

Maryland Highway Safety Office
2011 Annual Report

Submitted to:

Elizabeth A. Baker, Ph.D.
Regional Administrator
NHTSA Region III
10 South Howard Street, Suite 6700
Baltimore, MD 21201

On behalf of:

John T. Kuo
*Administrator, Motor Vehicle Administration and
Governor's Highway Safety Representative*

Thomas J. Gianni
*Interim Chief, Maryland Highway Safety Office
and Maryland Highway Safety Coordinator*

December 21, 2011



TABLE OF CONTENTS

Introduction	4
Maryland’s Strategic Highway Safety Plan Summary	5
Strategic Highway Safety Plan Strategies.....	5
State Demographic Profile	7
Crash Data & Trends.....	8
Graph A – Fatality Trends	8
Graph B – Fatality Rate per 100MVMT	9
Graph C – Injury Trend	9
Graph D - Fatality & Serious Injury Rate per 100 Million Vehicle Miles Traveled.....	10
Graph E - Fatality Rate per 100,000 Population	10
Graph F - Fatal and Injury Rate per 100,000 Population	11
Graph G - Alcohol Related Fatalities.....	11
Graph H - Alcohol Related Fatalities as a Proportion of All Fatalities.....	12
Graph I - Alcohol Related Fatality Rate.....	13
Graph J - Percent of Population Using Safety Belts	13
Program Reports	16
Aggressive Driving Prevention.....	17
Bicycle & Pedestrian Safety	18
Distracted Driving Prevention and Employer Outreach.....	25
Police Traffic Services	27
Impaired Driving Prevention	29
Motorcycle Safety.....	32
Occupant Protection.....	33
Older Driver Safety.....	35
Young Driver Safety	36
Fiscal Summary.....	39
Overall Impact Objectives	40
Traffic Safety Outlook.....	42
Contact Information	43
List of Acronyms.....	44
Appendix A: Maryland Annual Driving Survey Results	45

Introduction

The Maryland Highway Safety Office (MHSO), a division within the Maryland Motor Vehicle Administration, serves as Maryland's designated State Highway Safety Office (SHSO). The MVA Administrator serves as the Governor's Highway Safety Representative and the Chief of the MHSO serves as Maryland's Highway Safety Coordinator. Maryland's highway safety program and SHSP are facilitated by the MHSO's staff and supported by a combination of federal highway safety incentive and innovative program funds, as well as state and local funds.

Maryland has made hard earned progress towards reducing motor vehicle fatalities and injuries despite increases in population and vehicle miles of travel. Maryland's progress has also afforded the opportunity to utilize federal incentive grant monies, including Section 402, 405, 410, 2010, 2011, 406, and 408 monies. There are, however, reasons for concern. For example, while Maryland's total number of traffic fatalities has dropped significantly over the past few years (651 total traffic fatalities in 2006 as compared to 496 total traffic fatalities in 2010), however alcohol or drug impaired crashes has not experienced the same downward trend (there were 171 impaired driving fatalities in 2008, 173 in 2009 and 177 in 2010). In other areas, while Maryland is showing reductions in fatalities and injuries, the state is not keeping up with the pace of reductions that other states are experiencing.

Maryland's goal is to significantly reduce and, if possible, eliminate all motor vehicle fatalities, serious injuries, and property damage on all Maryland roads and highways. To address these goals, Maryland has increased its emphasis on implementing a well-coordinated plan and approach to highway safety that combines the "Four Es" of Education, Enforcement, Engineering, and Emergency Medical Services (EMS). No other recent endeavor has been as monumental to Maryland's traffic safety initiatives as the mandate by Congress for states to implement a comprehensive State Strategic Highway Safety Plan (SHSP) as a requirement by the *Safe, Accountable, Flexible, and Efficient Transportation Equity Act: A Legacy for Users* (SAFETEA-LU) officially passed during Federal Fiscal Year (FFY) 2006. Rather than merely being implemented as a step toward securing highway safety funding, Maryland's leadership has utilized the SHSP implementation process as an opportunity to galvanize the State's traffic safety efforts by securing commitments from a multitude of partners, many of whom were not previously engaged in such programs. Maryland's SHSP provides a comprehensive framework for further reductions in highway safety fatalities and injuries on **all** public roads through the establishment of a statewide goal, objectives, key emphasis areas, and strategies. As a point of reference, a summary of Maryland's SHSP is included in this report.

The MHSO, recognized by the U.S. Department of Transportation Secretary and created per the U.S. Highway Safety Act of 1966, conducts the State's highway safety program, one that is designed to reduce traffic crashes and deaths, injuries and property damage. The mission of the MHSO is to save lives and prevent injuries within Maryland by reducing the number and severity of motor-vehicle crashes through the administration of a comprehensive and effective network of traffic safety programs.

The FFY 2011 Annual Report is meant to provide a barometric reading of how well Maryland has done in reducing automobile crashes and fatalities over the past year. Furthermore, this report provides an opportunity to examine how closely the MHSO met the objectives outlined within the FFY 2011 Highway Safety Plan (HSP). Each programmatic section within this report attempts to provide a clear picture of activities that support those objectives. The State of Maryland FFY 2011 HSP outlined the key objectives and goals of the MHSO for FFY2011. These goals and objectives or benchmarks are the "ideals" toward which we continue to strive. During FFY2011, highway safety countermeasures were designed and implemented to enhance existing state, local, and non-government efforts to modify unsafe driving behaviors by promoting safe, responsible driving. While these benchmarks presented earlier in the year are quantifiable for evaluation and accountability purposes, it should be noted that they are heavily influenced by external factors such as legislation, enforcement capacity and the public's safe driving actions. Within the following pages the outcomes of the implemented strategies, financial investments, upcoming challenges and noteworthy achievements are detailed to brief our customers on the status of our progress made in FFY2011.

Maryland's Strategic Highway Safety Plan Summary

Maryland is on a journey to "Destination – Saving Lives," and the vehicle is the SHSP. The purpose for taking this journey is clear. Motor vehicle crashes are already costing Marylanders entirely too much...the toll includes not only dollars, but lives as well. Maryland's Strategic Highway Safety Plan has been completed in draft and awaits final revisions and approval by the SHSP Executive Committee. The strategies listed herein are preliminary in nature.

The goal of the SHSP is to reduce these crashes and the resulting fatalities and injuries by sharing resources and targeting efforts to the areas of greatest need. The SHSP is a statewide comprehensive safety plan that provides a coordinated framework for reducing fatalities and serious injuries on all public roads. The SHSP strategically establishes statewide goals, objectives, and key emphasis areas developed in consultation with federal, state, local, and private sector safety stakeholders.

Strategic Highway Safety Plan Strategies

The preliminary overall strategies for the plan are as follows:

- Reduce the annual number of traffic-related fatalities on all roads in Maryland from 592 in 2008 to fewer than 475 by December 31, 2015 (19.8 percent reduction).
- Reduce the annual number of traffic-related injuries on all roads in Maryland from 48,149 in 2008 to fewer than 40,032 (16.8 percent reduction) by December 31, 2015.

The measurable objectives and strategies for each MHSO program area are designed to accomplish these overall strategies. The objectives and strategies, in the order in which they appear in Maryland's latest SHSP, are as follows:

Distracted Driving

- **Objectives:**

- Reduce the annual number of distracted driving-related fatalities on all roads in Maryland from 290 in 2008 to fewer than 233 by December 31, 2015 (19.8 percent reduction); and
- Reduce the annual number of distracted driving-related injuries on all roads in Maryland from 31,778 in 2008 to fewer than 26,426 by December 31, 2015 (16.8 percent reduction).

- **Strategies:**

- Pass a law that bans all cell phone use while driving;
- Improve reporting of distracted driving incidents across multiple disciplines, i.e., citation and crash reports from law enforcement, surveys from the RTSP's, information from EMS personnel, etc.; and
- Conduct an education campaign on distracted driving prevention.

than 116 by December 31, 2015 (20% reduction).

- Reduce the annual number of impaired driving-related injuries on all roads in Maryland from 4,291 in 2008 to fewer than 3,568 by December 31, 2015 (16.8% reduction).

- **Strategies:**

- Increase enforcement of alcohol and drug impaired driving laws;
- Enhance the prosecution and adjudication of alcohol and drug impaired driving cases;
- Conduct public awareness initiatives including education and media programs to reduce alcohol and drug impaired driving;
- Support implementation of programs to reduce underage drinking and driving; and
- Integrate DUI data sources to ensure offender information is available to judges, prosecutors, and probation and parole.

Aggressive Driving Prevention

- **Objectives:**

- Reduce the annual number of aggressive driving-related fatalities on all roads in Maryland from 63 in 2008 to fewer than 51 by December 31, 2015 (19.8 percent reduction).

Impaired Driving Prevention

- **Objectives:**

- Reduce the annual number of impaired driving-related fatalities (BAC 0.08+) on all roads in Maryland from 145 in 2008 to fewer

- Reduce the annual number of aggressive driving-related injuries on all roads in Maryland from 4,203 in 2008 to fewer than 3,495 by December 31, 2015 (16.8 percent reduction).

- **Strategies:**

- Identify behaviors and target audiences by corridor, based on crash, citation, and Severity Rating Index data to focus aggressive driving enforcement, education, and engineering strategies;
- Continue Maryland's involvement in the regional aggressive driving initiative *Smooth Operator*;
- Develop and implement year round, long-term public awareness and education campaigns identifying the dangers and consequences of aggressive driving behavior;
- Develop and implement a statewide aggressive driving enforcement strategy that will be utilized throughout the year; and
- Identify effective engineering solutions to eliminate or minimize aggressive driving in targeted corridors.

Occupant Protection

- **Objectives:**

- Reduce the annual number of unrestrained fatalities on all roads in Maryland from 153 in 2008 to fewer than 123 by December 31, 2015 (19.8 percent reduction).
- Reduce the annual number of unrestrained injuries on all roads in Maryland from 2,212 in 2008 to fewer than 1,839 by December 31, 2015 (16.8 percent reduction).

- **Strategies:**

- Expand and refine *Click It or Ticket* and Law Enforcement Challenge;
- Conduct a year round nighttime seatbelt enforcement and education program;
- Increase the awareness of child passenger safety best practice recommendations for infants, children, and pre-drivers (up to age 16); and
- Evaluate and recommend legislation and/or regulations that require the use of safety devices in all seating positions, with higher fines and points on the driver's license for noncompliance.

Highway Infrastructure

- **Objectives:**

- Reduce the annual number of highway infrastructure fatalities on all roads in Maryland from 424 in 2008 to fewer than 340 by December 31, 2015 (19.8 percent reduction).
- Reduce the annual number of highway infrastructure injuries on all roads in Maryland from 30,130 in 2008 to fewer than 25,056 by December 31, 2015 (16.8 percent reduction).

- **Strategies:**

- Develop a corridor program that targets safety improvements where the severity index is high and that address roadway elements that contribute to crashes;
- Identify high crash locations (intersections and locations) and make safety improvements statewide; and
- Analyze data to identify system wide improvements to reduce the number and severity of infrastructure crashes, e.g., run-off-the-road, sight distance issues, etc.

Pedestrian Crashes

- **Objectives:**

- Reduce the annual number of pedestrian fatalities on all roads in Maryland from 115 in 2008 to fewer than 92 by December 31, 2015 (19.8 percent reduction).
- Reduce the annual number of pedestrian injuries on all roads in Maryland from 2,469 in 2008 to fewer than 2,053 by December 31, 2015 (16.8 percent reduction).

- **Strategies:**

- Develop model processes to identify and prioritize high-incident locations and system-wide pedestrian safety issues;
- Develop and evaluate model approaches to engineering built environments that accommodate safe pedestrian travel;
- Develop and evaluate model approaches to improving pedestrian and motorist awareness and behavior, including education and enforcement efforts; and
- Create partnerships among state, regional, and local stakeholders to develop action plans that address high-priority locations and system wide issues using comprehensive approaches to pedestrian safety.

State Demographic Profile

According to the U.S. Census Bureau, Maryland is now the wealthiest state in the United States, with a median household income of \$68,080. As of 2008, Maryland has an estimated population of 5,633,597, which is an increase of 337,111, or 6%, since the year 2000. This includes a natural increase since the last census of 189,158 people (543,744 births minus 315,834 deaths). In 2008, 691,341 were counted as foreign born, with a majority arriving from Latin America and Asia.

The majority of Maryland's population is concentrated in the areas surrounding Washington, D.C. and Baltimore, the most populous city in the State. The center of population for Maryland is located on the county line between Anne Arundel and Howard Counties, in the unincorporated town of Jessup. Other major population centers include the following: Columbia in Howard County, Silver Spring, Rockville and Gaithersburg in Montgomery County, Frederick in Frederick County and Hagerstown in Washington County. The eastern, southern, and western portions of the state tend to be more rural, with cities of regional importance such as Salisbury and Ocean City on the eastern shore, Waldorf and La Plata in Southern Maryland, and Cumberland in Western Maryland.

Profile Elements	2000	2010	Change
Population	5,296,486	5,773,552	▲ 477,066
Under Age 5	353,393	364,488	▲ 11,095
Age 18 and Over	3,940,314	4,420,588	▲ 480,274
Age 65 and Older	599,307	707,642	▲ 108,335
Female	2,738,692	2,981,790	▲ 243,098
Male	2,557,794	2,791,762	▲ 233,968
Caucasian	3,391,308	3,488,887	▲ 97,579
African-American	1,477,411	1,700,298	▲ 222,887
American Indian & Alaska Native	15,423	20,420	▲ 4,997
Asian	210,929	318,853	▲ 107,924
Native Hawaiian & Other Pacific Islander	2,303	3,157	▲ 854
Reporting Multiple Race	103,587	164,708	▲ 61,121
Hispanic or Latino Origin	227,916	470,632	▲ 242,716
Foreign Born	518,315	691,341	▲ 173,026
Language Other Than English at Home	622,714	782,528	▲ 159,814
Persons Per Square Mile	542	594.8	▲ 52.8
Licensed Drivers	3,382,451	4,083,411	▲ 700,960
Registered Vehicles	3,847,538	4,809,285	▲ 961,747
Mean Work Travel Time (Minutes)	31.2	31.1	▼ (0.1)
Land Area (Square Miles)	9,774	9,774	0
Total Road Mileage	29,893	31,300	▲ 1,407
State / US Roads	5,231	5,241	▲ 10
County Roads	20,222	21,688	▲ 679
City Roads	4,440	4,623	▲ 183

Sources: U.S. Geological Survey, U.S. Census Bureau, University of Maryland Capitol News Service, Maryland Department of Business & Economic Development, Maryland Motor Vehicle Administration

Crash Data & Trends

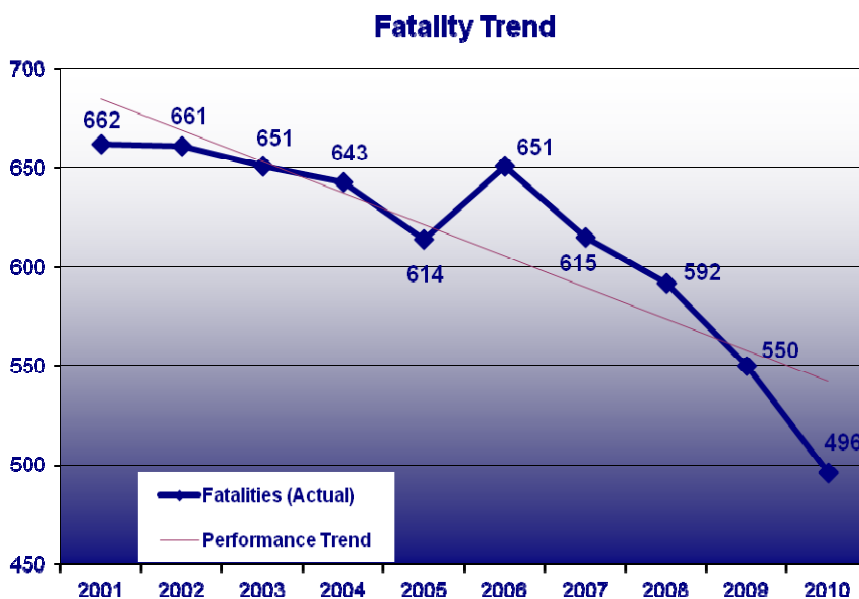
The following tables represent various traffic safety-related rates and trends in the State of Maryland, and were generated in conjunction with guidelines supplied by the Governors Highway Safety Association (GHSA). The tables were also designed to allow a comparison of statistics* from state to state and to provide a measure of consistency and benchmarking. In the following pages, graphs on the nationally measured issues will be presented and will detail:

- Fatality Trends,
- Fatality Rate per 100M VMT,
- Injury Trends,
- Fatal and Serious Injury Rate per 100M VMT,
- Fatality Rate per 100K Population,
- Fatal and Serious Injury Rate per 100K Population,
- Alcohol-Related Fatalities,
- Alcohol-Related Fatalities as a Proportion of All Fatalities,
- Alcohol-Related Fatality Rate per 100M VMT, and
- Percent of Population Using Safety Belts.

*Unless otherwise noted, data sources for graphs derived from Maryland Automated Accident Reporting System (MAARS)

Additionally, included in this report, in Appendix A, are the results from the 2011 Maryland Annual Driving Survey.

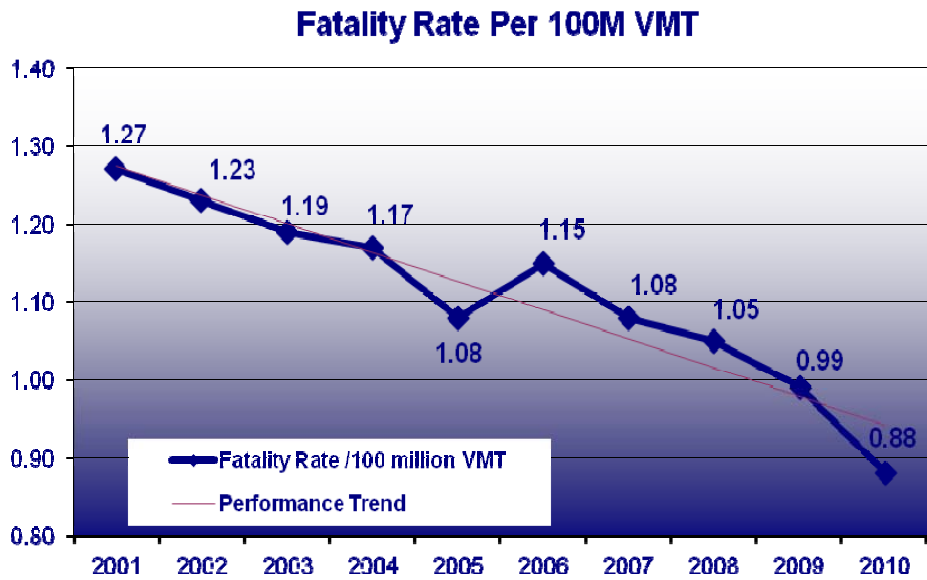
Graph A – Fatality Trends



Fatality Trends

Until 2006, fatalities on roads in Maryland were on a steadily decline of 7% over 4 years. In 2006 a spike occurred but did not dramatically affect the trend, as evidenced by 2009 and 2010 overall fatality numbers. The target of fewer than 550 fatalities by 2010 was accomplished.

