# COMMONWEALTH OF MASSACHUSETTS HIGHWAY SAFETY PLAN



7/1/2016

# Federal Fiscal Year 2017

#### Prepared for:

U.S. Department of Transportation National Highway Traffic Safety Administration

#### Developed and presented by:

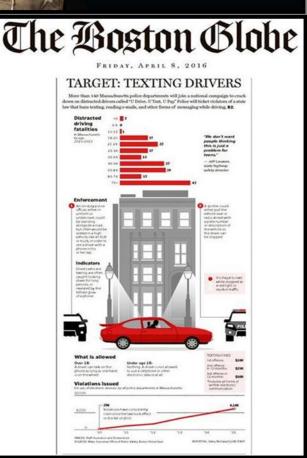
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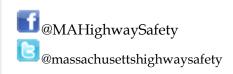












# **Executive Summary**

The Federal Fiscal Year (FFY) 2017 Massachusetts Highway Safety Plan (HSP) recognizes that traffic crashes are preventable and that Massachusetts is committed to reducing the number of fatalities, injuries, and economic losses resulting from these crashes.

I acknowledge the contributions and thank the staff of the Executive Office of Public Safety and Security's Highway Safety Division (EOPSS/HSD) for their efforts in the development and implementation of this HSP:

Barbara Rizzuti, Senior Program Manager Robert Kearney, Program Coordinator III Deborah Firlit, Program Coordinator II Lindsey Phelan, Program Coordinator II John Fabiano, Program Coordinator II Diane Perrier, Budget Director Susan Burgess-Chin, Fiscal Specialist Denise Veiga, Accountant IV

The hard work and dedication of EOPSS/HSD staff to highway safety issues have contributed significantly to safer roadways in Massachusetts, including a 25 percent decline in roadway fatalities since 2007. Additionally, alcohol-related (BAC=.08+) fatalities have declined 24 percent since 2007. Please see the Highlights section for other noteworthy achievements that have taken place this FFY. The HSP was developed within the framework of the Strategic Highway Safety Plan (SHSP) and with input from associated steering committees. EOPSS/HSD will continue to prioritize occupant protection and impaired driving as main focus areas with additional resources dedicated to programs such as distracted driving, motorcycles, bicycle, pedestrians, and traffic records. Low seatbelt use rate continues to be an issue for Massachusetts, despite rising 12% since 2007. Increasing the seatbelt use rate to 78% is a key performance target for 2017. A main strategy to accomplish this will be the continuation of high-visibility mobilizations and continuation of sustained enforcement. We anticipate that this will also help to lower the Commonwealth's overall death and injury rates.

Massachusetts has been successful in implementing many critical statewide highway safety program initiatives. Because of our dedicated and professional staff, proactive partnerships and the commitment of executive level leadership, Massachusetts pledges to continue developing new and innovative programs to improve safety conditions for all road users. We will, through a systematic, cooperative, statewide effort, continue to build upon Massachusetts' already successful, effective and efficient highway safety program.

The National Highway Safety Act of 1966 provides federal grants to states to support highway safety programs. EOPSS/HSD is responsible for administering these federal highway safety funds and performs the following functions:

**Problem Analysis/Identification:** Identification of current traffic safety issues through data analysis and monitoring performance targets and forecasting of potential road safety problems as well.

**Public Awareness:** The development and implementation of media campaigns, events and programs focusing on key issue areas.

**Grants Management:** Includes management of the highway safety programs, development of federal safety proposals; distribution of federal funds to state and local agencies.

Monitoring and Evaluation: Monitoring and evaluation of approved highway safety projects and the development of safety countermeasures. EOPSS/HSD provides grants for programs which are designed to reduce of crashes, injuries, fatalities and economic loss. Local and state law enforcement agencies, state agencies, academic institutions and non-profits can apply for NHTSA's funded projects related highway safety. Massachusetts highway safety officials analyze highway safety problems and corrective strategies. Based on the result of this analysis, it has been determined that Massachusetts can make a positive impact on improving highway safety by placing a major emphasis on the enforcement of these traffic safety program areas:

**Occupant Protection:** Seat belt use is a proven method to improve safety in crashes. The Massachusetts seat belt use rate is low (74.4%) compared to the national average of 88%. Despite this low use rate, Massachusetts consistently ranks among the nation's best for our crash fatality rate.

**Impaired Driving:** Alcohol or other drugs is another persistent problem that contributes to fatal and serious injury crashes. There has been an increase in marijuana use in fatal crashes. Massachusetts will continue to monitor and enforce its impaired driving statutes and strengthen and enhance existing programs.

**Traffic Records:** Traffic Records is the foundation of every state highway safety program. The timeliness and accuracy of comprehensive data is essential to valid problem identification and analysis needed in the development of evidence-based targets, performance measures, strategies and to help communicate the issues to Massachusetts residents.

**Distracted Driving:** Distracted Driving continues to be epidemic among drivers in Massachusetts and throughout the nation. EOPSS/HSD will continue to expand outreach and support enforcement initiatives that have proven successful in limiting the scope of damage that results from drivers being distracted by their devices.

**Pedestrian and Bike Safety:** As Massachusetts has a high percentage of people who commute and travel on foot, or bike, this is a significant area of focus.

I look forward to working with Governor Charlie Baker and Lt. Governor Karyn Polito, and Secretary Daniel Bennett in helping them achieve their highway safety goals of moving towards fewer deaths and injuries on Massachusetts' roadways.

Jeff Larason, Director

Highway Safety Division, Office of Grants and Research

Executive Office of Public Safety and Security

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# 1.0 Introduction

## ■ 1.1 HSP Calendar

January to March	EOPSS/HSD reviews progress of FFY 2016 programs; analyzes federal, state, and local data to identify FFY 2017 key program areas; reviews National Highway Traffic Safety Administration (NHTSA) Region I response to the FFY 2016 HSP, FFY 2015 Annual Report, and recent NHTSA assessments; reviews spending patterns and revenue estimates.
January to May	Staff at EOPSS/HSD conduct strategic planning/meetings with key stakeholders to present recent data analyses and discuss the issues facing constituencies. EOPSS/HSD issues solicitations in order to identify grantees for inclusion in the HSP. EOPSS/HSD reviews proposals for funding consideration resulting from the website postings at <a href="https://www.mass.gov/highwaysafety">www.mass.gov/highwaysafety</a> .
March to June	EOPSS/HSD drafts the FFY 2017 HSP and submits draft version to NHTSA Region I for review and comments. EOPSS/HSD obtains any updates to previously reviewed federal, state, and local data and analyses. With approval of senior staff at EOPSS, HSD submits the final plan to NHTSA.
September to October	EOPSS/HSD begins to implement and award grants and contracts and begins work on the FFY 2016 Annual Report.
November to December	EOPSS/HSD oversees grants and projects in the HSP, finalizes the FFY 2016 Annual Report, and submits it to NHTSA.

# ■ 1.2 State Highway Safety Office Organization

In Massachusetts, the HSD is housed within the Office of Grants and Research (OGR), an agency of the EOPSS. EOPSS is a secretariat in the Governor's cabinet. The Secretary of Public Safety and Security reports directly to the Governor and serves as the Governor's Representative for Highway Safety.

Figure 1.1 HSD Organizational Chart



## **Staffing Updates**

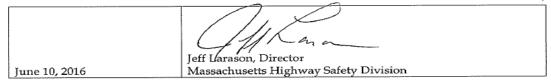
In September 2015, Art Kinsman was promoted to Executive Director of the Office of Grants and Research. Filling the position of Director of the Highway Safety Division was Jeff Larason, a long time traffic safety advocate and veteran member of the Boston news media. Jeff took over the vacant position in February 2016.

Krystian Boreyko, PCII, left EOPSS/HSD in early June 2016 to attend graduate school.

#### **Certification of Time Worked**

#### Certificate of Compliance with 2 CFR 225, Appendix B, h(3)

I hereby certify that all Massachusetts Highway Safety Agency employees time which is charged to federal funds utilize Section 402 funds. This certification is to verify that all Time and Attendance charges from federal sources come from that single cost objective which brings Massachusetts into compliance with the applicable federal regulation as stated in 2 CFR 225, Appendix B, h(3). An additional certification will be provided in January in order to meet the federal requirement for biennial certification.



## ■ 1.3 Mission Statement

The mission of EOPSS/HSD is to facilitate the development and implementation of policies, programs, and partnerships to help reduce fatalities, injuries, and economic losses resulting from motor vehicle crashes on the roadways of the Commonwealth of Massachusetts. HSD administers the federally and non-federally funded highway grant programs of EOPSS.

# ■ 1.4 Highway Safety Program Overview

Within the Commonwealth of Massachusetts, EOPSS/HSD is responsible for planning, implementing, and evaluating highway safety projects with federal and non-federal funds. EOPSS/HSD also works to coordinate the efforts of federal, state, and local organizations involved with highway safety in Massachusetts.

This HSP for FFY 2017 serves as the Commonwealth of Massachusetts' application to NHTSA for federal funds available under the Fixing America's Surface Transportation (FAST) Act. transportation bill. The HSP also reflects programs that will be conducted with grant funds previously received but unspent under the Moving Ahead for Progress in the 21st Century (MAP-21) transportation bill and the Safe, Accountable, Flexible, and Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). Other sources of funds include cooperative agreements with NHTSA for the Fatality Analysis Reporting System (FARS) project and private funds donated to the Highway Safety Trust Fund.

To identify the issues to be addressed in the FFY 2017 Highway Safety Program, EOPSS/HSD relied primarily on 2010 to 2014 trend data but also considered preliminary 2015 data when possible.

The changes in the total number of crashes and other data in recent years is attributed not only to different reporting rates by different police jurisdictions, but also to the declining number of operator-only reports (reports submitted by motorists who are involved in crashes for which no police report was submitted) that were entered in the crash data system by the Registry of Motor Vehicles (RMV) previously.

The program planning throughout this HSP may be altered depending on the levels of funding received or evolving priorities. EOPSS/HSD will submit any changes to the HSP to NHTSA Region 1 for review and approval.

# FFY 2016 Highlights

• The Traffic Enforcement program awarded \$2,490,000 to 202 eligible law enforcement agencies for FFY 2016. As of June 13, 2016, the program had resulted in 13,487.57 patrol

hours leading to 34,651 traffic stops – a 2.56 stop per hour average. The stops led to 13,974 citations issued and 658 arrests/criminal summons.

- The FFY 2016 Child Passenger Safety (CPS) Equipment Grant awarded \$165,000 in total funds to 61 local municipalities and non-profit agencies. Grantees purchased 2,070 certified car safety seats for distribution free of charge to residents in need. As of June 1, 2016, 237 seats had been distributed to parents and caregivers across 65 towns in Massachusetts. Grantees also conducted 1,030 car seat inspections and 1,095 car seat installations during the same period.
- EOPSS/HSD awarded Sustained Traffic Enforcement Program (STEP) grants totaling \$1.6 million in FFY 2016 to the MSP and 14 selected police departments Boston, Brockton, Cambridge, Chicopee, Fall River, Framingham, Holyoke, Lowell, Lynn, New Bedford, Quincy, Taunton, and Worcester for enhanced traffic enforcement in their communities. As of May 2016, STEP grantees have conducted 1,950 patrol hours resulting in 5,870 stops (3.02 stops per hour). The stops have yielded 363 safety belt citations, 442 speeding citations, 44 texting citations, and 16 child safety seat citations so far.
- The Pedestrian and Bicycle Enforcement Grant program awarded \$279,000 in funding to 71 local law enforcement agencies for FFY 2016. As of June 1, 2016, the program had resulted in 794 patrol hours leading to 1,754 traffic stops a 2.2 stop per hour average. The stops led to 1,085 citations issued and 12 arrests.
- EOPSS/HSD's vendor for the administration of the Statewide CPS program, Baystate Medical/SafeKids of Western Massachusetts, is expected to conduct at least 25 CPS Tech-related classes during FFY 2016. As of June 1, 2016, there are 802 Certified CPS technicians and 22 Certified CPS Instructors throughout the state.
- The number of Drug Recognition Experts (DRE) in the Commonwealth increased from 111 in FFY 2015 to 114 in FFY 2016. The DREs represent over 50 municipalities across the state along with MSP, Massachusetts Environmental Police, and Bridgewater State University Campus Police.
- The Underage Alcohol Enforcement program awarded \$490,962.53 to 71 eligible law enforcement agencies for FFY 2016. As of June 13, 2016, the program had resulted in 1,226 patrol hours and 943 locations checked; 45 citations were issued and 13 arrests were made. To date, local law enforcement officers have conducted 86 compliance checks with 20 failures (23.26%).
- The Alcoholic Beverages Control Commission was awarded \$400,000.00 for 4 programs during FFY 2016. As of June 13, 2016, the Compliance Check program had conducted 686 compliance checks with 43 failures (6.26%). Two training sessions about detecting fraudulent identification have been hosted, with 58 officers attending from 17 different municipal departments. As part of the Sale of Alcohol to Intoxicated Persons Program,

140 operations were conducted after which 139 bars received warnings, and 19 bars were charged.

- EOPSS/HSD attended the NHTSA Region 1 and Region 2 Seat Belt Summit in Windsor, Connecticut. The Summit strengthened the states' desire to achieve 100% seat belt use rate. As a result, EOPSS/HSD will work to develop a more targeted media campaign and will urge police departments to report seat belt use in all fatal crashes when they are providing information to the media.
- In April 2016, the issue of texting and driving received a large amount of media attention in Massachusetts when The Boston Globe wrote an article about the educational and enforcement initiatives of EOPSS/HSD, the Massachusetts State Police, local police departments and other traffic safety stakeholders and highlighted the Distracted Driving Mobilization on their front page.
- To kick off the safety awareness for the summer, Governor Charlie Baker participated in a PSA aimed at the parents of teen drivers. Starting on Memorial Day, the campaign called "#100deadliestdays" - is an effort by EOPSS/HSD and the Governor's Office to raise awareness about safe driving habit and the dangers of distracted driving, especially among teenagers.
- EOPSS/HSD joined social media during FFY 2016 by establishing a presence on Twitter (@MAHighwaySafety) and Facebook (@massachusettshighwaysafety). The move to social media is part of EOPSS/HSD's efforts to better reach young drivers across the Commonwealth as well as tap into new media sources to distribute information quickly to a large audience.
- In early June 2016, MassDOT, EOPSS/HSD and DPH hosted the 2016 Northeast Transportation Safety Conference in Worcester, Massachusetts. The conference focused on the four major areas of transportation safety: Education, Emergency/Health, Engineering, and Enforcement. Over 350 traffic safety stakeholders from around the country attended. Workshop sessions included topics on traffic safety laws, distracted driving, motorcycle safety, drugged driving, and traffic incident management.
- As of June 21, 2016, 140 municipal police departments participated (versus 123 in FFY 2015) in a Distracted Driving mobilization and wrote 4,140 citations for text messaging more than twice as many text messaging citations than during the same mobilization in FFY 2015. Citations for impeded operation also increased (2,142 in FFY 2016 versus 1,593 in FFY 2015). For the Distracted Driving mobilization, departments were permitted to work in teams and use spotters, which have yielded impressive results compared to FFY 2015.
- The May 2016 Click It or Ticket (CIOT) campaign specifically targeted the lowest use populations based on our seatbelt survey results: men age 18-34, pickup truck and commercial truck drivers, and Hispanic and African-American males. Using the tagline,

"Can't Stop a Crash with Your Face," the campaign also honed in on counties that had the lowest seatbelt usage rates as well as those that had the highest number of unrestrained fatalities. The paid media buy targeted these market segments. From an earned media standpoint, EOPSS/HSD worked with police chiefs in low usage counties to help pen op-eds and plan media coverage of their enforcement activities.

## **Partnerships**

EOPSS/HSD is engaged in many partnerships to enhance highway safety in Massachusetts including:

AAA Northeast

Alcoholic Beverages Control Commission (ABCC)

Beth Israel Hospital

Boston Emergency Medical Services (EMS)

Brain Injury Association

**Boston Medical** 

Boston Transportation Department

Colonial Auto Group

Councils on Aging

Department of Elder Affairs

Department of Health and Human Services

**Driving School Association** 

**Emerson Hospital** 

Executive Office of Energy and Environmental Affairs

Fisher College

Impaired Driving Advisory Board

**Insurance Companies** 

Junior Operator License Advisory Committee

LivableStreets Alliance

Local Police Departments

Mass in Motion

Massachusetts Bay Transit Authority

Massachusetts Chiefs of Police Association

Massachusetts Department of Public Health (MDPH)

Massachusetts Department of Transportation (MassDOT)

Massachusetts District Attorneys Association (MDAA)

Massachusetts Executive Level Traffic Records Coordinating Committee (METRCC)

Massachusetts Major City Chiefs Association

Massachusetts Medical Society

Massachusetts Motorcycle Association

Massachusetts Office for Victim Assistance (MOVA)

Massachusetts Prevent Injury Now! Network (MassPINN)

Massachusetts Safety Officers League

Massachusetts State Police (MSP)

MassBike

MassRIDES

Merit Rating Board (MRB)

MIT Age Lab

Mothers Against Drunk Driving

Municipal Police Training Committee (MPTC)

Regional Transit Authority

Registry of Motor Vehicles (RMV)

Safe Kids of Boston

Safe Kids of Western MA

Safe Roads Alliance

Safe Routes to Schools

Safety Institute

SHSP Plan Executive Leadership Committee

State and Regional Planning and Development Agencies

Traffic Records Coordinating Committee (TRCC)

**UMass Gerontology** 

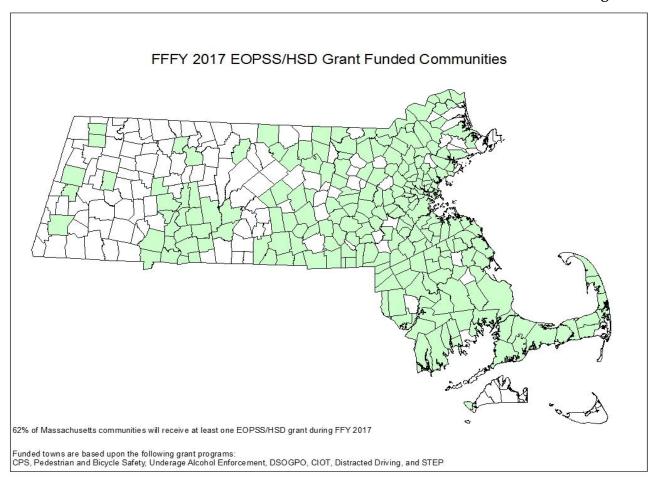
**UMassSAFE** 

WalkBoston

Work Zone Safety Committee

Out of 351 communities, 219 will receive funding during FFY 2017. This represents 62% of all communities across Massachusetts, same as in FFY 2016. Though the percentage is the same, the number of towns funded increased from 217 to 219.

Figure 1.2



County	Fur	nding Amount	% of Funding
Barnstable	\$	186,951	3.79%
Berkshire	\$	61,880	1.25%
Bristol	\$	501,333	10.16%
Dukes	\$	2,000	0.04%
Essex	\$	420,090	8.51%
Franklin	\$	12,000	0.24%
Hampden	\$	552,604	11.20%
Hampshire	\$	137,935	2.80%
Middlesex	\$	977,410	19.81%
Norfolk	\$	496,945	10.07%
Plymouth	\$	396,629	8.04%
Suffolk	\$	483,885	9.81%
Worcester	\$	704,881	14.28%
Total Funding	\$	4,934,543	

## Table 1.1

The following table provides a breakdown of funding by county for FFY 2017. Funding distributed to MSP is not included in the calculations. The programs included are Child Passenger Safety, Pedestrian and Bicycle Safety, Underage Alcohol Enforcement, Drive Sober or Get Pulled Over Enforcement, Click It or Ticket Enforcement, Distracted Driving Enforcement, and the Sustained Traffic Enforcement Program (STEP).

As will be shown in the data, the funding is being awarded to regions with the most need. Worcester

and Middlesex have reported the highest number of fatal crashes over the last five years and funding will further aid communities within those counties to lower the incidences of fatal crashes.

Massachusetts also uses funding sources, in addition to what is provided by NHTSA, to contribute to the performance targets described in the HSP. Some of the strategies are described below:

MSP and Local Law Enforcement

Millions of dollars in state and local funding are provided to MSP and local police departments to enforce traffic laws and conduct educational activities throughout the year. Enforcement includes impaired driving, seat belt use, speed, distracted driving and Junior Operator License Law violations.

Massachusetts Office for Victim Assistance (MOVA)

MOVA will provide funding to non-profit and public organizations/agencies currently providing or seeking to provide drunk or drugged driving prevention activities in Massachusetts through the Drunk Driving Trust Fund (DDTF). DDTF funding is intended to provide services that directly assist victims, witnesses, and their family members and will aid the needs of victims of impaired/OUI driving incidents. Services include advocacy, support, and counseling, prevention, education, and training activities. Fees assessed to offenders are assessed to all OUI incidents whether a victim was involved or not.

RMV/ Massachusetts Rider Education Program (MREP)

To minimize the risk and maximize the fun of motorcycling, the RMV will allocate approximately \$200,000 in state funding for the MREP. The mission of this program is to reduce the number of motorcycle related fatalities and injuries by increasing the statewide availability of Motorcycle Safety Foundation (MSF) approved training courses for motorcycle riders and to increase awareness and education for both riders and drivers.

#### MassDOT

In FFY 2014, MassDOT announced the beginning of a new Bicycle and Pedestrian Safety Awareness and Enforcement Program to reduce the number of crashes involving bicycles and pedestrians and to enhance safe travel. The program provided approximately \$500,000 in funding from the Federal Highway Administration (FHWA) to support partnerships with Regional Planning Agencies, local officials and police departments in 12 communities statewide (Brockton, Cambridge, Fall River, Haverhill, Lynn, New Bedford, Newton, Pittsfield, Quincy, Salem, Somerville, and Watertown), with additional communities to be included in future years. The initial 12 communities were identified based upon several factors, including the highest number of reported non-motorist crashes per capita and high proportion of trips made by bicycles and walking. The Bicycle and Safety Awareness and Enforcement Program provided funds for stepped-up enforcement and increased involvement with police

departments regarding pedestrian and bicycle issues. Feedback from enforcement and awareness will be reviewed to allow for identification of infrastructure improvements that are needed to improve safe travel for all modes in each community. Going forward, MassDOT will use federal funding from FHWA to assist local communities to make the infrastructure improvements.

#### DPH/Injury Prevention and Control Program

The Center for Disease Control and Prevention provides approximately \$450,000 in funding to DPH's Injury Prevention and Control Program through the Core Violence and Injury Prevention Program. The mission of the Injury Prevention and Control Program is to reduce the rates of injuries at home, at school, in the community, on the road, and at play, and to improve emergency medical services for children. They conduct research, develop policies and programs, and provide services to communities, groups, and individuals by offering training and health education; data collection, analysis, and reports; coalition and task force leadership; program development assistance; and public information materials. A portion of this funding will be used to help prevent motor vehicle-related injuries.

# 2.0 Highway Safety Problem Identification

This HSP for FFY 2017 has been developed in coordination with the following documents:

Massachusetts' Highway Safety Improvement Plan (HSIP) (2013)

NHTSA's 2013 Management Review and draft considerations from the 2016 Management Review

NHTSA's Impaired Driving Assessment for Massachusetts (FFY 2005)

NHTSA's Occupant Protection Assessment for Massachusetts (FFY 2007)

NHTSA's Occupant Protection Special Management Review (FFY 2009)

NHTSA's Motorcycle Safety Program Technical Assessment (FFY 2010)

Strategic Plan for Traffic Records Improvement (FFY 2017)

NHTSA's Massachusetts Traffic Records Assessment Report (FFY 2014)

NHTSA's Standardized Field Sobriety Test (SFST) Assessment Report for Massachusetts (FFY 2012)

NHTSA's Countermeasures That Work (CTW) Volume Eight

Centers for Disease Control's Community Guide

### ■ 2.1 Problem Identification Process

The process EOPSS/HSD uses to pinpoint program areas warranting attention from Massachusetts highway safety professionals in FFY 2017 is outlined below:

General Problem Identification. This step begins by outlining the data sources used to identify problems and the persons or organizations responsible for collecting, managing, and analyzing relevant data. These data sources are described in Table 2.1. EOPSS/HSD will also use the Massachusetts Traffic Records Analysis Center (MassTRAC) for crash records analysis, mapping, and reporting. The software provides quick and easy user access to crash data, tabulations, maps, and counts of crashes, vehicles, drivers, passengers, and non-motorists. This allows law enforcement and other stakeholders to more effectively identify high-risk locations and times so human and financial resources can be dedicated to the areas of greatest need. Results of the data are coordinated with the HSIP through the SHSP (State Highway Safety Plan),

analyzed, and gaps are identified. This step also uses ongoing exchanges with key federal, state, and local partners (such as the MSP, local police departments, MassDOT, MDPH, Massachusetts Chiefs of Police Association, TRCC and the Governors Highway Safety Association) to identify major highway safety areas of concern and to try to gain consensus of priority areas. EOPSS/HSD's monitoring site visits have been especially useful in determining specific traffic concerns of local and state partners. The information is also used for guiding subsequent analyses. The programs outlined in this section allow for continuous follow-up and adjustment based on new data and the effectiveness of existing and on-going projects.

Selection of Program Areas. This step uses analyses of available data sources to identify ongoing and emerging problem areas and to verify the general decisions regarding major areas of concern made in the first step. EOPSS/HSD continues to collaborate with partners and safety stakeholders to gain input and agreement about the problem areas. Focus is not only on the size and severity of the problem but also where the greatest impact in terms of reducing crashes, injuries and fatalities can be made. Program selection criteria are established with the help of partners and the assessments and other documents listed above that provide evidence and support for selected projects. Organizations are selected for funding usually based on a competitive grant application that is data-driven and evidence-based. For example, the traffic enforcement grant countermeasure is awarded based on problem identification. Starting in FFY 2012, only municipalities that met certain thresholds for crash data and performance were invited to participate in the program. Specifically, only communities with an above average crash rate that met the previous year's grant requirements are eligible. From there, funds are distributed based on population. Agency procedures also must be in place to ensure federal highway safety funds are being properly expended. Enforcement activity reports are required as part of the grant and include information about traffic stops, arrests, citations, and verbal and written warnings.

