels, identification of potential partners in the HSP process, and prioritization of potential grant programs by their ability to address federal- and state-designated traffic safety priorities.

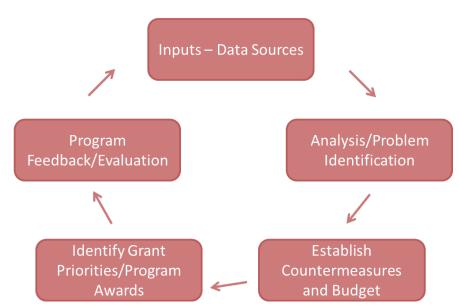
The purpose of the HSP problem identification process is to:

- Understand the scope of Maryland's traffic crash problems and causal factors;
- Develop effective countermeasures to reduce or eliminate the problems; and
- Identify effective measures for continuing evaluation of changes in problem severity.

The problem identification process used by the MHSO includes analysis of traffic safety data from established state and federal sources, with a special focus on those recommended in NHTSA's traffic records information system model, including the Maryland Crash Outcome Data Evaluation System (CODES). The MHSO manages this ongoing process, collecting and analyzing data uniformly over time. Accurate problem identification helps to quantify program decisions as managers establish statewide priority areas where the MHSO can most effectively focus its highway safety efforts and identify the partners best suited to implement safety projects.

An overview of the MHSO problem identification and programming process is depicted below:

# Maryland Highway Safety Office Problem Identification/Programming Process



#### **Data Sources & Processes**

The sources of the MHSO's data include, but are not limited to:

- Maryland District Court Citation/Adjudication data.
- Maryland Institute for Emergency Medical Services Systems (MIEMSS) Emergency Medical Services (EMS) data information network; eMEDS.
- Maryland Trauma Registry Trauma registry, injury data, and EMS databases.
- MDOT Motor Vehicle Administration (MDOT MVA) Vehicle and driver information, including the state's driver license, vehicle registration, and citation/conviction files.
- MDOT State Highway Administration (MDOT SHA) Crash data are obtained from MDOT SHA, which maintains a database derived from crash reports submitted to, and processed and approved by, the Maryland State Police (MSP), along with data on average daily traffic counts and vehicle miles traveled (VMT).
- National Study Center (NSC) CODES; observational seat belt use surveys.
- NHTSA Federal Fatality Analysis Reporting System (FARS), and Fatality and Injury Reporting System Tool (FIRST).
- Office of the Chief Medical Examiner (OCME) Medical examiner data.

Data elements in motor vehicle crash analysis can be classified in three general categories: people, vehicles, and roadway.

These categories may be further defined in subgroups and assigned relevant characteristics for ease and consistency of analysis, as shown in the following table:

Data Category	Subgroups	Details
Persons	Drivers, occupants, pedestrians	Age, gender, behavioral aspects, blood alcohol level
Vehicles	Passenger cars, trucks, buses, motorcycles, bicycles, etc.	Sedans, SUVs, convertibles, airbags, levels of protection
Roadway	Interstate, primary, secondary	Political subdivisions, lighting conditions, surface conditions

Data subgroups are reviewed to determine statistical over-representations, which can indicate traffic safety problems or potential problems among subgroups. A good example is the high percentage of crashes among teen drivers compared to the lower percentage of crashes among all drivers or other age groups. Further analysis then typically focuses on identifying subgroup characteristics (such as increased frequency or severity) or other factors suggested by the data when asking the traditional "who, what, where, why, and how" questions.

# Problem Analysis/Countermeasures Identification

Over-represented factors can be determined by comparing the rate of crashes for a subgroup or characteristic within a jurisdiction to the same rate in a comparable or larger jurisdiction. For example, if the percentage of adult vehicle occupants who do not use seat belts within a jurisdiction is greater than the statewide average, then that characteristic may be over-represented and is analyzed further. Such a case example might indicate a need for additional or more focused countermeasures on seat belt usage in the identified jurisdiction.

The following questions are among the most critical to data analysis and problem identification:

Question	Examples
Are high-crash locations identified?	Road sections, highways, streets, and
	intersections
Do we see recurring causes of crashes?	Impairment, speed, distractions, other traffic
	violations, weather, road conditions
Which characteristics occur more	Number of crashes involving 16- to 19-year-
frequently than would be expected—	old-drivers versus other age groups, or number
that is, which are over-represented?	of alcohol crashes on a roadway segment compared to other causes
Are there crash-severity factors to be	Non-use of occupant protection devices (seat
considered?	belts, motorcycle helmets), excessive speed

The following table shows examples of information that may be applied in crash analysis:

Causal Factors	Crash Characteristics	Factors Affecting Severity
<ul> <li>violation of laws</li> <li>loss of control</li> <li>weather</li> <li>alcohol involvement</li> <li>roadway design</li> </ul>	<ul><li>time of day</li><li>day of week</li><li>age of driver</li><li>gender of driver</li></ul>	<ul> <li>non-use of occupant protection</li> <li>position in vehicle</li> <li>roadway elements (markings, guardrail, shoulders, surfaces)</li> <li>speed</li> </ul>

Ranking of program areas by their average annual number of crashes, demographics, and spatial or other contributing factors, helps Maryland focus educational and enforcement efforts. Age, sex, and vehicle type are commonly used to focus educational efforts. Time of day, day of week, crash location, weather conditions, crash types, route types, and other contributing circumstances are used to help focus enforcement efforts.

The MHSO utilizes geo-spatial mapping technologies to help provide a visual perspective that adds geographical context to the analysis and consideration of highway safety problems affecting the state. With better understanding of the capabilities of mapping analysis software, more MHSO staff and partners are using these maps more effectively for improved identification and deployment of proven

countermeasures and strategies that are used to drive statewide programs for marketing, awareness, and law enforcement. These mapping technologies and data provide a critical point of view for crashes in Maryland and are used to inform and aid the identification of problems and potential countermeasures more effectively.

#### Allocation Formula & Process

The Maryland Center for Traffic Safety Analysis (MCTSA) at the National Study Center for Trauma & EMS (NSC) has provided the following analysis to the Maryland Highway Safety Office (MHSO) to support funding allocation decisions:

Several categories of traffic records data were compiled over years 2016-2020 (serious [KABCO=K, A, B] crashes, impaired crashes, speed-involved crashes, crashes with unrestrained occupants, moving violations, unbelted rates) for each of Maryland's 24 jurisdictions. Following the weighting of serious crashes in terms of .75 - fatal, .20 - serious injury, .05 – moderate injury, the jurisdictions were split into three categories based on the frequency of serious crashes (8 jurisdictions of highest frequency, 8 jurisdictions of medium frequency and 8 jurisdictions of lowest frequency). This weighting schema was determined by statisticians based on best practices to identify jurisdictions that account for the majority of fatal and serious injury crashes.

Once the jurisdictions were stratified, rankings were applied for six sub-categories (serious and fatal crashes, violations, impaired crashes, speed crashes, unrestrained crashes, and unbelted rate) within each of the three groups. For example, jurisdictions in each group were ranked from 1-8 within each subcategory, with 8 representing the highest incidence and 1 representing the lowest incidence. To determine the final rankings within each group, another set of weights were applied. Each jurisdiction's rank (1-8) within the serious and fatal crash category received a .45 weight, the violations rank (1-8) received a .25 weight, and each of the four additional sub-categories received a .075 weight. These weights were determined through statistical review and consultation with the MHSO. Application of this final set of weights determined each jurisdiction's projected funding proportion. Finally, funds were appropriated, with the top group receiving 75 percent, the middle group 20 percent, and the lowest group 5 percent of total allocations available at MHSO. The jurisdictions were listed from highest to lowest funding amounts within each of the three groups to guide the MHSO in allocation decisions.

Essentially, the implemented methodology incorporates several safety program areas that have been identified as the most prevalent in Maryland. By applying a specific weighting regimen, the formula provides a guide for safety funding that will apply the most money to areas with the most problems to reduce the overall state figures. Thus, the funding decisions are data-driven and provide guidance for the identification of jurisdictions that can reduce the state's total number of serious and fatal crashes.

# **Process Participants**

Maryland's strong partnerships with public and private entities at the federal, state, and local levels provide the foundation of broad perspectives, objectivity and balance needed to enhance highway safety and help ensure the overall effectiveness of state grant program strategies.

The MDOT Secretary, MDOT MVA Administrator, MDTA Executive Director, Maryland State Police Superintendent and Maryland Department of Health Deputy Secretary are active members of the SHSP Executive Council, having input on strategies and goals set forth through the SHSP's six Emphasis Areas:

- Speeding/Aggressive Driving
- Distracted Driving
- Highway Infrastructure
- Impaired Driving
- Occupant Protection
- Pedestrian and Bicyclist Safety

Enforcement, education, engineering, and emergency medical services form the "four Es," the nationally recognized pillars of highway safety countermeasures. In FFY 2023, MHSO staff and grantees will begin implementing the Safe System approach. MHSO staff members seek input from partner entities across all these disciplines to help lessen the number and severity of highway crashes and to help decrease the overall number of fatalities and injuries, along with severity of injuries, as they impact all six emphasis areas.

Below is a brief outline of Maryland's ongoing partnership circles and the types of contributions and synergies these committed and invaluable partners provide within Maryland's highway safety grants process:

Below is a brief outline of Maryland's ongoing partnership circles and the types of contributions and synergies these committed and invaluable partners provide within Maryland's highway safety grants process:

- Federal Government Agencies such as the NHTSA, the FHWA, and the FMCSA play key roles in problem identification, target-setting, development of countermeasures, grants management, development of education and media campaigns, and assistance to the MHSO with administrative oversight of Maryland's traffic safety grants program.
- National Organizations Organizations representing national professional associations such as
  the Governors Highway Safety Association (GHSA), the International Association of Chiefs of
  Police (IACP), the National Sheriffs Association (NSA), American Association of Motor Vehicle
  Administrators (AAMVA), and AAA provide forums for idea formulation, discussion, and analysis
  of highway safety issues across the nation. These organizations also provide best practices and
  innovative strategies for dealing with certain highway safety issues. MHSO management is
  represented on many of these organizational boards and committees.

- State and Local Governments All MDOT transportation business units take on significant roles in the MHSO programming model. Each integrates SHSP goals and priorities into business plans, as outlined within each of the SHSP emphasis areas, including coordination of effective media approaches to ensure consistent, effective, and timely messaging. Local government agencies contribute to the highway safety planning process through representation and input within SHSP Emphasis Area Teams (EATs) and, most important, the effective oversight and implementation of local grants programs. The MHSO also utilizes data provided by the Maryland Department of Health (MDH), the Maryland Institute for Emergency Medical Services Systems (MIEMSS), and the Statewide EMS Advisory Council.
- Law Enforcement Law enforcement agencies at all levels, including professional organizations such as the Maryland Chiefs of Police Association (MCPA) and Maryland Sheriffs' Association (MSA), are crucial to success in achieving the long-term goal of zero traffic fatalities. The highly visible enforcement of Maryland's traffic laws and ongoing participation in executing localized enforcement and training grants are critical to the ultimate success of the state's traffic safety strategies. Maryland also utilizes information gathered from the Maryland Police and Correctional Training Commissions (MPCTC).
- Colleges, Universities, and Schools Maryland employs educational campaigns at all levels, from elementary school through higher education, to inform and guide behaviors of students, often beginning years before they can drive legally. Representatives from educational institutions regularly contribute to Maryland's SHSP EATs and grants review process, assisting with problem identification and countermeasures strategies, coordinate data and educational programs, and manage special grant-funded projects.
- Court System The MHSO funds a Traffic Safety Resource Prosecutor (TSRP) who focuses solely on clarifying and assisting with traffic enforcement issues and prosecutions in ways designed to increase conviction rates of criminal drivers and to provide partners within the court system for adjudication support. This TSRP provides training to prosecutors and law enforcement officers and conducts outreach and assistance to judges, all to facilitate services to the Maryland Judiciary and create safer traffic environments on all roadways. A Statewide Judicial Outreach Liaison (SJOL) was added in FFY 2021 through a partnership with NHTSA/ABA to support education efforts with the state's judges. The SJOL will continue to provide outreach to Maryland judges and court officials throughout FFY 2022. The MHSO will review possible opportunities to continue funding the SJOL position through FFY 2023.

The MHSO cultivates and fully utilizes its traffic safety partnerships to improve every aspect of its HSP and related policy and implementation decisions, engaging partners in strategy selection, problem identification, and the establishment of effective performance metrics for ongoing evaluation and planning needs.

Throughout the grant year, the MHSO coordinates a wide range of activities and interactions with partner agencies, including governmental entities and private not-for-profit groups.

Communications among these partner agencies include regular contact and planning exchanges directly with the MHSO staff through inclusion in traffic safety task forces, SHSP EATs, scheduled planning meetings, conference calls, and individual interactions through correspondence such as email. Ongoing input and feedback from these partners are vital to establishing a clear direction for statewide strategies and complementary efforts throughout Maryland.

In some cases, agencies serve as direct grantees to the MHSO, with closely planned and monitored activities coordinated by those entities. For example, private and not-for-profit partners such as Mothers Against Drunk Driving (MADD) and the Washington Regional Alcohol Program (WRAP) have established programs to coordinate a variety of statewide impaired driving prevention activities through MHSO grants. The MHSO funded a project with Drive Smart VA to assist in organizing the 2022 Annual Highway Safety Summit. Drive Smart VA coordinated the keynote speaker and the afternoon breakout sessions that focused on four specific tracks: impaired driving, distracted driving/occupant protection, aggressive driving, and vulnerable road users. As a matter of course, these entities are often consulted on initiatives, and they regularly provide valuable insight to the MHSO.

Similarly, organizations such as the MDH offer a variety of expertise and provide input on child passenger safety issues. Smaller partners are engaged in localized projects throughout the state, including efforts such as young driver education activities. These partners are instrumental in the success of local outreach efforts that also complement statewide traffic safety programming.

The MHSO also works frequently with partner entities that are not grantees, and input from these partners proves to be vital to the success of the MHSO's efforts. These partners include AAA Mid-Atlantic, National Safety Council, Maryland Shock Trauma, numerous community hospitals, faith-based organizations, service organizations such as Kiwanis Clubs, Maryland's public and private school system, ABATE of Maryland, private businesses, and representatives of the restaurant industry all serve as knowledge bases that help shape the MHSO's traffic safety messaging and outreach.

In addition, non-grantee partners prove to be valuable conduits through which the MHSO's messaging can be disseminated, and the MHSO works diligently to keep lines of communication open with all potential partners. Again, regular contact is maintained through a variety of methods including task forces and regular meetings and contacts, during all aspects of planning and implementation of the HSP.

# Method for Project Selection

Strategies chosen by the MHSO and its partners are selected based on the anticipated success of the countermeasures outlined and on their proven effectiveness in meeting highway safety goals, which are based on analysis processes previously described above. In selecting strategies, countermeasures, and projects to best meet safety goals, the MHSO consistently utilizes the HSP and the SHSP, both of which are guided by in-depth data analysis.

The MHSO uses proven resources to help select evidence-based countermeasures, including NHTSA's Countermeasures that Work: A Highway Safety Countermeasure Guide for State Highway Safety Offices (Tenth Edition, 2020). In some instances, the MHSO utilizes additional countermeasures based on other federal and state research evidence. In each program area, countermeasures and requirements to show and prove their effectiveness are embedded in grant descriptions and project requirements.

Clear direction is provided to grantees with regard to how to connect grant proposals with key priorities to reduce serious injuries and fatalities. Proposed grant applications first are reviewed jointly by MHSO program managers and section managers with several objectives in mind:

- To ensure the application meets required criteria (eligibility, completeness)
- To determine whether the traffic safety impact of proposed grant activities is likely to support established goals by ensuring that the identified problem is adequately outlined, that solutions and strategies are reasonable, that evidence-based resources can be expected to address noted problems, and that proposed solutions align with Maryland's SHSP
- To weigh the applicant's merits in terms of current activities and past performance
- To determine the appropriateness of the potential grantee to perform the activities

Determination of the application's potential to impact traffic safety goals is based on the applicant's demonstrated:

- ability to implement evidence-based strategies,
- commitment to sustain and consistently contribute to success of strategies,
- establishment of measurable outcomes for strategies,
- past project performance (if applicable), and
- ability to address the greatest demonstrable need or problem identified.

Proposals that target high-risk populations as noted in the Safe System approach, high-risk behaviors, and high-crash locations receive additional consideration, thus emphasizing the need for and use of measurable outcomes in defining application strategies and approaches.

Proposed strategies must demonstrate one or more of the following attributes:

- An evidence-based strategy of countermeasures supported by research
- A demonstration project, with clear evidence of data-driven safety needs identified
- A strong evaluation plan for the project that allows the grantee to assess the effectiveness of the activity at its conclusion

After grant applications are received, the MHSO's Grant Review Team (GRT) conducts a comprehensive review of the applications and described projects or programs. GRT members include:

- the MHSO's Director and Deputy Director,
- the MHSO's Finance Section Manager,
- the NHTSA's Region III Program Manager, and
- MHSO Program Managers, Section Managers, and LELs who present the grant applications to the GRT and provide background and assistance as needed.

The GRT conducts technical analysis of all proposed grant applications, based in part on the following criteria:

- Has a traffic safety-related problem been adequately identified and appropriately described in the problem statement?
- Does the proposal clearly address a strategy contained within the SHSP?
- Does the proposal clearly show how the project is expected to address the problem along with expected outcomes?
- Did the applicant include a measurable evaluation plan?
- Are action steps clearly organized and well-defined, especially in terms of countermeasures to be used?
- Does each action step have a correlating measurable goal?
- Are timelines reasonable and achievable?
- Are considerations that might affect grantee performance identified and addressed?
- Is past performance reviewed and risk assessment completed?

During an application review, all aspects of the proposal are analyzed by the various GRT members and any portion of the prospective grantee's request for funding may be excluded. If a portion of the grant request is removed from consideration, the corresponding dollar amount is removed from the total request when calculating the award amount.

Responsibility for final recommendation and allocation of funds to any grantee rests with the MHSO's Director during grant review. All projects are reviewed to make sure that costs are allowable, allocable, and appropriate within funding limitations.

Following all team reviews of the applications and appropriate recommendations, the entire grant program proposal is presented for final approval to the GR for Maryland. The GR must then review and sign off on all strategies and grants proposed to be incorporated into the HSP.

The MHSO's final selection of grant proposals is based heavily upon the ability of proposed grant projects to address federal and state priorities for traffic safety programs or related priorities and needs outlined through the problem identification process. All grants funded are measured against goals set forth in the HSP and the SHSP, and all grants selected for funding are thus assured to be rooted in a strategy from the SHSP.

# Development & Integration of Maryland's SHSP

On January 1, 2021, the new 2021–2025 Maryland SHSP went into effect. Legislation that went into effect on October 1, 2019, established new overall statewide traffic safety goals in terms of fatalities and serious injuries, which are now reflected in the current version of the SHSP. Under the GR's leadership, the MHSO provides the day-to-day coordination for Maryland's SHSP. The Maryland SHSP is governed by an Executive Council that includes:

- the MDOT Secretary,
- the MDOT MVA Administrator/GR,
- the MDOT SHA Administrator.
- the Secretary of the Maryland State Police (Superintendent),
- the Executive Director of the Maryland Institute for Emergency Medical Services Systems (MIEMSS), and
- the Executive Director of the Maryland Transportation Authority (MDTA).

In early 2020, Maryland contracted a Maryland-based, non-profit research organization dedicated to transportation safety to lead the 2021-2025 SHSP development effort. To begin, the development team conducted one-on-one interviews with key traffic safety partners across Maryland. Safety partners included leaders from government agencies, education and outreach professionals, local law enforcement, emergency services agencies, and Emphasis Area (EA) team chairpersons. During the interviews, the team solicited insight into the status of traffic safety initiatives and current and future safety priorities for Maryland roadways. Questions focused on several topics including traffic safety needs in engineering, education, enforcement, and emergency medical services (the four Es of transportation safety); the utility of the current SHSP in the stakeholder's activities (including the progress and feasibility of existing action steps); the level of involvement in the ongoing Emphasis Area team meetings and activities; and their view of what should be included in the 2021-2025 SHSP.

The information gleaned from all the interviews aided in the development of an online survey that was distributed to a broader group of safety partners. Information gathered from this safety partner survey helped refine goals, solicit new/updated action steps, identify emerging issues, and examine the progress of each SHSP Emphasis Area.

After collecting information from the safety partner survey, the SHSP development team met with each EA team to present the plan for the development of the 2021-2025 MD SHSP, providing another opportunity to solicit the group's priorities. The conversation focused on the EA team's vision for the updated SHSP, related goals, emerging traffic safety issues, measuring SHSP progress, and thoughts about how to maintain the relevance of the action plan throughout the 2021-2025 term.

The development team planned a safety partner workshop to further discuss and obtain consensus on strategies and action plans for the 2021-2025 SHSP in late March 2020. The onset of the COVID-19 pandemic — and restrictions placed on Maryland residents — resulted in virtual workshops to replace the in-person workshop. A virtual workshop was held for each EA and was attended by the EA team members

and representatives from a variety of stakeholder groups including state and local government agencies, non-governmental organizations, private businesses and advocates, and law enforcement, among others.

After the workshops, a second online survey was distributed to attendees to obtain feedback on the proposed Emphasis Area strategies and action steps developed through the previously described interviews, survey, and workshops. This feedback survey solicited opinions about priorities within the action plan, performance measure development and potential agencies that could spearhead or collaborate to carry out the EA action plans. Several more virtual meetings with the EA teams refined the strategies and action plans that would later be presented for approval.

The SHSP strategy and action plan development culminated with the delivery of findings from interviews, meetings, and workshops to the SHSP's Steering Committee (MHSO management) for feedback and approval for use in the 2021-2025 SHSP. Subsequently, the Executive Council, Steering Committee, and EA Team Chairpersons met to review the proposed strategies and action steps.

The 2021-2025 SHSP encompasses the essence of the previous plan and further incorporates systemic enhancements, innovation and implementation that is data driven. The result is an evidence-based approach that culminated in the confirmation of the plan's six EAs and six key groups.

In addition to developing the new statewide plan, the MHSO supports the development of local SHSPs. These jurisdiction-level plans, whether they be county or municipal, are deemed some of the most important efforts that Maryland could undertake to impact highway safety for the near future. The MHSO provides data support to partners and helps guide the overall approach to developing those plans; however, the goal is for local jurisdictions to create and fully support their own SHSPs. The local plans will in some measure reflect the priorities set forth for the entire state and will address problems locally.

# **Performance Plan**

# **Highway Safety Program Target-Setting Process**

In previous SHSPs, Maryland had set highway safety performance targets that are quantifiable, and data driven, maintaining the Toward Zero Deaths (TZD) approach in recent years by developing interim targets to reduce overall fatalities and serious injuries by at least 50 percent over two decades, starting with a baseline of 2008 to an end goal in 2030.

Five-year rolling averages were used to calculate five-year-average targets for fatalities and serious injuries, e.g., 2016-2020 actual crash data are used to determine targets for 2018-2022 and 2019-2023 (five-year average). However, it should be noted that due to significant declines in serious injuries in recent years, and a recent change in the Maryland crash report definition of injury severity, the use of historical trends currently puts the state at or below current targets for serious injuries.

For the 2021-2025 SHSP, a revised methodology is applied to determine highway safety performance targets. Unlike the TZD design, annual targets for the new SHSP are set using a two-pronged approach. Targets that are experiencing a decreasing trend over time are set using five-year rolling averages and an exponential trend line without a fixed endpoint to calculate future targets. By removing the fixed endpoint, it is anticipated that more practical performance measure targets will be computed by following historically decreasing data patterns. For those targets experiencing increasing trends, however, projections are based on a 2 percent decrease from the 2016-2020 five-year average, continuing with a 2 percent decrease for each successive five-year average.

The revised method will be applied to the five performance measures required by the Federal Highway Administration (FHWA): fatalities, fatality rate, serious injuries, serious injury rate, and non-motorized fatalities and serious injuries with the first three being identical in Maryland's HSP and HSIP.

To meet federal guidelines set forth in the Fixing America's Surface Transportation (FAST) Act, annual targets for each of the SHSP's six emphasis areas and HSP program areas also will be set using an exponential trend line and five-year rolling averages to calculate future targets without a fixed endpoint.

All traffic safety documents in Maryland conform to these methodologies, including the SHSP, the MHSO's HSP, the SHA's HSIP, and the SHA's Commercial Vehicle Safety Plan (CVSP). Additionally, all planning documents developed by MHSO staff and all state-level reporting to the Governor use the SHSP emphasisarea fatality and serious injury target-setting methodology.

Unless otherwise noted, all data are derived from the MDOT SHA's Safety Information Databases (SHA-SID) and Traffic Analysis Network Garage (TANG) based on crash reports submitted to, and processed by, the Maryland State Police Central Records Division (MSP-CRD) utilizing the Enhanced Maryland Automated Accident Reporting System (eMAARS) and the Automated Crash Reporting System (ACRS). Data are subject to change. Effective January 1, 2015, the MSP mandated all law enforcement agencies submit all crash reports via ACRS.

# **Highway Safety Performance Measures**

Maryland has highway safety performance targets that are quantifiable, data driven, and based on state crash data (unless noted otherwise, e.g., federally required fatalities, fatality rate, and non-motorist fatalities). Targets and performance measures are outlined in the following charts for overall statewide fatality and serious injury targets, including actual and projected numbers and occurrence rates. Similar measures and summaries for each of Maryland's planned HSP traffic safety programs can be found in the Program Area sections that follow.

# Overall Statewide Traffic Safety Targets and Measures for Maryland

The tables below outline recent performance for the five required safety targets from the Maryland SHSP involving reduction of fatalities and serious injuries due to traffic crashes:

Target: Reduce total fatalities to 485.9 (2019-2023 rolling average) by 2023.

**Outcome:** Target not met. The 2016–2020 average number of traffic fatalities was 538.8, an increase from the 2015–2019 average of 529.4.

Target: Reduce serious traffic injuries to 2,323.8 (2019–2023 rolling average) by 2023.

**Outcome:** Target not met. The 2016–2020 average number of serious traffic injuries was 3,117.4, an increase from the 2015–2019 average of 3,093.4.

Target: Reduce fatalities/100 MVMT to 0.809 (2019-2023 rolling average) by 2023.

**Outcome:** Target not met. The 2016–2020 average fatality rate was 0.934, an increase from the 2015–2019 average of 0.892.

Target: Reduce the serious injury rate to 3.888 (2019-2023 rolling average) by 2023.

**Outcome:** Target not met. The 2016–2020 average serious injury rate was 5.389, an increase from the 2015-2019 average of 5.221.

**Target:** Reduce the non-motorized fatalities and serious injuries to 615.5 (2019–2023 rolling average) by 2023.

**Outcome:** Target not met. The 2016-2020 average number of non-motorized fatalities and serious injuries was 654.0, an increase from the 2015–2019 average of 634.6.

Performance Measures	Target Period	Target Year(s)	Target Value FFY 22 HSP	Data Source*/FFY 22 Progress Results	On Track to Meet FFY 22 Target
C-1) Total Traffic Fatalities	5-year	2018- 2022	466.6	2016-2020 FARS ARF 538.8	No
C-2) Serious Injuries in Traffic Crashes	5-year	2018- 2022	2,263.9	2016-2020 State 3,117.4	No
C-3) Fatalities/VMT	5-year	2018- 2022	0.774	2016-2020 FARS ARF 0.934	No
Serious Injury Rate Target	5-year	2018- 2022	3.815	2016-2020 State 5.389	No
Non-Motorized Fatalities and Serious Injuries	5-year	2018- 2022	554.7	2016-2020 FARS/State 654.0	No

				E	BASE YEAR	RS	
			2016	2017	2018	2019	2020
	PERFORMANCE PLAN CH	IART	2012- 2016	2013- 2017	2014- 2018	2015- 2019	2016- 2020
C-1	Traffic Fatalities	FARS Annual (2020-ARF)	522	558	512	535	567
	Reduce total fatalities to 485.9 (2019-2023 rolling average) by 2023.	5-Year Rolling Avg.	492.0	501.4	510.8	529.4	538.8
C-2	Serious Injuries in Traffic Crashes	State	3,167	3,347	3,233	3,122	2,718
	Reduce serious traffic injuries to 2,323.8 (2019–2023 rolling average) by 2023.	5-Year Rolling Avg.	3,025.0	3,025.2	3,079.6	3,093.4	3,117.4
C-3	Fatalities/100M VMT	FARS Annual (2020-ARF)	0.880	0.930	0.860	0.890	1.110
	Reduce fatalities/100 MVMT to 0.809 (2019- 2022 rolling average) by 2023.	5-Year Rolling Avg.	0.856	0.862	0.870	0.892	0.934
	Serious Injury Rate	State	5.370	5.588	5.422	5.192	5.372
	Reduce the serious injury rate to 3.888 (2019-2023 rolling average) by 2023.	5-Year Rolling Avg.	5.299	5.230	5.265	5.221	5.389
	Non-motorized fatalities and serious injuries	FARS + State	632	701	682	661	594
	Reduce the non- motorized fatalities and serious injuries to 615.5 (2019–2023 rolling average) by 2023.	5-Year Rolling Avg.	540.2	579.0	612.0	634.6	654.0

# **Highway Safety Strategies and Projects**

The MHSO awards grants to projects that address priority areas in Maryland's SHSP, along with target groups identified within those areas. These projects must demonstrate the greatest potential to succeed and ultimately help Maryland eliminate crash-related deaths and injuries. Grants must be compatible with the MHSO's mission, program directives, and eligibility criteria. Final awardees reflect agencies deemed most capable of addressing the strategies and projects that aid Maryland in achieving its targets and objectives.

The following sections contain descriptions of the MHSO's grant-funded programs. Each section provides:

- detailed and program-specific problem identification,
- a tie-in of the program's objectives and their relation to the Maryland SHSP,
- identified countermeasures,
- enforcement data (where applicable),
- details on national mobilizations and HVE campaigns (where applicable),
- details concerning program area grants (where applicable), and
- other relevant program area information.

Two categories of proven countermeasures are to be utilized, including those in:

- NHTSA's Uniform Guidelines for State Highway Safety Programs and
- U.S. DOT, NHTSA (2020). Countermeasures that Work, Tenth Edition, DOT HS 813 097 (referred to in the HSP as Countermeasures that Work).

A listing of the MHSO's approved projects for FFY 2023 can be found in the Program Area sections of this document.

# Maryland's Evidence-Based Traffic Enforcement Program

The MHSO has developed policies and procedures to ensure that enforcement resources are used efficiently and effectively, with the greatest impact, to support the targets of the state's highway safety program as outlined in the SHSP. Maryland incorporates an evidence-based approach in its statewide enforcement program and all grants.

FAST Act requires that Maryland participate in at least three HVE campaigns that support national priorities. Although the MHSO implements more than three HVE campaigns, those that are officially a part of national priority areas are the May Click it or Ticket mobilization, the August Drive Sober or Get Pulled Over campaign, and a dual effort in November that supports a second Click it or Ticket wave and impaired driving prevention.

#### Data-Driven Problem Identification

The statewide problem identification process used in the development of the HSP was described in the previous section entitled "Problem Identification." Data analyses are designed to identify driver characteristics of those over-involved or over-represented in crashes, along with information revealing when, where, and why crashes are occurring. Key results summarizing the problems identified are

presented in the statewide and individual program area sections of the HSP. These results are analyzed to determine typical driver demographics, along with the most frequent locations, day/month of most frequent crashes, and most frequent times of day for each problem area. Thus, the most effective program outlines for any problem area will provide current information for typical driver behavior, along with the time of day, day of week and month of year of greatest frequency, along with most frequent locations of total, serious injury, and fatal crashes in each category. These causal factors provide quantitative evidence to shape awareness, education, and enforcement strategies, and to make overtime enforcement efforts and communications efforts as effective as possible in subsequent years.

As an example, for impaired driving crash prevention and enforcement efforts combined with occupant protection efforts, Maryland crash statistics indicate that awareness, education, and prevention efforts are most effectively targeted to those who drive between 9 p.m. and 4 a.m. from Thursday through Sunday. The typical driver involved in impaired crashes, and least likely to be using seat belts, is male and aged 21 to 49. These types of information help state traffic safety and law enforcement officials target effective enforcement and education efforts.

The same targeted analytical approach is used to address and qualify all serious traffic safety problems in Maryland. Enforcement agencies receiving MHSO grant funding are required to outline and use a localized, data-driven approach to identify the enforcement issues and locations in their jurisdictions. Data documenting the identified highway safety issues must be included along with proposed strategies in the funding applications submitted to the MHSO for consideration. All law enforcement agencies are required to utilize HVE concepts when utilizing highway safety overtime funds, and various training opportunities at all levels of enforcement are provided to learn and implement these HVE techniques. Additionally, the MHSO provides a variety of statistical maps for law enforcement agencies statewide as a valuable resource in targeting and focusing on high-risk enforcement and education/awareness locations.

## Implementation of Evidence-Based Strategies

Maryland's evidence-based traffic safety enforcement methodology uses an integrated enforcement approach utilizing checkpoint inspections and saturation patrols, each as outlined in NHTSA's Countermeasures that Work guiding document. The data-driven, HVE methodology includes enforcement of traffic laws pertaining to impairment, speeding, occupant restraint usage, and other safety issues, coupled with enforcement patrols that saturate specific areas, which are well-documented in local media and describe the effort as an impaired-driving or other appropriate campaign.

Such an effort typically includes uniformed law enforcement officers saturating a high-risk crash or incidence area and engaging the driving public by stopping as many violators as possible to serve as a deterrent to improper and dangerous driving. This highly visible approach provides a public perception of risk that driving without following the law can and will result in a traffic stop, resulting in a citation or an arrest in the case of impaired driving. This comprehensive statistical and partner-based approach, often in concurrence with associated national crackdowns or campaigns and mobilizations, helps Maryland provide continuous Specific and General Deterrence of improper and unsafe driving from the causal factors outlined above.

In-depth, comprehensive enforcement efforts, combined with background and evidence provided on grant applications, guide Maryland's efforts to allocate funds to law enforcement agencies to conduct priority area-specific overtime enforcement services based on specific problem identification and recent statistical results.

The MHSO uses several sources of data to determine funding allocations. The state's 24 jurisdictions are divided into three groups based on average population over the most recent three-year period for which data is available. The most populous jurisdictions make up the top group and the least populated make up the third group. Within each group, crashes (serious injury and fatal) and citations (DUI, speed and unbelted) per vehicle miles traveled are calculated by jurisdiction.

Average ranks per jurisdiction are computed across crash and citation fields and applied to the previous year's funding allocations to determine revised funding proportions. Crash and enforcement data are used initially to determine the proper percentage of funding to be disbursed to jurisdictions within the groups. Subjective measures such as demographics, enforcement and outreach capacity, geographical considerations, seasonal fluctuations in traffic, and past performance are then used to refine the figures. From that process, each jurisdiction receives a total allocation of funding to be used in the next fiscal year. The MHSO continues to work with its data consultants to ensure that funding allocations are based on the most recent data available and that formulas are accurate, reasonable, and achievable (a more detailed description of the allocations formula is found on pages 9-10). This methodology ensures that enforcement funding is allocated to the areas in greatest need and to the agencies that are most capable of implementing the appropriate countermeasures.

The MHSO uses both quantitative and qualitative criteria to measure the desired outcomes of the MHSO's law enforcement grant programs that utilize overtime enforcement funds, including those in the aggressive driving, distracted driving, impaired driving, occupant protection, and pedestrian safety program areas. The MHSO employs a monitoring system for law enforcement reporting data that engages law enforcement partners, grant managers and MHSO team members. In addition to the productivity of officers working overtime enforcement grants, an analysis of crashes, crash fatalities, and serious injuries is utilized by MHSO staff throughout the grant monitoring process. The MHSO's four LELs provide more direct contact with individual agencies across the state. By developing relationships with law enforcement managers and traffic supervisors, the LELs monitor project success closely and efficiently provide information, training, and outreach materials.

Through this comprehensive approach, the MHSO and its law enforcement partners continually follow up, evaluate, and adjust enforcement plans accordingly. This approach improves effectiveness, enhances understanding and support of programs, and utilizes highway safety resources as efficiently as possible.

## **Continuous Monitoring**

To ensure law enforcement projects remain adaptable to any situation, various tracking mechanisms are utilized to enable MHSO program managers and law enforcement managers throughout Maryland to gain quick insights into the progress of each project. Monthly progress reports are required from each agency receiving grant funding to ensure an understanding of the goals and outcomes measuring outputs of each

project. These reports must include data on the activities conducted, such as the times worked, the numbers of vehicle contacts, and the numbers of citations issued. This type of continuous monitoring allows for small or large adjustments as needed within each jurisdiction in enough time to provide for the most efficient use of resources.

Quarterly output evaluation and continuous feedback is maintained throughout the enforcement program between the MHSO and each law enforcement agency. This ensures continuous communication during the planning, implementation, monitoring, and evaluation phases of the project. The MHSO achieves this continuity by assigning an LEL to each law enforcement agency as their project manager. The Law Enforcement Services Section Manager, working in conjunction with the MHSO Director, develops, maintains, and cultivates professional relationships with top law enforcement executives across the state to build the required top-down support for traffic enforcement efforts.

#### Areas of Focus for FFY 2023

The performance measures within individual program areas that were not met, as described in the Annual Report, will be areas of focus for FFY 2023. The SHSP will be refined to better incorporate the principals and objectives of the Safe System Approach. The first step was the addition of the word "equity" on the system-wide process within the SHSP graphic. This graphic represents the state's emphasis areas, focus groups, and data analysis. By adding equity to communication, coordination, collaboration, and evaluation, Maryland has completed the first step in communicating an enriched system that aims to eliminate traffic fatalities and serious injuries for all road users.

Additional funding will be provided to the Maryland Car Seat Assistance Program (CSAP) to allow low-/mid-income and minority populations that are within the ALICE (Asset Limited, Income Restrained, Employed) guidelines. Garrett and St. Mary's counties compliance checks will support projects previously funded through the Strategic Prevention Framework Grants. These counties will address alcohol sales and impaired driving in rural communities specifically.

Expanding campaigns in underserved categories such as agricultural and farming communities, will provide education for those road users with unique vulnerable exposure — large farm equipment that travels from farm to farm using Maryland roads.

A new grantee, Neighborhood Design will expand the Made You Look project into Prince George's County by identifying high incident areas and then targeting safety and education efforts in those communities. Prince George's County is overrepresented in pedestrian related traffic fatalities.

Maryland will work to increase the number of local SHSPs through a vast network of city and county leaders, engineers, planners, law enforcement and citizens. Currently the state has 16 existing or indevelopment local SHSPs. This expansion enables persons with a vested interest in traffic safety, beyond those at the state level, to create and implement a plan that addresses specific local issues.

Maryland has requested a NHTSA Impaired Driving Program Assessment to be completed in FFY 2023. Considerations provided by this assessment will provide a comprehensive template to strengthen our safety programs. Key recommendations from the NHTSA Pedestrian/Bicyclist Assessment in FFY 2022 will

be implemented in FFY 2023. These include but are not limited to involving law enforcement personnel during the planning stages of roadway engineering modifications through the naming of the MDOT SHA Assistant Chief & Statewide Bicycle/Pedestrian Coordinator as co-chair on the Pedestrian/Bicyclist Emphasis Area Task Force; identifying high-risk groups by crash and injury data trends and developing safety initiatives to reduce fatalities and injuries among these high risk groups including communities of interest through zip code analysis; and expanding employer-based pedestrian and bicycle safety education by working with the Chesapeake Region Safety Council who has contact with more than 14,000 workplace safety professionals and first aid/defensive driving instructors.

# **Non-Federal Funding Sources**

Federal requirements dictate that Maryland show the use of other (non-federal) sources of funding dedicated to traffic safety programs. The following is a brief outline of the various funding sources used in support of Maryland's statewide efforts, along with descriptions of the involvement and specific activities of many of Maryland's public, private, and not-for-profit partner organizations:

Agency	Funding Source	Activities Funded
AAA	Private funds	Offers school and community-based programs such as School Safety Patrol and other traffic safety programs.  Lobbies for highway safety legislation.
AARP	Private, non- Profit	AARP Smart Driver Training and other older driver training programs.
Department of Health and Mental Hygiene, Alcohol and Drug Abuse Administration (ADAA)	State funds and other solicited/awarded federal funding sources	Support to the Maryland Strategic Prevention Framework and continued maintenance of the treatment and pharmacy data through the Statewide Automated Record Tracking system, the Prescription Drug Monitoring Program, and the Controlled Dangerous Substance Integration Unit.
Department of Public Safety and Correctional Services(DPSCS)	State funds	Responsible for the Criminal Justice Information (CJI) System for the Maryland criminal justice community, including the courts; local, state, and federal law enforcement agencies; local detention centers; state prisons; state's attorneys; and parole and probation officers. The CJI System provides official records on persons arrested and convicted inMaryland. Agency also houses the MPCTC, which oversee the certification of enforcement officers for the state.
District Court of Maryland (DCM) and Judicial Information Systems (JIS)	State funds	Responsible for formatting and printing Maryland Uniform Complaint and Citation forms, setting pre- payable fine amounts, adjudicating traffic cases, and maintaining disposition data.
Governor's Office of Crime Control and Prevention (GOCCP)	State and federal funds	Responsible for improving public safety and administration of justice, and reducing/preventing crime, violence, delinquency, and substance abuse. To these ends, it helps draft legislation, policies, plans, programs, and budgets. Administers enforcement and community safety grants.  Publishes race-based traffic stop data analysis and race-based traffic stops data dashboard annually.