Graph B – Fatality Rate per 100MVT



Fatality Rate

Based on the 2010 reduction in overall fatalities, the fatality rate was similarly impacted. The fatality rate for the last complete reporting period reflects a decrease of 12% to .88 per 100 million vehicle miles traveled.

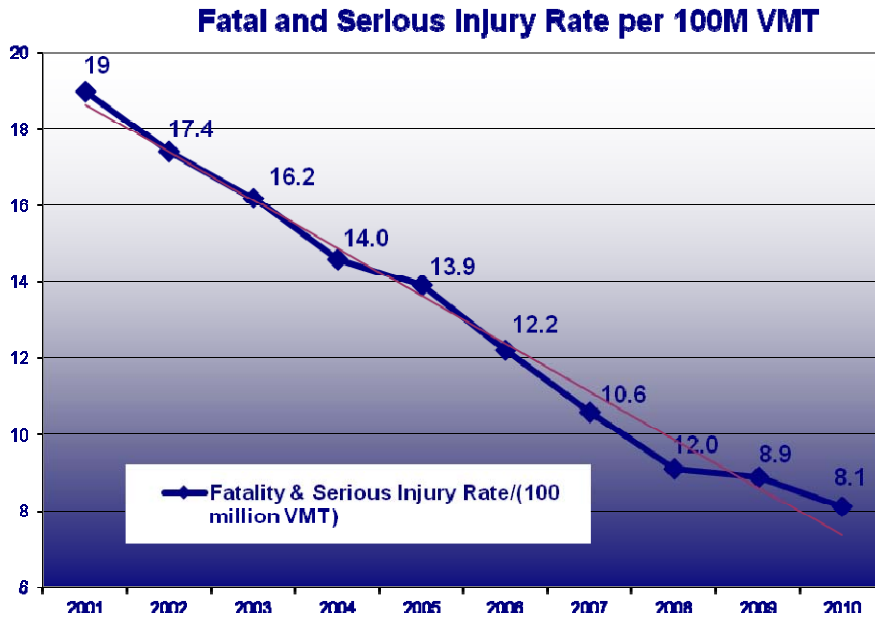
Graph C – Injury Trend



Injury Trends

Injuries due to crashes on all roads in Maryland have declined by 27% between 2001 and 2010. The challenging areas for injury can be attributed to crashes involving aggressive driving, motorcycles and impaired driving. The target remains revised to further reduce injuries to less than 41,000 by the year 2015.

Graph D - Fatality & Serious Injury Rate per 100 Million Vehicle Miles Traveled

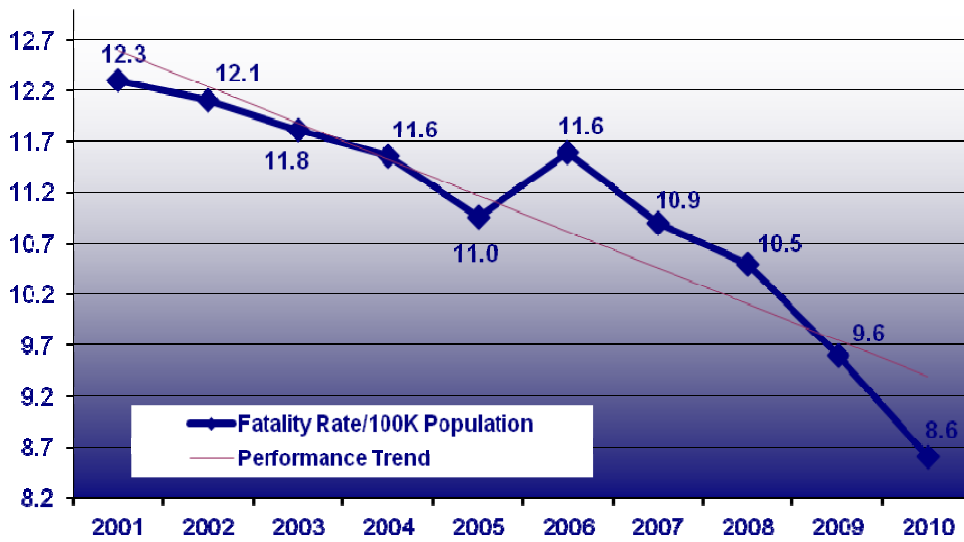


Fatality & Serious Injury Rate per 100 Million Vehicle Miles Traveled

The rate of fatality and serious injury related to vehicle miles traveled continued to demonstrate a decrease mainly attributed to the decrease in reported injuries during 2010.

Graph E - Fatality Rate per 100,000 Population

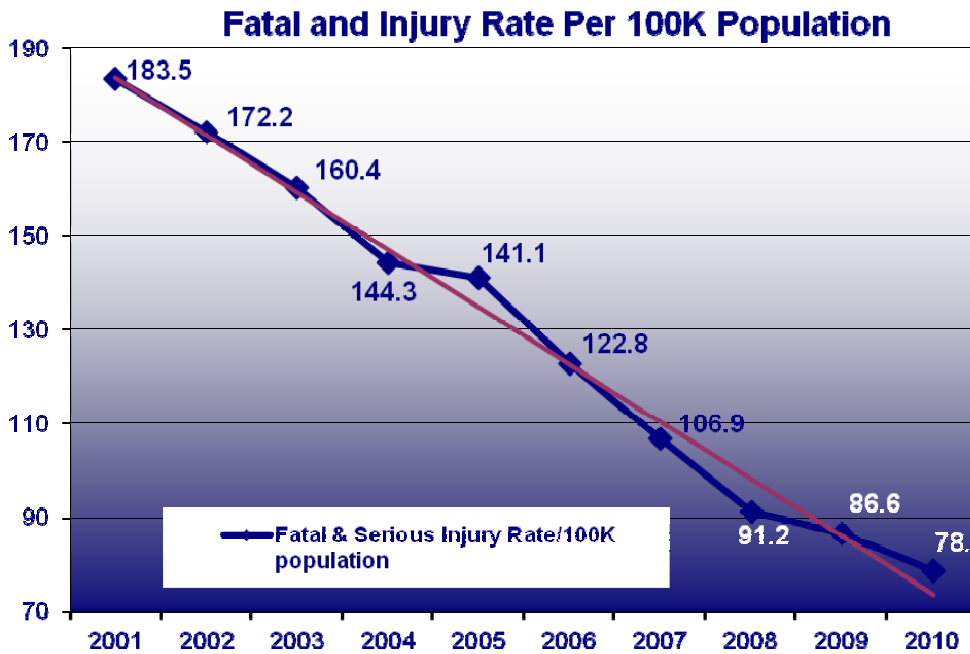
Fatality Rate Per 100K Population



Fatality Rate per 100,000 Population

The fatality rate in relation to population decreased to 8.6 for 2010 reflecting the physical decrease in fatalities. This is an 11% decrease from 2009.

Graph F - Fatal and Injury Rate per 100,000 Population

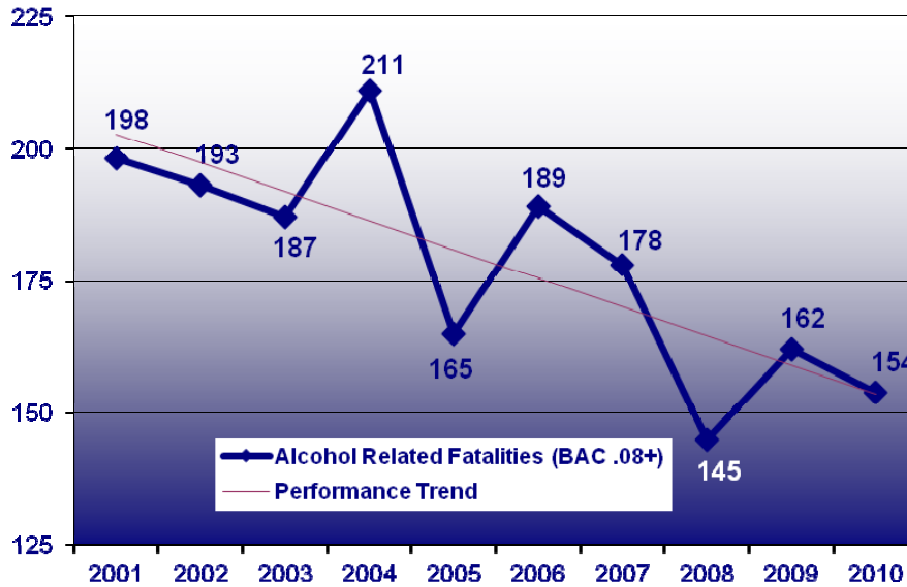


Fatal and Injury Rate per 100,000 Population

The fatality and injury rate in relation to population decreased to 78.6 for 2010 reflecting the physical decrease in injuries counteracting the increase in fatalities. This is a 9.3% decrease from 2009.

Graph G - Alcohol Related Fatalities

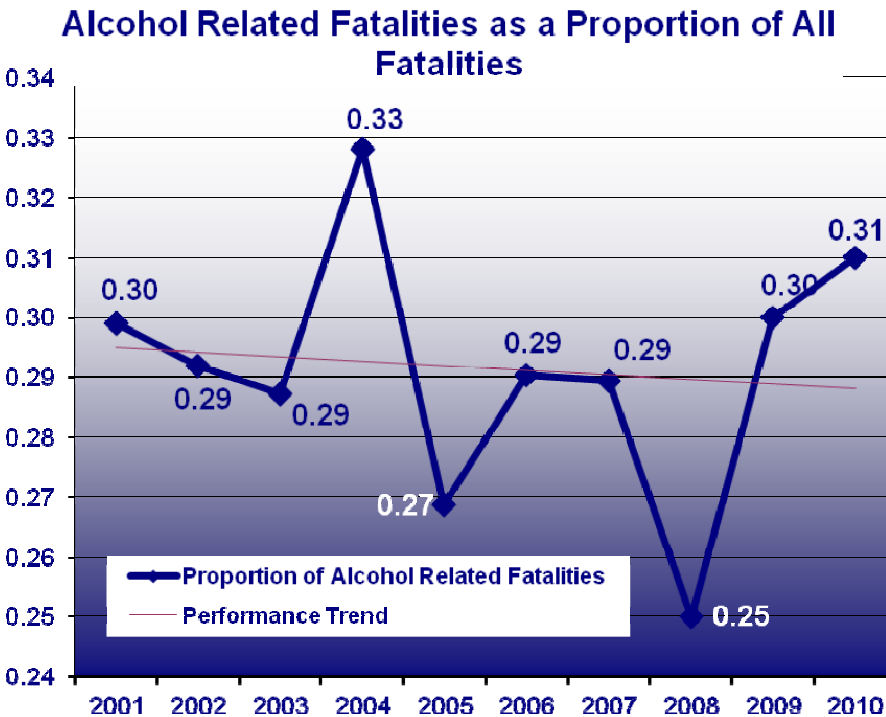
Alcohol Related Fatalities



Alcohol Related Fatalities*

For 2010 fatalities in general experienced a decrease. As mentioned earlier, impaired driving is one of the major areas demonstrating a negative increasing trend. The reported numbers in the chart to the left reflect the U.S. Department of Transportation's 2010 Preliminary Fatal Analysis Reporting System (FARS) statistics for Maryland. FARS reported data makes use of formula based methodology. (*0.08+ BAC)

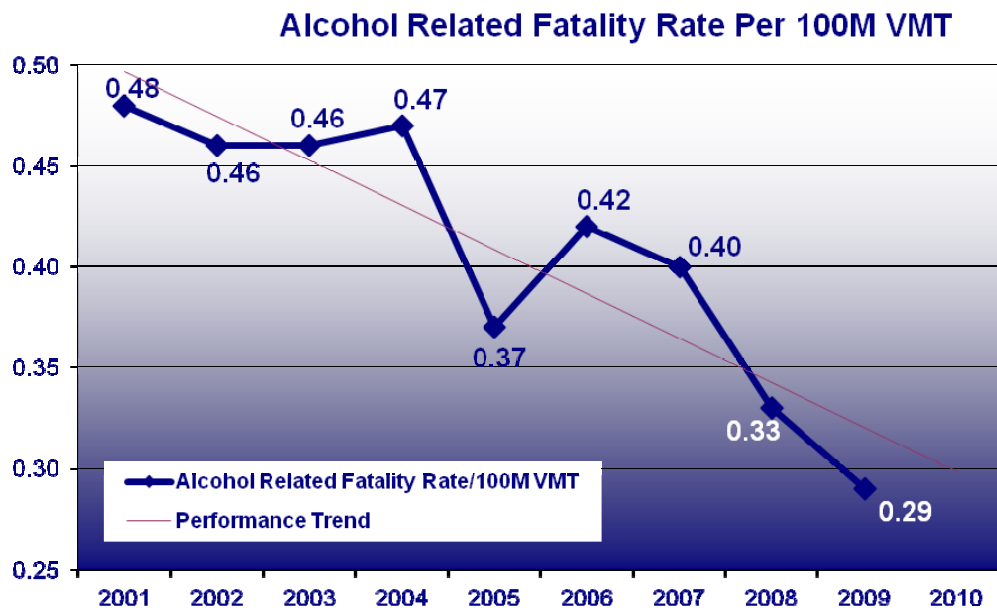
Graph H - Alcohol Related Fatalities as a Proportion of All Fatalities



Alcohol Related Fatalities as a Proportion of All Fatalities

Impaired driving represented a significant portion (31%) of the 496 fatalities preliminarily reported during 2010.

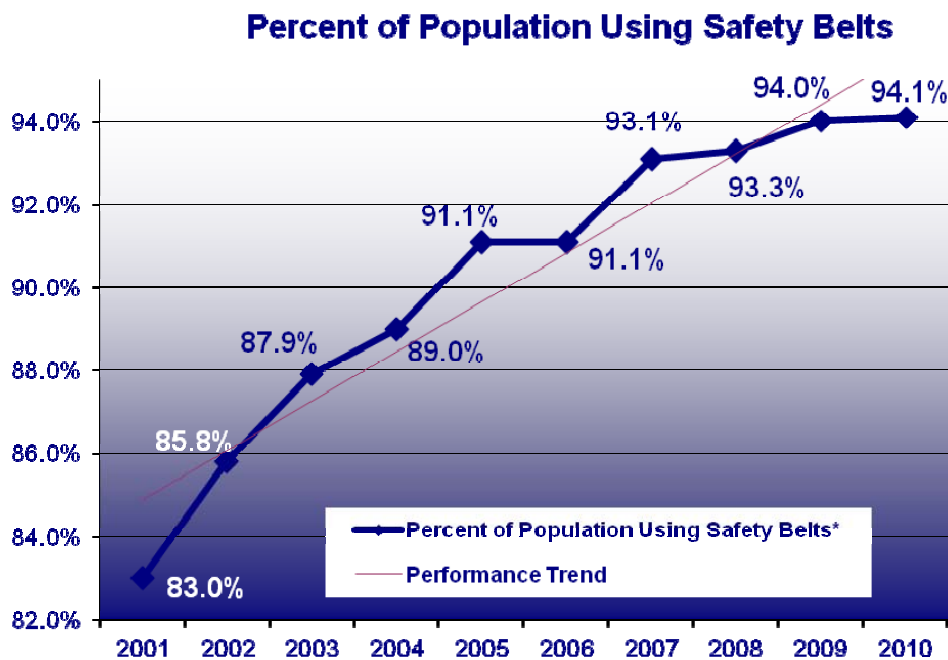
Graph I - Alcohol Related Fatality Rate



Alcohol Related Fatality Rate*

The alcohol related fatality rate in relation to vehicle miles traveled decreased to .29 for 2009 reflecting the physical decrease in fatalities. This is a 13% decrease over 2007. (*0.01 BAC)

Graph J - Percent of Population Using Safety Belts



Percent of Population Using Safety Belts

Maryland's usage of seat belts continues to trend in a positive direction with a compliance percentage of 94.1% being reported for 2010. This is more than a 11 percentage point increase between 2001 and 2010.

Crash Profiles By Involvement Type

Occupant Protection (Belt Usage)	% Change	2008	2010	2015 Goal
Statewide Belt Usage (Combined)	▲ 2.6%	92.3	94.7	96.7
Statewide Belt Usage (Automobiles)	▲ 2.4%	93.3	95.5	
Statewide Belt Usage (Pick-Ups)	▲ 3.8%	86.8	90.1	

Fatalities by Program Area	% Change	2008	2010	2015 Goal
Statewide	▼ 16.2%	592	496	475
Aggressive Driving**	▼ 25.4%	63	47	51
Bicycles	▲ 14.3%	7	8	6
Distracted Driving**	▼ 14.1%	290	249	233
Impaired Driving (BAC 0.08+) *	**	145	**	116
Motorcycles	▼ 12.0%	83	73	67
New Drivers (ages 16-20)	▼ 39.6%	106	64	85
Occupant Protection (Unbelted)	▼ 23.5%	153	117	123
Older Drivers	▼ 5.9%	85	80	68
Pedestrians	▼ 10.4%	115	103	92

Injuries by Program Area	% Change	2008	2010	2015 Goal
Statewide	▼ 7.7%	48,149	44,425	40,032
Aggressive Driving**	▼ 10.1%	4,203	3,779	3,495
Bicycles	▼ 6.4%	652	610	542
Distracted Driving**	▼ 9.3%	31,778	28,829	26,426
Impaired Driving	▼ 4.8%	4,291	4,083	3,568
Motorcycles	▼ 0.7%	1,568	1,557	1,304
New Drivers (ages 16-20)	▼ 19.5%	10,309	8,296	8,573
Occupant Protection (Unbelted)	▼ 18.4%	2,212	1,804	1,839
Older Drivers	▼ 1.4%	6,546	6,457	5,444
Pedestrians	▲ 0.7%	2,469	2,487	2,053

Fatal Crashes by Program Area	% Change	2008	2010	2015 Goal
Statewide	▼ 14.1%	539	463	432
Aggressive Driving**	▼ 25.0%	56	42	45
Bicycles	▲ 14.3%	7	8	6
Distracted Driving**	▼ 6.5%	246	230	197
Impaired Driving*	**	132	**	106
Motorcycles	▼ 7.7%	78	72	63
New Drivers (ages 16-20)	▼ 34.4%	90	59	72
Older Drivers	0.0%	78	78	63
Pedestrians	▼ 8.5%	106	97	85

Injury Crashes by Program Area	% Change	2008	2010	2015 Goal
Statewide	▼ 7.0%	32,773	30,477	27,254
Aggressive Driving**	▼ 8.2%	2,580	2,369	2,146
Bicycles	▼ 5.9%	629	592	523
Distracted Driving**	▼ 8.0%	20,878	19,212	17,362
Impaired Driving	▼ 3.8%	2,834	2,727	2,357
Motorcycles	▼ 3.4%	1,367	1,321	1,137
New Drivers (ages 16-20)	▼ 18.9%	6,580	5,338	5,472
Older Drivers	▼ 2.0%	4,279	4,193	3,558
Pedestrians	▼ 5.4%	2,385	2,255	1,983

** Fatality Analysis Reporting System data – 2010 Preliminary Data ONLY;
2015 Goals coincide with Strategic Highway Safety Plan

Program Reports

Throughout FFY 2011, the MHSO funded a variety of programs, projects and activities, with federal transportation dollars, which were intended to advance the traffic safety goals set forth by the State of Maryland. For FFY 2011, these Program Areas loosely coincide with MHSO's overall set of priority Program Areas, as defined in Maryland's FFY 2012 Highway Safety Plan. Those priorities are as follows:

- Aggressive Driving Prevention
- Bicycle and Pedestrian Safety
- Community Traffic Safety
- Data Analysis and Traffic Records
- Diversity Outreach
- Drowsy and Distracted Driving Prevention
- Employer Awareness
- Police Traffic Services
- Impaired Driving Prevention
- Injury Surveillance
- Media Communications
- Motorcycle Safety
- Young Driver Safety
- Occupant Protection
- Older Driver Safety

Each section will provide a narrative description of the problem, a listing of objectives proposed in the Highway Safety Plan, strategies implemented throughout FFY 2011, challenges encountered throughout the year, and notable accomplishments achieved in FFY 2011.