Determination of Performance Measures, Performance Targets, and Tasks. During this step and in conjunction with the SHSP, all of the above work is used to set reasonable performance measures, performance targets, and to develop tasks for the program areas in order to allocate EOPSS/HSD's resources where they may be most effective. This step requires knowledge of the demographics, laws, policies, and partnering opportunities and limitations that exist in the Commonwealth. Selected programs and projects are explicitly related to the accomplishment of performance targets. For the most part, performance targets were based upon five-year trend data, same as done for the FFY 2016 HSP. All efforts are made to harmonize the performance measures and projects in the HSP with the SHSP. EOPSS/HSD and MassDOT work closely to ensure that the performance measures for fatalities, fatality rate, and serious injuries are identical. EOPSS/HSD works with the SHSP Steering Committee and program area subcommittees to ensure that projects in the HSP and HSIP are coordinated.

Table 2.1 Data Used for FFY 2017 HSP Problem Identification

Data Type	Data Set	Source/Owner	Year(s) Examined
Fatality and Injury	FARS, Massachusetts Crash Data System, Injury Surveillance Program, MassTRAC	NHTSA, State Traffic Safety Information (STSI), RMV, Massachusetts Department of Public Health, EOPSS/HSD	2009 to 2015
Violation	Massachusetts Citation Data	RMV/MRB	2009 to 2016
Seat Belt Use	Massachusetts Seat Belt Use Observation Data	EOPSS/HSD	2009 to 2015
Accepted Drivers, Registrations and Vehicle Miles Traveled (VMT)  Highway Statistics  Fraveled (VMT)		FHWA, U.S. Census Bureau, RMV	2009 to 2015
Operating Under the Influence	Crime Statistics	RMV/MRB, Federal Bureau of Investigation	2009 to 2015

The crash data used in this HSP may not be consistent with the data reported by NHTSA's FARS due to variations in data availability and data quality improvements.

## Coordination with the HSIP through the SHSP

Initiated in 2006, the SHSP was developed in consultation with federal, state, local, and private sector safety stakeholders using a data-driven, multidisciplinary approach involving engineering, education, enforcement, and emergency response. The Plan has statewide goals, objectives and emphasis areas. Goals are organized by three tiers – Strategic, Proactive, and Emerging - to focus on the traffic safety problems in each area. The Emphasis Areas are Impaired Driving, Intersection Crash Prevention, Lane Departures, Occupant Protection, Speeding/Aggressing Driving, Young Drivers, Older Drivers, Pedestrians, and Motorcycles. The Proactive Emphasis Area represents less than 10 percent of annual fatalities or severe injuries: Bicycles, Truck and Bus-Involved Crashes, At-Grade Crossings, and Traffic Incident Management Safety (formerly work zone safety). The Emerging Emphasis Area focuses on improving the data systems used to analyze traffic safety patterns and for safety topics where data is inconclusive – Data Systems, Drowsy Driving and Driver Inattention.

In 2012, the SHSP Executive Leadership Committee, the Steering Committee, and the Emphasis Area Teams collaborated on the development and implementation of the SHSP. A review was conducted in FFY 2013 with MassDOT contracting services with Cambridge Systematics and UMassSAFE at UMass Amherst. The Committees identified and recruited new stakeholders, reviewed available data, developed new strategies, conducted stakeholder meetings and completed an evaluation of transportation safety, crash data, and emphasis area strategies. Emphasis area stakeholders include but are not limited to: AAA, UMass Gerontology, Massachusetts Health and Human Services, MDPH, regional transit authorities, insurance companies, MassRIDE, WalkBoston, hospitals, emergency medical services, driving schools,

motorcycle associations, Safer Roads Alliance, state and local police agencies, MADD, SADD and host of other traffic safety partners.

EOPSS/HSD is a long-standing stakeholder and key contributor and serves on the Executive Leadership and Steering Committees, chairs multiple Emphasis Team Areas and serves on a number of other teams. The SHSP is coordinating with the efforts of the EOPSS/HSD and in concert with the 2013 updated SHSP, which was submitted to FHWA in September 2013.

The Massachusetts Highway Safety Improvement Program (HSIP) performance measures were developed by MassDOT and were submitted to FHWA in September 2013 for review and approval for FFY 2014. The performance measures in the HSP and HSIP (fatalities, fatality rate, and serious injuries) are identical as coordinated through the state SHSP. The HSD will continue to work with NHTSA Region 1 to ensure coordination with the SHSP and HSIP.

# ■ 2.2 Massachusetts Characteristics

Located in the northeastern United States, Massachusetts is the 6<sup>th</sup> smallest state with a land area of 7,800 square miles and 351 cities and towns. Despite its small geographic size, Massachusetts is the 14<sup>th</sup> most populated state. According to the U.S. Census, in 2013, the Commonwealth's estimated population was 6,708,874, resulting in a density of approximately 860 persons per square mile. Massachusetts is the most populous of the six New England states. The highest population concentrations are in the eastern third of the Commonwealth. Boston is the capital and the most populated city in Massachusetts. Smaller pockets of population density also exist around the second and third largest cities, Worcester in central Massachusetts and Springfield in western Massachusetts.

Massachusetts has 76,873 road miles. Of these, 63,960 are urban and 12,913 are rural. Interstates, freeways, and expressways account for 4,598 of these miles and 48,966 miles are considered local roads. Major roadways include Interstates 90 (the Massachusetts Turnpike), 91, 93, 95, and 495. In 2014, motorists in Massachusetts traveled over 57 billion miles.

Boston is the seventh largest media market in the country. This market has spillover into southern New Hampshire and parts of Connecticut as well. Massachusetts has 17 full power television stations, 304 newspapers, and 219 broadcast and college radio stations.

Based on the most recently available RMV information, in 2014 there were 4,984,838 licensed drivers. The breakdown of MV operator by age: 321,279 (21 and under); 3,770,181 (22 – 64 years old); and 893,378 (65 and older).

Other demographics for Massachusetts based on estimated 2013 U.S. Census Bureau data include:

#### Age distribution:

Children (under 18 years old) - 20.8%

Adults (18 to 64 years old) - 64.4%

Older persons (65+) - 14.8%

Non-Caucasians account for 16.8 percent of the population compared with 22.3 percent nationally.

The three largest minority populations in Massachusetts as of 2013 are Hispanic or Latino (10.5%), African American (8.1%), and Asian (6.0%).

The Massachusetts economy is primarily reliant on academic/research, tourism, technology, and financial services. Tourist destinations on Cape Cod and in the Berkshires as well as over 120 public and private colleges and universities create significant seasonal increases in the population both statewide and regionally. County government is virtually non-existent except as geographic definitions and for prosecutorial and correctional jurisdiction. In general, at the local level, administrative and legislative powers rest with mayors and city councils, town managers, town administrators, and boards of selectmen. The counties detailed in Table 2.2 have been used in this HSP for purposes of localizing the traffic safety statistics.

Table 2.2 Counties of Massachusetts

County	2013 County Population Estimates, per U.S. Census Bureau	County	2013 County Population Estimates, per U.S. Census Bureau
Barnstable	214,836	Hampshire	160,970
Berkshire	129,489	Middlesex	1,558,131
Bristol	552,167	Nantucket	10,568
Dukes	17,190	Norfolk	688,709
Essex	764,093	Plymouth	503,636
Franklin	71,155	Suffolk	760,093
Hampden	467,414	Worcester	810,423

# ■ 2.3 Normalizing Data and Major Statistics

The values identified in Table 2.3 are used in the remainder of the report to normalize Massachusetts and national safety data.

 Table 2.3
 Base Data for Massachusetts and United States

	2010		2011		2012		2013		2014	
	MA	U.S.								
Population (100K)	65.47	3,094	66.01	3,116	66.45	3,139	66.93	3,161	67.45	3,188
VMT (100M)	543.61	29,665	547.92	29,629	559.40	29,688	563.11	29,880	575.52	30,256
Licensed Drivers (100K)	46.45	2,101	46.83	2,118	47.33	2,118	47.65	2,121	49.84	2,140
Total Fatalities	347	32,999	337	32,367	349	33,561	351	32,719	328	32,675

Source: U.S. Census May 2016; RMV July 2015; FHWA May 2016; NHTSA Traffic Safety Facts 2010 to 2014; FARS April 2016

Key Massachusetts crash data and trends are provided in Table 2.4. Nationwide comparisons are provided in some areas.

Table 2.4 Massachusetts and Nationwide Crash Data Trends

Fatalities	2010	2011	2012	2013	2014	% change: 2014 vs 2010	% change: 2014 vs 2010-2013 avg.
MA Fatalities	347	374	383	351	328	- 5%	- 10%
US Fatalities	32,999	32,479	33,782	32,894	32,675	- 1%	-1%
MA Fatalities - Male	251	262	269	233	243	- 3%	- 4%
MA Fatalities – Female	95	112	114	118	85	- 11%	- 23%
MA Fatal Crashes	330	356	365	334	310	- 6%	- 10%
US Fatal Crashes	30,296	29,867	31,006	30,057	29,989	- 1%	- 1%
Fatality Rate	2010	2011	2012	2013	2014	% change: 2014 vs 2010	% change: 2014 vs 2010-2013 avg.
MA Fatality Rate/ 100 Million VMT	0.64	0.68	0.68	0.62	0.57	- 11%	- 14%
US Fatality Rate/ 100 Million VMT	1.11	1.10	1.14	1.10	1.08	- 3%	- 3%
MA Urban Fatality Rate/100 Million VMT	0.63	0.65	0.62	0.56	0.54	- 14%	- 13%
MA Rural Fatality Rate/100 Million VMT	0.72	1.08	1.97	1.93	1.26	75%	- 12%

Crashes and Injuries	2010	2011	2012	2013	2014	% change: 2014 vs 2010	% change: 2014 vs 2010-2013 avg.
MA Number of Motor Vehicle Crashes of All Types	115,640	120,631	122,774	125,293	124,170	7%	3%
MA Number of Incapacitating Injuries (as measured by hospital stays)	4,858	4,853	4,384	4,134	4,027	- 17%	- 12%
MA Number of Crash Injuries (excluding fatalities)	41,833	43,779	44,192	43,127	42,859	2%	-1%
Alcohol	2010	2011	2012	2013	2014	% change: 2014 vs 2010	% change: 2014 vs 2010-2013 avg.
MA Number of Fatalities Involving Driver or Motorcycle Operator w/ ≥.08 BAC	122	126	129	127	133	9%	6%
US Number of Fatalities Involving Driver or Motorcycle Operator w/ ≥.08 BAC	10,136	9,865	10,336	10,110	9,967	- 2%	- 1%
MA Alcohol-Related Fatalities (Actual) BAC = 0.01+	166	162	162	158	154	- 7%	- 5%
MA Percent of All Fatalities that are Alcohol-Related BAC≥0.08+)	35%	34%	35%	36%	41%	17%	17%
US Percent of All Fatalities that are Alcohol-Related BAC≥0.08+)	31%	30%	31%	31%	31%	NC	NC
MA Alcohol-Related Fatality Rate/ 100 Million VMT	0.22	0.23	0.23	0.23	0.23	5%	NC
US Alcohol-Related Fatality Rate/ 100 Million VMT	0.34	0.33	0.35	0.34	0.33	- 3%	- 3%
Occupant Protection	2010	2011	2012	2013	2014	% change: 2014 vs 2010	% change: 2014 vs 2010-2013 avg.
MA Percent Observed Belt Use for Passenger Vehicles - Front Seat Outboard Occupants	74%	73%	73%	75%	77%	4%	4%
US Percent Observed Belt Use for Passenger Vehicles – Front Seat Outboard Occupants	85%	84%	86%	87%	87%	2%	1%
MA Unrestrained Passenger Vehicle Occupant Fatalities	102	122	103	100	100	- 2%	- 7%
US Unrestrained Passenger Vehicle Occupant Fatalities	10,590	10,215	10,370	9,622	9,385	- 11%	- 8%
MA Percent of Vehicle Occupant Fatalities Unrestrained	29%	33%	27%	29%	30%	- 3%	NC
US Percent of Vehicle Occupant Fatalities Unrestrained	32%	31%	31%	29%	29%	9%	- 6%
Motorcycles  MA Number of Motorcyclist Fatalities	<b>2010</b> 61	<b>2011</b> 40	<b>2012</b> 56	<b>2013</b>	<b>2014</b>	% change: 2014 vs 2010	% change: 2014 vs 2010-2013 avg.
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US Number of Motorcyclist Fatalities	4,518	4,630	4,986	4,692	4,586	2%	- 3%
MA Percent of all Fatalities that are Motorcyclists	18%	11%	15%	12%	13%	- 22%	- 7%
US Percent of all Fatalities that are Motorcyclists	14%	14%	15%	14%	14%	NC	NC
MA Number of Unhelmeted Motorcyclist Fatalities	7	5	3	5	4	- 43%	- 20%
MA Motorcyclist Serious Injuries (As measured by hospitals stays)	663	654	500	617	578	- 13%	- 5%
MA Number of Motorcycle Fatalities with Motorcycle Operator w/ ≥.08 BAC	16	11	12	13	9	- 44%	- 3%
US Number of Motorcycle Fatalities with Motorcycle Operator w/ ≥.08 BAC	1,205	1,298	1,335	1,232	966	- 20%	- 24%
MA Percent of Motorcycle Fatalities with Motorcycle Operator w/ ≥.08 BAC	27%	32%	24%	32%	21%	- 22%	- 28%
US Percent of Motorcycle Fatalities with Motorcycle Operator w/ ≥.08 BAC	29%	30%	29%	28%	21%	- 28%	- 28%
Pedestrians	2010	2011	2012	2013	2014	% change: 2014 vs 2010	% change: 2014 vs 2010-2013 avg.
MA Number of Pedestrian Fatalities	68	69	82	79	70	3%	- 7%
US Number of Pedestrian Fatalities	4,302	4,457	4,818	4,779	4,884	14%	6%
MA Percent of all Fatalities that are Pedestrians	20%	16%	21%	23%	21%	5%	5%
US Percent of all Fatalities that are Pedestrians	13%	14%	14%	15%	15%	15%	15%
MA Pedestrian Serious Injuries (as measured by hospital stays)	759	740	566	602	610	- 20%	- 9%
Bicycles	2010	2011	2012	2013	2014	% change: 2014 vs 2010	% change: 2014 vs 2010-2013 avg.
MA Bicyclist Fatalities	7	5	16	6	8	14%	- 11%
US Bicyclist Fatalities	623	682	734	749	726	17%	4%
MA Percent of all Fatalities that are Bicyclists	2%	1%	4%	2%	2%	NC	NC
US Percent of all Fatalities that are Bicyclists	2%	2%	2%	2%	2%	NC	NC
MA Bicyclist Serious/Incapacitating Injuries	485	147	131	145	154	- 68%	- 32%
Distracted Driving	2010	2011	2012	2013	2014	% change: 2014 vs 2010	% change: 2014 vs 2010-2013 avg.
MA Number of Distracted Driving Fatalities	36	54	55	53	31	- 14%	- 38%
US Number of Distracted Driving Fatalities	3,092	3,331	3,328	3,154	3,179	3%	2%
MA Percent of all Fatalities with Distracted Driving	10%	14%	14%	15%	9%	- 10%	- 3%
US Percent of all Fatalities with Distracted Driving	9%	10%	10%	10%	10%	11%	NC

Speed	2010	2011	2012	2013	2014	% change: 2014 vs 2010	% change: 2014 vs 2010-2013 avg.
MA Number of Speed-Related Fatalities	83	121	114	89	77	- 7%	- 25%
US Number of Speed-Related Fatalities	10,508	10,001	10,329	9,696	9,262	- 12%	- 9%
MA Percent of All Fatalities that are Speed-Related	24%	32%	30%	25%	23%	- 4%	- 18%
US Percent of All Fatalities that are Speed-Related	32%	31%	31%	29%	28%	- 13%	- 10%
MA Speed-Related Fatality Rate/ 100 Million VMT	0.15	0.22	0.20	0.16	0.13	- 18%	- 32%
US Speed-Related Fatality Rate/ 100 Million VMT	0.35	0.34	0.35	0.32	0.31	- 3%	- 9%
Younger Drivers	2010	2011	2012	2013	2014	% change: 2014 vs 2010	% change: 2014 vs 2010-2013 avg.
MA Fatalities involving a Younger Driver (age 16-20)	54	51	50	40	28	- 48%	- 44%
US Fatalities involving a Younger Driver (age 16-20)	4,936	4,726	4,596	4,248	4,442	- 10%	- 4%
MA Percent of all Fatalities that involve a Younger Driver	16%	14%	13%	11%	9%	- 44%	- 36%
US Percent of all Fatalities that involve a Younger Driver	15%	15%	14%	13%	14%	- 7%	NC
MA Serious Injuries that involve a Younger Driver	632	602	546	449		- 32%	- 26%
MA Number of Younger Driver (age 15-20) Fatalities	21	24	20	13	10	-52%	-50%
MA Number of Younger Driver (age 15-20) Fatalities with Younger Driver BAC w/ ≥.01 BAC	7	10	9	4	4	- 43%	- 50%
MA Percent of Younger Driver (age 15-20) Fatalities with Younger Driver BAC w/ ≥.01 BAC	33%	38%	45%	31%	40%	21%	5%
Older Drivers	2010	2011	2012	2013	2014	% change: 2014 vs 2010	% change: 2014 vs 2010-2013 avg.
MA Fatalities Involving an Older Driver (age 65+) Involved	68	69	84	79	49	- 27%	- 35%
US Fatalities Involving an Older Driver (age 65+)	5,782	5,636	5,940	6,057	6,045	5%	3%
MA Percent of all Fatalities that Involve an Older Driver	20%	18%	22%	23%	15%	- 25%	- 29%
US Percent of all Fatalities that Involve an Older Driver	18%	19%	22%	18%	19%	6%	NC
MA Serious Injuries Involving an Older Driver	546	559	657	534	674	23%	17%
Traffic Enforcement Grants	2011	2012	2013	2014	2015	% change: 2015 vs 2011	% change: 2015 vs 2011-2014 avg.

MA Number of Seat Belt Citations Issued During Grant-Funded Enforcement Activities*	6,118	11,622	7,329	14,338	15,583	154%	58%
MA Number of Impaired Driving Arrests Made During Grant-Funded Enforcement Activities*	147	635	639	869	569	287%	- 0.5%
MA Number of Speeding Citations Issued During Grant-Funded Enforcement Activities*	6,990	9,959	9,183	10,485	15,141	116%	65%

Source: STSI May 2015; RMV July 2015; FARS April 2016; 2009 to 2015 Massachusetts Seat belt Use Observation Surveys; HSD grant data 2008-2015, MassTRAC May 2016; Health Injury Surveillance Program February 2016; MA Crash Data System February 2016

Note: 1) Some numbers reported in this FFY 2017 Highway Safety Performance Plan may differ from the same categories reported in previous reports due to changes in data availability and data quality improvements. 2) Any inconsistencies between total of male/female fatalities and overall reported fatalities for given year are due to gender that was either not reported or was unknown on crash report.

<sup>\*</sup>Based on FFY activity

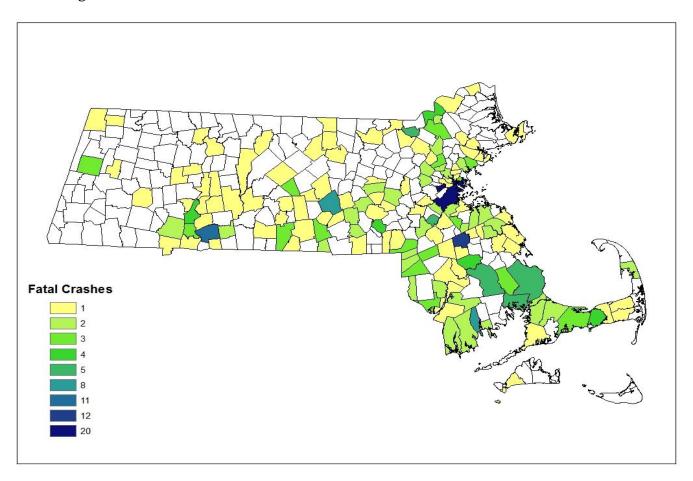
#### An Overview of Fatal Crashes and Fatalities in Massachusetts

According to FARS, Massachusetts recorded 310 fatal crashes resulting in 328 fatalities. This represents a 7% decrease in both fatal crashes and fatalities from 2013. Fatal crashes occurred in 155 towns throughout the Commonwealth, approximately 44% of all municipalities (351). The top five communities for fatal crashes were:

- → Boston (Suffolk County) 20 fatal crashes
- → Brockton (Plymouth County) 12 fatal crashes
- → Springfield (Hampden County) 11 fatal crashes
- → Worcester (Worcester County) 8 fatal crashes
- → New Bedford (Bristol County) 8 fatal crashes

The top five accounted for 19% of all fatal crashes in Massachusetts during 2014. Below is a map of all communities with a fatal crash in 2014:

Figure 2.1 Fatal Crashes in Massachusetts - 2014



As shown in the map above, more towns with multiple fatal crashes are located in the region south of Boston. The four counties in this area – Barnstable, Bristol, Norfolk, and Plymouth – account for 43% of all fatal crashes.

Despite the cluster of multiple fatal crashes in the South Shore, over the last five years (2010-2014) the county with the highest number of fatalities and fatal crashes was Worcester. Boston, which had the highest number of fatal crashes and fatalities in 2014, was not one of the top five counties for 2010-2014.

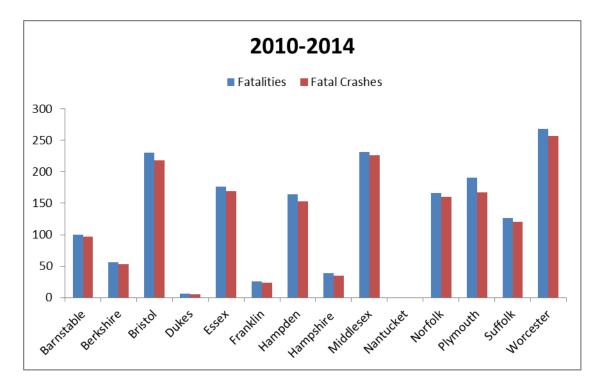


Figure 2.2

Fatal Crashes and
Fatalities by
County (2014)

Source: FARS

Further analysis of fatal crashes during 2014 revealed that the greatest percentage of fatal crashes occurred in July (11.6%) and April had the lowest percentage (4.8%). Over a three-month period, October through December accounted for 31.6% of all fatal crashes. Most crashes occurred on Saturday (17.7%), followed by Wednesday (16.5%) and Monday (15.8%). Fatal crashes occurred most frequently between the hours of 9:00 p.m. and 3:00 a.m., as shown in Figure 2.3. This is not surprising given those hours are typically associated with when people are driving to and from night time activities, some which may involve drinking alcoholic beverages. Lastly, in terms of road type, 2014 data shows that arterials and local roads were more likely to be the location for a fatal crash. Nearly 90% of the fatal crashes in Massachusetts occurred on urban roadways. Rural locations accounted for 33 of the 310 fatal crashes. Utilizing this data, EOPSS/HSD will work with MSP and local law enforcement agencies to conduct more enforcement activities during these peak times.

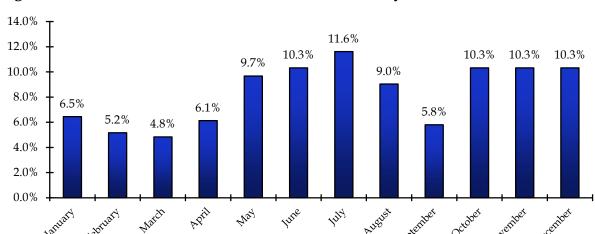
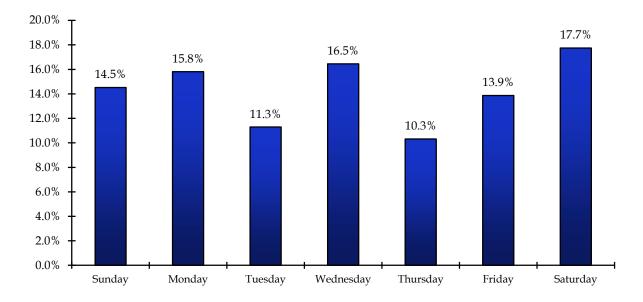


Figure 2.3 Percent of Massachusetts Fatal Crashes by Month-of-Year in 2014

Source: FARS





Source: FARS

20.0% 18.1% 17.4% 18.0% 16.0% 14.8% 14.5% 13.5% 14.0% 12.0% 10.0% 7.7% 7.4% 8.0% 6.5% 6.0% 4.0% 2.0% 0.0% 12AM-2:59AM 3-5:59AM 6-8:59AM 9-11:59AM 12PM-2:59PM 3-5:59PM 6-8:59PM 9-11:59PM

Figure 2.5 Percent of Massachusetts Fatal Crashes by Time-of-Day in 2014

Source: FARS

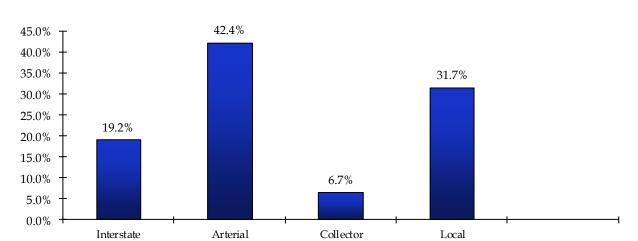


Figure 2.6 Percent of Massachusetts Fatal Crashes by Road Type 2014

Fatalities in 2014 occurred most often among those aged 25-34. This age group saw its percentage of fatalities increase to 19.9%, up from 12% in 2013. At the same time, the young driver age group, 16-20, decreased to 6.4% of all fatalities in 2014 from 9% in 2013. The number fatalities of children under 10 continues to remain under 3% in part due to the tremendous outreach efforts both in enforcement and media on the need for proper car seats and safety belt usage for passengers eight years or younger. Fatalities, like fatal crashes, occurred more often on arterials and local roads – nearly 75% of all fatalities.