Agency	Funding Source	Activities Funded
Health Services Cost Review Commission	State funds	Responsible for the regulation of hospital rates. Provides support and maintenance of the statewide integration system for all hospitals.
Local jurisdiction, and municipal Public Works and Transportation Departments	Jurisdiction- specific, local and municipal funds	Support and maintenance of the collection of roadway data such as roadway maintenance, design, and other infrastructure information.
Maryland Chiefs of Police Association (MCPA)	Member dues, fees	Provides training and promotes professional standards for local enforcement officials.  Association includes executive law enforcement officers, prosecutors, police legal advisers, members of the State Police Training Commission, private security directors, and interested citizens.
Maryland Department of Health and Mental Hygiene – Kids in Safety Seats (KISS)	State funds	Administrative, technical and programmatic support for the KISS program, educational efforts aimed at the correct use of seat belts and child safety seats. These partners provide the training and certification of CPS technicians and instructors, and the promotion of child safety seat fitting stations.
Maryland Department of Health and Mental Hygiene, Office of the Chief Medical Examiner	State funds	Support and continued maintenance of the collection of data on drivers involved in fatal crashes, and data provision to the Maryland State Police.
Maryland Department of Information and Technology (DoIT)	State funds	The designated state entity responsible for information technology across state agencies. Provides coordination for the purchase and management of all telecommunications devices and systems utilized by state agencies.
Maryland Department of Transportation Motor Vehicle Administration's Maryland Highway Safety Office (General Funds)	State funds	State funds pay salary and benefits for the following MHSO positions: Director, Deputy Director, Finance Section Manager, two finance managers, and the Data Processing and Quality Assurance Specialist.
Maryland Department of Transportation Motor Vehicle Administration (MDOT MVA)	State funds	MDOT MVA manages the State Ignition Interlock Program; monitors Maryland graduated drivers licensing laws; manages Medical Advisory Board and Motorcycle Safety Program; and supports systems for driver records, vehicle registrations and violations.

Agency	Funding Source	Activities Funded
Maryland State Police, Maryland Transportation Authority Police, local jurisdiction, and municipal law enforcement agencies – Enforcement Mobilization Projects	State, local and municipal funds	Maryland State Police, Maryland Transportation Authority Police, local jurisdictions, and municipal funding for regular duty pay/benefits, office space, supplies and equipment, court overtime, vehicles, and vehicle use on state, local and municipal roadways. In addition, these partners provide support to Child Passenger Safety fitting stations throughout the state by training and certifying CPS Technicians and by conducting child safety seat inspections. They also support and maintain systems tracking traffic citations and arrests, used in project evaluation and analysis.
Maryland State's Attorneys' Association	Member dues, fees	Coordination of statewide efforts to improve prosecution and adjudication of DUI cases.
MDOT Maryland Transit Administration (MDOT MTA)	State and federal funds	Provides and supports accessible statewide public transportation networks and services that are customer-focused, safe, appealing, reliable, and efficient. Provides security and law-enforcement services, is a key provider of traffic safety information, and uses traffic records to determine day of week and hour of day for best customer service and safety enforcement opportunities.  Engages in research, development, and implementation of roadside data-capture technology to expedite the flow and safety of mass transit customers.
Mothers Against Drunk Driving (MADD)	Private, non- Profit	School and community-based traffic safety information programs.
Office of Administrative Hearings (OAH) and courts in local jurisdictions	Jurisdiction, local and municipal funds	Support and maintenance of hearings for the opt-in option under a points assignment associated with mandates for repeat offenders.
Regional Integrated Transportation Information System, Center for Advanced Transportation Technology Laboratory, University of Maryland	State and federal funding	Support and maintenance of automated data sharing, dissemination, and archiving system to communicate information among agencies and tothe public.

Agency	Funding Source	Activities Funded
University of Maryland School of Pharmacy	State funds and other solicited/awarded federal funding sources such as Substance Abuse and Mental Health Services Administration	Support and continued maintenance of Maryland Statewide Epidemiologic Outcomes Workgroup (SEOW) and the Maryland Strategic Prevention Framework (MSPF) in 24 jurisdictions across the State.
Washington College	Private institution funds; other solicited/awarded federal funding sources	Direct support to highway safety programs incorporating geo-located traffic safety data.
Washington Regional Alcohol Program(WRAP)	Private, non- profit	School and community-based traffic safety information programs.

# Maryland Statewide Crash Summary

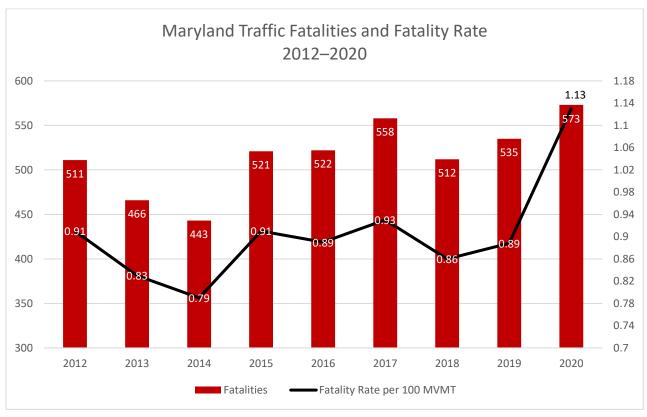
In 2020, 573 people were killed—a 7.1 percent increase from 2019 — in 95,507 police-reported traffic crashes in Maryland, while 36,754 people were injured, and 69,630 crashes involved property damage only. In total, 349 drivers (268 vehicle drivers and 81 motorcycle operators), 153 non-motorists, and 71 passengers were killed on Maryland roads. The fatality rate for Maryland decreased from 0.93 in 2017 to 0.86 in 2018, then rose again to 0.89 in 2019 and to 1.13 in 2020; however, the overall fatality rate has consistently been lower than the national fatality rate every year since 1992.

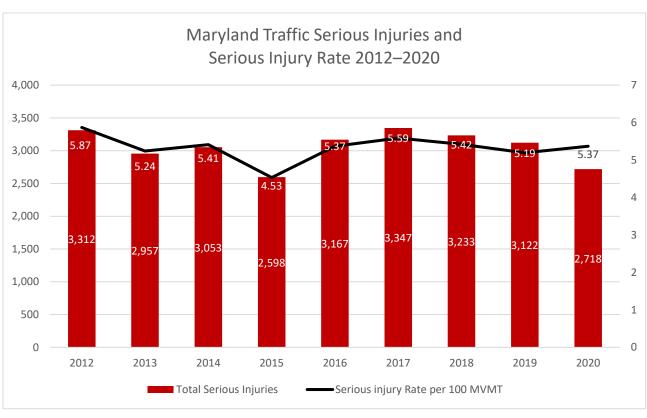
On average in 2020, one person was killed every 15 hours, 100 people were injured each day (4 injured every hour), and 261 police-reported traffic crashes occurred every day.

# Statewide Total Crashes, Injury Crashes, Fatal Crashes, Injuries, and Fatalities

	2016	2017	2018	2019	2020	5-Year Average
Fatal Crashes	483	518	485	496	546	506
Injury Crashes	34,737	34,664	33,936	32,928	25,342	32321
Property Damage Crashes	85,125	80,259	83,626	82,561	69,674	80249
Total Crashes	120,345	115,441	118,047	115,985	95,562	113,076
Total of All Fatalities	522	558	512	535	573	540
Total Number Injured	50,943	51,391	50,011	48,668	36,765	47,556

Source: Crash data are obtained from the MDOT State Highway Administration, which maintains a database derived from crash reports submitted to, processed and approved by, the Maryland State Police. Data are subject to change.





On average, crashes in the Baltimore and Washington metropolitan regions accounted for 90.0 percent of the state's annual crashes.<sup>1</sup> More than 17,000 crashes occurred in Baltimore and Prince George's Counties in 2020, accounting for over 36 percent of all crashes reported statewide. Prince George's County also was the site of the greatest number of fatal crashes in Maryland in 2020.

Crashes occurred consistently through the year on Maryland's roadways, spread relatively evenly through the calendar year. On average, however, slightly fewer crashes occurred in January, February, March, and April. Crashes tended to increase significantly in May but occurred most frequently in October, November, and December. Regardless of the month, more crashes occurred on Fridays and during afternoon or early evening hours in Maryland. Nine percent of daily crashes occurred from midnight to 5 a.m.

Young adult drivers, ages 21 to 29, represented approximately one in every five drivers (19.4 percent) involved in Maryland crashes. These young adults also comprised a large share of injuries (22.8 percent) and deaths (23.0 percent) resulting from crashes on Maryland roadways.

Females accounted for one-third (32.5 percent) of drivers involved in crashes yet accounted for nearly half (48.7 percent) of the drivers injured. Males accounted for 47.9 percent of drivers involved in crashes yet accounted for more than three-quarters (77.9 percent) of fatally injured drivers.

<sup>&</sup>lt;sup>1</sup> Baltimore Region: Anne Arundel, Baltimore, Carroll, Harford, Howard, Queen Anne's, Baltimore City Washington Region: Calvert, Charles, Frederick, Montgomery, Prince George's

General Crash Factors (2016-2020 Averages)					
Factor	Variable	Percentage			
Age (drivers)	21–34	<ul><li>29% of involved</li><li>34% of injured</li><li>33% of killed</li></ul>			
Sex (drivers)	Male	<ul><li>48% of involved</li><li>50% of injured</li><li>78% of killed</li></ul>			
Month	October–December (total crashes);  May–July (injury crashes); August– October (fatal crashes)	<ul> <li>Oct.– Dec., total crashes – 27%</li> <li>May – July, injury crashes – 26%</li> <li>Aug. – Oct., fatal crashes – 29%</li> </ul>			
Day of Week	Friday (total and injury crashes); Saturday (fatal crashes)	<ul> <li>Fri. total crashes – 16%</li> <li>Fri. injury crashes – 16%</li> <li>Sat. fatal crashes – 18%</li> </ul>			
Time of Day	2 p.m.–7 p.m. (total/injury crashes) 9 p.m.–4 a.m. (fatal crashes)	<ul> <li>Total crashes – 39%</li> <li>Injury crashes – 41%</li> <li>Fatal crashes – 36%</li> </ul>			
Road Type	State Roads (IS, US, MD)	<ul> <li>Total crashes – 47%</li> <li>Injury crashes – 53%</li> <li>Fatal crashes – 70%</li> </ul>			
Jurisdiction	Baltimore City; Baltimore, Montgomery, and Prince George's counties (total, injury, and fatal crashes)	<ul> <li>Total crashes – 64%</li> <li>Injury crashes – 62%</li> <li>Fatal crashes – 47%</li> </ul>			

Source: Based on Maryland State Police crash data provided by the MDOT SHA.

# Maryland Safety Program Areas – Problem Identification, Solutions, and Evaluation

# Impaired Driving Program

# **Problem Identification**

The number of impaired driving crashes in 2020 decreased by approximately 9.4 percent since 2019, yielding the lowest point for impaired driving crashes within the past five years. Despite the decrease in total crashes, fatal crashes involving alcohol and/or drugs increased by 32.1 percent since 2019, resulting in a 23.2 percent increase in the number of fatalities.

While one in 36 crashes involving driver impairment resulted in a fatality in 2020, almost one-third (31.7 percent) of all fatal crashes in the state involved alcohol and/or drugs. Although every impaired driving crash does not result in a fatality, impairment is often a significant factor when a fatality does occur. This relatively high rate of occurrence and correlation between impaired driving and fatal crashes and fatalities on Maryland roadways has made impaired driving a crucial focus point for traffic safety and law enforcement professionals throughout the state.

In 2020, Maryland law enforcement officers issued 38,022 citations for impaired driving (total of all citations issued, not total persons cited; in a single stop, an impaired driver may be cited for two or three violations), which translates to a total of 13,651 arrested drivers. This is compared to 18,279 in 2019 and 18,403 arrests in 2018. Comparably, the MHSO and its SHSP EAT partners are turning more attention to drugged driving in Maryland. In 2020, there were 6,892 citations issued to drivers for operating a vehicle while impaired by drugs or controlled dangerous substances (CDS), compared to 7,756 written in 2019 and 6,897 written in 2018.

#### Frequency of Impaired Crashes

For 2016 through 2020, impaired driving crashes (both total and injury) occurred consistently throughout the year, with a slight increase in December. A higher percentage of fatal crashes involving impairment occurred in April and August. But, for the full seven-month period from April through October, incorporating the typical warm-weather driving months, more than half of all impaired driving crashes (59 percent), and about two in every three impaired fatal crashes (63 percent) occurred.

Approximately eight percent of yearly impaired driving crashes occurred each month, while 57 percent of all impaired crashes occurred on a Friday, Saturday, or Sunday, and crashes resulting in death or injury were highest on Saturdays and Sundays. Crashes began to increase from the late afternoon through the early morning hours and saw a dramatic fall after 3 a.m. Approximately 32 percent of fatal crashes occurred between midnight and 4 a.m.

A total of 58 percent of impaired crashes occurred from Friday through early Sunday morning. More than two in three (69 percent) of all impaired crashes occurred from Thursday through Sunday.

#### Typical Profile of Impaired Driver/High-Rick Crash Locations

Data indicates 47 percent of drivers involved in an impaired driver crash were 20–39 years old. In addition, drivers in their 20s and 30s were involved in approximately 55 percent of impairment involved crashes resulting in an injury or death.

In addition, 38 percent of impaired drivers and 43 percent of passengers killed in impaired crashes were not wearing a seat belt. In comparison, in overall crashes, 30 percent of drivers killed (and 37 percent of passengers) were not wearing their seat belts, indicating that impaired drivers are less inclined to buckle up.

This combination of impaired driving and reduced usage of seat belts, particularly during late-night hours, indicates an opportunity for effective crossover or combined outreach efforts by the state, utilizing impaired and occupant protection messages. Additionally, use of this data set provides law enforcement the opportunity to combat impaired driving by implementing nighttime seat belt enforcement strategies.

More than three in every four crashes involving impaired drivers (80 percent) occurred in nine Maryland counties plus the city of Baltimore, including Anne Arundel, Baltimore, Charles, Frederick, Harford, Howard, Montgomery, Prince George's, and Washington counties. These counties also represented the top counties in Maryland for percentage of total crashes involving unrestrained occupants.

These profiles together help define the most effective target focus of statewide education and media campaigns and enhanced enforcement efforts for both impaired driving and non-use of seat belts.

The most frequently noted driver demographic information and locations were: male drivers, aged 20–39, driving between 8 p.m. and 4 a.m. in the jurisdictions of the nine counties above, plus Baltimore City, mainly on state and county roadways.

#### Solution

The MHSO will continue to be an active participant in NHTSA's HVE national mobilizations in August, November, and December each year. Numerous other high- visibility enforcement waves will be determined by the MHSO. Law enforcement efforts are coordinated to support national mobilizations using data-driven media, outreach, education, and HVE efforts, such as those cited in the impaired driving problem identification. The MHSO's enforcement plans directly address the need for collaboration during national mobilizations.

Survey and statistical data indicate that statewide enforcement efforts such as DUI checkpoints and saturation patrols provide general deterrence and tend to encourage many drivers to alter their drinking behavior even as they remove impaired drivers from the roadways. Thus, such enforcement efforts are proven countermeasures to reduce impaired driving crashes.

The MHSO will continue to fund the State Police Impaired Driving Reduction Effort (SPIDRE), with teams dedicated to the Baltimore and Washington metro regions and will invest heavily in accompanying education and media components to prevent drivers from getting behind the wheel after consuming alcohol. The MHSO's campaign, Be the Driver, has two subthemes focused on impaired driving that encourages personal responsibility for drivers to either Be the SOBER Driver or Be the MAKE A PLAN

Driver. The MHSO provides resources to encourage people to join the fight against impaired driving by providing or securing safe rides for friends. targeting educational efforts primarily to identified high-risk driving populations, ages 21–34.

Maryland also utilizes a Traffic Safety Resource Prosecutor (TSRP), and coordinates efforts with public and private partners, such as Mothers Against Drunk Driving (MADD) and the Washington Regional Alcohol Program (WRAP). In addition to the TSRP, the MHSO has received funding from the American Bar Association (ABA) in a grant to fund a State Judicial Outreach Liaison (SJOL). This position greatly enhances the MHSO's outreach to judges in both circuit- and district-level courtrooms, particularly in relation to impaired driving case adjudication. The grant is being overseen by a combination of the MHSO, NHTSA, and the ABA and will be in place for at least one more year.

The MHSO will continue to target impaired driving through collaborative partnerships among state and local government agencies, legislative and judicial leaders, regional authorities, and non-governmental organizations. Together, these kinds of agencies and professionals are collaborating as Maryland's Impaired Driving EAT with a mission to strengthen and enforce impaired driving laws, and to educate the public about the dangers of impaired driving. The Impaired Driving EAT oversees and ensures the implementation of Maryland's SHSP strategies related to impaired driving. This team will continue to address the complex issue of impaired driving through targeted public information, education, enforcement efforts, and support of training and education for judges and prosecutors involved with the legal issues of impaired driving. The team is also tasked with fulfilling strategies ranging from increasing the effectiveness of enforcement to ensuring that data is received in a timely fashion.

MHSO has requested an assessment of the Impaired Driving Program conducted in partnership with the NHTSA Region 3 Office beginning in May 2023. MHSO plans to use the recommendations from the assessment in the following manner: Through the team of experts, we expect a report that compares our current program status to NHTSA's Program Advisory, an overview of our program's strengths and weaknesses, and recommendations to reduce impaired driving in Maryland. Once the final report is reviewed and accepted, senior level management will create a work plan that addresses all recommendations and establishes time frames for implementation. The report and chart of recommendations will be shared first with the Impaired Driving Statewide Manager and then with the Impaired Driving Emphasis Area Team. Action steps will be added to the SHSP tracker, a tool established in 2021 for all emphasis areas that measures progress toward SHSP strategies and goals. Members of the Impaired Driving Emphasis Area Team will work together, under the direction of the Statewide Program Manager, to implement recommendations.

# **High-Visibility Enforcement**

As outlined in the problem identification/solution, the FFY 2023 Maryland Impaired Driving Enforcement Plan is based on crash and citation data that is analyzed and mapped for state, county, and municipal law enforcement agencies, to support impaired driving enforcement operations in the highest-risk areas for impaired crashes. This plan is intended to provide grant-funded overtime enforcement resources to state and local law enforcement agencies within a required framework for impaired-driving countermeasures

during high-visibility enforcement periods, while maintaining year-round enforcement visibility, including occupant protection enforcement as appropriate during these periods.

Guidelines and performance measures included in the plan are directly tied to impaired driving grant funds and are monitored by the MHSO's four LELs and Law Enforcement Program Manager.

Documentation of efforts is captured in quarterly progress reports and law enforcement logs. The plan requires clear expectations, solid documentation of efforts, and continuing follow-up among law enforcement partners conducting impaired driving initiatives statewide.

Results of operations conducted on behalf of Maryland's Impaired Driving Enforcement Program are evaluated through process measures reported in the MHSO's grant system and are monitored by the LELs and the Impaired Driving Program Manager. Coordinated HVE efforts among local, municipal, and state police agencies are strongly encouraged toward the following impaired driving enforcement goals. Up to nine statewide impaired driving enforcement waves are organized throughout the year, including NHTSA's two national mobilizations (in August & November/December).

#### **Key Aspects of Sobriety Checkpoints**

- Low-manpower checkpoints are encouraged.
- Unmanned or "phantom" checkpoints are considered a valuable tool and can be conducted.
- Nighttime enforcement emphasis is critical.
- Enforcement coupled with speed and seat belt enforcement as key factors is allowable/encouraged.
- DUI enforcement using channelization and emphasis on seat belt observations is acceptable.
- Using speed observation is an acceptable practice to identify impaired drivers.
- Data indicate that speed and non-seat belt use are key factors in identifying drunk drivers.
   Data by county relative to these factors is available.

#### **Key Aspects of Highly Visible Saturation Patrols**

- Saturation patrols should include no less than two patrol cars in a county (saturation can occur on separate roadways as needed).
- Maryland State Police follow internal policy for saturation patrols
- Continuous communications efforts including signage, digital message boards and other efforts to inform drivers of saturation patrols in action (DUI Enforcement Zone, magnets, etc.), and including the use of social media and press releases before and after patrols to raise awareness.

#### **Action Plan**

SHSP Strategy:

The impaired driving projects funded for FFY 2023 are representative of evidence-based countermeasures and address the impaired driving issue using a multifaceted approach.

Project Agency: Calvert Alliance Against Substance Abuse, Inc.		
Program Area: Impaired Driving	Project Number: GN 23-245	
Project Funds / Type: \$6,460.00 / FA 402	Indirect Costs / Type:	
Countermeasures: NHTSA Countermeasures That Work (2017, 9th Edition)		

• Promote a systematic safety culture through the support of outreach initiatives including public awareness, education, training, and media campaigns focused on the concerns of the impaired by alcohol and drugged driving emphasis area.

**Project Description:** The Calvert Alliance Against Substance Abuse, Inc. (CAASA) will conduct a local DUI public awareness effort during 3D month with the state and county law enforcement agencies. This effort includes a presentation before the Calvert County Board of County Commissioners with awards to be given to the law enforcement officers with the most DUI arrests and information disseminated to the public about local and state impaired driving crashes and arrests. Media will be present, and the event will be televised online. This funding will pay for a breakfast or luncheon to recognize local law enforcement officers for their efforts and plaques to be awarded to those officers.

In addition, CAASA will partner with Calvert County Public Schools, local law enforcement agencies, local businesses, and community agencies to provide education outreach to students regarding the dangers of underage drinking and impaired driving. Efforts include prom and graduation messaging that will include messaging at the event/ceremony locations, local media ads, and dissemination of underage drinking awareness information to parents and students at school events. In addition, awareness information to local businesses on not selling alcohol to minors, encouraging local hotels not to rent to those underage, dissemination of underage drinking/social hosting info cards distributed at sobriety checkpoints. Grant funding will support the rental of DUI driving simulators for up to four high schools. This outreach will allow students to drive in a simulated impaired mode. It demonstrates the dangerous effects of DUI/DWI driving, such as delayed response to controls and narrowing the effective field of view.

Project Agency: Mothers Against Drunk Driving		
Program Area: Impaired Driving	Project Number: GN 23-062	
Project Funds / Type: \$9,796.48 / BIL 405d AL (Note: Total includes Indirect Cost)	Indirect Costs / Type: \$890.59 / BIL 405d AL	

Countermeasures: NHTSA Countermeasures That Work (2017, 9th Edition)

# SHSP Strategy:

• Promote a systematic safety culture through the support of outreach initiatives including public awareness, education, training, and media campaigns focused on the concerns of the impaired by alcohol and drugged driving emphasis area.

**Project Description:** This project will provide ongoing opportunities to fulfill MADD's mission to stop drunk driving, support victims of this violent crime, and prevent underage drinking by educating and equipping youth to talk with each other about alcohol. During the grant year MADD will work with schools, community groups, and local area partners to talk to teens and teach them why it is important to say no to alcohol.

Project Agency: Maryland Sheriffs' Association, Inc.		
Program Area: Impaired Driving	Project Number: GN 23-204	
Project Funds / Type: \$19,250.00 / BIL 405d AL (Note: Total includes Indirect Cost)	Indirect Costs / Type: \$1,750.00 / BIL 405d AL	

Countermeasures: NHTSA Countermeasures That Work (2017, 9th Edition)

# SHSP Strategy:

- Promote a systematic safety culture through the support of outreach initiatives including public awareness, education, training, and media campaigns focused on the concerns of the impaired by alcohol and drugged driving emphasis area.
- Support the enforcement of laws pertaining to the impaired by alcohol and drugged driving emphasis area, as well as support enforcement initiatives that promote safe behaviors.

Project Description: The MCPA will sponsor the University of Maryland's DUI Institute and DUI Conference. The registrations and awards offered by the MCPA allow patrol officers from across the state who excel in DUI enforcement to be trained in all aspects of the issues surrounding DUI enforcement and recognized for their efforts. This training is not designed to teach officers how to find, test and apprehend suspected impaired drivers, but is designed to look at the bigger picture and issues surrounding DUI arrest.

Project Agency: Maryland State's Attorneys' Association		
Program Area: Impaired Driving	Project Number: GN 23-053	

 Project Funds / Type: \$26,337.85 / BIL 402;

 \$148,634.75 / BIL 405d AL (Note: Total includes
 Indirect Costs / Type: \$2,394.35 / BIL 402;

 \$13,512.25 / BIL 405d AL
 \$13,512.25 / BIL 405d AL

Countermeasures: NHTSA Countermeasures That Work (2017, 9th Edition)

#### SHSP Strategy:

• Promote a systematic safety culture through the support of outreach initiatives including public awareness, education, training, and media campaigns focused on the concerns of the impaired by alcohol and drugged driving emphasis area.

**Project Description:** This project supports Maryland's TSRP Program. The TSRP Program consists of a full-time attorney who provides statewide training, education, and technical support to traffic crimes prosecutors and law enforcement agencies. The project also includes funds for prosecutors to attend the DUI Institute for Prosecutors at the University of Maryland, a program developed in collaboration with the MSAA, and the MHSO. The TSRP also serves as a regular participant on the Impaired Driving, Speeding/Aggressive Driving, and Distracted Driving Emphasis Area Team committees, as well as on the Crash Reconstruction and Traffic Safety committees.

Project Agency: Maryland State Police – DRE		
Program Area: Impaired Driving	Project Number: GN 23-264	
Project Funds / Type: \$352,737.88 / BIL 405d AL	Indirect Costs / Type:	
Countermeasures: NHTSA Countermeasures That Work (2017, 9th Edition)		

#### SHSP Strategy:

- Promote a systematic safety culture through the support of outreach initiatives including public awareness, education, training, and media campaigns focused on the concerns of the impaired by alcohol and drugged driving emphasis area.
- Support the enforcement of laws pertaining to the impaired driving Emphasis Area, as well as support enforcement initiatives that promote safe behaviors.

**Project Description:** This grant will fund the statewide DRE Coordinator and the statewide efforts to train, retrain, and certify drug recognition experts and drug recognition expert instructors. Three DRE classes will be conducted in order to train new DREs at a rate faster than current DREs exit the program. The funds will also help recertify drug recognition experts and drug recognition expert instructors every two years.

The addition of the lead Toxicologist to the State Laboratory's Toxicology unit will increase the ability of the lab to certify new instruments and testing methods to confirm additional substances. Funding will be allocated to support this position in the Forensic Sciences Division. Additionally, funding will be used to

support contractual services to validate the equipment used by the Toxicology Unit to ensure it is in compliance with accepted standards and practices.

Project Agency: St. Mary's County Health Department		
Program Area: Impaired Driving	Project Number: GN 23-224	
Project Funds / Type: \$10,400.00 / BIL 405d AL	Indirect Costs / Type:	
Countermeasures: NHTSA Countermeasures That Work (2017, 9th Edition)		

# SHSP Strategy:

• Promote a systematic safety culture through the support of outreach initiatives including public awareness, education, training, and media campaigns focused on the concerns of the impaired by alcohol and drugged driving emphasis area.

# Project Description:

This project supports St. Mary's County high schools during Project Graduation in the form of driving simulators. Utilizing the Drive Square company, two simulators at each of the four county high schools will be utilized for students. In addition to a virtual impaired driving experience testing their skills and giving them an understanding of how driving under the influence can impact driving skills, four educational sessions will be provided as a complement to the simulators. St. Mary's Project Graduation event serves the County's three public high schools and two private high schools over four nights. Graduates and guests are required to commit to remaining alcohol and drug-free during the event. Round trip transportation is provided in school buses from the graduation ceremony to the Project Graduation site for all graduates and their guests.

Project Agency: Worcester County Health Department				
Program Area: Impaired Driving Project Number: GN 23-167				
Project Funds / Type: \$16,500.00 / BIL 405d AL (Note: Total includes Indirect Cost)				
Countermeasures: NHTSA Countermeasures That Work (2017, 9th Edition)				

#### SHSP Strategy:

• Promote a systematic safety culture through the support of outreach initiatives including public awareness, education, training, and media campaigns focused on the concerns of the impaired by alcohol and drugged driving emphasis area.

**Project Description:** This project supports a minimum of 200 compliance checks that are conducted by the Worcester County Sheriff's Office and Ocean City Police Department, many of them in the Ocean City resort area. This project also supports a virtual recognition event for liquor license establishments that pass compliance checks by undercover cadets and issues certificates to those licensees.

Project Agency: Washington Regional Alcohol Program			
Program Area: Impaired Driving Project Number: GN 23-097			
Project Funds / Type: \$246,581.00 / BIL 405d AL (Note: Total includes Indirect Cost)  Indirect Costs / Type: \$41,096.83 / BIL 405d AL			

Countermeasures: NHTSA Countermeasures That Work (2017, 9th Edition)

#### SHSP Strategy:

• Promote a systematic safety culture through the support of outreach initiatives including public awareness, education, training, and media campaigns focused on the concerns of the impaired by alcohol and drugged driving emphasis area.

**Project Description:** WRAP's individual programs include youth, parental, and adult outreach as well as law enforcement recognition, the SoberRide campaign, and the "Maryland Remembers" memorial event. WRAP is an active member of Maryland's SHSP Team. Additionally, WRAP's President co-chairs the SHSP Impaired Driving EAT.

Project Agency: Mothers Against Drunk Driving			
Program Area: Impaired Driving	Project Number: GN 23-062		
Project Funds / Type: \$55,990.44 / BIL 402 (Note: Total includes Indirect Cost)	Indirect Costs / Type: \$5,090.04 / BIL 402		

Countermeasures: NHTSA Countermeasures That Work (2017, 9th Edition)

#### SHSP Strategy:

 Promote a systematic safety culture through the support of outreach initiatives including public awareness, education, training, and media campaigns focused on the concerns of the impaired by alcohol and drugged driving emphasis area.

**Project Description:** This project will provide ongoing opportunities to fulfill MADD's mission to stop drunk driving and prevent underage drinking by educating and equipping youth to talk with each other about alcohol. During the grant year MADD will work with schools, community groups, and local area partners to talk to teens and teach them why it is important to say no to alcohol.

Project Agency: Worcester County Health Department			
Program Area: Impaired Driving	Project Number: GN 23-167		
Project Funds / Type: \$3,814.80 / BIL 402 (Note:	Indirect Costs / Type: \$346.80 / BIL 402		
Total includes Indirect Cost)			

Countermeasures: NHTSA Countermeasures That Work (2017, 9th Edition)

# SHSP Strategy:

 Promote a systematic safety culture through the support of outreach initiatives including public awareness, education, training, and media campaigns focused on the concerns of the impaired by alcohol and drugged driving emphasis area.

**Project Description:** This project supports alcohol compliance checks conducted by Ocean City PD and the Worcester County Sheriff's Office. A minimum of 200 compliance checks are conducted under this program, many of them in the Ocean City resort area. This grant also supports a full-page ad in the local newspaper listing compliant alcohol nominees and a "virtual" recognition event for liquor license establishments that pass compliance checks by undercover cadets. Certificates will be mailed to the recognized alcohol licensees.

For all the enforcement-related grants listed below, the following information applies:

Project Agency: Various (see below)	
Program Area: Impaired Driving Prevention	Project Number: Various (see below)
D E / E	

Project Funds / Type: \$1,671,107.51 / FA 405d AL

Countermeasures: NHTSA Countermeasures That Work (2017, 9th Edition)

#### SHSP Strategy:

• Support the enforcement of laws pertaining to the impaired driving Emphasis Area, as well as support enforcement initiatives that promote safe behaviors.

**Project Description:** HVE for impaired driving prevention.

Application Number	Agency	Program Area	Project Title	Obligated Amount
LE 23-143	Aberdeen Police Department	Impaired Driving	Aberdeen Police Department Traffic Safety	\$1,000.00

Application Number	Agency	Program Area	Project Title	Obligated Amount
LE 23-075	Anne Arundel County Police Department	Impaired Driving	Impaired Driving	\$35,000.00
LE 23-201	Baltimore City Police Department	Impaired Driving	Impaired Driving	\$5,000.00
LE 23-012	Baltimore County Police Department	Impaired Driving	Impaired Driving	\$150,000.00
LE 23-042	Bel Air Police Department	Impaired Driving	Impaired Driving	\$2,805.00
LE 23-059	Berlin Police Department	Impaired Driving	Berlin DWI 2023	\$3,000.00
LE 23-025	Calvert County Sheriff	Impaired Driving	Impaired Driving	\$15,500.00
LE 23-129	Carroll County Sheriff	Impaired Driving	Drive Sober	\$17,000.00
LE 23-240	Cecil County Sheriff	Impaired Driving	Impaired Driving	\$4,015.00
LE 23-118	Charles County Sheriff	Impaired Driving	Impaired Driving	\$25,000.00
LE 23-096	Chestertown Police Department	Impaired Driving	Chestertown Police Department DUI Grant	\$1,494.00
LE 23-085	City of Bowie	Impaired Driving	Bowie City Impaired and DRE	\$3,500.00
LE 23-253	City of Hyattsville Police Department	Impaired Driving	Impaired Driving	\$5,000.00
LE 23-076	Cumberland Police Department	Impaired Driving	DUI Enforcement	\$2,000.00
LE 23-259	Denton Police Department	Impaired Driving	Booze = No Keys - 2023	\$960.00
LE 23-127	Easton Police Department	Impaired Driving	Impaired Driving Enforcement	\$14,812.00

Application Number	Agency	Program Area	Project Title	Obligated Amount
LE 23-211	Elkton Police Department	Impaired Driving	Drive Sober	\$2,480.00
LE 23-001	Frederick Police Department	Impaired Driving	Impaired Driving	\$20,000.00
LE 23-237	Frostburg City Police Department	Impaired Driving	Impaired Driving Grant	\$993.56
LE 23-090	Fruitland Police Department	Impaired Driving	FPD DUI Overtime	\$3,990.00
LE 23-014	Gaithersburg Police Department	Impaired Driving	Impaired Driving	\$14,528.00
LE 23-174	Hagerstown Police Department	Impaired Driving	FY23 MHSO Impaired Driving	\$1,000.00
LE 23-166	Hampstead Police Department	Impaired Driving	Alcohol OT	\$2,500.00
LE 23-004	Harford County Sheriff	Impaired Driving	Harford County Sheriff's Office Traffic Safety	\$60,000.00
LE 23-066	Havre de Grace Police Department	Impaired Driving	DUI Enforcement	\$1,500.00
LE 23-074	Howard County Police Department	Impaired Driving	Impaired Driving	\$38,000.00
LE 23-134	Kent County Sheriff	Impaired Driving	Kent County DWI Enforcement	\$990.00
LE 23-222	La Plata Police Department	Impaired Driving	Impaired Driving	\$4,000.00
LE 23-086	Laurel Police Department	Impaired Driving	Impaired Driving	\$8,000.00
LE 23-021	Manchester Police Department	Impaired Driving	Saturation Patrol	\$1,000.00
LE 23-078	Maryland Natural Resources Police	Impaired Driving	Harford County Traffic Task Force	\$1,000.00

Application Number	Agency	Program Area	Project Title	Obligated Amount
LE 23-233	Maryland Transportation Authority Police	Impaired Driving	Impaired Driving	\$41,000.00
LE 23-102	Montgomery County Police Department	Impaired Driving	Impaired Driving	\$95,000.00
LE 23-028	Montgomery County Sheriff	Impaired Driving	Montgomery County Sheriff's Office Law Enforcement Grant FFY 2023	\$10,000.00
LE 23-261	Maryland State Police – Mob Unit	Impaired Driving	Mobile Alcohol Breath Testing Truck	\$35,450.00
LE 23-266	Maryland State Police – SPIDRE	Impaired Driving	SPIDRE Team	\$405,000.00
LE 23-248	Maryland State Police – Statewide	Impaired Driving	Saturation Patrols	\$391,700.00
LE 23-107	Mt. Airy Police Department	Impaired Driving	Impaired Driving	\$2,000.00
LE 23-100	Ocean City Police Department	Impaired Driving	OCPD FY23 Highway Safety Grant - Impaired Driving	\$19,536.00
LE 23-156	Ocean Pines Police Department	Impaired Driving	Impaired Driving	\$1,998.00
LE 23-019	Perryville Police Department	Impaired Driving	Perryville DUI patrols	\$1,500.00
LE 23-180	Prince George's County Police Department	Impaired Driving	2023 Impaired Driving Grant	\$115,000.00
LE 23-171	Princess Anne Police Department	Impaired Driving	DUI 2023	\$3,991.16
LE 23-009	Queen Anne's County Sheriff	Impaired Driving	Impaired driving/Distracted	\$13,000.00

Application Number	Agency	Program Area	Project Title	Obligated Amount
LE 23-039	Riverdale Park Police Department	Impaired Driving	Impaired	\$5,000.00
LE 23-070	Rockville Police Department	Impaired Driving	Impaired Driving	\$6,000.00
LE 23-150	Salisbury Police Department	Impaired Driving	Impaired Driving Application	\$4,000.00
LE 23-099	Seat Pleasant Police Department	Impaired Driving	Sober Ride (Impaired Driving)	\$3,000.00
LE 23-252	Somerset County Sheriff	Impaired Driving	Somerset County Sheriff's Office Impaired Driving	\$4,000.00
LE 23-054	St. Mary's County Sheriff	Impaired Driving	Saturation Patrols	\$13,500.00
LE 23-161	Sykesville Police Department	Impaired Driving	Call a ride	\$1,999.99
LE 23-030	Takoma Park Police Department	Impaired Driving	Impaired Driving	\$3,000.00
LE 23-044	Talbot County Sheriff	Impaired Driving	2023 Impaired Driving	\$5,000.00
LE 23-160	UMCP Police Department	Impaired Driving	Impaired Driving Enforcement	\$9,000.00
LE 23-229	Washington County Sheriff	Impaired Driving	Washington County PBT upgrade grant	\$4,950.00
LE 23-047	Westminster Police Department	Impaired Driving	Impaired Driving	\$2,000.00
LE 23-111	Wicomico County Sheriff	Impaired Driving	Impaired Driving	\$6,000.00
LE 23-195	Worcester County Sheriff	Impaired Driving	Impaired Driving	\$2,100.00

#### **Evaluation**

The MHSO evaluates traffic safety programs through output, impact, and outcome measures. Outcome measures include crash data, including fatality and serious injury data. All projects funded through the MHSO are required to include an effective evaluation component. Depending on the level of grant funds obligated and the project, impact or output measures are to be reported and evaluated throughout the grant cycle.

According to a recent Road Safety Attitudes and Behavior survey conducted by WBA Research on behalf of MDOT, the majority of Maryland road users across all regions and demographic groups consider unsafe driving a major problem. Yet, every year familiar factors contribute to roadway fatalities: speed, distractions, impairment by alcohol and drugs, and lack of seat belt use.

Impaired driving is 100 percent preventable; however, during the past five years in Maryland, nearly 800 people have been killed in crashes involving an impaired driver. When asked about the reason for not driving impaired, respondents reported: Fear of harm to themselves (86 percent) or others (79 percent) was cited by respondents as top reasons for not driving impaired; however, more than 3 percent of those surveyed admitted to driving impaired in the past 30 days; and 53 percent of drivers listed fear of arrest as influential on their decision to drive sober, yet more than 17,000 drivers were arrested for driving under the influence of drugs or alcohol in Maryland last year.

# **Outcome Measures**

# Alcohol and/or Drug Impaired Fatalities

**Target:** Reduce alcohol and/or drug impaired driving fatalities 11.8 percent from 163.8 (2016 – 2020 rolling average) to 144.5 (2019 – 2023 rolling average) by 2023.

**Outcome:** Target not met. The 2016–2020 average number of alcohol and/or drug impaired driving fatalities was 163.8, an increase from the 2015–2019 average of 162.8.