As in past years, all of the program areas identified by the NHTSA as being of national priority are significant components of Maryland's traffic safety program. However, not all of the national priority program areas are addressed in this report. MHSO's program is based on Maryland's data and problem identification, and is specifically tailored to best meet Maryland's needs.

Measure	2009	2010	2011
Total number of grants awarded	59	95	86
Total number of grant applications	67	104	92
Total Number Press events	21	15	20
Total Number of Materials Distributed (brochures, incentives)	1,045,817	750,000	761,308
Total Number of Paid Media Impressions (web, outdoor, TV, radio)	303,598,935	56,900,000	41,800,000
Total Number of Training Events	102	72	206
Total Number of Educational Presentations & Taskforce Meetings	191	131	10
Total Number of Campaign-Related Seat Belt Citations and Warnings	~110,000	1,632*	5,551
Total Number of Campaign-Related Reported DWI Arrests	1,047	601*	675
Total Number of Campaign-Related Speeding Citations and Warnings	207,500	14,443*	19,356
Total Number of Checkpoint Events	101	77	18
Total Number of Saturation Patrols	554	252	461

**During the past year gaps in enforcement reporting procedures were identified. Given a new electronic reporting/evaluation system and the restructuring of the current Community Traffic Safety Program a considerable amount of overtime enforcement activity was not captured, or was captured in a non-specific manner (total citations issued v. speeding / seatbelt citations issued). Additionally, many current reporting forms for Checkpoint StrikeForce and Smooth Operator activities include enforcement statistical totals by officers that were working on straight time (match) in conjunction with officers working on highway safety overtime funds. Steps have been taken to insure comprehensive data collection for the coming year including a new reporting form for all law enforcement agencies that will capture these specific data fields.*

Aggressive Driving Prevention

Polling and research conducted by AAA Mid-Atlantic through the years revealed a continued growing concern with the problem of aggressive driving (i.e., traffic signal violation, improper passing, failure to drive in a single or proper lane, following too closely, failure to stop/yield right of way, or exceeding the speed limit). In an effort to combat aggressive driving, a major effort by the MHSO in 2011 was to fund and partner with law enforcement, government officials, and others to conduct the *Smooth Operator* Program. Developed more than 11 years ago, the *Smooth Operator* Program is a multi-jurisdictional public safety initiative to provide education, information and solutions for the problem of aggressive driving.

After a spike in reported aggressive driving crashes in 2006, incurred as a result of different police reporting procedures, the frequency of these kinds of crashes has leveled off and even declined over the last few years. Better data collection by police officers has resulted in a clearer understanding of the breadth of this problem.

Objective

- Reduce the annual number of aggressive driving-related fatalities on all roads in Maryland from 63 in 2008 to fewer than 51 by December 31, 2015 (19.8 percent reduction).
- Reduce the annual number of aggressive driving-related injuries on all roads in Maryland from 4,203 in 2008 to fewer than 3,495 by December 31, 2015 (16.8 percent reduction).

Accomplishments

- The MHSO oversaw the involvement of more than 50 law enforcement agencies across the region, including 47 in Maryland, and coordinated their efforts to target aggressive drivers by conducting enforcement “waves” over a four month period. This included the involvement of every barrack of the Maryland State Police across the entire state. In 2011, they issued more than 342,360 citations and warnings for aggressive driving behaviors.
- The MVA coordinated the State’s massive education and awareness campaign by overseeing the highway safety grant funds used to purchase media and educational items, as well as finance major media events. These expenditures totaled \$279,000 in 2011.
- The MHSO coordinated the selection and placement of \$150,000 of outdoor media including billboards and busbacks in targeted corridors.
- Two major public relations events were held for the 2011 campaign, including one in Prince George’s County, and one at Camden Yards, in Baltimore, Maryland. These events included representatives of all the participating law enforcement agencies and other transportation industry partners. The events added an estimated \$137,000 to the campaign’s earned media value.
- The *Smooth Operator* Program teamed with the Prince George’s County Police Department for a media event in June which consisted of a live demonstration of a single vehicle, run-off-the-road and overturned crash. Cameras were placed inside the vehicle to record the impact on a “belted” occupant, another “unbelted” occupant and a “belted” child safety seat. At the conclusion all media outlets present were presented a thumb drive with the live recorded footage and all major outlets who covered the live event reported the event on the evening broadcasts in the Washington Metro area that same evening. A second media event was conducted at Camden yards, Baltimore, with the Smooth Operator Campaign partnering with the Baltimore Grand Prix Event. This was the first time ever for the Indy Racing League to have an event in Baltimore, MD. A partnership was formed, busbacks depicting a “police” Indy Race Car with the *Smooth Operator* message/logo and a video Public Service Announcement were created in conjunction with the Smooth Operator message and the Indy Racing League. This partnership will continue for the duration of the Labor Day Race event in future years.
- Over the course of the 4 *Smooth Operator* media waves, more than 43 million impressions were garnered by the campaign’s radio spots alone, averaging well over 180 Total Rating Points.

- A total of 5 scheduled Steering Committee meetings occurred including several with representatives from law enforcement, highway safety officials, and other partners from the private sector.
- A Statewide *Smooth Operator* Law Enforcement Training Meetings was held in April, 2011. Over 100 police officers and CTSP coordinators were in attendance for the meeting. In September, 2011 a *Smooth Operator* Awards luncheon was held at which over 100 officers were recognized for their participation in the *Smooth Operator* Program.

Challenges

- Attempts to leverage more media buying power and added value were complicated by various media buyers purchasing different kinds of media (outdoor v. radio). The MHSO used its massive buying power from its entire highway safety program to leverage more added value during its various campaigns. Coordinating the *Smooth Operator* program with its regional buys proved somewhat problematic.
- Providing fresh 'media hooks' to attract news crews to *Smooth Operator* events will remain a challenge. New and innovative ideas played well in 2011 but a strong effort will be needed to continue to attract media at these events.

Bicycle & Pedestrian Safety

Over the past five years an average of 2,829 pedestrian and 764 pedalcyclist crashes have occurred each year on Maryland's roadways. On average, 108 pedestrians and 8 pedalcyclists have lost their lives each year, representing nearly 20% of Maryland's traffic fatalities. In addition, an average of 2,600 pedestrians and 635 pedalcyclists has been injured annually, representing 6.6% of all Maryland's traffic injuries.

Maryland's highway safety program includes a comprehensive pedestrian and bicycle safety program that promotes safe pedestrian and bicycle practices, educates drivers to share the road safely with other road users, and encourages safe facilities for pedestrians and bicyclists through a combination of education and engineering strategies. In the Washington, D.C. and Baltimore metropolitan areas, the *StreetSmart* campaign continues to address pedestrian safety issues through coordinated education and enforcement activities. Broader statewide efforts include support for the Maryland Safe Routes to School program, and outreach to adult and youth bicyclists.

The number of pedalcyclist crashes increased from a five-year low of 686 in 2009 to 734 in 2010; the 2010 goal for pedalcyclist crashes is 733. The number of pedalcyclists injured increased from 578 in 2009 to 610 in 2010; the 2010 goal for pedalcyclist injuries is 552. Pedalcyclist fatalities remained consistent with 2005-2007, with 8 pedalcyclists killed in 2008; the 2010 goal for pedalcyclist fatalities is 10. Pedestrian crashes increased slightly from 2,714 in 2009 to 2,722 in 2010; the 2010 goal for pedestrian-related crashes is 2,528. Pedestrian related injuries decreased from 2,504 in 2009 to 2,487 in 2010; the 2010 goal for pedestrian related injuries is 2,237, Pedestrian fatalities decreased from 112 in 2009 to 103 in 2010; the 2010 goal for pedestrian fatalities is 96. While the decrease from 2009 to 2010 is an improvement, pedestrian fatalities have not declined on the same trend line as all traffic fatalities statewide.

Objectives

- Reduce the annual number of pedestrian fatalities on all roads in Maryland from 115 in 2008 to fewer than 92 by December 31, 2015 (19.8 percent reduction).
- Reduce the annual number of pedestrian injuries on all roads in Maryland from 2,469 in 2008 to fewer than 2,053 by December 31, 2015 (16.8 percent reduction).

Accomplishments

- The *StreetSmart DC* campaign, developed in partnership with the Washington Council of Governments, reached millions of people in the Washington, D.C. metropolitan area with pedestrian safety messages directed at both motorists and pedestrians.
 - The Fall 2010 launch event was very successful in gaining media attention and informing the public about stepped-up law enforcement activities throughout the DC Metropolitan area.

- Seventeen print and online articles reached a total of 1,535,000 readers, and 48 television stories reached at least 1,289,890 area viewers.
- The Fall 2010 media campaign was comprised of radio, television and outdoor advertising: a total of 671 radio spots were aired, achieving 6,566,000 total impressions (total reach was 50.7% and frequency was 4.1); transit shelter advertisements resulted in an estimated 4,148,214 impressions during the campaign period and an additional 4,148,214 impressions from value-added placements beyond the campaign period.
 - The Spring 2011 launch event achieved an estimated 1.3 million impressions, including 12 print and online articles that reached 1,078,283 readers, television stories that reached at least 243,238 viewers and radio coverage that reached at least 45,000 listeners.
 - The Spring 2011 media campaign, focused on the consequences of driver and pedestrian behavior. More than 1,200 English-language radio spots were aired achieving 6,341,636 total impressions (total reach was 80.8% and frequency was 6.8); 140 Spanish-language radio spots were aired, achieving 1,725,360 total impressions (total reach was 63.2% and frequency was 3.9); and transit advertisements resulted in 46,868,769 impressions for the campaign.
- The StreetSmart Baltimore campaign, operated in collaboration with the Baltimore Metropolitan Council (BMC), focused on a data-driven approach to identifying high priority areas for media, outreach and enforcement activities.
 - A soft launch began in May in Baltimore City with enforcement activities combined with billboard placements, street banners and participation in a Bike to the Ballpark event at Camden Yards.
 - The campaign kick-off event in Columbia featured Howard County Executive Ken Ulman, Police Chief William McMahon, and representatives from MDOT, BMC and Bicycle Advocates of Howard County, and reached an estimated 253,900 impressions.
 - The paid media campaign included radio, television, outdoor media, print media and internet advertising: 382 radio spots aired, achieving 1,480,000 impressions (total reach was 55.7% and frequency was 4.7); 459 television spots aired, achieving 304,090 impressions; 9 billboards were placed, achieving an estimated 3,443,076 impressions; static and animated web banners were placed, achieving 1,170,000 impressions.
 - *BikeMaryland*, formerly known as One Less Car, successfully launched the Bicycle Ambassadors program, targeting outreach to young bicyclists in and around Baltimore City. BikeMaryland established a partnership with Port Discovery in downtown Baltimore to reach at-risk Baltimore City school children by participating in Port Discovery's youth education program.
 - MDOT, working in partnership with Maryland State Police, completed a draft training video for law enforcement officers on effective enforcement for bicycle safety, adapted material from the NHTSA national curriculum and tailoring to address Maryland-specific laws and issues. The video, which addresses risk behaviors on the part of bicyclists and motorists, will be promoted to state and local law enforcement agencies to improve the consistency of traffic law enforcement for bicycle safety.
 - Supported and coordinated by the Washington Metro's RTSP, the Pedestrian Safety Crash Outreach Program was designed to provide an immediate community response and police presence in areas where pedestrian injuries and fatalities have occurred. This response team consisted of grassroots outreach efforts that focused on imparting pedestrian safety skills to pedestrians via one on one interaction at the time a pedestrian violation occurred. Knowledge, attitudes and beliefs were also surveyed through the pedestrian safety AMT. More than 800 of these tools were completed and are currently being analyzed. In addition, the Prince George's County Police Department dedicated law enforcement officers to canvas the high crash area and conduct pedestrian safety enforcement both on vehicles and pedestrians. Media presence and coverage was exceptional.
 - The Statewide Bicycle and Pedestrian Safety Campaign operated with the Washington Area Bicyclists Association (WABA), continued to promote the Maryland Pedestrian and Bicycle Safety Education Program in collaboration with the Maryland Safe Routes to School program. Bicycle and pedestrian safety training trailers were used to educate children on basic pedestrian safety issues and bicycle operation skills.
 - MHSO continued to provide coordination and support for bicycle and pedestrian safety initiatives statewide

- MHSO coordinated the activity of the SHSP Pedestrian Emphasis Area Team, and the development of four primary strategies for the SHSP: the identification of a model problem identification process for pedestrian safety; the development of model approaches to high visibility enforcement and education/outreach activities, and the development of collaborative and coordinated action plans at the local level for each of the top five high priority jurisdictions in Maryland.
 - MHSO led the development of a Priority Pedestrian Location project, which identified the 24 top locations for pedestrian crashes on the state highway system, and began the development of action plans to address the issues identified at these locations.
 - One meeting of the Pedestrian and Bicycle Safety Task Force were convened by MHSO to promote coordination among statewide and local safety programs. Participants included CTSP coordinators, law enforcement officers, MDOT and SHA staff, members of the disabled pedestrian community, regional and local agency representatives and other stakeholders.
 - The MHSO bicycle/pedestrian coordinator serves on the Montgomery County Pedestrian Traffic Safety Advisory Committee and as SHA liaison to the Maryland Bicycle and Pedestrian Advisory Committee.
- MHSO and its CTSP partners distributed more than 224,000 pieces of educational material, including StreetSmart-branded materials, school system electronic pedestrian safety alerts, pedestrian safety law cards, booklets for school aged children, copies of the Bicycling in Maryland booklet and the DVD Competence and Confidence: an Adults Guide to Safe Cycling, and other materials.

Challenges

- The longstanding *StreetSmart* media outreach and enforcement program has had only limited effectiveness in changing awareness and attitudes, particularly when more than one message is being conveyed as a part of the campaign. In December, 2011, the *StreetSmart* steering committee will convene to critically examine existing efforts, success of prior campaigns and develop a new approach for the future.
- Transportation infrastructure, land use patterns and transit have important effects on pedestrian mobility and safety. This interrelatedness makes developing a comprehensive pedestrian safety a complex effort. The traditional “E” of engineering needs to be expanded to mean “Environment” to recognize the influence of many environmental factors, and to attract the involvement of nontraditional partners for traffic safety.
- Pedestrian safety enforcement is a relatively low priority activity for most law enforcement agencies. Very few officers have received formal training on pedestrian laws and law enforcement operations and techniques.
- Impaired pedestrians make up a significant proportion of fatalities in some high pedestrian crash areas. These are difficult crashes to countermeasure, as they are often related to substance abuse issues which go beyond the scope of existing traffic safety countermeasures.

Data Enhancement (Traffic Records Improvement Program)

Introduction

The Traffic Records Improvement Program’s goal is to develop a comprehensive statewide traffic records system that provides traffic safety professionals with reliable, accurate, and timely data to inform decisions about traffic safety problems, implement proven countermeasures, and manage and evaluate safety programs. The traffic records system encompasses the hardware, software, personnel, and procedures that capture, store, transmit, analyze, and interpret traffic safety data. The data that are managed by this system include the crash, driver licensing and history, vehicle registration and titling, commercial motor vehicle, roadway, injury control, citation/adjudication, and EMS/trauma registry data.

The Maryland Highway Safety Office (MHSO) relies on many partner agencies to make data accessible for highway safety planning and employs a number of systems and programs, with the help of State agencies and grantees, to collect, maintain, and analyze its internal datasets, including the Safe Highways Application and

Reporting System (SHARP) performance measures, and driver knowledge, attitude, and behavior data collected on the Action Measure Tools (AMTs) and Maryland Annual Driving Survey (MADS).

Coordination and cooperation among agencies is facilitated through the Traffic Records Coordinating Committee (TRCC), through Memoranda of Understanding between state agencies, through formal and informal working groups, and through project agreements for grant-funded programs and activities.

Each of the projects in Federal Fiscal Year 2011 targeted one or more components of the traffic records system to make measurable improvements to one or more of the quality measures for these systems.

Priority Objectives for FFY2011

Traffic Records Coordinating Committee, Traffic Records Assessment, and Traffic Records Strategic Plan

Maryland employs a two-tiered system Traffic Records Coordinating Committee (TRCC), with both Technical and Executive Councils. The MHSO Traffic Records Coordinator serves as Chair of the TRCC Technical Council, as well as the advisor to the TRCC Executive Council. The TRCC develops priorities derived from the latest Traffic Records Assessment, Crash Data Improvement Program and considering other needs determined by Executive/Technical Councils member agencies. These priorities are reflected in the Traffic Records Strategic Plan (TRSP), as adopted by the TRCC in November, 2010.

The TRCC updates objectives on an annual basis and performance measures are assigned, where appropriate, to measure progress. Maryland Projects in the State of Maryland related to traffic records improvements, especially those applying for 408 funding, must include in the project proposal one or more of the objectives in the TRSP. Additional information about these priority objectives can be found in the TRSP online at: <http://stko.maryland.gov>.

Highlights of the 2011 Calendar Year for the TRCC include:

- In February, 2011, the TRCC Executive identified strategies to improve the Council's effectiveness in leading the State in improving the traffic systems managed and used by the representative agencies on the Council. In May, 2011, Dr. Robert Bass of the Maryland Institute for Emergency Medical Services Systems (MIEMSS) was elected to Chair the TRCC, replacing Mr. Neil Pedersen, State Highway Administrator.
- The TRCC Technical Council reviewed critical performance measures on a monthly basis, as recommended by the Assessment and CDIP. Cash data timeliness reports, developed under a grant with Towson University, were shared with Maryland State Police Central Records Division (MSP CRD), the Maryland Chiefs of Police Association Traffic Safety Committee, and Governor Martin O'Malley's StateStat program. After MSP Command staff reviewed the timeliness reports, a new policy was implemented requiring all MSP Barracks to submit a report to the Central Records Division within 10 days of the crash.
- With the assistance of contractual data entry staff provided by SHA, MSP CRD surpassed the old record of a 46-day delay in sending data ready for analysis to SHA. This record was set back in 1994 by the old DBASE MAARS system. TRCC members continue to work on improving timeliness in crash reporting.
- The Automated Crash Reporting System (ACRS) Subcommittee was reconstituted into the ACRS Task Force to ensure a successful launch of the new electronic crash form developed by the MSP, with support from the University of Maryland Capital Wireless Integrated Network (CapWIN) and the SHA Motor Carrier Division, through a grant from the Federal Motor Carrier Safety Administration (FMCSA).
- Representatives from the Baltimore County Police Department, MHSO, Towson University, and the University of Maryland's National Study Center for Trauma and EMS attended the 37th International Traffic Records Forum in Charlotte, North Carolina. Presentations can be found online: <http://www.atsip.org/forum2011/>
- The TRCC Technical Council began working with the Federal Highway Administration on the Roadway Safety Data Partnership Capability Assessment.
- Maryland acted as a pilot State in the development and implementation of the revised Traffic Records Improvement Program Reporting System (TRIPRS).