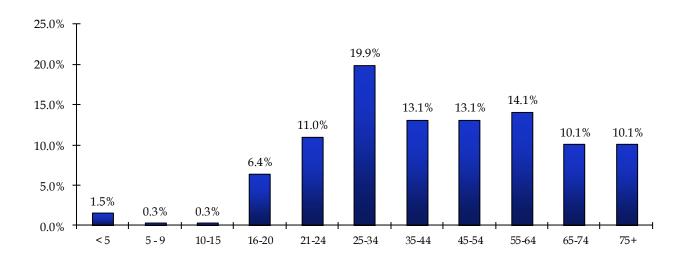


Figure 2.7 Percent of Massachusetts Fatalities by Age Group in 2014

Massachusetts continues to work towards zero fatalities on the roadways of the Commonwealth through the combined efforts of federal, state, and local agencies. Most fatalities are due to poor decisions made by those either behind the wheel or sharing the road as a pedestrian or bicyclist. For FFY 2017, EOPSS/HSD will focus on educational outreach and enforcement of key factors involved in fatal crashes including but not limited to: occupant protection (seatbelt use, child safety seats); impaired driving, speeding, distracted driving, and bike and pedestrian safety.

# ■ 2.4 FFY 2017 Performance Targets

The performance targets identified in this section were established as part of the problem identification process described in Section 2.1. Performance targets for each program area are established by reviewing available data trends from reliable sources. These performance targets are shared with EOPSS/HSD grantees.

EOPSS/HSD and MassDOT work closely to ensure that the performance measures for fatalities and serious injuries are identical to the HSIP as coordinated through the SHSP.

The Massachusetts SHSP adopted a five-year goal (2013-2017) to reduce fatalities by 20 percent from 367 fatalities to 294 and hospitalizations by 20% from 4,834 to 3,867 by 2017. The SHSP also adopted an interim goal which recognizes the 2007 American Association of State Highway and Transportation Officials goal of reducing the number of fatalities and serious injuries by one-half over two decades.

EOPSS/HSD monitors national traffic safety trends to ensure that its priorities are in line with NHTSA's, unless state or local data and analyses show the need for a different approach. Based on the problem identification information presented above, EOPSS/HSD has prioritized its FFY 2017 performance targets and programs for the following program areas: Impaired Driving,

Occupant Protection, Motorcycles, Pedestrians/Bicyclists, Traffic Records, Distracted Driving, Speeding, and Young/Older Drivers.

Table 2.5 FFY 2017 Core Performance Measures Targets and Five-Year (2010-2014) Results

				2010	2011	2012	2013	2014
C-1	Traffic Fatalities	Decrease MV fatalities 18% from the 2010-2014 calendar base year average of 357	Annual	347	374	383	351	328
		to 294 by December 31, 2017	5-year average	383	372	362	359	357
C-2	Serious Injuries	Decrease serious injuries (requiring hospitalization) 13% from 2010-2014 calendar	Annual	4,858	4,853	4,384	4,134	4,027
		base year average 4,451 to 3,867 by December 31, 2017	5-year average	4,669	4,724	4,765	4,557	4,451
C-3	Fatalities/VMT	Decrease fatality/VMT rate 10% from the 2010-2014 calendar base year average of	Annual	0.64	0.68	0.68	0.62	0.57
		0.64 to 0.58 by December 31, 2017	5-year average	0.70	0.68	0.66	0.65	0.64
C-4		Decrease unrestrained passenger vehicle occupant fatalities 5% from the 2010-	Annual	102	122	103	100	100
	Fatalities, All seat positions	2014 calendar base year average of 105 to 100 by December 31, 2017	5-year average	129	122	113	109	105
C-5	Alcohol-Impaired Driving Fatalities	Decrease alcohol-impaired driving fatalities 5% from the 2010-2014 calendar base	Annual	122	126	129	127	133
		year average of 127 to 121 by December 31, 2017	5-year average	129	126	121	122	127
C-6	Speed-Related Fatalities	Decrease speed-related fatalities <b>5</b> % from the 2010-2014 calendar base year	Annual	83	121	114	89	77
		average of 97 to 92 by December 31, 2017	5-year average	110	104	98	97	97
C-7	Motorcyclist Fatalities	Decrease motorcycle fatalities 5% from the 2010-2014 calendar base year average	Annual	61	40	56	42	43
		of 48 to 46 by December 31, 2017	5-year average	54	52	51	51	48
C-8	C-8 Unhelmeted Motorcyclist Fatalities	Decrease unhelmeted motorcycle fatalities 20% from the 2010-2014 calendar base	Annual	7	5	3	5	4
		year average of 5 to 4 by December 31, 2017	5-year average	4	4	4	5	5
C-9	Young Driver (U21) Involved in a Fatal	Decrease number of young drivers (age 20 or under) involved in fatal crashes 10%	Annual	53	50	45	37	24
	Crash	from 2010-2014 calendar base year average of 42 to 38 by December 31, 2017	5-year average	63	59	53	48	42
C-10	Pedestrian Fatalities	Decrease pedestrian fatalities <b>5%</b> from 2010-2014 calendar base year average of 74	Annual	68	69	82	79	70
		to 70 by December 31, 2017	5-year average	63	65	68	69	74
C-11	Bicyclist Fatalities	Decrease bicyclist fatalities 10% from 2010-2014 calendar base year average of 8	Annual	7	5	16	6	8
		to 7 by December 31, 2017	5-year average	8	8	9	8	8
				2011	2012	2013	2014	2015
B-1	Observed Seatbelt Usage	Increase observed seat belt use rate <b>5%</b> from 2011-2015 calendar base year	Annual	73	73	75	77	74
		average of 74 to 78 by December 31, 2017	5-year average	71	72	74	74	74
A-1	Seatbelt Citations During Grant-Funded	No target necessary						
	Enforcement		FFY	6,118	11,622	7,329	14,338	15,583
A-2	Impaired Driving Arrests During Grant-	No target necessary						
	Funded Enforcement		FFY	2,211	635	639	869	235
A-3	Speeding Citations During Grant-Funded	No target necessary						
	Enforcement		FFY	14,161	6,990	9,183	10,485	15,141

# **Data sources:**

C-1 through C-11: FARS

B-1: Annual Statewide Seatbelt Observational Survey

A-1 through A-3: Grant-Funded Activity Data

# ■ 2.5 Evidence-Based Traffic Safety Enforcement Plan

EOPSS/HSD has developed strategies and processes to ensure that enforcement resources are used efficiently and effectively to support the goals of the state's highway safety program. Massachusetts incorporates an evidence-based approach in its statewide enforcement program through the following elements:

#### **Data-Driven Problem Identification**

The statewide problem identification process used in the development of the HSP was described earlier in this section. Extensive data analyses are used to identify not only safety programs to focus on, but also on locations, regions, and population segments of the Commonwealth that have a high level of motor vehicle crashes and fatalities. Key results summarizing the problems identified are described in detail within the program areas of this HSP. Highlights from the data presented thus far:

- → In 2014, all core performance measures with the exception of alcohol-impaired driving fatalities (+11), pedestrian fatalities (+2), and bicyclist fatalities (+1) have decreased compared with 2010.
- → The five-year average for 2010-2014 core performance measures showed a decrease from 2006-2010 average with the exception of unhelmeted motorcyclist fatalities (+1), pedestrian fatalities (+11) and bicyclist fatalities (no change).
- → Observed seatbelt usage increased one percentage point from 2010 to 74%. Concurrently, unrestrained passenger vehicle occupant fatalities dropped from 102 in 2010 to 100 in 2014, a 2% decline. Occupant protection outreach and education continues to be a key priority.
- → From 2010-2014, 58% of all fatal crashes took place between July and December (August and December tied as top month); the weekend period (Friday-Saturday-Sunday) accounted for 49% of all fatal crashes (if only Sat-Sun, 34%).
- $\rightarrow$  From 2010-2014, the time period from 3pm 5:59pm saw the greatest number of crashes (17%), followed by 6pm 8:59pm (16%), and then 12am 2:59am (15%).
- → From 2010-2014, Worcester County led all Massachusetts counties with 15% of fatal crashes recorded, followed by Middlesex and Bristol (both at 13%). By region, Western Massachusetts (Berkshire, Franklin, Hampden, Hampshire) had 17% of all fatal crashes; Southeastern Mass (Barnstable, Bristol, Plymouth), 29%; Northern Mass (Essex, Middlesex), 23%; Central Mass (Worcester), 15%; and Boston-region (Suffolk, Norfolk), 17%. In terms of cities, the top five for fatal crashes were: Boston, Springfield, Worcester, Brockton, and New Bedford.
- → From 2010-2014, 42% of fatal crashes occurred along an arterial road in Massachusetts. 32% occurred on local roads and 19% on interstate/freeways. Boston had 51 of its 86 recorded fatalities along local roads (60%), while Andover had 11 of its 17 fatalities on interstate/freeways (65%).

→ From 2010-2014, the 25-34 age group represented highest percentage of all fatalities (15.6%) followed by 45-54 (13.8%) and 75+ (13.5%). Drivers under 21 years of age were involved in 10% of the fatal crashes during this time frame.

All enforcement agencies receiving EOPSS/HSD grant funding must also use a data-driven approach to identify enforcement issues within their jurisdictions. Data are required in an enforcement agency's application for grant funding and must support the agency's request for funding. The data must further detail the key areas or demographics the agency plans to target with grant funding. While funding eligibility is based on crash data, most funding levels are based on population. This is because the population size generally corresponds with the number of crashes and associated data within a city or town. However, as part of the Bike and Pedestrian Enforcement Program, applicants are able to request funding for any amount between \$1,000 and \$7,500.

# Implementation of Evidence-based Strategies

When determining key areas to fund for FFY 2017, EOPSS/HSD utilizes data and stakeholders feedback not only to ascertain the size and severity of the problem but also where the greatest impact in terms of reducing crashes, injuries and fatalities can be made. With over 100 different charts, graphs and tables in the FFY 2017 HSP, all planned tasks are supported by data and justify the need for funding to reduce traffic fatalities and crashes across the Commonwealth.

Potential or prospective grantees for funding are usually selected based on a competitive grant application that is data-driven and evidence-based. Each applicant is required to provide data on the level of crashes and fatalities within their respective community or region.

The Commonwealth of Massachusetts evidence-based traffic safety enforcement methodology will also include enforcement of traffic laws as pertaining to impaired driving, seatbelt usage and pedestrian safety coupled with numerous sobriety checkpoints held throughout the state. The combined effort among local and state law enforcement agencies along with several non-profit organizations will help promote traffic safety and increase public awareness of the risk involved with impaired driving, failure to wear a seatbelt, and being mindful of pedestrians while on the roads.

Based on the data contained in this section, EOPSS/HSD will make recommendations to local police departments and Massachusetts State Police (MSP) so they can make more informed decisions about where to deploy resources. For instance, a recommendation to conduct seat belt enforcement during the work week and during afternoon hours and rush hour periods will be made.

# **Continuous Monitoring**

To ensure traffic safety enforcement projects remain focused on their respective objectives – namely, decreasing traffic safety-related fatalities – EOPSS/HSD will employ a two-pronged approach to oversight. First, EOPSS/HSD will conduct both pre- and post-award assessments

of each grant funded agency. The assessments will determine the level of oversight likely required of the grantee to ensure all grant requirements as well as fund expenditures are properly accounted for. EOPSS/HSD will make site visits to keep enforcement agencies from lagging in their efforts as well as to ensure grantees are making efforts to reach desired objectives of their grant-funded project. These visits will not only be to ensure grantees are adhering to the requirement of the grant, but also to target towns or cities with a disconcerting increase in motor vehicle-related crash fatalities in recent years to see what the grantee is (or is not doing) to fight the rising tide of deaths in their respective municipality.

Secondly, EOPSS/HSD will require all grant funded agencies to submit monthly reports covering activity, hours of enforcement, and expenditures. All data collected from these monthly reports are aggregated by EOPSS/HSD in order to detect any trends, whether positive or negative. If necessary, changes to the program will be made.

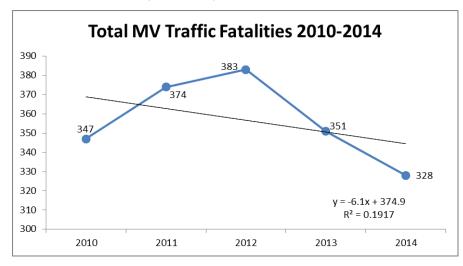
# **CORE SAFETY PERFORMANCE TARGETS for FFY 2017**

#### C-1: Total Traffic Fatalities

**FFY 2017 Target:** Reduce motor vehicle-related fatalities 18% from the 2010-2014 calendar base year average of 357 to 294 by December 31, 2017.

**Basis of Performance Measure:** Number of motor vehicle-related fatalities

**Analysis:** Massachusetts saw total traffic fatalities drop dramatically in 2014 to 328 from 351 in 2013, a decrease of 7%. The five-year average also declined slightly to 357 (2010-2014) from 359 (2009-2013).



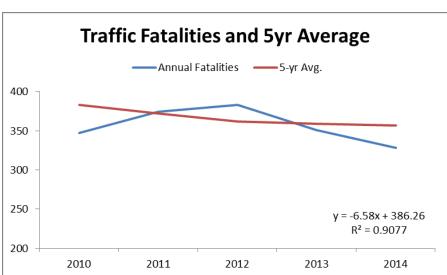


Figure 2.8 (Source: FARS)

While the trendline equation predicts fatalities to continue decreasing in the coming years, the low R-squared value (0.1917) shows the correlation between real data and projection is very weak.

Nevertheless, a 14% drop in fatalities since 2012 is significant and points to EOPSS/HSD's programs and outreach making an impact on roadway behaviors.

Figure 2.9

Figure 2.9 shows both overall traffic fatalities and 5-year averages since 2009. The R-squared value for the 5-year average trendline is 0.91, showing high confidence in the linear projection.

The projected 5-year average for 2017 is 334, a 6% decrease from 2010-2014 average of 357. This projection would represent a 10% decrease from the 2011 average of

372 in 2011. Despite not being on target to achieve the projected SHSP goal of a five-year average for fatalities in 2017 of 294, it must be pointed out that the five-year average has dropped over 20% since the 2000-2004 base year average of 461. The average of fatalities

declined 13% from 2000-2004 (461) to 2005-2009 (402) and then a further 11% between 2005-2009 and 2010-2014 (357). If the trend holds, the five-year average for 2015-2019 should be at least a 10% drop from 2010-2014.

It must be noted that EOPSS/HSD's performance measure for fatalities must be identical to the Massachusetts SHSP goal to reduce the five-year average fatalities from 367 to 294 by 2017 per 23 CFR Part 1300. Hence, the target projection of 18% is used instead of a more modest projection of 8-10% per trendline analysis.

#### **Target Analysis Summary:**

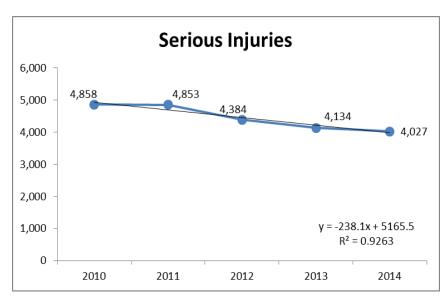
	2010	2014	% chg	Trendline	Proj % chg	R-squared
				2017 est.	from 2014	value
Annual	347	328	- 5%	327	+ 0.3%	0.1917
5-yr avg.	383	357	- 7%	334	- 6%	0.9077

## **C-2: Serious Traffic Injuries**

**FFY 2017 Target:** Reduce motor vehicle-related serious injuries (requiring hospitalization) 13% from the 2010-2014 calendar base year average of 4,451 to 3,867 by December 31, 2017.

**Basis of Performance Measure:** Number of motor vehicle-related serious injuries (requiring hospitalization)

**Analysis:** Massachusetts saw total serious injuries (requiring hospitalization) decrease 2% from 4,134 in 2013 to 4,027 in 2014. Since 2010, serious injuries have dropped 17%.



**Figure 2.10** (Source: MA Injury Surveillance Report, June 2016)

The trendline projection for 2017 is 3,261, which continues the ongoing trend of serious injuries declining. The high R-squared value (0.9263) provides tremendous confidence in this projection.

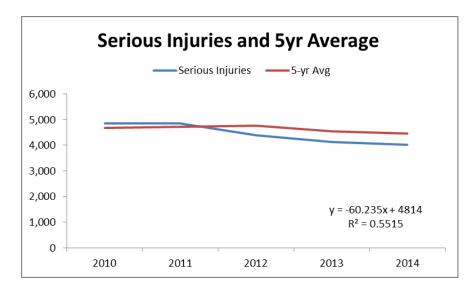


Figure 2.11

The five-year average has dropped slightly from 4,557 for 2009-2013 to 4,451 for 2010-2014 representing a 2% decline. The trendline projection for five-year average in 2017 is 4,332, a decrease of 3% from 2014. The R-squared value is moderate, meaning confidence can go either way on the projection. Though if the projection holds, the five-year average in 2017 will not meet the goal set forth by the SHSP, unfortunately.

It must be noted that EOPSS/HSD's performance measure for serious injuries must be identical to the Massachusetts HSIP goal to reduce the five-year average serious injuries from to 3,867 by 2017 per 23 CFR Part 1300. Hence, the target projection of 13% is used instead of a more modest projection of 3-5% per trendline analysis.

#### **Target Analysis Summary:**

	2010	2014	% chg	Trendline	Proj % chg	R-squared
				2017 est.	from 2014	value
Annual	4,782	4,027	- 17%	3,261	- 19%	0.9263
5-yr avg.	4,669	4,451	- 5%	4,332	- 3%	0.5515

#### C-3: Fatalities Per 100M VMT

**FFY 2017 Target:** Decrease fatality/VMT rate 10% from the 2010-2014 calendar base year average of 0.64 to 0.58 by December 31, 2017.

**Basis of Performance Measure:** Fatalities per vehicle miles traveled

**Analysis:** In recent years, Massachusetts has had either the lowest fatality rate per VMT in the nation or one of the lowest. From 2013 to 2014, the rate dropped 8% from 0.62 to 0.57; while the five-year average in 2014 was 1% lower than the five-year average in 2013.

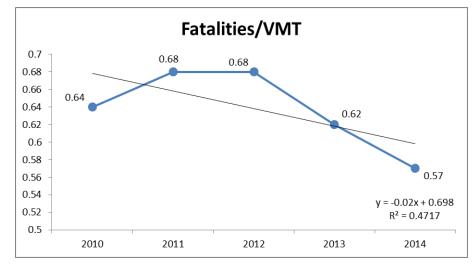


Figure 2.12 (Source: FARS, FHWA)

Despite an uptick in fatality rate between 2010 and 2011, the rate has decreased 11% since 2010. The trendline projects the rate to decrease 5% to 0.54 by 2017. R-squared value has increased from 0.0222 in 2013 to 0.4717 indicating the likelihood of the VMT rate further decreasing is more likely now than at the end of 2013.

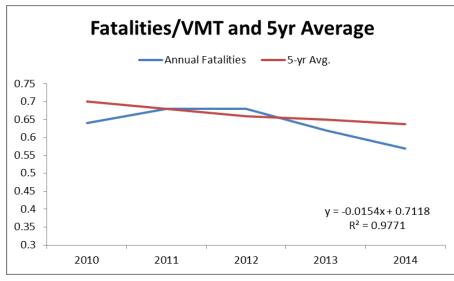


Figure 2.13

The five-year average trendline for fatality rate has an extremely high R-squared value. By 2017, fatality rate is expected to drop 8% from 0.64 to 0.59.

Given the 9% decline in five-year fatality rate average from 2010 to 2014 and the high confidence in the five-year average trendline projection, a 10% decrease in five-year average from 0.64 for 2014 to 0.58 in 2017 is reasonable.

**Target Analysis Summary:** 

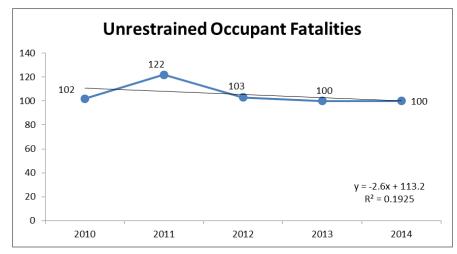
	2010	2014	% chg	Trendline	Proj % chg	R-squared
				2017 est.	from 2014	value
Annual	0.64	0.57	- 11%	0.54	- 5%	0.4717
5-yr avg.	0.70	0.64	- 9%	0.59	- 8%	0.9771

## C-4: Unrestrained Occupant Fatalities

**FFY 2017 Target:** Decrease unrestrained passenger vehicle occupant fatalities 5% from the 2010-2014 calendar base year average of 105 to 100 by December 31, 2017.

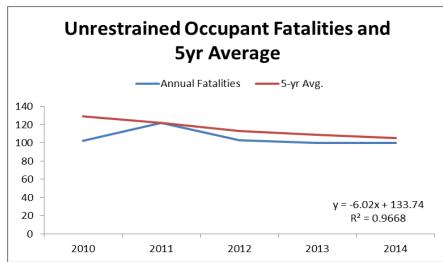
**Basis of Performance Measure:** Unrestrained passenger vehicle occupant fatalities, all seating positions

**Analysis:** Annual unrestrained occupant fatalities remained unchanged at 100 from 2013 to 2014; while five-year average decreased from 109 to 105 – a 4% decline – from 2013 (2009-2013) to 2014 (2010-2014). The five-year average for 2014 was down 19% from 2010 (129).



#### Figure 2.14 (Source: FARS)

From 2010 to 2014, unrestrained occupant fatalities declined 2% from 102 to 100. Based on the trendline equation, projected fatalities in 2017 is 92. This represents a projected 8% decrease. Despite the positive estimate, the low R-squared value (0.1925) indicates confidence in the projection isn't too strong.



#### Figure 2.15

Five-year average declined 19% from 2010 to 2014. Trendline equation projects the five-year average in 2017 to be 86, an estimated drop of 18% from 2014. Confidence in the continued downward trend in five-year average is bolstered by a high R-squared value.

Based upon the difference in R-squared value for unrestrained occupant fatalities between yearly (0.1925) and five-year

(0.9668), a conservative projection of a 5% decrease in five-year average from 2014 to 2017 is reasonable.

**Target Analysis Summary:** 

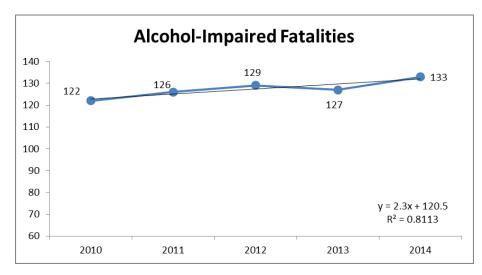
0	,					
	2010	2014	% chg	Trendline	Proj % chg	R-squared
				2017 est.	from 2014	value
Annual	102	100	- 2%	92	- 8%	0.1925
5-yr avg.	129	105	- 19%	86	- 18%	0.9668

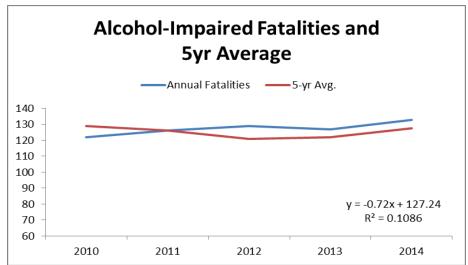
## C-5: Alcohol-Impaired Driving Fatalities

Decrease alcohol-impaired driving fatalities 5% from the 2010-2014 FFY 2017 Target: calendar base year average of 127 to 121 by December 31, 2017.

**Basis of Performance Measure:** Alcohol-impaired driving fatalities

**Analysis:** From 2013 to 2014, alcohol-impaired driving fatalities increased 5% from 127 to 133. The five-year average (2010-2014) was 4% higher than the previous five-year average (2009-2013), rising to 122 from 127.





low confidence in the projection.

**Figure 2.16** (Source: FARS)

Despite the slight decline from 2012 to 2013, alcohol-impaired fatalities have increased 8% since 2010.

Trendline equation estimates alcohol-impaired fatalities will increase in the short term with projected 2017 fatalities of 139. The high R-squared value suggests (0.8113)likelihood of alcohol-impaired fatalities rising in the near future.

Figure 2.17

In contrast with the rising linear trendline for annual alcoholimpaired fatalities, the five-year average has a declining linear trendline. Since 2010, the fiveyear average has decreased 2% from 129 to 127. According to the trendline equation, projected fatalities for 2017 are 121 - a 5% drop from 2014. The R-squared value (0.1086) reveals

Based upon the low R-squared value for the five-year average and recent 5% increase from 2013 to 2014, a 5% reduction in alcohol-impaired driving fatalities for the five-year average (2013-2017) is a reasonable target for December 31, 2017.

#### **Target Analysis Summary:**

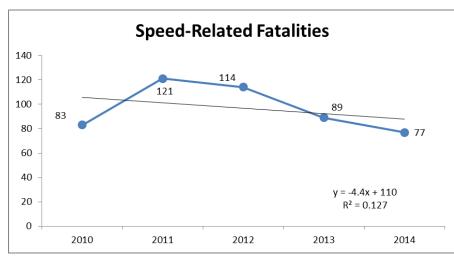
	2010	2014	% chg	Trendline 2017 est.	Proj % chg from 2014	R-squared value
Annual	122	133	+ 9%	139	+ 5%	0.8113
5-yr avg.	129	127	- 2%	121	- 5%	0.1086

## C-6: Speed-Related Fatalities

**FFY 2017 Target:** Decrease speed-related fatalities 5% from the 2010-2014 calendar base year average of 97 to 92 by December 31, 2017.