		BASE YEARS					
			2016	2017	2018	2019	2020
	PERFORMANCE PLAN CH	IART	2012- 2016	2013- 2017	2014- 2018	2015- 2019	2016- 2020
	Alcohol and/or Drug- Impaired Driving Fatalities	State	149	191	142	151	186
C-5	Reduce alcohol and/or drug impaired driving fatalities 11.8 percent from 163.8 (2016-2020 rolling average) to 144.5 (2019 – 2023 rolling average) by 2023.	5-Year Rolling Avg.	159.8	162.6	159.4	162.8	163.8

Performance Measures	Target Period	Target Year(s)	Target Value FFY 22 HSP	Data Source*/FFY 22 Progress Results	On Track to Meet FFY 22 Target
C-5) Alcohol and/or Drug Impaired Driving Fatalities	5-year	2018- 2022	143.5	2016-2020 State 163.8	No

# Alcohol and/or Drug Impaired Driving Serious Injuries

**Target:** Reduce alcohol and/or drug impaired driving serious injuries by 31.7 percent from 467.2 (2016 – 2020 rolling average) to 319.1 (2019 – 2023 rolling average) by 2023.

Outcome: Target not met. The 2016 – 2020 average number of alcohol and/or drug impaired driving serious injuries was 467.2, an increase from the 2015 – 2019 average of 445.8.

				BASE YEAF	RS	
		2016	2017	2018	2019	2020
PERFORMANCE PLAN CH	ART	2012- 2016	2013- 2017	2014- 2018	2015- 2019	2016- 2020
Alcohol and/or Drug- Impaired Driving Serious Injuries	State	434	497	466	487	452
Reduce alcohol and/or drug impaired driving serious injuries by 31.7 percent from 467.2 (2016 – 2020 rolling average) to 319.1 (2019 – 2023 rolling average) by 2023.	5-Year Rolling Avg.	414.6	413.6	429.4	445.8	467.2

Performance Measures	Target Period	Target Year(s)	Target Value FFY 22 HSP	Data Source*/FFY 22 Progress Results	On Track to Meet FFY 22 Target
Alcohol and/or Drug Impaired Driving Serious Injuries	5-year	2018 – 2022	304.8	2016-2020 State 467.2	No

#### **Occupant Protection Program**

#### Problem Identification

In Maryland during 2020, nearly 2,050 unbelted occupants of passenger vehicles or light trucks were injured or killed in crashes. Despite increases in observed belt use rates in Maryland and across the nation, 22.3 percent of all Marylanders killed in motor vehicle crashes were not wearing seat belts. Research has shown that seat belts, when used properly, reduce the risk of fatal injury to front-seat passengers by 45.0 percent and reduce the risk of moderate to critical injury by 50.0 percent.

In 2020, Maryland law enforcement agencies issued a total of 16,858 citations for seat belt use violations (which includes 1,997 child safety seat violations), reflecting decreases of 43.2 percent and 52.7 percent, respectively, since 2019. There were 29,660 belt use citations issued in 2019 (3,787 of which were for child safety seat violations) and 27,342 issued in 2018 (3,689 for child safety seat violations). The MHSO will continue to analyze these data trends and work with its law enforcement partners to understand the changes seen in law enforcement interventions for traffic violations.

# Frequency of Unrestrained Occupant Crashes

In 2020, there were 134 unrestrained occupants killed in crashes, and 411 unrestrained seriously injured occupants. These unbelted motor vehicle occupants represented 40 percent of all vehicle occupants fatally injured in crashes statewide and 23 percent of all statewide traffic fatalities. These unbelted motor vehicle occupants represented 22 percent of all vehicle occupants seriously injured in crashes statewide and 15 percent of all statewide traffic fatalities.

Maryland crashes involving unrestrained occupants have occurred rather consistently on average throughout the year. More than 50 percent of all crashes involving unrestrained occupants occurred in the six-month period from April through September, corresponding to typically warm weather driving periods.

Crashes with unrestrained occupants occurred consistently throughout the week but were more frequent on Saturday and Sunday (nearly one out of three). Approximately one-third of all fatal crashes with at least one unrestrained occupant occurred on Saturday or Sunday.

Two-thirds of all unrestrained crashes of injury crashes happened between noon and midnight. About 23 percent of unrestrained crashes occurred between 8 p.m. and 4 a.m. and 39 percent of all fatal crashes involving unrestrained occupants occurred during that time, which indicates that nighttime hours are a significantly higher risk period for serious crashes involving unrestrained occupants.

More than three-fourths (78 percent) of all crashes involving unrestrained occupants occurred in nine jurisdictions – Anne Arundel, Baltimore, Frederick, Harford, Howard, Montgomery, Prince George's, and Washington counties, and Baltimore City. These same locations accounted for 81 percent of all injury crashes involving unrestrained occupants, and 70 percent of fatal crashes involving unrestrained occupants.

#### Typical Profile of Unrestrained Occupants

Between 2016-2020 of all unrestrained occupants, more than one half were male (56 percent), including those injured (57 percent), seriously injured (65 percent) and those who were killed at 75 percent. The mean age for

injured occupants was 29 and was 40 for fatally injured occupants. Among all unrestrained drivers, 69 percent were male, and the mean age was 37. Among all unrestrained passengers, 51 percent were male, and the mean age was 17.

# Child Passenger Safety Results

Analysis of child passenger safety results for motor vehicle occupants under age eight indicated that, in 2020 in Maryland, 6,463 children were involved in crashes, with 84 percent of those riding in the back seat and 42 percent not properly restrained. If children are reported as using any restraint other than an appropriate child safety seat, they are considered improperly restrained or unrestrained. Of the unrestrained, 81 percent were uninjured, and 19 percent were injured, with one child fatality of age seven or younger. By comparison, 82 percent of properly restrained children were uninjured, 18 percent were injured, and two were killed.

By age, proper restraint use was more common among younger children of child seat age (at least 61 percent up to age four, and 48 percent at age five), while proper restraint use dropped among booster seat age children (38 percent at age six, and 24 percent at age seven).

Safety initiatives that have been effective in the past for other age groups, including education/awareness/training and enforcement efforts, are necessary for child passengers and should be considered for enhancement.

# Observational Occupant Protection Survey Results

The overall observed seat belt usage rate for drivers and right front seat passengers in the State of Maryland in 2021, after weighting by probability of roadway selection and jurisdictional roadway specific VMT, was 91.4 percent, representing a 1.5 percentage point increase over the previous year. The Statewide standard error of 0.6 percent was well below the NHTSA threshold of 2.5 percent, yielding a 95 percent confidence interval of 90.2 percent to 92.6 percent for the combined usage rate. These rates were based on observation of 39,847 vehicles and 49,447 occupants, representing decreases of 5.2 percent and 5.7 percent in the number of vehicles and occupants observed, respectively, in the 2020 survey.

Belt use was highest among passenger cars and SUVs relative to pick-up trucks (92.3 percent vs. 86.0 percent, respectively). Seat belt usage was also highest among all front seat occupants traveling on Primary roads relative to secondary and local roads (93.7 percent vs. 90.6 percent and 84.8 percent). Since 2020, the rates represented increases across the board for passenger cars/SUVs, pick-up trucks, and all three types of roadways.

Harford County (95.5 percent) had the highest usage rate among Maryland's 13 NHTSA jurisdictions, followed by Montgomery County (95.1 percent), and Baltimore City (94.7 percent) Counties. There were eight jurisdictions with combined rates of at least 90 percent; Carroll (87.6 percent), Washington (87.4 percent), and Wicomico (83.0 percent) counties experienced the lowest rates. Overall, seven of the 13 jurisdictions experienced an increase in combined usage rates during the past year. The replacement due to safety concerns of four original observation sites with four reserve sites may have accounted for the increase in belt usage rates in Baltimore City. For occupants of passenger cars or SUVs, ten jurisdictions had usage rates of at least 90 percent. Among occupants of pick-up trucks, two jurisdictions had a usage rate above 90 percent (Harford and Cecil counties), and three jurisdictions (Washington, Carroll, and Wicomico counties) experienced rates below

80 percent. Unweighted analysis indicated that drivers had a slightly lower statewide usage rate (92.8 percent) than front seat passengers (93.4 percent).

Seat belt usage could not be ascertained for 5.5 percent of all drivers and passengers. Unknown belt use was more prevalent in pick-up trucks (8.9 percent) than in passenger cars (5.0 percent), higher for drivers (6.5 percent) than for passengers (1.5 percent), and slightly higher on Secondary roads (5.7 percent) compared to Primary roads (5.6 percent) and Local roads (3.4 percent).

Approximately 90.2 percent of all drivers and right front-seat passengers traveling in the 11 non-NHTSA jurisdictions were belted, representing a 0.4 percentage point increase over the past year (unweighted analysis). A slightly lower proportion of drivers (90.0 percent) than passengers (90.7 percent) were observed to be belted. In addition, higher usage rates were found in passenger cars or SUVs (92.1 percent) than in pick-up trucks (83.6 percent), and on Secondary as opposed to Primary or Local roadways.

Six of the non-NHTSA jurisdictions had a usage rate above 90 percent. For passenger cars or SUVs, usage rates were also at least 90 percent in seven jurisdictions, while usage rates among occupants of trucks were below 90 percent in all non-NHTSA jurisdictions. Garrett County experienced the lowest rate among all vehicles. Seat belt usage could not be ascertained for 6.5 percent of all front-seat occupants.

Examination of individual record-level data, for the instance in which both a driver and passenger were observed in the front seat, indicated that 94.7 percent of passengers were belted when the driver was belted. However, if the driver was unbelted, only 34.5 percent of passengers were observed to wear their belt. This large difference in passenger belt use occurred in cars and SUVs (95.2 percent for belted drivers vs. 38.6 percent for unbelted drivers) as well as in trucks (91.6 percent for belted drivers vs. 23.1 percent for unbelted drivers). There was also an association with roadway classification, with the Secondary or Local roadways corresponding to a larger difference in passenger belt use between belted and unbelted drivers than the discrepancy seen on Primary roads. Finally, cell phone usage was ascertained when possible, indicating that belted drivers were less likely than unbelted drivers to use a hand-held cell phone while driving (2.2 percent vs. 3.8 percent, respectively). Drivers on a hand-held cell phone had a lower seat belt usage rate (88.3 percent) than drivers who were not observed using a cell phone (92.9 percent).

While Maryland has not conducted a rear seat evaluation in a few years, based on the most recent observation as well as statewide and national surveys, rear seat passengers are at high risk and are not buckling up at the same rate as front seat occupants. Unbelted backseat occupants had a 3.4 times greater risk of sustaining a severe or fatal injury than those reported to be belted, and 41 percent of backseat fatalities with known belt use were unbelted.

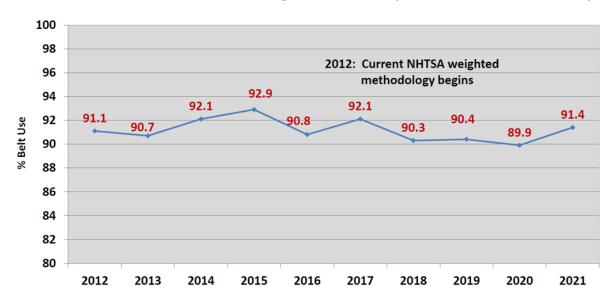
The last year a rear seat observation was conducted, among all vehicles with a single back seat occupant, analysis of known belt use indicated that 78.3 percent were belted, with a best-case scenario of only 79.5 percent (i.e., if all unknowns actually represented belted occupants). When two individuals were seated in the rear, however, seat belt usage was found to be somewhat lower. Analysis of known cases demonstrated that both rear occupants were belted only 70.9 percent of the time, increasing to 72.3 percent in the best possible case. Therefore, further analysis was conducted to determine if there was a disproportion in rates according to passenger type (i.e., adult or child) and driver belt use.

The majority (93.5 percent) of drivers was belted, so ample sample sizes were available in this group to determine differences in belt use rates of adult and child back seat passengers. Among occupants with known belt use, 78.9 percent were belted, which differed for adults (58.5 percent) versus children (92.5 percent). Among vehicles with a single back seat occupant, analysis of known belt use indicated the adult passenger was much less likely to be belted than the child passenger (56.4 percent adult vs. 92.9 percent child), with the best possible scenario increasing rates to 60.5 percent for the adult and 93.1 percent for the child. Thus, despite the use of a seat belt by the driver, adult occupants of the back seat were far less likely to wear their seat belt. Children, however, experienced a higher usage rate.

Analysis of vehicles with an unbelted driver revealed similar differences in rates between adults and children. In addition, it was apparent that, although sample sizes were small, occupants were much less likely to wear their seat belts if the driver was not belted. Analysis of occupants with known belt use indicated that only 56.6 percent were belted, with a large difference in belt usage found for adults (20.0 percent) when compared with children (80.9 percent). For single occupants, usage rates dipped to 18.2 percent for the adult vs. 86.4 percent for the child and fell even further for double occupancy (0 percent for both adults and 54.5 percent for both children).

		Year (Actual)						
Core Behavior Measure (State Data)	2016	2017	2018	2019	2020	2021	2022 (Target)	2023 (Target) <sup>2</sup>
Observed seat belt use for passenger vehicles, front seat outboard occupants (Survey)	90.8	92.1	90.3	90.4	89.9	91.4	91.3	91.9

<sup>&</sup>lt;sup>2</sup> The proposed seat belt use rate targets estimate a reduction in the number of observed unbelted motor vehicle occupants by at least 25 in each of the observation counties for each successive year with a baseline of 89.9 in 2020. Targets are set several years in advance to align with the SHSP/HSIP methodology.



# 2012-2021 Observed Belt Usage Rate in MD (Cars & Trucks Combined)

#### Solution

During the past decade, national fatality numbers and rates have been generally decreasing due to a combination of factors including improved education and awareness, driver training, and law enforcement activities, and perhaps most important, the improvement of vehicle designs to better protect passengers in crashes. These safer vehicle designs, featuring sophisticated air bag systems, anti-lock brakes, crush-proof structural designs, proximity warnings, and other measures, can only work most effectively if drivers and passengers are using approved restraints, such as seat belts and child safety seats that help occupants stay in the vehicle during crashes.

Chances of crash survival plummet when vehicle occupants are ejected during crashes, but chances of survival and injury reduction are greatly increased if restraints are used properly. Hence, Maryland will continue to vigorously support national and state policies on occupant protection, specifically the consistent use of proper restraints. The MHSO will continue to utilize the Be the Driver campaign, and occupant protection subtheme of Be the BUCKLED UP Driver to encourage motorists to buckle up, every seat, every ride. In addition to the general creative for the campaign, the MHSO will utilize the "Bad Excuse" creative to specifically debunk four common reasons heard by law enforcement partners for motorists not wearing seat belts: "I'm only driving a couple of miles," "I drive a truck. I'm protected," "It rubs my neck. It's uncomfortable," and "My vehicle has airbags. I'm protected."

Maryland coordinates enforcement and education activity through the state's Occupant Protection EAT. Datadriven projects are developed under SHSP strategies and include education and media activities such as Click It or Ticket and additional enforcement of Maryland's seat belt laws.

Child Passenger Safety (CPS) efforts also form a key component of Maryland's Occupant Protection Program as the state continues to certify and support trained CPS technicians and instructors at fitting stations throughout the state, especially in jurisdictions with high-risk groups. Child safety seats are distributed through CPS partners and local health departments. Virtual car seat events also are available where in-person activities are limited.

Outreach is coordinated with hospitals and other CPS partners that continue to promote child passenger safety (both best practices and Maryland law) to care providers of children from birth to age eight. Effective October 1, 2022, a new law will require a person transporting a child under age two in a motor vehicle is required to secure the child in a rear-facing child safety seat that complies with applicable federal regulations until the child reaches the manufacturer's weight or height limit for the child safety seat. The MHSO will develop messaging around the new law and promotion of finding the right seat for the children they are transporting.

# Click it or Ticket

Under the 2015 FAST Act, states must continue to support Click It or Ticket (CIOT), a nationwide seat belt enforcement and awareness mobilization effort. CIOT has been a most successful seat belt enforcement campaign since the early 2000s, helping to increase Maryland's seat belt usage through a combination of media and grassroots education programs and targeted enforcement.

In FFY 2022 the following agencies participated in CIOT enforcement and are expected to participate in FFY 2023.

- Anne Arundel County Police Department
- Baltimore City Police Department
- Baltimore County Police Department
- Bel Air Police Department
- Berlin Police Department
- Calvert County Sheriff's Office
- Carroll County Sheriff's Office
- Cecil County Police Department
- Charles County Sheriff's Office
- Cumberland Police Department
- Dorchester County Sheriff's Office
- Easton Police Department
- Frederick Police Department
- Fruitland Police Department
- Hampstead Police Department
- Harford County Police Department
- Howard County Police Department
- Hyattsville Police Department
- La Plata Police Department

- Maryland State Police
- Maryland Transportation Authority Police
- Maryland Capitol Police
- Maryland Department of Natural Resources Police
- Mount Airy Police Department
- Ocean City Police Department
- Prince George's County Police Department
- Princess Anne Police Department
- Riverdale Police Department
- Rockville Police Department
- Salisbury Police Department
- Salisbury University Police Department
- St. Mary's Sheriff's Office
- Sykesville Police Department
- Talbot County Police Department
- Taneytown Police Department
- Washington County Sheriff's Office
- Westminster Police Department
- Wicomico County Sheriff's Office

## Maryland's plan to support CIOT for FFY 2023 is as follows:

Wave Dates	Activity
December 2022 – April 2023	Campaign Pre-planning: For May 2022 effort
May 15 – June 4, 2023	Paid Media: CIOT paid
May 22 – June 4, 2023	Enforcement Period: CIOT
May 8 – June 15, 2023	Earned Media: CIOT press event; date and speakers TBD
June 5 – 19, 2023	Survey: Seat belt observation survey
September 2023	Media: Press release to announce the state use rate and
	enforcement data (citations and warnings issued); goal is to
	achieve broadcast through the Governor's Office and to report
	data to NHTSA.

#### Additional Occupant Protection Programs in Maryland

## **Child Restraint Inspection Station Network**

The 2015 FAST Act legislation requires that states have "an active network of child restraint inspection stations" throughout the state and requires that "the total number of inspection stations and/or inspection events service rural and urban areas and at-risk populations (e.g., low income, minority)." The MHSO uses the most recent national census (currently 2010) data to validate service populations for the state's child restraint inspection stations. In addition, nationally certified CPS technicians staff the Maryland stations during posted working hours. Federal rules permit the state to have one technician responsible for more than one inspection station. (23 CFR 1200.21(d)(3))

According to 2020 Census Data, more than five million people live in the Baltimore and Washington metropolitan regions of Maryland, representing more than 82 percent of Maryland's population. These metropolitan regions include:

- Anne Arundel County
- Baltimore City
- Baltimore County

• Frederick County

- Carroll County
- Harford County
- Howard County
- Montgomery County
- Prince George's County

Maryland coordinates regular fitting stations in each of these jurisdictions. In addition to the stations in the Baltimore/Washington metropolitan regions, regular fitting and inspection stations are established in some counties of Southern Maryland and the Eastern Shore. Most locations host monthly events, and inspections also are scheduled by appointment across the state. Virtual car seat events are available statewide.

Current public access information, locations, and hours of operation for these child passenger safety seat inspection stations can be found on the following websites:

- NHTSA <a href="https://www.nhtsa.gov/equipment/car-seats-and-booster-seats#installation-help-inspection">https://www.nhtsa.gov/equipment/car-seats-and-booster-seats#installation-help-inspection</a>
- SAFE KIDS <a href="http://www.safekids.org/in-your-area/coalitions/maryland-state.html">http://www.safekids.org/in-your-area/coalitions/maryland-state.html</a>
- KISS at the time of the writing of this HSP a calendar of car seat events is not available due to complications surrounding COVID-19. KISS is taking appointments for virtual services and, when possible, will host a full calendar at this link: https://phpa.health.maryland.gov/oehfp/kiss/Pages/Home.aspx

#### **Child Passenger Safety Classes**

The FAST ACT specifies that the number of CPS classes to be held, the location of those classes, and estimated number of students must be identified.

Recruitment, retention, and training of the state's CPS technicians are coordinated through a grant with the Maryland Department of Health's Kids in Safety Seats (KISS) program. As a component of this effort, KISS annually coordinates:

- scheduling or assistance with six national child passenger safety certification courses throughout Maryland,
- scheduling one CEU trainings,
- scheduling one annual Renewal Course (dependent on interest from CPST),
- scheduling one statewide instructor update,
- scheduling one Special Needs Training,
- scheduling 100 video car seat assistance appoints throughout the state,
- Maintaining technician re-certification, with a goal of retaining more than 50 percent among those eligible to re-certify, and
- Enabling technicians to enter sign-offs/CEU information at events.

#### **Action Plan**

The Occupant Protection projects funded for FFY 2023 are representative of evidence-based countermeasures and address occupant protection issues using a multifaceted approach.

#### **Occupant Protection – General Grants**

Project Agency: Maryland Department of Health				
Program Area: Occupant Protection	Project Number: GN 23-122			
Project Funds / Type: \$269,899.72 / BIL 405b OP Low (Note: Total includes Indirect Cost)	Indirect Costs / Type: \$24,536.34 / BIL 405b OP Low			
Countermeasures: NHTSA Countermeasures That Work (2017, 9th Edition)				

# SHSP Strategy:

• Promote a systematic safety culture through the support of outreach initiatives including public awareness, education, training, and media campaigns focused on adult and child occupant protection.

**Project Description:** To address the plethora of needs across the state, Kids In Safety Seats proposes a multiprong approach to ensure the program works as effectively and efficiently as possible. This grant includes child safety seat outreach, training, certification of technicians and instructors, and a comprehensive program to educate parents and caregivers. Virtual seat events are also offered, enabling residents in every county of the state to receive car seat installation assistance.

Project Agency: Maryland Institute for EMS Systems			
Program Area: Occupant Protection	Project Number: GN 23-013		
Project Funds / Type: \$70,579.68 / BIL 405b OP Low Indirect Costs / Type:			
Countermeasures: NHTSA Countermeasures That Work (2017, 9th Edition)			

# SHSP Strategy:

• Promote a systematic safety culture through the support of outreach initiatives including public awareness, education, training, and media campaigns focused on adult and child occupant protection.

**Project Description:** This project seeks to reduce the incidence of injuries and deaths in Maryland due to vehicle crashes through a variety of occupant protection (OP) interventions. This project will promote proper and consistent use of car safety seats among children, seatbelt use among youth and caregivers, and occupant protection measures taken by healthcare and EMS personnel to keep themselves and their patients as safe as possible. In addition, the project will disseminate up-to-date and culturally relevant OP and CPS information. Data and research on OP will inform the planning of interventions, and evaluation will refine the process.

Project Agency: University of Maryland Baltimore, NSC							
Program Area: Occupant Protection Project Number: GN 23-114							
Project Funds / Type: \$122,109.12 / BIL 405b OP Low(Note: Total includes Indirect Cost)  Indirect Costs / Type: \$25,197.12 / BIL 405b OP							
Countermeasures: NHTSA Countermeasures That Work (2017, 9th Edition)							

#### SHSP Strategy:

• Promote a systematic safety culture through the support of outreach initiatives including public awareness, education, training, and media campaigns focused on adult and child occupant protection.

Project Description: The NSC will compile and analyze seat belt observational survey data to report seat belt use by drivers and front seat outboard passengers traveling in passenger vehicles. The roadways selected in FFY 2022 will serve as both the NHTSA-designated and non-NHTSA sites for the observational surveys through 2026. The maps created for the 2022-2026 site sets and site locations will be used and, if necessary, modified to reflect the notes and comments provided by the observers following the June 2022 surveys. The instruction guide will be updated for documentation related to the process of developing the maps and coordinating the random dates, times, and lanes for observations. Seat belt usage will be observed using a standard methodology across the identified locations. The project will provide materials related to the selected roadway sites, assist with quality control, compile, analyze and interpret the observational seat belt survey data; submit a final report, and create a presentation of the final results.

# Occupant Protection - Child Passenger Safety Grants

Project Agency: Maryland Department of Health							
Program Area: Occupant Protection	Project Number: GN 23-122						
Project Funds / Type: \$47,558.50 / BIL 405b OP Low 56,874.40 / BIL 405b OP (Note: Total includes Indirect Cost)	1						

Countermeasures: NHTSA Countermeasures That Work (2017, 9th Edition)

# SHSP Strategy:

• Promote a systematic safety culture through the support of outreach initiatives including public awareness, education, training, and media campaigns focused on adult and child occupant protection.

**Project Description:** To address the plethora of needs across the state, Kids in Safety Seats proposes a multiprong approach to ensure the program works as effectively and efficiently as possible. This grant includes child safety seat outreach, training, certification of technicians and instructors, and a comprehensive program to educate parents and caregivers. Virtual seat events are also offered, enabling residents in every county of the state to receive car seat installation assistance.

Project Agency: Maryland Institute for EMS Systems						
Program Area: Occupant Protection	Project Number: GN 23-013					
Project Funds / Type: \$21,635.00 / BIL 405b OP Low Indirect Costs / Type:						
Countermeasures: NHTSA Countermeasures That Work (2017, 9th Edition)						
SHSP Strategy:						

Promote a systematic safety culture through the support of outreach initiatives including public awareness,
 education, training, and media campaigns focused on adult and child occupant protection.

Project Description: To reduce the incidence of injuries and deaths in Maryland due to vehicle crashes or in/around car deaths MIEMSS will implement a variety of occupant protection (OP) interventions. These interventions include: promoting proper restraint use for all ages and reinforcing occupant protection measures taken by healthcare and EMS personnel; utilizing educational activities, hands-on and virtual training, website resources, interactive displays, social media, and webinars; obtaining special needs restraints and providing them to hospitals that don't have their own devices or whose restraints are currently in use; collaborating with agency partners to efficiently use state and local resources and to target interventions and materials. For the interventions on EMS clinicians and post-MVC assessment of occupant protection use/non-use, the grantee will work closely with Dr. Janet Bahouth of Crash Core.

For all the enforcement-related grants listed below, the following information applies:

Project Agency: Various (see below)						
Program Area: Occupant Protection	Project Number: Various (see below)					
<b>Project Funds / Type:</b> \$49,666.39 / BIL 405b OP	Indirect Costs / Type:					
Countermeasures: NHTSA Countermeasures That Work (2017, 9th Edition)						

#### SHSP Strategy:

- Support the improved enforcement of occupant protection laws, as well as support enforcement initiatives that promote safe roadway behaviors
- Promote a systematic safety culture through the support of outreach initiatives including public awareness, education, training, and media campaigns focused on adult and child occupant protection.

**Project Description:** HVE for occupant protection enforcement.

Application Number	Agency	Program Area	Project Title	Obligated Amount
LE 23-077	Cumberland Police Department	Occupant Protection	Occupant Protection	\$1,000.00
LE 23-238	Frostburg City Police Department	Occupant Protection	Occupant Protection	\$993.56
LE 23-257	Denton Police Department	Occupant Protection	Buckle Up 2023	\$960.00

Application Number	Agency	Program Area	Project Title	Obligated Amount
LE 23-126	Carroll County Sheriff	Occupant Protection	Buckle Up/Phone Down	\$7,500.00
LE 23-162	Hampstead Police Department	Occupant Protection	Occupant Protection and Distracted Driving	\$1,000.00
LE 23-108	Mt. Airy Police Department	Occupant Protection	Occupant Protection	\$1,000.00
LE 23-173	Sykesville Police Department	Occupant Protection	Stay in your lane	\$1,500.00
LE 23-123	Taneytown Police Department	Occupant Protection	Buckle up/ Phone Down	\$1,000.00
LE 23-018	Westminster Police Department	Occupant Protection	Occupant Protection	\$1,500.00
LE 23-006	Frederick Police Department	Occupant Protection	Occupant Protection	\$5,000.00
LE 23-094	Chestertown Police Department	Occupant Protection	Chestertown Police Department Occupant Protection Grant	\$498.00
LE 23-135	Kent County Sheriff	Occupant Protection	Kent County Seat Belt Initiative	\$960.00
LE 23-098	Queen Anne's County Sheriff	Occupant Protection	Speed Enforcement	\$4,004.00
LE 23-234	Princess Anne Police Department	Occupant Protection	Occupant 2023	\$1,497.57
LE 23-191	Somerset County Sheriff	Occupant Protection	Somerset County Occupant Protection	\$2,000.00
LE 23-131	Easton Police Department	Occupant Protection	Distracted / Occupant Protection	\$1,840.00
LE 23-046	Talbot County Sheriff	Occupant Protection	2023 Occupant Protection	\$2,000.00
LE 23-176	Hagerstown Police Department	Occupant Protection	FY23 MHSO Distracted and Occupant Protection	\$500.00

Application Number	Agency	Program Area	Project Title	Obligated Amount
LE 23-093	Fruitland Police Department	Occupant Protection	FPD Occupant Protection	\$1,470.00
LE 23-153	Salisbury Police Department	Occupant Protection	Distracted Driving Application	\$3,000.00
LE 23-083	Salisbury University Police Department	Occupant Protection	Increasing Safety through Seatbelt Enforcement and Distracted Driving	\$1,996.26
LE 23-113	Wicomico County Sheriff	Occupant Protection	Occupant Protection / Distracted Driving	\$2,000.00
LE 23-061	Berlin Police Department	Occupant Protection	Berlin Occupant 2023	\$1,500.00
LE 23-138	Ocean City Police Department	Occupant Protection	OCPD FY23 Highway Safety Grant - Occupant Protection/Distracted Driving	\$1,848.00
LE 23-155	Ocean Pines Police Department	Occupant Protection	Click it or Ticket	\$999.00
LE 23-198	Worcester County Sheriff	Occupant Protection	Distracted Driving	\$2,100.00

#### **Evaluation**

The MHSO evaluates traffic safety programs through output and outcome measures. Outcome measures include crash data (fatality and serious injury). Projects funded through the MHSO are required to have an evaluation component. Depending on the level of grant funds obligated and the scope of the project, output measures are reported and evaluated throughout the grant cycle.

Law enforcement and media/communications partners are provided with additional analysis that support a more targeted approach within jurisdictions over-represented in this program area. Each year, data and analyses are provided in standard and by request (ad hoc) formats that support localized targeting of traffic safety initiatives.

According to a recent Road Safety Attitudes and Behavior survey conducted by WBA Research on behalf of MDOT, the majority of Maryland road users across all regions and demographic groups consider unsafe driving a major problem. Yet, every year familiar factors contribute to roadway fatalities: speed, distractions, impairment by alcohol and drugs, and lack of seat belt use.

The perceived importance of and reported seat belt use among Maryland drivers appears to be widespread, but not universal. About two-thirds of respondents said they always wear a seat belt while riding in the back seat of a vehicle. Exposure to unbelted occupants increases the risk of injury or death to others in the vehicle by 40 percent as they can become projectiles in the event of a crash. That percentage increases to 8 percent when the driver was traveling within 5 miles or 10 minutes of home.

While the 8 percent figure is a seemingly low percentage of survey respondents, short, routine trips can be some of the most dangerous. Most crash-related deaths happen within 25 miles from home and at speeds of less than 40 mph.

#### **Outcome Measures**

# **Unrestrained Passenger Vehicle Occupant Fatalities**

**Target:** Reduce unrestrained passenger vehicle occupant fatalities, all seat positions 27.5 percent from 120.2 (2016 – 2020 rolling average) to 87.1 (2019 – 2023 rolling average) by 2023.

**Outcome:** Target not met. The 2016 - 2020 average number of unrestrained passenger vehicle occupant fatalities in all seat positions was 120.2, an increase from the 2015 - 2019 average of 107.2.

					BASE YEAR	RS .	
			2016	2017	2018	2019	2020
PERFORMANCE PLAN CHART		2012- 2016	2013- 2017	2014- 2018	2015- 2019	2016- 2020	
C-4	Unrestrained Passenger Vehicle Occupant Fatalities, All Seat Positions	State	123	117	109	113	139
	Reduce unrestrained passenger vehicle occupant fatalities, all seat positions 27.5 percent from 120.2 (2016-2020 rolling average) to 87.1 (2019 – 2023 rolling average) by 2023.		101.8	103.8	104.4	107.2	120.2

Performance Measures	Target Period	Target Year(s)	Target Value FFY 22 HSP	Data Source*/FFY 22 ProgressResults	On Track to Meet FFY 22 Target
C-4) Unrestrained Passenger Vehicle Occupant Fatalities, All SeatPositions	5-year	2018- 2022	81.3	2016-2020 State 120.2	No

# **Unrestrained Passenger Vehicle Occupant Serious Injuries**

**Target:** Reduce unrestrained passenger vehicle occupant serious injuries, all seat positions 29.9 percent from 416.0 (2016 – 2020 rolling average) to 291.3 (2019 – 2023 rolling average) by 2023.

Outcome: Target not met. The 2016 – 2020 average number of unrestrained passenger vehicle occupant serious injuries in all seat positions was 416.0, an increase from the 2015 – 2019 average of 393.2.

				BASE YEAR	RS .	
		2016	2017	2018	2019	2020
PERFORMANCE PLAN CHART	PERFORMANCE PLAN CHART		2013- 2017	2014- 2018	2015- 2019	2016- 2020
Unrestrained Passenger Vehicle Occupant Serious Injuries, All Seat Positions	State	360	425	442	421	432
4100/2010 2020	5-Year olling Avg.	311.6	324.8	367.8	393.2	416.0

Performance Measures	Target Period	Target Year(s)	Target Value FFY 22 HSP	Data Source*/FFY 22 ProgressResults	On Track to Meet FFY 22 Target
Unrestrained Passenger Vehicle Occupant Serious Injuries, All Seat Positions	5-year	2018- 2022	266.7	2016-2020 State 416.0	No

# **Observed Seat Belt Use for Passenger Vehicles**

Performance Measures	Target Period	Target Year(s)	Target Value FFY 22 HSP	Data Source*/FFY 22 ProgressResults	On Track to Meet FFY 22 Target
B-1) Observed Seat Belt Use for Passenger Vehicles, Front Seat Outboard Occupants (State Survey)	1-year	2022	91.3	2021 91.4	Yes

# **Distracted Driving Program**

# **Problem Identification**

Though the number of distracted driving crashes in 2020 fell by 20.0 percent from the previous year, the number of fatal crashes involving distracted driving increased by 12.0 percent. An average of more than 54,000 distracted driving crashes occurred on Maryland roads each year between 2016 and 2020. For this latest five-year period, distracted driving was a factor in an annual average of approximately one-half of all traffic crashes (48.1 percent), more than half of all injury crashes (53.5 percent), and well over one third of all fatal crashes (37.4 percent). Distracted driving was a factor in 54.0 percent of injuries and 37.0 percent of fatalities. Thus, distracted driving is significantly over-represented in all crashes, and even more so in injury crashes. However, the difficulty in accurately capturing distracted driving as a cause on crash reports would indicate that distracted driving is, potentially, still under-reported. Combined with the significant contribution of identified crashes, distracted driving is most likely a larger problem than currently indicated. Hence, distracted driving is a major focus for traffic safety professionals in Maryland and across the nation.

In 2020, Maryland law enforcement officers issued 18,270 citations for handheld cell phone use and 943 citations for texting while driving. These numbers represent decreases of 41.1 percent and 60.2 percent, respectively, from those of the previous year. In 2019, there were 31,035 handheld cell phone citations issued along with 2,367 texting citations. In 2018, there were 30,781 handheld cell phone citations and 2,173 texting citations.

#### Frequency of Distracted Driving Crashes

Due to the large proportion of all crashes identified as distracted related, distracted driving crashes occurred consistently throughout the year and every day of the week. A slight increase occurred on Fridays. From day to day, the afternoon rush hour (3:00 to 6:59 p.m.; 30 percent) accounted for a significant proportion of distracted crashes, including injury crashes.

# Typical Profile of Distracted Driver

Crash data revealed the typical profile of a distracted Maryland driver involved in a crash as male, ages 21 to 34 (31 percent). 77 percent of distracted drivers killed were male, and one-third of distracted drivers were unrestrained.

# Typical Distracted Driving Crash Locations

Most distracted driver-involved crashes occurred in Prince George's and Baltimore counties, both urban areas. This may be an expected profile and one that makes sense as a focus of statewide education, media, and enforcement campaigns.

#### Solution

Maryland developed a campaign called Be the FOCUSED Driver that reminds motorists to put the distractions away and only focus on driving. While cell phone use is the leading cause of distracted driving, other distractions including eating, tending to children, and adjusting music also are distractions that will be addressed by the campaign. The subtheme is part of the overarching campaign Be the Driver which has an 'always-on approach' with consistent messaging in market throughout the year. The campaign materials for Be

the FOCUSED Driver are distributed to Maryland's traffic safety partners across the state during the national and state HVE mobilizations.

#### **Action Plan**

Distracted driving projects funded for FFY 2023 are representative of evidence-based countermeasures and address the distracted driving issue using a multifaceted approach.

Project Agency: Chesapeake Region Safety Council				
Program Area: Distracted Driving	Project Number: GN 23-258			
Project Funds / Type: \$5,280.00 / BIL 402; \$1,760.00 /	Indirect Costs / Type: \$480.00 / BIL 402; \$160.00 /			
SBIL 402 (Note: Total includes Indirect Cost)	SBIL 402			
Countermeasures: NHTSA Countermeasures That Work (2017, 9th Edition)				

# SHSP Strategy:

• Promote a systemic safety culture through the support of outreach initiatives including public awareness, education, training, and media campaigns focused on reducing distracted driving.

**Project Description:** Chesapeake Region Safety Council will plan and execute fully developed, realistic crash scenes, with first responder arrival, extrication, treatment, arrest, and victim removal for local high schools. Each scene will focus on a risk-taking behavior such as distracted driving, with each crash having a different level of severity, agreed upon with school leadership. Immediately following the crash scene, a question-and-answer session between attendees and first responders will occur with the option to include court-related sentencing program later. Formal presentations from highway safety partners such as the insurance industry, Fire, EMS, Law Enforcement, at-fault drivers, and victim community will follow each program.

Project Agency: Morgan State University				
Program Area: Distracted Driving	Project Number: GN 23-212			
Project Funds / Type: \$2,642.50 / BIL 402; \$52,157.85 Indirect Costs / Type: \$892.50 / BIL 402; \$12,7752.65				
/ BIL 402DisDr (Note: Total includes Indirect Cost)	/BIL 402DisDr			
Countermeasures: NHTSA Countermeasures That Work (2017, 9th Edition)				

#### SHSP Strategy:

• Promote a systemic safety culture through the support of outreach initiatives including public awareness, education, training, and media campaigns focused on reducing distracted driving.

**Project Description:** Morgan State University will utilize this grant to decrease the number of distracted driving crashes in Maryland by educating drivers and investigating different Connected and Autonomous Vehicle (CAV) technologies. To achieve this goal, the following objectives will be pursued. Educate drivers using a variety of

approaches including online webinars concerning distracted driving due to new CAV technologies, as well as how drivers can avoid crashes caused by distraction. Additionally, they will evaluate potential CAV distraction notification technologies which would prevent driver inattention utilizing a driving simulator that can simulate realistic real-world circumstances without putting drivers at risk.

For all the enforcement grants listed below, the following information applies:

**Project Agency:** Various (see below)

Program Area: Distracted Driving Project Number: Various (see below)

Project Funds / Type: \$307,811.80 / FA 402

Countermeasures: NHTSA Countermeasures That Work (2017, 9th Edition)

# SHSP Strategy:

• Support the improved enforcement of distracted driving laws, as well as support enforcement initiatives that promote safe behaviors.

• Promote a systemic safety culture through the support of outreach initiatives including public awareness, education, training, and media campaigns focused on reducing distracted driving.

**Project Description:** HVE for distracted driving prevention.

Application Number	Agency	Program Area	Project Title	Obligated Amount
LE 23-072	Anne Arundel County	Distracted Driving	Distracted Driving	\$28,000.00
	Police Department			
LE 23-189	Baltimore City Police	Distracted Driving	Distracted	\$3,000.00
	Department			
LE 23-007	Baltimore County	Distracted Driving	Distracted Driving	\$35,000.00
	Police Department			
LE 23-040	Bel Air Police	Distracted Driving	Distracted Driving	\$2,035.00
	Department			
LE 23-049	Calvert County	Distracted Driving	Distracted Driving	\$6,000.00
	Sheriff			
LE 23-239	Cecil County Sheriff	Distracted Driving	Distracted Driving	\$4,015.00
LE 23-117	Charles County	Distracted Driving	Distracted Driving	\$5,000.00
	Sheriff			
LE 23-034	City of Bowie	Distracted Driving	Bowie City Distracted	\$1,000.00
			Driving	

LE 23-249	City of Hyattsville Police Department	Distracted Driving Distracted Driving		\$2,000.00
LE 23-185	Elkton Police Department	Distracted Driving	Pay Attention	\$2,000.00
LE 23-002	Harford County Sheriff	Distracted Driving	Harford County Sheriff's Office Traffic Safety	\$18,000.00
LE 23-065	Havre de Grace Police Department	Distracted Driving	Distracted Driving	\$1,000.00
LE 23-071	Howard County Police Department	Distracted Driving	Distracted Driving	\$15,000.00
LE 23-226	La Plata Police Department	Distracted Driving	Distracted Driving	\$1,000.00
LE 23-088	Laurel Police Department	Distracted Driving	Distracted Driving	\$1,000.00
LE 23-247	Maryland State Police-Statewide	Distracted Driving	Distracted Driving	\$88,000.00
LE 23-232	Maryland Transportation Authority Police	Distracted Driving	Distracted Driving	\$22,000.00
LE 23-186	MD Capitol Police	Distracted Driving	Distracted Driving Enforcement	\$2,000.00
LE 23-079	MD Natural Resources Police	Distracted Driving	Harford County Traffic Task Force	\$800.00
LE 23-058	Montgomery County	Distracted Driving	Distracted	\$20,285.00
LE 23-149	Prince George's County Police Department	Distracted Driving	2023 Distracted Driving Grant	\$30,000.00
LE 23-037	Riverdale Park Police Department	Distracted Driving	Distracted Driving	\$3,000.00
LE 23-069	Rockville Police Department	Distracted Driving	Distracted Driving	\$3,000.00
LE 23-175	Seat Pleasant Police Department	Distracted Driving	Eyes Up (Distracted Driving)	\$2,000.00
LE 23-056	St. Mary's County Sheriff	Distracted Driving	Buckle Up, Phone Down	\$4,000.00
LE 23-027	Takoma Park Police Department	Distracted Driving	Phones Down Eyes Up	\$1,980.00
LE 23-158	UMCP Police Department	Distracted Driving	Distracted Driving	\$2,000.00

#### **Evaluation**

The MHSO evaluates traffic safety programs through output and outcome measures. Outcome measures include crash data (fatality and serious injury). Projects funded through the MHSO are required to have an effective evaluation component. Depending on the level of grant funds obligated and the scope of the project, impact or output measures are reported and evaluated throughout the grant cycle.