408-Funded Projects

Comprehensive Crash Outcome Data Evaluation System (C-CODES)

Partner: University of Maryland National Study Center for Trauma and EMS (NSC)

Accomplishments

1. NSC continued to provide program and epidemiological support to the MHSO.
2. NSC successfully maintained data sharing agreements with its partners and continued to add and link additional years of data. NSC was successful in obtaining new data that had not previously been part of the CODES Warehouse, including behavioral data from other states' Annual Driving Surveys, motorcycle training data, enforcement warnings and citations, and preliminary 2010 traffic crash data.
3. Throughout the year, not including the first quarter, the NSC documented that it had received 44 data requests submitted through the STKO website. Additionally, the NSC continued to support the MHSO as needed during the Maryland Legislative session. The NSC continued its partnership with Towson University to enhance the Safety and Transportation Knowledge Online (STKO) website.
4. NSC created a variety of data products/factsheets, e.g., Crash Crime Clocks, State and Local Nighttime Enforcement Fact Sheets, and the Traffic Safety Fact Book.
5. The NSC helped prepare a manuscript entitled "Trends in Injury Type and Severity Among Hospitalized Drivers: The Impact of Vehicle Model Year," which was presented at the 55th Association for the Advancement of Automotive Medicine Annual Scientific Conference.
6. NSC staff delivered a variety of topical presentations with subjects such as Distracted Driving (Partnership for Safer Maryland, Mid-Atlantic Life Safety Conference); Maryland Nighttime Enforcement Seatbelt Campaign (National CODES Annual Training, OP Task Force Meeting); and Maryland Motorcycle Safety (Traffic Records Forum)..
7. NSC continued assisting the MHSO with Highway Safety Plan (HSP) and Strategic Highway Safety Plan (SHSP) program evaluation measures and served on the Safe Highways Application and Reporting Program (SHARP) steering committee.
8. NSC completed collecting DriveCam data from those enrolled. The first set of analysis was completed and resulted in presentations to the Tri-County Council of Southern Maryland, Calvert County Task Force, and St. Mary's County Task Force. A webinar was also conducted with participation from SHA and a Washington Post reporter. Initial results were used for an abstract submitted to the American Association for the Surgery of Trauma meeting, which was accepted as a poster presentation.
9. NSC statisticians and data analysts collaborated with NHTSA and MHSO staff in their identification of an appropriate algorithm to select new seatbelt observation sites across the state.
10. NSC staff assisted MHSO in developing the Policy and Procedure Manual, based on a model created by the Governor's Highway Safety Association (GHSA).
11. NSC Staff took on the role of data coordinator for the newly-revised Maryland Strategic Highway Safety Plan (SHSP).
12. NSC Staff composed and submitted CODES data in NHTSA Research Notes, to promote Maryland data in efforts to define serious injury using hospital information as well as KABCO.

Safety and Transportation Knowledge Online (STKO) www.stko.maryland.gov

Partner: Towson University Extended Education and Online Learning (now Center for Professional Studies)

Accomplishments

1. Towson University CPS greatly expanded the content related to Data Driven Approaches to Crime and Traffic Safety (DDACTS) including articles, video seminars, workshop scheduling and implementing a Facebook plug-in within the webspace. The DDACTS pages continue to be one of the most frequented areas of the STKO website. Over the past year the DDACTS pages have, on average, comprised 35% of STKO unique visitors.
2. The Traffic Safety Data section evolved from one page into its own section and navigation tab within STKO. This section now hosts critical information such as the Action Measure Tools (AMTs), Maryland Annual Driving Survey (MADS), Maryland Fact Book, and other MHSO related reports such as the Highway Safety Plans and MHSO Annual Reports. More importantly, the Traffic Safety Data section was designed to guide users through the data requests process by means of the available online data requests forms. The Traffic Safety Data section directs users to either the CODES Data Request form, the Traffic Safety Data Request Form, or towards the MHSO Benchmark Reports.
3. During this project year, CPS staff were able to migrate content from the Enforcement section onto a new dedicated Maryland Chiefs of Police Association website. Content related to enforcement training, the Maryland Law Enforcement Challenge, and other useful links and resources have been carried over to a new Highway Safety section within the MCPA website.

Site Statistics (a sampling)

Category (Jan. 2011 through Oct. 2011)	Monthly Average
Unique Visitors	519
Data Requests	7
TRCC Meetings and Agendas downloads	29
DDACTS main page visits	181
CODES main page visits	107
Fact Book downloads	80

Additionally, 265 Benchmark summary data reports posted on STKO, available as PDF downloads for all traffic safety partners and the public. From April 2011 through the first week of November 2011, the average download for Benchmark Reports are as follows (based on average downloads for each report under each category, or by jurisdictions for each program area, divided by category total reports, divided by (7) months):

Category (type of report) (2009)*	Monthly AVG (per report)**
Statewide Program Area (18 reports)	7
District (7 reports)	4
County (24 reports)	5
Aggressive Driving (24 reports)	3
Bicycle or Other Pedacycle (24 reports)	18
Distracted Driving (24 reports)	3
Driver 16-20 Alcohol or Drug Impaired (24 reports)	3
Driver Age 16-20 Involved	3
Driver Age 65-100 Involved	3
Driver Alcohol or Drug Impaired	3
Motorcycle Involved	2
Pedestrian On Foot Involved	3

*2010 Benchmark Reports were posted in early November, 2011.

**The figures above would represent a baseline for usage of these reports. Through additional promotion of STKO and specifically the Traffic Safety Data resource pages, it is expected that these monthly averages would increase, especially as highway safety programs and partner organizations adopt the data-driven approach to program implementation and evaluation.

*TRCC Administrative Support/MSCAN Project Management/Quality Control Reporting
Partner: Towson University Information Systems Solutions (now Center for Applied Information Technology (CAIT))*

Accomplishments

1. Assisted the Traffic Record Coordinator in scheduling and capturing minutes from TRCC Council meetings.
2. Through the establishment of Project Management best practices, developed a schedule of projects to give visibility to projects that are impacting the start of the Maryland Safety Collection Analysis Network (MSCAN).
3. Assisted the NHTSA contractor, TSASS, in beta testing the new version of Traffic Records Improvement Program Reporting System (TRIPRS), a software tracking application used by States to track projects/programs. Once beta testing was complete, CAIT staff entered Maryland projects/programs into TRIPRS and began tracking progress. In addition, CAIT staff attended the Traffic Record Forum and presented the advantages of using TRIPRS to track projects and programs.
4. Developed many different reports based on the crash data that provided metrics to management and the Quality Control team on the timeliness of crash data being submitted to the States. Many other reports were developed as requested by the Traffic Record Coordinator in support of the TRCC and Maryland Highway Safety Office (MHSO). These reports fulfill recommendations from both the Traffic Records Assessment (NHTSA) and the Crash Data Improvement Program (FHWA).

Accomplishments

1. Developed a GIS viewer for Commercial Vehicle Accidents.
2. Assisted SHA Office of Traffic and Safety (OOTS) with updating to the latest version of ArcGIS software.

Due to a change in scope for the MSCAN project, and uncertainty regarding the GIS support needed with the advent of a statewide GIS enterprise system, the services of Towson CGIS were not needed to the extent defined in the original Project Agreement. A Project Modification was initiated, reducing the scope, activities, and budget of this project. The continued use of the CGIS as a resource is currently under review.

NEMSIS [Enhanced Data Utility, Accuracy and Completeness], or eMEDS Maryland Institute for Emergency Medical Services Systems (MIEMSS)

Accomplishments

1. Acquired nationally-recognized software to replace eMAIS.
 2. Conformed to NEMSIS and Maryland Protocol EMS data reporting standards statewide. Maryland EMS will be in a better position to make required changes as NEMSIS 3.0 and future updates to Maryland Protocols.
 3. Provided greater detailed data related to motor vehicle crashes and shared with other agencies. This data set, as defined by the eMEDS .xml, will provide a reliable and consistent format to report and share data with other agencies. This will be a significant benefit to the NSC CODES program.
 4. Successful CAD integration has brought two important benefits to accurate, timely, and efficient pre-hospital care data collection. First, it affords each EMSOP to monitor the compliance that every call for EMS response has accommodating documentation by the responding service. Second, it reduces the duplication of data entry by simplifying importing those data elements which have been collected at the dispatch center.
 5. Updates provide the ability to view data spatiality. The mapping and reporting capabilities within eMEDS are very advanced.
-

Challenges

The following is a brief list of some of the more challenging areas in the traffic records program, each affecting the progress and development of a comprehensive statewide traffic records system.

The roles and responsibilities related to the traffic crash records system in Maryland are not clearly defined. Functions which are interdependent are distributed among three state agencies - MSP, SHA and MVA - and issues of data ownership, access rights and protocols, data timeliness and quality assurance, and data release remain significant concerns.

There have been significant delays in the funding and development of ACRS. Any delays in the development and release of the new electronic crash result in the burden of manual data entry remains for all crashes reported to MSP, which means a perpetual backlog and outdated mode of processing crash reports.

Changes in leadership within the TRCC and in member agencies presented challenges during the grant year but also afforded an opportunity for knowledge sharing and transference. To be more effective, the TRCC will need to more clearly define priorities and specific actions for member agencies to take to improve traffic records timeliness, quality and access.

Development of the Model Impaired Driving Records Information System (MIDRIS) Inventory as supported by the TRCC, has been significantly delayed.

Challenges in aligning the reporting of State and FARS fatality statistics continue to persist. The ongoing issue often makes it difficult and confusing in developing countermeasures and evaluation methods for highway safety programs as the two datasets are often not aligned.

Financial Management

The MHSO successfully completed a full year of using SHARP (Safe Highways Application & Reporting Program). Grantees completed all forms in the system including applications, progress reports, pre-approval forms, reimbursement claims and close out forms. Twelve canned reports have been created to assist MHSO staff in better monitoring grants. Also, a query builder tool has been made available to select staff to allow for more specific reports and monitoring.

The SHARP team redesigned the FFY12 application as a result of focus groups and user surveys in an effort to continuously improve the system. It was a huge undertaking with limited staff and time.

Finance staff began working with the 403 funds this year. We submitted the first invoice directly to NHTSA outside of the Grant Tracking System (GTS) and received the funds in a timely manner.

We worked with the SHA auditors to review the FFY11 highway safety grants. They completed reviews of a handful of projects before being reassigned to more urgent SHA projects.

The long-term goal is to integrate and improve communication among SHARP, the State Financial Management Information System (FMIS) and NHTSA's Grants Tracking System (GTS). This will further enhance the MHSO's ability to manage programs and associated projects more effectively and efficiently, resulting in better use of staff time and service to customers.

Accomplishments

- First full year of using SHARP for grants management
- Released FFY12 application on SHARP
- Worked closely with SHA auditors and NHTSA staff for management review
- Submitted first invoice for 403 funds outside of GTS

Challenges

- Unable to fill vacant Finance Manager position after two rounds of interviews
- Growing pains with acclimating to new online system, working out bugs, learning curve of both MHSO staff and grantees
- Increased workload with limited staff
- Need more consistent meetings of Grants Management Team and more active role of team members to help the office adhere to deadlines

Distracted Driving Prevention and Employer Outreach

A typical driver in the U.S. travels 12,000 to 15,000 miles annually and has a one in 15 chance of being involved in a motor vehicle crash each year. With most fleet drivers traveling 20,000 to 25,000 miles or more each year, they have a greater crash exposure. Traffic crashes are the number one killer of employees according to NHTSA. Off-the-job injuries and fatalities cost U.S. businesses almost \$200 billion annually in lost productivity according to the National Safety Council.

The Maryland Traffic Safety Awareness for Employers Project (T-SAFE) was designed to be an employer-specific traffic safety investment program that increases traffic safety awareness among Maryland-based companies and their employees. Specifically, this interactive employer/employee program helps to reduce crashes as well as protect the employer's most important asset, its employees. The benefits of implementing a workplace traffic safety program include the reduction of traffic-related injuries, deaths, and the economic losses associated with traffic crashes to the employer, the employee, and the overall community.

Employer traffic safety awareness is the integral part of the T-SAFE Project. For many years, distracted driving education and awareness has been a major program priority area covered by T-SAFE, and Maryland-specific crash data is used to drive program development. Statewide in 2010, there were a total of 90,511 crashes including 496 fatalities, and 30,477 injury crashes. The total cost of motor vehicle crashes in the State is more than \$7.4 billion annually, and crashes are the number one cause of fatal workplace accidents. While the economic costs of motor vehicle crashes is greatly important to note, it is also important to understand that driver

improvement programs are also extremely important. Often times, companies with fleets are involved in more crashes because the drivers are multi-tasking and not giving driving their complete attention. The MHSO is dedicated to providing education and awareness about distracted driving prevention to companies across the state. Education is the key to changing behavior and reducing traffic-related fatalities and deaths. The T-SAFE Project has supported special annual campaigns, administered presentations to employers about varying traffic safety topics and has promoted traffic safety messages using various outlets. T-SAFE regularly educates many of its partners about distracted driving prevention, drowsy driving, the affects of shift work, and other safety topics. A commitment to safety is based on the understanding that the entire management team commits itself to fully developing and maintaining a safe environment. Currently, the MHSO has maintained communication with all T-SAFE Members by providing emails including resource information, updates about traffic laws, resource materials, presentations and attending health and safety fairs.

Objectives

- Reduce the annual number of distracted driving-related fatalities on all roads in Maryland from 290 in 2008 to fewer than 233 by December 31, 2015 (19.8 percent reduction); and
- Reduce the annual number of distracted driving-related injuries on all roads in Maryland from 31,778 in 2008 to fewer than 26,426 by December 31, 2015 (16.8 percent reduction).

Distracted Driving Law Effective October 2011

Vehicle Laws – Rules of the Road

- HB 196 – CHAPTER 472: Motor Vehicles – Use of Text Messaging Device While Driving Law Passed

Accomplishments

- The T-SAFE Program Coordinator partnered with the Fort Meade Safety Office to conduct a presentation on the dangers of texting and cell phone use while driving. The presentation also included the prohibitions of the new texting law. The presentation was open to classified and unclassified officers. The Fort Meade Safety Office saw an increase in the number of incidents on the base where drivers were distracted for one or more reasons. Two separate presentations were given to allow every officer in the installation an opportunity to participate. More than 600 soldiers attended the presentations in May. The presentations included data pertaining to crashes involving distracted drivers in Anne Arundel County, the AMT was distributed and collected from each participant, and the cell phone law card was distributed, as well as a number of other resources.
- MHSO/T-SAFE supported the 5th Regiment Armory Unity Day Event. The event focused on providing health and safety education to employees of every military installation. This year, the MHSO provided 2,000 cell phone law cards and several hundred copies of the texting while driving fact sheet. Employees attended the event and a wide variety of safety material was distributed.
- Supported National Drive Safely Work Week. Specifically the MHSO placed emphasis on educating the public via internet, social media outlet websites. Provided daily safety tips, resource material, and all partners received links to the online toolkit provided by the Network of Employers for Traffic Safety.
- This year the MHSO's T-SAFE Coordinator partnered with the National Transportation Center at Morgan State University to address the issues of distracted driving on and around the campus. A committee was formed, and the University Safe Driving Campaign was developed. The MHSO supported several campus programs that involved distracted driving interactive awareness devices, a safety course and participated and provided materials for the safety exhibition on campus.
- In collaboration with the Public Employees Safety Association, the T-SAFE Coordinator assisted with their Annual Prevention Conference. A portion of the conference focused on distracted driving. Information pertaining to the new texting law was included in the participant's folder. Maryland's cell phone law card was distributed and data was given out to each participant that showed the number of crashes on Maryland's road involving distracted drivers.

- In conjunction with the Partnership for a Safer Maryland, the MHSO assisted with the development of a campaign called Golden Opportunities in Prevention. This initiative addressed the leading injury issues in Maryland. Distracted driving was one of the issues included in the program and resources materials. The MHSO was instrumental with distributing this information.
- Throughout the year, the T-SAFE Program Coordinator provided approximately 25,000 pieces of literature to partners statewide. Many of the resources were developed by the MHSO and more than 10,000 brochures was received from the federal government and distributed to our partners.
- The MHSO requires all grantees to provide education performance measures. During this year, several grantees submitted information that gave details on their outreach. Specifically, grantees attended a total of 38 events, they distributed 29,300 pieces of safety literature, and they had more 4,900 participants attend a variety of safety initiatives throughout the year.
- Approximately 76 Maryland police departments who use the State Police Electronic Traffic Information Exchange system have issued 587 warnings and 379 traffic citations for driving while texting. Police have issued 4,021 warnings and 5,227 citations for failure to use a hands-free cell phone device while driving. Included in those numbers are 325 warnings and 240 citations for texting and 1,859 warnings and 2,905 traffic citations for cell phone use issued by MSP.

Challenges

- Recruiting new businesses to get involved;
- Develop a general membership consisting of employers of all types, not just those with fleets;
- Implement new traffic safety policies and a point system;
- Establishment of a Safe Drive Initiative including a Reward/Incentive Program
- Get businesses to link to several traffic safety websites including MHSO;
- Support week-long or monthly safety initiatives;
- Increase the number of presentations made to local businesses; and
- Commit to send out safety tips to employees monthly.
- Development of effective enforcement strategies

Terminated Grant Project

During the 2011 FFY, the Maryland Highway Safety Foundation was approved to implement a grant from the MHSO to broaden the focus of the T-SAFE Project. The project's long term challenge was to increase the membership of local businesses, develop employer safety policies, and promote T-SAFE's mission of reducing the economic impact of traffic crashes as it relates to businesses. Ideally, the project would help reduce traffic-related fatalities, injuries and their associated costs through traffic safety education, awareness, and implementation. Unfortunately, the Maryland Highway Safety Foundation which was a private (Non-Profit/Not-for-Profit) Organization was forced to close the Foundation. The allocated grant funds for this project were redirected and other initiatives were supported.

Police Traffic Services

The MHSO administers a variety of federally funded highway safety programs and projects and almost every program includes a law enforcement component. Many of these programs cross over into multiple enforcement agencies across Maryland on the state, county and local levels, and successful deployment of these programs require skillful coordination of efforts.

The MHSO has developed many unique activities and programs that are specifically targeted towards aiding in the coordination and successful deployment of law enforcement activities that support MHSO objectives, and includes a close partnership with both the Maryland Chiefs of Police Association (MCPA) and the Maryland Sheriff's Association (MSA).