**Basis of Performance Measure:** Speed-related driving fatalities

**Analysis:** From 2013 to 2014, speed-related fatalities decreased 13% from 89 to 77. Five-year average remained unchanged during the same time period, holding at 97.



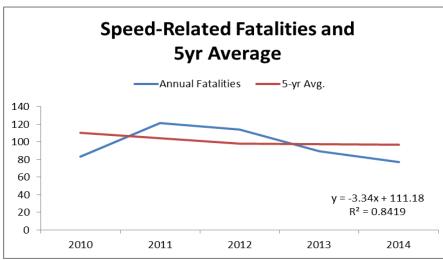


Figure 2.18 (Source: FARS)

Since 2011, speed-related fatalities have been steadily declining. From a high of 121 in 2011 to a low of 77 in 2014, fatalities have dropped 36%.

Despite this positive trend, the low R-squared value reflects the cyclical nature of speed-related fatalities. It was 148 in 2006, 77 in 2009 and given this pattern, could be rising again after 2014.

## Figure 2.19

For the five-year average, the trendline projection for 2017 is 84 speed-related fatalities. This would be a 13% decline from 97 in 2014. The high confidence in the trendline, reflected by the R-squared value of 0.8419, should be treated with caution due to the up-and-down behavior of

speed-related fatalities since 2005.

Based upon speed-related fatalities and the fact that the five-year average has only gone down 1 (98 to 97) since 2012, a conservative target of a 5% decrease from the 2010-2014 calendar base year average of 97 to 92 in speed-related fatalities by December 31, 2017 is reasonable.

**Target Analysis Summary:** 

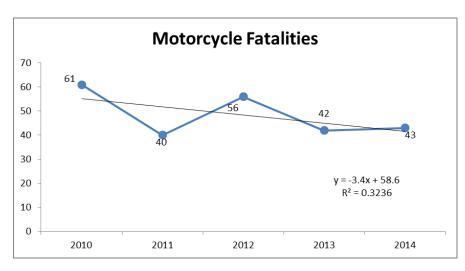
	2010	2014	% chg	Trendline	Proj % chg	R-squared
				2017 est.	from 2014	value
Annual	83	77	- 7%	75	- 3%	0.127
5-yr avg.	110	97	- 12%	84	- 13%	0.8419

## C-7: Motorcyclist Fatalities

**FFY 2017 Target:** Decrease motorcycle fatalities 5% from the 2010-2014 calendar base year average of 48 to 46 by December 31, 2017.

**Basis of Performance Measure:** Motorcycle fatalities

**Analysis:** Since 2010, motorcycle fatalities motorcycle fatalities declined 30% from 61 to 43 in 2014. During the same period, the five-year average saw an 11% reduction from 54 to 48.



**Figure 2.20** (Source: FARS)

The trendline equation projects motorcycle fatalities to drop to 31 in 2017, a decrease of 28% from 43 in 2014. Given the low R-squared value (0.3236) – due fluctuations in motorcycles fatalities over the past five years – it is highly unlikely for this projection to occur.

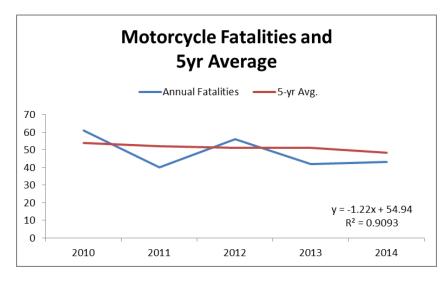


Figure 2.21

The five-year average has decreased nearly 3% each year since 2010. A high R-squared value (0.9093) supports this downward trend, which would mean another incremental decrease is expected for 2017. The projection for 2017, 45, would be 6% lower than 2014.

Given the fluctuations in the number of motorcycle fatalities since 2010, along with the incremental decline in five-year averages from year-to-year, a

conservative projected target for 2017 would be prudent. A 5% decrease in five-year average from 2014 to 45 is acceptable and within reach.

**Target Analysis Summary:** 

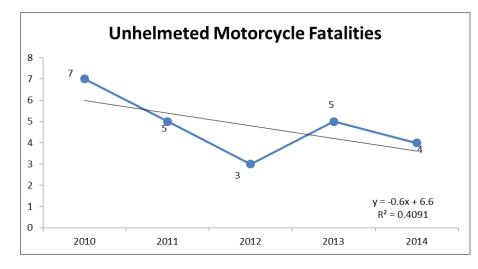
	2010	2014	% chg	Trendline	Proj % chg	R-squared
				2017 est.	from 2014	value
Annual	61	43	- 30%	31	- 28%	0.3236
5-yr avg.	54	48	- 11%	45	- 6%	0.9093

# C-8: Unhelmeted Motorcyclist Fatalities

**FFY 2017 Target:** Decrease unhelmeted motorcyclist fatalities 20% from the 2010-2014 calendar base year average of 5 to 4 by December 31, 2017.

**Basis of Performance Measure:** Unhelmeted motorcycle fatalities

**Analysis:** Unhelmeted motorcyclist fatalities decreased from 5 in 2013 to 4 in 2014. Despite the 20% decline, the five-year average held steady at 5 compared to 2013.



**Figure 2.22** (Source: FARS)

The trendline equation projects fatalities to decline by two in 2017. With an R-squared value close to .5, possibility of achieving projected 2017 value is better than it was in FFY 2016.

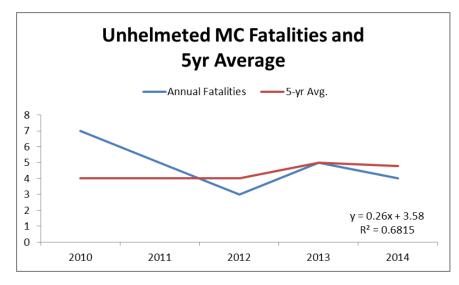


Figure 2.23

Five-year average for unhelmeted motorcycle fatalities remained the same at five in 2014. The trendline projects fatalities to rise to six in 2017. Higher R-squared value than in Figure 2.21 lends slightly more confidence to the estimate.

Despite the favorable projection for annual unhelmeted motorcycle fatalities, the projected uptick in the five-year average must be taken into consideration. The target goal for

unhelmeted motorcycle fatalities will be a 20% decline from 2010-2014 average of 5 to 4 by December 2017.

#### **Target Analysis Summary:**

	2010	2014	% chg	Trendline	Proj % chg	R-squared
				2017 est.	from 2014	value
Annual	7	4	- 43%	2	- 60%	0.4091
5-yr avg.	4	5	+ 30%	6	+ 20%	0.6815

#### C-9: Young Driver (Age 20 or under) Involved in a Fatal Crash

**FFY 2017 Target:** Decrease number of young drivers (age 20 or under) involved in fatal crashes 10% from 2010-2014 calendar base year average of 42 to 38 by December 31, 2017.

**Basis of Performance Measure:** Number of young drivers (age 20 or under) involved in a fatal crash

**Analysis:** From 2013 to 2014, young drivers involved in a fatal crash decreased 35% from 37 to 24. The five-year average dropped 13% from 48 to 42 during the same period. The successful implementation of improved Junior Operator License (JOL) Law in Massachusetts has contributed to this decline in fatal crash involvement by young drivers.

Since 2010, young drivers involved in a fatal crash have declined 55% from 53 to 24. The trendline equation projection continues this remarkable drop in fatalities with six fatalities expected in 2017. The high R-squared value means there is confidence in the equation and projected figures.

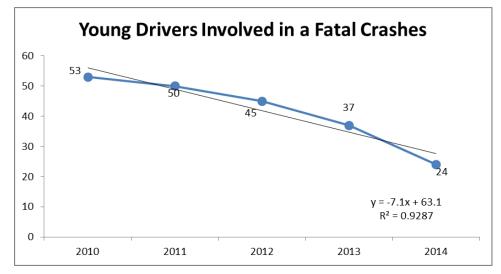


Figure 2.24 (Source: FARS)

From 2010 to 2014, the fiveyear average dropped 33% from 63 to 42. With an even higher R-squared value than in Figure 2.23, there is much confidence in the trendline equation. For 2017, projected five-year average of the number voung drivers involved in fatal crash is 26, a 38% drop from 2014.

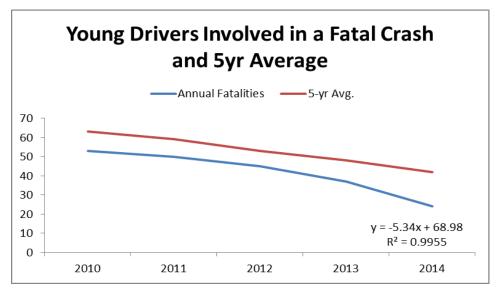


Figure 2.25

Given the high confidence in both trendline equations and the continued success of Massachusetts' IOL laws' impact on teen driving decisions, the numbers are expected to continue falling in the coming years. While trendline projections for both annual and five-year fatalities are substantial decreases, it is more likely the number of young drivers involved in a fatal crash will decline at a slower pace than projected in

the next few years.

#### **Target Analysis Summary:**

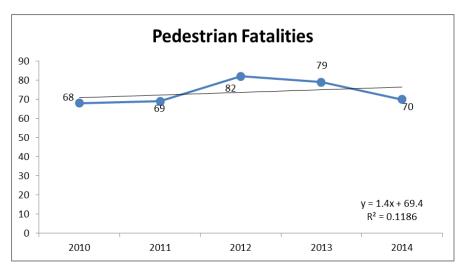
	2010	2014	% chg	Trendline	Proj % chg	R-squared
				2017 est.	from 2014	value
Annual	53	24	- 55%	6	- 75%	0.9287
5-yr avg.	63	42	- 33%	26	- 38%	0.9955

#### C-10: Pedestrian Fatalities

**FFY 2017 Target:** Decrease pedestrian fatalities 5% from 2010-2014 calendar base year average of 74 to 70 by December 31, 2017.

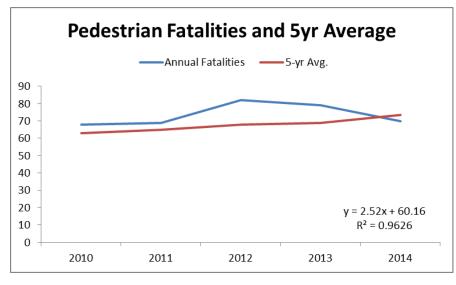
#### **Basis of Performance Measure:** Pedestrian fatalities

**Analysis:** In 2014, pedestrian fatalities decreased 11% from 79 in 2013 to 70. It was the second consecutive year, pedestrian fatalities have declined. The five-year average for pedestrian fatalities rose 9% from 69 in 2013 to 74. It was the first time since 2009 where the number of fatalities reported was less than the five-year average for the same year.



Since 2010, pedestrian fatalities have risen 3% from 68 to 70. The previous five-year period (2009-2013) saw a 48% increase. This is a positive development as number of fatalities has fluctuated much recently. Despite a trendline equation that projects pedestrian fatalities to rise to 81 by 2017, the low R-squared value indicates there is almost confidence in the probability of that

Figure 2.26 (Source: FARS)



#### Figure 2.27

outcome in 2017.

In contrast to the drop in yearly pedestrian fatalities, five-year average of pedestrian fatalities rose from 63 in 2010 to 74 in 2014, a 17% increase. Trendline projects five-year average in 2017 to increase by 8% to 80. With an R-squared value much higher than in Figure 2.25, the level of confidence in the future outcome is higher as well.

While the contrasting R-square values for pedestrian fatalities and

five-year average points to a higher likelihood of an increase in the five-year average by 2017, the recent decline of fatalities may indicate a trend towards less pedestrian deaths. Due to these conflicting possible outcomes, a conservation reduction of 5% from the 2010-2014 calendar base year average of 74 to 70 is proposed.

#### **Target Analysis Summary:**

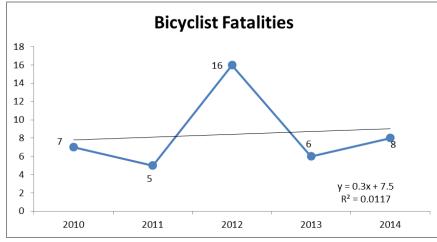
	2010	2014	% chg	Trendline 2017 est.	Proj % chg from 2014	R-squared value
Annual	68	70	+ 3%	81	+ 16%	0.1186
5-yr avg.	63	74	+ 17%	80	+8%	0.9626

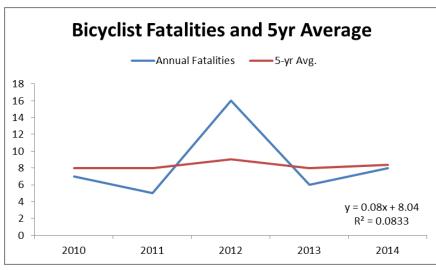
#### C-11: Bicyclist Fatalities

**FFY 2016 Target:** Decrease bicyclist fatalities 10% from 2010-2014 calendar base year average of 8 to 7 by December 31, 2017.

**Basis of Performance Measure:** Bicyclist fatalities

**Analysis:** In 2014, bicyclist fatalities rose 33% from 6 in 2013 to 8. The five-year average held steady at 8. It is becoming more evident – two straight years of single digits fatality totals – the 2012 number will be an outlier.





**Figure 2.28** (Source: FARS)

From 2010 to 2014, bicyclist fatalities increased from 7 to 8. The trendline projects fatalities to increase to 10 by 2017, a 25% rise. But, confidence in the projection is practically nil with an R-squared value of 0.0117.

Five-year average for bicyclist fatalities remained pretty consistent from 2010-2019. The only bump was in 2012, which was a result of the 16 fatalities reported that year. Trendline projects the five-year average to increase to 9 in 2017. Yet, like the trendline in Figure 2.27, the low R-squared value dissuades one from having confidence in the equation.

#### **Figure 2.29**

Going forward, the target for 2017 will be conservative given the consistency of the five-year average since 2010 as well as the low R-squared values of each trendline. For

2017, a 10% decrease from the five-year average of 8 in 2014 to 7 is projected.

#### **Target Analysis Summary:**

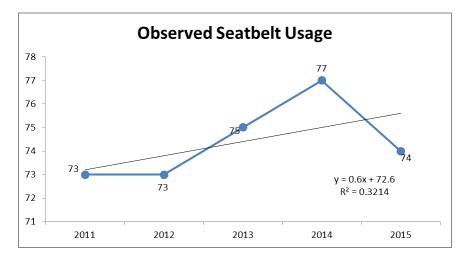
	2010	2014	% chg	Trendline 2017 est.	Proj % chg from 2014	R-squared value
Annual	7	8	+ 14%	10	+ 25%	0.0117
5-yr avg.	8	8	No Change	9	+ 13%	0.0833

#### B-1: Observed Seat Belt Use (Passenger Vehicles - Front Seats)

**FFY 2017 Target:** Increase observed seat belt use rate 5% from 2011-2015 calendar base year average of 74 to 78 by December 31, 2017.

**Basis of Performance Measure:** Observed seat belt usage

**Analysis:** From 2014 to 2015, observed seat belt usage dropped three percentage points from 77% to 74%. Five-year average remained at 74, same as in 2013. Since 2008, when Massachusetts recorded a seatbelt usage rate of 67%, the rate has increased 7%.



**Figure 2.30** (Source: Annual Statewide Seatbelt Survey)

From 2011 to 2015, seat belt usage has risen one percentage point to 74%. Trendline equation projects 2017 seat belt usage to be 77%, an increase of 3%. Confidence in the equation is very low as the R-squared value is 0.3214.

Five-year average increased three percentage points from 71 in 2011 to 74 in 2015. Trendline equation (Figure 2.31) projects the 2017 five-year average to be 77, which would indicate year-to-year seat belt rate would continue to rise incrementally in the coming years. With an R-squared value of 0.8674, there is high confidence in the equation's outcome. Given this confidence in the five-year projection, a 5% increase by 2017 is reasonable.

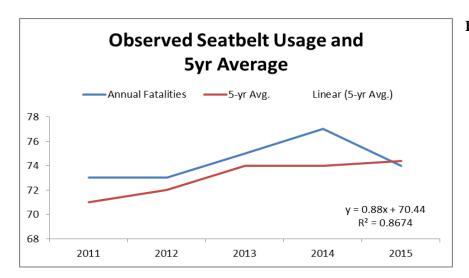


Figure 2.31

**Target Analysis Summary:** 

	2011	2015	% chg	Trendline 2016 est.	Proj % chg from 2014	R-squared value
Annual	73	74	+1%	77	+4%	0.3214
5-yr avg.	71	74	+ 1%	77	+ 4%	0.8674

# **Additional Non-Core Performance Measures:**

# Overall Fatalities: Urban Fatalities/VMT

**FFY 2017 Target:** Decrease urban fatalities/VMT rate 5% from 0.52 in 2013 to 0.49 by December 31, 2017.

**Basis of Performance Measure:** Urban fatality/VMT

**Analysis:** In 2014, urban fatalities made up 90% of total fatalities across the Commonwealth, up from 85% in 2013. Total urban fatalities dropped 2% from 300 in 2013 to 295 in 2014 after rising steadily from 2010 to 2012.

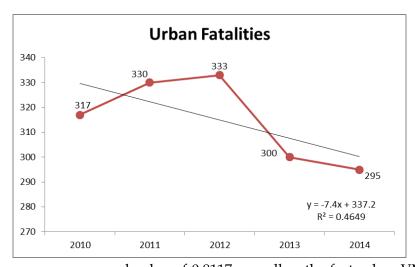
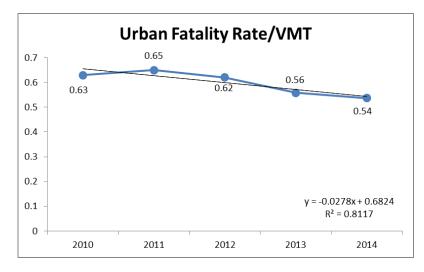


Figure 2.32 (Source: FARS)

The projected urban fatalities for 2017 are 278, which would be 6% lower than in 2014. A moderate R-squared value of 0.4649 indicates that confidence in the equation outcome is lukewarm.

From 2010 to 2014, the urban fatality/VMT rate declined 14% to 0.54. The rate in 2014 was 4% less than the 0.56 reported in 2013. The trendline equation projects 2017 urban fatality rate/VMT to decline by 15% to 0.46. This outcome is bolstered by a high R-

squared value of 0.8117 as well as the fact urban VMT in Massachusetts increases at least 2-3% each year. If the projection for 2017 in urban fatalities holds true, the urban fatality rate will also reach project 2017 VMT rate of 0.46.



#### Figure 2.33

Despite the rosy outlook, the projected urban fatalities/VMT for 2017 will be a conservative 5% to account for the fluctuations in deaths since 2009. Urban fatalities were reported at 305 that year and rose steadily over the next three years to a peak of 333 in 2012.

#### **Target Analysis Summary:**

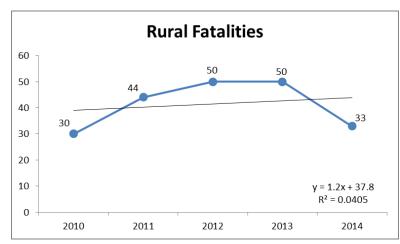
	2010	2014	% chg	Trendline 2017 est.	Proj % chg from 2014	R-squared value
Annual Urban Fatalities	317	295	- 7%	278	- 6%	0.4649
Urban Fatality Rate	0.63	0.54	- 14%	0.46	- 15%	0.8117

## Overall Fatalities: Rural Fatalities/VMT

**FFY 2016 Target:** Decrease rural fatalities/VMT rate 5% from 1.93 in 2013 to 1.83 by December 31, 2017.

**Basis of Performance Measure:** Rural fatality/VMT

**Analysis:** For the first time since 2010, rural fatalities have declined. In 2014, 33 fatalities were reported – a 34% drop from 2013. This is the second lowest rural fatalities has been in the past ten years. As a percentage of all Massachusetts traffic fatalities, rural fatalities accounted for 10% of all fatalities – down from 15% in 2013.



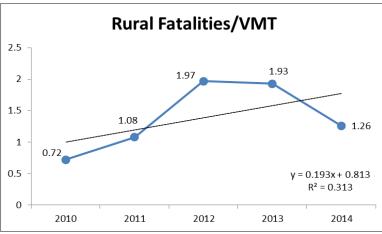


Figure 2.34 (Source: FARS)

Trendline equation projects rural fatalities to rise 42% by 2017 to 47. With a very low R-squared value, there is no confidence in this equation's outcome.

The five-year average for rural fatalities dropped 2% from 42 for 2009-2013 to 41 for 2010-2014.

# Figure 2.35

Like rural fatalities for 2014, the rural fatality rate also declined from 2013. The 1.26 rate was 35% lower than reported in 2013. It was the second straight year of decline. The trendline equation projects 2017 rural fatality rate to be 2.36, which would be 87% more than the 1.26 reported in 2014. With a low R-

squared value, there is very little confidence in the 2017 projection.

While current projections for rural fatality rate seems unfavorable, the recent drop in fatalities and the expected continued trend in the rural VMT increasing 1-2% each year may prove the trendline projections wrong. Taking this into account, a goal of attaining a 5% decline in rural fatality rate by the end of 2017 is a reasonable expectation.

#### **Target Analysis Summary:**

	2010	2014	% chg	Trendline 2017 est.	Proj % chg from 2014	R-squared value
Annual						
Rural	30	33	+ 10%	47	+ 42%	0.0405
Fatalities						
Rural						
Fatality	0.72	1.26	+ 75%	2.36	+ 87%	0.313
Rate						

## Impaired Driving: Alcohol-Related Fatalities/VMT

**FFY 2016 Target:** Decrease alcohol-related fatalities/VMT rate 5% from 0.23 in 2014 to 0.22 by December 31, 2017.

**Basis of Performance Measure:** Alcohol-related fatalities/VMT

**Analysis:** After increasing from 2010 to 2011, alcohol-related fatality/VMT rate has remained steady at 0.23 ever since. If the current rate of alcohol-related fatalities remains at or near its five-year (2010-2014) average of 127 and the amount of VMT continues upwards by 2-3% each year, the rate should remain fairly consistent in coming years.

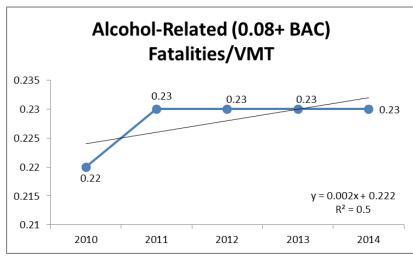


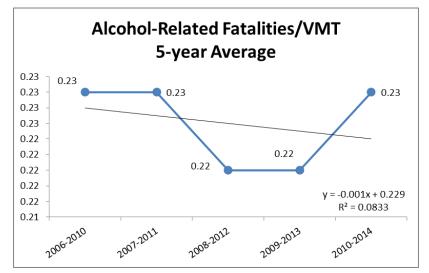
Figure 2.36 (Source: FARS, FHWA)

The trendline projects alcohol-related fatalities per VMT to rise 0.24 by 2017. Despite the increased outlook, the midrange R-squared value points to a 50/50 chance of this happening.

Figure 2.36 on the next page shows the trendline equation for the five-year average for alcohol-related fatalities/VMT. As the chart shows, there is not much fluctuation in the five-year value. The extremely low R-

square number indicates there is very little confidence in the projections. Surprisingly, the trendline equation results in 0.22 for each year from 2015 – 2019. It seems that alcohol-related

fatalities/VMT won't be increasing or decreasing in the near future and will most likely be at or near 0.23.



#### Figure 2.37

In light of the consistency of the 5-year average as well as alcohol-related fatalities/VMT, the 2017 goal for alcohol-related fatality rate will be a conservative 5% decrease.

**Target Analysis Summary:** 

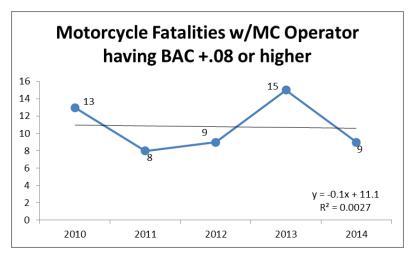
	2010	2014	% chg	Trendline 2017 est.	Proj % chg from 2014	R-squared value
Alcohol-Related Fatalities/VMT	0.22	0.23	+ 5%	0.24	+ 4%	0.5
5-yr Avg. Alcohol-Related Fatality/VMT	0.23	0.23	No Change	0.22	- 4%	0.0833

#### Motorcycles: MC Fatalities w/MC operator +0.08 BAC

**FFY 2017 Target:** Decrease motorcycle fatalities involving a motorcycle operator with BAC +0.08 or higher 10% from 2010-2014 calendar base year average of 11 to 10 by December 31, 2017.

**Basis of Performance Measure:** Motorcycle fatalities with motorcycle operator BAC 0.08 or higher

**Analysis:** The number of motorcycle fatalities where the motorcycle operator had a BAC of .08 or greater dropped 31% between 2010 and 2014. From 2013 to 2014, fatalities fell from 15 to 9, a decline of 40%. The year-to-year number of motorcycle fatalities involving a motorcycle operator with BAC 0.08 or greater has fluctuation from high to low over the past five years.



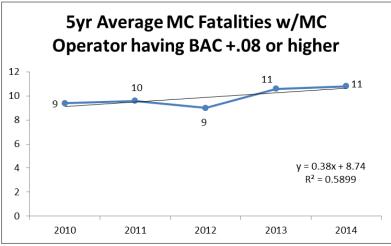


Figure 2.38 (Source: FARS)

The abysmally low R-squared value (0.0027) suggests one should not place too much confidence in the trendline projection of 10 in 2017.