Law enforcement, engineering, and media/communications partners are provided with additional analysis that support a targeted approach within jurisdictions over-represented in this program area. Each year, data and analyses are provided in standard and by request (ad hoc) formats that support localized targeting of traffic safety initiatives.

According to a recent Road Safety Attitudes and Behavior survey conducted by WBA Research on behalf of MDOT, the majority of Maryland road users across all regions and demographic groups consider unsafe driving a major problem. Yet, every year familiar factors contribute to roadway fatalities: speed, distractions, impairment by alcohol and drugs, and lack of seat belt use.

Although the use of a hand-held cell phone is the only citable offense for distracted driving in Maryland, there are multiple distractions that can lead to a crash. Drivers surveyed admitted to the following distracted behaviors: talking on a cell phone using a hands-free device while driving (61 percent), actively searching for radio programming while driving (50 percent), actively searching for or skipping through an audio stream while driving (47 percent), programming a mobile GPS app or another GPS/guidance system while driving (46 percent), feeling distracted by other vehicles (42 percent), and using a mobile app while driving (excluding GPS) (37 percent).

Distracted driving contributes to more than one-third of motor vehicle fatalities in Maryland. Drivers are reminded to put the phone down and only focus on driving.

## **Outcome Measures**

# **Distracted Driving Fatalities**

**Target:** Reduce distracted driving fatalities 23.6 percent from 200.2 (2016 – 2020 rolling average) to 138.0 (2019 – 2023 rolling average) by 2023.

Outcome: Target not met. The 2016 - 2020 average number of distracted driving fatalities was 200.2, an increase from the 2015 - 2019 average of 181.0.

				BASE YEAR	S	
		2016	2017	2018	2019	2020
PERFORMANCE PLAN CHART		2012- 2016	2013- 2017	2014- 2018	2015- 2019	2016- 2020
Distracted Driving Fatalities	State	180	220	189	196	216
Reduce distracted driving fatalities 23.6 percent from 200.2 (2016 – 2020 rolling average) to 138.0 (2019 – 2023 rolling average) by 2023.	5-Year Rolling Avg.	173.2	168.0	169.4	181.0	200.2

Performance Measures	Target Period	Target Year(s)	Target Value FFY 22 HSP	Data Source*/FFY 22 Progress Results	On Track to Meet FFY 22 Target
Distracted Driving Fatalities	5-year	2018- 2022	129.3	2016-2020 State 200.2	No

# **Distracted Driving Serious Injuries**

**Target:** Reduce distracted driving serious injuries 31.9 percent from 1,495.2 (2016 – 2020 rolling average) to 1,017.6 (2019 – 2023 rolling average) by 2023.

**Outcome:** Target not met but progress was made. The 2016 – 2020 average number of distracted driving serious injuries was 1,495.2, a decrease from the 2015 – 2019 average of 1,507.2.

		BASE YEARS					
		2016	2017	2018	2019	2020	
PERFORMANCE PLAN CHART		2012- 2016	2013- 2017	2014- 2018	2015- 2019	2016- 2020	
Distracted Driving Serious Injuries	State	1,580	1,584	1,599	1,501	1,212	
Reduce distracted driving serious injuries 31.9 percent from 1,495.2 (2016 – 2020 rolling average) to 1,017.6 (2019 – 2023 rolling average) by 2023.	5-Year Rolling Avg.	1,701.0	1,594.8	1,553.8	1,507.2	1,495.2	

Performance Measures	Target Period	Target Year(s)	Target Value FFY 22 HSP	Data Source*/FFY 22 Progress Results	On Track to Meet FFY 22 Target
Distracted Driving Serious Injuries	5-year	2018 – 2022	1,048.9	2016-2020 State 1,495.2	Progress Made

# Speeding and Aggressive Driving Program

#### Problem Identification

Aggressive driving is recognized as a significant traffic safety problem across Maryland and the entire nation, but the various individual acts involved in aggressive driving have only recently become more commonly recognized and acknowledged as a part of the broader discussion of aggressive driving and how to prevent it. It also is widely recognized that speeding offenses tend to be the underlying component of most aggressive driving occurrences.

Therefore, Maryland's speed mitigation strategies are contained within the Aggressive Driving Program Area.

Maryland statutes define aggressive driving violations by applying the following crash or citation characteristics:

- Failed to yield right of way
- Failed to obey stop sign
- Failed to obey traffic signal
- Failed to obey other traffic control
- Failed to keep right of center
- Failed to stop for school bus
- Wrong way on one way
- Exceeding speed limits

- Too fast for conditions
- Followed too closely
- Improper lane change
- Improper passing
- Failure to obey traffic signs, signals, or officer
- Disregarded other road markings
- Other improper action
- Operated motor vehicle in erratic or reckless manner

For the purposes of traffic crash analysis, a cause of a crash is to be considered "aggressive driving" if the police crash report contains two of those factors in the first two contributing circumstances fields. For an aggressive driving citation to be issued, law enforcement officers must observe and document at least three of the above violations.

Two of the 16 listed factors are speed related (exceed speed limit, too fast for conditions) and represent the two most common aggressive driving characteristics recorded on crash reports. To qualify as a speed-related crash, one of those two attributes must be listed in the first two contributing factor fields. Thus, speed-related crashes occur more frequently than aggressive crashes and are included separately in the problem identification and program evaluation processes in Maryland.

Maryland law recognizes excessive speed as an important characteristic of aggressive driving, and aggressive driving violations are recorded as the cause of thousands of crashes each year.

In 2020, the number of fatal crashes involving aggressive driving increased by 48.6 percent, resulting in 56.4 percent, or 22, more fatalities than in 2019. The significant increase in fatalities and fatal crashes occurred even though the number of aggressive-driving related crashes in 2020 declined by over one thousand, or by 27.3 percent. During the latest five-year period, 2016 through 2020, aggressive drivers have been involved in an average of 4,038 crashes on Maryland roads each year. For the same five-year period, aggressive driving accounted for an annual average of 3.6 percent of all traffic crashes, 4.4 percent of all injury crashes, and 8.1 percent of all fatal crashes in Maryland. Aggressive driving was a factor in 4.8 percent of injuries and 8.3 percent of fatalities during the five-year period, and 4.6 percent of injuries and 10.4 percent of fatalities in 2020.

### Frequency of Aggressive Driving Crashes

Aggressive driving crashes overall were most common between the months of October and December (28 percent). Injury crashes involving aggressive driving typically increased during May through July, with another increase in October. Maryland averaged 41 fatal aggressive driving crashes per year during the latest five-year period (2016-2020), with more fatal crashes tending to occur in May, August, and September. More than one-third of fatal crashes (34 percent) occurred during weekends (Saturday and Sunday). The afternoon rush hour time (2 to 6:59 p.m.) accounted for 40 percent of aggressive driving crashes, with similar trends in including injury and fatal crashes (with fatal crashes increasing into the late evening hours).

# Typical Profile of Aggressive Drivers

Data revealed the common profile of an aggressive Maryland driver involved in a crash as male, ages 21 to 34, and generally using a seat belt restraint, except in fatal crashes where the aggressive driver killed was unrestrained in 30 percent of fatal crashes. Most of these drivers were involved in crashes in Baltimore, Anne Arundel, Montgomery, and Prince George's counties, and Baltimore City. This high-risk driver will be a major focus of statewide education and media campaigns, as well as increased enforcement efforts.

### Ongoing Enforcement Efforts

In 2020, Maryland law enforcement officers issued 793 citations statewide for aggressive driver violations, compared to 824 in 2019 and 762 in 2018. Difficulties exist in obtaining convictions for violating the aggressive driving statute because of the requirement that officers observe three separate driving violations to issue an aggressive driving citation. This requirement almost certainly contributes to the low number of citations written each year for aggressive driving in Maryland, since law enforcement officers are typically trained to take immediate action upon seeing a violation. Waiting to observe two or more additional offenses before taking enforcement action is counter-intuitive to officers. It is suspected that many of the aggressive driving citations are directly related to police pursuits.

Among the 12 individual acts that comprise aggressive driving outlined in Maryland law, enforcement officers in 2020 cited 3,872 drivers for failing to yield, 24,527 for failing to obey traffic control devices (such as stopping for red lights and stop signs), and 9,216 drivers for lane violations. By comparison, in 2019 officers wrote 6,451 citations for failing to yield, 40,706 for failing to obey traffic control devices, and 13,402 drivers for lane violations.

The prevention of aggressive driving through enhanced awareness, education, and enforcement strategies is critical to the reduction in crash-related fatalities and injuries. As such, prevention of aggressive driving in all its forms represents an increasing focus point for traffic safety professionals since these basic 'rules of the road' violations tend to cut across all types of highway crashes.

#### **Excessive Speed**

The number of fatal crashes involving speed increased by 40.3 percent in 2020, resulting in 34 more fatalities than in 2019. The significant increase in fatalities and fatal crashes occurred even though the number of speed-related crashes in the state in 2020 declined by 17.6 percent, from 9,182 to 7,564. Still, between 2016 and 2020, an average of 9,474 speed-related crashes occurred on Maryland roadways each year. For the same five-year period, speeding was involved in an annual average of 8.4 percent of all traffic crashes, 9.0 percent of all

injury crashes, and 16.0 percent of all fatal crashes in Maryland. In addition, driver speed was a factor in 8.9 percent of injured persons and 16.5 percent of fatalities for the five-year period, and 8.2 percent of injuries and 19.2 percent of fatalities in 2020.

# Frequency of Speed-Involved Crashes

Speed-involved crashes were most common during the months of December and January. Increases in injury crashes tended to occur from October through January. Excessive speed caused an average of 81 fatal crashes annually from 2016 through 2020, with 55 percent occurring from September through February. Speed-involved crashes, including injury crashes, occurred most likely on Thursdays and Fridays, and fatal crashes were most common on weekends (Saturday-Sunday). The afternoon rush hour period from 2 to 6:59 p.m. accounted for a large proportion (33 percent) of speed-involved crashes than any other part of the day. Fatal crashes also increased during the late-night hours of 10 p.m. to 2 a.m.

# Typical Profile of Speeding Driver

Crash data showed the profile of the typical speeding Maryland driver involved in a crash as male, ages 21 to 34, and using a seat belt restraint, except in fatal crashes where 32 percent of speeding drivers killed were not restrained. Most of these drivers were involved in crashes in Baltimore, Prince George's, Montgomery, and Anne Arundel counties, mainly urban areas. This high-risk driver, like all aggressive drivers, should be a major focus of statewide education and media campaigns, as well as increased enforcement efforts.

In 2020, Maryland law enforcement officers issued 151,419 citations to drivers for speeding violations, compared to 182,213 in 2019 and 195,649 in 2018. The number of speed-related citations issued in 2020 represent a 16.9 percent decrease from the previous year and a 22.6 percent decrease since 2018.

The steady decline in speed citations is somewhat of a cause for concern but Maryland also has a robust speed camera program at the state (for work zones only) and local (in school zones) levels for cars going at least 12mph over the speed limit. The decrease in officer-written citations seemingly correlates with the growth in the speed camera program. Statistics for the number of speed camera violations are available from MDOT MVA and show 161,985 automated speed violations in 2016, 193,036 in 2017, and 214,135 in 2018, and a continual increase to 230,006 in 2019. With the effects of COVID, and reduction in travel, 2020 saw a decline to 194,288 speed camera violations and then a significant increase to 620,299 in 2021. NOTE: No HSP Federal Funds are used to support the state's Automated Speed Enforcement program.

# Solution

As an emphasis area of Maryland's SHSP, the MHSO's Speeding and Aggressive Driving Prevention Program continues to utilize data-driven education and enforcement strategies as primary methods for addressing speeding and aggressive motorists.

The largest component of the Speeding and Aggressive Driving Prevention Program is the Be the SLOW DOWN Driver subtheme of the MHSO's Be the Driver campaign, which is a combination of enforcement and education, during concentrated mobilizations, that seeks to eliminate the dangers posed by speeding and aggressive drivers.

Grant support for overtime enforcement is provided for multiple speeding and aggressive driving enforcement waves, as well as year-round HVE for select agencies. The target violators are speeding and aggressive drivers, and crash data related to speeding and aggressive driving related crashes determine locations for enforcement activities. Training and equipment purchases are provided as a component of many of these programs, along with media and education campaigns to address characteristics of speeding and aggressive driving.

# **Action Plan**

Speeding/Aggressive driving prevention projects funded for FFY 2023 are representative of evidence-based countermeasures and address speeding- and aggressive driving-related issues primarily relying on HVE efforts.

For all the enforcement grants listed below, the following information applies:

Project Agency: Various (see below)

Program Area: Aggressive Driving Project Number: Various (see below)

Project Funds / Type: \$498,551.62 / FA 402

Countermeasures: NHTSA Countermeasures That Work (2017, 9th Edition)

# SHSP Strategy:

• Support the improved enforcement of speed and aggressive driving laws, as well as support enforcement initiatives that promote safe behaviors.

Project Description: HVE for aggressive driving prevention and speeding prevention.

Application Number	Agency	Program Area	Project Title	Obligated Amount
LE 23-142	Aberdeen Police	Speed Enforcement	Aberdeen Police Department	\$750.00
	Department		Traffic Safety	
LE 23-146	Allegany County	Speed Enforcement	SPEED (Stop Problems by	\$2,999.91
	Sheriff		Eliminating Excessive	
			Driving) 2023	
LE 23-081	Anne Arundel	Speed Enforcement	Speed Enforcement	\$20,000.00
	County Police			
	Department			
LE 23-199	Baltimore City Police	Speed Enforcement	Speed Enforcement	\$5,000.00
	Department			
LE 23-011	Baltimore County	Speed Enforcement	Speed Enforcement	\$35,000.00
	Police Department			
LE 23-043	Bel Air Police	Speed Enforcement	Speed Enforcement	\$1,045.00
	Department			
LE 23-060	Berlin Police	Speed Enforcement	Berlin Speed 2023	\$1,500.00
	Department			

Application Number	Agency	Program Area	Project Title	Obligated Amount
LE 23-024	Calvert County Sheriff	Speed Enforcement	Speed Enforcement	\$9,000.00
LE 23-128	Carroll County Sheriff	Speed Enforcement	Slow Down	\$7,500.00
LE 23-242	Cecil County Sheriff	Speed Enforcement	Speed Enforcement	\$4,015.00
LE 23-119	Charles County Sheriff	Speed Enforcement	Speed Enforcement	\$12,000.00
LE 23-092	Chestertown Police Department	Speed Enforcement	Chestertown Police Department Speed Grant	\$2,498.00
LE 23-035	City of Bowie	Speed Enforcement	Bowie City Speed Enforcement	\$2,000.00
LE 23-255	City of Hyattsville Police Department	Speed Enforcement	Aggressive Driving	\$2,000.00
LE 23-256	Denton Police Department	Speed Enforcement	Arrive Alive in 2023	\$960.00
LE 23-130	Easton Police Department	Speed Enforcement	Speed Enforcement	\$4,784.00
LE 23-213	Elkton Police Department	Speed Enforcement	Speed Enforcement	\$3,994.00
LE 23-005	Frederick Police Department	Speed Enforcement	Speed Enforcement	\$14,000.00
LE 23-095	Fruitland Police Department	Speed Enforcement	FPD Speeding OT/Laser purchase	\$3,970.00
LE 23-177	Hagerstown Police Department	Speed Enforcement	FY23 MHSO Speed Enforcement	\$500.00
LE 23-168	Hampstead Police Department	Speed Enforcement	Speed Enforcement	\$1,000.00
LE 23-003	Harford County Sheriff	Speed Enforcement	Harford County Sheriff's Office Traffic Safety	\$18,000.00
LE 23-067	Havre de Grace Police Department	Speed Enforcement	Speed Enforcement	\$1,000.00
LE 23-073	Howard County Police Department	Speed Enforcement	Speed Enforcement	\$15,000.00
LE 23-105	Kent County Sheriff	Speed Enforcement	Kent County Speed Enforcement	\$990.00
LE 23-221	La Plata Police Department	Speed Enforcement	Speed	\$2,000.00
LE 23-087	Laurel Police Department	Speed Enforcement	Speed Enforcement	\$3,000.00

Application Number	Agency	Program Area Project Title		Obligated Amount
LE 23-022	Manchester Police	Speed Enforcement	Speed Enforcement	\$1,000.00
	Department			
LE 23-246	Maryland State	Speed Enforcement	Speed Enforcement	\$174,500.00
	Police-Statewide			
LE 23-230	Maryland	Speed Enforcement	Speed Enforcement	\$24,000.00
	Transportation			
	Authority Police	C 15 (		¢000.00
LE 23-080	MD Natural Resources Police	Speed Enforcement	Harford County Traffic Task Force	\$800.00
15.22.057		Speed Enforcement	Speed/Aggressive	\$36,000.00
LE 23-057	Montgomery County Police Department	Speed Enforcement	Speed/Aggressive	\$30,000.00
LE 23-109	Mt. Airy Police	Speed Enforcement	Speed Enforcement	\$1,000.00
LL 25-105	Department	Speed Emoreement	Speed Linereement	<b>\$1,000.00</b>
LE 23-139	Ocean City Police	Speed Enforcement	OCPD FY23 Highway Safety	\$2,904.00
	Department	•	Grant - Speed Enforcement	
LE 23-151	Ocean Pines Police	Speed Enforcement	Speed Enforcement	\$999.00
	Department		-	
LE 23-148	Prince George's	Speed Enforcement	2023 Speed Enforcement	\$40,000.00
	County Police		Grant	
	Department			
LE 23-235	Princess Anne Police	Speed Enforcement	SPEED 2023	\$1,497.57
	Department	0 15 (		<b></b>
LE 23-008	Queen Anne's	Speed Enforcement	Speed Enforcement	\$14,014.00
15.22.026	County Sheriff	Canad Enforcement	Coord	¢2,000,00
LE 23-036	Riverdale Park Police Department	Speed Enforcement	Speed	\$3,000.00
LE 23-064	Rockville Police	Speed Enforcement	Speed Enforcement	\$3,000.00
LE 23-004	Department	Speed Emoreement	Speed Emoreement	<b>45,000.00</b>
LE 23-152	Salisbury Police	Speed Enforcement	Speed Enforcement	\$3,000.00
	Department	- 1	Application	, , , , , , , , , , , , , , , , , , , ,
LE 23-192	Somerset County	Speed Enforcement	Somerset County Speed	\$3,000.00
	Sheriff		Enforcement	
LE 23-055	St. Mary's County	Speed Enforcement	Speed Enforcement	\$6,000.00
	Sheriff			
LE 23-172	Sykesville Police	Speed Enforcement	Slow Down	\$1,500.00
	Department			
LE 23-029	Takoma Park Police	Speed Enforcement	Speed	\$990.00
	Department	0 15 (	2022 0 15 6	¢2.000.00
LE 23-045	Talbot County Sheriff	Speed Enforcement	2023 Speed Enforcement	\$2,000.00
1532424	Tanastas na Dalica	Chood Enforcement	Tanaytayın DD Casad	\$1,000.00
LE 23-124	Taneytown Police Department	Speed Enforcement	Taneytown PD Speed Enforcement	\$1,000.00
	Department		Linorcement	

Application Number	Agency	Program Area	Project Title	Obligated Amount
LE 23-157	UMCP Police Department	Speed Enforcement	Speed Enforcement	\$3,000.00
LE 23-017	Westminster Police Department	Speed Enforcement	Speed Enforcement	\$500.00
LE 23-112	Wicomico County Sheriff	Speed Enforcement	Speed Enforcement	\$6,999.60
LE 23-196	Worcester County Sheriff	Speed Enforcement	Aggressive Driving	\$2,100.00

#### **Evaluation**

The MHSO evaluates traffic safety programs through output, impact, and outcome measures. Outcome measures include crash data (fatality and serious injury). Impact measures can include driver surveys that are conducted before and after HVE campaigns to measure changes in Maryland driver behaviors, knowledge, and awareness. Projects funded through the MHSO are required to have an effective evaluation component. Depending on the level of grant funds obligated and the scope of the project, impact or output measures are reported and evaluated throughout the grant cycle.

According to a recent Road Safety Attitudes and Behavior survey conducted by WBA Research on behalf of MDOT, the majority of Maryland road users across all regions and demographic groups consider unsafe driving a major problem. Yet, every year familiar factors contribute to roadway fatalities: speed, distractions, impairment by alcohol and drugs, and lack of seat belt use.

Speeding is a significant aggressive driving behavior and is estimated to be a contributing factor in more than one-third of all fatal crashes nationwide. Yet in the survey: About 41 percent of drivers surveyed admitted to frequently or sometimes driving 15mph or more over the speed limit on a highway (55mph); and another 37 percent of drivers admitted to driving 10mph or more over the speed limit on a residential street (30mph) in the past 30 days.

The probability of death or serious injury grows with impacts at higher speeds, doubling for every 10mph over 50mph that a vehicle travels. A pedestrian or bicyclist struck by a motorist driving 40mph is eight times more likely to die than a pedestrian or bicyclist struck at 20mph.

## **Outcome Measures**

# **Speeding-Related Fatalities**

**Target:** Reduce speeding-related fatalities by 31.3 percent from 89.2 (2016 – 2020 rolling average) to 61.3 (2019 – 2023 rolling average) by 2023.

**Outcome:** Target not met. The 2016 - 2020 average number of speeding-related fatalities was 89.2, an increase from the 2015 - 2019 average of 81.4.

				BASE YEAR	RS		
			2016	2017	2018	2019	2020
PERFORMANCE PLAN CHART		2012- 2016	2013- 2017	2014- 2018	2015- 2019	2016- 2020	
	Speeding-Related Fatalities	State	77	107	76	76	110
C-6	Reduce speeding-related fatalities by 31.3 percent from 89.2 (2016-2020 rolling average) to 61.3 (2019 – 2023 rolling average) by 2023.	5-Year Rolling Avg.	95.8	91.2	84.4	81.4	89.2

Performance Measures	Target Period	Target Year(s)	Target Value FFY 22 HSP	Data Source*/FFY 22 Progress Results	On Track to Meet FFY 22 Target
C-6) Speeding- Related Fatalities	5-year	2018 – 2022	61.2	2016-2020 State 89.2	No

# **Aggressive Driving Fatalities**

**Target:** Reduce aggressive driving fatalities 25.6 percent from 45.2 (2016-2020 rolling average) to 31.9 (2019 – 2023 rolling average) by 2023.

**Outcome:** Target not met. The 2016–2020 average number of distracted driving fatalities was 45.2, an increase from the 2015–2019 average of 39.0.

	BASE YEARS					
		2016	2017	2018	2019	2020
PERFORMANCE PLAN CHART		2012- 2016	2013- 2017	2014- 2018	2015- 2019	2016- 2020
Aggressive Driving Fatalities	State	39	55	32	39	61
Reduce aggressive driving fatalities 25.6 percent from 45.2 (2016-2020 rolling average) to 31.9 (2019 – 2023 rolling average) by 2023.	5-Year Rolling Avg.	40.6	40.6	36.4	39.0	45.2

Performance Measures	Target Period	Target Year(s)	Target Value FFY 22 HSP	Data Source*/FFY 22 Progress Results	On Track to Meet FFY 22 Target
Aggressive Driving Fatalities	5-year	2018- 2022	29.0	2016 – 2020 State45.2	No

# **Speeding-Related Serious Injuries**

**Target**: Reduce speeding-related serious injuries 40.6 percent from 348.2 (2016-2020 rolling average) to 206.7 (2019 – 2023 rolling average) by 2023.

**Outcome:** Target not met. The 2016–2020 average number of speeding-related serious injuries was 348.2, an increase from the 2015–2019 average of 346.8

				E	BASE YEAF	RS	
			2016	2017	2018	2019	2020
F	PERFORMANCE PLAN CHART		2012- 2016	2013- 2017	2014- 2018	2015- 2019	2016- 2020
	Speeding-Related Serious Injuries	State	395	370	363	314	299
	Reduce speeding-related serious injuries 40.6 percent from 348.2 (2016-2020 rolling average) to 206.7 (2019 – 2023 rolling average) by 2023.	5-Year Rolling Avg.	462.6	409.2	373.4	346.8	348.2

Performance Measures	Target Period	Target Year(s)	Target Value FFY 22 HSP	Data Source*/FFY 22 Progress Results	On Track to Meet FFY 22 Target
Speeding-Related Serious Injuries	5-year	2018- 2022	219.5	2016-2020 State 348.2	No

# **Aggressive Driving Serious Injuries**

**Target:** Reduce aggressive driving serious injuries 35.2 percent from 179.2 (2016 – 2020 rolling average) to 116.1 (2019 – 2023 rolling average) by 2023.

**Outcome:** Target not met, but progress was made. The 2016 – 2020 average number of aggressive driving serious injuries was 179.2, a decrease from the 2015–2019 average of 182.6.

				E	BASE YEAF	RS	
			2016	2017	2018	2019	2020
F	PERFORMANCE PLAN CHART		2012- 2016	2013- 2017	2014- 2018	2015- 2019	2016- 2020
	Aggressive Driving Serious Injuries	State	199	172	174	178	173
	Reduce aggressive driving serious injuries 35.2 percent from 179.2 (2016 – 2020 rolling average) to 116.1 (2019 – 2023 rolling average) by 2023.	5-Year Rolling Avg.	235.2	211.8	186.8	182.6	179.2

Performance Measures	Target Period	Target Year(s)	Target Value FFY 22 HSP	Data Source*/FFY 22 Progress Results	On Track to Meet FFY 22 Target
Aggressive Driving Serious Injuries	5-year	2018- 2022	122.0	2016 – 2020 State 179.2	Made Progress

# Motorcycle Safety Program

#### **Problem Identification**

Compared to the previous year, motorcycle-involved crashes in 2020 increased by 2.3 percent, as fatality crashes increased by 9.5 percent during the same period. Between 2016 and 2020, an average of 1,357 motorcycle-involved crashes occurred on Maryland roads each year.

From 2016 through 2020 in Maryland, motorcycle-involved crashes accounted for 2.4 percent of injuries and 13.9 percent of fatalities. Thus, motorcycles are significantly over-represented in fatal crashes.

While a relatively low 5.4 percent of motorcycle crashes result in a fatality, the fact that 13.9 percent of all statewide fatalities involve a motorcycle is cause for concern among traffic safety experts. This significant involvement of motorcycles in fatal crashes and their over-representation in overall traffic fatalities in Maryland indicate the need for greater motorcycle safety efforts such as awareness, education, training, and enforcement.

# Frequency of Motorcycle Crashes

Warmer weather is conducive to motorcycle riding, so it is not surprising that higher proportions of motorcycle-involved crashes occurred during the warm-weather months of May through September. Crashes were significantly more common during the weekend days, with more than half (54 percent) occurring Friday through Sunday. Motorcycle-involved crashes were most common between 2:00 and 8: 59 p.m. (54 percent).

Crash data in recent years have shown that more than one in three of fatal motorcycle crashes involved only the motorcycle. Inattention and speed are frequent causal factors in motorcycle crashes, with alcohol impairment a higher occurrence in fatal motorcycle crashes.

## Typical Profile of Motorcycle Operator in Crashes

Crash data suggested the typical profile of Maryland motorcycle operators involved in a crash as male (87 percent), ages 21 to 34 and 50 to 59, with more than two in every three wearing a safety helmet (72 percent). Most motorcycle crashes occurred in Baltimore City and Baltimore and Prince George's counties, mainly urban areas.

#### Helmet Law Violations in Maryland

Maryland has had a comprehensive mandatory helmet law for decades, but the accurate capturing of helmet use on the crash report may be in question. Crash data for 2020 indicated that 11 percent of injured motorcycle operators in a crash were known to not be wearing a helmet and 7 percent of operator fatalities were unhelmeted.

Further investigation and verification of helmet usage rates are required before a distinct correlation can be assumed between the lack of helmet use and fatal injuries. Additional evaluation and investigation are viable first steps in determining the accuracy of observational surveys vs. crash reports and remain vital to the development and implementation of effective strategies to improve motorcycle safety. No funding is used to check for helmet usage or for motorcycle safety checkpoints.

#### Solution

Funded projects will help address motorcycle safety issues through partnerships among government agencies and stakeholder groups such as motorcycle dealers and motorcycle clubs. These partnerships involve scheduled outreach activities geared toward reducing motorcycle-involved crashes in areas where crash rates are highest.

A component of the Motorcycle Safety emphasis area is the Be the LOOK TWICE Driver subtheme of the MHSO's Be the Driver campaign. Media campaigns will be coordinated to increase awareness of motorcycle safety issues and will use a variety of communications techniques to reach targeted audiences. In addition to public information and education, adequate rider training and licensure are major components of Maryland's efforts to decrease motorcycle-involved crashes, in addition to improved enforcement of the state's traffic safety laws.

Numerous rider courses are offered through the Maryland Motorcycle Safety Program. The state's goals are to improve rider skill and to increase awareness levels and "share the road" among motorcyclists and other vehicle drivers. In FFY 2022, the MHSO assumed majority of the motorcycle rider outreach formerly conducted by the MDOT MVA, including other items that are used for training and outreach activities throughout the year. In addition, MD MOTORS (Motor Officers Training Other Riders Safety), a new motorcycle course developed by the Maryland State Police Motor Unit, launched in FFY 2022 with 11 initial classes and will be continued in FFY 2023.

#### **Action Plan**

The Motorcycle Safety projects funded for FFY 2023 are representative of evidence-based countermeasures and address motorcycle safety issues using a multifaceted approach.

Project Agency: Crash Center for Research and Education (CORE)							
Program Area: Special Projects Project Number: GN 23-182							
Project Funds / Type: \$18,029.09 / FA 402 (Note: Total includes Indirect Cost)							
Countermeasures: NHTSA Countermeasures That W	/ork (2017, 9th Edition)						

### SHSP Strategy:

• Strategies to drive down motorcycle-related fatalities and injuries include public outreach, motorist education and awareness campaigns, and enhanced motorcycle safety training.

Project Description: In the next phase of MD MOTORS, Crash Core will continue to carry out the designed prepost-program evaluation comparing the participants' knowledge with that of a control group. The objectives of the study and evaluation are to determine if the program was implemented as intended; support expansion and replication efforts; evaluate the effectiveness of the program on improved knowledge and awareness; and evaluate the effectiveness of the program on improved riding skills. The results of this project will inform future program expansion and replication. The findings will also support the future evaluation of the program's impact on crash risk once enough riders have been trained to provide a large enough sample size. Methods and findings of the proposed evaluation will be detailed in a report to the MHSO.

#### **Evaluation**

The MHSO evaluates traffic safety programs through output and outcome measures. Outcome measures include crash data (fatality and serious injury). Projects funded through the MHSO are required to have an effective evaluation component. Depending on the level of grant funds obligated and the scope of the project, impact or output measures are reported and evaluated throughout the grant cycle.

## Outcome Measures

# **Motorcyclist Fatalities**

**Target:** Reduce motorcyclist fatalities by 9.48 percent from 72.8 (2016 – 2020 rolling average) to 65.9 (2019 – 2023 rolling average) by 2023.

Outcome: Target not met. The 2016 - 2020 average number of motorcyclist fatalities was 72.8, an increase from the 2015-2019 average of 71.2.

					BASE YEAR	S	
			2016	2017	2018	2019	2020
PERFORMANCE PLAN CHART		2012- 2016	2013- 2017	2014- 2018	2015- 2019	2016- 2020	
	Motorcyclist Fatalities	State	72	82	57	75	78
C-7	Reduce motorcyclist fatalities by 9.48 percent from 72.8 (2016-2020 rolling average) to 65.9 (2019 – 2023 rolling average) by 2023.	5-Year Rolling Avg.	68.8	70.2	69.4	71.2	72.8

Performance Measures	Target Period	Target Year(s)	Target Value FFY 22 HSP	Data Source*/FFY 22 Progress Results	On Track to Meet FFY 22 Target
C-7) Motorcyclist Fatalities	5-year	2018- 2022	64.1	2016-2020 State 72.8	No

# **Unhelmeted Motorcyclist Fatalities**

**Target:** Reduce unhelmeted motorcyclist fatalities 6.4 percent from 9.4 (2016 – 2020 rolling average) to 8.8 (2019 – 2023 rolling average) by 2023.

**Outcome:** Target not met but progress was made. The 2016 – 2020 average number of unhelmeted motorcyclist fatalities was 9.4, a decrease from the 2015–2019 average of 10.0.

				BASE YEARS					
			2016	2017	2018	2019	2020		
PERFORMANCE PLAN CHART		2012- 2016	2013- 2017	2014- 2018	2015- 2019	2016- 2020			
	Unhelmeted Motorcyclist Fatalities	State	8	17	9	7	6		
C-8	Reduce unhelmeted motorcyclist fatalities 6.4 percent from 9.4 (2016-2020 rolling average) to 8.8 (2019 – 2023 rolling average) by 2023.	5-Year Rolling Avg.	10.6	11.0	11.0	10.0	9.4		

Performance Measures	Target Period	Target Year(s)	Target Value FFY 22 HSP	Data Source*/FFY 22 Progress Results	On Track to Meet FFY 22 Target
C-8) Unhelmeted Motorcyclist Fatalities	5-year	2018- 2022	9.4	2016-2020 State 9.4	Progress Made

# **Motorcyclist Serious Injuries**

**Target:** Reduce motorcyclist serious injuries by 18.6 percent from 301.4 (2016 – 2020 rolling average) to 245.3 (2019 – 2023 rolling average) by 2023.

**Outcome:** Target not met. The 2016 - 2020 average number of motorcyclist serious injuries was 301.4, an increase from the 2015 - 2019 average of 286.6.

				ASE YEAR	S	
		2016	2017	2018	2019	2020
PERFORMANCE PLAN CHART		2012- 2016	2013- 2017	2014- 2018	2015- 2019	2016- 2020
Motorcyclist Serious Injuries	State	298	320	298	277	314
Reduce motorcyclist serious injuries by 18.6 percent from 301.4 (2016 – 2020 rolling average) to 245.3 (2019 – 2023 rolling average) by 2023.	5-Year Rolling Avg.	267.0	275.0	285.0	286.6	301.4

Performance Measures	Target Period	Target Year(s)	Target Value FFY 22 HSP	Data Source*/FFY 22 Progress Results	On Track to Meet FFY 22 Target
Motorcyclist Serious Injuries	5-year	2018- 2022	234.8	2016-2020 State 301.4	No

# Pedestrian and Pedalcyclist Safety Programs

#### Pedestrian-Involved Crashes

The incidence of pedestrian on foot-involved crashes in Maryland in 2020 decreased by 25.3 percent since 2019, but fatalities increased by 5.6 percent (from 124 to 131 deaths) during the same period. Approximately 2,345 pedestrian-involved crashes occurred on Maryland roads in 2020, and an average of 3,142 such crashes occurred per year between 2016 and 2020.

For the same five-year period, pedestrians were involved in an annual average of 2.8 percent of all traffic crashes, 8.6 percent of injury crashes, and more than one in five (23.7 percent) of fatal crashes. Pedestrians involved in crashes accounted for 6.7 percent of injuries and 22.4 percent of all fatalities, although only 3.8 percent of pedestrian-involved crashes resulted in a fatality. These facts alone show cause for concern among safety professionals, as pedestrians are significantly over-represented in fatal crashes. The significant risk to pedestrians involved in crashes calls for improved pedestrian safety as a major focus for traffic safety professionals across the state.

# Frequency of Pedestrian-Involved Crashes

Pedestrian-involved crashes tended to occur consistently through the first eight months of the year, but more than one-third of pedestrian-involved crashes (38 percent) occurred in the fall and early winter months, September through December, corresponding to the time of year when 42 percent of fatal pedestrian crashes occurred. September and October accounted for 19 percent of total pedestrian crashes, including 22 percent of fatal crashes.

Three in every four pedestrian-involved crashes (76 percent) occurred on a weekday, Monday through Friday. 41 percent of all pedestrian-involved crashes occurred Friday through Sunday, and nearly half of all fatal crashes (43 percent) took place from Friday through Sunday.

More than half (54 percent) of pedestrian-involved crashes occurred between the hours of 2:00 and 9:59 p.m. More than half of all fatal crashes involving pedestrians took place later in the evening, from 5:00 p.m. to 12:59 a.m. (59 percent).

# Typical Profile of Pedestrians Involved in Crashes

The profile of Maryland pedestrians involved in overall crashes included ages 20 –39, male, and being struck on the road but not in a crosswalk (31 percent), compared to fatal crashes where 56 percent of pedestrians were on the road and not in a crosswalk. Traditional school aged children (ages 5 – 19) were involved in 19 percent of pedestrian crashes and seven percent of fatal crashes. By contrast, older age groups tended to be involved in more serious pedestrian crashes, often later at night. The age range of 40 to 59-year-olds accounted for over one in four (27 percent) of all pedestrians involved in crashes, but more than one in three (36 percent) of all pedestrian fatalities. Pedestrians of age 60 or older accounted for 16 percent of all pedestrians involved in crashes, but 26 percent of all pedestrian fatalities.

Twenty-seven percent of pedestrian crashes occurred on state-maintained roads, compared to 35 percent on county roads and 14 percent in parking lots. Contrastingly, 73 percent of fatal crashes occurred on state-maintained roads (higher speeds), whereas 21 percent of pedestrian fatal crashes occurred on county roads (and less than 1 percent in parking lots).

## Typical Locations of Pedestrian-Involved

One-third of pedestrian crashes (32 percent) took place in Baltimore City, but these crashes accounted for only 14 percent of fatal crashes.

55 percent of all pedestrian-involved crashes occurred in six Maryland counties: Anne Arundel, Baltimore, Harford, Howard, Montgomery, and Prince George's. These same six counties accounted for more than two in every three fatal crashes involving pedestrians (65 percent).

Four other counties exhibited disproportionate results in comparing total crashes with fatal crashes. The counties of Cecil, Charles, St. Mary's, and Worcester together accounted for almost 5 percent of all pedestrian-involved crashes, but 9 percent of all fatal crashes involving pedestrians, an indicator of more serious crash situations occurring in these jurisdictions.

In 2021, 184 pedestrians were cited in Maryland for violating traffic laws, in comparison to 235 pedestrians cited in 2020, and 359 cited in 2019. Also, in 2021, 653 drivers were cited for violating pedestrian traffic laws, compared with 928 drivers cited in 2020, and 993 cited in 2019.

## Pedalcyclist-Involved Crashes

The 2020 incidence of pedalcyclist-involved crashes in Maryland decreased by 15.5 percent when compared to 2019. However, pedalcyclist -involved fatalities increased from 10 in 2019 to 16 in 2020. From 2016-2020, an average of approximately 805 pedalcyclist-involved crashes occurred on Maryland roadways each year. During the same period, pedalcyclist were involved in an annual average of fewer than one in 100 (0.7 percent) of all statewide traffic crashes, 2.0 percent of statewide injury crashes, and 2.4 percent of statewide fatal crashes. Pedalcyclist-involved crashes accounted for 1.5 percent of statewide injuries and 2.2 percent of statewide fatalities during the same period.

Pedalcyclist crashes are more likely to involve younger than older riders. Approximately one-quarter (25.5 percent) of crashes in 2020 involved children of age 17 or under. By contrast, pedalcyclist riders aged 20 to 29 accounted for 19.1 percent of all crashes and riders aged 40 to 54 accounted for 17.1 percent of all crashes.