Objectives

- Reduce the annual number of traffic-related fatalities on all roads in Maryland from 592 in 2008 to fewer than 475 by December 31, 2015 (19.8 percent reduction).
- Reduce the annual number of traffic-related injuries on all roads in Maryland from 48,149 in 2008 to fewer than 40,032 (16.8 percent reduction) by December 31, 2015.
- Ensure MHSO's programmatic efforts are successfully complemented by efficient and advanced law enforcement involvement through education, incentives and recognition.
- Improve data collection and causal analysis relating to fatal and near fatal crashes.

Accomplishments

- In conjunction with the MCPA and the Maryland Police & Correctional Training Commission (MPCTC) a two week advanced supervisors school for traffic unit and/or patrol commanders was held at the Public Safety Educational 7 Training Center. This nationally recognized course developed by the Pennsylvania State University, known as POLEX, was adapted to provide 16hrs of in-depth training on the importance of managing traffic enforcement duties. Twenty-six law enforcement officers successfully completed the training and student critiques were overwhelmingly positive. As part of this training, students completed team projects dealing with the conceptual implementation of a DDACTS philosophy within an agency.
- A three day Maryland Crash Reconstruction Conference, sponsored by the MSA was held to review advanced topics in crash investigation. Nationally known experts in crash investigation techniques were brought in to teach seminars on a variety of topic areas. One hundred fifty Maryland law enforcement officers, all specializing in Crash Investigation attended this conference and student critiques were overwhelmingly positive.
- The Traffic Safety Specialist (TSS) designation program was initiated in a multi-agency partnership between the MPCTC, the MCPA, the MSA, and the MHSO to recognize officers across the state who have attained a high level of training and expertise in traffic enforcement. To date there are 449 Officers enrolled in the TSS Program. Of those 206 have completed the requirements for TSS I, 7 have completed the requirements for TSS II and 1 has completed the requirements for the TSS III. An awards presentation ceremony was held on September 9, 2011 recognizing recipients receiving this distinction in 2011.
- The Maryland Crash Reconstruction Committee met approximately every month to refine their training curriculum, schedule classes, assign students to classes, resolve training issues, and discuss pressing issues with crash reporting in the field. This group, comprised solely of Crash Reconstructionists, continues to function at a high level of sophistication, dedication, and professionalism. It likewise continues to examine and tackle tough training and reporting issues such as acquiring and properly reporting BAC on drivers involved in fatal crashes.
- One Advanced Collision Investigation class was held regionally and 31 police students were graduated from this training.
- Two Crash Reconstruction classes were held regionally and 41 police students were graduated from this training.
- There were a total of 6 advanced Crash Reconstruction topics offered by the MCRC across the state including a Crash Scene Photography classes; one Crash Data Retrieval course; one Human Factors in Traffic Crash Reconstruction class; one Crash Determination for Crash Reconstruction class; and one Reconstruction Instructor Development course. Most classes reached their goal on the number of students to be trained although some scheduling difficulties were encountered and are being addressed

by the MCRC. Nevertheless, 103 student officers were trained as a result of these course offerings.

- There were 225 student officers (all Maryland law enforcement) trained at various levels of Crash Reconstruction during the project year.
- In conjunction with the MCPA, the MHSO launched its *Toward Zero Deaths* program across the state. "Resolutions" were adopted by both the MCPA and MSA in support of this goal which is to reach a point of zero deaths. No number of deaths is acceptable so this program was initiated as a 'goal' of reaching zero deaths. This initiative is supported by the MCPA and MSA organizations and their respective traffic safety committees.
- One hundred and seventeen agencies participated this year in the Chief's Challenge program and included twenty-one award category winners. These winners were announced and recognized at a ceremonial luncheon attended by approximately 350 law enforcement officers and highway safety officials.
- In partnership with the MHSO, and in conjunction with the *Traffic Safety IS Public Safety* program, the MCPA conducted and sponsored a week-long Managing Traffic Enforcement Programs (M-TEP) class for traffic unit supervisors and officers who manage their agency's highway safety program. This training provided intensive study on strategic planning and insight to the various elements of an effective highway safety program (the 3-E's of highway safety).
- The MCPA dedicated an entire day of its annual conference to provide instruction on traffic safety issues. There were over 235 registered attendees. The participation of the MHSO in the annual Chief's Training Seminar, which is now conducted in conjunction with the Maryland Sheriffs' Association, continues to grow as a vital part of the annual training seminar and is a valuable forum for MHSO and NHTSA to get the traffic safety message out.
- In conjunction with the University of Maryland the MHSO promoted and helped to facilitate the Institute for Advanced Law Enforcement Studies (DUI Institute). This nationally known police course provides an intensive, advanced instructional program for Law Enforcement officers who desire a comprehensive understanding of impaired driving issues and are committed to taking a leadership role in DUI enforcement. 30 LE Officers attended the DUI Institute in 2011.

Challenges

- Given the unpredictability of the work/court schedules of police officers, attendance and filling available seats in law enforcement training sessions is problematic. Attending non-mandatory outside training is a secondary priority for law enforcement and unforeseen circumstances frequently prevents full rosters in all training classes, even those that involve costly instruction.
- Changing the police culture, especially as it relates to changing ambivalent attitudes regarding highway safety requires a patient multi-strategy approach. It requires top-down support as well as sufficient credibility to be accepted by mid-level supervisors and line officers. Recruiting active participation requires officer incentives, recognition and diligent personal relationship management at all levels.
- Frequent turnover in law enforcement agencies disrupts continuity. Highway safety "champions" are frequently promoted, reassigned or retired. New personnel must be frequently groomed and indoctrinated; their programs are only as strong as the leader.

Impaired Driving Prevention

In 2010, Maryland's 177 alcohol-related traffic fatalities represented 36 percent of all traffic fatalities. From 2009 to 2010, Maryland experienced four additional alcohol or drug related traffic deaths. While Maryland's total number of traffic fatalities has dropped significantly over the past few years (651 total traffic fatalities in 2006 as compared to 488 total traffic fatalities in 2010), alcohol or drug impaired crashes have not experienced the same downward trend (there were 171 impaired driving fatalities in 2008, 173 in 2009 and 177 in 2010). Furthermore, on average, 8,430 impaired driving crashes occur annually on Maryland Roadways. In 2010, over 22,000 arrests were made for DUI in Maryland, averaging 62 arrests per day.

According to NHTSA, impaired driving can be defined as a reduction in the performance of critical driving tasks due to the effects of alcohol or other drugs. It is a serious crime that kills every 30 minutes nationally, and in Maryland, it equates to 15 deaths a month or a death every 49 hours. The number of alcohol and drug-related crashes decreased from 8,804 in 2009 to 7,878 in 2010, having exceeded the SHSP objective of decreasing impaired driving crashes to 8,173 by 2010. The MHSO's efforts to combat impaired driving have primarily been focused on enforcement and public information campaigns. The MHSO continues to partner with local and state law enforcement agencies, AAA Mid-Atlantic, the Washington Regional Alcohol Program (WRAP), DUI/Drug Courts, and MADD.

The MHSO's Impaired Driving Program is highly supported and influenced by a statewide coalition made up of more than 280 members, consisting of representatives from federal, state and county agencies, non-profits and not-for profit organizations, law enforcement agencies; hospitals, institutions for higher education, advocate agencies, employers, and related agencies with an involvement in highway safety, the coalition is dedicated to education and awareness through enforcement initiatives, local and statewide media campaigns ranging from paid and earned media activities, and countless prevention efforts.

In addition, during the 2011 Maryland General Assembly the Impaired Driving Coalition's Legislative Committee continued to work with state law makers in an effort to increase penalties for repeat offenders, underage drinkers and increased use of ignition interlock. No additional work was done to revise or introduce any bills recommended by the 2007 Governor's Task Force to Combat Driving Under the Influence of Drugs and Alcohol. The Maryland General Assembly reported on one new Impaired Driving law which impacted the use of ignition interlocks. **Effective October 1, 2011 the following law took effect:**

- Anyone under 21, who violates their alcohol restriction, will have mandatory participation in interlock or face suspension.
- Drivers who registers a BAC above 0.15 will be required to successfully complete the ignition interlock program or face indefinite suspension until successful completion of the ignition interlock program
- Drivers with a second alcohol conviction of any kind within 5 years will have mandatory participation in interlock or face suspension.
- Drivers who are removed from the ignition interlock program for accruing 4 or more months of interlock violations are permitted to apply to reenter the interlock program after a 30 day suspension
- If assignment to interlock is for violation of under 21 alcohol restriction, second alcohol in 5 years, or assigned by court, the time in interlock is determined by how many times, on or after October 1, 2011 they have been assigned to interlock due to one of these three violations.
- Criminal sanctions for driving a non-interlock vehicle with an interlock restricted license.

The impaired driving campaign continues to combat impaired driving from a multi-faceted, data driven approach. It includes a high visibility enforcement program coupled with an intense marketing effort. The marketing campaign is specifically designed to target high-risk corridors. A significant effort was put toward this ad campaign and educational outreach in Maryland and within the region. The 2010 creative ads were developed for regional use and created based on survey information in order to connect with the target audience of 21-35 year old males. The Baltimore demographic area spent over \$200,000 on a radio, television and billboard campaign. An additional \$366,000 in added-value spots were negotiated, yielding some 11 million impressions for the target audience, with a reach of 88 percent and a frequency of 26. This campaign is complemented by the social media project *DUI is For Losers*, however, this initiative was hindered this year due to a lack of spending authority and this additional outreach from February through July was postponed. However, the impaired driving program continues to expand and promote the use of its highly successful alternative transportation programs that provide free holiday taxi rides to drivers who have been drinking. These include The *Tipsy? Taxi!* campaign in Baltimore County and *SoberRide* in the Greater Washington Metro area. In an effort to raise awareness over 17,000 Christmas tree tags and nearly 10,000 wine bags with a designated driver message were distributed statewide. We continue to utilize specialized adjudication services, also known as DUI Courts to tailor specific punishments for drunk drivers that help reduce recidivism.

Objective

- Reduce the annual number of impaired driving-related fatalities (BAC 0.08+) on all roads in Maryland from 145 in 2008 to fewer than 116 by December 31, 2015 (20% reduction).
- Reduce the annual number of impaired driving-related injuries on all roads in Maryland from 4,291 in 2008 to fewer than 3,568 by December 31, 2015 (16.8% reduction).

Accomplishments

- Roughly 15,510 motorists were stopped by *Checkpoint Strikeforce* checkpoints and saturation patrols, yielding approximately 175 DUI/DWI arrests in FFY 2011.
- Maryland's *Checkpoint Strikeforce* campaign was able to achieve more than 11,000,000 media impressions via radio and television broadcast hits combined with print coverage across the state. Overall the combined effort of all campaign media outreach efforts, press events, radio sponsored wet demonstrations, print and television coverage has leveraged an 88% reach to the target audience at a frequency of 26.
- Among all program advocates, grantees and CTSPs including *Tipsy? Taxi!*, *SoberRide*, and the Christmas Tree Tag and wine Campaign, the MHSO and its network distributed more than 276,000 pieces of educational and awareness materials.
- In FFY 2011, WRAP highlights include the organization's help in removing 3,649 would-be drunk drivers from Greater Washington's roadways via WRAP's free cab ride service, *SoberRide* including reaching *SoberRide's* "50,000th customer served" milestone since it began in 1993.
- Reaching nearly 7,000 Greater Washington high school students with WRAP's multi-media outreach program, Alcohol Awareness for Students.
- AAA's *Tispy?Taxi!* campaign was also highly successful. The *Tispy?Taxi!* program began in 2006 and provided 168 free rides during one holiday. The program has grown to include 4 holidays in 2011 where nearly 750 free rides were provided.
- The three DUI Courts in Maryland have shown tremendous success, averaging 25 active participants, graduating on average 12 participants, and through monitoring, having demonstrated a zero recidivism rate among graduates who have been tracked for anywhere from 12 to 18 months. Of the two programs featuring graduations, 27 participants completed the program and have been reunited with family and either working or in school, and remain sober.
- On September 7th, a group of VIP visitors, Dr. Mark Rosekind and others from the National Transportation Board, and Diane Wiggle from the National Highway Traffic Safety Administration, visited the Howard County DUI Court program. A very favorable article was then written about the visit in the *DWI Court Reporter*.
- MADD's Court Monitoring program successfully trained volunteers that will continue to monitor and analyze court data recorded in Anne Arundel, Baltimore, Montgomery and Prince George's Counties. The trends identified in these courts were: Excessive Use of Probation Before Judgment (PBJ); Inadequate or no use of Ignition Interlocks; Plea bargains to lesser convictions; and police officer failure to appear. MADD was able to share this information with the Chief Judge and local police agencies, reducing police failures to appear and seeing small changes in outcomes.

Challenges

- The Impaired Driving Program has made significant strides in the last several years, however, it continues to struggle with outreach to the Judiciary. Maryland continues to look for solutions to hiring a Traffic Safety Resource Prosecutor to help bridge this gap.
- Enforcement support continues to remain a low for sobriety checkpoints. The threat to the overall program is a persistent perception that enforcement is not occurring and the potential for arrest is simply not convincing enough to deter drunk driving. While law enforcement is supportive of impaired driving

prevention, the commitment to the sobriety checkpoint program is very weak. There were only 18 checkpoints conducted in FFY 2011 statewide, with a total of 175 DUI arrests made during these operations.

- Law enforcement from 14 counties and Baltimore City participated in *Checkpoint Strikeforce* during FFY 2011. This is down from 23 counties the year prior.
- The MHSO is in a major transition to a regional traffic safety coordinator program and an electronic and localized grant system. The program has suffered some transitional losses, however, this is expected to improve as regional coordinators are hired and relationships with the local partners are reestablished.
- Maryland submitted its final Maryland Alcohol Safety Action Program report to the Governor in December 2010, with specific recommendations to develop and pilot an ASAP in Maryland. Because of the general assembly this report was never acknowledged and no progress has been made. In addition, the MHSO has been reassigned to the MVA and a new Governor's Representative appointed. Until the transition is complete, this initiative does not have the political support it needs from a champion. However, the IDC will seek direction for this project during the FFY 2012.
- Mid through the FFY 2011, MHSO was notified that the spending authority being used to implement programs such as the *Checkpoint Strikeforce* campaign and the *DUI is For Losers* campaign had to cease. All project plans for education and outreach for these projects were put on hold and little could be done to salvage the work. This significantly hurt the overall outreach campaign during FFY2011.

* For consistency purposes, the data on fatal impaired driving related crashes are based on the national Fatal Analysis Reporting System (FARS). Injury data is based on the Maryland Accident Reporting System.

Motorcycle Safety

Motorcycle safety continues to be a significant concern in Maryland. Ridership increased dramatically in recent years and the numbers of crashes, injuries, and fatalities involving motorcyclists has increased correspondingly. Excessive speed on the part of the motorcycle rider is a predominant factor in fatal motorcycle crashes. Motorist failure to yield right of way continues to be a significant problem in motorist-motorcyclist crashes.

The motorcycle safety program continues to focus on two major areas: rider responsibility and driver awareness. Rider responsibility includes proper licensing and skill training, the use of protective equipment, and responsible riding behavior. Riders are reached through outreach at public events and by involving leaders of the motorcycle community in the development of safety campaigns. Driver awareness includes recognition of motorcycles as part of the traffic mix and proper scanning for motorcycles before initiating traffic movements, notably left turns across oncoming traffic. Driver awareness is achieved through paid and earned media campaigns.

While there are positive trends in motorcycle crashes, Maryland did not meet its end targets for crash, injury and fatality reduction by 2010; the final targets were calculated in 2004, before the tremendous increase in motorcycle ridership in 2005 and 2006.

Motorcycle crashes increased from 1,861 in 2009 to 1,926 in 2010; the 2010 target is 1,508. Motorcyclist injuries decreased from 1,596 in 2007 to 1,557 in 2008; the 2010 target was 1,333. Fatalities increased from a five year low of 67 in 2007 to 73 in 2010; the 2010 target was 65. Early fatality returns indicate that motorcycle fatalities are likely to have decreased in 2011.

Objectives

- Decrease the total number of motorcycle related fatalities from 83 in 2008 to 67 in 2015.
- Decrease the total number of motorcycle related injuries from 1,568 in 2008 to 1,304 in 2015.

Accomplishments

- To kick off Motorcycle Safety Month, representatives of MVA, MHSO and ABATE of Washington County participated in a press event highlighting the need for both drivers and riders to share the road safely.

Motorcycle safety awareness banners were hung at eight MVA branch locations across the State.

- During May, motorcycle safety month, MVA also conducted outreach at the *Dick Gelfman Ride Across Maryland* charity motorcycle ride. MVA participated as vendors to reach out to participants and to distribute motorcycle safety campaign materials. MVA staffed the event, and distributed safety promotional items and educational material.
- Maryland's overhead highway dynamic messaging signs (DMS) across the state displayed a "SHARE THE ROAD WITH MOTORCYCLES LOOK TWICE FOR BIKES" message at the beginning of Motorcycle Safety Month, in late May to promote motorist awareness of increased presence of motorcycles during the Rolling Thunder Rally in May and DelMarVa bike week in mid-September. Hundreds of thousands of motorists across the state were exposed to these important safety messages. Surveys reveal that roadway signs are a primary way in which Marylanders receive traffic safety messages.
- MVA expanded its "Fast Track Licensing" events during the riding season. Riders who already did not have the required "M" endorsement were invited to take both knowledge and skills tests at an on-site mobile MVA training facility. This expedites the process for application and testing, and brings unlicensed riders into compliance.
- As a part of its rider training outreach program, the Motorcycle Safety Program participated in motorcycle events across the state to promote lifelong learning and skill training, incorporating the Honda *SmartTrainer* to draw attention to the need for continuing rider education.
- The Community Traffic Safety Programs of St. Mary's and Calvert Counties teamed up to organize a motorcycle rider safety rally, working with a steering committee of local motorcycle riders and rider organizations.
- MHSO grant funded programs participated in 27 motorcycle safety outreach events, reaching more than 8,000 participants, and distributing more than 18,000 pieces of motorcycle safety material.
- MHSO convened one meeting of the Motorcycle Task Force to promote promising practices in education and enforcement and to ensure coordination of local programs.