On the other hand, the R-squared value for 5-year average (0.5899) is more promising. The projection for 2017 is 12, which is pretty reasonable given the past two years had five-year averages of 11.

**Figure 2.39** 

Taking into account that both the five-year average of motorcycle fatalities (Figure 2.20) and alcohol-related fatalities (Figure 2.16) are projected to decrease by 2017 – 6% and 2%, respectively – a drop of one fatality in the five-year average (11 to 10) would be acceptable. This would equal a 10% decline and also take into account the inconsistent numbers associated with motorcycle fatalities involving an operator with BAC 0.08 or higher.

**Target Analysis Summary:** 

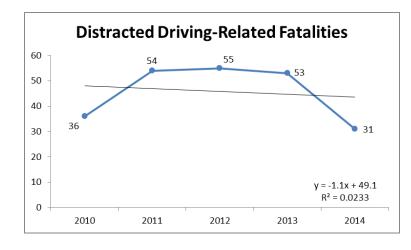
	2010	2014	% chg	Trendline 2017 est.	Proj % chg from 2014	R-squared value
MC Fatalities w/MC operator BAC +.08 or more	13	9	- 31%	10	+ 11%	0.0027
5yr avg. for MC Fatalities w/MC operator BAC +.08 or more	9	11	+ 22%	12	+ 9%	0.5899

#### Distracted Driving: Distracted Driving-Related Fatalities

**FFY 2017 Target:** Decrease distracted driving-related fatalities 15% from 31 in 2014 to 26 by December 31, 2017.

**Basis of Performance Measure:** Distracted driving-related fatalities

**Analysis:** The data for distracted driving-related fatalities has only been tracked since 2010, so a five-year average comparison cannot be determined or examined at this time. Nevertheless, distracted driving-related fatalities have decreased 14% from 36 in 2010 to 31 in 2014.

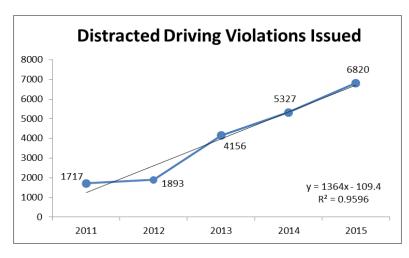


#### Figure 2.40 (Source: FARS)

The low R-squared value (0.0233) reflects the inconsistent levels of distracted driving fatalities, showing no confidence in the future projections.

While much of the media attention has been on drivers and cellphone/smartphone distraction, from 2010-2014, distractions associated with cellphones accounted for only 11% of all distracted driving fatalities in Massachusetts.

In fact, a large majority of the distracted driving fatalities involved driver inattention or carelessness. It also must be pointed out that determining if a driver was distracted can be difficult to ascertain in the aftermath of a crash.



#### Figure 2.41

(Source: MRB Quarterly Violation Report – 90 8M JOL Mobile Dev/Phone; 90 13MP Mobile Device Improper Use; 90 13B Electronic Msg Send/Receive)

Despite the uncertainty surrounding distracted driving reporting, it is clear Massachusetts law enforcement is making an impact on driver behavior with an increase in distracted driving violations issued for the fourth straight year.

From 2014 to 2015, violations issued increased

by 28%. Since 2011, the total increase in violations has been an astounding 297%. As more drivers are cited for distracted driving, more drivers (and passengers) are aware of the dangers (and financial impact) of distracted driving.

The trendline equation in Figure 2.40 has a very high R-squared value which indicates there is confidence in the future estimates of distracted driving violations. By 2017, a projected 10,800 violations will be distributed.

The combination of the recent decrease in distracted driving fatalities and the expected increase in violations issued allows for a more generous projected goal. For 2017, the target will be a 15% decrease in distracted driving-related fatalities from 31 in 2014 to 26.

#### **Target Analysis Summary:**

	2010	2014	% chg	Trendline	Proj % chg	R-squared
				2016 est.	from 2013	value
Distracted						
Driving-related	36	31	- 14%	40	+ 29%	0.0233
Fatalities						
	2011	2015	% chg	Trendline	Proj % chg	R-squared
	2011	2013		2016 est.	from 2013	value
Distracted						
Driving	1,717	6,820	+ 297%	10,800	+ 58%	0.9596
Violations						

#### Younger Drivers: Young Driver (Age 20 or under) Fatalities

**FFY 2017 Target:** Decrease young driver fatalities 20% from 10 in 2014 to 8 by December 31, 2017.

**Basis of Performance Measure:** Young driver fatalities

**Analysis:** Since 2010, the number of young driver (Ages 20 or under) fatalities in Massachusetts has dropped 52% from 21 to 10. From 2013 to 2014, it was a 23% decline from 13 to 10. For 2014, all young drivers killed were male. In fact, during 2010-2014, male drivers accounted for 83% of all young driver fatalities.

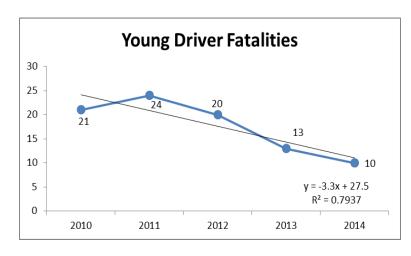
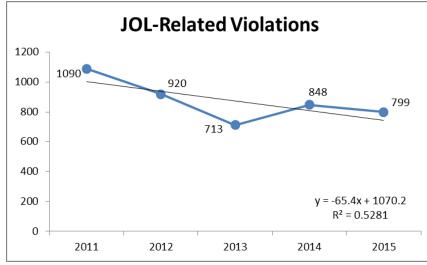


Figure 2.42 (Source: FARS)

The trendline equation projects young driver fatalities to drop to -2 in 2017, which is impossible. However, based on the high R-squared value (0.7937) confidence is strong in young driver fatalities dropping further by 2017.

There is further optimism in the projected decline in young driver fatalities. JOL violations, which include penalties for



texting, phone usage, speeding, and time restriction offenses, have been instrumental making young drivers aware of the rules and regulations of the roadways in Massachusetts.

#### Figure 2.43

(Source: MRB Quarterly Violations Report, January 2015)

[Comprised of JOL No Lic DR (90 8B UA), JOL Pass Restriction (90 8 JO), JOL Perm Time Restric (90 8B TR), JOL Mobile Dev/Phone (90 8M), JOL Time

Restriction (90 10 JO), JOL CDL Vehicle (90 8 JL), JOL Mobile Dev/Phone (90 8M).]

With a 26% decline in JOL violations from 2010 to 2014, it seems that young drivers are aware of the penalties involved if caught as well as an increased appreciation of the need to stay focused while on the road. The trendline equation indicates JOL violations are expected to decline 43% to 451 by 2017.

Furthermore, the implementation of the Safer Driver Law in 2010, which prohibits the usage of electronic devices by drivers under the age of 18, will continue to help increase safe driving habits by young drivers throughout the Commonwealth.

## **Target Analysis Summary:**

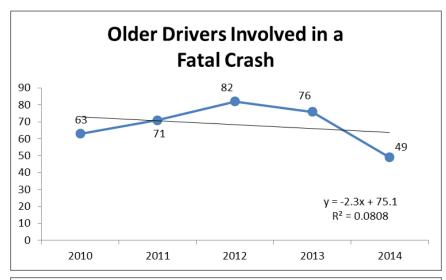
	2010	2014	% chg	Trendline 2017 est.	Proj % chg from 2014	R-squared value
Young Driver Fatalities	21	10	- 52%	- 2	n/a	0.7937
JOL Violations	1,090	799	- 27%	547	- 32%	0.5281

#### Older Drivers: Older Drivers (65+) Involved in Fatal Crashes

**FFY 2017 Target:** Decrease older drivers (65+) involved in fatal crashes 5% from the 2010-2014 calendar base year average of 68 to 65 by December 31, 2017.

**Basis of Performance Measure:** Older drivers (65+) involved in fatal crashes

**Analysis:** Older drivers involved in a fatal crash decreased 22% from 2010 to 2014. From 2013 to 2014, it dropped 36% from 76 to 49. The trendline equation projects 2017 older driver involvement to 57, a 16% rise from 2014. Despite the projected increase, the extremely low R-square value shows no confidence on the trendline outcomes.



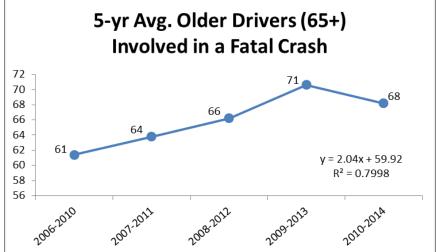


Figure 2.44 (Source: FARS)

Given the sharp decline in older driver involvement from 2013 to 2014, a look at the five-year averages gives a better sense of the direction the numbers will likely go in the near future. Since 2006-2010 calendar base year average, the five-year average has increased by 11% to 68 for 2010-2014. The high R-square value places confidence in the trendline projection of 76 by 2017.

Figure 2.45

Because the numbers have been rising in previous years for both older driver involvement and five-year averages, both trendlines are predicting an increase from 2014 figures by 2017. In light of two years of declining older driver involvement in a fatal crash, a conservative outlook of 5% decrease in five-year average by 2017 is reasonable.

**Target Analysis Summary:** 

	2010	2014	% chg	Trendline	Proj % chg	R-squared
				2017 est.	from 2014	value
Older Drivers						
Involved in	63	49	- 22%	57	+ 16%	0.0808
Fatal Crashes						
5-yr Avg. of						
Older Drivers	61	68	+ 11%	76	+ 12%	0.7998
Involved in	61	00	T 11 /0	76	T 12 /0	0.7990
Fatal Crashes						

#### **Traffic Records:**

<u>Traffic Records Performance Target #1</u> To improve the integration of traffic records systems by increasing the number of linked crash reports to hospital inpatient records by 10% from 91,000 in 2007 to 100,100 by September 2017.

EOPSS/HSD set Target #1 based on information provided in a project proposal from UMassSAFE (TR-17-07). Previously, Massachusetts utilized NHTSA's Crash Outcome Data Evaluation System (CODES) probabilistic linkage method to link crash, hospital, and emergency medical service datasets. Massachusetts ended CODES in 2011 and the last linkage was conducted with 2007 data. At that time, there were 91,000 crash reports linked to hospital inpatient records. UMassSAFE has received funding to investigate improved data linkage processes and strategies for linking highway safety data including crash, roadway inventory, citation, driver history (if available), emergency room, hospital and emergency medical services data. UMassSAFE is confident that Massachusetts will see a 10% increase in linked reports with this project.

<u>Traffic Records Performance Target #2</u> To increase by 5% the number of agencies able to access MassTRAC from 160 in April 2016 to 176 in June 2017.

EOPSS/HSD is confident that Performance Target #2 will be reached once up-to-date crash and citation data is added to MassTRAC, which should be completed by early August 2016. Traffic enforcement programs require departments to allocate resources to high crash locations. Unfortunately, many departments are unable to use their records management systems to analyze this information, so many departments will rely on MassTRAC.

<u>Traffic Records Performance Target #3</u> To improve the timeliness of crash data by decreasing the average number of days from crash incident to receipt of crash report by the RMV from 56.14 days for 2013 reports to fewer than 50 days for 2016 reports.

To determine Performance Target #3, EOPSS/HSD reviewed past timeliness information from the RMV and information from current and planned programs that may impact crash reporting. In early 2014, the MPTC began implementing a new online training for the updated crash report. Training participants receive information about the importance of timely reporting to the RMV. This training coupled with the move towards electronic crash reporting should decrease the average number of days from crash incident to receipt of crash report by the RMV.

<u>Traffic Records Performance Target #4</u> To improve completeness of the Massachusetts emergency medical services (EMS)/injury database, the Massachusetts Ambulance Trip Record Information System (MATRIS), by increasing the validation score from 83.64 in March 2015 to 85 in March 2017.

To determine Performance Target #4, EOPSS/HSD relied on information from DPH about their work to improve their data quality. With increased outreach by DPH through their Traffic Records projects (TR-17-15 and TR-17-19), DPH will likely improve their validity scores.

<u>Traffic Records Performance Target #5</u> To improve the completeness of the Massachusetts statewide road inventory database by increasing the number of intersections with Fundamental Data Elements (FDEs) from 0 in FFY 2016 to 5,400 in FFY 2017.

To determine Performance Target #5, EOPSS/HSD relied on data from the Central Transportation Planning Staff's project (TR-17-17). Central Transportation Planning Staff is confident that they will be able to review 5,400 intersections and add the required elements to the roadway inventory file.

To determine the performance targets for 2017, EOPSS/HSD reviewed FFY 2014, 2015 and 2016 Traffic Records project proposals, previous Strategic Plans for Traffic Records Improvement and data from DPH and the RMV.

Table 2.6 below presents progress on the performance targets set in the FFY 2016 HSP. The time period for most of the performance targets is still open so this is a progress report only.

**Table 2.6** Progress for FFY 2016 Highway Safety Performance Targets

Program Area	Performance Target	Performance Measure	Update
Overall	Decrease MV fatalities 10% from the 2009-2013 calendar base year average of 354 to 319 by December 31, 2016.	Number of motor vehicle related crash fatalities	The five-year average for 2010-2014 for MV fatalities was 357, an increase of 0.8% from 2009-2013.
			From 2013 to 2014, fatalities decreased 7% (351 to 328).
Overall	Decrease the number of serious traffic injuries 10% from 4,134 in 2013 to 3,721 by December 31, 2016.	Number of serious traffic injuries	Serious injuries were 4,027 in 2014, a 3% decrease from 2013.
Overall	Decrease fatalities/VMT 10% from the 2009-2013 calendar base year average of 0.64 to 0.58	Fatality rate per 100 M VMT	The five-year average for 2010-2014 was 0.64, no change from 2009-2013.
	by December 31, 2016.		From 2013 to 2014, fatalities/VMT decreased 8% (0.62 to 0.57).
Overall	Decrease rural fatalities/VMT 2% from 1.86 in 2013 to 1.82 by December 31, 2016.	Rural fatality rate per 100 M VMT	Rural fatalities/VMT for 2014 was 1.26, a 32% decline from 1.86 in 2013.
			From 2013 to 2014, rural fatalities/VMT decreased 35% (1.93 to 1.26).
Overall	Decrease urban fatalities/VMT 5% from 0.52 in 2013 to 0.49 by December 31, 2016.	Urban fatality rate per 100 M VMT	Urban fatalities/VMT for 2014 was 0.54, a 4% increase from 0.52 in 2013.
			From 2013 to 2014, urban fatalities/VMT decreased 4% (0.56 to 0.54).
Impaired Driving	Decrease alcohol impaired driving fatalities 10% from the 2009-2013 calendar base year	Number of fatalities involving a driver or motorcycle operator with a BAC of 0.08 or greater	The five-year average for 2010-2014 was 127, a 6% increase from 2009-2013.
	average of 120 to 108 by December 31, 2016.		From 2013 to 2014, alcohol impaired driving fatalities increased 5% (127 to 133).

Impaired Driving	Decrease alcohol-related fatalities/VMT 5% from 0.21 in 2013 to 0.19 by December 31, 2016.	Alcohol-related (+0.08 BAC) fatalities rate per 100 M VMT	Alcohol-related fatalities/VMT for 2014 was 0.23, a 9% increase from 2013.
Occupant Protection	Increase observed seat belt use rate 5% from 2010-2014 calendar base year average of 74 to 78 by December 31, 2016.	Percent of front seat outboard vehicle occupants who are observed to be using seat belts	The 2011-2015 average was 74. No change from 2010-2014.  From 2014 to 2015, seat belt use rate decreased 3% (77 to 74).
Occupant Protection	Decrease unrestrained vehicle occupant fatalities 10% from the 2009-2013 calendar base year average of 108 to 97 by December 31, 2016.	Number of unrestrained passenger vehicle occupant fatalities (all seat positions)	The five-year average for 2010-2014 was 105, a decrease of 3% from 2009-2013.  From 2013 to 2014, unrestrained vehicle occupant fatalities remained unchanged at 100.
Distracted Driving	Decrease distracted driving- related fatalities 10% from 40 in 2013 to 36 by December 31, 2016.	Number of fatalities with one or more distractions	Distracted driving-related fatalities were 25 in 2014, a 38% decline from 40 in 2013.
Speed and Aggressive Driving	Decrease speed-related fatalities 10% from the 2009-2013 calendar base year average of 97 to 87 by December 31, 2016.	Number of speed-related fatalities	The five-year average for 2010-2014 was 97, no change from 2009-2013. From 2013 to 2014, speed-related fatalities decreased 13% (89 to 77).
Young Drivers	Decrease number of young drivers age 20 or under involved in fatal crashes from 10% from 2009-2013 calendar base year average of 47 to 42 by December 31, 2016.	Number of younger driver (age 20 or younger) involved in a fatal crash	The five-year average for 2010-2014 was 42, an 11% decrease from 2009-2013.  From 2013 to 2014, young drivers involved in fatal crashes decreased 35% (37 to 24).
Young Drivers	Decrease young driver (age 20 and under) fatalities 15% from 13 in 2013 to 11 by December 31, 2016.	Number of young driver fatalities	Young driver (20 and under) fatalities for 2014 were 10, a 23% drop from 2013.  From 2013 to 2014, young driver fatalities decreased 23% (13 to 10).

Older Drivers	Decrease older drivers (65+) involved in fatal crashes by 5% from 69 in 2013 to 65 by December 31, 2016.	Number of older driver (age 65 or older) involved in a fatal crash	Older drivers (65+) involved in fatal crashes for 2014 were 49, a decrease of 30% from 2013.
Pedestrians	Decrease pedestrian fatalities 5% from 2009-2013 calendar base year average of 67 to 64 by December 31, 2016.	Number of pedestrian fatalities	The five-year average for 2010-2014 was 74, a 10% increase from 2009-2013.  From 2013 to 2014, pedestrian fatalities decreased 11% (79 to 70).
Bicyclists	Decrease bicycle fatalities 10% from 2009-2013 calendar base year average of 8 to 7 by December 31, 2016.	Number of bicyclist fatalities	The five-year average for 2010-2014 was 8, no change from 2009-2013.  From 2013 to 2014, bicyclists fatalities increased 33% (6 to 8).
Motorcyclists	Decrease motorcycle fatalities 5% from the 2009-2013 calendar base year average of 50 to 47 by December 31, 2016.	Number of motorcycle fatalities	The five-year average for 2010-2014 was 48, a 4% drop from 2008-2012.  From 2013 to 2014, motorcycle fatalities increased 2% (42 to 43).
Motorcyclists	Decrease motorcycle fatalities involving a motorcycle operator with BAC +0.08 or higher from 2009-2013 calendar base year average of 13 to 12 by December 31, 2016.	Number of motorcycle fatalities where the motorcycle operator has a +0.08 BAC	The five-year average for 2010-2014 was 11, a decrease of 15% from 2009-2013.  From 2013 to 2014, fatalities decreased 40% (15 to 9).
Motorcyclists	Decrease unhelmeted motorcycle fatalities 10% from 2009-2013 calendar base year average of 5 to 4 by December 31, 2016.	Number of unhelmeted motorcyclist fatalities	The five-year average for 2010-2014 was 5, no change from 2009-2013. From 2013 to 2014, unhelmeted fatalities decreased 20% (5 to 4).

Traffic Records	Ensure key highway safety stakeholders have accessible, accurate, complete, consistent, integrated, and timely data and	1. To improve the integration of traffic records systems by increasing the number of linked crash reports to hospital inpatient records by 10%	1. The project to link data sets is still in the beginning stage.  UMassSAFE is still in the
	integrated, and timely data and analyses from the local, state, and federal systems involving citation/adjudication, crash,	from 91,000 in 2007 to 100,100 by September 2015	process of accessing health data
	driver, injury surveillance, roadway, and vehicle data to conduct cost-effective and successful highway safety planning, programs, and evaluations.	2. To increase by 10% the number of agencies able to access MassTRAC from 153 in April 2015 to 168 in April 2016	2. As of May 2016, there are 160 agencies with access to MassTRAC.
		3. To improve the timeliness of crash data by decreasing the average number of days from crash incident to receipt of crash report by the RMV from 56.14 days in 2012 to fewer than 50 days in 2015	3. The average number of days between crash occurrence and the time it is entered into the crash data system was 42 days for paper reports and 45 days for electronic reports in 2014.
		4. Improve the completeness of the Massachusetts EMS injury database, the Massachusetts Ambulance Trip Record Information System (MATRIS), by increasing the validation score from 83.64 in March 2015 to 85 in March 2016.	4. As of March 2016, the validation score is 86.

# 3.0 Impaired Driving Program Area

## **Problem Identification and Analysis**

Preventing impaired driving deaths has always been a top priority for Massachusetts. Massachusetts continues to make progress in its efforts to reduce impaired driving. In recent years, EOPSS/HSD has funded projects such as the Educational Outreach to Young Drivers (aimed at high school students); MSP Drug Recognition Expert (DRE) Training (to increase ability of State police to identify drug usage during a traffic stop); the SOURCE investigations pilot program by ABCC (focusing on where impaired drivers in fatal crashes had their last alcoholic drink); and the purchase of two state-of-the-art Blood Alcohol Testing (BAT) mobiles for the MSP in an effort to stem impaired driving crashes across the Commonwealth.

During 2014, the number of alcohol-related fatalities (involving driving with BAC 0.01 or higher) increased slightly from 142 in 2013 to 154. Despite this 8% uptick, the five-year average in the past decade has dropped 7% as shown in Figure 3.1.

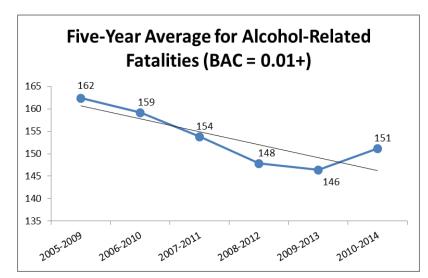
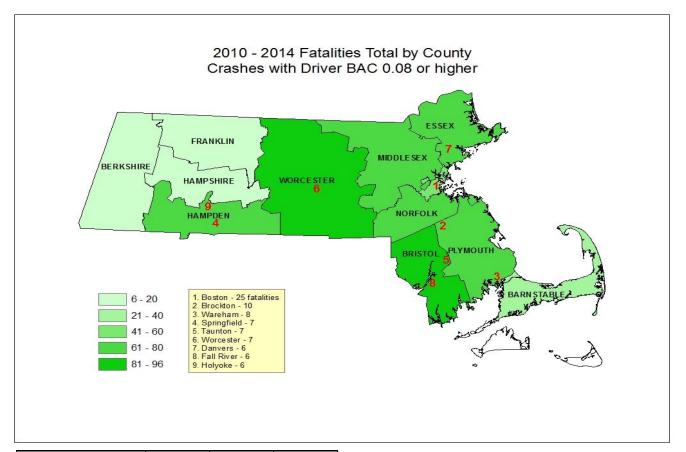


Figure 3.1 (Source: FARS)

Of the 154 alcohol-related fatalities reported in 2014, 133 involved a driver with a BAC of 0.08 or higher – 86% of all alcohol related fatalities. For 2013, fatalities involving a driver with BAC 0.08 or higher accounted for 89% of all alcohol-related deaths. Although crashes with impaired drivers have been decreasing, more resources need to be directed to enforcement and education.

In planning for FFY 2017, EOPSS/HSD will be making a concerted effort to increase funding in regions of the Commonwealth that have had impaired driving fatalities in recent years. Figure 3.2 on the following page highlights the level of fatalities from 2010 to 2014 across twelve counties (Dukes and Nantucket were excluded due to little or no fatalities) in Massachusetts. As the map shows, Worcester and Bristol County both had over 80 fatalities reported during this time frame. The red numbered cities are those that reported six or more fatalities during the period between 2010 and 2014.

Figure 3.2



2010 -2014	Total 0.08+ Fatalities	Total MV Fatalities	% 0.08+ Fatalities
Barnstable	34	100	34%
Berkshire	20	56	36%
Bristol	88	231	38%
Essex	64	176	36%
Franklin	6	26	23%
Hampden	61	164	37%
Hampshire	12	39	31%
Middlesex	69	232	30%
Norfolk	61	166	37%
Plymouth	73	191	38%
Suffolk	45	127	35%
Worcester	96	268	36%

Table 3.1 (Source: FARS)

As a percentage of total motor vehicle fatalities, impaired driving fatalities accounted for at least a third of all fatalities for each county except Franklin (23%). One interesting observation: Middlesex has 8% less alcohol-related fatalities than Bristol even though both have comparable total MV fatalities.

Table 3.2 below shows the breakdown of fatal crashes involving a driver with BAC 0.08+ from 2010 to 2014 by time-of-day. What stands out right away is the number of fatal crashes from midnight to 2:59am (176) accounts for 30% of the total fatal crashes reported during the time period. The next closest hours are 6pm – 8:59pm and 9pm – 11:59pm, both which had 17% of the fatal crashes.

	2010	2011	2012	2013	2014	Total
Midnight - 2:59am	33	45	32	28	38	176
3am - 5:59am	13	13	16	17	10	69
6am - 8:59am	6	4	2	10	3	25
9am - 11:59am	5	2	4	5	5	21
Noon - 2:59pm	7	3	7	4	6	27
3pm - 5:59pm	17	15	15	16	12	75
6pm - 8:59pm	17	22	19	22	19	99
9pm - 11:59pm	17	17	23	19	26	102
Total	115	121	118	121	119	594

Table 3.2 (Source: FARS)

# Fatal crashes involving a driver with BAC 0.08+ by time of day

With most drinking and driving occurring during nighttime, it makes sense that the time frame from 6pm - 3am would represent 64% of the fatal

crashes. In contrast, alcohol-related fatal crashes during daylight hours (6am - 3pm) would account for a mere 9% of the total.

As in Massachusetts, the top time-of-day for alcohol-related fatal crashes in the United States was midnight -2:59am during the same time frame (2010-2014).