Pedalcyclist riders, like pedestrians, do not have the structural protection afforded by vehicles, are not as visible as other vehicles, and are not motorized. These factors together put bicycles at a great disadvantage on roadways, especially where motorized vehicles are traveling at much higher rates of speed. From 2016-2020, more than half of all pedalcyclist-involved crashes (57.3 percent) occurred on state, county, and federal roadways, but 86.5 percent of all fatal crashes involving pedalcyclist occurred on the same roadways.

## Frequency of Pedalcyclist-Involved Crashes

Pedalcyclist crashes were more common from May through October, when 70 percent of all such crashes occurred, most likely due to warmer/drier weather encouraging greater use of bicycles for travel or commuting, as well as increased recreational riding.

Most fatal pedalcyclist crashes (73 percent) occurred from June through November. Close to half (47 percent) of fatal pedalcyclist-involved crashes occurred Friday through Sunday, although those same three days accounted for nearly 41 percent of total crashes.

Approximately three in four pedalcyclist-involved crashes (71 percent) and nearly one-half of fatal crashes (44 percent) occurred between noon and 9:59 p.m.

# Typical Profile of Crash-Involved Pedalcyclist

Maryland crash data indicated a typical profile for a pedalcyclist involved in a crash as male between (83 percent) with 42 percent of all pedalcyclist struck were riding in the roadway (25 percent with traffic and 9 percent against traffic). Riders of ages 10 to 29 accounted for 48 percent of all riders involved in and injured in crashes and 28 percent of fatalities. Riders between ages 50 and 64 accounted for 18 percent of all riders involved in crashes and 18 percent of those who were injured, but 41 percent of pedalcyclist fatalities.

One-fourth (25 percent) of pedalcyclist crashes occurred in Baltimore City, where nine (9) percent of fatal crashes occurred. 55 percent of total bicycle crashes occurred in five counties: Anne Arundel, Baltimore, Montgomery, Prince George's, and Worcester counties, and these same five counties accounted for 54 percent of fatal crashes.

Clearly, pedalcyclist-involved crashes, like pedestrian-involved crashes, were over-represented statistically in terms of resulting injuries and fatalities, particularly among younger and older riders. The combination of pedalcyclist and pedestrian safety represent a major focus point for safety professionals.

#### Solution

Maryland has three principal campaigns for pedestrian and pedalcyclist safety in the Washington, D.C. and Baltimore metropolitan areas. The first one is the Be the Driver subtheme, Be the SHARE THE ROAD Driver. The campaign reminds all road users that no matter how you travel to your destination, we should work together to get there safely. This includes stopping for pedestrians, giving pedalcyclists at least three feet of space when passing and using crosswalks or intersections, and shows pedalcyclists (including a character riding an electric scooter) wearing helmets. The second campaign is known as Street Smart and has been historically focused on the metropolitan Washington, D.C. region, including Montgomery and Prince George's counties. The third effort, known as Look Alive has been adopted in the Baltimore metropolitan area. Pedestrian safety funds will be coordinated with all campaigns to coincide with media-centered awareness, education, and enforcement efforts. Local safety partners and others distribute educational material throughout the year. The MHSO also supports National Walk to School Day events, designed to improve education and awareness for children and parents.

Maryland has an avid bicycling population and incorporates special planning into traffic safety activities to meet the needs of these road users. With infrastructure improvements as a key element of the SHSP, Maryland traffic safety officials seek to make the bicycling environment as safe as possible through infrastructure improvements, social media information, and the integration of bicycle safety messaging within statewide pedestrian safety campaigns and motorist safety materials.

### Pedestrian and Bicyclist Program Assessment

Maryland hosted a hybrid pedestrian and bicyclist program assessment in March 2022. The assessment provided an opportunity for MHSO staff and partners to present success and challenges to a subject matter expert team provided by NHTSA. Key recommendations from the assessment will be implemented in FFY 2023. These include but are not limited to involving law enforcement personnel during the planning stages of roadway

engineering modifications through the naming of the MDOT SHA Assistant Chief & Statewide Bicycle/Pedestrian Coordinator as co-chair on the Pedestrian/Bicyclist Emphasis Area Task Force; identifying high-risk groups by crash and injury data trends and developing safety initiatives to reduce fatalities and injuries among these high risk groups including communities of interest through zip code analysis; and expanding employer based pedestrian and bicycle safety education by working with the Chesapeake Region Safety Council who has contact with more than 14,000 workplace safety professionals and first aid/defensive driving instructors.

#### **Action Plan**

The pedestrian and bicycle safety projects funded for FFY 2023 are representative of evidence-based countermeasures and address pedestrian and pedalcyclist safety issues using a multifaceted approach.

#### **Pedestrian Safety**

Project Agency: Baltimore City Department of Transportation			
Program Area: Pedestrian/Bicycle	Project Number: GN 23-250		
Project Funds / Type: \$1,500.00 / SMDF	Indirect Costs / Type:		
Countermeasures: NHTSA Countermeasures Th	nat Work (2017, 9th Edition)		

#### SHSP Strategy:

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• Promote a systemic safety culture through the support of outreach initiatives including public awareness, education, training, and media campaigns focused on pedestrian and bicycle safety.

**Project Description:** This grant will allow BCDOT to organize community-based pop-up events focused on bicycle and pedestrian safety. Pop-up event locations will focus on neighborhoods where crashes are occurring at alarming rates and where traditional outreach has been ineffective. Community led programing will feature bike repairs, bike safety activities, and walking tour audits (see supplemental documentation, which include the call for proposals). BCDOT led programming will include bike and scooter safety courses, safety equipment, and information about standard roadway safety treatments. Success from these pop-ups will be evaluated through a post-event survey and tracking engagement through DOT portals including 311 requests, subscriptions to listservs, bike program requests, and scooter trips in the targeted neighborhoods.

Program Area: Pedestrian/Bicycle	Project Number: GN 23-145	
Project Funds / Type: \$400,000.00 / BIL 402	Indirect Costs / Type:	
Countermeasures: NHTSA Countermeasures Th	at Work (2017, 9th Edition)	

• Promote a systemic safety culture through the support of outreach initiatives including public awareness, education, training, and media campaigns focused on pedestrian and bicycle safety.

**Project Description:** This project supports and expands the Baltimore Metropolitan Region's Look Alive pedestrian and bicycle safety education and media campaign. This campaign, featuring "Signal Woman" aims to provide educational outreach for pedestrians, bicyclists, and drivers to raise awareness of the rules that protect the most vulnerable road users. The FY 2023 campaign will benefit from new creative developed during FFY 2022. We believe continuing and expanding the LOOK ALIVE campaign during the next three to five fiscal years will help educate drivers, pedestrians and cyclists and bring down the number of crashes, injuries, and fatalities.

Project Agency: Prince George's County - Department of Public Works and Transportation			
Program Area: Special Projects	Project Number: GN 23-154		
Project Funds / Type: \$34,500.00 / BIL 402	Indirect Costs / Type:		
Countermeasures: NHTSA Countermeasures That	Work (2017, 9th Edition)		

#### SHSP Strategy:

• Promote a systemic safety culture through the support of outreach initiatives including public awareness, education, training, and media campaigns focused on pedestrian and bicycle safety.

**Project Description:** This grant will fund the Street Smart Testimonial Wall display at high schools and malls throughout Prince George's County. The 8' tall Wall is a static exhibit that tells the stories of car crash victims in a way that engages audiences of all ages. Complementing the Wall are small sandwich board signs with safety tips for walking, biking, and driving.

Project Agency: Metropolitan Washington Council of Governments					
Program Area: Pedestrian/Bicycle Project Number: GN 23-052					
Project Funds / Type: \$250,000.00 / BIL 402 Indirect Costs / Type:					
Countermeasures: NHTSA Countermeasures That	Work (2017, 9th Edition)				

#### SHSP Strategy:

• Promote a systemic safety culture through the support of outreach initiatives including public awareness, education, training, and media campaigns focused on pedestrian and bicycle safety.

**Project Description:** This project supports the Washington Metropolitan Region's Shattered Lives pedestrian and bicycle safety education and media campaign by providing advertising, public relations support, and other

tools to its member jurisdictions. These jurisdictions then carry out the necessary engineering and enforcement elements.

Project Agency: Neighborhood Design Center				
Program Area: Pedestrian/Bicycle	Project Number: GN 23-106			
Project Funds / Type: \$44,933.99 / BIL 402 (Note: Total includes Indirect Cost)	Indirect Costs / Type: \$4,084.91 / BIL 402			
Countermeasures: NHTSA Countermeasures That W	/ork (2017 9th Edition)			

# SHSP Strategy:

• Promote a systemic safety culture through the support of outreach initiatives including public awareness, education, training, and media campaigns focused on pedestrian and bicycle safety.

**Project Description:** The Neighborhood Design Center (NDC) will support Maryland's highway safety goals in 2022-2023 by building upon the successes and learnings of the Made You Look toolkit during the past four years. The NDC will train staff on the implementation of the Made You Look toolkit, to expand and adapt the toolkit to other areas of Maryland, starting in Prince George's County, and to evaluate the toolkit's impact on pedestrian and motorist behaviors and safety.

#### **Pedalcyclist Safety**

Project Agency: Baltimore City Department of Transportation			
Program Area: Pedestrian/Bicycle	Project Number: GN 23-250		
Project Funds / Type: \$3,000.00 / SMDF	Indirect Costs / Type:		
Countermeasures: NHTSA Countermeasures Th	nat Work (2017 9th Edition)		

# SHSP Strategy:

• Promote a systemic safety culture through the support of outreach initiatives including public awareness, education, training, and media campaigns focused on pedestrian and bicycle safety.

**Project Description:** This grant will continue in-community pop-up events focusing on bicycle and pedestrian safety in neighborhoods where crashes are occurring at alarming rates. Geo-targeted online advertising and existing safety PSAs will complement the events. Community led programing will feature bike repairs, bike safety activities, and walking tour audits. BCDOT led programming will include bike and scooter safety courses, safety equipment, and information about standard roadway safety treatments. Success from these pop-ups will be evaluated through a post-event survey and tracking engagement through BCDOT portals.

Project Agency: Maryland Institute for EMS Systems	
Program Area: Pedestrian/Bicycle	Project Number: GN 23-050
Project Funds / Type: \$27,928.10 / Bikeways	Indirect Costs / Type:
Countermeasures: NHTSA Countermeasures That Wo	rk (2017, 9th Edition)

## SHSP Strategy:

• Promote a systemic safety culture through the support of outreach initiatives including public awareness, education, training, and media campaigns focused on pedestrian and bicycle safety.

**Project Description:** This project seeks to reduce the incidence of significant head injury and death in Maryland due to bicycle crashes through coordination of the production of educational materials, frequent social media communications, development of new partnerships and maintaining existing ones, and distribution of bike helmets through Safe Kids partnerships in Maryland. Bicycle safety education and helmet distribution will be provided to high-risk areas of the state to support existing local experts.

Project Agency: BYKE Collective		
Program Area: Pedestrian/Bicycle	Project Number: GN 23-263	
Project Funds / Type: \$44,013.18 / SMDF	Indirect Costs / Type:	
Countermeasures: NHTSA Countermeasures Tha	at Work (2017, 9th Edition)	

## SHSP Strategy:

• Promote a systemic safety culture through the support of outreach initiatives including public awareness, education, training, and media campaigns focused on pedestrian and bicycle safety.

**Project Description:** This project will prioritize increasing accessibility to resources and practices about bike safety risk reduction tactics for people of color in Baltimore City between the ages of 8-24 years. By providing resources and education about pedestrian rights and awareness, BYKE Collective will equip youth residents to become more aware of their safety. This project will be shared with four youth-center bike organizations, which primarily serve people of color populations (approximately 80 percent Black/ African American and 20 percent Latinx) between 13-24 years of age, with direct services in five city council districts (10, 11, 12, 23, 14) and expanding services in five other city council districts (2, 3, 6, 7, 9).

BYKE Collective will host several screen printing and education events as well as youth-led bike rides. To ensure the authenticity and community buy-in, BYKE collective will hire youth ambassadors from each partner organization to lead these activities. Youth ambassadors will be tasked with learning about pedestrian and bike safety practices, make designs for reflective apparel, and host night bikes rides throughout Baltimore City.

For all the enforcement-related grants listed below, the following information applies:

Project Agency: Various (see below)	
Program Area: Pedestrian/Bicycle	Project Number: Various (see below)
Project Funds / Type: \$81,996.14 / SMDF	Indirect Costs / Type:

Countermeasures: NHTSA Countermeasures That Work (2017, 9th Edition)

# SHSP Strategy:

- Promote a systemic safety culture through the support of outreach initiatives including publicawareness, education, training, and media campaigns focused on pedestrian and bicycle safety.
- Support the improved enforcement of pedestrian and bicycle-related laws, as well as supportenforcement initiatives that promote safe behaviors.

**Project Description:** HVE for pedestrian and pedalcyclist safety.

Application Number	Agency	Program Area	Project Title	Obligated Amount	
LE 23-082	Anne Arundel County Police Department	Pedestrian/Bicycle	Pedestrian/Bicycle	\$10,000.00	
LE 23-202	Baltimore City Police Department	Pedestrian/Bicycle	Pedestrian/Bicycle	\$3,000.00	
LE 23-010	Baltimore County Police Department	Pedestrian/Bicycle	Pedestrian/Bicycle	\$37,000.00	
LE 23-041	Bel Air Police Department	Pedestrian/Bicycle	Pedestrian/Bicycle	\$1,815.00	
LE 23-214	Calvert County Sheriff	Pedestrian/Bicycle	Pedestrian/Bicycle	\$3,000.00	
LE 23-125	Carroll County Sheriff	Pedestrian/Bicycle	Look Both Ways	\$2,500.00	
LE 23-241	Cecil County Sheriff	Pedestrian/Bicycle	Pedestrian/Bicycle	\$3,520.00	
LE 23-120	Charles County Sheriff	Pedestrian/Bicycle	Pedestrian/Bicycle	\$8,000.00	
LE 23-033	City of Bowie	Pedestrian/Bicycle	Bowie City Ped	\$2,000.00	
LE 23-254	City of Hyattsville Police Department	Pedestrian/Bicycle	Pedestrian/Bicycle	\$1,500.00	

Application Number	Agency	Program Area	Project Title	Obligated Amount
LE 23-133	Cumberland Police Department	Pedestrian/Bicycle	Pedestrian Safety	\$1,000.00
LE 23-068	Havre de Grace Police Department	Pedestrian/Bicycle	Pedestrian	\$1,500.00
LE 23-089	Laurel Police Department	Pedestrian/Bicycle	Pedestrian Enforcement	\$1,000.00
LE 23-187	Maryland Capitol Police	Pedestrian/Bicycle	MD Capitol Police Pedestrian Enforcement	\$1,000.00
LE 23-265	Maryland State Police - Statewide	Pedestrian/Bicycle	Pedestrian Safety	\$13,000.00
LE 23-110	Mt. Airy Police Department	Pedestrian/Bicycle	Pedestrian Safety Enforcement	\$1,000.00
LE 23-140	Ocean City Police Department	Pedestrian/Bicycle	OCPD FY23 Highway Safety Grant - Ped/Bike	\$14,916.00
LE 23-104	Perryville Police Department	Pedestrian/Bicycle	Pedestrian/Bicycle Enforcement detail	\$1,500.00
LE 23-147	Prince George's County Police Department	Pedestrian/Bicycle	2023 Pedestrian Grant	\$20,000.00
LE 23-236	Princess Anne Police Department	Pedestrian/Bicycle	PED/BIKE 2023	\$2,995.14
LE 23-038	Riverdale Park Police Department	Pedestrian/Bicycle	Pedestrian/Bicycle	\$1,000.00
LE 23-159	UMCP Police Department	Pedestrian/Bicycle	Pedestrian and Bicycle Enforcement	\$2,000.00
LE 23-048	Westminster Police Department	Pedestrian/Bicycle	Pedestrian/Bicycle	\$750.00

#### **Evaluation**

The MHSO evaluates traffic safety programs through output and outcome measures. Outcome measures include crash data (fatality and serious injury). Projects funded through the MHSO must have an effective evaluation component. Depending on the level of grant funds obligated and the scope of the project, output measures are reported and evaluated throughout the grant cycle.

Law enforcement, engineering and media/communications partners are provided with additional analysis that support a more targeted approach within jurisdictions over-represented in this program area. Data and analyses are provided in standard and by-request (ad hoc) formats that support localized targeting of traffic safety initiatives.

According to a recent Road Safety Attitudes and Behavior survey conducted by WBA Research on behalf of MDOT, the majority of Maryland road users across all regions and demographic groups consider unsafe driving a major problem. Yet, every year familiar factors contribute to roadway fatalities: speed, distractions, impairment by alcohol and drugs, and lack of seat belt use.

Everyone is a pedestrian at some point, and it's important that everyone does their part to share the road. Pedestrians should always follow traffic rules and cross at designated pedestrian crossings wherever possible. In the survey: 57 percent of respondents said they don't feel comfortable walking along or crossing roadways. However, 37 percent said they always utilize a crosswalk when available.

In 2020, 88 pedestrians were killed at locations other than crosswalks – including walking on the shoulder, in the median, or at an intersection not within the available crosswalk.

Seventy-six percent of cyclists who bike along roadways indicated in the survey that they follow the same rules of the road that they would in a car. 61 percent reported wearing bright or reflective clothing and/or outfitting their bikes with lights for riding in poor visibility situations. 52 percent of bicyclists who ride on roadways felt comfortable in a bike lane in the last 30 days. However, this drops to 38 percent when there is no bike lane available.

## **Outcome Measures**

## **Pedestrian Fatalities**

**Target:** Reduce pedestrian fatalities by 5.9 percent from 120.6 (2016 - 2020 rolling average) to 113.5 (2019 - 2023 rolling average) by 2023.

**Outcome:** Target not met. The 2016 – 2020 average number of pedestrian fatalities was 120.6, anincrease from the 2015–2019 average of 114.2.

			BASE YEARS				
			2016	2017	2018	2019	2020
PERFORMANCE PLAN CHART		2012-	2013-	2014-	2015-	2016-	
			2016	2017	2018	2019	2020
	Pedestrian (01 only) Fatalities	State	107	111	130	124	131
C-10	Reduce pedestrian fatalities by 5.9 percent from 120.6 (2016 – 2020 rolling average) to 113.5 (2019 – 2023 rolling average) by 2023.	5-Year Rolling Avg.	102.8	105.8	109.8	114.2	120.6

Performance Measures	Target Period	Target Year(s)	Target Value FFY 22 HSP	Data Source*/FFY 22 Progress Results	On Track to Meet FFY 22 Target
C-10) Pedestrian Fatalities	5-year	2018- 2022	107.5	2016-2020 State 120.6	No

# **Pedalcyclist Fatalities**

**Target:** Reduce pedalcyclist fatalities 6.0 percent from 11.6 (2016-2020 rolling average) to 10.9 (2019 – 2023 rolling average) by 2023.

**Outcome**: Target not met. The 2016–2020 average number of pedalcyclist fatalities was 11.6, an increase from the 2015–2019 average of 10.8

			BASE YEARS				
			2016	2017	2018	2019	2020
PERFORMANCE PLAN CHART			2012-	2013-	2014-	2015-	2016-
			2016	2017	2018	2019	2020
	Pedalcyclist Fatalities	State	16	11	6	10	15
C-11	Reduce pedalcyclist fatalities 6.0 percent from 11.6 (2016 – 2020 rolling average) to 10.9 (2019 – 2023 rolling average) by 2023.	5-Year Rolling Avg.	8.8	10.0	9.8	10.8	11.6

Performance Measures	Target Period	Target Year(s)	Target Value FFY 22 HSP	Data Source*/FFY 22 Progress Results	On Track to Meet FFY 22 Target
C-11) Pedalcyclist Fatalities	5-year	2018- 2022	10.2	2016-2020 State 11.6	No

# **Pedestrian Serious Injuries**

**Target:** Reduce pedestrian serious injuries by 14.7 percent from 429.0 (2016 – 2020 rolling average) to 379.9 (2019 – 2023 rolling average) by 2023.

**Outcome:** Target not met. The 2016 – 2020 average number of pedestrian serious injuries was 429.0, an increase from the 2015–2019 average of 421.4.

				E	BASE YEAR	S	
			2016	2017	2018	2019	2020
PER	PERFORMANCE PLAN CHART			2013-	2014-	2015-	2016-
			2016	2017	2018	2019	2020
Pe	edestrian (01 only) Serious Injuries	State	419	475	465	426	360
p	Reduce pedestrian serious injuries by 14.7 percent from 429.0 (2016 - 2020 rolling average) to 379.9 (2019 – 2023 rolling average) by 2023.	5-Year Rolling Avg.	355.2	384.2	408.4	421.4	429.0

Performance Measures	Target Period	Target Year(s)	Target Value FFY 22 HSP	Data Source*/FFY 22 Progress Results	On Track to Meet FFY 22 Target
Pedestrian Serious Injuries	5-year	2018- 2022	359.6	2016-2020 State 429.0	No

# **Pedalcyclist Serious Injuries**

**Target:** Reduce pedalcyclist serious injuries by 12.2 percent from 71.4 (2016-2020 rolling average) to 62.7 (2019 - 2023 rolling average) by 2023.

**Outcome:** Target not met. The 2016–2020 average number of pedalcyclist serious injuries was 71.4, an increase from the 2015–2019 average of 68.0.

					BASE YEAR	RS	
			2016	2017	2018	2019	2020
F	PERFORMANCE PLAN CHART		2012- 2016	2013- 2017	2014- 2018	2015- 2019	2016- 2020
	Pedalcyclist Serious Injuries	State	65	85	59	80	68
	Reduce pedalcyclist serious injuries by 12.2 percent from 71.4 (2016-2020 rolling average) to 62.7 (2019 - 2023 rolling average) by 2023.	5-Year Rolling Avg.	61.2	64.8	66.2	68.0	71.4

Performance Measures	Target Period	Target Year(s)	Target Value FFY 22 HSP	Data Source*/FFY 22 Progress Results	On Track to Meet FFY 22 Target
Bicyclist Serious Injuries	5-year	2018- 2022	60.4	2016-2020 State 71.4	No

# Young and Older Driver Safety Program

#### **Problem Identification**

# Young-Driver Involved

Young drivers (ages 16-20) are at greater risk on roadways often simply due to a lack of experience behind the wheel. The unique challenges many of these drivers' face must be considered in all planning and education efforts. Young drivers' relative inexperience may indicate less anticipation, slower reaction times, poor judgment, or risky behavior as compared to drivers 21 and older, and all these issues must factor into awareness, education, and enforcement efforts.

For the five-year period from 2016 through 2020, the incidence of young-driver involved crashes increased by 15 percent in Maryland compared to 2011 to 2015, with over 13,731 young-driver involved crashes having occurred on Maryland roads on average between 2016-2020 (compared to 11,988 in the previous five years).

From 2016 through 2020, young drivers were involved in an average of one in eight (12 percent) of all traffic crashes, 14 percent of injury crashes, and 10 percent of fatal crashes. young driver-involved crashes accounted for 14 percent of injuries and 10 percent of fatalities.

## Frequency of Young-Driver Involved Crashes

Higher proportions of young driver involved crashes occurred during summer and fall months (May through October) when 53 percent of all such crashes and 58 percent of fatal crashes took place, perhaps reflecting greater exposure on roadways during summer breaks from high school and college.

Crashes involving young drivers were most common during weekdays, but Friday through Sunday accounted for 43 percent of all young driver involved crashes and 45 percent of fatal crashes. Three in four (76 percent) young driver involved crashes were of ages 18–20, and 77 percent of the fatally injured drivers were 18-20, reflecting the greater exposure of young drivers, particularly after Graduated Driver Licensing (GDL) restrictions are no longer applicable. Young drivers are inexperienced drivers, and inexperienced drivers are at greater risk.

Crashes involving young drivers were most common from 12 p.m. to 8:59 p.m., when 54 percent and 60 percent of total and injury crashes occurred, respectively, and when 51 percent of all fatal crashes occurred involving the age group. The fact that drivers aged 16 and 17 accounted for 23 percent of the crash-involved drivers in the age group would indicate the relative effectiveness of night-time driving restrictions imposed during the GDL process in Maryland, prohibiting young drivers from driving after midnight, when 21 percent of fatal young-driver involved crashes occurred (midnight to 6 a.m.).

Research indicates the importance of studying driving habits and patterns of young drivers to determine if these crash patterns of behavior and outcomes may be correlated.

## Typical Profile of Crash-Involved Young Drivers

Crash data revealed the most typical profile of a young driver involved in a crash was male of ages 18 to 20 (27 percent were age 20) and using a seat belt restraint, except in fatal crashes where 1 in 3 young drivers killed were unrestrained. 78 percent of all driver fatalities in this age group were male drivers.

Most crashes involving young Maryland drivers (68 percent) occurred in Anne Arundel, Baltimore, Carroll, Frederick, Harford, Howard, Montgomery, and Prince George's. 56 percent of fatal crashes in the age group occurred in these eight counties. Baltimore City accounted for 10 percent of overall crashes involving young drivers and about seven percent of all fatal crashes in the age group.

#### Older-Driver Involved

As the statewide population ages, older drivers (ages 65–110) will become more prevalent on roadways and can present unique challenges that must be considered in safety planning and education. Older drivers may have slower reaction times and shorter sight distances, which factor into awareness, education, and enforcement efforts.

For the five-year period from 2016 through 2020, the incidence of older driver involved crashes increased by 28 percent compared to 2011 to 2015. There were 14,449 crashes involving older drivers on Maryland roads each year on average between 2016 and 2020.

From 2016 through 2020, older drivers were involved in an average of more than one in eight (13 percent) of all traffic crashes, 17 percent of injury crashes, and 17 percent of fatal crashes annually. Older drivers were involved in crashes that accounted for one in six injuries (17 percent) and 18 percent of fatalities.

# Frequency of Crashes Involving Older Drivers

Older driver involved crashes occurred consistently throughout the first half of the year, with slightly higher proportions during late fall and early winter (28 percent, October through December), possibly due to inclement weather and earlier onset of darkness. More than half of all fatal crashes in this age group (56 percent) occurred between July and December.

About one-third of crashes (32 percent) involving older drivers, including fatal crashes, occurred on Thursday and Friday. Crashes involving older drivers were most common from 11 a.m. to 6:59 p.m., when 64 percent of all crashes and 55 percent of fatal crashes in the age group took place.

## Typical Profile of Crash-Involved Older Drivers

Crash data outlined the typical profile of an older Maryland driver involved in a crash as male, between ages 65 to 79 (17 percent were 80 or older, in older driver-involved-only crashes) and using a seat belt restraint (86 percent, overall crashes; 87 percent injury crashes), though notably in fatal crashes, the older drivers killed were unrestrained 24 percent of the time.

Most crashes (68 percent) involving older drivers occurred in the same eight counties outlined for young driver-involved crashes, including 55 percent of fatal crashes. 11 percent of older driver involved crashes occurred in Baltimore City and 6 percent of fatal crashes occurred in Baltimore City.

#### Solution

The MHSO and its partners address the issue of young driver safety through parent involvement programs and driver instructional efforts. The MHSO raises awareness and educates young drivers and their parents through grant-funded programs at high schools and other venues with victim advocates, safety professionals and law enforcement. Young drivers (ages 16–20) are a core component within MHSO traffic safety initiatives and much of the collateral material and publicity surrounding the state's traffic safety marketing efforts are directed at young drivers via social media, educational and other outlets.

The needs of older drivers (age 65 or older) vary greatly, and Maryland is attentive to identifying older driver needs, evaluating their driving ability, and helping plan for their continued mobility. Older driver safety initiatives are carried out at the local level with significant input from the MHSO's Partnerships, Resources, & Outreach Section. This team will be conducting CarFit sessions for older drivers in order to help them find their safest fit within their vehicle. The MHSO works closely with the MDOT MVA's Driver Safety Division on older driver education issues for statewide programming. MHSO staff also participate in the national Aging Road Users quarterly forum.

#### **Action Plan**

Projects that refer to young and older driver safety that are funded for FFY 2023 are contained within individual program areas, specifically projects intended to reduce impaired driving by Young drivers. The MHSO partners with many organizations to promote programs and projects targeting both young and older drivers.

Project Agency: Cecil County Health Department	
Program Area: Special Projects	Project Number: GN 23-026
Project Funds / Type: \$5,918 / BIL 402 (Note: Total includes Indirect Cost)	Indirect Costs / Type: \$538.00 / BIL 402
Countermeasures: NHTSA Countermeasures That Wor	rk (2017, 9th Edition)

SHSP Strategy: The grant will support multiple SHSP strategies.

**Project Description:** The Cecil County Health Department will help implement the Parking Permit Program at local high schools, an idea that was brought forward by a local 10th grade student at Rising Sun High School. Although schools have parking permits for high school drivers, this program will now require a student, parent contract to be signed that requires a conversation on eight misconceptions and most frequent causes of teen crashes (driver inexperience, driving with teen passengers, nighttime driving, not using seat belts, distracted driving, drowsy driving, reckless driving, and driving under the influence.)

Project Agency: SADD Inc.						
Program Area: Special Projects	Project Number: GN 23-251					
Project Funds / Type: \$137,409.68 / BIL 402 (Note: Total includes Indirect Cost)	Indirect Costs / Type: \$28,354.38 / BIL 402					
Countermassures: NHTSA Countermassures That Work (2017, 9th Edition)						

**Countermeasures:** NHTSA Countermeasures That Work (2017, 9th Edition)

SHSP Strategy: The grant will support multiple SHSP strategies.

**Project Description:** This project will continue SADD's work in FY22 by funding peer-to-peer chapters in schools and communities across the state. SADD. Inc is responsible for creating education messaging that promotes safe teen driving, establishing new chapters, and supporting existing chapters. Students are empowered to help identify problems within their school and community and oversee delivering the intervention(s), participating in activities, and running their local SADD chapter. In addition to the SADD coordinator, funds will support peer-to-peer programming and technical support.

#### **Evaluation**

The MHSO evaluates traffic safety programs through output and outcome measures. Outcome measures include crash data (fatality and serious injury). Projects funded through the MHSO are required to have an effective evaluation component. Depending on the level of grant funds obligated and the scope of the project, output measures are reported and evaluated throughout the grant cycle.

## **Outcome Measures**

# Young Driver Fatalities

**Target:** Reduce drivers aged 20 or younger-involved fatalities by 35.0 percent from 53.4 (2016-2020 rolling average) to 34.7 (2019 - 2023 rolling average) by 2023.

**Outcome:** Target not met. The 2016–2020 average number of drivers aged 20 or younger-involved fatalities was 53.4, an increase from the 2015–2019 average of 52.4.

					BASE YEAR	S	
			2016	2017	2018	2019	2020
PERFORMANCE PLAN CHART		2012- 2016	2013- 2017	2014- 2018	2015- 2019	2016- 2020	
	Drivers Ages 20 or Younger-Involved Fatalities	State	57	54	54	46	56
C-9	Reduce drivers ages 20 or younger-involved fatalities by 35.0 percent from 53.4 (2016-2020 rolling average) to 34.7 (2019 - 2023 rolling average) by 2023.	5-Year Rolling Avg.	50.6	48.8	51.0	52.4	53.4

Performance Measures	Target Period	Target Year(s)	Target Value FFY 22 HSP	Data Source*/FFY 22 Progress Results	On Track to Meet FFY 22 Target
C-9) Drivers Ages 20 or Younger Involved Fatalities	5-year	2018- 2022	33.6	2016-2020 State 53.4	No

# Young Driver Serious Injuries

Target: Reduce young (16-20) driver-involved serious injuries 40.5 percent from 408.6 (2016-2020 rolling average) to 243.2 (2019 – 2023 rolling average) by 2023.

**Outcome:** Target not met but progress was made. The 2016–2020 average number of young (16-20) driver-involved serious injuries was 408.6, a decrease from the 2015–2019 average of 418.4.

					BASE YEAR	S	
			2016	2017	2018	2019	2020
ı	PERFORMANCE PLAN CHART		2012- 2016	2013- 2017	2014- 2018	2015- 2019	2016- 2020
	Drivers Ages 20 or Younger- Involved Serious Injuries	State	481	426	384	407	345
	Reduce young (16-20) driver-involved serious injuries 40.5 percent from 408.6 (2016-2020 rolling average) to 243.2 (2019 – 2023 rolling average) by 2023.	5-Year Rolling Avg.	436.8	420.4	415.4	418.4	408.6

Performance Measures	Target Period	Target Year(s)	Target Value FFY 22 HSP	Data Source*/FFY 22 Progress Results	On Track to Meet FFY 22 Target
Drivers Ages 20 or Younger Involved Serious Injuries	5-year	2018- 2022	239.9	2016-2020 State 408.6	Made Progress

## **Older Driver Fatalities**

**Target:** Reduce older driver-involved fatalities 5.9 percent from 95.6 (2016-2020 rolling average) to 90.0 (2019 – 2023 rolling average) by 2023.

**Outcome:** Target not met but progress was made. The 2016–2020 average number of older driver-involved fatalities was 95.6, a decrease from the 2015–2019 average of 98.2.

					BASE YEAR	S	
			2016	2017	2018	2019	2020
F	PERFORMANCE PLAN CHART		2012- 2016	2013- 2017	2014- 2018	2015- 2019	2016- 2020
	Older Driver-Involved Fatalities	State	104	93	85	105	91
	Reduce older driver- involved fatalities 5.9 percent from 95.6 (2016- 2020 rolling average) to 90.0 (2019 – 2023 rolling average) by 2023.	5-Year Rolling Avg.	89.0	91.4	94.4	98.2	95.6

Performance	Target	Target	Target Value	Data Source*/FFY 22	On Track to
Measures	Period	Year(s)	FFY 22 HSP	Progress Results	Meet FFY 22 Target
Older Driver Involved Fatalities	5-year	2018- 2022	92.4	2016-2020 State 95.6	Made Progress

# **Older Driver Serious Injuries**

**Target:** Reduce older driver-involved serious injuries 18.8 percent from 484.8 (2016-2020 rolling average) to 393.3 (2019 – 2023 rolling average) by 2023.

**Outcome:** Target not met. The 2016–2020 average number of older driver-involved serious injuries was 484.8, an increase from the 2015–2019 average of 482.2.

				В	ASE YEAR	RS	
			2016	2017	2018	2019	2020
F	PERFORMANCE PLAN CHART		2012- 2016	2013- 2017	2014- 2018	2015- 2019	2016- 2020
	Older Driver-Involved Serious Injuries	State	505	508	518	512	381
	Reduce older driver- involved serious injuries 18.8 percent from 484.8 (2016-2020 rolling average) to 393.3 (2019 – 2023 rolling average) by 2023.	5-Year Rolling Avg.	476.2	474.2	484.6	482.2	484.8

Performance Measures	Target Period	Target Year(s)	Target Value FFY 22 HSP	Data Source*/FFY 22 Progress Results	On Track to Meet FFY 22 Target
Older Driver Involved Serious Injuries	5-year	2018- 2022	389.0	2016-2020 State 484.8	Not Met

## Traffic Safety Information System Improvement Program

#### Problem Identification

Hardware, software, personnel, and procedures that capture, store, transmit, analyze, and interpret traffic safety data are critical components to Maryland's traffic records system. The datasets managed by this system include crash, driver licensing and history, vehicle registration and titling, commercial motor vehicle, roadway, injury control, citation/adjudication, and EMS/trauma registry data.

Maryland employs a two-tiered Traffic Records Coordinating Committee (TRCC), with both Technical and Executive councils comprised of data owners, data managers, and data users with oversight and interest in these datasets. Maryland Highway Safety Office (MHSO) staff serve on the TRCC Technical Council and subcommittees and advise the TRCC Executive Council.

The MHSO's Traffic Records Program Manager coordinates updates to Maryland's Traffic Records Strategic Plan (TRSP) and leads the implementation of recommendations provided in the most recent NHTSA Traffic Records Assessment (2019), including the development of performance measures for all six systems in the traffic records system. The current TRSP (2021–2025) is aligned with the 2021–2025 Maryland Strategic Highway Safety Plan (SHSP). Both plans took effect January 2021.

The TRCC Technical and Executive Councils met quarterly and biennially, respectively, to work toward the improvements outlined in the TRSP. Both Councils continued to meet virtually in 2021 due to concerns related to COVID. The virtual meetings were as well, and in most cases better, attended as in-person meetings, improving participation by a cross-section of members.

#### Solution

The accurate collection and timely dissemination of traffic records information are crucial to ensuring positive results from projects and strategies within the five-year plan. Data elements form the informational backbone for all the MHSO's programs and the SHSP itself. All activities, from enforcement to education, rely on good data, and the MHSO's focus is to provide effective data support and analysis for programs that can help the state meet traffic safety goals in reducing crashes and resulting injuries and fatalities.

Maryland's Traffic Records Executive Council's leadership goal is to develop a comprehensive statewide traffic records system that provides traffic safety professionals with reliable, accurate, and timely data to inform decisions and actions for implementing proven countermeasures and managing and evaluate safety activities to resolve traffic safety problems. The traffic records system encompasses the hardware, software, personnel, and procedures that capture, store, transmit, analyze, and interpret traffic safety data. This system is used to manage basic crash data from all law enforcement agencies, along with information on driver licensing and history, vehicle registration and titling, commercial motor vehicles, roadways, injury control efforts, citation and adjudication activities, and the EMS/trauma registry.

Maryland's Traffic Records Executive Council provides policy leadership to the TRCC and its efforts to continually review and assess the status of Maryland's traffic safety information system and its components. The TRCC oversees the development and update of the Traffic Records Strategic Plan to serve public- and private-sector needs for traffic safety information, to identify technologies and other advancements necessary to improve the system, and to support the coordination and implementation of system improvements.

The MHSO participates on all levels of the TRCC through its own staff and through a grant-funded project at the National Study Center for Trauma and EMS (NSC) called the Maryland Center for Traffic Safety Analysis (MCTSA), a more comprehensive, expert staff-based approach to provide services based on the Crash Outcome Data Evaluation System (CODES) and other traffic records data and to meet the wide and varied needs of the MHSO and its partners.

The MHSO staff members work with subject matter experts from the MCTSA project to help manage the TRSP, and the MHSO continues the CODES program. These are some of the ways in which the MHSO relies on its many partner agencies to make data accessible for highway safety planning, as it employs various systems and programs, with the help of state agencies and grantees, to collect, maintain and analyze internal data information.

The mission to provide data and analytical support to traffic safety professionals at the local, state, regional, and national levels drive the direction of the Traffic Records Program. Projects to be considered for funding by the Traffic Safety Information System Improvement Program must adhere to goals and objectives within the TRSP and provide support for the data needs of the traffic records community.

In FFY 2023, the MHSO will work to implement recommendations from the Maryland Crash Data System GO Team that were developed during FFY 2021 and FFY 2022.

#### **Action Plan**

Traffic safety information system projects funded for FFY 2023 are listed below:

Project Agency: Crash Center for Research and Education (CORE)						
Program Area: Special Projects Project Number: GN 23-268						
Project Funds / Type: \$44,114.73 / BIL 402 (Note: Indirect Costs / Type: \$5,075.15 / BIL 402  Total includes Indirect Cost)						
Countermeasures: NHTSA Countermeasures That Work (2017, 9th Edition)						

## SHSP Strategy:

• Use the collection, analysis and evaluation of data on all roads in Maryland to identify speed and aggressive driving related issues, target audiences and locations of concern, as well as support the improvement of the data quality (timeliness, accuracy, completeness, uniformity, accessibility, integration).

Project Description: CORE will maintain the online POTIF (Predicting Outcomes in Traffic Injuries and Fatalities) web application. This includes user support, application hosting, system updates and security, and any MHSO required refinements necessary to support users. CORE will also work with MHSO staff to exercise the models to compute forecasted crash counts and severities given plausible changes in environmental, behavioral and enforcement level by state jurisdiction. The forecasting models will be used to compute anticipated number of future crashes, crash injuries and fatalities expected based on enforcement changes while controlling for population changes expected, economic expectations and projected travel trends. CORE will provide two inperson briefings or remote briefings as conditions allow to review study methods, findings, and exercise all

statistical models through the online user interface application. The 'application' itself is a web-based product that can be used on any remote computer.

Program Area: Traffic Records	Project Number: GN 23-115
Project Funds / Type: \$350,005.79 / BIL 405c TR Data	Indirect Costs / Type: \$72,223.42 / BIL 405c TR Data
(Note: Total includes Indirect Cost)	
Countermeasures: NHTSA Countermeasures That Wor	k (2017, 9th Edition)
SHSP Strategy: The grant will support multiple SHSP s	trategies.
Project Description: This project supports data analysis	for the MHSO and statewide partners and
administrative support for MHSO's Traffic Records Prog	gram. In conjunction with Washington College, this
project will assist the MHSO in developing dashboards	on Qlik systems, managed by MDOT using MSCAN

Project Agency: Washington College	
Program Area: Traffic Records	Project Number: GN 23-231
Project Funds / Type: \$569,712.36 / BIL 402; \$31,840.78 / BIL 405c TR Data (Note: Total includes Indirect Cost)	Indirect Costs / Type: \$102,644.85 / BIL 402; \$5,741.78 / BIL 405c TR Data

Countermeasures: NHTSA Countermeasures That Work (2017, 9th Edition)

SHSP Strategy: The grant will support multiple SHSP strategies.