Challenges

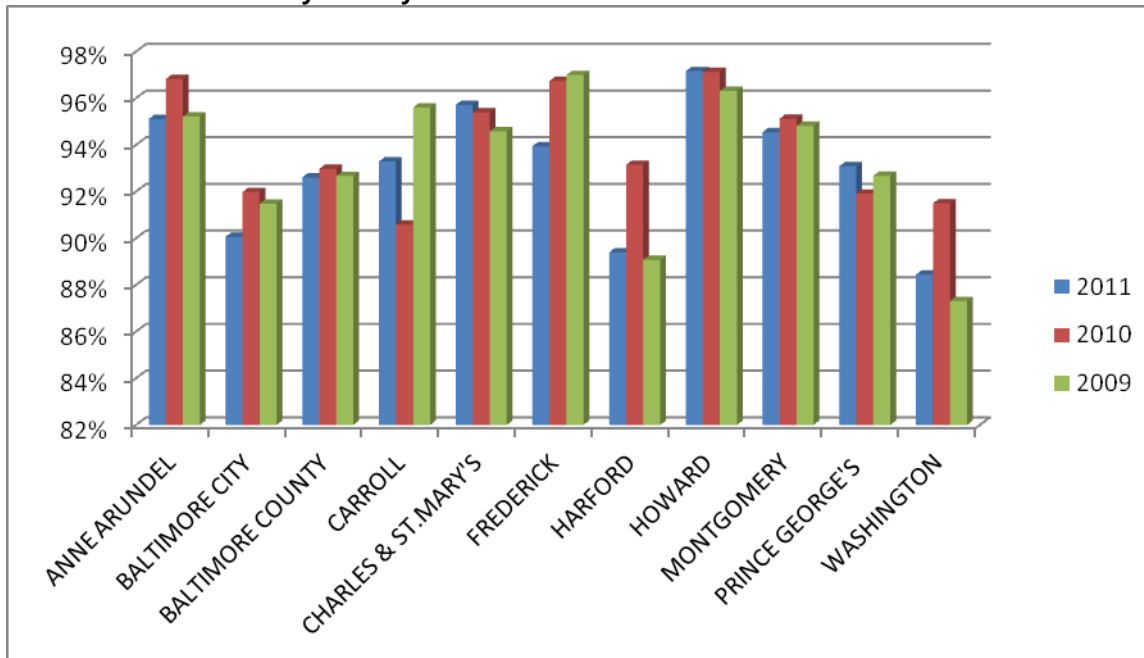
- Developing effective and efficient law enforcement strategies for motorcycle safety continues to be a challenge. High visibility enforcement is possible around the state's larger motorcycle events; however, routine enforcement of traffic laws for motorcyclists and motorists using standard targeting techniques has not proven effective.
- During FFY11, MHSO was unable to secure authority for spending of budgeted funds for motorcycle safety awareness media. Small-scale promotions were conducted around special events and existing outreach channels.
- Motorcycling continues to be a popular activity in warmer months and while fatalities have decreased from historic high levels, the number of crashes overall has not decreased. This leaves the potential for an increase in injuries and fatalities in the future.

Occupant Protection

NHTSA has identified correct seat belt and child passenger safety (CPS) seat use as the single simplest and most effective way to reduce injuries or fatalities during motor vehicle collisions. National research has concluded that correctly using adult seat belts reduces the risk of death in a serious crash by 45 percent, and reduces the risk of serious injuries by 50 percent or more. The correct use of CPS restraints is even more effective with research showing that correctly using such devices can reduce the risk of death or serious injury to children involved in crashes by 65 percent or more. Clearly, these devices play a major role in the safety of all motorists and, as such, the education and enforcement of Maryland's occupant protection (OP) laws is a major emphasis area in the MHSO's traffic safety efforts.

In 2011, Maryland had a seat belt use rate of slightly more than 94.09 percent, a slight decrease from 94.7 percent in 2010. This rate ranks as one of the highest in the nation and demonstrates the State's continued emphasis on educating its citizens about Maryland's OP laws, and the continued emphasis on enforcing those laws. While automobile use rates remained stable in 2011 compared to 2010 rates, the use rate among pickup truck drivers fell in a majority of counties with NHTSA seat belt survey sites. Increasing the use rate among pickup truck drivers will be a major point of emphasis for the MHSO as it moves into FFY 2012 educational and enforcement campaigns, and the drop is possibly attributed to a decrease in funding for a dedicated pickup truck education campaign that had previously been run in 2010. Funding is being allocated to greater emphasis on pickup truck educational messaging and law enforcement is being supplied with data to help focus enforcement efforts on this driver population.

Seat Belt Use Rate by County 2009-2011



Data at the close of FFY 2010, the last year of complete data, showed that safety equipment was in use by 60.2 percent of those front seat occupants killed on state and local roads in Maryland. In 2009, the same figure was only 50.7 percent. The percentage of observed seat belt use during fatal collisions has been a long-standing issue in the State of Maryland, particularly in light of the high seat belt use rate. These figures demonstrate the beginning of a positive trend that will hopefully continue into the numbers gathered in FFY 2011 and beyond. Throughout FFY 2011 the Maryland Crash Reconstruction Committee worked to improve data collection by first-responding officers in identifying seat belt use characteristics and this increase may have been the result of those efforts.

Approximately \$410,000 in media was placed on cable television, radio, and electronic media outlets in support of the May 2011 *Click it or Ticket* campaign. An additional \$209,000 was provided by the MHSO's media partners in the form of free media placements, promotional items, the donation of two vehicles for a contest, and other activities. Continued emphasis was placed on reaching out to the African American and Hispanic populations in FFY 2011 and the overall media demographic continued to be males aged 18-44.

Maryland entered into a three-year, \$900,000 cooperative agreement with NHTSA to conduct a night time seat belt demonstration grant project with a goal of determining characteristics of unbelted nighttime drivers. In short, this project is an evolution of a similar project previously conducted in Washington State. The work in Washington (a primary law state) substantiated the statement that many of the remaining unbuckled motorists fall into high-risk categories, with WTSC data showing that the nighttime unbelted driver had consistently more traffic violations and criminal arrests than belted drivers at night and, belted and unbelted drivers during the day. The effort in Maryland began in May 2011 and agencies from Anne Arundel, Baltimore, Howard, Montgomery and Prince George's Counties, as well as Baltimore City, coordinated night time seat belt enforcement patrols and enforcement zones. Specifically, the purposes of this project are to:

- increase the motoring public's knowledge of the nighttime enforcement effort underway;

- increase and publish the number of enforcement actions taken;
- increase nighttime seat belt use and create a reduction in the State death and injury toll through strict enforcement of the state's belt law;
- identify the characteristics of the high risk drivers to build on the knowledge from the WTSC project and determine if the characteristics are consistent; and to
- demonstrate whether high visibility enforcement at night in a primary state, with belt use at or above 90 percent, will impact the behavior of these high risk drivers.

All central Maryland *C/OT* funding in May 2011 was devoted to this project with the rest of the State being utilized as control areas. Results of enforcement operations included more than 1,200 seat belt citations, and numerous other traffic safety violations and arrests.

Objectives

- To reduce the number of occupant protection fatalities on all roads in Maryland from 153 in 2008 to fewer than 123 by December 31, 2015. (19.8 percent reduction)
- To reduce the number of occupant protection injuries on all roads in Maryland from 2,212 in 2008 to fewer than 1,839 by December 31, 2015. (16.8 percent reduction)

Accomplishments

- Maryland attained a 94.17 percent safety belt use rate during the 2011 observations.
- The percentage of front seat drivers and passengers found to be unbelted during fatal crashes rose from 50.7 percent in 2009 to 60.2 percent in 2010.
- Maryland was awarded a three year, \$900,000 cooperative agreement with the NHTSA to evaluate the characteristics of unbelted drivers at night.

Challenges

- Seat belt use in fatal crashes continues to be lower than desired.
- Reaching Maryland's diverse population is often challenging given the vast number of different media outlets and the limited funding for the program.
- Legislation to expand Maryland seat belt law to all seating positions was unsuccessful in the 2010 legislative session. Increasing the effectiveness of a legislative presence to facilitate stiffer fines and penalties has been difficult.

Older Driver Safety

The safety and security of drivers aged 65 years or more is of increasing concern in Maryland. The percentage of older residents in Maryland is expected to increase to 25% of Maryland's projected population of 6.7 million by the year 2030. While in previous years older driver crashes have declined somewhat, 2006 figures show an increase in older driver fatalities – underscoring the need to continue prevention and outreach efforts toward older drivers.

The number of older driver-involved crashes decreased slightly from 10,364 in 2006 to 10,046 in 2010, reaching the 2010 goal for total crashes. Total injuries also decreased from 7,125 in 2006 to 6,457 in 2010. Total older driver-related fatalities decreased from 112 in 2006 to 80 in 2010, the lowest level in the last ten years and below the 2010 goal for total fatalities.

While this data is encouraging, crash levels have fluctuated over recent years, and efforts to educate older drivers and their families and to enforce traffic laws for the safety of older driver are still needed. MHSO's older driver programs include four major components: driver self-awareness and assessment, driving skills and strategies, occupant protection, and alcohol and drug impairment. The *Seniors on the M.O.V.E* (Mature Operators Vehicular Education), which includes four two-hour workshops addressing each of these four components, continues to be a primary intervention; however, awareness efforts targeting the family and caregivers of older drivers are also needed. It is important for families and caregivers to understand and recognize the signs associated when an older driver is at increased risk.

Objectives

- Reduce annual fatalities involving drivers 65 years or older from 85 fatalities in 2008 to 69 in 2015.
- Reduce annual injuries involving drivers 65 years or older from 6,546 in 2008 to 5,444 in 2015.

Accomplishments

- The *Seniors on the M.O.V.E.* program continued its success in reaching older drivers with a comprehensive traffic safety program tailored to their unique needs. The *Seniors on the M.O.V.E.* program is an active partnership between the MHSO and:
 - Community Traffic Safety Programs
 - The Johns Hopkins Bloomberg School of Public Health –Center for Injury Research and Policy
 - AAA Foundation for Safety and Education
 - Peter Lamy Center for Drug Therapy and Aging at the University of Maryland School of Pharmacy
 - Kids in Safety Seats
- R/CTSP coordinators in Calvert, Carroll, Dorchester, Queen Anne's, Somerset and Talbot implemented the Seniors on the MOVE program.
- R/CTSP coordinators in Baltimore, Calvert, Carroll, Dorchester, Queen Anne's, Somerset and Talbot. Each county hosted trainings/events on the *CarFit* program in coordination with the AAA Foundation for Traffic and Safety. *CarFit* is an educational program that offers older drivers the opportunity to check how well their personal vehicles "fit" them, and reviews issues that are critical to older driver safety, especially occupant protection. The *CarFit* program also provides information and materials on community-specific resources that could enhance their safety as drivers, and/or increase their mobility in the community.
- A *CarFit* program coordinator training was conducted to enable more R/CTSP coordinators and others to more readily adopt and implement the program with their regions. Representatives from the AAA Foundation for Traffic Safety led the training, which also incorporated training.
- A *Seniors on the M.O.V.E.* coordinator training was conducted to enable more R/CTSP coordinators and others to more readily adopt and implement the program. Representatives from the AAA Foundation for Traffic Safety, and Kids in Safety Seats and the Maryland Highway Safety Office led the training.
- AARP Older Driver educational programs were coordinated through the local AARP Chapters
- An estimated 4,000 pieces of educational material were distributed in correlation and support with the Older Driver program including distribution through the Regional Traffic Safety Programs. Materials include but, are not limited to: driver self-assessments, CarFit educational material as well as personalized CarFit customer reports, Seniors on the MOVE materials, Driving Safely While Aging Gracefully booklets, and Family Conversations magazines produced by The Hartford.
- While no new general audience radio PSAs were produced, the MHSO older driver coordinator appeared on WHAG-TV and WJEJ radio to promote awareness of older driver safety as well as promotion of statewide older driver programs.

Challenges

- Providing education to the family members and caregivers of the older driver to help assist in identifying when a driver is at increased risk continues to be a challenge.
- Educating the medical community on the importance of medication management and potential effects on the driving ability of the Older Driver.
- Recruitment of law enforcement involvement in older driver improvement programs.

Young Driver Safety

Young driver crashes, injuries, and fatalities are on a generally declining trend; however, young driver issues remain a concern in many communities across the state. The focus of traffic safety programs goes well beyond traditional driver education to involve young people and their parents, law enforcement, and schools in addressing this persistent traffic safety issue. It takes about 1,500 skills to drive behind the wheel—observation, perception, interpretation, and anticipation—all occurring in the brain which American Medical Association studies show does not reach full maturity until mid-to-late 20's. Young drivers are often at risk of being in crashes due to driver inexperience and immaturity but, there are other issues too.

Existing young driver programs focus on four major areas: driving skill and decision-making, occupant protection, impaired driving, and the Maryland graduated driver licensing (GDL) system. A wide variety of high school-based programs have been implemented to address impaired driving, including mock crashes, impaired driving simulators, Fatal Vision goggles simulation exercises, Crash Dynamics and promotion of alcohol-free after-Prom parties. A grant was provided to the MVA in 2010 to update and enhance the driving instruction and education through the creation and implementation of a new Driver Improvement Program. Another grant was administered by the MVA to focus on developing an interactive web tutorial to help educate parents of teen drivers.

Objectives

- Reduce annual fatalities involving young drivers by from 106 in 2008 to 86 in 2015.
- Reduce annual injuries involving young drivers from 10,309 in 2008 to 8,573 in 2015.

Accomplishments

- The comprehensive young driver program, *I AM*, was implemented at Owings Mills High School in Baltimore County. The program includes an intensive kick-off week of driver safety programs with follow-up programs delivered to students and parents later in the year. The program is being refined and reevaluated as a part of the Baltimore County young driver initiative as well as for further state-wide expansion.
- The Southern Maryland *DriveCam* program data is in the final stages of being processed and analyzed to be used in the future for educational purposes. The in-car video system captured young driver knowledge, attitudes and behaviors relating to driving. It also captured the direct effect on young driver behavior and parental involvement in young driver monitoring. This initiative has received extensive earned media attention across the state and in other states.
- The Superintendent of Public Schools in St. Mary's County, with the active support of the CTSP coordinator, continued it's prior success in relation to the aggressive young driver safety campaign that requires high school parking permit holders and their parents to sign a safe driver code of conduct. Drivers who receive citations for unsafe driving are subject to progressive sanctions, including the potential loss of parking privileges.
- Alcohol Compliance Enforcement actions and saturation patrols targeting underage drinking were conducted across the state, with particular focus on the period of April through June – the high school Prom and Graduation season.
- MHSO and R/CTSP coordinators distributed an estimated 30,000 pieces of educational material to young drivers and their parents, to law enforcement officers, and to others. These materials included young driver law summaries, Walk Safe!, Drive Safe! Educational DVDs produced by Montgomery County Maryland, Office of Public Information, MVA Rookie Driver materials, *DriveCam* promotional materials, assessment tools, and topical flyers and brochures on key young driver issues, including alcohol risk awareness, occupant protection, aggressive driving, Teens and Trucks, Can I Borrow Your Car DVD, Is It Worth It brochure produced by GEICO Educational Foundation.
- MHSO convened four meetings of the Young Driver Task Force to promote promising practices and programs and to ensure coordination among local programs and partners.
- Continued to build and support partnerships with external organizations to support young driver safety.

- Through a collaborative partnership with the Partnership for a Safer Maryland educational material was developed and distributed focusing on young drivers safety and dangers of the road (i.e. distracted driving).

The MHSO was able to meet and exceed program objectives for FFY2011. Total young driver crashes declined for the seventh consecutive year, down from 18,993 in 2007 to 13,766 in 2010, the fewest number of young driver crashes since before 1998, reaching the 2010 goal for total crashes. The number of injuries decreased from 11,666 in 2007 to 8,296 in 2010, reaching the 2010 goal for total injuries. The number of fatal crashes declined slightly from 98 in 2007 to 59 in 2010, the number of fatalities reaching the 2010 goal for fatal crashes. The total number of all fatalities decreased from 112 in 2007 to 64 in 2010, significantly exceeding the projected 2010 goal of 100.

Challenges

- In years previous the MVA in Loveville has administered a teen/parent information session but, due to economic hardships the program has been terminated.
- Parent Education & Involvement in Teen Driving grant administered by the MVA experienced slight set-backs due to a shift in the project focus as well as project additions added mid-year. Because of the grant changes we experienced set-backs in the original timelines.
- Due to budget constraints there are no safety related incentive items to distribute amongst the R/CTSPs, younger drivers or community partners.
- A revised edition of the younger driver informational card developed in 2010 was unable to be developed due to spending authority constraints. The younger driver informational card includes information in relation to the GDL system, data and safe driving tips. The intended distribution is to teens, parents, law enforcement and other community organizations and partners.

Fiscal Summary – FFY2011

Program	402	405	406	408	410	2010	2011	Totals	% of Total
Aggressive Driving	\$0	\$0	\$18,400	\$0	\$0	\$0	\$0	\$18,400	0.30%
Inattentive Driving	\$91,500	\$0	\$0	\$0	\$0	\$0	\$0	\$91,500	1.55%
Impaired Driving	\$0	\$0	\$0	\$0	\$1,254,829	\$0	\$0	\$1,254,829	21.29%
Motorcycles	\$20,588	\$0	\$0	\$0	\$0	\$30,540	\$0	\$51,128	0.87%
Occupant Protection	\$0	\$282,179	\$0	\$0	\$0	\$0	\$219,081	\$501,260	8.50%
Pedestrian/Bicycle Programs	\$200,205	\$0	\$3,171	\$0	\$0	\$0	\$0	\$203,376	3.45%
Safety Programs	\$436,300	\$0	\$303,913	\$0	\$0	\$0	\$0	\$740,213	12.55%
Diversity	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	0.00%
Data Analysis	\$297,192	\$0	\$0	\$556,800	\$0	\$0	\$0	\$853,992	14.48%
Community Programs	\$1,223,365	\$0	\$0	\$0	\$0	\$0	\$0	\$1,223,365	20.75%
Enforcement	\$81,663	\$0	\$190,887	\$0	\$413,249	\$0	\$0	\$685,799	11.63%
Emergency Medicine	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	0.00%
Planning & Administration	\$273,016	\$0	\$0	\$0	\$0	\$0	\$0	\$273,016	4.63%
TOTALS	\$2,623,829	\$282,179	\$516,371	\$556,800	\$1,668,078	\$30,540	\$219,081	\$5,896,878	100.00%

* Law Enforcement is utilized for various program areas, but is represented in this graph separately for analysis purposes.

Overall Impact Objectives

- To decrease traffic fatalities 4.0 percent from the 2008 calendar base year average of 591 to 568 by December 31, 2010.
- Preliminary FARS Data from 2010 (ARF) indicate that Maryland has achieved its targeted fatality reduction in 2010 by decreasing traffic fatalities by more than 4% of the base year to a total of 493 traffic fatalities in 2010.
- To decrease serious traffic injuries 21.0 percent from the 2008 calendar base year average of 4,544 to 3,579 by December 31, 2010.
- Maryland state crash data indicate that Maryland progressed toward but did not meet its 2010 targeted reduction in serious traffic injuries. In 2009 Maryland experienced a 3.5% reduction in serious traffic injuries to a total of 4383. 2010 data is not currently available.
- To decrease fatalities/VMT 5.0 percent from the 2008 calendar base year average of 1.05 to 1.00 by December 31, 2010.
- While 2010 data is not currently available, data from 2009 (ARF) indicate that Maryland achieved its targeted fatality rate reduction by attaining a fatality rate of .98 in 2009.
- To decrease rural fatalities/VMT 7.0 percent from the 2008 calendar base year average of 1.58 to 1.47 by December 31, 2010.
- While 2010 data is not currently available, data from 2009 (ARF) indicate that Maryland achieved its targeted rural fatality rate reduction by attaining a rural fatality rate of 1.42 in 2009.
- To decrease urban fatalities/VMT 2.0 percent from the 2008 calendar base year average of 0.87 to 0.85 by December 31, 2010.
- While 2010 data is not currently available, data from 2009 (ARF) indicate that Maryland achieved its targeted urban fatality rate reduction by attaining an urban fatality rate of .82 in 2009.
- To decrease unrestrained passenger vehicle occupant fatalities in all seating positions 13.0 percent from the 2008 calendar base year average of 142 to 123 by December 31, 2010.
- Preliminary FARS Data from 2010 (ARF) indicate that Maryland is progressed but did not meet its 2010 targeted reduction in unrestrained passenger vehicle occupant fatalities. In 2010 Maryland experienced a total of 125 unrestrained fatalities.
- To decrease alcohol impaired driving fatalities 13.0 percent from the 2008 calendar base year average of 152 to 132 by December 31, 2010.
- Note: Alcohol-Impaired driving fatalities are all fatalities in crashes involving a driver or motorcycle operator with a BAC of .08 or greater.
- Preliminary FARS Data from 2010 (ARF) indicate that Maryland has experienced an increase in alcohol impaired driving fatalities to a total of 154.
- To decrease speeding-related fatalities 11.0 percent from the 2008 calendar base year average of 191 to 169 by December 31, 2010.
- Preliminary FARS Data from 2010 (ARF) indicate that Maryland exceeded its 2010 targeted reduction in speeding-related fatalities. In 2009 Maryland experienced a 19.8% overall reduction in speeding-related fatalities to a total of 154.
- To decrease motorcyclist fatalities 2.0 percent from the 2008 calendar base year average of 91 to 89 by December 31, 2010.
- Preliminary FARS Data from 2010 (ARF) indicate that Maryland has achieved its targeted reduction in motorcyclist fatalities by experiencing a total of 82 motorcycle fatalities in 2010.