0.08+ Driver in Fatal Crashes Female Male **Total** 2010 93 30 123 2011 103 23 126 2012 95 30 125 2013 97 34 131 2014 107 32 139 495 149 644

Table 3.3 (Source: FARS)

Between 2010-2014, over three-fourths of drivers (77%) with BAC 0.08+ in a fatal crash were male.

	2010-2014 Fatalities - BAC 0.01 or higher									
	Driver	Passenger	Pedestrian	Bicyclist	Total	% of Total				
16-20	30	24	6	0	60	12%				
21-24	81	21	6	1	109	22%				
25-34	84	14	9	0	107	21%				
35-44	54	4	13	1	72	14%				
45-54	62	10	12	2	86	17%				
55-64	31	2	11	0	44	9%				
65-74	10	0	3	0	13	3%				
75+	7	1	3	0	11	2%				
	359	76	63	4	502					

**Table 3.4** (Source: FARS)

The table to the left shows the breakdown of fatalities in which a person has a **BAC** 0.01 higher. As the data reveals, the age grouping

between 21-24 years had the highest level of fatalities, followed closely by the age range of 25-34. These two age groups account for 43% of the fatalities reported from 2010-2014. Drivers represented 72% of all fatalities.

Taking into account all the data presented, EOPSS/HSD plans to prioritize funding for projects aimed at reducing alcohol-related fatalities and fatal crashes in Bristol, Plymouth, Hampden and Worcester. Given those counties have over a third of their motor vehicle fatalities attributed

to alcohol impairment, priority will be to fund departments and non-profit agencies residing in those counties. Furthermore, cities with high impaired driving fatalities such as Boston, Brockton, and Worcester will be considered for additional funding to combat impaired driving through traffic enforcement outreach and mobilizations.

Based upon evidence presented above, enforcement mobilizations would be most effective between 9pm and 3am and should include a component of pedestrian enforcement in area of the community that has a close proximity of numerous bars and other drinking establishments.

#### Alcohol-Related Violations and Arrests

Table 3.5 presents alcohol-related violations in Massachusetts between 2011 and 2015. Overall, total violations have increased slightly by 0.7% since 2011. On a year-to-year basis, impaired driving violations decreased 1% from 2014 to 2015, while underage drinking violations rose 48%.

Table 3.5 Massachusetts Alcohol-Related Violations

	2011	2012	2013	2014	2015
Impaired Driving Violations <sup>a</sup>	18,420	19,241	18,071	18,810	18,565
Underage Drinking Violationsb	1,417	1,218	893	966	1,426
Total Violations	19,837	20,459	18,964	19,776	19,991

Source: MRB Quarterly Violations Report January 2016

<sup>a</sup> Comprising Operating with a suspended License/OUI (90 23 J), DWI Liquor (90 24 DI), DWI Alcohol Program (90 24 D), Motor Vehicle Homicide/OUI Liquor (90 24 GF), Drink Open Container (90 24 I), DWI Serious Injury (90 24 L), Operating without an Ignition Lock (90 24 S), OUI with Child Endanger (90 24 VA), MV Homicide/Liq&Negl (90 24GG) <sup>b</sup> Comprising Minor Attempt Procure Liquor (138 34 A AP), Minor Procure Liquor (138 34A PR), Liquor Purchase ID Card (138 34 B), Liquor Transported by Minor (138 34 C), Liquor Possession by Minor (138 34 C NS)

Table 3.6 presents alcohol-related arrests in Massachusetts between 2010 and 2014. Operating under the Influence (OUI) arrests have declined 35% since 2010, while liquor law and drunkenness arrests have decreased 34% and 8%, respectively. For under 18 offenders, arrests dropped for all three alcohol-related offenses between 2010 and 2014. OUI's went down 37%; liquor laws, 48%; and drunkenness, 27%.

Table 3.6 Massachusetts Alcohol-Related Arrests

20	10	20	11	20	12	20	13	20	14
Under	All								
18	Others								

	20	10	20	11	20	12	20	13	20	14
	Under 18	All Others								
OUI	78	11,634	66	9,887	74	8,467	57	8,324	49	<b>7,</b> 530
Liquor Laws	975	4,601	748	4,311	816	3,295	639	3,025	508	3,047
Drunkenness	231	7,443	175	7,249	152	6,875	201	7,055	169	6,875

Source: http://www.fbi.gov/about-us/cjis/ucr/crime-in-the-u.s/2014/crime-in-the-u.s.-2014, Table 69 June 2016

Despite lack of change in the level of violations reported, it is a positive development to see alcohol-related arrests decreasing across the board from 2010 to 2014. Whether this trend continues downward in the coming years remains to be seen, but the impact of recent JOL laws and yearly underage drinking enforcement activities has to be taken into account when considering sources of the decline.

#### **Drug-Related Violations**

In Massachusetts, as well as across the nation, driving under the influence of drugs has increasingly become an issue of public safety. Since 2011, drug-related driving violations have risen 32% from 1,365 to 1,803. From 2014 to 2015, violations rose 2%.

Table 3.7

	2011	2012	2013	2014	2015
Total Drug-Related Driving Violations <sup>i</sup>	1,365	1,324	1,559	1,774	1,803

Source: MRB Quarterly Violations Report January 2016

'Comprising 90 24 GD (MV Homicide/Drugs & Negligence), 90 24 GE (MV Homicide/Drugs & Recklessness), 90 24 DD (DWI Drugs), and 90 24 DP (DWI Drug Program)

During 2014, DWI Drug (90 24 DD) infractions accounted for 89% (1,596) of all drug-related driving violations and the number of DWI Drug violations issued decreased 36% from the number issued the previous year. Police are being more vigilant in finding drugged driving perpetrators and more funding has been awarded in recent years to both local and MSP to conduct aggressive enforcement programs to combat both alcohol- and drug-impaired drivers across the Commonwealth.

Based on data pulled from FARS for the period of 2010-2014, marijuana or marijuana-type drugs (THC, Delta 9) are the most prevalent types of drugs found in fatally injured drivers. Cocaine, opioids such as oxycodone and fentanyl, and benzodiazepines are other leading drugs found.

	Driver (Killed) of Motor Vehicle					
Drug Name	2010	2011	2012	2013	2014	Total
Buprenorphine (opioid w/d med)				4	1	5
Codeine (opioid)	1	1		2	1	5
Fentanyl (opioid)	7	5	3	8	7	30
Hydrocodone (opioid)	1	2	1	1	3	8
Methodone (opioid, herion w/d)	4	2	1		2	9
Morphine (opioid, pain med)	1	1	2	7	3	14
Oxycodone (opioid, pain med)	8	7	7	2	6	30
Alprozolam (Xanax)	2	2	2		1	7
Benzodiazepines	7	6	7	13	3	36
Diazepam (Valium)	3	2			1	6
Midazolam (Sedative)	1	4				5
Zolpidem (Ambien, sleep med)				1	1	2
Amphetamine	1	4	3			8
Cocaine (Benzoylecgonine)	14	9	11	6	5	45
THC (or Delta 9)	15	17	7	11	20	70
Cannobinoid (Pot, type unknown)	19	10	29	23		81
Other Drug (caffeine, analgesics)	11	13	23	15	30	92

**Table 3.8** (Source: FARS)

Among pedestrians killed, drug tests revealed marijuana and benzodiazepines to be the most prevalent.

With both drivers and pedestrians, drug tests can result in finding multiple drugs in one's system at the time of death, so the numbers presented here aren't simply one person

for each drug found.

Pedestrians - Drug Test Results					
Pot/THC/Delta 9	26				
Benzodiazepines	23				
Cocaine	9				
Fentanyl (opioid)	6				

Table 3.9 (Source: FARS)

The chart below details funding by county for the Drive Sober of Get Pulled Over (DSOGPO) Enforcement (AL-17-11), Underage Alcohol Enforcement (AL-17-12) and Sustained Enforcement (AL-17-13).

FFY 2017 Total AL Funding by County								
Barnstable	\$ 96,894	Hampshire	\$ 75,490					
Berkshire	\$ 26,000	Middlesex	\$ 474,142					
Bristol	\$ 246,485	Nantucket	\$ -					
Dukes	\$ -	Norfolk	\$ 240,171					
Essex	\$ 203,805	Plymouth	\$ 196,205					
Franklin	\$ 5,000	Suffolk	\$ 233,000					
Hampden	\$ 271,485	Worcester	\$ 351,278					

#### **Performance Targets**

#### <u>Impaired Driving Performance Target #1</u>

Decrease alcohol-impaired driving fatalities 5% from the 2010-2014 calendar base year average of 127 to 121 by December 31, 2017.

#### Impaired Driving Performance Target #2

Decrease alcohol-related fatalities/VMT 5% from 0.23 in 2014 to 0.22 by December 31, 2017.

#### **Performance Measures**

Number of alcohol-impaired fatalities Alcohol-related fatality rate per 100 M VMT

#### **Strategies**

- 1. Provide funds to 202 local police departments to conduct two DSOGPO Mobilizations
- 2. Fund paid and earned media regarding the dangers of impaired driving
- 3. Fund 14 selected local police departments and the MSP to conduct sustained enforcement of traffic laws, including impaired driving laws
- 4. Encourage state and other local law enforcement to participate in sustained enforcement of impaired driving laws
- 5. Continue to fund MSP Sobriety Checkpoints
- 6. Enlarge the efforts to reduce impaired driving by younger drivers and underage drinking through grants with local police departments, the ABCC, and campus police
- 7. Utilize the Traffic Safety Resource Prosecutor (TSRP) to conduct trainings and provide technical support for prosecutors and law enforcement regarding the prosecution of impaired driving cases (task listed in the Police Traffic Services section)
- 8. Support law enforcement with training and technical assistance aimed at increasing their effectiveness to combat impaired driving and underage drinking
- 9. Provide funds to train additional DREs and sustain current DRE certifications
- 10. Provide funds to purchase Preliminary Breath Testing (PBT) Units
- 11. Provide funds for a part-time SFST coordinator
- 12. Provide funds to support 3 part-time LEL positions (task listed in the Police Traffic Services section)

#### **Impaired Driving Program Area Projects**

#### AL-17-01 Paid & Earned Media for Impaired Driving Prevention Programs

Utilizing the statewide media contractor, Argus, funds will be used to develop and implement paid and earned media to support anti-impaired driving programs including, but not limited to,

DSOGPO Mobilizations December 2016 – January 2017 and August - September 2017. Funds may also be used to support new programs or to respond to new laws or events that affect this program area as needed. This task will meet the requirements within the Grant Funding Policy Part II E by ensuring that all television public service announcements include closed captioning. In addition, they will be evaluated based on the criteria in the 402 Advertising Space Guidance. EOPSS/HSD follows a system like the NHTSA Communications Pyramid. Strong internal policies are followed noting that all media and communications activities will support data-driven objectives and will be coordinated with other activities and programs, in particular enforcement. Crash and citation data are used not only for targeting enforcement activities but also to determine the primary and secondary audiences, and media channels used to reach them. This task is supported by CTW Chapter 1, Sections 5.2 and 2.2, and Chapter 5 Section 2.1. This task will support all performance targets.

**Project Budget/Source -** \$750,000 (Sec. 405d) [Paid - \$610,000; Earned - \$140,000]

Project Staff - John Fabiano

#### AL-17-02 MSP Sobriety Checkpoint/BAT Mobile Partnership

Provide funds for overtime for approximately 110 Sobriety Checkpoints and saturation patrols for the MSP with support from the two BAT mobile units whenever operationally possible. This project will take place throughout the year in locations throughout Massachusetts chosen by on-going data analysis. The goal will be to deter motorists from driving while impaired and to apprehend impaired motorists. This task is supported by CTW Chapter 1, Section 2.1. This task will support all overall performance targets, impaired driving performance targets 1 and 2, motorcycle performance target 3, and younger driver performance target 2.

**Project Budget/Source - \$1,400,000 (Sec. 405d)** 

**Project Staff -** Deb Firlit

#### AL-17-03 Impaired Driving Law Enforcement Specialized Training Program

Provide funds to the MPTC to conduct up to 22 trainings throughout the year focused on Standardized Field Sobriety Testing (SFST). Classes will include SFST Instructor, SFST Refresher, and a three-day SFST course to help law enforcement better detect impaired drivers during OUI checkpoints, traffic stops, and at the scene of motor vehicle crashes. Increased awareness of driver impairment by officers will lead to safer roads. Funding will also be used to fund a part-time SFST Coordinator responsible for implementing and maintaining the SFST training program statewide. Training will take place at various police departments across the Commonwealth. This task is supported by CTW Chapter 1, Section 7.1. This task will support all overall performance targets and impaired driving performance targets 1 and 2.

Project Budget/Source - \$130,000 (Sec. 405d) [SFST Coordinator - \$24,000; Training - \$106,000]

#### AL-17-04 Underage Drinking Compliance Checks Program

Provide funds for overtime to the Massachusetts ABCC to conduct enhanced liquor enforcement compliance checks and Cops in Shops to reduce underage drinking and impaired driving. Overtime funds will be provided to ABCC investigators to perform compliance checks in approximately 150 communities. The Compliance Check program is designed to achieve broad geographical coverage throughout the commonwealth in order to develop a deterrence impact created through wider knowledge among the industry retailers that their establishment could be subject to a compliance check at any time. The ABCC will cover all counties and reach the highest number municipalities within each county that is feasible. While maintaining this focus, they will try to re-check municipalities found to have a higher than average failure rate in previous years. The goal of this program is to prevent the sale of alcohol to individuals under 21 years of age and to prevent young drivers from drinking and driving. The program will take place throughout the year. Municipalities and/or liquor establishments selected for compliance checks will either have a high failure rate of less than 50% compliance in 2015 and 2016; or ABCC hasn't conducted checks in that municipality or liquor establishment to date. Since the ABCC is in the process of completing their FFY 2016 program, the ABCC will begin the process of selecting communities for FFY 2017 in September/October. This task is supported by CTW Chapter 1, Section 6.3. This task will support all overall performance targets, impaired driving performance targets 1 and 2, and younger driver performance targets 1 and 2.

Project Budget/Source - \$175,000 (Sec. 405d)

**Project Staff** - Lindsey Phelan

#### AL-17-05 Statewide Underage Drinking Enforcement Training Program

Provide funds to ABCC to conduct trainings throughout the year for up to 900 officers from 150 departments for enforcement of the Massachusetts Liquor Control Act as well as false identification and fraudulent document detection. Trainings will take place at local police departments throughout Massachusetts. The main objective of this program is to prevent underage drivers from driving while intoxicated. This task is supported by CTW Chapter 2, Sections 6.3 and 6.4. This task will support all overall performance targets, impaired driving performance targets 1 and 2 and younger driver performance targets 1 and 2.

Project Budget/Source - \$25,000 (Sec. 405d)

**Project Staff** – Lindsey Phelan

#### AL-17-06 Enforcement Program to Prevent Sale of Alcohol to Intoxicated Persons

Provide overtime funds to the ABCC for investigators to participate in undercover operations at licensed establishments in approximately 40 communities to determine if the licensee serves intoxicated individuals. The ABCC will use data analysis to determine municipalities with the highest concentration of establishments that have been identified as the source of last drink for a convicted drunk driver. Factors such as number of alcohol-related fatalities and crashes, OUI violations, and sales to minors violations will be taken into account. Large urban municipalities with a high concentration of liquor establishments (Boston, Worcester) as well as communities with residential colleges or universities will be given priority. The ABCC will focus on the establishments with the largest number of violations, which are listed in their application for funding. The ABCC will also conduct outreach to local police departments to ask if they can identify additional establishments that should be checked. This task is supported by CTW Chapter 1, Section 5.3. This task will support all overall performance targets and impaired driving performance targets 1 and 2.

Project Budget/Source - \$175,000 (Sec. 405d)

Project Staff - Lindsey Phelan

#### AL-17-07 Breath Test Operator (BTO) Training

Provide funds to the MSP Office of Alcohol Testing (OAT) to conduct up to 61 Breath Test Operator classes for approximately 1,600 local and state police to better detect impaired drivers. Trainings will take place throughout the year at MPTC and other facilities. This task is supported by CTW Chapter 1, Section 2.3. This task will also support all overall performance targets and impaired driving performance targets 1 and 2.

Project Budget/Source - \$70,000 (Sec. 405d)

**Project Staff -** Bob Kearney

#### AL-17-08 Preliminary Breath Test (PBT) Equipment

Funds will be provided to the MSP/OAT and local law enforcement for approximately 50 PBT units. This equipment will be part of the BTO Training (Task AL-17-07). These units will be provided to local police officers and troopers including those who successfully complete a DRE class conducted by MPTC. They will be used throughout the year in MSP substations Troops A, B, C, D, and H. MSP/OAT will determine how the units are divided among agencies based on problem identification and greatest need. Yearly certification will be performed by OAT. This task is supported by CTW Chapter 1, Section 2.3. This task will support all overall performance targets and impaired driving performance targets 1 and 2.

Project Budget/Source - \$100,000 (Sec. 405d)

**Project Staff** - Bob Kearney

#### AL-17-09 MSP BTO Training/Recertification

In order to reduce alcohol related crashes and fatalities through aggressive OUI enforcement, it is imperative that all field service personnel receive training and maintain a current BTO certification. This task will provide funds to the MSP to conduct Breath Test Operator classes for approximately 1,600 local and state police to better detect impaired drivers. Trainings will take place throughout the year at MPTC and other facilities. This task is supported by CTW Chapter 1, Section 2.3. This task will also support all overall performance targets and impaired driving performance targets 1 and 2, and motorcycle performance target 3.

Project Budget/Source - \$60,000 (Sec. 405d)

Project Staff - Deb Firlit

#### AL-17-10 Drug Evaluation and Classification Program (DEC)

Provide funds to MPTC to conduct up to 39 training classes throughout the year for police officers covering Advanced Roadside Impaired Driving Enforcement (ARIDE) and Drug Evaluation & Classification (DEC). Funding will also support a part-time DRE Coordinator to attend DRE-related conferences and seminars and for out-of-state travel to Maricopa County, Arizona for hands-on oversight of field evaluations for students seeking DRE certification. There are currently 114 certified DREs in Massachusetts. The DREs represent 52 municipalities along with MSP, MA Environmental PD, and Bridgewater State Campus Police. MPTC projects the addition of at least 20 new DREs during FFY 2017. Funding will also be used to develop and maintain a DRE testing database as well as tablets and associated software. The DRE Coordinator will be required to submit an annual report that details all of the activities of the program. This task is supported by CTW Chapter 1, Section 7.1. This task will support all overall performance targets and impaired driving performance targets 1 and 2.

**Project Budget/Source -** \$375,000 (Sec. 405d) [DRE Coordinator - \$32,000; Coordinator Travel - \$7,000; DRE Student Travel - \$68,000; Training - \$145,500; Equip/Software - \$76,000]

**Project Staff** – Bob Kearney

#### AL-17-11 Local DSOGPO Police Enforcement Campaign

Provide funds for high-visibility overtime enforcement for 202 local police departments for the December 2016 to January 2017 and August to September 2017 DSOGPO Mobilizations.

Enforcement efforts will primarily focus on apprehending impaired motorists, although other violations such as speeding and failure to wear a seat belt will also be targeted. Patrols will be conducted during high-risk times and locations based on the latest available state and local data. Eligibility was based upon 2010-2013 crash data, subtracting crashes the MSP responded to, and then normalized by state population. Any community with a crash rate equal to or above 0.45 is deemed eligible for this program. Eligible departments are listed in the appendix under Table 13.1. This task is supported by CTW Chapter 1, Sections 2.1, 2.2, and 7.1. The departments were selected based on crash data and past performance. This task will support all performance targets.

**Project Budget/Source -**\$1,245,000 (Sec. 405d)

Project Staff - Lindsey Phelan

#### AL-17-12 Local Underage Alcohol Enforcement Grant Program

Provide overtime funds for 75 local police departments for enforcement of underage drinking laws in partnership with ABCC, community organizations, and youth groups. Eligible activities will include: compliance checks, party patrols, surveillance patrols, Cops in Shops, and shoulder taps. Grantees will provide detailed monthly reports on various elements related to alcohol possession, usage, and transportation as well as additional data on any evidence of drugs or drug usage. These activities should lead to a decrease in incidences of drinking and/or drugged driving by young drivers. Grant awards will range from \$5,000 to \$15,000 per department for overtime enforcement. Award winners were selected based upon data provided along key problem identification areas for their respective community such as number of alcohol-related MV fatalities involving persons under 21, number of OUI arrests, and number of arrests made for alcohol transportation by person under 21. Grantees are listed in Appendix under Table 13.2. This task is supported by CTW Chapter 1, Section 6.2, 6.3, and 6.4. This task will support all overall performance targets, impaired driving performance targets 1 and 2, and younger driver performance targets 1 and 2.

**Project Budget/Source -** \$512,393.55 (Sec. 405d)

**Project Staff -** Lindsey Phelan

#### AL-17-13 Sustained Traffic Enforcement Program

Sustained enforcement of impaired driving laws will be conducted in selected communities. By using detailed data from the MassTRAC, 14 hot spots involved in sustained enforcement have the highest percentage of crashes in the Commonwealth with fatal or non-fatal injuries. The hot spots are Worcester, Brockton, Lowell, New Bedford, Fall River, Springfield, Lynn, Boston, Framingham, Holyoke, Chicopee, Taunton, Quincy, and Cambridge. MSP and local police departments in the selected areas will receive additional overtime funding to crack down on

impaired driving and other traffic safety areas; a portion of the funding may be used for data entry and/or traffic data analysis. A list of the selected areas is in the Appendix under Table 13.3. This task is supported by CTW Chapter 2, Sections 2.1, 2.5, 3.1, 3.2, and Chapter 3 Section 2.2. This task will support all performance targets (not including traffic enforcement grant citation and arrest-related performance targets).

Project Budget/Source - \$338,750 (Sec. 405d) and \$338,750 (Sec. 402)

Project Staff - Deb Firlit

#### AL-17-14 MSP Sustained Traffic Enforcement Program

In support of impaired driving laws, this task will provide funds to the MSP to deploy sustained and selective "zero tolerance" traffic enforcement overtime patrols on the day/time/location identified in each respective Troop to augment local police department efforts within the same general location as outlined in support of the STEP program. MSP STEP enforcement patrols will provide maximum visibility for deterrent purposes and saturate target areas taking immediate and appropriate action on all motor vehicle violations, with particular focus on impaired driving. This task is supported by CTW Chapter 2, Sections 2.1, 2.5, 3.1, 3.2, and Chapter 3 Section 2.2. This task will support all performance targets (not including traffic enforcement grant citation and arrest-related performance targets).

**Project Budget/Source -** \$93,750 (Sec. 405d) and \$93,750 (Sec 402)

**Project Staff -** Deb Firlit

#### **AL-17-15** Impaired Driving Conference

Funding will be used to conduct a one day conference to discuss impaired driving. The goal will be to initiate a dialogue with key local, state, federal, and private sector leaders to identify highway priorities, supported by problem identification where possible, in order to improve traffic safety and achieve the goals of the HSP. Location and date of conference is yet to be determined. EOPSS/HSD has not decided at this time whether or not to contract a vendor or handle the conference in-house. This task is supported by CTW Chapter 1, Section 5.2. This task will support all core performance targets.

Project Budget/Source - \$15,000 (Sec. 402)

**Project Staff** - Bob Kearney

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#### AL-17-16 MSP DRE Training

Funding will be provided to the MSP to expand their Drug Recognition Expert (DRE) program. With the decriminalization of small amounts of marijuana and the recent legislation allowing for the distribution of medical marijuana, troopers are seeing a marked increase of people driving under the influence of this drug. Other states that passed similar legislation much earlier than Massachusetts are now facing an epidemic of impaired drivers as a result. The MSP will expand the DRE training and at a minimum have a trained DRE available in every barrack. Coordinating this effort with the state DRE coordinator, MSP will train and equip 12 additional officers as DREs. The plan is to conduct a training session in FFY 2017. This task is supported by CTW Chapter 1, Section 2.1, 2.2, 2.5 and 7.1. This task will support core performance targets 1, 2, 3 as well as Impaired Driving targets 1 and 2.

Project Budget/Source - \$40,000 (Sec. 405d)

**Project Staff** – Deb Firlit

#### AL-17-17 Educational Outreach to Young Drivers

Funding will be provided to SADD and In Control to educate young drivers on the dangers of underage drinking and impaired driving. According to the 2011 Massachusetts Youth Health Survey (MYHS), conducted by DPH, teens are starting to experiment with alcohol earlier. When asked about how many times they have had alcohol in the past 30 days, 21% of high school students reported using alcohol on 1-2 days, 16% on 3-9 days and 4% on 10-30 days. Approximately 15% of high schools students reported driving after drinking alcohol within the past 30 days. Methods for outreach may include, but are not limited to, school presentations, peer-to-peer workshops, safety fairs, and informational campaigns. An evaluation component will be included. Funding will be used to cover expenses related to personnel, educational materials, consultants, travel/driving costs and office supplies. This task is supported by CTW Chapter 1, Sections 5.2, 6.5. This task will support all core performance targets as well as Younger Driver target 2.

Project Budget/Source - \$50,000 (Sec. 405d)

**Project Staff -** Bob Kearney

#### **AL-17-18** District Attorney's Conferences

Funds will be provided to Offices of the District Attorney to conduct one-day conferences within their jurisdictions. Prior to awarding funds to grantees, a list of offices under consideration will be submitted to NHTSA for review. Topics may include underage drinking, impaired driving, and distracted driving. Attendees would include prosecutors, parents, youth

service providers, state and local law enforcement, court personnel, school officials, coaches/athletic providers, health care providers, media outlets, business and government leaders. This task is supported by CTW Chapter 6, Sections 3.1, 6.5 and 7.3 and Chapter 4, Section 2.2. This task will support all core performance targets as well as Younger Driver target 2.