Project Description: This project will focus on strategies that will improve the ability to use data-driven analysis to reduce crashes and deaths on Maryland roads. This project also includes attendance at conferences to promote highway safety projects and practices in Maryland and provides training sessions, presentations, webinars, and technical support to MHSO staff, LEA partners, EA teams, etc. on all products/services provided by Washington College, in addition to GIS techniques and processes for traffic safety related datasets. The web application Traffic Safety Portal will be maintained, updated, and expanded to promote RAVEN. This project, in conjunction with the University of Maryland Baltimore, NSC, will provide administrative support for MHSO's Traffic Records Program.

Project Agency: Washington College

Program Area: Impaired Driving	Project Number: GN 23-220
Project Funds / Type: \$19,696.00 / BIL 402 (Note: Total includes Indirect Cost)	Indirect Costs / Type: \$3,146.00 / BIL 402
Countermascures: NHTSA Countermascures That Wor	k (2017 Oth Edition)

Countermeasures: NHTSA Countermeasures That Work (2017, 9th Edition)

SHSP Strategy: The grant will support multiple SHSP strategies.

**Project Description:** This project will focus on strategies that will improve the ability to use data-driven analysis to reduce crashes and deaths on Maryland roads. This project also includes attendance at conferences to promote highway safety projects and practices in Maryland, and provides training sessions, presentations, webinars, and technical support to MHSO staff, LEA partners, EA teams, etc. on all products/services provided by Washington College, in addition to GIS techniques and processes for traffic safety related datasets. The web application Traffic Safety Portal will be maintained, updated, and expanded to promote RAVEN.

Project Agency: Washington College	
Program Area: Impaired Driving	Project Number: GN 23-220
Project Funds / Type: \$107,714.31 / BIL 402 (Note: Total includes Indirect Cost)	Indirect Costs / Type: \$19,423.89 / BIL 402

Countermeasures: NHTSA Countermeasures That Work (2017, 9th Edition)

# SHSP Strategy:

• Use the collection, analysis and evaluation of data on all roads in Maryland to identify impaired driving related issues, target audiences and locations of concern, as well as support the improvement of the data quality (timeliness, accuracy, completeness, uniformity, accessibility, integration).

**Project Description:** Washington College will target six areas of support that relate to Impaired Driving: Maryland State Police (MSP) SPIDRE Team Support, Impaired Holiday Maps, High Visibility Enforcement (HVE) Impaired Campaigns/Analysis, Liquor License data collection, Customer Satisfaction Survey, and additional requests.

#### Evaluation

Goals are prioritized for appropriate components of the traffic records information system, with objectives developed based on the periodic assessments, ongoing TRCC evaluation and input, and other state agency-identified needs. The TRCC sets performance measures for priority objectives identified in the TRSP, which are reviewed regularly throughout each year. Systems are evaluated for quantitative progress, such as improved timeliness and completeness, with reports submitted to NHTSA at least annually. Additionally, MHSO grants are evaluated during and after implementation through grantee reporting using proven process evaluation measures.

## Performance Measures

Refer to Appendix L: Maryland Traffic Records Strategic Plan: Appendix 8 – Performance Measures Annual Progress Calculations (FFY 2023)

## Police Traffic Service Program

#### **Problem Identification**

To develop successful and effective solutions that address traffic issues on the roadways themselves, law enforcement agencies need staff personnel who are highly motivated, educated, and trained to enforce traffic safety laws. They must be adept at identifying, analyzing, and solving problems that help preserve local resources or tend to benefit public or private agencies in their solution.

The Maryland Traffic Safety Specialist (TSS) Program provides a major recognition and feedback program for law enforcement officers who have received advanced levels of training and developed high levels of proficiency and expertise in areas of traffic safety. The TSS is the only program in the state that specifically tracks and recognizes the advanced training and proficiency of law enforcement officers in traffic safety.

Traffic safety in Maryland remains a primary public safety issue given the demands that confront law enforcement agencies, but, too often, traffic safety programs are not given a high priority by all public safety executives. Many local jurisdictions experience traffic safety problems that would benefit from local analysis and data-driven solutions. Likewise, as the need for more complete and accurate data continues to grow, there is a comparable need for training officers in the highly technical field of crash reconstruction.

By implementing its Leading Effective Traffic Enforcement Program (LETEP), the MHSO helps to systematically address many traffic safety and other public safety issues through a recognized training curriculum that makes traffic management a priority.

Partner organizations such as the MSA and the MCPA recognize the training needs for law enforcement members that are not adequately met by state and local governments. Traffic safety is often neglected or diminished in importance, compared to what may seem more pressing law enforcement training issues experienced by individual agencies.

#### Solution

Throughout FFY 2023, the MHSO will support law enforcement training through grants and will collaborate with the MCPA, MSA, and the Maryland Police and Correctional Training Commission on training and officer recognition. The MHSO coordinates a TSS certification for law enforcement officers, and the program will continue to be expanded throughout the coming year.

The MSP, MDTA Police, and many local law enforcement agencies will receive funds for overtime enforcement to address the most pressing traffic safety challenges, using a data-driven approach. In addition, the MHSO will fund LETEP to improve and encourage strategic traffic safety thinking among law enforcement.

## **Action Plan**

Police traffic services projects funded for FFY 2023 are listed below:

Project Agency: Baltimore County Police Dept - Crash Recon			
Program Area: Special Projects	Project Number: GN 23-051		
Project Funds / Type: \$26,000.00 / BIL 402	Indirect Costs / Type:		
Countermeasures: NHTSA Countermeasures That Work (2017, 9th Edition)			
SHSP Strategy: This grant supports multiple SHSP strategies.			
Project Description: This project supports training to Maryland's Crash Reconstructionist personnel throughout			
the state by Maryland's Crash Reconstruction Committee. The program provides students with updates in this			

technology-driven field of crash reconstructions and ensures courses are highly specialized and effective.

Project Agency: Maryland Chiefs of Police		
Program Area: Special Projects	Project Number: GN 23-209	
Project Funds / Type: \$139,950.00 / BIL 402	Indirect Costs / Type: \$10,450.00 / BIL 402	
Countermeasures: NHTSA Countermeasures That Work (2017, 9th Edition)		
SHSP Strategy: This grant supports multiple SHSP strategies.		
Project Description: The Maryland Chiefs of Police Annual Training Conference held in September 2023, is the		
start of bridging the gap of training needs. The top-level executives are offered a verity of educational sessions,		
including information on the state's Vision Zero goal. Training sessions are planned to help educate the		
executives on traffic safety issues, new and emerging trends, countermeasures, and the goals of the SHSP.		
Leading Effective Traffic Enforcement Programs (LETEP) training is also scheduled to take place in November		

Project Agency: Maryland Chiefs of Police

Program Area: Impaired Driving

Project Funds / Type: \$99,850.00 / BIL 402

Indirect Costs / Type: \$7,350.00 / BIL 402

2022 and March 2023. This grant also supports Maryland's Traffic Safety Specialist Program, Annual Governor's Highway Safety Association Conference attendance, Highway Safety Training for Patrol

Countermeasures: NHTSA Countermeasures That Work (2017, 9th Edition)

Supervisors, the annual DUI Conference, and DRE Conference.

SHSP Strategy:

- Promote a systematic safety culture through the support of outreach initiatives including public awareness, education, training, and media campaigns focused on the concerns of the impaired by alcohol and drugged driving emphasis area.
- Support the enforcement of laws pertaining to the impaired by alcohol and drugged driving emphasis area, as well as support enforcement initiatives that promote safe behaviors.

**Project Description:** The MCPA will sponsor the University of Maryland's DUI Institute and DUI Conference. The registrations and awards offered by the MCPA allow patrol officers from across the state who excel in DUI enforcement, to be trained in all aspects of the issues surrounding DUI enforcement and recognized for their efforts. This training is not designed to teach officers how to find, test and apprehend suspected impaired drivers, but is designed to look at the bigger picture and issues surrounding DUI arrest.

Project Agency: Maryland Sheriffs' Association, Inc.	
Program Area: Special Projects	Project Number: GN 23-206
Project Funds / Type: \$3,300.00 / SBIL 402 (Note: Total includes Indirect Cost)	Indirect Costs / Type: \$300.00 / SBIL 402

Countermeasures: NHTSA Countermeasures That Work (2017, 9th Edition)

SHSP Strategy: This grant supports multiple SHSP strategies.

Project Description: The grant will support traffic records training for law enforcement officers to enhance enforcement efforts by attending the Traffic Records Forum event. Attendees can participate in sessions for the latest safety data collection methods and best practices and learn how to: improve the accuracy of traffic records and highway safety data, apply performance goals/measures in traffic records system improvements, implement a model traffic records system, organize and operate a successful traffic records committee, recognize the importance of standards and guidelines for traffic records systems, become acquainted with new technologies and ideas, network with a variety of transportation and highway safety professionals, and discover how better data can help save lives. The Maryland Sheriffs Association will hold an annual training meeting at Rocky Gap Conference Center Western Maryland to educate executive Law Enforcement leaders in traffic safety initiatives and engagements.

Project Agency: Wor-Wic Community College		
Program Area: Special Projects	Project Number: GN 23-101	
Project Funds / Type: \$7,000.00 / SBIL 402	Indirect Costs / Type:	
Countermeasures: NHTSA Countermeasures That Work (2017, 9th Edition)		
SHSP Strategy: This grant supports multiple SHSP strategies.		
<b>Project Description:</b> This project provides law enforcement training for law enforcement officials on the Eastern Shore who are unable to travel to trainings offered elsewhere.		

## Evaluation

Maryland's traffic safety law enforcement grants track progress on the number of officers trained and ensures quality training. Evaluating these grants can be difficult as they rely mainly on an individual officer's ability to process and retain the information presented, as well as the ability to continue to implement training in everyday enforcement situations. Nevertheless, the MHSO does conduct training appraisals to determine the value of the training, identify possible gaps, and determine required changes to a curriculum. Training does make a difference but general training funding in law enforcement budgets is extremely limited. By developing worthwhile traffic training (and recognition programs), the MHSO can dramatically influence the traffic enforcement culture and positively influence enforcement of Maryland's traffic safety laws.

## **Program Support**

#### **Problem Identification**

Many projects that do not fall neatly into program focus areas are undertaken for their innate ability to help accomplish the goals of Maryland's overall traffic safety program, either alone or in conjunction with specific programs. For instance, the MHSO's Communications Program utilizes the problem identification statements from individual program areas as factors for creating and placing support messaging. The factors considered include audience demographics such as age, gender, ethnicity, and even the types of media availability within a target audience's reach and are utilized to shape media messages that support traffic safety programs.

Maryland places significant emphasis on the use of paid and earned media to positively impact enforcement operations and educational programs coordinated throughout the state. Maryland has two large Designated Market Areas (DMA) in the Baltimore and Washington, D.C. metropolitan areas, and two smaller DMAs in the Hagerstown and Salisbury areas. Many of the MHSO's campaigns utilize a mix of media, and the mix depends upon the target demographic and budgets within individual programs.

The Maryland Strategic Highway Safety Plan (SHSP) is a data-driven guide developed to identify behaviors and crash types that are most prevalent in Maryland and to provide strategies and action steps to reduce and prevent their occurrence. The MHSO's program managers, outreach staff, and law enforcement liaisons focus their efforts on these program areas, specifically impaired driving, occupant protection, speed/aggressive driving, and pedestrian/pedalcyclist safety. These focus areas are well defined using Maryland crash data and through the establishment of outreach and education efforts provide significant opportunity to reduce fatalities and serious injuries on Maryland's roadways.

The programs funded through program support stress the importance of strong collaborations with state and local law enforcement agencies, support training of law enforcement officers and other highway safety partners and support the update of the state's SHSP and the development of local highway safety plans that can be tailored to the specific needs of local jurisdictions.

## Solution

The MHSO funds projects that help achieve Maryland's traffic safety goals overall and within individual programs. Program support projects funded in FFY 2023 will include grants to support the staffing of the MHSO Program Managers, media and communications projects that augment HVE, technical support for the SHSP, the continued development of the MHSO's electronic grants management system, funding for the MHSO's planning and administration costs, and the salaries of Maryland's LELs.

#### **Action Plan**

Program support projects funded for FFY 2023 are listed below:

Project Agency: Chesapeake Region Safety Council	
Program Area: Special Projects	Project Number: GN 23-023
Project Funds / Type: \$351,304.36 / BIL 402 (Note: Total includes Indirect Cost)	Indirect Costs / Type: \$31,936.76 / BIL 402
Countermeasures: NHTSA Countermeasures That Work (2017, 9th Edition)	

SHSP Strategy: This grant supports multiple SHSP strategies.

Project Description: This project will support the Maryland Highway Safety Office's Law Enforcement Services Section. The section coordinates directly with the office's largest group of grantee's law enforcement. The law enforcement community across Maryland is a critical component of the state's strategy regarding highway safety. This project will support the hiring of four Law Enforcement Liaisons (LELs). The LELs will ensure active engagement and collaboration between the MHSO and the local law enforcement community. They will oversee the MHSO's law enforcement grants (approx. 90 grants) and projects, promote and coordinate participation in the MHSO's high visibility enforcement waves, recruit, coordinate, and deliver training. It will also be the LELs responsibilities to ensure alignment of law enforcement priorities within Maryland's Strategic Highway Safety Plan.

Project Agency: Washington College/National Study Center/Maryland State Police		
Program Area: Special Projects	Project Number: TBD	
Project Funds / Type: 1906	Indirect Costs / Type:	
Countermeasures: NHTSA Countermeasures That Work (2017, 9th Edition)		

SHSP Strategy: This grant supports multiple SHSP strategies.

Project Description: These funds will be used initially to provide increased support for the review and analysis of traffic stop data with special emphasis on federal highway safety funded enforcement operations. Grant funding also will be used to provide local law enforcement agencies with training, technical assistance, equipment, and software upgrades to improve the collection, efficiency, and timeliness of the required traffic stop data. These funds also will be used to enhance our current analytical system to identify other factors that may impact racial and ethnic disparities in traffic stops. Those other factors might include an improved understanding driver behavior, special enforcement campaigns (e.g., buckle up/phone down, distracted driving, Click-It or Ticket), crime, or crash rates across racial and ethnic groups. MHSO staff and partners will continue with collaborations to develop analytical tools to better understand how to best identify racial and ethnic disparities in traffic stops. Additional analysis may involve mapping traffic stops and analyzing information by

neighborhood/census block/zip code. The data collected as a result of the project will be available to the public and the results will be used to support training modules that can be incorporated into existing and planned law enforcement training classes.

Program Area: Special Projects	Project Number: GN 23-132	
Project Funds / Type: \$139,830.81 / SBIL 402	Indirect Costs / Type:	
Countermeasures: NHTSA Countermeasures That	Work (2017, 9th Edition)	

# SHSP Strategy:

 Promote a systemic safety culture through the support/solicitation of outreach initiatives including public awareness, education, training, and media campaigns focused on reducing speed and aggressive driving behaviors.

**Project Description:** To address the growth of dangerous encounters between motorists and drivers of slow-moving vehicles on public roads, the Maryland Soybean Board (MSB) launched the "Find Me Driving" road safety awareness program in 2020. The focus of this grant is expanding the community awareness program to call attention to the unique measures required to drive safely near farm equipment and similar slow-moving vehicles. A variety of methods will be used for education including video commercials, social media posts, billboards, and a virtual driving exhibit.

Project Agency: DRIVE SMART Virginia	
Program Area: Distracted Driving	Project Number: GN 23-170
Project Funds / Type: \$46,994.68 / FA 402 (Note: Total includes Indirect Cost)	Indirect Costs / Type: \$7,168.68 / FA 402
Countermeasures: NHTSA Countermeasures That Wo	ork (2017, 9th Edition)

SHSP Strategy: This grant will support multiple SHSP strategies

Project Description: DRIVE SMART Virginia proposes to assist the Maryland Highway Safety office in planning for the 2023 Maryland Highway Safety Summit. DRIVE SMART will invite expert speakers from across the country to bring their knowledge to Maryland for breakout sessions. The track topics will be discussed with Maryland and focus on the topics MDOT feels is most important. Ideas for breakout session topics include vulnerable road users, research and technology, community solutions, and law enforcement tactics. DRIVE SMART will secure and contract with the Summit property, research, invite, and coordinate speakers, manage the event app, and plan for conference A/V needs and logistics through the property contract.

Project Agency: Maryland Highway Safety Office

Program Area: Grant Management System (GPS)

Project Number: GN 23-215

Project Funds / Type: \$401,050.00 / BIL 402

Indirect Costs / Type:

**Countermeasures:** The MHSO GPS Development grant will support all of the MHSO's grants, therefore also supporting a variety of countermeasures.

SHSP Strategy: The MHSO GPS Development grant will support all areas of the SHSP.

**Project Description:** This grant will allow the Maryland Highway Safety office to track payments on the contract with INFOJINI for the system analyst and application developers to continue to work on building the grants management system. This includes design, programming, testing, implementation, and troubleshooting.

Project Agency: Maryland Highway Safety Office		
Program Area: Planning & Administration	Project Number: GN 23-216	
Project Funds / Type: \$77,164.06 / BIL 402	Indirect Costs / Type:	
Countermeasures: NHTSA Countermeasures That Work (2017, 9th Edition)		
SHSP Strategy: This grant will support multiple SHSP strategies		

**Project Description:** This grant provides a mechanism to track payments for everyday planning and administration costs such as travel, printing and supplies. By tracking these expenses in this grant, these funds

are captured for MHSO reporting purposes with our other federal funds.

Project Agency: Baltimore Metropolitan Council						
Program Area: Special Projects	Project Number: GN 23-032					
Project Funds / Type: \$122,675.04 / SMDF	Indirect Costs / Type:					
Countermeasures: NHTSA Countermeasures That Wor	k (2017, 9th Edition)					

SHSP Strategy: This grant will support multiple SHSP strategies

**Project Description:** To support each phase of strategic planning in each jurisdiction, this project will support a full-time position at the Baltimore Metropolitan Council (BMC) to provide expert guidance, logistical support, and enhanced connections to the statewide SHSP. In FY 2023, this will include implementation and interim evaluations for Anne Arundel, Carroll, and Queen Anne's counties and Baltimore City plans, comprehensive

evaluation of the previous plan in Harford County (if not completed in FFY 2022), and first year evaluation for plans in Baltimore, Harford, and Howard counties.

Project Agency: Maryland Highway Safety Office						
Program Area: Communications	Project Number: GN 23-194					
Project Funds / Type: \$492,000.00 / BIL 402; \$205,000 / BIL 402DisDr; \$90,000 / BIL 402 MCycle; \$470,000 / BIL 402 OP; \$225,000 / BIL 402 Speed; \$45,000 / BIL 405f MC	Indirect Costs / Type:					

**Countermeasures:** The MHSO's Communications grant will support a variety of countermeasures supported in NHTSA Countermeasures That Work (2017, 9th Edition)

**SHSP Strategy:** The MHSO's Communications grant will support Distracted Driving, Occupant Protection, Motorcycle Safety, Speed/Aggressive SHSP strategies.

**Project Description:** This grant will support and facilitate projects within the Maryland Highway Safety Office's Communications Section to support new and ongoing campaigns, including distracted driving prevention, occupant protection, speeding prevention, and motorcycle safety.

Project Agency: Maryland Highway Safety Office	
Program Area: Communications (DUI)	Project Number: GN 23-197
<b>Project Funds / Type:</b> \$750,000.00 / BIL 405d AL; \$230,000 / BIL 402 MCycle; \$7,000 / BIL 402	Indirect Costs / Type:

**Countermeasures:** The MHSO's Communications grant will support a variety of countermeasures supported in NHTSA Countermeasures That Work (2017, 9th Edition)

SHSP Strategy: The MHSO's Communications grant will support Impaired Driving prevention SHSP strategies.

**Project Description:** This grant will support and facilitate projects within the Maryland Highway Safety Office's Communications Section to support new and ongoing campaigns, including impaired driving prevention and impaired rider prevention.

Project Agency: Maryland Highway Safety Office	
Program Area: Communications – Ped/Bike	Project Number: GN 23-200

Project Funds / Type: \$36,500.00 / Bikeway; \$617,
900.00 / SMDF

**Countermeasures:** The MHSO's Communications - Ped/Bike grant will support a variety of countermeasures supported in NHTSA Countermeasures That Work (2017, 9th Edition)

**SHSP Strategy:** The MHSO's Communications – Ped/Bike grant will support Pedestrian- and Bicyclists-related SHSP strategies.

**Project Description:** This grant will support and facilitate projects within the Maryland Highway Safety Office's Communications Section to support new and ongoing campaigns, including impaired driving prevention and impaired rider prevention.

Project Agency: Maryland Highway Safety Office

Program Area: MHSO Staffing

Project Number: GN 23-217

Project Funds / Type: \$841,634.25 / BIL 402; Indirect Costs / Type:
\$26,502.23 / BIL 402DisDr; \$80,156.67 / BIL 405b OP
Low; \$132,990.31 / BIL 405c TR Data

Countermeasures: MHSO Staffing grants support a wide variety of traffic safety countermeasures

SHSP Strategy: MHSO Staffing grants support a wide variety of statewide SHSP strategies.

Project Description: This grant provides the mechanism to pay the salaries and benefits of the MHSO staff and

**Project Description:** This grant provides the mechanism to pay the salaries and benefits of the MHSO staff and be reimbursed by NHTSA for federal expenditures.

Project Agency: Maryland Highway Safety Office	
Program Area: MHSO Staffing 2	Project Number: GN 23-218
<b>Project Funds / Type:</b> \$316,165.40 / BIL 402; \$88,880.92 / BIL 405d AL; \$89,334.18 / BIL 405h NM	Indirect Costs / Type:

Countermeasures: MHSO Staffing grants support a wide variety of traffic safety countermeasures

SHSP Strategy: MHSO Staffing grants support a wide variety of statewide SHSP strategies.

**Project Description:** This grant provides the mechanism to pay the salaries and benefits of the MHSO staff and be reimbursed by NHTSA for federal expenditures.

Project Agency: Maryland Highway Safety Office	
Program Area: MHSO Staffing 3	Project Number: GN 23-219
<b>Project Funds / Type:</b> \$110,390.20 / SMDF; \$396,971.37 / STATE	Indirect Costs / Type:
Countermeasures: MHSO Staffing grants support a wid	de variety of traffic safety countermeasures
SHSP Strategy: MHSO Staffing grants support a wide	variety of statewide SHSP strategies.
Project Description: This grant provides the mechanism	n to pay the salaries and benefits of the MHSO staff and

Project Agency: MML PEA Committee 2022/2023						
Program Area: Special Projects	Project Number: GN 23-063					
Project Funds / Type: \$7,000.00 / FA 402	Indirect Costs / Type:					
Countermeasures: NHTSA Countermeasures That Wo	rk (2017, 9th Edition)					

## SHSP Strategy:

be reimbursed by NHTSA for federal expenditures.

- Promote a systemic safety culture through the support of outreach initiatives including public awareness, education, training, and media campaigns focused on reducing distracted driving.
- Support the enforcement of laws pertaining to the impaired by alcohol and drugged driving emphasis area, as well as support enforcement initiatives that promote safe behaviors.

**Project Description:** The Maryland Municipal League Police Executive Association Training Conference held in April is the start of bridging the gap of these training needs. The top-level executives are offered a variety of educational sessions. MML-PEA has partnered with MHSO to promote the states' goal of "Zero Deaths." One 90-minute plenary training session along with a lunch speaker is planned to help educate the executives on new and emerging traffic safety issues, countermeasures, and the goals of the "Zero Deaths" campaign.

Project Agency: Tri-County Council for Southern Maryland

Program Area: Special Projects

Project Number: GN 23-272

Project Funds / Type: \$36,960.00 / SMDF

Indirect Costs / Type:

Countermeasures: NHTSA Countermeasures That Work (2017, 9th Edition)

SHSP Strategy: This grant supports a wide variety of statewide SHSP strategies.

Project Description: Tri-County Council will hire a part-time coordinator/analyst to lead the preparation of local SHSPs for both St. Mary's and Charles counties. The coordinator will coordinate with staff from the MHSO, obtain county-level safety data from the relevant state and county offices to do an in-depth examination of crash statistics, and create a steering committee comprised of representatives from stakeholder groups such as police, the MDOT SHA, county departments of education, county planning departments, county public works departments, homeowners associations, alcoholic beverage boards, and farmer associations. The coordinator will finalize the Local SHSPs for each county that will be housed at the relevant agency and assist in the submission to the State of Maryland.

#### **Evaluation**

Electronic media, outdoor advertising, and other forms of communication involving various traffic safety messages are used in awareness and education campaigns. Using a dedicated media contractor, messaging is designed and created to concisely deliver traffic safety information and messages to the intended demographic audiences. In every instance of media purchase, the MHSO expects and receives a full evaluation of the results of these media purchases and outreach efforts.

The types of evaluative components include number of paid airings; total impressions; TRP/GRP, reach, frequency, social media engagement, press releases/articles distributed/aired, and numbers of materials distributed.

# **Appendices and Attachments**

## Appendix A: Sources and Crash Data Definitions

Unless otherwise noted, all crash data are derived from the MDOT SHA, based on reports submitted and processed by the Maryland State Police Central Records Division (MSP CRD) through the ACRS.

For each crash definition labeled to include the word 'related,' the total number of persons in a crash with a driver exhibiting a particular behavior are included. For example, the number of older-driver related fatalities includes all those killed in a crash that involved a driver 65 or older. It is not a summary of drivers ages 65 or older killed in motor vehicle crashes.

- Traffic Fatality A person who dies due to injuries sustained in motor vehicle crash (within 30 days of that
  incident) on Maryland roadways (also per American National Standard ANSI D.16). Maryland crash data does
  not include fatalities occurring on private roads, some areas in parking lots, and if a driver is determined to
  have suffered a medical event prior to the crash, to name a few exemptions. Refer to ANSI D.16 and the
  Maryland State Police for additional details on crash record policies and procedures.
- Serious Injury Defined as injury severity 04, based on the KABCO scale, as determined by law enforcement.
- Impaired Driving Crash (Driver Involved Alcohol and/or Drugs) (Post-2015, ACRS) At least one driver in the crash was reported to be under the influence of alcohol and/or drugs. (Please note that this number includes drug impairment and will not match alcohol-impaired fatality figures provided by NHTSA FARS. FARS also includes imputation to account for missing/unknown data.) Impairment is determined through the driver condition, blood alcohol content, substance use detected, and contributing factor fields on the Maryland crash report. A driver in a crash is considered impaired if the report indicates:
  - o person condition of 'had been drinking,' 'using drugs,' or 'influenced by medications and/or drugs and/or alcohol:' or
  - o blood alcohol concentration (BAC) between .01 and .50; or
  - o substance use of 'alcohol contributed,' 'illegal drugs contributed,' 'medication contributed,' or 'combination contributed;'or
  - o contributing circumstance of 'under the influence of drugs,' 'under the influence of alcohol,' 'under the influence of medication,' or 'under combined influence.'
- **Pedestrian on Foot** A person involved in a crash and reported as a pedestrian using the 'pedestrian' (01 only) non-motorist type. Note: On crash summary reports, unless noted, non-motorist summaries include all ACRS non-motorist types.
- **Bicyclist/Pedalcyclist** A person involved in a crash and reported as a bicyclist or pedalcyclist (using the non-motorist types 'bicyclist' and 'other pedalcyclist').
- **Unbelted Occupant** Persons involved in a crash who were reported to be drivers or passengers of a motor vehicle (not a motorcycle or moped) and had the following safety equipment use attribute: none.

- Distracted Driving Crash (Post-2015, ACRS) At least one driver in the crash was reported to be distracted, defined by having values of either 'failure to give full time and attention' or 'cell phone in use' or 'inattentive' in the contributing circumstance field, or any of the following values in the driver distracted by field: looked but did not see; other electronic device (tablet, GPS, MP3 player, etc.); by other occupants; by moving object in vehicle; talking or listening on cellular phone; dialing cellular phone; adjusting audio and/or climate controls; using other device controls integral to vehicle; using device/object brought into vehicle (non-electronic); distracted by outside person, object, or event; eating or drinking; smoking related; other cellular phone related; lost in thought; or texting from a cellular phone.
- Older/Mature Driver (Age 65+) Crashes At least one driver in the crash was reported to be between the ages of 65 and 110.
- Young Driver (Age 16-20) At least one driver in the crash was reported to be between the ages of 16 and 20.
- Motorcycle-involved Crashes Crashes involving at least one motorcycle, defined as a 'motorcycle' in the vehicle body type field.
- Aggressive Driver Crashes (Post-2015) A crash in which a driver has one of the following values in both the first and second contributing circumstance fields of the Maryland crash report: failed to yield right of way; failed to obey stop sign; failed to obey traffic signal; failed to obey other traffic control; failed to keep right of center; failed to stop for school bus; exceeded speed limit; too fast for conditions; followed too closely; improper lane change; improper passing; failure to obey traffic signs, signals, or officer; disregarded other road markings; other improper action; or operated motor vehicle in erratic/reckless manner.
- Speed-involved Crashes At least one driver in the crash was reported to be speeding, defined by having
  values of either 'exceeded speed limit' or 'too fast for conditions' in the first or second contributing
  circumstance fields.

## Appendix B: NHTSA Core Performance Measure

To meet federal requirements as expressed in the FAST Act, the required minimum set of core performance measures are included below. The source for all fatality and fatality rate baseline data is NHTSA's FARS most recently available data (federally required measures). All other data are derived from Maryland state data.

All targets below are set using a five-year average and the exponential trend method described earlier. Additional sources include serious injury crash data derived from the MDOT SHA, based on reports submitted and processed by the Maryland State Police Central Records Division (MSP CRD) and through the ACRS; seat belt use rate obtained from the annual Maryland Observational Surveys of Safety Belt Use; and seat belt citations, DUI arrests, and speeding citations obtained through MHSO's grant management reporting system. As with the SHSP, the end-year targets (by December 31, 2023) and single year targets are derived from the midpoint of the 5-year average for the years 2019–2023.

Also included are performance measures that are included in the 2021-2025 SHSP, notable measures for infrastructure-related fatalities and serious injuries, and the subcomponents of infrastructure: intersections, work zones, and run-off-the-road crashes.

GHSA/NHTSA Recommended/Optional PERFORMANCE PLAN CHART – 2023 Highway Safety Plan

G. 13, 4	NHISA Recommended/Optional PE		BASE YEARS				
			2016	2017	2018	2019	2020
			2012- 2016	2013- 2017	2014- 2018	2015- 2019	2016- 2020
C-1	Traffic Fatalities	FARS Annual (2020- ARF)	522	558	512	535	567
	Reduce total fatalities to 485.9 (2019 - 2023 rolling average) by 2023.	5-Year Rolling Avg.	492.0	501.4	510.8	529.4	538.8
C-2	Serious Injuries in Traffic Crashes	State	3,167	3,347	3,233	3,122	2,718
	Reduce serious traffic injuries to 2,323.8 (2019 – 2023 rolling average) by 2023.	5-Year Rolling Avg.	3,025.0	3,025.2	3,079.6	3,093.4	3,117.4

			BASE YEARS				
			2016	2017	2018	2019	2020
			2012- 2016	2013- 2017	2014- 2018	2015- 2019	2016- 2020
C-3	Fatalities/100M VMT	FARS Annual (2020- ARF)	0.880	0.930	0.860	0.890	1.110
	Reduce fatalities/100 MVMT to 0.809 (2019 -2022 rolling average) by 2023.	5-Year Rolling Avg.	0.856	0.862	0.870	0.892	0.934
C-4	Unrestrained Passenger Vehicle Occupant Fatalities, All Seat Positions	State	123	117	109	113	139
	Reduce unrestrained passenger vehicle occupant fatalities, all seat positions 27.5 percent from 120.2 (2016-2020 rolling average) to 87.1 (2019 – 2023 rolling average) by 2023.	5-Year Rolling Avg.	101.8	103.8	104.4	107.2	120.2
C-5	Alcohol-Impaired Driving Fatalities	State	149	191	142	151	186
	Reduce alcohol impaired driving fatalities 11.8 percent from 163.8 (2016-2020 rolling average) to 144.5 (2019 – 2023 rolling average) by 2023.	5-Year Rolling Avg.	159.8	162.6	159.4	162.8	163.8
C-6	Speeding-Related Fatalities	State	77	107	76	76	110

			BASE YEARS				
			2016	2017	2018	2019	2020
			2012-	2013-	2014-	2015-	2016-
			2016	2017	2018	2019	2020
	Reduce speeding-related fatalities						
	by 31.3 percent from 89.2 (2016-	5-Year	05.0	04.0	0.4.4	04.4	00.0
	2020 rolling average) to 61.3 (2019 – 2023 rolling average) by	Rolling Avg.	95.8	91.2	84.4	81.4	89.2
	2023.	Avg.					
C-7	Motorcyclist Fatalities	State	72	82	57	75	78
	Reduce motorcyclist fatalities by						
	9.48 percent from 72.8 (2016-	5-Year	60.0	70.2	60.4	74.2	72.0
	2020 rolling average) to 65.9 (2019 – 2023 rolling average) by	Rolling Avg.	68.8	70.2	69.4	71.2	72.8
	2023.	, g.					
C-8	Unhelmeted Motorcyclist Fatalities	State	8	17	9	7	6
	Reduce unhelmeted motorcyclist						
	fatalities 6.4 percent from 9.4	5-Year	10.0	11.0	11.0	10.0	0.4
	(2016-2020 rolling average) to 8.8 (2019 – 2023 rolling average) by	Rolling Avg.	10.6	11.0	11.0	10.0	9.4
	2023.	J					
C-9	Drivers Aged 20 or Younger-	State	57	54	54	46	56
	Involved Fatalities	3.4.0	<i>,</i>				
	Reduce drivers aged 20 or						
	younger-involved in fatalities by 35.0 percent from 53.4 (2016-	5-Year					
	2020 rolling average) to 34.7	Rolling	50.6	48.8	51.0	52.4	53.4
	(2019 - 2023 rolling average) by	Avg.					
	2023.						

			BASE YEARS				
			2016	2017	2018	2019	2020
			2012- 2016	2013- 2017	2014- 2018	2015- 2019	2016- 2020
C- 10	Pedestrian (01 only) Fatalities	State	107	111	130	124	131
	Reduce pedestrian fatalities by 5.9 percent from 120.6 (2016-2020 rolling average) to 113.5 (2019 – 2023 rolling average) by 2023.	5-Year Rolling Avg.	102.8	105.8	109.8	114.2	120.6
C- 11	Bicyclist Fatalities	State	16	11	6	10	15
	Reduce bicyclist fatalities 6.0 percent from 11.6 (2016-2020 rolling average) to 10.9 (2019 – 2023 rolling average) by 2023.	5-Year Rolling Avg.	8.8	10.0	9.8	10.8	11.6

**End: NHTSA Required Measures** 

# Additional Performance Measures (State Fatalities/Fatality Rate) – 2023 Highway Safety Plan

		BASE YEARS				
		2016	2017	2018	2019	2020
		2012- 2016	2013- 2017	2014- 2018	2015- 2019	2016- 2020
Overall Traffic Fatalities	State	522	558	512	535	573
Reduce overall traffic fatalities 10.9 percent from 540.0 (2016-2020 rolling average) to 481.4 (2019 – 2023 rolling average) by 2023.	5-Year Rolling Avg.	492.6	502.0	511.2	529.6	540.0
Overall Traffic Fatality Rate	State	0.885	0.932	0.859	0.890	1.133
Reduce the overall traffic fatality rate 13.1 percent from 0.940 (2016-2020 rolling average) to 0.817 (2019 – 2023 rolling average) by 2023.	5-Year Rolling Avg.	0.862	0.867	0.874	0.895	0.940
Serious Injury Rate	State	5.370	5.588	5.422	5.192	5.372
Reduce the serious injury rate to 3.888 (2019 - 2023 rolling average) by 2023.	5-Year Rolling Avg.	5.299	5.230	5.265	5.221	5.389
Non-motorized fatalities and serious injuries	FARS + State	632	701	682	661	594

		BASE YEARS				
		2016	2017	2018	2019	2020
		2012-	2013-	2014-	2015-	2016-
		2016	2017	2018	2019	2020
Reduce the non-motorized fatalities and serious injuries to 615.5 (2019 – 2023 rolling average) by 2023.	5-Year Rolling Avg.	540.2	579.0	612.0	634.6	654.0

2023 Highway Safety Plan – Additional Measures (MHSO and SHSP Emphasis Areas)

		BASE YEARS				
		2016	2017	2018	2019	2020
		2012- 2016	2013- 2017	2014- 2018	2015- 2019	2016- 2020
Unrestrained Passenger Vehicle Occupant Serious Injuries, All Seat Positions	State	360	425	442	421	432
Reduce unrestrained passenger vehicle occupant serious injuries, all seat positions 29.9 percent from 416.0 (2016-2020 rolling average) to 291.3 (2019 – 2023 rolling average) by 2023.	5-Year Rolling Avg.	311.6	324.8	367.8	393.2	416.0
Aggressive Driving Fatalities	State	39	55	32	39	61
Reduce aggressive driving fatalities 25.6 percent from 45.2 (2016-2020 rolling average) to 31.9 (2019 – 2023 rolling average) by 2023.	5-Year Rolling Avg.	40.6	40.6	36.4	39.0	45.2

		BASE YEARS					
		2016	2017	2018	2019	2020	
		2012- 2016	2013- 2017	2014- 2018	2015- 2019	2016- 2020	
Aggressive Driving Serious Injuries	State	199	172	174	178	173	
Reduce aggressive driving serious injuries 35.2 percent from 179.2 (2016-2020 rolling average) to 116.1 (2019 – 2023 rolling average) by 2023.	5-Year Rolling Avg.	235.2	211.8	186.8	182.6	179.2	
Distracted Driving Fatalities	State	180	220	189	196	216	
Reduce distracted driving fatalities 23.6 percent from 200.2 (2016-2020 rolling average) to 138.0 (2019 – 2023 rolling average) by 2023.	5-Year Rolling Avg.	173.2	168.0	169.4	181.0	200.2	
Distracted Driving Serious Injuries	State	1,580	1,584	1,599	1,501	1,212	
Reduce distracted driving serious injuries 31.9 percent from 1,495.2 (2016-2020 rolling average) to 1,017.6 (2019 – 2023 rolling average) by 2023.	5-Year Rolling Avg.	1,701.0	1,594.8	1,553.8	1,507.2	1,495.2	
Impaired Driving (Alcohol and/or Drugs) Serious Injuries	State	434	497	466	487	452	
Reduce impaired driving (alcohol and/or drugs) serious injuries by 31.7 percent from 467.2 (2016-2020 rolling average) to 319.1 (2019 – 2023 rolling average) by 2023.	5-Year Rolling Avg.	414.6	413.6	429.4	445.8	467.2	

		BASE YEARS					
		2016	2017	2018	2019	2020	
		2012- 2016	2013- 2017	2014- 2018	2015- 2019	2016- 2020	
Pedestrian (01 only) Serious Injuries	State	419	475	465	426	360	
Reduce pedestrian serious injuries by 14.7 percent from 429.0 (2016-2020 rolling average) to 379.9 (2019 – 2023 rolling average) by 2023.	5-Year Rolling Avg.	355.2	384.2	408.4	421.4	429.0	
Speeding-Related Serious Injuries	State	395	370	363	314	299	
Reduce speeding-related serious injuries 40.6 percent from 348.2 (2016-2020 rolling average) to 206.7 (2019 – 2023 rolling average) by 2023.	5-Year Rolling Avg.	462.6	409.2	373.4	346.8	348.2	
Bicyclist Serious Injuries	State	65	85	59	80	68	
Reduce bicyclist serious injuries by 12.2 percent from 71.4 (2016-2020 rolling average) to 62.7 (2019 - 2023 rolling average) by 2023.	5-Year Rolling Avg.	61.2	64.8	66.2	68.0	71.4	
Motorcyclist Serious Injuries	State	298	320	298	277	314	
Reduce motorcyclist serious injuries by 18.6 percent from 301.4 (2016- 2020 rolling average) to 245.3 (2019 – 2023 rolling average) by 2023.	5-Year Rolling Avg.	267.0	275.0	285.0	286.6	301.4	
Older Driver-Involved Fatalities	State	104	93	85	105	91	

		BASE YEARS				
		2016	2017	2018	2019	2020
		2012- 2016	2013- 2017	2014- 2018	2015- 2019	2016- 2020
Reduce older driver-involved fatalities 5.9 percent from 95.6 (2016-2020 rolling average) to 90.0 (2019 – 2023 rolling average) by 2023.	5-Year Rolling Avg.	89.0	91.4	94.4	98.2	95.6
Older Driver-Involved Serious Injuries	State	505	508	518	512	381
Reduce older driver-involved serious injuries 18.8 percent from 484.8 (2016-2020 rolling average) to 393.3 (2019 – 2023 rolling average) by 2023.	5-Year Rolling Avg.	476.2	474.2	484.6	482.2	484.8
Young (16-20) Driver-Involved Serious Injuries	State	481	426	384	407	345
Reduce young (16-20) driver- involved serious injuries 40.5 percent from 408.6 (2016-2020 rolling average) to 243.2 (2019 – 2023 rolling average) by 2023.	5-Year Rolling Avg.	436.8	420.4	415.4	418.4	408.6
Infrastructure Fatalities	State	290	349	295	334	337
Reduce infrastructure fatalities 10.9 percent from 321.0 (2016-2020 rolling average) to 286.1 (2019 – 2023 rolling average) by 2023.	5-Year Rolling Avg.	280.6	297.0	302.6	315.8	321.0
Infrastructure Serious Injuries	State	1,879	2,044	2,003	1,897	1,590

		BASE YEARS					
		2016	2017	2018	2019	2020	
		2012- 2016	2013- 2017	2014- 2018	2015- 2019	2016- 2020	
Reduce infrastructure serious injuries 23.7 percent from 1,882.6 (2016-2020 rolling average) to 1,436.1 (2018 – 2022 rolling average) by 2022.	5-Year Rolling Avg.	1,865.0	1,862.6	1,882.0	1,872.2	1,882.6	
Run-off-the-Road Fatalities	State	153	180	151	173	177	
Reduce run-off-the-road fatalities by 16.9 percent from 166.8 (2016-2020 rolling average) to 138.6 (2019 – 2023 rolling average) by 2023.	5-Year Rolling Avg.	159.4	161.0	160.2	165.8	166.8	
Run-off-the-Road Serious Injuries	State	669	765	785	714	683	
Reduce run-off-the-road serious injuries by 27.6 percent from 723.2 (2016-2020 rolling average) to 523.6 (2019 – 2023 rolling average) by 2023.	5-Year Rolling Avg.	701.4	686.6	699.6	697.8	723.2	
Intersection Fatalities	State	131	155	133	154	173	
Reduce intersection fatalities by 5.9 percent from 149.2 (2016-2020 rolling average) to 140.4 (2019 – 2023 rolling average) by 2023.	5-Year Rolling Avg.	114.4	127.0	133.2	141.2	149.2	

			В	ASE YEAR	S	
		2016	2017	2018	2019	2020
		2012- 2016	2013- 2017	2014- 2018	2015- 2019	2016- 2020
Intersection Serious Injuries	State	1,167	1,218	1,174	1,151	983
Reduce intersection serious injuries by 24.5 percent from 1,138.6 (2016- 2020 rolling average) to 859.8 (2019 - 2023 rolling average) by 2023.	5-Year Rolling Avg.	1,119.6	1,124.0	1,130.2	1,128.6	1,138.6
Construction/Work Zone Fatalities	State	6	14	11	7	8
Reduce construction/work zone fatalities by 5.4 percent from 9.2 (2016-2020 rolling average) to 8.7 (2019 – 2023 rolling average) by 2023.	5-Year Rolling Avg.	6.8	9.0	9.2	8.8	9.2
Construction/Work Zone Serious Injuries	State	43	61	44	32	46
Reduce construction/work zone serious injuries by 32.3 percent from 45.2 (2016-2020 rolling average) to 30.6 (2019 – 2023 rolling average) by 2023.	5-Year Rolling Avg.	44.0	52.0	52.2	45.8	45.2

***Activity Measures		Grant Program Activity Reporting Federal FiscalYear (FFY)								
(State Data: Grant- funded Only)	FFY 2013	FFY 2014	FFY 2015	FFY 2016	FFY 2017	FFY 2018	FFY 2019	FFY 2020	FFY 2021	
Number of seat belt citations issued during grant- funded enforcement activities	7,455	7,815	4,434	4,900	2,580	2,489	3,112	2,160	1,628	
Number of impaired driving arrests made during grant- funded enforcement activities	1,510	2,096	1,620	1,894	1,097	1,217	1,139	884	618	
Number of speeding citations issued during grant- funded enforcement activities	21,542	26,669	20,752	24,542	18,529	22,575	16,392	14,519	11,984	

<sup>\*\*\*</sup>Targets are not created for activity measures. Cannot compare year-to-year due to inconsistencies in how the data are pulled and the change in grant activity tracking systems. For Annual Reporting purposes, use only the most recent year.