- To decrease un-helmeted motorcyclist fatalities 10.0 percent from the 2008 calendar base year average of 10 to 9 by December 31, 2010.

- Preliminary FARS Data from 2010 (ARF) indicate that Maryland has achieved an increase in un-helmeted motorcyclist fatalities in 2010. The number of un-helmeted motorcyclist fatalities in 2010 increased to 12.

- To decrease drivers age 20 or younger involved in fatal crashes 4.0 percent from the 2008 calendar base year average of 94 to 90 by December 31, 2010.

- Preliminary FARS Data from 2010 (ARF) indicate that Maryland exceeded its 2010 targeted reduction in fatalities involving drivers age 20 or younger. In 2010 Maryland experienced a 39% overall reduction in fatalities involving drivers age 20 or younger to a total of 58.

- To reduce pedestrian fatalities 2 percent from the 2008 calendar base year average of 116 to 114 by December 31, 2010.

- Preliminary FARS Data from 2010 (ARF) indicate that Maryland has achieved its targeted reduction in pedestrian fatalities by experiencing more than a 2% reduction of the base year to a total of 101 pedestrian fatalities in 2010.

- To increase statewide observed seat belt use of front seat outboard occupants in passenger vehicles 1.6 percentage point(s) from the 2008 calendar base year average usage rate of 93.4 percent to 95.0 percent by December 31, 2010.

- Observed Seat Belt Use surveys for 2010 indicate that Maryland progressed but did not meet its 2010 targeted increase in seat belt use. As compared to 2008, Maryland experienced a 1.3% increase in seat belt use of front seat outboard occupants in passenger vehicles to a total of 94.7%.

Traffic Safety Outlook

The MHSO is the State's leading voice for highway safety. It has a treasured history of improving the lives of Maryland citizens and motorists. Engaged, proactive involvement with numerous agencies and partners has been critical to achieving this success. Maryland has and will continue to emphasize activities to be carried out through the established network of local RTSPs, enforcement agencies, state and local governmental agencies, community-based groups, non-profit and not-for-profit organizations, associations, hospitals, institutions of higher education, and the private sector.

As stewards of federal highway safety funds, and ultimately of taxpayer dollars, the MHSO has always looked to achieve maximum efficiency and benefits from the programs it funds. In order to continue and sustain this stewardship, the recent collaborative development of the SHSP was facilitated by the MHSO. The new SHSP has been completed and awaits approval from its Executive Board. The extensive process of developing the SHSP included buy-in from traditional and unique partners, the identification of critical highway safety issues, the development of strategies to address those problems, and the culmination of long term goals that would benefit all Marylanders. While Maryland remains, in some areas, some distance from achieving those goals, many programmatic strategies are beginning to pay off. One such example is Maryland's 94% belt usage rate for 2011. While not exclusively an MHSO accomplishment, it does indicate that the *Click-It or Ticket* and other messages are being communicated by MHSO partners and received by residents of Maryland. Another example is the inclusion of non-traditional stakeholders in highway safety related initiatives. 2011 witnessed the emergence of new players into the field of highway safety, including local boards of education, community colleges, sport bike riders, and an increasing number of professional public health organizations. MHSO will continue to work with these groups and stimulate a lasting, effective relationship.

The MHSO has experienced some significant personnel and administrative changes in 2011. After 17 years under the auspices of the SHA, and after the retirement of longtime Governor's Representative for Highway Safety and SHA Administrator Neil Pedersen, the determination was made to transfer MHSO roles and responsibilities to the management at the Maryland MVA. MVA Administrator John Kuo is uniquely qualified and equally enthused to be named the new Governor's Representative for Highway Safety. In addition to being a vocal supporter of impaired driving prevention, Mr. Kuo's role at MVA positions the MHSO to take advantage of the wealth of vehicular data available, as well as an army of new perspectives on highway safety. While the departure of MHSO's Chief, Vern Betkey, poses challenges in terms of the vacuum of institutional knowledge created, it equally provides new opportunities and, most assuredly, new strategic directions for the years to come.

The MHSO's ultimate objective is to reduce motor vehicle crashes, deaths, and associated injuries on Maryland's roads. The MHSO maintains a firm commitment to Maryland's traffic safety needs and it is staunchly dedicated to its partnership with NHTSA. Maryland will continue to work to strengthen the State's traffic safety relationships with other states, particularly those in the Region III, to save lives throughout Maryland and beyond.

Contact Information

Maryland Highway Safety Office
 State Highway Administration
 7491 Connelley Drive
 Hanover, MD 21076

Phone: 410.787.4050
 Toll-Free: 888.963.0307
 Fax: 410.787.4020
 Email: mhso@sha.state.md.us

Program	Contact	Phone	Email
Aggressive Driving Prevention	Barry Marsh	410.787.4074	bmarsh@sha.state.md.us
Bicycle Safety	Peter Moe	410.787.4096	pmoe@sha.state.md.us
Child Passenger Safety	Timothy Richards	410.787.4077	trichards@sha.state.md.us
Community Traffic Safety	Dana Gigliotti	410.787.4075	dgigliotti@sha.state.md.us
Data Analysis & Traffic Records	Doug Mowbray	410.787.4068	dmowbray@sha.state.md.us
Drowsy & Distracted Driving Prevention	Lolita Stewart	410.787.4078	lstewart@sha.state.md.us
Employer Awareness	Lolita Stewart	410.787.4078	lstewart@sha.state.md.us
Police Traffic Services	Barry Marsh	410.787.4074	bmarsh@sha.state.md.us
Impaired Driving Prevention	Liza Aguila-Lemaster	410.787.4076	laguilalemaster@sha.state.md.us
Media Communications	Jeremy Gunderson	410.787.4072	jgunderson@sha.state.md.us
Motorcycle Safety	Peter Moe	410.787.4096	pmoe@sha.state.md.us
Young Driver Safety	Michelle Atwell	410.787.5893	matwell@sha.state.md.us
Occupant Protection	Timothy Richards	410.787.4077	trichards@sha.state.md.us
Older Driver Safety	Michelle Atwell	410.787.5893	matwell@sha.state.md.us
Pedestrian Safety	Peter Moe	410.787.4096	pmoe@sha.state.md.us
MD Highway Safety Coordinator & MHSO Chief	Tom Gianni	410.787.5824	tgiannii@sha.state.md.us
Deputy Chief	VACANT		
Finance & Information Section Chief	Stefanie Rye	410.787.4052	srye@sha.state.md.us
Financial & Monitoring Management Specialist	Miriam King	410.787.4049	Mking1@sha.state.md.us
Financial & Program Management Specialist	Vacant		
Data Processing Functional Analyst	R. Courtney Anderson	410.787.5836	canderson@sha.state.md.us
Data Processing Quality Assurance Specialist	Susie Wellman	410.787.5848	swellman@sha.state.md.us
Office Manager	Joyce Kregelka	410.787.4069	jkregelka@sha.state.md.us
Administrative Assistant	Tish Galloway	410.787.4050	ngalloway@sha.state.md.us

List of Acronyms

AAA	American Automobile Association
CODES	Crash Outcome Data Evaluation System
CIOT	Click It or Ticket
CPS	Child Passenger Safety
CPSF	Checkpoint Strikeforce
CTSP	Community Traffic Safety Program
DA&TC	Data Analyst and TRCC Coordinator
DC	District of Columbia
DHMH	Department of Health and Mental Hygiene
DRE	Drug Recognition Expert
DSWW	Drive Safely Work Week
DTF	Diversity in Traffic Safety Task Force
DUI	Driving Under the Influence
DWI	Driving While Intoxicated
EC	Executive Council
ED	Emergency Department
EMS	Emergency Medical Services
F&PMS	Financial and Program Monitoring Specialist
FARS	Fatality Analysis Reporting System
FFY	Federal Fiscal Year
FHWA	Federal Highway Administration
FISS	Finance and Information Systems Section
FMIS	Financial Management Information System
GAS	Grant Applicant Seminar
GHSA	Governors Highway Safety Association
GMS	Grants Management System
HSCRC	Health Services Cost Review Commission
HSP	Highway Safety Plan
IDC	Impaired Driving Coalition
MASAP	Maryland Alcohol Safety Action Program
MAARS	Maryland Automated Accident Reporting System
MCFSBU	Maryland Committee for Safety Belt Use
MCPA	Maryland Chiefs of Police Association
MDOT	Maryland Department of Transportation
MHSO	Maryland Highway Safety Office
MIEMSS	Maryland Institute for Emergency Medical Services Systems
MSP	Maryland State Police
MVA	Motor Vehicle Administration
NHTSA	National Highway Traffic Safety Administration
NSC	National Study Center for Trauma and EMS
OOTs	Office of Traffic and Safety
OP	Occupant Protection
PD	Police Department
PSA	Public Service Announcement
SAFETEA-LU	Safe, Accountable, Flexible and Efficient Transportation Equity Act: A Legacy for Users
SHA	Maryland State Highway Administration
SHSO	State Highway Safety Office
SHSP	Strategic Highway Safety Plan
SOTF	Smooth Operator Task Force
SRTS	Safe Routes to School
TF	Task Force
TRCC	Traffic Records Coordinating Committee
TRTCC	Traffic Records Technical Coordinating Committee
T-SAFE	Traffic-Safety Awareness For Employers
UMCP	University of Maryland at College Park
VMT	Vehicle Miles Traveled
WRAP	Washington Regional Alcohol Program
YDTF	Young Driver Task Force

Appendix A: Maryland Annual Driving Survey Results

2011 Maryland Annual Driving Survey

Final Report

Prepared by
The National Study Center for Trauma & EMS,
University of Maryland, Baltimore

Maryland Annual Driving Survey

The Maryland Annual Driving Survey (MADS) tool was developed specifically for the MHSO and adheres to guidelines provided by the Governors Highway Safety Administration (GHSA) and National Highway Traffic Safety Administration (NHTSA) (Preusser, 2009). In 2009, a GHSA/NHTSA working group outlined a set of recommended questions for states to use as a model in drafting their own survey plans. Following those recommendations, researchers from the National Study Center for Trauma & EMS (NSC) developed a set of questions that followed the model standards.

The survey is currently being used by the MHSO and its grantees as a means to assess community knowledge, attitudes, and behaviors on an annual basis. The survey has a specific focus on three priority program areas: aggressive driving, speeding, and impaired driving. Results from the survey can be used to prioritize follow-up actions, implement sound data-driven decisions, and address important issues immediately rather than relying on subjective, instinctual feelings. Results in this format serve as a snapshot in time of the surveyed population, reflecting on its understanding of traffic safety-related issues/laws as well as attitudes and behaviors surrounding traffic safety and driving. The findings from this initial work are to be used as a baseline from which the target population's responses can be compared with future survey results, thus analyzing change over time.

Methodology:

The MADS survey was administered during the month of July. It was administered at the community level and relied on self-report survey tools distributed through convenience sampling both in-person and electronically online through Survey Monkey. These survey methods were selected for their ease in administration and cost-effectiveness.

Survey participants were selected, in part or in whole, at the convenience of the research team and specifically the C/RTSPs in the field and other affiliated MHSO staff members who administered the survey. Those administering the survey made use of census profiles that were prepared by NSC researchers. Census profiles were introduced to enhance the sampling processes. Surveyors were directed to target their efforts using the census profiles in a process similar to quota sampling whereupon populations are first segmented into mutually exclusive sub-groups and then judgment is used to select the subjects from each segment based on a predetermined specified proportion.

All C/RTSPs and MHSO Program Area Coordinators were provided with training and supporting materials necessary to administer the surveys consistently across the state. Goals were set for encouraging each of the 24 jurisdictions to obtain a minimum of 100 pen/paper

surveys. Surveys were advertised throughout the month of July through MHSO Media Relations, the Maryland MVA website as well as the Safety Transportation Knowledge Online (STKO) website.

This report summarizes MADS tools that were distributed across the state during the month of July, 2011. Over 2,900 surveys were collected, with more than 330 representing St. Mary’s County. Thirteen of Maryland’s 24 jurisdictions met the expected completion minimum of 100 surveys. This information should be kept in mind when reviewing the results in this section. The following fourteen jurisdictions comprise the majority (91%) of the responses: St. Mary’s, Calvert, Anne Arundel, Howard, Baltimore City, Prince Georges, Baltimore, Charles, Montgomery, Talbot, Caroline, Wicomico, Dorchester, Allegany. In addition, 30% of the survey responses were collected electronically through Survey Monkey.

Surveys were collected from citizens of all ages, with approximately 21% from those under the age of 30, 48% from those of ages 40-59 and 15% among those of ages 60 and older. Having such a distribution allows for analysis across age groups. More females submitted surveys (61%), many more Whites than African Americans (67% vs. 22%) and very few Latinos (4%), which may limit subgroup descriptions. These circumstances should be kept in mind as results are presented for the MADS. A comparison of survey population and census demographics are presented in Table 1.

Table 1 – Survey Population Demographics and 2009 Maryland Census Figures

	2011 MADS %	2009 MD Census %
Age		
Under 30	21	26
30-39	16	16
40-49	24	19
50-59	24	17
60+	15	22
Gender		
Male	39	48
Female	61	52
Race/Ethnicity		
White	67	63
African American	22	30
Hispanic	4	7

Table 1 compares the population characteristics in Maryland in 2009 (Census data) with that of the MADS survey respondents in 2011. Attempts were made to mirror the distributions and to acquire a representative sample. However, higher proportions of respondents aged 40-59, female and white were surveyed, as compared to the total state population. More surveys of younger, older, male and African American respondents should be collected in order to obtain a more representative sample of the state of Maryland.

Alcohol

Table 2 contains stratified results from Question 19 on the survey (Appendix A): ‘In the past 30 days, how many times have you driven a motor vehicle within 2 hours after drinking alcoholic beverages?’

Table 2 – Characteristics of Respondents by Driving After Drinking Response

	Never %	1-2 Times %	3-4 Times %	5 or More Times %
Maryland	77	18	3	2
United States (2008)	87	13 (1 or more times)		
Gender				
Males	67	23	6	4
Females	83	14	2	1
Age Group				
Under 30	72	20	5	3
30-59	77	18	3	2
60 and Over	84	14	2	1

Table 2 shows that more respondents in Maryland reported driving within 2 hours of drinking an alcoholic beverage as compared to the 2008 national (NHTSA, 2010) survey (23% vs. 13%). This may indicate a need for more impaired driving safety programs, but the national data should be examined further. Also, fewer males reported ‘Never’ and close to one-quarter reported driving after drinking 1-2 times in the past month. There seems to be an age trend in response to this question; a higher percentage of respondents of ages 60 and over reported ‘Never’ drinking and driving (84%) as compared to the younger age groups.

Table 3 contains stratified results from Question 11 on the survey (Appendix A) regarding the likelihood of arrest if a driver was driving after drinking.

Table 3 – Characteristics of Respondents by Perceived Likelihood of Arrest for Drinking and Driving

	Very Likely %	Somewhat Likely %	Not Very Likely %	Not Likely At All %	Don't Know %
Overall	36	44	16	3	2
Of those who reported driving 2 or fewer times after drinking	37	44	15	3	1
Of those who reported driving 3 or more times after drinking	27	40	24	5	4
Gender					
Males	33	43	18	4	2
Females	38	44	14	2	2
Age Group					
Under 30	41	45	11	1	1
30-59	36	43	16	3	2
60 and Over	30	45	19	4	2

The majority (80%) of all respondents felt they were 'Very Likely' or 'Somewhat Likely' to be arrested if they drove after drinking. However, when analyzing this question among those respondents who also reported drinking and driving three or more times in the past 30 days, the figures shift slightly. While 67% still believe they are 'Very Likely' or 'Somewhat Likely' to be arrested, only 27% felt it was a 'Very Likely' occurrence as compared to 36% of the total respondents. This information illustrates a lower perceived risk of penalty potentially influencing the decision to drive after drinking. Women felt arrest was more likely (82% vs. 76%), as did the younger age groups.

Seat Belt Use

Table 4 contains stratified results from Question 18 on the survey (Appendix A): ‘How often do you use safety belts when you drive or ride in a car, van, sport utility vehicle, or pick-up?’

Table 4 – Characteristics of Respondents by Seat Belt Use

	All of the Time %	Most of the Time %	Some of the Time %	Rarely %	Never %
Overall	86	9	3	1	1
Of those who reported driving 2 or fewer times after drinking	87	8	2	1	1
Of those who reported driving 3 or more times after drinking	66	22	6	4	2

The overwhelming majority of respondents reported wearing their seat belt ‘All or Most of the Time’ (95%). Further analyses by demographics are not necessary, due to this majority. However, interesting trends appear when examining this question according to previous responses related to drinking after driving. Of those respondents who reported driving within two hours of drinking three or more times in the past month, only 66% wore their seat belt ‘All of the time’. Still, 88% reported wearing a seat belt ‘All or Most of the Time’, but that number is somewhat lower than the entire surveyed population.

Table 5 contains stratified results from Question 12 on the survey (Appendix A) regarding the likelihood of getting a ticket if a person did not wear a seat belt.

Table 5 – Characteristics of Respondents by Perceived Likelihood of Getting a Ticket When Unbelted

	Very Likely %	Somewhat Likely %	Not Very Likely %	Not Likely At All %	Don't Know %
Overall	28	40	23	8	1
Gender					
Males	25	38	26	10	1
Females	29	41	22	7	1
Age Group					
Under 30	23	46	24	6	1
30-59	28	40	23	8	1
60 and Over	30	33	25	10	2
Of those who reported wearing a seat belt All or Most of the Time	28	40	23	8	1
Of those who reported wearing a seat belt Sometimes or Never	21	34	34	11	0

Only 28% of respondents believe they are 'Very Likely' to get a ticket if they ride unbelted in a motor vehicle. An additional 31% felt they were 'Not Very Likely' or 'Not Likely At All' to be ticketed in that situation. More females felt they were 'Very Likely' or 'Somewhat Likely' to get a ticket, but similar responses were found among age groups. As could be expected, a lower percentage of respondents who reported only wearing a seat belt 'Sometimes' or 'Never' felt they were 'Very' or 'Somewhat Likely' to be ticketed for doing so. Of those, 45% felt they were 'Not Very Likely' or 'Not Likely at All' to get ticketed. This may be another example of a lower perceived risk of penalty potentially influencing the decision to wear a seat belt.