Project Budget/Source - \$20,000 (Sec. 402)

**Project Staff** – Lindsey Phelan

#### AL-17-19 ABCC - SOURCE Investigations Program

Funding will be provided to the ABCC to continue with the success of the FFY2015 pilot program called "SOURCE Investigations." The purpose of the program is to investigate alcohol-related motor vehicle crashes resulting in death or incapacitating injuries as well as those involving persons under the legal age to possess or consume alcohol. Through coordinated efforts with local police, ABCC investigators will conduct in-depth investigations to identify the source of alcoholic beverages sold to minors or intoxicated persons involved a motor vehicle crash ending in either death or serious injuries. By holding licensed establishments accountable, ABCC's goal is to reduce the number of licensees selling alcohol to minors and intoxicated individuals, leading to fewer incidents and motor vehicle crashes in Massachusetts. The program will run from October 2016 to September 2017. This task is supported by CTW Chapter 1, Section 5.3. This task will support all overall performance targets and impaired driving performance targets 1 and 2.

Project Budget/Source - \$25,000 (Sec. 410)

**Project Staff -** Lindsey Phelan

#### AL-17-20 Program Management

Provide sufficient staff to conduct related programming described in plan as well as cover in and out of state travel, professional development expenses, conference fees, postage, and office supplies.

Project Budget/Source - \$235,000 (Sec. 402)

Project Staff -Barbara Rizzuti, Bob Kearney, Deb Firlit, Lindsey Phelan, John Fabiano

### Impaired Driving: Budget Summary

	Project	Budget	Source
AL-17-01	Paid and Earned Media	\$ 750,000	405d
AL-17-02	MSP Sobriety Checkpoint/BAT Mobile Partnership	\$ 1,400,000	405d
AL-17-03	Impaired Driving Law Enforcement Specialized Training Program (MPTC)	\$ 130,000	405d
AL-17-04	Underage Drinking Compliance Checks Program (ABCC)	\$ 175,000	405d
AL-17-05	Statewide Underage Drinking Enforcement Training Program (ABCC)	\$ 25,000	405d
AL-17-06	Prevent the Sale of Alcohol to Intoxicated Persons (ABCC)	\$ 175,000	405d
AL-17-07	BTO Training	\$ 70,000	405d
AL-17-08	PBT Equipment	\$ 100,000	405d
AL-17-09	MSP BTO Training/Recertification	\$ 60,000	405d
AL-17-10	DEC/DRE	\$ 375,000	405d
AL-17-11	DSOGPO Local Police Enforcement Campaign	\$ 1,245,000	405d
AL-17-12	Local Underage Alcohol Enforcement Program	\$ 512,393.55	405d
AL-17-13	Sustained Traffic Enforcement Program	\$ 338,750	405d
		\$ 338,750	402
AL-17-14	MSP Sustained Traffic Enforcement Program	\$ 93,750	405d
	110014111	\$ 93,750	402

AL-17-15	Impaired Driving Conference	\$ 15,000	402
AL-17-16	MSP DRE Training	\$ 40,000	405d
AL-17-17	Educational Outreach to Young Drivers	\$ 50,000	405d
AL-17-18	District Attorney's Conferences	\$ 20,000	402
AL-17-19	ABCC SOURCE Investigations	\$ 25,000	410
AL-17-20	Program Management	\$ 235,000	402
	Total All Funds	\$ 6,267,394	

# 4.0 Occupant Protection Program Area

#### **Problem Identification and Analysis**

Occupant protection refers to the use of seat belts, motorcycle helmets, booster seats, and child passenger safety (CPS) seats by motor vehicle drivers and passengers. Massachusetts has a secondary seat belt law which makes enforcement of occupant protection laws more challenging (see Appendix: Occupant Protection - Attachment A for the seat belt law; Attachment B for CPS law).

The statewide seat belt rate was 74% in 2015, down from an all-time high of 77% in 2014. Despite this slight setback, unrestrained fatalities (100) were at the lowest level in the past decade, seatbelt/child seat violations have dropped 38% since 2010, and unrestrained fatalities/VMT declined from 0.18 in 2013 to 0.17 in 2014.

Because seat belts remain the most effective means of preventing death or injury as a result of a crash and the Massachusetts belt use rate remains below the national average, EOPSS/HSD will continue to make occupant protection a major highway safety program area in FFY 2017.

**Table 4.1** Massachusetts Seat Belt Use Rates

		2011	2012	2013	2014	2015	% chg 2011-2015
Nationwide Belt Use		84%	86%	87%	87%	89%	+ 5
MA Statewide Belt Use		73%	73%	75%	77%	74%	+ 1
Gender	Male	68%	65%	69%	71%	67%	- 1
	Female	80%	81%	81%	83%	83%	+ 1
Age Group	Teen	69%	72%	75%	80%	79%	+ 10
	Adult	73%	71%	74%	75%	73%	
	Elder Adult	79%	83%	82%	82%	80%	+ 1
Occupant Role	Driver Alone	73%	71%	74%	75%	73%	
	Passenger	74%	76%	77%	81%	76%	+ 2
Vehicle Type	Passenger Car	76%	75%	76%	77%	75%	- 1

		2011	2012	2013	2014	2015	% chg 2011-2015
	SUV	78%	78%	80%	83%	81%	+ 3
	Van	79%	80%	81%	81%	82%	+ 3
	Pick-Up Truck	59%	57%	57%	60%	54%	- 4
	Commercial Vehicle	47%	44%	51%	55%	46%	-1
Functional Classification	Primary (Interstate)	80%	80%	83%	85%	81%	+1
	Secondary (Arterial)	72%	74%	77%	78%	74%	+ 2
	Local (All others)	68%	71%	73%	75%	73%	+ 5
State of Vehicle Registration	Massachusetts	72%	72%	74%	76%	74%	+ 2
	New Hampshire	73%	73%	66%	69%	71%	- 2
	Other States	84%	80%	85%	85%	84%	
Region*	Region 1	N/A	72%	79%	77%	78%	+ 6
	Region 2	N/A	76%	78%	81%	81%	+ 5
	Region 3	N/A	77%	78%	78%	73%	- 4
	Region 4	N/A	69%	70%	75%	70%	+ 1
	Region 5	N/A	75%	78%	78%	76%	+ 1
	Region 6	N/A	68%	65%	73%	70%	+ 2
	Region 7	N/A	70%	76%	73%	72%	+ 2

Source: EOPSS/HSD's 2011 to 2015 Massachusetts Seat Belt Use Observation Surveys

Region 1 - Berkshire, Franklin, Hampden, Hampshire Counties

Region 2 – Worcester County

Region 3 - Middlesex County

Region 4 - Essex County

Region 5 - Norfolk, Suffolk Counties

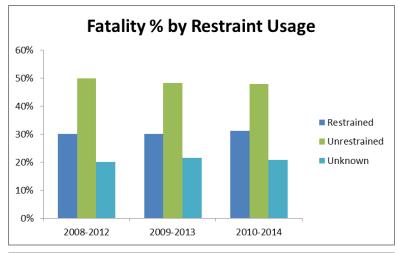
Region 6 - Bristol County

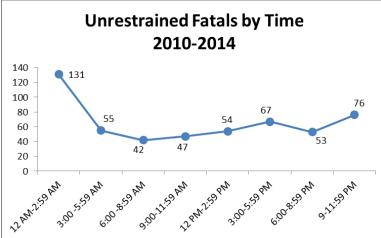
Region 7 - Barnstable, Plymouth Counties

In 2015, males again had a substantially lower belt usage than females, with a four percentage point decline from 2014 to 67%. Female belt usage remained steady at 83%. Even though teen belt usage dropped 1% from 2014, it has risen 10% since 2011. Compared to last year when all seven regions saw gains, the 2015 survey saw only one region (#1 – Berkshire, Franklin, Hampden, Hampshire) with a gain (up 1%) from 2014. Middlesex is the only region to see a decline compared to 2011 (down 4%) among the seven regions. Results from the 2016 survey will be provided to NHTSA in August 2016.

<sup>\*</sup>Region borders changed with the new methodology in 2012

More and more drivers and passengers of motor vehicles are using restraints when traveling. Since 2005, unrestrained passenger vehicle occupant fatalities have dropped 42% from 171 to 100. The national rate declined by the same percentage during the same time period.





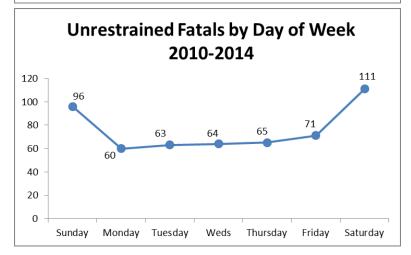


Figure 4.1 (Source: FARS)

Starting in 2008, the five-year trend of the number of unrestrained motor vehicle occupant fatalities as a percentage of all motor vehicle occupant fatalities declined two percent from 2008-2012 to 2010-2014.

The slight increase in restrained fatalities likely reflects an increase in motor vehicle occupants wearing seatbelts in a crash as fewer drivers and passengers go without restraints.

Figure 4.2 (Source: FARS)

By time of day, the top three time periods for unrestrained fatalities from 2010-2014 were: midnight-3pm (131), 9pm-midnight (76), and 3pm-6pm (67). The period from 3pm-6pm may reflect lack of seatbelt usage as people head home from work, drive children to afterschool events, and willingness to do without a seatbelt for short drives in local neighborhoods. The 9pm-3am period may be due to drinking and having alcohol impair one's ability to consider the ramifications of not wearing a seatbelt.

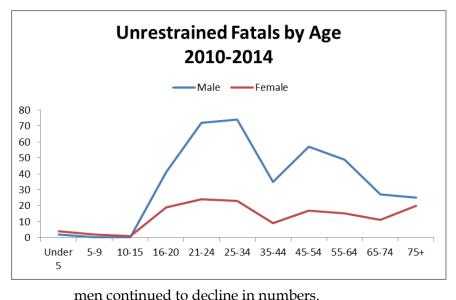
Figure 4.3 (Source: FARS)

By day of week, the weekend period (Friday – Sunday) accounted for the three highest days for unrestrained fatalities. Saturday and Sunday together account for 40% of all unrestrained fatalities recorded from 2010-2014.

In terms of specific days – namely holidays – period from Christmas to New Year's had 28 reported unrestrained fatalities from 2010-2014. Memorial Day and July 4<sup>th</sup> weekend were the next most dangerous holiday

periods with seven fatalities recorded during the same time frame for both.

From 2010-2014, there were 527 reported unrestrained fatalities on the roadways of the Commonwealth. Males accounted for 72.5% (382) of these deaths.



**Figure 4.4** (Source: FARS)

When comparing males and females by age, both genders follow a similar trajectory with a spike at 16-20 that remains steady through age 25-34. Interestingly, both genders dipped down at age group 35-44.

After a slight drop, unrestrained fatalities rose again for the 45-54 age group and then slowly declined through 55-64, 65-74. The only age grouping where males and females diverged was the last one, age 75 or older. Women saw an uptick, while

One final piece of analysis regarding unrestrained fatalities concerns counties and the type of roadway involved. In the chart below, the total unrestrained fatalities for each county is shown with fatalities listed for the fastest roadway (interstate) and slowest (local roads). More unrestrained fatalities occurred on local roads than highways in all but two counties (Essex and Norfolk). Worcester had over twice as many fatalities on local roads than on interstates.

	Total Fatalities: 2010-2014			
	Unrestrained	Urban - Principal Arterial -	Urban - Local	
County	Fatalities	Interstate	Road	
Barnstable	26	0	7	
Berkshire	17	0	3	
Bristol	78	17	26	
Dukes	2	0	0	
Essex	53	15	7	
Franklin	10	1	3	
Hampden	48	7	16	
Hampshire	10	2	4	
Middlesex	72	18	22	
Nantucket	0	0	0	
Norfolk	47	18	8	
Plymouth	52	5	16	
Suffolk	23	3	9	
Worcester	89	12	28	
Total	527	98	149	

Table 4.2 (Source: FARS)

Top cities for unrestrained fatalities were Boston, Springfield, Taunton, and Worcester.

Based on the data provided in this section on unrestrained fatalities, EOPSS/HSD will work with police departments, both local and state, to focus more enforcement activities during weekends with focus on times from 9pm-3am; and during rush hour (3pm-6pm) on weekdays. Furthermore, funding Worcester, Bristol, and Middlesex Counties will be key to increasing enforcement patrols in those areas with high unrestrained fatalities as well as increasing presence along local streets or roads within each community.

#### Seat Belt Violations

Table 4.3 presents seat belt and child safety violations issued along Massachusetts state- and locally-controlled roadways for all police departments. The number of overall violations has dropped 19% since 2010; 18% from 2013 to 2014.

Table 4.3 Massachusetts Seat Belt and Child Safety Seat Violations

	2011	2012	2013	2014	2015
Seat belt Violations <sup>a</sup>	46,975	53,343	46,832	46,417	38,115
No Child Restraint Violations <sup>b</sup>	3,005	3,434	2,919	3,062	2,256
<b>Total Violations</b>	49,980	56,777	49,751	49,479	40,371

Source: MRB Quarterly Violations Report, January 2016

#### **Occupant Protection Plan**

Click it or Ticket (CIOT)

As its primary effort to increase seat belt, booster seat, and child safety seat use in Massachusetts, during May FFY 2017, EOPSS/HSD will conduct a statewide CIOT Mobilization. This will be based on the NHTSA High-Visibility Enforcement model involving traffic enforcement, paid and earned media, and community education. CIOT and all mobilizations will include traffic enforcement and messaging that will promote seat belt and child safety seat use and compliance with the Commonwealth's related laws.

EOPSS/HSD will award approximately \$622,500 in grant funding for CIOT Mobilization overtime for state and local police traffic enforcement. The enforcement is anticipated to take place statewide with the MSP and 202 local police departments. A list of eligible police departments is provided in the Appendix (Table 13.4). Additionally, with the MSP also participating in this mobilization, over 70% of the population of Massachusetts will be impacted.

These saturation patrols will focus on all traffic violations with a special emphasis on seat belt and CPS violations. State and local police will develop deployment plans based on crash data to ensure their enforcement is data-driven and performed on the optimal days, times, and locations to reduce death, injury, and economic losses.

<sup>&</sup>lt;sup>a</sup> Comprising Seatbelt Violation (90 13A) and Seatbelt (90 7BB), <sup>b</sup> No Child Restraint (90 7AA), No child Car Seat (90 7AA WC)

#### Sustained Occupant Protection Enforcement

In FFY 2017, to complement NHTSA's three national mobilizations, EOPSS/HSD will continue its sustained traffic enforcement program (STEP) with the 14 "hot spots" for traffic injuries and fatalities that were selected in FFY 2014 based upon key crash data and tracks major citations such as seatbelt, OUI and speeding violations. The 14 selected participants are, by county location (2010 population in parentheses):

Bristol County - Fall River (88,857), New Bedford (95,072), Taunton (55,874)

**Essex County** – Lynn (90,329)

Hampden County - Chicopee (55,298), Holyoke (39,880), Springfield (153,060)

Middlesex County - Cambridge (105,162), Framingham (68,318), Lowell (106,519)

Norfolk County - Quincy (92,271)

Plymouth County - Brockton (93,810)

Suffolk County - Boston (617,594)

**Worcester County -** Worcester (181,045)

During FFY 2015, the 14 selected 'hot spots' conducted 31,071 hours of patrol resulting in 87,425 traffic stops, which led to 6,759 safety belt citations and 431 child seat citations issued by local police departments. Data for FFY 2016 will be provided in the 2016 Annual Report.

Participating STEP police departments will continue conducting sustained enforcement year round with their own funding.

According to 2010 data (provided above) from the U.S. Census Bureau, these 14 communities represent 28% (1,843,089) of the total Massachusetts population (6,547,629). Funding is also provided to the Massachusetts State Police, who are responsible for enforcement throughout the Commonwealth. Taken together, the State Police and 14 'hot spot' communities meet the required 70 percent coverage of the population.

Occupant Protection Media and Targeting High Risk Populations

EOPSS/HSD's statewide paid and earned media efforts during the 2017 CIOT Mobilization will clearly communicate the risks and costs of traffic crashes, the benefits of increased occupant protection use, and enforcement of the Commonwealth's occupant protection laws as a way to address those risks and costs.

A draft paid and earned media plan for the mobilization has been developed with an EOPSS/HSD contractor (see occupant protection attachment D). The media plan will target high-risk population groups including teen and minority drivers. The primary audience for the CIOT Mobilization will be white males 18 to 34. Secondary efforts will be directed at teen

drivers and Latino and African-American males ages 18 to 34. Primary and secondary audience targets were determined from the outcome of the 2015 Statewide Seatbelt Observational Survey as well as data from the Fatality Analysis Reporting System (FARS).

The 2015 Statewide Seatbelt Observational Survey revealed that the lowest observed belt usage were found among three groups: males (67% usage), African-Americans (71%), and Hispanics (52%). While teens had a higher belt usage rate (79%), it was lower than the 80% reported in the 2014 Statewide Seatbelt Survey.

Data from FARS show that those between the ages of 16 to 34 accounted for nearly 50% of all unrestrained fatalities from 2010 to 2014, with males representing 35% of those fatalities. The top six cities with the highest unrestrained fatalities during the 2010-2014 period – Boston (18), Worcester (11), Springfield (10), Taunton (10), Holyoke (8), and New Bedford (8) – are also locations of current and planned FFY 2017 sustained enforcement efforts, which shows EOPSS/HSD has year-round countermeasures in place to target high-risk regions and demographics.

Aside from sustained enforcement, EOPSS/HSD will specifically target teens through the Educational Outreach to Young Drivers Program, which will be entering its third year of implementation. Current grantees SADD and In Control Family Foundation will continue expanding its educational outreach program to teens at regional and local high schools as well as through community events such as safety fairs. Methods for outreach can include, but are not limited to, school presentations, peer-to-peer workshops, and informational campaigns. The importance of wearing seat belts is one of the key messages to young drivers.

NHTSA's national paid media campaign is expected to include broadcast and cable television, radio, online media and social media. The plan will support the national buy with digital and television advertisements.

EOPSS/HSD will conduct earned media work during the 2017 CIOT Mobilization in close cooperation with NHTSA, the MSP's Office of Media Relations, and participating local police. This work will highlight the coordinated effort of state and local police in this campaign. News releases will be developed by EOPSS/HSD staff and tailored to participating departments, who will distribute to their local media contacts resulting in up to 202 local and regional newspaper articles. EOPSS/HSD will work with the media contractor to develop an additional news release to announce paid media efforts and will forward video links to all of our traffic enforcement stakeholders for sharing on their social media platforms.

A press conference will be held ahead of the scheduled mobilization period at North Quincy High School's Annual Pre-Prom Safety Day, with a media advisory being distributed to attract local news outlets. EOPSS/HSD will conduct outreach to Spanish media outlets and arrange bilingual personnel to be on hand. The press conference will feature staff from EOPSS/HSD and MSP stressing the risks associated with driving unbelted.

A CIOT message will be displayed on 80 digital message boards at high-visibility locations throughout the state. These billboards are part of our earned media plan and design and

placement is free through MassDOT's Office of Outdoor Advertising's PSA program. Thus, an estimated hundreds of thousands of dollars in seat belt messages will be displayed several months of the year at no cost to EOPSS/HSD.

#### CPS Plan

Massachusetts has excelled at expanding a very effective CPS program for many years. A 2008 amendment to the Massachusetts CPS law required all children riding in passenger motor vehicles to be in federally-approved child passenger restraints that are properly fastened and secured until they are either eight years of age or 57 inches in height. This is a primary enforcement law in Massachusetts. Since passage of this law, it has been imperative to ensure that the public is informed of these laws and that CPS technicians are properly trained.

Since FFY 2014, the vendor for administration and training of the EOPSS/HSD CPS program has been Baystate Medical/SafeKids of Western Massachusetts. To date, they have organized 19 CPS Technician and 18 CPS Technician Renewal classes across the Commonwealth, as well as 11 CEU Update and two Special Needs classes. Over the last three federal fiscal years, 668 participants have attended classes.

Baystate Medical/SafeKids of Western Massachusetts will continue to be the vendor for EOPSS/HSD in FFY 2017. Responsibilities of the vendor include administering CPS training and certification sessions, scheduling CPS checkup events, and handling day-to-day CPS Hotline inquiries. CPS courses scheduled during FFY 2017 will ensure the opportunity for training new technicians, the recertification of current technicians, and the ability to renew certifications for those technicians whose accreditation has recently lapsed. Baystate will be adding two new courses for FFY2017: CPS School Bus and CPS Ambulance. These classes address a trend within the CPS community and a growing concern for those in the medical and education fields.

EOPSS/HSD expects to award \$162,000 in CPS Equipment Grants to 62 municipal public safety agencies and non-profit organizations during FFY 2017 for the purchase of child safety seats. The awards will be based upon several factors including experience with this grant, a commitment to a minimum of two required community checkup events or a commitment to a regular fitting station schedule during the year and the schedule/availability of certified technicians within each organization. Applicants must also demonstrate a need within their community or region and a commitment to serve low-income and diverse populations.

Ongoing media efforts for public education include sample customizable press releases to be used by grantees to publicize their CPS activity during the grant period. Additionally, EOPSS/HSD conducts paid media advertising highlighting CPS tips and resources, and also regularly airs a digital billboard on CPS safety through MassDOT's Office of Outdoor Advertising, which is free through their PSA program.

#### CPS Technicians

The Massachusetts CPS program consistently recruits, trains and maintains a sufficient number of technicians and instructors. The CPS Program uses the NHTSA-standardized curriculum for instructors and technicians, which is reviewed by the National Child Passenger Safety Board. As of June 2016, there are 802 Certified CPS Technicians and 22 Certified CPS Instructors.

Over 20 classes are expected to run from October 2016 – September 2017, which will increase not only the number of new CPS technicians but also help recertify current ones. From January 2015 – December 2015, Massachusetts' recertification rate was 63% - above the national average of 59% for the same time frame.

There are over 140 fitting and inspection stations across Massachusetts serving all geographic areas and populations. During FFY 2015, there were 72 publicized checkups across the Commonwealth and so far in FFY 2016, there have been 33 checkups. A list of current Statewide Fitting Stations and Checkups by CPS grantees can be found in Attachment C.

Based on the data contained in this section, EOPSS/HSD will make recommendations to local police departments and MSP so that they can make more informed decisions about where to deploy resources. For instance, a recommendation to conduct seat belt enforcement during the work week and during afternoon hours and rush hour periods will be made.

The table below shows estimated funding by county for selected FFY 2017 Occupant Protection grants:

FFY 2017 Total OP Funding by County				
Barnstable	\$ 34,500			
Berkshire	\$ 17,000			
Bristol	\$172,000			
Dukes	\$ 2,000			
Essex	\$ 108,500			
Franklin	\$ 4,500			
Hampden	\$ 198,500			
Hampshire	\$ 30,500			
Middlesex	\$ 274,970			
Norfolk	\$ 121,500			
Plymouth	\$ 110,500			
Suffolk	\$ 194,000			
Worcester	\$ 191,000			

Note – Funding levels above related to OP-17-03 (CIOT Mobilization), OP-17-04 (CPS Equipment Grant), and OP-17-07 (Sustained Enforcement). Funds to Massachusetts State Police were not included.

#### **Performance Targets**

#### Occupant Protection Performance Target #1

Decrease unrestrained vehicle occupant fatalities in all seating positions 5% from the 2010-2014 base calendar year average of 105 to 100 by December 31, 2017.

#### Occupant Protection Performance Target #2

Increase observed seat belt use rate by 5% from 2010-2014 calendar base year average of 74 to 78 by December 31, 2017.

#### **Performance Measures**

Number of unrestrained passenger vehicle occupant fatalities

Percent of front seat outboard vehicle occupants who are observed to be using seat belts

#### **Strategies**

- 1. Provide funds to state and 202 local police departments for CIOT enforcement
- 2. Fund paid and earned media regarding the dangers of driving unbelted
- 3. Enlarge the impact of efforts to increase seat belt use by white males 18 to 34, teen drivers, Latino males and African American males ages 18 to 34, and those living in urban areas and throughout southeastern Massachusetts
- 4. Provide funds to 14 selected communities for sustained enforcement of seat belt use
- 5. Encourage other state and local law enforcement to participate in sustained enforcement of seat belt laws
- 6. Urge the media to report occupant restraint use when reporting on crashes
- 7. Expand the impact of efforts to increase proper use of child safety seats, including booster seats
- 8. Increase the number of CPS equipment grant recipients and continue to require at least two checkup events during the grant period
- 9. Continue to provide funds to administer the CPS program and provide training
- 10. Provide a toll free CPS hotline
- 11. Conduct the annual seat belt observation survey
- 12. Support law enforcement with training and technical assistance aimed at increasing their effectiveness to increase occupant protection usage for all age groups
- 13. Provide funding for three part-time LELs (task listed in PT section)

#### Occupant Protection Program Area Projects

#### OP-17-01 Paid and Earned Media in Support of Occupant Protection

Develop and implement statewide paid and earned media to support occupant protection efforts specifically during the May - June 2017 CIOT Mobilization and for sustained enforcement. EOPSS/HSD's communications vendor, Argus, will be handling the media implementation. Media efforts will educate the public, and specifically high risk populations, about the benefits of seat belt, booster seat, and child safety seat use as well as the importance of compliance with the Commonwealth's occupant protection laws. This task will meet the requirements within the Grant Funding Policy Part II E by ensuring that all television public service announcements include closed captioning. In addition, they will be evaluated based on the criteria in the 402 Advertising Space Guidance. EOPSS/HSD follows a system like the NHTSA Communications Pyramid. Strong internal policies are followed noting that all media and communications activities should be in support of data-driven objectives and in coordination with other activities and programs, in particular enforcement. Crash and citation data, as well as 2016 Observational Seatbelt Survey results are used not only for targeting enforcement activities but also to determine the primary and secondary audiences, and media channels used to reach them. NHTSA's guidelines are followed for messaging, demographics, best practices and target groups for each media effort. This task is supported by CTW Chapter 2, Sections 2.1, 2.2, 3.1, 3.2, and 5.1. This task will support all performance targets.