# Appendix C: NHTSA Core Performance Report

Performance Measure	Target Period	Target Year(s)	Target Value FY22 HSP	Data Source/ FY 21 Progress Results	On Track to Meet FY22 Target Y/N (in-progress)
C-1) Total Traffic Fatalities (FARS)	5 year	2018- 2022	466.6	2016-2020 FARS ARF 538.8	N
C-2) Serious Injuries in Traffic Crashes (State)	5 year	2018- 2022	2,263.9	2016-2020 State 3,117.4	N
C-3) Fatalities/VMT (FARS)	5 year	2018- 2022	0.774	2016-2020 FARS ARF 0.934	N
Serious Injury Rate (State)	5 year	2018- 2022	3.815	2016-2020 State 5.389	N
Non-motorized Fatalities and Serious Injuries (FARS + State)	5 year	2018- 2022	554.7	2016-2020 FARS/State 654.0	N
C-4) Unrestrained Passenger Vehicle Occupant Fatalities, All Seat Positions (State)	5 year	2018- 2022	81.3	2016-2020 State 120.2	N
C-5) Impaired (Alcohol and/or Drugs) Driving Fatalities (State)	5 year	2018- 2022	143.5	2016-2020 State 163.8	N
C-6) Speeding-Related Fatalities (State)	5 year	2018- 2022	61.2	2016-2020 State 89.2	N
C-7) Motorcyclist Fatalities (State)	5 year	2018- 2022	64.1	2016-2020 State 72.8	N
C-8) Unhelmeted Motorcyclist Fatalities (State)	5 year	2018- 2022	9.4	2016-2020 State 9.4	Y
C-9) Drivers Ages 20 or Younger Involved in Fatal Crashes (State)	5 year	2018- 2022	33.6	2016-2020 State 53.4	N
C-10) Pedestrian Fatalities (State)	5 year	2018- 2022	107.5	2016-2020 State 120.6	N

Performance Measure	Target Period	Target Year(s)	Target Value FY22 HSP	Data Source/ FY 21 Progress Results	On Track to Meet FY22 Target Y/N (in-progress)
C-11) Bicyclist Fatalities (State)	5 year	2018- 2022	10.2	2016-2020 State 11.6	N
B-1) Observed Seat Belt Use for Passenger Vehicles, Front Seat Outboard Occupants (State Survey)	Annual	2022	91.3	2021 91.4	Y
Aggressive Driving Fatalities (State)	5 year	2018- 2022	29.0	2016-2020 State 45.2	N
Aggressive Driving Serious Injuries (State)	5 year	2018- 2022	122.0	2016-2020 State 179.2	N
Distracted Driving Fatalities (State)	5 year	2018- 2022	129.3	2016-2020 State 200.2	N
Distracted Driving Serious Injuries (State)	5 year	2018- 2022	1,048.9	2016-2020 State 1,495.2	N
Impaired (Alcohol and/or Drugs) Driving Serious Injuries (State)	5 year	2018- 2022	304.8	2016-2020 State 467.2	N
Unrestrained Serious Injuries (State)	5 year	2018- 2022	266.7	2016-2020 State 416.0	N
Pedestrian (01) Serious Injuries (State)	5 year	2018- 2022	359.6	2016-2020 State 429.0	N
Speed-Related Serious Injuries (State)	5 year	2018- 2022	219.5	2016-2020 State 348.2	N
Bicyclist Serious Injuries (State)	5 year	2018- 2022	60.4	2016-2020 State 71.4	Ν
Motorcyclist Serious Injuries (State)	5 year	2018- 2022	234.8	2016-2020 State 301.4	N
Older Driver-Involved Fatalities (State)	5 year	2018- 2022	92.4	2016-2020 State 95.6	Ν

Performance Measure	Target Period	Target Year(s)	Target Value FY22 HSP	Data Source/ FY 21 Progress Results	On Track to Meet FY22 Target Y/N (in-progress)
Older Driver-Involved Serious Injuries (State)	5 year	2018- 2022	389.0	2016-2020 State 484.8	N
Young Driver-Involved Serious Injuries (State)	5 year	2018- 2022	239.9	2016-2020 State 408.6	N
Infrastructure Fatalities (State)	5 year	2018- 2022	275.0	2016-2020 State 321.0	N
Infrastructure Serious Injuries (State)	5 year	2018- 2022	1,428.8	2016-2020 State 1,882.6	N
Run-off-the-Road Fatalities (State)	5 year	2018- 2022	134.5	2016-2020 State 166.8	N
Run-off-the-Road Serious Injuries (State)	5 year	2018- 2022	507.2	2016-2020 State 723.2	N
Intersection Fatalities (State)	5 year	2018- 2022	132.9	2016-2020 State 149.2	N
Intersection Serious Injuries (State)	5 year	2018- 2022	845.1	2016-2020 State 1,138.6	Ν
Construction/Work Zone Fatalities (State)	5 year	2018- 2022	8.3	2016-2020 State 9.2	N
Construction/Work Zone Serious Injuries (State)	5 year	2018- 2022	30.3	2016-2020 State 45.2	N

#### Appendix D: MDOT MVA Match Documentation



Larry Hogan Governor Boyd K. Rutherford Lt. Governor Gregory Slater Secretary Christine Nizer

June 9, 2022

Mrs. Stephanie Hancock
Regional Administrator
National Highway Traffic Safety Administration – Mid-Atlantic Region
George H. Fallon Federal Building
31 Hopkins Plaza, Rm 902
Baltimore MD 21201

Re: Highway Safety Programs Match for NHTSA Federal Funds

Dear Stephanie,

The Maryland Department of Transportation Motor Vehicle Administration (MDOT MVA) is committed to one long-term goal of zero fatalities on Maryland roadways. As the primary organization responsible for managing Maryland's traffic safety grants program, the MDOT MVA provides funding to assist our partners in developing and implementing highway safety programs designed to reduce traffic crashes, deaths, injuries, and property damage.

In Federal Fiscal Year 2023, the MDOT MVA will obligate roughly \$15.8 million toward highway safety programs and will be responsible for providing roughly \$12 million of in-kind services as matching funds. The MDOT MVA's Central Operations and Safety Programs will designate the match solely for federal highway safety grants and will not be used to match other federal grant programs. Please refer to Attachment 1 for the breakdown of matching funds.

The MDOT MVA maintains the highest commitment to safety, driver services, and the effective management of our highway safety grants. If you have any additional questions or concerns, please contact me at 410-768-7830 or <a href="mailto:cnizer@mdot.state.md.us">cnizer@mdot.state.md.us</a>.

Sincerely,

Christine Nizer, Administrator Maryland Motor Vehicle Administration Governor's Highway Safety Representative

cc: Dr. Timothy Kerns, Director, MHSO

Index	Index Description	Fund	Aobj	Aobj Description	Budget	Expenditures
21000	MEDICAL ADVISORY BOARD	0300	SALARIES-REGULAR EARNINGS	0101	388,572.00	297,080.89
21000	MEDICAL ADVISORY BOARD	0300	FICA REGULAR	0151	22,007.00	15,438.75
21000	MEDICAL ADVISORY BOARD	0300	HOSPITAL INSURANCE	0152	28,701.00	23,803.87
21000	MEDICAL ADVISORY BOARD	0300	HEALTH INSURANCE RETIRED	0154	14,352.00	13,974.27
21000	MEDICAL ADVISORY BOARD	0300	PENSION	0162	80,927.00	64,325.71
21000	MEDICAL ADVISORY BOARD	0300	UNEMPLOYMENT	0174	1,069.00	814.78
21000	MEDICAL ADVISORY BOARD	0300	TURN OVER EXPECTANCY	0189	(24,305.00)	
21000	MEDICAL ADVISORY BOARD	0300	TRAVEL OUT ST-ROUT OPERAT	0403		284.71
21000	MEDICAL ADVISORY BOARD	0300	DOCTOR FEES/MEDICAL ADVIS	0825	17,343.00	34,500.00
21000	MEDICAL ADVISORY BOARD	0300	COPIER LEASE	0846	1,772.00	1,260.72
21000	MEDICAL ADVISORY BOARD	0300	MEETING EXPENSES	0874	1,807.00	
21000	MEDICAL ADVISORY BOARD	0300	OFFICE SUPPLIES	0902	139.00	
21000	MEDICAL ADVISORY BOARD	0300	PERSONAL COMPUTER SUPPLIE	0926	202.00	

Index	Index Description	Fund	Aobj	Aobj Description	Budget	Expenditures
21000	MEDICAL ADVISORY BOARD	0300	SUBSCRIPTIONS	1304	298.00	
21000 Total					532,884.00	451,483.70
22000	DRIVER SAFETY DIVISION	0300	SALARIES-REGULAR EARNINGS	0101		6,252.10
22000	DRIVER SAFETY DIVISION	0300	FICA REGULAR	0151		431.44
22000	DRIVER SAFETY DIVISION	0300	HOSPITAL INSURANCE	0152		2,182.95
22000	DRIVER SAFETY DIVISION	0300	HEALTH INSURANCE RETIRED	0154		1,281.11
22000	DRIVER SAFETY DIVISION	0300	PENSION	0162		1,327.82
22000	DRIVER SAFETY DIVISION	0300	UNEMPLOYMENT	0174		15.80
22000	DRIVER SAFETY DIVISION	0300	TRVL-IN-ST-ROUT OPERATION	0401		172.08
22000 Total					-	11,663.30
26000	DRIVER PROGRAM	0300	SALARIES-REGULAR EARNINGS	0101		65,125.57
26000	DRIVER PROGRAM	0300	SALARIES-OVERTIME	0104		138.45
26000	DRIVER PROGRAM	0300	FICA REGULAR	0151		4,858.49

Index	Index Description	Fund	Aobj	Aobj Description	Budget	Expenditures
26000	DRIVER PROGRAM	0300	HOSPITAL INSURANCE	0152		6,927.46
26000	DRIVER PROGRAM	0300	HEALTH INSURANCE RETIRED	0154		4,067.04
26000	DRIVER PROGRAM	0300	PENSION	0162		13,492.12
26000	DRIVER PROGRAM	0300	UNEMPLOYMENT	0174		177.81
26000	DRIVER PROGRAM	0300	TRVL-IN-ST-ROUT OPERATION	0401		154.55
26000	DRIVER PROGRAM	0300	OFFICE SUPPLIES	0902		890.90
26000 Total					-	95,832.39
26100	ADMINISTRATIVE ADJUDICATION	0300	SALARIES-REGULAR EARNINGS	0101	2,862,794.00	2,049,532.40
26100	ADMINISTRATIVE ADJUDICATION	0300	SALARIES-STUDENTS	0102		9,376.00
26100	ADMINISTRATIVE ADJUDICATION	0300	SALARIES-OVERTIME	0104	6,233.00	26,022.11
26100	ADMINISTRATIVE ADJUDICATION	0300	FICA REGULAR	0151	204,931.00	152,988.41
26100	ADMINISTRATIVE ADJUDICATION	0300	HOSPITAL INSURANCE	0152	631,422.00	435,265.07
26100	ADMINISTRATIVE ADJUDICATION	0300	HEALTH INSURANCE RETIRED	0154	315,744.00	255,530.81

Index	Index Description	Fund	Aobj	Aobj Description	Budget	Expenditures
26100	ADMINISTRATIVE ADJUDICATION	0300	PENSION	0162	596,230.00	424,548.82
26100	ADMINISTRATIVE ADJUDICATION	0300	UNEMPLOYMENT	0174	7,882.00	5,534.78
26100	ADMINISTRATIVE ADJUDICATION	0300	TURN OVER EXPECTANCY	0189	(181,203.00)	
26100	ADMINISTRATIVE ADJUDICATION	0300	FICA-CONTRACTUAL	0213	7,164.00	
26100	ADMINISTRATIVE ADJUDICATION	0300	UNEMPLOYMENT- CONTRACTUAL	0214	262.00	
26100	ADMINISTRATIVE ADJUDICATION	0300	CONTRACTUAL EMPLOYEES SAL	0220	93,643.00	
26100	ADMINISTRATIVE ADJUDICATION	0300	CONTRACTUAL TURNOVER	0291	(9,308.00)	
26100	ADMINISTRATIVE ADJUDICATION	0300	SCANNING / MICROFILMING	0806	52,905.00	44,441.45
26100	ADMINISTRATIVE ADJUDICATION	0300	LEGAL SERVICES/TRANSCRIPT	0817	14,569.00	24,682.30
26100	ADMINISTRATIVE ADJUDICATION	0300	FREIGHT & DELIVERY	0826		40.00
26100	ADMINISTRATIVE ADJUDICATION	0300	OFFICE OF ADMINISTRATIVE	0831	2,267,242.00	2,267,242.00
26100	ADMINISTRATIVE ADJUDICATION	0300	COPIER LEASE	0846	8,362.00	
26100	ADMINISTRATIVE ADJUDICATION	0300	OFFICE SUPPLIES	0902	2,016.00	2,438.08

Index	Index Description	Fund	Aobj	Aobj Description	Budget	Expenditures
26100	ADMINISTRATIVE ADJUDICATION	0300	AUDIO VISUAL	0903		250.31
26100	ADMINISTRATIVE ADJUDICATION	0300	MAINT BLDG SUPPLIES	0904		57.83
26100	ADMINISTRATIVE ADJUDICATION	0300	MEDICAL SUPPLIES	0909		185.09
26100	ADMINISTRATIVE ADJUDICATION	0300	WEARING APPAREL UNIFORMS	0912		25.98
26100	ADMINISTRATIVE ADJUDICATION	0300	INSTRUCTIONAL SUPPLIES	0914		286.98
26100	ADMINISTRATIVE ADJUDICATION	0300	PERSONAL COMPUTER SUPPLIE	0926	26,404.00	10,078.66
26100	ADMINISTRATIVE ADJUDICATION	0300	JANITORIAL SUPPLIES	0935	269.00	99.28
26100	ADMINISTRATIVE ADJUDICATION	0300	PRINTSHOP SUPPLIES	0993	9,256.00	5,121.93
26100	ADMINISTRATIVE ADJUDICATION	0300	REPLACEMENT OFFICE FURNIT	1046		171.52
26100	ADMINISTRATIVE ADJUDICATION	0300	ADDITIONAL OFFICE FURNITU	1146		794.30
26100 Total					6,916,817.00	5,714,714.11
26200	DRIVER WELLNESS & SAFETY	0300	SALARIES-REGULAR EARNINGS	0101	2,873,030.00	2,231,714.49
26200	DRIVER WELLNESS & SAFETY	0300	SALARIES-STUDENTS	0102		29,125.93

Index	Index Description	Fund	Aobj	Aobj Description	Budget	Expenditures
26200	DRIVER WELLNESS & SAFETY	0300	SALARIES-OVERTIME	0104	5,164.00	7,090.47
26200	DRIVER WELLNESS & SAFETY	0300	FICA REGULAR	0151	205,666.00	167,004.75
26200	DRIVER WELLNESS & SAFETY	0300	HOSPITAL INSURANCE	0152	535,752.00	444,091.60
26200	DRIVER WELLNESS & SAFETY	0300	HEALTH INSURANCE RETIRED	0154	267,904.00	260,702.93
26200	DRIVER WELLNESS & SAFETY	0300	PENSION	0162	598,357.00	451,181.07
26200	DRIVER WELLNESS & SAFETY	0300	UNEMPLOYMENT	0174	7,910.00	6,033.25
26200	DRIVER WELLNESS & SAFETY	0300	TURN OVER EXPECTANCY	0189	(181,844.00)	
26200	DRIVER WELLNESS & SAFETY	0300	TRVL-IN-ST-ROUT OPERATION	0401	68.00	
26200	DRIVER WELLNESS & SAFETY	0300	TRAVEL OUT ST-ROUT OPERAT	0403		310.71
26200	DRIVER WELLNESS & SAFETY	0300	SCANNING / MICROFILMING	0806	31,198.00	
26200	DRIVER WELLNESS & SAFETY	0300	COPIER LEASE	0846	1,260.00	1,664.74
26200	DRIVER WELLNESS & SAFETY	0300	OFFICE SUPPLIES	0902	1,658.00	412.73
26200	DRIVER WELLNESS & SAFETY	0300	PERSONAL COMPUTER SUPPLIE	0926	18,386.00	7,167.10

Index	Index Description	Fund	Aobj	Aobj Description	Budget	Expenditures
26200	DRIVER WELLNESS & SAFETY	0300	JANITORIAL SUPPLIES	0935	154.00	201.44
26200	DRIVER WELLNESS & SAFETY	0300	PRINTSHOP SUPPLIES	0993	5,605.00	2,116.50
26200 Total					4,370,268.00	3,608,817.71
26500	DRIVER INSTRUCTIONAL SERVICES	0300	SALARIES-REGULAR EARNINGS	0101	522,068.00	51,826.50
26500	DRIVER INSTRUCTIONAL SERVICES	0300	SALARIES-STUDENTS	0102		2,500.00
26500	DRIVER INSTRUCTIONAL SERVICES	0300	SALARIES-OVERTIME	0104		587.99
26500	DRIVER INSTRUCTIONAL SERVICES	0300	FICA REGULAR	0151	37,372.00	3,961.17
26500	DRIVER INSTRUCTIONAL SERVICES	0300	HOSPITAL INSURANCE	0152	95,670.00	11,947.22
26500	DRIVER INSTRUCTIONAL SERVICES	0300	HEALTH INSURANCE RETIRED	0154	47,840.00	7,011.96
26500	DRIVER INSTRUCTIONAL SERVICES	0300	PENSION	0162	108,728.00	10,824.34
26500	DRIVER INSTRUCTIONAL SERVICES	0300	UNEMPLOYMENT	0174	1,438.00	145.15
26500	DRIVER INSTRUCTIONAL SERVICES	0300	TURN OVER EXPECTANCY	0189	(33,045.00)	
26500	DRIVER INSTRUCTIONAL SERVICES	0300	MISCELLANEOUS COMMUNICATI	0304		-

Index	Index Description	Fund	Aobj	Aobj Description	Budget	Expenditures
26500	DRIVER INSTRUCTIONAL SERVICES	0300	TRVL-IN-ST-ROUT OPERATION	0401	83.00	
26500 Total					780,154.00	88,804.33
26510	MOTORCYCLE SAFETY	0300	WORKERS COMPENSATION	0175	1,618.00	1,618.00
26510	MOTORCYCLE SAFETY	0300	TRVL-IN-ST-ROUT OPERATION	0401	4,572.00	236.03
26510	MOTORCYCLE SAFETY	0300	MTR VEH-MAINT & REPAIR	0703	1,240.00	
26510	MOTORCYCLE SAFETY	0300	TRAINING	0819	3,385.00	
26510	MOTORCYCLE SAFETY	0300	CONSULTANTS	0821	557.00	
26510	MOTORCYCLE SAFETY	0300	COPIER LEASE	0846	1,492.00	
26510	MOTORCYCLE SAFETY	0300	MEETING EXPENSES	0874	3,995.00	
26510	MOTORCYCLE SAFETY	0300	OFFICE SUPPLIES	0902	968.00	
26510	MOTORCYCLE SAFETY	0300	INSTRUCTIONAL SUPPLIES	0914	194.00	175.25
26510	MOTORCYCLE SAFETY	0300	PERSONAL COMPUTER SUPPLIE	0926	1,032.00	
26510	MOTORCYCLE SAFETY	0300	ASSOCIATION DUES	1305	1,200.00	

Index	Index Description	Fund	Aobj	Aobj Description	Budget	Expenditures
26510 Total					20,253.00	2,029.28
26520	DRIVER EDUCATION PROGRAM	0300	SALARIES-REGULAR EARNINGS	0101	71,173.00	469,343.40
26520	DRIVER EDUCATION PROGRAM	0300	FICA REGULAR	0151	5,095.00	34,472.53
26520	DRIVER EDUCATION PROGRAM	0300	HOSPITAL INSURANCE	0152	9,567.00	64,764.19
26520	DRIVER EDUCATION PROGRAM	0300	HEALTH INSURANCE RETIRED	0154	4,784.00	38,020.44
26520	DRIVER EDUCATION PROGRAM	0300	PENSION	0162	14,823.00	87,788.98
26520	DRIVER EDUCATION PROGRAM	0300	UNEMPLOYMENT	0174	196.00	1,261.96
26520	DRIVER EDUCATION PROGRAM	0300	TURN OVER EXPECTANCY	0189	(4,505.00)	
26520	DRIVER EDUCATION PROGRAM	0300	MISCELLANEOUS COMMUNICATI	0304	1,600.00	62.43
26520	DRIVER EDUCATION PROGRAM	0300	TRVL-IN-ST-ROUT OPERATION	0401	53.00	
26520	DRIVER EDUCATION PROGRAM	0300	PERSONAL COMPUTER SUPPLIE	0926	750.00	
26520	DRIVER EDUCATION PROGRAM	0300	PRINTSHOP SUPPLIES	0993	578.00	
26520 Total					104,114.00	695,713.93

Index	Index Description	Fund	Aobj	Aobj Description	Budget	Expenditures
28000	MARYLAND HWY SAFETY OFFICE	0300	SALARIES-REGULAR EARNINGS	0101	1,029,208.00	(741,170.59)
28000	MARYLAND HWY SAFETY OFFICE	0300	SALARIES-OVERTIME	0104		(509.22)
28000	MARYLAND HWY SAFETY OFFICE	0300	FICA REGULAR	0151	74,000.00	(54,005.93)
28000	MARYLAND HWY SAFETY OFFICE	0300	HOSPITAL INSURANCE	0152	101,724.00	(137,173.74)
28000	MARYLAND HWY SAFETY OFFICE	0300	HEALTH INSURANCE RETIRED	0154	49,104.00	(80,533.76)
28000	MARYLAND HWY SAFETY OFFICE	0300	PENSION	0162	210,886.00	(138,814.19)
28000	MARYLAND HWY SAFETY OFFICE	0300	UNEMPLOYMENT	0174	2,843.00	(1,976.76)
28000	MARYLAND HWY SAFETY OFFICE	0300	TURN OVER EXPECTANCY	0189	(65,593.00)	
28000	MARYLAND HWY SAFETY OFFICE	0300	TRVL-IN-ST-ROUT OPERATION	0401	3,151.00	2,584.51
28000	MARYLAND HWY SAFETY OFFICE	0300	IN STATE CONFERENCES/SEMI	0402		-
28000	MARYLAND HWY SAFETY OFFICE	0300	TRAVEL OUT ST-ROUT OPERAT	0403	6,715.00	3,700.88
28000	MARYLAND HWY SAFETY OFFICE	0300	ADVERTISING	0801	2,459.00	8,493.82
28000	MARYLAND HWY SAFETY OFFICE	0300	PRINTING/REPRODUCTION	0804	1,121.00	

Index	Index Description	Fund	Aobj	Aobj Description	Budget	Expenditures
28000	MARYLAND HWY SAFETY OFFICE	0300	OFFICE EQUIPMENT RENTAL	0808	1,458.00	
28000	MARYLAND HWY SAFETY OFFICE	0300	REGISTRATION FEES - CONF	0818		-
28000	MARYLAND HWY SAFETY OFFICE	0300	CONSULTANTS	0821	423,480.00	332,258.14
28000	MARYLAND HWY SAFETY OFFICE	0300	COPIER LEASE	0846		-
28000	MARYLAND HWY SAFETY OFFICE	0300	OFFICE SUPPLIES	0902	793.00	
28000	MARYLAND HWY SAFETY OFFICE	0300	INSTRUCTIONAL SUPPLIES	0914	3,702.00	
28000	MARYLAND HWY SAFETY OFFICE	0300	PAYMENT TO POLITICAL SUBD	1202	1,243,560.00	163,103.31
28000 Total					3,088,611.00	(644,043.53)
28009	MARYLAND HWY SAFETY OFFICE (PAYROLL ONLY)	0300	SALARIES-REGULAR EARNINGS	0101		1,357,094.17
28009	MARYLAND HWY SAFETY OFFICE (PAYROLL ONLY)	0300	SALARIES-OVERTIME	0104		1,252.55
28009	MARYLAND HWY SAFETY OFFICE (PAYROLL ONLY)	0300	FICA REGULAR	0151		99,448.56
28009	MARYLAND HWY SAFETY OFFICE (PAYROLL ONLY)	0300	HOSPITAL INSURANCE	0152		213,640.60

Index	Index Description	Fund	Aobj	Aobj Description	Budget	Expenditures
28009	MARYLAND HWY SAFETY OFFICE (PAYROLL ONLY)	0300	HEALTH INSURANCE RETIRED	0154		125,420.78
28009	MARYLAND HWY SAFETY OFFICE (PAYROLL ONLY)	0300	PENSION	0162		266,844.75
28009	MARYLAND HWY SAFETY OFFICE (PAYROLL ONLY)	0300	UNEMPLOYMENT	0174		3,640.15
28009 Total					-	2,067,341.56
Grand Total					15,813,101.00	12,092,356.78

#### Appendix E: Certifications and Assurances Part A

Appendix A to Part 1300 – Certifications and Assurances for Fiscal Year 2022 Highway Safety Grants (23 U.S.C. Chapter 4; Sec. 1906, Pub. L. 109-59, As Amended By Sec. 4011, Pub. L. 114-94)

[Each fiscal year, the Governor's Representative for Highway Safety must sign these Certifications and Assurances affirming that the State complies with all requirements, including applicable Federal statutes and regulations, that are in effect during the grant period. Requirements that also apply to subrecipients are noted under the applicable caption.]

State: Maryland Fiscal Year: 202

By submitting an application for Federal grant funds under 23 U.S.C. Chapter 4 or Section 1906, the State Highway Safety Office acknowledges and agrees to the following conditions and requirements. In my capacity as the Governor's Representative for Highway Safety, I hereby provide the following Certifications and Assurances:

#### GENERAL REQUIREMENTS

The State will comply with applicable statutes and regulations, including but not limited to:

- 23 U.S.C. Chapter 4 Highway Safety Act of 1966, as amended
- Sec. 1906, Pub. L. 109-59, as amended by Sec. 4011, Pub. L. 114-94
- 23 CFR part 1300 Uniform Procedures for State Highway Safety Grant Programs
- 2 CFR part 200 Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards
- 2 CFR part 1201 Department of Transportation, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards

#### INTERGOVERNMENTAL REVIEW OF FEDERAL PROGRAMS

The State has submitted appropriate documentation for review to the single point of contact designated by the Governor to review Federal programs, as required by Executive Order 12372 (Intergovernmental Review of Federal Programs).

#### FEDERAL FUNDING ACCOUNTABILITY AND TRANSPARENCY ACT (FFATA)

The State will comply with FFATA guidance, OMB Guidance on FFATA Subward and Executive Compensation Reporting, August 27, 2010, (https://www.fsrs.gov/documents/OMB Guidance on FFATA Subaward and Executive Compensation Reporting 08272010.pdf) by reporting to FSRS.gov for each sub-grant awarded:

- Name of the entity receiving the award;
- Amount of the award;

- An annual Statewide seat belt use survey in accordance with 23 CFR part 1340 for the measurement of State seat belt use rates, except for the Secretary of Interior on behalf of Indian tribes;
- Development of Statewide data systems to provide timely and effective data analysis to support allocation of highway safety resources;
- Coordination of Highway Safety Plan, data collection, and information systems with the State strategic highway safety plan, as defined in 23 U.S.C. 148(a). (23 U.S.C. 402(b)(1)(F))
- The State will actively encourage all relevant law enforcement agencies in the State to follow
  the guidelines established for vehicular pursuits issued by the International Association of
  Chiefs of Police that are currently in effect. (23 U.S.C. 402(j))
- The State will not expend Section 402 funds to carry out a program to purchase, operate, or maintain an automated traffic enforcement system. (23 U.S.C. 402(c)(4))

I understand that my statements in support of the State's application for Federal grant funds are statements upon which the Federal Government will rely in determining qualification for grant funds, and that knowing misstatements may be subject to civil or criminal penalties under 18 U.S.C. 1001. I sign these Certifications and Assurances based on personal knowledge, and after appropriate inquiry.

2

#### Appendix F: Certifications and Assurances Part B

#### Appendix B to Part 1300 – Application Requirements for Section 405 and Section 1906 Grants

[Each fiscal year, to apply for a grant under 23 U.S.C. 405 or Section 1906, Pub. L. 109-59, as amended by Section 4011, Pub. L. 114-94, the State must complete and submit all required information in this appendix, and the Governor's Representative for Highway Safety must sign the Certifications and Assurances.]

State:	Maryland	Fiscal Year: 2023

Instructions: Check the box for each part for which the State is applying for a grant, fill in relevant blanks, and identify the attachment number or page numbers where the requested information appears in the HSP. Attachments may be submitted electronically.

### ■ PART 1: OCCUPANT PROTECTION GRANTS (23 CFR 1300.21)

[Check the box above only if applying for this grant.]

#### All States:

## [Fill in all blanks below.]

- The lead State agency responsible for occupant protection programs will maintain its
  aggregate expenditures for occupant protection programs at or above the average level of
  such expenditures in fiscal years 2014 and 2015. (23 U.S.C. 405(a)(9))
- The State's occupant protection program area plan for the upcoming fiscal year is provided in the HSP at Occupant Protection Program PP 51-88 (location).
- The State will participate in the Click it or Ticket national mobilization in the fiscal year
  of the grant. The description of the State's planned participation is provided in the HSP
  at Occupant Protection Program PP 58 (location).
- Countermeasure strategies and planned activities demonstrating the State's active network of child restraint inspection stations are provided in the HSP at
   Appendix G: Occupant Protection Grant (23 CFR 1300.21) Certification (location).

   Such description includes estimates for: (1) the total number of planned inspection stations and events during the upcoming fiscal year; and (2) within that total, the number of planned inspection stations and events serving each of the following population categories: urban, rural, and at-risk. The planned inspection stations/events provided in the HSP are staffed with at least one current nationally Certified Child Passenger Safety Technician.

In my capacity as the Governor's Representative for Highway Safety, I hereby provide the following certifications and assurances –

- I have reviewed the above information in support of the State's application for 23 U.S.C. 405 and Section 1906 grants, and based on my review, the information is accurate and complete to the best of my personal knowledge.
- As condition of each grant awarded, the State will use these grant funds in accordance with the specific statutory and regulatory requirements of that grant, and will comply with all applicable laws, regulations, and financial and programmatic requirements for Federal grants.
- I understand and accept that incorrect, incomplete, or untimely information submitted in support of the State's application may result in the denial of a grant award.

I understand that my statements in support of the State's application for Federal grant funds are statements upon which the Federal Government will rely in determining qualification for grant funds, and that knowing misstatements may be subject to civil or criminal penalties under 18 U.S.C. 1001. I sign these Certifications and Assurances based on personal knowledge, and after appropriate inquiry.

Christine Nizer Digitally signed by Christine Nizer Date: 2022.08.28 09:38:50 -04'00'	6/28/22	
Signature Governor's Representative for Highway Safety	Date	

# Christine Nizer

Printed name of Governor's Representative for Highway Safety

# Appendix G: Occupant Protection Grant (23 CFR 1300.21) Certification

#### **CERTIFICATION:**

- 1. Total number of planned inspection stations and/or events in the State 50
- 2. Total number of planned inspection stations and/or events in the State serving each of the following population categories: urban, rural, and at-risk:
- Populations served urban: 9
- Populations served rural: 14
- Populations served at risk: 9

CERTIFICATION: The inspection stations/events are staffed with at least one current nationally Certified Child Passenger Safety Technician.

CERTIFICATION: Estimate of the total number of classes and the estimated total number of technicians to be trained in the upcoming fiscal year to ensure coverage of child passenger safety inspection stations and inspection events by nationally Certified Child Passenger Safety Technicians.