Speeding

When asked 'On a road with a speed limit of 65 mph, how often do you drive faster than 70 mph?' (Question 15 on survey (Appendix A)), over one-half of respondents answered 'Rarely' or 'Never' (55%). Only 19% reported speeding all of the time and the remaining 25% reported doing so half of the time.

Table 6 contains stratified results from Question 13 on the survey (Appendix A) regarding the likelihood of getting a ticket if a driver was speeding.

Table 6 – Characteristics of Respondents by Perceived Likelihood of Getting a Speeding Ticket

	Very Likely %	Somewhat Likely %	Not Very Likely %	Not Likely At All %	Don't Know %
Overall	32	50	14	3	1
Gender					
Males	28	48	18	5	<1
Females	34	51	11	3	1
Age Group					
Under 30	34	52	13	1	<1
30-59	31	52	13	4	<1
60 and Over	33	42	19	5	1
Of those who reported driving over 70 mph in a 65 mph zone Most or Half of the Time	27	53	16	4	<1
Of those who reported driving over 70 mph in a 65 mph zone Rarely or Never	36	48	13	3	<1

The majority (82%) of all respondents felt they were ‘Very Likely’ or ‘Somewhat Likely’ to be ticketed if they exceeded the speed limit. Overall, a higher proportion of women reported feeling likely they would get a ticket (85% vs.76%), but a lower proportion of those aged 60 or older felt that way (75%). When analyzing this question among those respondents who also reported speeding in a 70 mph zone, there was no difference in the overall likelihood of getting a ticket, with 80% of those who speed ‘Most’ or ‘Half of the Time’ and 84% of those who speed ‘Rarely’ or ‘Never’ feeling like they would get a ticket. However, a higher proportion of those who rarely or never speed felt they were ‘Very Likely’ to get a ticket for doing so.

Legislative Concerns

To address timely legislative concerns, questions regarding Ignition Interlock were included in the survey. Question 20 asked ‘True or False: Maryland law states if you refuse to take a breath test and are then convicted of a drunk driving offense you will be required to

install an ignition interlock in your car.’ One-half of all respondents reported ‘Don’t Know’ showing a potential need for outreach and education related to this traffic law. When those responses were stratified further, still one-half of those who reported driving after drinking two or fewer times in the past 30 days indicated that they did not know about the ignition interlock law. However, of those who reported drinking and driving three or more times in the past 30 days, only 40% did not know about the law.

Question 21 relates to support for changing the current cell phone law, raising it from a secondary offense to a primary offense. Over three-quarters of all respondents were ‘Very’ or ‘Somewhat Supportive’ of this change (77%) with 52% being ‘Very Supportive’.

Table 7 lists the responses to Question 22 on the survey (Appendix A) that asked ‘List any motorist or roadway user laws that have changed or have been added in Maryland within the past 2 years.’ Of the total surveys submitted, only about one-third (33%) included a response to this question. Interestingly, the laws that changed during July 2011 appeared more frequently as a response than other laws that had changed in previous years. This may be due to the media and awareness that was created during the month of July when the laws were taking effect and the survey was distributed.

Table 7 – Traffic Safety Laws

	% responded
Hands-free Phone Law	43
Texting Ban	18
Move Over Law	9
3 ft Bicycle Clearance Law	7
Change to Camera Law	4
Booster Seats	<1
Seat Belts	<1
Teen Provisional Drivers	<1

Media

Finally, the survey included a series of open text questions that allowed respondents to write in their response instead of circling an option. For those questions, less than one-half of all surveys contained a response in those fields. This lack of response will influence and affect the analyses and should be kept in mind while reviewing the following results. With such limited results it is difficult to draw any meaningful conclusions.

Table 8 lists the responses to Question 23 on the survey (Appendix A) that asked ‘Name any traffic safety messages that you may have read, seen or heard through the media within the past six months.’ Of the total surveys completed, only 46% included a response to this question.

Table 8 – Traffic Safety Messages

	% responded
Click It or Ticket	33
Don’t Drink and Drive	12
Impaired Driving	4
Speeding/texting/belt use	3
Over the Limit Under Arrest	2
Smooth Operator	1
Share the Road	1
Buzzed Driving is Drunk Driving	<1
Checkpoint/Choose Safety	<1

Maryland Annual Driving Survey Comparison to NHTSA Region 3 States

In an effort to better understand Maryland’s data, the NSC took the initiative to collect reports from other states that are part of NHTSA Region 3. Outputs were obtained from Delaware, Kentucky, North Carolina, Pennsylvania, and West Virginia. Each of the 5 states and Maryland selected varying methods to conduct their annual surveys. Two states conducted telephone surveys (KY, NC), one used an online survey (PA), and another state surveyed their population through random sampling at their MVA offices (WV). With such different survey methodologies, it is not possible to do a direct comparison between the sampled populations. There is however a great deal of information to be learned from the work that was conducted. This section of this report will focus on some of the lessons learned.

Survey Methodology

In the report from Preusser, 2009, no single survey methodology was encouraged. It is for this reason that states across the country have opted to select different survey methodologies. When selecting a survey method, states viewed their assets and selected a methodology that would best suit their needs, their ability to administer and their monetary budgets. While this helped states use what was best suited to their needs, it did not create an atmosphere that could easily facilitate comparisons across states. Maryland gathered a

convenience sample from all counties within the state. While a completely valid methodology, with the growing changes both internal to MHSO and throughout the state, the MHSO might want to reconsider and opt for another methodology. Consideration might want to be given to the methods employed by WV in surveying through MVA offices. This method might serve as a means to better engage the MHSO's new relationship with their MVA partners. In addition, following the processes tested by WV, Maryland might be able to easily select a random sample without too many stumbling blocks. Additionally, using MVA offices would help alleviate some of the convenience sampling hurdles that the MHSO now encounters with regards to engaging community partners for administration and in targeting jurisdictional census profiles. In an updated report released by Preusser in 2010, five survey methods are recommended: onsite DMV, telephone, web, mail, or mixed modes/other methods. Additional details on an MVA survey can be extracted from that report and utilized if the MHSO is interested in developing a new methodology in Maryland.

Survey Questions

With regards to survey questions, Maryland opted to include the three areas recommended by GHSA in their initial report, as did the other states in NHTSA Region 3; speeding, seatbelts and impaired driving. The exact wording of questions varied slightly from state-to-state, but for the most part all of the questions were similar enough to allow for some state comparisons. However, response options varied greatly with states selecting different Likert scales, ranging from three to five categories. From the outset, Maryland selected a four point scale in order to force respondents in a direction outside of the median. So, while questions were formatted in a very similar manner, the Likert scale differences make it difficult to conduct exact comparisons between states.

In addition to the three standard program areas, states opted to include other areas for surveying. Maryland added pilot test questions related to future potential legislation, media and/or future incorporation into their Action Measure Tools (AMTS are surveys used throughout the year in Maryland to track ongoing changes in knowledge, attitudes, and behaviors). In 2010, Maryland's media questions were hard-coded text fields and, in 2011, open text fields replaced the hard-coded fields. While both methods provided some valuable feedback, the open text method proved less successful with fewer than one-half of the respondents opting to write in some sort of a response. All of the states in Region 3 included some demographic information in their surveys. Table 9 below outlines some of the areas added by the other states in NHTSA Region 3.

Table 9 - Additional Questions on Annual Surveys of Region 3 States

ADDITIONAL SURVEY QUESTIONS UTILIZED BY STATE				
STATE	Legislative	Media	Distracted Driving	Other
Delaware			Distracted Driving: behaviors specific to cell phone use and other technologies available through cell phones (e.g. text messaging, email, GPS)	
Kentucky			Distracted Driving: behaviors specific to cell phone use and other technologies available through cell phones (e.g. text messaging, email, GPS)	
Maryland	Legislative Questions: Impaired Driving Distracted Driving	Media Recall Questions		
North Carolina	Legislative Questions: OP Impaired Driving Speeding	Media Awareness: Friends Don't Let Friends Drive Drunk, Operation Eagle, Checkpoint Strikeforce, Booze It or Lose It, Over-the-Limit, Under Arrest, Highways or Dieways, Buckle-up America, RU Buckled, Click It or Ticket, Buckle Up for Safety		

Pennsylvania			Distracted Driving: behaviors specific to cell phones use and other technologies available through cell phones (e.g. text messaging, email, GPS)	Motorcycles: Helmet usage Speeding Drinking
West Virginia		Media Awareness: Click it or Ticket, Buzzed Driving is Drunk Driving, Over-the-Limit, Under Arrest	Distracted Driving: behaviors specific to cell phone use and other technologies available through cell phones (e.g. txt messaging, email, GPS, etc...)	

Tables 10 – 12 below contain responses to questions related to law enforcement presence. Three questions addressed perception of speed, impaired driving and seat belt law enforcement.

Table 10 - Perception of Speed Enforcement

In the past 30 days, have you read, seen, or heard anything about speed enforcement by police?						
% of those who responded						
	DE	KY	MD	NC	PA	WV
Yes	69	48	65	45	62	57
No	31	52	35	55	38	43

As seen in Table 10, a majority of all respondents reported awareness of speed enforcement, except for Kentucky (48%) and North Carolina (45%). Detailed information about their speed campaigns is not available at this time, but Delaware (69%) and Maryland (65%) had the highest percentages of positive responses.

Table 11 - Perception of Impaired Driving Enforcement

In the past 30 days, have you read, seen, or heard anything about alcohol impaired driving (or drunk driving) enforcement by police?						
% of those who responded						
	DE	KY	MD	NC	PA	WV
Yes	73	68	67	62	79	82
No	27	32	25	38	21	18
Don't Know			8			

Results displayed in Table 11 indicate a majority of respondents in all Region 3 states reported awareness of impaired driving enforcement. West Virginia (82%) and Pennsylvania (79%) had the highest percentages of positive responses.

Table 12 – Perception of Seat Belt Enforcement

In the past 30 days, have you read, seen, or heard anything about seat belt enforcement by police?						
% of those who responded						
	DE	KY	MD	NC	PA	WV
Yes	67	61	63	43	50	73
No	33	39	37	57	50	27

As seen in Table 12, a majority of all respondents reported awareness of seat belt enforcement, except for North Carolina (43%) and Pennsylvania (50%). West Virginia (73%) and Delaware (67%) had the highest percentages of positive responses. Pennsylvania recently converted their seat belt law to primary enforcement; a higher proportion of responses may be expected.

Tables 13 and 14 below describe the results obtained from the speed related questions outlined in each state’s survey. While the states used different Likert scales, each question contained the same wording. There was one slight variation where Pennsylvania asked about 25 and 35mph instead of 30 and 35mph in their question.

Table 13 - Reported Speeding Habits

On a local road with a speed limit of 30 mph, how often do you drive faster than 35 mph?						
% of those who responded						
	DE	KY	MD	NC	PA	WV
Always	9				2	5
Most of the time	22	15	18	22	10	14
Half of the time	19	22	32	17	21	32
Rarely	39	45	40	46	50	37
Never	12	18	9	15	17	12
Don't know				1		

Results shown in Table 13 indicate higher percentages of respondents 'Rarely' drive faster than 35 mph on a road with a speed limit of 30 mph. Close to one-half of those surveyed in Kentucky, North Carolina and Pennsylvania provided this response, with slightly lower percentages in Delaware, Maryland and West Virginia. Interestingly, this trend held in all states regardless of the type of scale.

Table 14 - Reported Speeding Habits – At Higher Speeds

On a local road with a speed limit of 65 mph, how often do you drive faster than 70 mph?						
% of those who responded						
	DE	KY	MD	NC	PA	WV
Always	9				5	7
Most of the time	26	10	18	14	22	16
Half of the time	22	15	26	17	23	28
Rarely	28	36	40	38	37	34
Never	14	38	16	31	13	16

Results displayed in Table 14 indicate higher percentages of respondents ‘Rarely’ drive faster than 70 mph on a road with a speed limit of 65 mph. Similar to Table 13, close to 40% of those surveyed in Region 3, except for residents of Delaware and West Virginia, provided this response. As compared to Table 13, more respondents reported ‘Never’ speeding to this degree than at the lower speeds.

Table 15 – Frequency of Seat Belt Use

How often do you use safety belts when you drive or ride in a car, van, sport utility vehicle or pick-up?? % of those who responded						
	DE	KY	MD	NC	PA	WV
All of the time	84	82	85	93	84	72
Most of the time	13	12	10		9	17
Some of the time	2	4	3		3	6
Rarely	1	1	1		3	4
Never	1	1	1		1	2

Table 15 includes responses related to seat belt use when riding in a vehicle. As might be expected, an overwhelming proportion of respondents in all states reported wearing their seat belt ‘All of the Time.’ The lowest percentage reporting ‘All of the Time’ was West Virginia, while the vast majority of respondents in North Carolina (93%) provided that response; however the survey in North Carolina did not offer other options.

References

Hedlund, J. Traffic Safety Performance Measures for States and Federal Agencies, NHTSA, 2008 DOT HS 811 025.

Hedlund, J., Casanova, T., Chaudhary, N., Survey Recommendations for the NHTSA-GHSA Working Group, NHTSA 2008.

Hedlund, J., Chaudhary, N., Williams, A. Driver Surveys: Information and Options for State Highway Safety Offices, Preusser Research Group, 2010.

Appendix A -MADS

MARYLAND HIGHWAY SAFETY OFFICE MARYLAND ANNUAL DRIVING SURVEY

Please answer all of the questions below giving only **ONE** response for each question.

What is today's date?

What was the name of the program you attended or where did you get this survey?

Check one answer in each section below.

1. Select location where you completed this document.

- | | | | | | |
|---|-----------------------------------|-------------------------------------|-------------------------------------|--|-------------------------------------|
| <input type="checkbox"/> Allegany | <input type="checkbox"/> Calvert | <input type="checkbox"/> Charles | <input type="checkbox"/> Harford | <input type="checkbox"/> Prince George's | <input type="checkbox"/> Talbot |
| <input type="checkbox"/> Anne Arundel | <input type="checkbox"/> Caroline | <input type="checkbox"/> Dorchester | <input type="checkbox"/> Howard | <input type="checkbox"/> Queen Anne's | <input type="checkbox"/> Washington |
| <input type="checkbox"/> Baltimore Co | <input type="checkbox"/> Carroll | <input type="checkbox"/> Frederick | <input type="checkbox"/> Kent | <input type="checkbox"/> St. Mary's | <input type="checkbox"/> Wicomico |
| <input type="checkbox"/> Baltimore City | <input type="checkbox"/> Cecil | <input type="checkbox"/> Garrett | <input type="checkbox"/> Montgomery | <input type="checkbox"/> Somerset | <input type="checkbox"/> Worcester |

2. What is your HOME zip code? <input style="width: 100%; height: 15px;" type="text"/>	3. Are you Hispanic or Latino? <input type="checkbox"/> Yes <input type="checkbox"/> No Select one or more of the following: <input type="checkbox"/> American Indian/Alaskan Native <input type="checkbox"/> Asian <input type="checkbox"/> Native Hawaiian/Pacific Islander <input type="checkbox"/> African American/Black <input type="checkbox"/> White <input type="checkbox"/> Other, please specify: _____	4. What is your gender? <input type="checkbox"/> Male <input type="checkbox"/> Female
5. What is your age? Indicate age in number of years. <input style="width: 100%; height: 15px;" type="text"/>	6. What is the primary vehicle you drive? <input type="checkbox"/> Passenger Car <input type="checkbox"/> SUV <input type="checkbox"/> Bicycle <input type="checkbox"/> Large Truck/Tractor Trailer <input type="checkbox"/> Pick-up Truck <input type="checkbox"/> Van <input type="checkbox"/> Motorcycle <input type="checkbox"/> Don't Drive	7. Driving experience? Indicate number of years throughout your lifespan you've had a driver's license. If you have never driven, enter "0". <input style="width: 100%; height: 15px;" type="text"/>

Circle all answers that apply for each:

8. In the past 30 days, have you read, seen, or heard anything about alcohol impaired driving (or drunk driving) enforcement by police?	Yes	No	Don't know	---	---
9. In the past 30 days, have you read, seen, or heard anything about seat belt enforcement by police?	Yes	No	Don't know	---	---
10. In the past 30 days, have you read, seen, or heard anything about speed enforcement by police?	Yes	No	Don't know	---	---
11. What do you think the chances are of someone getting arrested if they drive after drinking?	Very likely	Somewhat likely	Not very likely	Not likely at all	Don't know
12. What do you think the chances are of getting a ticket if you don't wear your safety belt?	Very likely	Somewhat likely	Not very likely	Not likely at all	Don't know
13. What do you think are the chances of getting a ticket if you drive over the speed limit?	Very likely	Somewhat likely	Not very likely	Not likely at all	Don't know
14. On a local road with a speed limit of 30 mph, how often do you drive faster than 35 mph?	Most of the time	Half of the time	Rarely	Never	Don't know
15. On a road with a speed limit of 65 mph, how often do you drive faster than 70 mph?	Most of the time	Half of the time	Rarely	Never	Don't know
16. If you have heard some of Maryland's traffic safety messages, indicate all of the places that you may have seen or heard these messages.	Email	Radio	Website	Sign on roadway	TV
17. In addition to the places mentioned in Question 16 above; where else might you have heard Maryland's traffic safety messages?	Family member/relative	Friend	Co-worker	School	---
18. How often do you use safety belts when you drive or ride in a car, van, sport utility vehicle or pick-up?	All of the time	Most of the time	Some of the time	Rarely	Never
19. In the past 30 days, how many times have you driven a motor vehicle within 2 hours after drinking alcoholic beverages?	5 or more	3-4 times	1-2 times	Never	---
20. True or False: Maryland law states, if you refuse to take a breath test and are then convicted of a drunk driving offense, you will be required to install an ignition interlock (an alcohol detection device that starts and keeps the car started) in your vehicle?	True	False	Don't Know	---	---
21. Maryland has a secondary law for cell phone use (a secondary offense means police can only stop and ticket if they had cause to stop for something else). How supportive would you be for Maryland to change the cell phone law making it a primary offense allowing police to stop and ticket for using a cell phone while driving?	Very supportive	Somewhat supportive	Not very supportive	Not supportive at all	---
22. List any motorist or roadway user (pedestrian, bicycle, etc.) laws that have changed or have been added in Maryland within the past 2 years.					
23. Name any traffic safety messages that you may have read, seen, or heard through the media (TV, newspaper, radio, internet) within the past 6 months? (Please list slogan, message, or campaign name) (e.g. "don't drive drunk" - internet)					

Please help by returning this form to:

National Study Center for Trauma and EMS / University of MD Baltimore
110 S. Paca St., 4th Floor Baltimore, MD 21201

DRAFT070311
https://www.surveymonkey.com/s/MH50_Maryland_Annual_Driving_Survey_2011
PLEASE ONLY COMPLETE THIS SURVEY ONE (1) TIME DURING JULY