- Estimated total number of classes: 6
- Estimated total number of technicians: 60

# Appendix H: State Traffic Safety Grants (23 CFR 1300.22) Certification

The following is a list of TRCC/SHSP meetings for the 12 months prior to the submission of this document:

Executive Council			
November 29, 2021	12:30pm-2:00pm		
July 7, 2022	10:00am-11:30am		

General TRCC	
Wednesday, November 10, 2021	1:00pm-3:00pm
Wednesday, February 16, 2022	1:00pm-3:00pm
Wednesday, May 18, 2022	1:00pm-3:00pm

The following is a list of members of Maryland's TRCC Executive Council and Proxy Members:

	TRCC Executive Council Full Members			
First Name	Last Name	Title Agency Name		Voting
		Chief, Information Management		
Oscar	lbarra	and Program Administration	HSCRC	Yes
		Colonel; Secretary of State		
Jerry	Jones	Police (Superintendent)	MSP	Yes
Michael	Leahy	Secretary	DolT	Yes
John	Morrissey	Chief Judge, District Court of Maryland	Maryland Judiciary	Yes
Chrissy	Nizer	Administrator	MVA	Yes
William	Pines	Executive Director MDTA		Yes
Dennis R.	Schrader	Secretary MDH		Yes
Jim	Ports	Secretary	MDOT	Yes
Tim	Smith	Administrator	SHA	Yes
Jinlene	Chan	Deputy Secretary for Public Health	MDH	Yes
Theodore	Delbridge	Executive Director	MIEMSS	Yes
		Proxy Members		
First Name	Last Name	Title	Agency Name	Voting
Steve	Kolbe	Deputy CIO DoIT		Yes
T	C	Captain; Technology and	MCD	Vaa
Tawn	Gregory	Information Management	MSP	Yes
Harris	11-6	Deputy Secretary, Public	MDII	V
Howard	Haft	Health Services MDH		Yes
W. Lance	Schine	Deputy Secretary DoIT		Yes

# **TRCC General Membership Roster**

Name	Title	Organization	Core Safety Database
Kunle Adeyemo	Executive Director	Governor's Office of Crime Prevention, Youth, and Victim Services	General
Bala Akundi	Principal Transportation Engineer	Baltimore Regional Transportation Board (BRTB)/Baltimore Metro	General
Holly Arnold	Acting Administrator	Maryland Transit Administration (MTA)	General
Kim Auman	Epidemiologist / Project Coordinator	National Study Center for Trauma & EMS (NSC)	General
Janet Bahouth	Director	Crash Center for Research and Education (CoRE)	General
Robin Barnett- Wake	Project Manager (MSCAN)	State Highway Administration (SHA)	Crash
Komal Bhagat	Research Analyst	National Study Center for Trauma & EMS (NSC)	General
Akua Boatema	Injury Prevention Section Head	Maryland Department of Health (MDH)	General
Summer Bowman	Acting State Programs Specialist	Federal Motor Carrier Safety Administration	General
David Brinkley	Secretary	Department of Budget and Management (DBM)	General
Colin Bristow	SHA-MSP Liaison	Maryland State Police/SHA	General
Brian Browne	Senior Technical Specialist	District Court of Maryland	Citation/Adjudication
Cindy Burch	Local SHSP Coordinator	Baltimore Metropolitan Council	General

Name	Title	Organization	Core Safety Database
Subha Chandar	Deputy Director, Environmental Health Bureau	Maryland Department of Health (MDH)	General
Allie Chavez	Senior Research Analyst & CIREN Site Coordinator	National Study Center for Trauma & EMS (NSC)	General
Chris Corea	First Sergeant	Maryland State Police– Information Technology Division (MSP-ITD)	Crash; Citation
Rose Day	Executive Director, Operations	District Court of Maryland Headquarters	Citation/Adjudication
Sabatino Desantis	Sergeant	Maryland State Police Training Unit	Crash; Citation
Ron Fisher	Captain: Commander, Central Records Division	Maryland State Police	Crash
Gina Fogler	Accident Reporting Section Supervisor	Maryland State Police Central Records Division (MSP-CRD)	Crash
Patrick Foster	Engineering Analyst	Traffic Safety Division, Office of Engineering, Prince George's Coun	Crash; Roadway
Leo Fothergill	GIS Project Manager	Maryland Transit Administration (MTA)	Crash
Bruce Goldfarb	Spokesman	ОСМЕ	Injury Surveillance Systems
Hiwut Habtemariam	Crash Analysis	SHA-OOTS-TDSD	Crash
Semia Hackett	Bicycle and Pedestrian Program Manager	Department of Public Works and Transportation (Prince George's	General
Stephanie Hancock	Regional Administrator	National Highway Traffic Safety Administration (NHTSA)	General

Name	Title	Organization	Core Safety Database
Jim Harkness	Deputy Director of Engineering	Maryland Transportation Authority (MDTA)	Crash; Roadway
Gladys Hurwitz	Transportation Planner	Maryland Department of Transportation Office of Planning and Ca	General
Megan Jansen	Acting Chief Data Officer	MDOT MVA	Vehicle, Licensing
Breck Jeffers	Transportation Management Engineer	Federal Highway Administration (FHWA)	General
Tom Jeffries	Director, Police Records	Maryland Transportation Authority Police (MDTA)	Crash
Mansoureh Jeihani	Interim Director, National Transportation Center Urban	Morgan State University National Transportation Center	General
Kartik Kaushik	Research Analyst	National Study Center for Trauma & EMS (NSC)	General
Tim Kerns	Director MHSO	Maryland Highway Safety Office (MHSO)	General
Gary Klein	Database Administrator	State Highway Administration (SHA)	Crash
Joe Kufera	Biostatistician	National Study Center for Trauma & EMS (NSC)	General
Walter F. "Pete" Landon	Advisor	Governor's Office of Homeland Security	General
Andrea Lasker	Special Assistant for Policy and Program Development	Office of the Director, Department of Public Works & Transportation	General
Veronica Lee	Project Manager (MSCAN)	State Highway Administration (SHA)	Crash

Name	Title	Organization	Core Safety Database
John Lesko	Program Manager	Maryland Department of Information Technology (DoIT)	General
Chris Letnaunchyn	Traffic Engineer	Carroll County Department of Public Works	Crash; Roadway
Sean Lynn	GIS Project Manager	Washington College Geographic Information Systems (GIS)	General
Bill Macleod	Director, TDSD	State Highway Administration Traffic Safety Analysis Division (SHA-	Crash; Roadway
Matthew Manning	Traffic Safety Unit	National Park Service (Park Police)	Crash
Bill Matheny	TDSD	State Highway Administration Traffic Safety Analysis Division (SHA-TDSD)	Crash
Erica McMaster	Project Coordinator	Washington College Geographic Information Systems (GIS)	General
Peter Moe	Program Manager	MDOT MVA	Driver/Vehicle
Verlon Morrow	Lieutenant	Maryland Transportation Authority Police (MDTA)	Crash; Roadway
Douglas Mowbray	Traffic Records Program Manager	Maryland Highway Safety Office (MHSO)	General
Frank Murphy	Senior Advisor	Baltimore City DOT	General
Michael Pack	Director	CATT Laboratory, UMCP	General
Erica Peters	Senior Manager, Development and Integrations	Maryland Judiciary Judicial Information Systems (JIS)	Citation/Adjudication

Name	Title	Organization	Core Safety Database
Heather Poston	Special Advisor	Governor's Office of Homeland Security	General
Michelle Price	Detective (Crash Team)	Baltimore City Police Department	Crash; Citation
Richard Ricko	Major	Maryland Transportation Authority Police (MDTA)	Crash; Roadway
Jeanne Robinson	Database Consultant	Baltimore City Department of Transportation	Crash
Charlene Rock-Foster	FARS Analyst	Maryland State Police–Central Records Division	Crash
John Rotz	Assistant Chief, Motor Carrier Division	SHA Motor Carrier Division (SHA-MCD)	Crash
James Russell	Captain; Commander, Automative Safety Enforcement Di	Maryland State Police Office of Strategic Planning	Crash
Mark Scarboro	Director of Research / Interim Director	STAR/NSC	General
Brian Seel	Analyst	Baltimore City Department of Transportation	General
Michel Sheffer	GIS Coordinator/Assistant Division Chief	SHA Highway Information Services Division (HISD)	Roadway
Hyeonshic Shin	Professor	Morgan State University National Transportation Center	General
Bineeta Sihota	GIS Analyst	Baltimore City Department of Transportation	General
Glen Sine	GIS Program Manager	Washington College Geographic Information Systems (GIS)	General

Name	Title	Organization	Core Safety Database
Gregory W. Smith	Cpl, Delta Plus Trainer	Maryland State Police Training Unit	Crash; Citation
Rebecca Spicer	Senior Research Scientist	Crash Center for Research and Education (CoRE)	General
Darren Thacker	Regional Program Manager	National Highway Traffic Safety Administration (NHTSA)	General
William Thompson	Director, Data Management	MD Institute for Emergency Medical Services Systems (MIEMSS)	Injury Surveillance Systems
Roumen Vesselinov	Statistician	National Study Center for Trauma & EMS (NSC)	General
Lisa Vronch	Maryland Parole Commission	Dept. of Public Safety & Correctional Services (DPSCS)	General
Susie Wellman	Data Processing and Quality Assurance	Maryland Highway Safety Office (MHSO)	Crash
Myra Wieman	Deputy Director	Maryland Highway Safety Office (MHSO)	General
lda Williams	Director	Maryland State Police Central Records Division (MSP-CRD)	Crash
Elizabeth Wooster	Director, Trauma & Injury Speciality Care Program	MD Institute for Emergency Medical Services Systems (MIEMSS)	Injury Surveillance Systems
Jianyang (Jay) Zheng	Team Leader, Traffic Engineering Safety	Maryland State Highway Administration - OOTS/TDSD	Crash
Jeffrey Zuback	Chief of Research, Analysis, and Evaluation	Governor's Office of Crime Prevention, Youth, and Victim Services	General

# Specific Quantifiable, and Measurable Improvements

Refer to Appendix L: Maryland Traffic Records Strategic Plan: Appendix 5 – Performance Measures

### Traffic Records Program Assessment – NHTSA Recommendations

To continue to assess progress toward the state's goals and determine the priorities for the 2021–2025 TRSP, a follow-up Traffic Records Program Assessment was completed in September 2019. Under federal regulations for traffic records funding (405(c)), states must include all recommendations from the most recent Traffic Records Program Assessment in the TRSP.

The Maryland 2021–2025 TRSP incorporates recommendations and considerations from the 2019 NHTSA Assessment, from FHWA's Maryland State Roadway Safety Data Capability Assessment Action Plan (January 2019), and from the TRCC Technical and Executive Councils, and the 2021- 2025 TRSP must be ratified for submission to NHTSA by July 1, 2020.

#### **TRCC Recommendation**

None.

## **Strategic Planning Recommendation**

None.

#### Crash Recommendations practices identified in the Traffic Records Program Assessment Advisory.

- Improve the data quality control program for the Crash data system to reflect best
- Improve the interfaces with the Crash data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.

### Vehicle Recommendations practices identified in the Traffic Records Program Assessment Advisory.

- > Improve the data quality control program for the Vehicle data system to reflect best
- Improve the interfaces with the Vehicle data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.

#### **Driver Recommendations**

- Improve the data quality control program for the Driver data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.
- Improve the interfaces with the Driver data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.

#### Roadway Recommendations identified in the Traffic Records Program Assessment Advisory.

- Improve the applicable guidelines for the Roadway data system to reflect best practices
- Improve the data quality control program for the Roadway data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.

#### **Citation /Adjudication Recommendations**

- > Improve the data quality control program for the Citation and Adjudication systems to reflect best practices identified in the Traffic Records Program Assessment Advisory.
- > Improve the interfaces with the Citation and Adjudication systems to reflect best practices identified in the Traffic Records Program Assessment Advisory.

#### **EMS/Injury Surveillance Recommendations**

Improve the data quality control program for the Injury Surveillance systems to reflect best practices identified in the Traffic Records Program Assessment Advisory.

# Maryland Traffic Records Assessment Recommendations – September 2019

Refer to Appendix L: Maryland Traffic Records Strategic Plan: Appendix 4 – Update to 2019 Traffic Records Assessment Recommendations (FFY2023 HSP Submission)

## Appendix I: Motorcyclist Safety Grant (23 CFR 1300.25) Certification

Maryland qualifies for three out of six motorcycle safety eligibility criteria under the FAST Act Motorcyclist Safety Grant Program. The state is submitting the following Motorcycle Safety Countermeasures Application for FFY 2023 funding under this program, demonstrating continued compliance with the eligibility criteria for motorcycle rider training courses and motorcyclist awareness programs.

- o Motorcycle rider training course: Yes
- o Motorcyclist awareness program: Yes
- o Reduction of fatalities and crashes: Yes
- o Impaired driving program: No
- Reduction of impaired fatalities and crashes: No
- Use of fees collected from motorcyclists: No

## **Motorcycle Rider Training Information**

State authority agency: Maryland Motor Vehicle Administration

State authority name/title: Christine Nizer; Administrator

Approved Curricula: (i) Motorcycle Safety Foundation Basic Rider Course

<u>CERTIFICATION: The head of the designated state authority over motorcyclist safety issues has apposed and the state has adopted the selected introductory rider curricula.</u>

#### **Motorcyclist Awareness Information**

State authority agency: Maryland Motor Vehicle Administration

State authority name/title: Christine Nizer; Administrator

<u>CERTIFICATION:</u> The state's motorcyclist awareness program was developed in coordinationwith the state authority having jurisdiction over motorcyclist safety issues.

The following is a list of the counties or political subdivisions in the state where motorcycle rider training courses will be conducted during the fiscal year of the grant and the number of registered motorcycles in each such county or political subdivision according to official state motor vehicle records. The state will offer at least one motorcycle rider training course in counties or political subdivisions that collectively account for a majority of the state's registered motorcycles.

MDOT MVA MOTORCYCLE REGISTRATIONS			
AS OF	AS OF MARCH 31, 2022		
COUNTY	VEHICLE COUNT		
ALLEGANY	2,053		
ANNE ARUNDEL	11,914		
BALTIMORE	12,229		
BALTIMORE CITY	3,206		
CALVERT	2,987		
CAROLINE	1,177		
CARROLL	6,107		
CECIL	3,472		
CHARLES	4,202		
DORCHESTER	707		
FREDERICK	7,251		
GARRETT	1,122		
HARFORD	6,792		
HOWARD	4,140		
KENT	505		
MONTGOMERY	10,163		
PRINCE GEORGE'S	9,614		
QUEEN ANNE'S	1,415		
SOMERSET	446		
ST. MARY'S	3,545		
TALBOT	800		
WASHINGTON	4,378		
WICOMICO	2,041		
WORCESTER	1,566		
MD County Null	1,119		
GRAND TOTAL	102,951		

State crash data has been used to identify the counties or political subdivisions within the state with the highest number of motorcycle crashes involving a motorcycle and another motor vehicle. That list is as follows:

STATE	Year - 2017	Year - 2018	2017 - 2018	Year -2019	Year -2020	2019 -2020
MD	FARS DATA	FARS DATA	Difference (Must be at least -1)	FARSDATA	FARSDATA	Difference (Must be atleast -1)
MC Fatalities	87	62	-25	77	85	+8
Impaired MC Fatalities (BAC = .01+ g/dl)	30	20	-10	24	29	+5

STATE	Year -2017	Year –2017	Year -2017	Year -2018	Year -2018	Year -2018	2017 -2018
MD	STATE CRASH DATA	Registered MC (FHWA)	Rate per 10,000 registered MC	STATE CRASH DATA	Registered MC (FHWA)	Rate per 10,000 registered MC	Difference (Must be at least 1.0)
All MC Crashes	1,451	118,277	122.7	1,274	118,277	107.7	15.0
All Impaired MC Crashes		118,277	8.5	67	118,277	5.7	2.8

STATE	Year -2019	Year –2019	Year -2019	Year -2020	Year -2020	Year -2020	2019 -2020
MD	STATE CRASH DATA	Registered MC (FHWA)*	Rate per 10,000 registered MC	STATE CRASH DATA	Registered MC (FHWA)	Rate per 10,000 registered MC	Difference (Must be at least 1.0)
All MC Crashes	1,253	113,195	110.7	1,288	112,550	114.4	3.7
All Impaired MC Crashes		113,195	5.7	81	112,550	7.2	1.5

<sup>\*</sup>Highway Statistics Series (fhwa.dot.gov/policyinformation/statistics.cfm)

This data is used to develop performance measures and corresponding performance targets for motorcycle awareness that identify, using state crash data, the counties or political subdivisions within the state with the highest number of motorcycle crashes involving a motorcycle and another motor vehicle.

Maryland has an effective motorcycle rider training program that offers courses throughout the state. Maryland provides a formal program of instruction in crash avoidance and other safety-oriented operational skills to motorcyclists using both in-class and on-motorcycle instruction and evaluates opportunities to provide innovative learning opportunities to address the needs of riders in the state. Maryland offers the Motorcycle Safety Foundation Basic Rider course in a majority of the State's political subdivisions.

In compliance with 23 U.S.C. 405(f)(3(B), Maryland continues to use state data to identify and prioritize the state's motorcyclist awareness problem areas. The state continues to encourage collaboration among agencies and organizations responsible for, or impacted by, motorcycle safety issues, including motorcycle riders, clubs, and organizations.

The state's motorist awareness program is developed and managed by the designated state authority, the MVA, in coordination with other state and local agencies and non- governmental stakeholders.

While motorcyclist safety is not an emphasis area of the SHSP, motorcyclists are considered a vulnerable user group in the conceptual framework of the plan, which includes several emphasis areas like impaired driving and aggressive driving. The work of the MHSO to develop a motorcycle-specific strategic plan is coordinated with and supports the goals of the SHSP and is formulated under NHTSA's Uniform Guideline #3 for Motorcycle Safety.

#### Crash Data

Maryland has a statewide crash reporting system, the Maryland State Police (MSP) Automated Crash Reporting System (ACRS), which all law enforcement agencies in the state (excluding federal agencies) utilize to electronically collect and submit their crash data for 115,000 crashes each year on Maryland public roadways. There is one consolidated crash database for analysis and evaluation purposes at the MDOT SHA and the MSHO, in addition to its grant-funded analysis at the National Study Center and Washington College, use these crash data for problem identification, analysis, planning, and evaluation for all safety program areas in the HSP and SHSP.

Since ACRS is used by all state and local law enforcement agencies to collect and submit crash information, the State has one uniform crash form. All crash data adhere to the same data dictionary and all agencies follow the same reporting rules and validation processes. With this database, the MHSO and its partners can summarize motorcycle-involved crashes, which are defined as involving at least one motorcycle, based on the "motorcycle" body type in the ACRS Vehicle Body Type field as determined by the investigating officer. Operators (motorcycle drivers, or riders) and passengers on the motorcycle itself can be identified through the ACRS Occupant Field and Person Type Sections. Circumstances of the crash are determined using other fields on the crash report, such as First Harmful Event and Contributing Circumstances and Safety Equipment Use (e.g., motorcycle helmet). ACRS follows the national MMUCC standard for injury severity indication, and MHSO analysis includes a summary of all persons in a crash involving a motorcycle along with their injury severity

(fatality, suspected serious injury, etc.). Typically, MHSO reviews crash data frequencies on a 5-year trend basis, but can look further back if necessary (e.g., setting future targets with a baseline year more than 5 years ago).

## Licensing/Vehicle Registration Data

The Maryland Department of Transportation's Motor Vehicle Administration (MDOT MVA) is the custodian of driver licensing and vehicle registration and titling data. Maryland driver records contain driver demographic data as well as original issuance dates for all classes of licenses (such as Maryland Motorcycle Class M), permits and endorsements, driver training information, driver improvement course information, and required and additional motorcycle rider training. The MDOT MVA vehicle registration file includes the make, model, and year of all vehicles, and the vehicle identification number (VIN), which, beyond identifying the vehicle type (passenger car, pick-up truck, SUV, motorcycle), also includes information about the motorcycle class name, such as cruiser, sport, touring, etc.

## **Motorcycle Crashes by County**

# MOTORYCLE INVOLVED CRASHES, BY COUNTY MARYLAND, 2020

County/Jurisdiction	Motorcycle Involved Crashes 2020
Prince George's	201
Baltimore Co.	182
Baltimore City	139
Anne Arundel	137
Montgomery	99
Subtotal	758
Frederick	78
Washington	61
Harford	51
Charles	50
Cecil	46
Howard	37
Carroll	36
Worcester	31
Wicomico	29
St. Mary's	26
Calvert	23
Allegany	16
Garrett	13
Queen Anne's	13
Dorchester	7
Caroline	6
Kent	3
Somerset	2
Talbot	2
Subtotal	530
Total Crashes	1,288

Most motorcycle operators were males and this group accounted for 89 percent of operators killed in motorcycle crashes. There was a minority of women that participated in the community as riders or passengers. Awareness and outreach campaigns should target men, with more targeting, where possible, of the rider subgroup demographics.

#### **Motorcycle Training Centers**

- All American Harley-Davidson Hughesville, MD
  - o Charles County
- Allegany Collegee of Maryland, Center for Continuing Education Cumberland, MD
  - Allegany County
- Carroll Community College Westminster, MD
  - Carroll County
- Cecil College North East, MD
  - Cecil County
- College of Southern Maryland La Plata, MD
  - St. Mary's County
- Eisenhauer's Chesapeake Harley-Davidson Darlington, MD
  - Harford County
- Frederick Community College Frederick, MD
  - Frederick County
- Harley-Davidson of Frederick Frederick, MD
  - Frederick County
- Hagerstown Community College Hagerstown, MD
  - Washington County
- Harford Community College Bel Air, MD
  - Harford County
- Harley-Davidson of Baltimore Baltimore, MD
  - o Baltimore County
- Montgomery College Business Training Center Gaithersburg, MD
  - Montgomery County
- Motorcycle Safety Academy, Seton Keough High School Baltimore, MD
  - Baltimore County
- Old Glory Harley-Davidson Laurel, MD
  - o Prince George's County
- Prince George's Community College Largo, MD
  - Prince George's County
- The Rider School at Howard Community College Columbia, MD
  - Howard County
- Rommel Harley-Davidson Annapolis Annapolis, MD
  - Anne Arundel County
- Safety Zone Riding School Lexington Park, MD
  - o St. Mary's County
- Wor-Wic Community College Salisbury, MD
  - Wicomico County

# Appendix J: Highway Safety Plan Transaction (HSP-1)

Report Date: 06/14/2022 U.S. Department of Transportation National Highway Traffic Safety Administration Highway Safety Plan Cost Summary

State: Maryland

Page: 1

For Approval

Motorycle Safety   Acohol Total	Program Area	Project	Description	Prior Approved Program Funds	State Funds	Previous Bal.	Incre/(Decre)	Current Balance	Share to Local
	NHTSA	MUTER ADD							
	Alcohol	70t WEI UN							
		AL-2023-G2-45-LC	CAASA - Impaired Driving Activities	\$,00	\$ 00	\$ 00	\$6,460,00	\$6,460,00	\$6,460,00
Safety Total   Safe		Alcohol Total		\$,00	\$,00	\$'00	\$6,460.00	\$6,460.00	\$6,460,00
CPORE – Maryland MOTORS         \$ .00         \$ .00         \$ .18,029.09 <td>Motorcyc</td> <td>e Safety</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	Motorcyc	e Safety							
\$.00         \$.00         \$.00         \$18,029.09         \$18,029.09         \$18,029.09         \$18,029.09         \$15,000.00         \$5,000.00         \$5,000.00         \$5,000.00         \$5,000.00         \$1,500.0		MC-2023-G1-82-SW	CORE – Maryland MOTORS	\$.00	\$.00	\$.00	\$18,029.09	\$18,029.09	\$,00
Frederick PD - Occupant Protection \$.00 \$.00 \$.00 \$.000.00 \$.1,500.000 \$.1,500 \$.1,500.000		Motorcycle Safety Total		\$,00	\$,00	\$ 00	\$18,029,09	\$18,029,09	\$°00
Frederick PD - Occupant Protection \$.00 \$.00 \$.00 \$.00 \$.5,000.00 \$.5,000.00 \$.5,000.00 \$.5,000.00 \$.5,000.00 \$.5,000.00 \$.5,000.00 \$.5,000.00 \$.5,000.00 \$.5,000.00 \$.5,000.00 \$.5,000.00 \$.5,000 \$.5,000.00 \$.5,000	Occupant	Protection							
Serlin PD - Berlin Occupant 2023         \$,00         \$,00         \$1,500,00         \$1,500,00         \$1,500,00         \$1,500,00         \$1,500,00         \$1,500,00         \$1,500,00         \$1,500,00         \$1,500,00         \$1,500,00         \$1,500,00         \$1,500,00         \$1,500,00         \$1,500,00         \$1,000,00 <td></td> <td>OP-2023-L0-06-LC</td> <td></td> <td>\$,00</td> <td>\$,00</td> <td>\$,00</td> <td>\$5,000.00</td> <td>\$5,000.00</td> <td>\$5,000.00</td>		OP-2023-L0-06-LC		\$,00	\$,00	\$,00	\$5,000.00	\$5,000.00	\$5,000.00
Cumberland PD - Occupant Protection         \$.00         \$.00         \$1,000.00         \$1,000.00         \$1,000.00         \$1,000.00         \$1,000.00         \$1,000.00         \$1,000.00         \$1,000.00         \$1,000.00         \$1,000.00         \$1,000.00         \$1,000.00         \$1,470.00		OP-2023-L0-61-LC	Berlin PD - Berlin Occupant 2023	\$'00	\$'00	\$,00	\$1,500,00	\$1,500,00	\$1,500,00
Fruitland PD - FPD Occupant Protection \$,00 \$,00 \$,00 \$1,470,00 \$498.00 \$498.00 \$498.00 \$498.00 \$498.00 \$498.00 \$498.00 \$498.00 \$498.00 \$498.00 \$498.00 \$498.00 \$498.00 \$498.00 \$498.00 \$498.00 \$400.000 \$40.000.000 \$40.000.000 \$40.000.00 \$40.000.00 \$40.000.00 \$40.000.00 \$40.000.00 \$40.000.000 \$40.0000.000		OP-2023-L0-77-LC	Cumberland PD - Occupant Protection	\$,00	\$,00	\$.00	\$1,000.00	\$1,000.00	\$1,000.00
Chestertown PD - Occupant Protection         \$.00         \$.00         \$498.00         \$498.00         \$498.00         \$498.00         \$498.00         \$498.00         \$498.00         \$498.00         \$498.00         \$498.00         \$498.00         \$498.00         \$498.00         \$498.00         \$498.00         \$498.00         \$498.00         \$498.00         \$498.00         \$400.00         \$400.00         \$400.00         \$400.00         \$44.00		OP-2023-L0-93-LC		\$'00	\$'00	\$,00	\$1,470,00	\$1,470,00	\$1,470,00
Parcel   P		OP-2023-L0-94-LC		\$,00	\$,00	\$.00	\$498,00	\$498,00	\$498.00
Carroll Co Sheriff – Buckle Up Phone Dow         \$.00         \$.00         \$7,500.00         \$7,500.00         \$7,500.00         \$7,500.00         \$7,500.00         \$7,500.00         \$7,500.00         \$7,500.00         \$1,840,00         \$1,000.00         \$1,0		OP-2023-L1-23-LC	Taneytown PD - Buckle up Phone Down	\$ 00	\$ 00	\$,00	\$1,000,00	\$1,000,00	\$1,000,00
Easton PD - Distracted Occupant Protect \$,00 \$,00 \$,00 \$1,840,00 \$1,840,00 \$1,840,00 \$1,840,00 \$1,840,00 \$1,840,00 \$1,840,00 \$1,840,00 \$1,000.00 \$		OP-2023-L1-26-LC	Carroll Co Sheriff - Buckle Up Phone Dow	\$,00	\$,00	\$,00	\$7,500,00	\$7,500.00	\$7,500.00
Hampstead PD - Occupant Protection         \$.00         \$.00         \$1,000.00<		OP-2023-L1-31-LC	Easton PD - Distracted Occupant Protect	\$'00	\$,00	\$,00	\$1,840,00	\$1,840,00	\$1,840,00
Hagerstown PD - Occupant Protection         \$,00         \$,00         \$,00         \$500		OP-2023-L1-62-LC	Hampstead PD - Occupant Protection	\$.00	\$,00	\$.00	\$1,000.00	\$1,000.00	\$1,000.00
Princess Anne PD - Occupant 2023         \$.00         \$.00         \$914.79         \$914.70         \$914		OP-2023-L1-76-LC	Hagerstown PD - Occupant Protection	\$'00	\$'00	\$,00	\$500,00	\$500,00	\$500,00
Frostburg City PD - Occupant Protection \$,00 \$,00 \$,00 \$,00 \$,993,56 \$993,56 \$993,56 \$999.    Dent PD - Buckle Up 2023 \$,00 \$,00 \$,00 \$,00 \$,960.00 \$960.00 \$960.00 \$960.00 \$960.00 \$960.00 \$960.00 \$960.00 \$960.00 \$960.00 \$960.00 \$960.00 \$960.00 \$960.00 \$960.00 \$960.00 \$960.00 \$993,50 \$9		OP-2023-L2-34-LC	Princess Anne PD - Occupant 2023	\$.00	\$.00	\$.00	\$914.79	\$914.79	\$914.79
Send PD - Buckle Up 2023         \$.00         \$.00         \$960.00		OP-2023-L2-38-LC	Frostburg City PD - Occupant Protection	00'\$	\$ 00	\$ 00	\$393,56	\$993,56	\$993,56
\$.00 \$.00 \$24,176,35 \$24,176,35 \$24,176,35 \$24,176,35 \$24,176,35 \$24,1776,35 \$		OP-2023-L2-57-LC	Dent PD - Buckle Up 2023	\$.00	\$.00	\$,00	\$960.00	\$960.00	\$960,00
MML PEA - Committee 2023 \$ .00 \$ .00 \$ .00 \$ .7,000.00 \$ 7,000.00 \$ 7,000.00 \$ 7,000.00 \$ .00 \$	ŏ	cupant Protection Total		\$ 00	\$'00	<u>\$</u>	\$24,176.35	\$24,176,35	\$24,176.35
-63-LC         MML PEA - Committee 2023         \$100         \$100         \$100         \$7,000,00         \$18,000,00 <td>Communi</td> <td>ty Traffic Safety Projec</td> <td>Ħ</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	Communi	ty Traffic Safety Projec	Ħ						
### Project  afety Project  Total  PAST Act NHTSA 402 Match \$ 5.00 \$ 5.00 \$ 5.00 \$ 5.00 \$ 546,994.68 \$ 46,994.68 \$ 46,994.68 \$ 5.00 \$ \$ 5.00 \$ 5.00 \$ \$ 5.00 \$ 5.00 \$ \$ 5.00 \$ \$ 5.00 \$ \$ 5.00 \$ \$ 5.0		CP-2023-G0-63-LC	MML PEA - Committee 2023	\$'00	\$ 00	\$,00	\$7,000,00	\$7,000,00	\$7,000,00
4-TC-H1         FAST Act NHTSA 402 Match         \$,00         \$91,806,51         \$,00         \$,00         \$,00         \$,00         \$0.00         \$53,994.68         \$7,00           afety Project         For all Project         \$,00         \$91,806.51         \$,00         \$53,994.68         \$53,994.68         \$7,00           -03-LC         Harford Co Sheriff - Aggressive Driving         \$,00         \$,00         \$18,000.00         \$18,000.00         \$18,000.00         \$18,000.00         \$14,000.00		CP-2023-G1-70-SW	DRIVE SMART VA - Distracted Driving	\$.00	\$,00	\$.00	\$46,994.68	\$46,994.68	\$.00
afety Project         \$.00         \$91,806.51         \$.00         \$53,994.68		CP-2023-MA-TC-H1	FAST Act NHTSA 402 Match	\$'00	\$91,806,51	\$,00	\$'00	\$'00	\$'00
-03-LC Harford Co Sheriff – Aggressive Driving \$,00 \$,00 \$,00 \$18,000.00 \$18,000.00 \$18,000.00 \$105-LC Frederick PD - Speed Enforcement \$,00 \$,00 \$,00 \$14,000.00 \$14	Communi	ty Traffic Safety Project Total		\$ 00	\$91,806.51	\$.00	\$53,994.68	\$53,994.68	\$7,000.00
Harford Co Sheriff - Aggressive Driving \$ .00 \$ .00 \$ 18,000.00 \$ 18,000.00 \$ 18,000.00 \$ 18,000.00 \$ 18,000.00 \$ 14,000.00 \$	Speed En	forcement							
Frederick PD - Speed Enforcement         \$.00         \$.00         \$14,000.00         \$14,000.00           Baltimore Co PD - Speed Enforcement         \$.00         \$.00         \$35,000.00         \$35,000.00           Calvert Co Sheriff - Speed Enforcement         \$.00         \$.00         \$9,000.00         \$9,000.00		SE-2023-L0-03-LC	Harford Co Sheriff - Aggressive Driving	\$'00	\$ 00	\$'00	\$18,000,00	\$18,000,00	\$18,000,00
Baltimore Co PD - Speed Enforcement \$.00 \$.00 \$.00 \$35,000.00 \$35,000.00 \$ Calvert Co Sheriff - Speed Enforcement \$.00 \$.00 \$.00 \$9,000.00 \$9,000.00		SE-2023-L0-05-LC		\$.00	\$.00	\$.00	\$14,000.00	\$14,000.00	\$14,000.00
Calvert Co Sheriff - Speed Enforcement \$.00 \$.00 \$.00 \$9,000.00 \$9,000.00		SE-2023-L0-11-LC	Baltimore Co PD - Speed Enforcement	\$'00	\$ 00	\$ 00	\$35,000,00	\$35,000,00	\$35,000,00
		SE-2023-L0-24-LC	Calvert Co Sheriff - Speed Enforcement	\$.00	\$.00	\$,00	\$9,000.00	\$9,000.00	\$9,000.00

## Appendix K: Racial Profiling Data Legislation for Maryland



# Race-Based Traffic Stop Data Analysis (Fifteenth Report to the State of Maryland) & Race-Based Traffic Stop Data Dashboard

TR § 25-113(f)(2); Chapters 626 and 625 of 2019 (Senate Bill 417/House Bill 301); Chapter 127 of 2015 (Senate Bill 413)

Larry Hogan Governor

Boyd K. Rutherford

Lt. Governor

V. Glenn Fueston, Jr.

Executive Director Governor's Office of Crime Control and Prevention

Submitted by: Governor's Office of Crime Control and Prevention

Contact: Jeffrey Zuback 410-697-9344 | Jeffrey.Zuback@Maryland.gov

> MSAR #10561 | MSAR #12108 September 19, 2019

Appendix L: Maryland Traffic Records Strategic Plan (2021 – 2025)

## Traffic Records Strategic Plan 2021–2025

6/3/2022





Appendix M: Occupant Protection Emphasis Area Team Contact List

Name	Email	Agency	Title
Bala Akundi	bakundi@baltometro.org	Baltimore	Principal
		Metropolitan	Transportation
		Council	Engineer
Kevin Anderson	kanderson1@mdta.state.md.us	Maryland	Chief Law
		Transportation	Enforcement Officer
		Authority Police	
Kim Auman	KAuman@som.umaryland.edu	National Study	Epidemiologist /
		Center	Database Engineer
Janet Bahouth	jbahouth@impactresearchinc.com	Crash Center for	CEO
		Research and	
		Education	
Komal Bhagat	kbhagat@som.umaryland.edu	National Study	Lead Research
		Center	Analyst
Larry Branche	branchel@fitzgeraldautomall.com	Fitzgerald Auto	CPS
		Mall	
Colin Bristow, Sgt.	colin.bristow@maryland.gov	Maryland State	State Police
		Police	
Janet Brooking	janet.brooking@drivesmartva.org	Drive Smart VA	Director
Jim Brown	jbrown@miemss.org	Maryland Institute	Director, Educational
		for Emergency	Support Services
		Medical Services	
		Systems	
Cindy Burch	CBurch@som.umaryland.edu	University of	Transportation
		Maryland National	Planner, Safety
		Study Center	
Cindy Burch	cburch@baltometro.org	ВМС	Transportation
			Planner, Safety
Frank Carson	frcarson@co.pg.md.us	Prince George's	Crash
		County Police	Reconstructionist
		Department	
Allie Chavez	alicia.chavez@som.umaryland.ed	National Study	Research
	u	Center	Analyst/Site
N4 6'' '	" 10 11	C4.D.D	Coordinator
Morgan Cihak	mcihak@sadd.org	SADD	Coordinator
Brian Clark	blclark@co.pg.md.us	PG Fire and Rescue	CPST, FF
Torine Creepy	tcreppy@safekids.org	Safe Kids	Director
		Worldwide	

Name	Email	Agency	Title
Teresa Ann	tacrisman@co.pg.md.us	Prince George's	Community Risk
Crisman		Fire	Reduction Manager
		Department/EMS	
Robert	wfd2@hotmail.com	Cumberland Valley	Public Outreach
Cumberland		Fire and Rescue	Director
JJ Current	jcurrent@medstar.net	Med Star	RN
Randy Cutter	randy.cutter@alleganygov.org	Allegany County	Police
		Sheriffs Office	Communications
			Supervisor
David Daggett	ddaggett@mdsaa.org	Maryland State's	Resource Prosecutor
		Attorney's	
		Association	
Joyce Dantzler	Joyce.dantzler@maryland.gov	Maryland	Chief, Center for
		Department of	Injury Prevention
		Health	
Jessica Dayan	JDayal@FrederickCountyMD.gov	Frederick Co.	CPST
		Health Department	
Jason Dean	deanja@co.cal.md.us	Calvert County	Sergeant
		Sheriff's Office	
Bruce DeGrange	bdegrange@frederickmdpolice.or	Frederick County	Lieutenant
	g	Police Department	
Jayme Derbyshire	Jayme.Derbyshire@montgomeryc	Montgomery	Officer III
	ountymd.gov	County Police	
		Department	
Donald Distance	ddistance@sha.state.md.us	Maryland State	Traffic Team Leader
		Highway	
		Administration	
		District 4	
Sara Dorsey	sdorsey@howardcountymd.gov	Howard County	PFC
		Police Department	
Becca Drayer	bdrayer@impactresearchinc.com	The Impact Society	Statistician
John Durham	john.durham@montgomerycount	Montgomery	Officer
	ymd.gov	County Police	
Jerry Eaton	eatong@harfordsheriff.org	Harford County	Officer
		Sheriff's Office	
Lauren Galgan	lauren.galgan@maryland.gov	Maryland State	Police
		Police	Communications
			Supervisor

Name	Email	Agency	Title
Reynold (R.J.)	rgiese@mdta.state.md.us	Maryland	Police
Giese		Transportation	Communications
		Authority	Supervisor
Tara Gill	tgill@saferoads.org	Advocates for	Government
		Highway & Auto	Relations
		Safety	
Jeannie Glenn	emsgirle@yahoo.com	Safekids	CPS
Patricia Haddon	Patricia.Haddon@calvertcountym	Calvert County	Principal Planner
	d.gov		
Kamiell Hall	khall@sadd.org	SADD	Coordinator
Karen Hardingham	khardingham@umm.edu	Safe Kids Baltimore	CPS
		UMD Children's	
		Hospital	
Bill Hardy	whardy@wmhs.com	Western Maryland	Trauma Coordinator
		Health System	
		Trauma and Pre-	
		Hosptial	
		Coordinator	
Pretam Harry	pharry@mdot.state.md.us	Maryland Motor	CFO
		Vehicle	
		Administration	
Jonathan	jonathan.heiderich@montgomery	Montgomery	State Police
Heiderich	countymd.gov	County Police	
Laura Henson	lauramhenson@gmail.com	Pediatric Nurse	RN
		Howard County	
Lori Hippensteel	Ihippensteel@baltimorecountymd.	Baltimore County	Public Information
	gov	Police Department	Officer
Cheryl Holden	cholden@umm.edu	University of	Child Passenger
		Maryland Medical	Safety Technician
		System	
Mansoureh	mansoureh.jeihani@morgan.edu	Morgan State	Professor
Jeihani		University	
Debbie Jennings	Debbie@chesapeakesc.org	Chesapeake	Director of Traffic
		Region Safety	Services and Special
		Council	Projects
Kartik Kaushik	kkaushik@som.umaryland.edu	National Study	Senior Database
		Center	Specialist

Name	Email	Agency	Title
Allison Kennedy	akennedy@saferoads.org	Advocatts for	Director of
		Highway and Auto	Government
		Safety	Relations
Tim Kerns	tkerns@mdot.maryland.gov	MDOT Highway	Director
		Safety Office	
Chris Krieger	ckrieger@impactresearch.com	Impact Research	Former Law
			Enforcement
Joe Kufera	JKufera@som.umaryland.edu	National Study	Statistician
		Center	
Joe Kufera	jkufera@som.umaryland.edu	UM NSC	Biostatistician
Julie Kwedar	jkwedar@mdot.state.md.us	MDOT Highway	Outreach Program
		Safety Office	Manager
Richard (Mike)	laner@harfordsheriff.org	Harford County	Sergeant
Lane		Sheriff's Office	
Michael Laney	michael.laney@maryland.gov	Maryland State	Police
		Police	Communications
			Supervisor
Kelly Llewellyn	kelly.llewellyn@meritushealth.co	Merith Health	CPS
	m	Hospital	
Tom Lubinski	tlubinski@mdot.state.md.us	MDOT/MHSO	Western MD Law
			Enforcement Liaison
Madison Lumpkin	mlumpkin@mdot.maryland.gov	MVA	MVA Program
			Management
Sean Lynn	slynn2@washcoll.edy	Washington	GIS Senior Projecr
		College	Manager
Riley MaCauley	Agrantm1@jhu.edu	RN, CPST, JHU MD	CPST
		KISS	
LKiesha Markley	lmarkley@sha.state.md.us	Maryland State	ADC/Frieght
		Highway	Planning Coordinator
		Administration	
Kelly Melhem	kmelhem@mdot.state.md.us	MDTA	Director of
			Communications
Meg Miller	Meg.Miller@dot.gov	National Highway	Deputy
		Traffic Safety	Administrator
		Administration	
Rich	rmioduszewski@mdot.state.md.u	MDOT/MHSO	Southern, MD Law
Mioduszewski	S		Enforcement Liaison
Doug Mowbray	dmowbray@mdot.state.md.us	MDOT Highway	Traffic Records
		Safety Office	Program Manager

Name	Email	Agency	Title
Claire Myer	claire.myer@maryland.gov	Maryland Department of Health	CPS Tech
Steve Noel	snoel@dpihighwaysystems.com	Dimensional Products, Inc	Engineer
Adrian Nunez	anunezdr@hotmail.com	Baltimore City Police Department	Ofc.
Cathy Nyce	Cathy.Nyce@MarylandAuto.Net	Maryland Auto Insurance	Director
Susanne Ogaitis- Jones	sogaitisjones@miemss.org	Maryland Institute for Emergency Medical Services Systems	Coordinator, CPS & OP Healthcare
John Peer	jpeer@perryvillemd.org	Perryville Police Department	Det.
Walter Phillips	wphillips@sha.state.md.us	Maryland State Highway Administration - District 4	Transportation Engineer
David Resnick	elite@drivingschool.net	MD Professional Driving Schools	President
Tim Richards	trichards@mdot.state.md.us	Maryland Highway Safety Office	Section manager, Safety Programs Section
Steve Rutzebeck	srutzebeck@mdot.state.md.us	MDOT/MHSO	Lieutenant
Eazaz Sadeghuaziri	eazaz.sadeghuaziri@morgan.ed	Morgan State University	Student
Eazaz Sadeghvaziri	eazaz.sadeghvaziri@morgan.edu	Morgan State University	Post Doc Student
Nanette Schieke	nschieke@mdot.state.md.us	Maryland Motor Vehicle Administration	CAV Program Manager
Rob Smith	RobSmith@FitzMall.com	Fitzgerald Auto Mall	CPS Tech
Terri Taylor	safekids@howardcountymd.gov	SAFE KIDS Howard County and Fire & Rescue	CPS Tech
Nancy Thornton	nancythornton@westat.com	Westat, CPST	CPS

Name	Email	Agency	Title
Monica Tompkins	mtompkins@mdta.state.md.us	Maryland	Corporal
		Transportation	
		Authority Police	
Christina Utz	cutz@mdot.state.md.us	MDOT Highway	Section Manager,
		Safety Office	Partnerships,
			Resources and
			Outreach Section
Romen	rvesselinov@som.umaryland.edu	NSC	Director
Vesselinov			
Roumen	Rvesselinov@som.umaryland.edu	National Study	Research Associate
Vesselinov		Center	
Mark Wall	mwall1@mdot.state.md.us	MDOT Highway	OP/DDProgram
		Safety Office	Manager
Jennifer Weaver	jennyweaver@verizon.net	Private Advocate	Speaker/Presenter
		Distracted Driving	
Felix Wellington	wellington.felix@dot.gov	NHTSA	Regional Manager
Tracy Whitman	tracy.whitman@maryland.gov	Maryland	Program Coordinator
		Department of	
		Health	
Karen Wieland	kbranch@idcorpmd.com	Integrated Design	Media Company
		Corporation	
Myra Wieman	mwieman@mdot.maryland.gov	MDOT Highway	Deputy Director
		Safety Office	
Laura Wisely	laura.wisely@gmail.com	Childrens National	RN
		Medical Center	
Cyndy Wright-	cwright@miemss.org	Maryland Institute	Director - Maryland
Johnston		for Emergency	EMS for Children
		Medical Services	
		Systems	