Project Budget/Source - \$500,000 (Sec. 405b) [Paid - \$390,000; Earned - \$110,000]

Project Staff - John Fabiano

#### OP-17-02 CIOT MSP Enforcement Campaign

Provide funds for overtime by the MSP to participate in two CIOT Mobilizations; one in October/November 2016 and one in May/June 2017. Enforcement efforts will focus on increasing compliance with occupant protection laws during the day and night and will take place at times and locations shown to have high incidence of motor vehicle crashes based on the most current state and local crash and citation data. Other violations such as speeding and texting may also be targeted during this mobilization. This task is supported by CTW Chapter 2, Sections 2.1, 2.2, 3.1, 3.2, and 5.1. This task will support all performance targets.

Project Budget/Source - \$450,000 (Sec. 405b)

Project Staff - Deb Firlit

#### OP-17-03 CIOT Local Police Enforcement Campaign

Provide funds for overtime enforcement to 202 local police departments for May-June 2017 CIOT Mobilization. Enforcement will focus on increasing seat belt use during the day and night. Eligibility was based upon 2010-2012 crash data, subtracting crashes the MSP responded to. Any community with a crash rate equal to or above 0.45 is deemed eligible for this program. Eligible departments are listed in the Appendix under Table 13.4. This task is supported by CTW Chapter 2, Sections 2.1, 2.2, 3.1, 3.2, and 5.1. This task will support all performance targets.

Project Budget/Source - \$622,500 (Sec. 405b)

**Project Staff -** Lindsey Phelan

#### **OP-17-04 CPS Equipment Grants**

Provide grants to 70 local municipal entities or regional non-profit organizations to purchase car seats through EOPSS/HSD-selected vendor, Mercury Distributing. Grants are \$2,000 for municipalities and \$7,500 for non-profit regional organizations. Car seats will be delivered by vendor directly to grantee. Award winners were selected based upon clear identification of low-income families in their respective community as well as plans to outreach these populations and the general public. All departments receiving seats provide an active fitting station with at least one certified CPS technician. Grantees are listed in the Appendix under Table 13.5. This task is supported by CTW Chapter 2, Sections 7.2 and 7.3. This task will support occupant protection performance targets 1 and 2.

**Project Budget/Source -** \$181,000 - [\$121,000 (Sec. 405b); \$60,000 (Sec. 2011)] Please note: EOPSS/HSD will not exceed the 5% cap for car seat purchases. Once the maximum is met, the remaining balance will be covered by Section 402 funding. EOPSS/HSD will submit a request for approval once additional funding information is available.

Project Staff - John Fabiano

#### OP-17-05 CPS Program Administration and Training

Provide funding to continue using Baystate Medical Center as the administrator of the Statewide CPS program. This is a one-year contract. Baystate will be responsible for recruiting, training and maintaining a sufficient number of certified CPS technicians and instructors in Massachusetts. A minimum of 20 courses will be conducted. Topics will include CPS Technician, CPS Technician Renewal, CPS Update, CPS Special Needs, CPS School Bus, and CPS Ambulance. The CPS telephone information line will also be handled by Baystate. This task will support occupant protection performance targets 1 and 2.

Project Budget/Source - \$160,000 (Sec. 405b)

Project Staff - John Fabiano

#### OP-17-06 CPS Conference

EOPSS/HSD will utilize funding to conduct a CPS conference for up to 300 attendees, including certified technicians and instructors. Topics will include national and state updates and changes in current CPS laws, regulations, and standards for CPS seats. Location and date for conference yet to be determined. EOPSS/HSD estimates that speaker fees will be approximately \$450 per speaker and conference space will be \$5,000. This task is supported by CTW Chapter 2, Section 7.3. This task will support occupant protection performance targets 1 and 2...

Project Budget/Source - \$10,000 (Sec. 2011)

Project Staff - John Fabiano

OP-17-07 Sustained Traffic Enforcement Program

Sustained enforcement of traffic laws will be conducted in 14 selected communities. These 'hot spots' were selected based upon crash and motor vehicle violation data from FARS and MassTRAC. The selected local police departments of selected communities will receive additional overtime funding to enforce seat belt laws in addition to speeding, impaired driving, distracted driving and other traffic safety topics; a portion of the funding may be used for data entry and/or traffic data analysis. A list of the selected areas is provided in the Appendix under Table 13.3. This task is supported by CTW Chapter 2, Sections 2.1, 2.5, 3.1, 3.2, and Chapter 3 Section 2.2. This task will support all performance targets (not including traffic enforcement grant citation and arrest-related performance targets).

**Project Budget/Source -** \$338,750 (Sec. 402) and \$338,750 (Sec. 405b)

Project Staff - Deb Firlit

#### OP-17-08 Seat Belt Observation Survey

Provide funding for UMass-Safe, a research program at UMass-Amherst, to conduct the statewide seat belt observation survey utilizing NHTSA methodology. This survey is required from all states by NHTSA and will take place following the May-June CIOT Mobilization. This survey will capture demographic data to assist measuring performance and targeting future occupant protection programs. Distracted driving data may be collected as well. A final report will be submitted to EOPSS/HSD for review and dissemination. This task will support occupant protection performance target 2.

**Project Budget/Source -** \$100,000 (Sec. 402)

**Project Staff -** Bob Kearney

#### **OP-17-09** Educational Outreach to Young Drivers

Funds will be provided to SADD and In Control to educate young drivers on the importance of wearing seat belts. According to the 2011 MYHS, conducted by DPH, approximately 7% of students reported that they never/rarely wore a seat belt. Methods for outreach can include, but are not limited to, school presentations, peer-to-peer workshops, safety fairs, and informational campaigns. An evaluation component will be included. Funding will be used to cover expenses related to personnel, educational materials, consultants, travel/driving costs and office supplies. This task is supported by CTW Chapter 2, Section 3 and 7.1. This task will support all core performance targets as well as Younger Driver target 2.

Program Budget/Source - \$50,000 (Sec. 405b)

**Program Staff** - Bob Kearney

#### OP-17-10 MSP Car Seat Checkpoints and CPS Seats

Funds will be provided to the MSP for conducting four child car seat safety checkpoints throughout Massachusetts. These checkpoints will provide the public information on the latest CPS laws, regulations and standards for CPS seats as well as assisting the public with proper car seat adjustments if necessary. Checkpoint locations and date are yet to be determined. Low-income and car seat violation analysis will be used to assist MSP in selecting the location and duration for the four checkpoints. This task is supported by CTW Chapter 2, Sections 7.2 and 7.3. This task will support occupant protection performance targets 1 and 2.

**Project Budget/Source** - \$25,000 (Sec. 405b): four car seat safety checkpoints (\$15,000), child safety seats (\$10,000).

Project Staff - Deb Firlit

#### **OP-17-11** MSP Young Drivers Education Program

Funds will be provided to the MSP for educating young drivers as well as the general public on the importance of wearing a seatbelt and the dangers of impaired driving. MSP will conduct demonstrations of the Rollover Simulator, SIDNE vehicle (Simulated Impaired Driving Experience) and a Marijuana Simulation Kit at high schools, on weekends and, highly populated events in Massachusetts. This task will also provide funds for the purchase of a new Rollover Simulator, replacing the present one that is over 10 years old and the purchase of a SIDNE vehicle upgrade to conduct demonstrations that relate to advanced automobile technology. Additionally, this task will provide funds for the purchase of a Marijuana Simulation Kit to help educate the community about the potential dangers that can result from recreational marijuana use. Before the purchase of any equipment greater than \$5,000, prior authorization will be received from NHTSA. This task is supported by CTW Chapter 2, Sections

7.2 and 7.3 and Chapter 1 Sections 7.1, 7.2 and 7.3. This task will support occupant protection performance targets 1 and 2 and impaired driving performance targets 1 and 2.

**Project Budget/Source -** \$74,500 (Sec. 405b) and \$2,000 (Sec. 405d)

Project Staff - Deb Firlit

#### OP-17-12 CPS Media

Develop and implement statewide paid and earned media to support occupant protection efforts to educate the public, specifically high risk populations, about the benefits of seat belt, booster seat, and child safety seat usage. Advertising space purchases will be evaluated based on the criteria in the 402 Advertising Space Guidance. EOPSS/HSD follows a system like the NHTSA Communications Pyramid. Strong internal policies are followed noting that all media and communications activities should be in support of our data-driven objectives and in coordination with our other activities and programs. Crash and citation data are used not only for targeting enforcement activities but also to determine the primary and secondary audiences, and media channels used to reach them. EOPSS/HSD will work the media vendor, Argus, as well as internal and external stakeholders to determine when this campaign will be implemented. NHTSA's guidelines are followed for messaging, demographics, best practices and target groups for each media effort. This task is supported by CTW Chapter 2, Section 6.2. This task will support all performance targets.

Project Budget/Source - \$20,000 Paid media (Sec. 405b)

Project Staff - John Fabiano

#### **OP-17-13** MSP STEP Enforcement

In support of occupant protection laws, this task will provide funds to the MSP to deploy sustained and selective "zero tolerance" traffic enforcement overtime patrols on the day/time/location identified in each respective Troop to augment local police department efforts within the same general location as outlined in support of the STEP program. MSP STEP enforcement patrols will provide maximum visibility for deterrent purposes and saturate target areas taking immediate and appropriate action on all motor vehicle violations, with particular focus on seat belt usage, child passenger safety infractions and speed. Funds will also be provided to MSP for the purchase of 100 Radar Units and ALPR Software Upgrade. This task is supported by CTW Chapter 2, Sections 2.1, 2.5, 3.1, 3.2, and Chapter 3 Sections 1.1, 1.2, 2.2. This task will support all performance targets (not including traffic enforcement grant citation and arrest-related performance targets).

**Project Budget/Source -** \$93,750 (Sec. 405b) and \$93,750 (Sec 402); 100 Radar Units \$215,000 (402); ALPR Software Upgrade \$5,000 (402)

**Project Staff** - Deb Firlit

#### **OP-17-14** Program Management

Provide sufficient staff to conduct related programming described in plan as well as cover in and out of state travel, professional development expenses, conference fees, postage, and office supplies.

Project Budget/Source - \$200,000 (Sec. 402)

Project Staff - Barbara Rizzuti, Bob Kearney, Deb Firlit, Lindsey Phelan, John Fabiano

#### **OP-17-15** Statewide CPS Information Line

Provide funding for designated CPS Administrator to respond to all calls made to the Statewide CPS Information Line (previously called the CPS Hotline). The CPS Administrator, Baystate Medical Center, will keep a log of all calls which will be submitted to HSD monthly.

Project Budget/Source - \$550 (Sec. 2011)

Project Staff - John Fabiano

#### **Occupant Protection: Budget Summary**

Project Number	Project Title	Budget	<b>Budget Source</b>
OP-17-01	Paid and Earned Media in Support of Occupant Protection	\$ 500,000	405b
OP-17-02	CIOT MSP Enforcement Campaign	\$ 450,000	405b
OP-17-03	Local Police Enforcement Campaign	\$ 622,500	405b
OP-17-04	CPS Equipment Grants	\$ 60,000	2011
		\$ 121,000	405b
OP-17-05	CPS Admin Program	\$ 150,000	2011
OP-17-06	CPS Conference	\$ 10,000	2011
OP-17-07	Sustained Traffic Enforcement Program	\$ 338,750	402
		\$ 338,750	405b

	(STEP)		
OP-17-08	Seatbelt Survey	\$ 100,000	405b
OP-17-09	Educational Outreach to Young Drivers	\$ 50,000	405b
OP-17-10	MSP Car Seat Checkpoints and CPS Seats	\$ 25,000	405b
OP-17-11	MSP Young Drivers Education Program	\$ 74,500	405b
		\$ 2,000	405d
OP-17-12	CPS Media	\$ 20,000	405b
OP-17-13	MSP STEP Enforcement	\$ 313,750	402
		\$ 93,750	405b
OP-17-14	Program Management	\$ 200,000	402
OP-17-15	Statewide CPS Information Line	\$ 550	2011
	Total All Funds	\$ 3,470,550	

## 5.0 Motorcyclists

#### **Problem Identification and Analysis**

The popularity of motorcycling continues to grow as vehicle miles traveled by motorcyclists across the nation has doubled since 2004. In 2014, motorcycle-related fatalities comprised 13% of the total motor vehicle fatalities in Massachusetts, while the nationwide rate was 14%. Across the Commonwealth, motorcycle fatalities increased slightly to 43 in 2014 compared to 42 in 2013. Despite this small rise in fatalities, motorcyclists deaths have dropped 30% since 2010 – from 61 to 43.

Data from 2014 revealed that in Massachusetts, 78% of operators involved in fatal crashes were wearing helmets, as compared to 55% nationwide. Unhelmeted operators accounted for 10% of fatalities, far less than the nationwide rate of 37% in 2014. The high helmet usage and low unhelmeted rate are due mainly to Massachusetts' mandatory helmet law. However, helmet use is only part of the educational efforts that must be conducted in order to ensure motorcyclist safety in Massachusetts; riders statewide must be further trained and educated about all aspects of motorcycle safety, including roadway rules and regulations, licensing requirements, and proper equipment usage.

Nationally, 21% of all motorcycle riders killed in a motor vehicle crash had BAC of +0.08 or higher. In Massachusetts, the rate was 21% as well - down from 36% in 2013.

The RMV is the lead agency at the state level for administrative, management, operational oversight and control of the Massachusetts Rider Education Program (MREP). EOPSS/HSD receives funding from NHTSA for the Massachusetts Motorcycle Safety Program and provides this funding through an interdepartmental service agreement to the RMV for additional programming, which includes media campaigns, training Rider Coaches, and conducting a pilot sport bike program.

Although the MREP is not housed in the state highway safety office, the RMV and EOPSS/HSD work very closely on the Motorcycle Safety Program and collaborate on applications that are submitted to NHTSA. For instance, EOPSS/HSD and the RMV partnered to submit a proposal for a grant through NHTSA to help increase proper motorcycle licensing in Massachusetts. Massachusetts was awarded this grant and as part of this initiative, EOPSS/HSD and the RMV created posters for display and flyers for dissemination at RMV branches and motorcycle dealerships to show the importance of training and being properly licensed. To help law enforcement better understand the many types of registration and licensing requirements for motorcycles, limited use vehicles, mopeds and motorized scooters, EOPSS/HSD and the RMV created pocket guides and a roll-call video for law enforcement.

From 2010-2014, motorcycle fatalities occurred far more often during the weekend than weekdays. The weekend (Saturday/Sunday) accounted for 41% of all motorcycle fatalities.

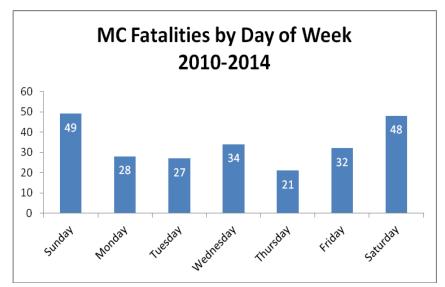
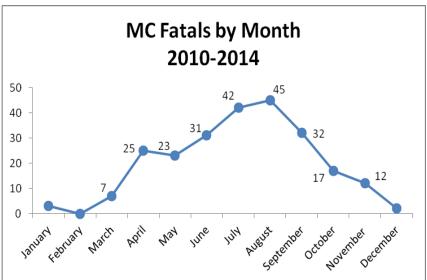


Figure 5.1 (Source: FARS)

If Friday were included as part of the weekend, the three-day period would represent 53% of all motorcycle fatalities.

Unsurprisingly, the months with the highest motorcycle fatalities were warm weather months as motorcycle enthusiasts tend to have more vehicle miles traveled compared to cold weather months.



#### Figure 5.2 (Source: FARS)

The five-month period from May to September, typically the warmest and longest days in New England, saw 173 motorcycle fatalities occur – 72% of all reported motorcycle fatalities. August had the highest amount of fatalities with 45. Prior to 2016, February had not had a reported motorcycle fatality since 2009. According to preliminary data, there were two fatalities in February 2016.

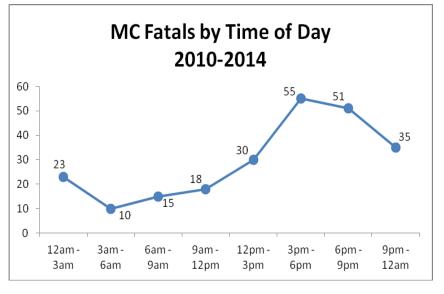


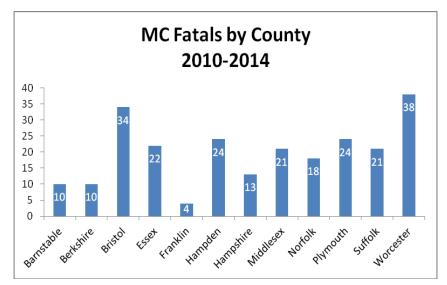
Figure 5.3 (Source: FARS)

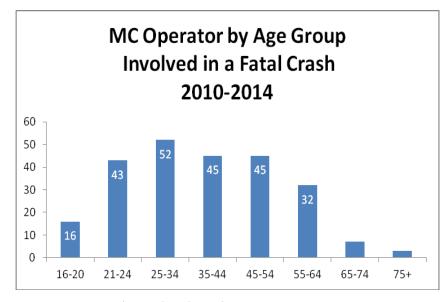
For time of day, motorcycle fatalities occurred more regularly during the 3pm – 9pm period. This time frame accounted for 45% of total fatalities reported. If the 9pm – midnight period is included, the nine hour stretch represents 60% of all motorcycle fatalities.

The higher amounts during the 3pm to midnight period are likely due to increased traffic (rush hour), poor visibility (nighttime), and alcohol-

impaired driving among other factors.

By county, motorcycle fatalities occurred with most frequency in Worcester from 2010-2014. Worcester's thirty-eight reported fatalities represented 16% of all fatalities. Following Worcester were Bristol (34), Hampden (24) and Plymouth (24). Plymouth had the most fatalities for 2014, with 9.





occurred on a local road or street.

Regarding motorcycle operators with BAC 0.08 or higher involved in a fatal crash, the data for the past five years shows that Plymouth County has had the most operators with Worcester County second.

Figure 5.4 (Source: FARS)

In terms of age, motorcycle operators involved in a fatal crash was highest among those between 25-34 years of age. This age group accounts for 21% of motorcycle operators in a fatal crash, followed closely by 35-44 and 45-54 age groups at 19%.

One last piece of data to cover – roadway function associated with motorcycle crashes. Since 2010, there have been 222 fatal crashes involving motorcycles. Of these crashes, 100 occurred on local roads or streets in urban areas. This represents 45% of motorcycle fatal crashes.

**Figure 5.5** (Source: FARS)

Unhelmeted motorcycle fatalities remain a concern of EOPSS/HSD and RMV, despite the fact motorcyclist fatalities without a helmet has been in the single-digits since 2004. From 2013 to 2014, the number dropped from 5 to 4. During 2014, each unhelmeted fatality

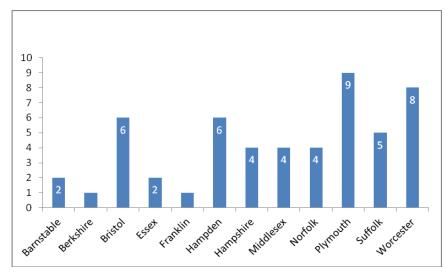


Figure 5.6 (Source: FARS)

Motorcycle Operators with BAC
0.08 or higher involved in a Fatal

**Crash by County, 2010-2014** 

EOPSS/HSD will work with RMV to increase focus of motorcycle training curricula on the dangers of impaired riding. Furthermore, EOPSS/HSD will work with its marketing vendor to include messages on the dangers of impaired riding in upcoming motorcycle media

campaign. The marketing message will be universal (for ages 16+) rather than customized for a younger or older demographic.

Based on the data provided, any traffic enforcement activity to improve motorcycle safety, by either local or state police, should take place during the weekend during the 3pm – midnight time frame. Best months for activities would be May through September and should be in urban areas of counties such as Worcester, Plymouth, and Bristol.

Based on the motorcycle data provided in this section, as well as in Figures 2.19, 2.21 and 2.37 (MC Fatals, Unhelmeted MC Fatals, MC Operator BAC), Massachusetts has selected the programs below for FFY 2017. Although not specifically noted in the tasks below, enforcement of motorcycle laws will also take place during the mobilizations and sustained enforcement program listed earlier. EOPSS/HSD will present data to participating departments to encourage enforcement during peak times and locations. More localized data and resource availability will also factor into where resources are deployed. This enforcement plan may be adjusted based on new data and effectiveness of ongoing activities.

#### **Performance Targets**

#### Motorcycle Performance Target #1

Decrease motorcycle fatalities by 5% from 2010-2014 calendar base year average of 48 to 46 by December 31, 2017.

#### Motorcycle Performance Target #2

Decrease unhelmeted motorcycle fatalities 20% from 2010-2014 calendar base year average of 5 to 4 by December 31, 2017.

#### Motorcycle Performance Target #3

Decrease the number of motorcycle fatalities involving a motorcycle operator with +0.08 BAC or higher 10% from 2010-2014 calendar base year average of 11 to 10 by December 31, 2017.

#### **Performance Measures**

Number of motorcycle fatalities

Number of unhelmeted motorcycle fatalities

Number of motorcycle fatalities where the motorcycle operator has a +0.08 BAC

#### **Strategies**

- 1. Enhance motorist awareness of motorcycles through communication efforts
- 2. Increase the recruitment of motorcycle training instructors
- 3. Improve training curricula
- 4. Conduct media campaign to target impaired riders
- 5. Provide information to motorcyclists and law enforcement about the importance of full motorcycle licensure and enforcement
- 6. Conduct two DSGPO Mobilizations

#### **Motorcycle Program Area Projects**

#### MC-17-01 Motorcycle Safety Program Enhancements

Funds will be provided to the RMV to enhance their motorist communications efforts to make drivers more aware of the need to share the road with motorcyclists, increase the recruitment of motorcycle training instructors, and improve motorcycle training curricula. Television and radio may be utilized for communication mediums. The awareness campaign will be focused in Middlesex, Worcester, Essex, Bristol, Plymouth and Hampden Counties since they account for over 75% of serious motorcycle crashes involving another motor vehicle. The awareness campaign will focus on the importance of paying attention and yielding to the right of way. The campaign will take place from April to December. This task is supported by CTW Chapter 5 Sections 3.1, 3.2, 4.1, and 4.2. This task will support all motorcycle performance targets.

**Project Budget/Source** – \$250,000 [\$125,000 (Sec. 405f – Training); \$125,000 (Sec. 405f – Awareness) and \$4,448.68 of Section 2010

Project Staff - Barbara Rizzuti

#### MC-17-02 Motorcycle Media Program

Funds will be for the implementation of a media program to educate riders and drivers about the importance of rider safety and the dangers of impaired riding and driving. A combination of earned and paid media will center on education and enforcement of impaired riding laws through press releases and op-eds. Impaired riding campaigns will be focused in Plymouth, Worcester, Bristol and Hampden Counties since they account for the majority of impaired rider fatalities. EOPSS/HSD's communications vendor, Argus, will be handling the media implementation. Advertising space purchases will be evaluated based on the criteria in the 402 Advertising Space Guidance. EOPSS/HSD follows a system like the NHTSA Communications Pyramid. Strong internal policies are followed noting that all media and communications activities should be in support of our data-driven objectives and in coordination with our other activities and programs, in particular, enforcement. Crash and citation data are used not only for targeting enforcement activities but also to determine the primary and secondary audiences, and media channels used to reach them. EOPSS/HSD will work with Argus, as well as internal and external stakeholders, to determine when these campaigns will be implemented. NHTSA's guidelines are followed for messaging, demographics, best practices and target groups for each media effort. This task is supported by CTW Chapter 5 Sections 4.1 and 4.2. This task will support all motorcycle performance targets.

**Project Budget/Source** - \$80,000 (Sec. 402) [Paid - \$65,000; Earned - \$15,000]

Project Staff - John Fabiano

#### MC-17-03 Program Management

Provide sufficient staff to conduct motorcycle-related programming described in this plan as well as cover in and out of state travel, professional development expenses, conference fees, postage and office supplies.

Project Budget/Source - \$52,000 (Sec. 402)

Project Staff -Barbara Rizzuti and John Fabiano

## **Motorcycles: Budget Summary**

Project Number	Project Title	Budget	<b>Budget Source</b>
MC-17-01	Motorcycle Safety Program Enhancements	\$ 250,000	405f
	O	\$ 4,448.68	2010
MC-17-02	Motorcycle Media Program	\$80,000	402
MC-17-03	Program Management	\$ 52,000	402
	Total all Funds	\$ 386,448.68	

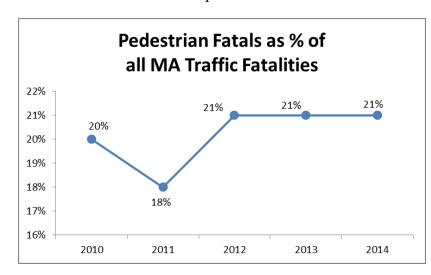
## 6.0 Pedestrians and Bicycles

#### **Pedestrian Safety**

#### **Problem Identification and Analysis**

As would be expected in a more urbanized state, pedestrian fatalities represent a higher proportion of total fatalities in Massachusetts than at the national level. In 2014, pedestrian fatalities represented 21% of the total motor vehicle fatalities in Massachusetts, down from 23% in 2013. The nationwide rate remained unchanged at 15% from 2013 to 2014.

To decrease the number of pedestrian fatalities and incapacitating injuries, drivers and pedestrians need to improve upon sharing the road. This can be made easier by engineering, enforcement, and public information endeavors.



**Figure 6.1** (Source: FARS)

For 2014, the proportion of pedestrian fatalities was 21% of all traffic-related fatalities, as it has been since 2012. From 2010-2014, the total number of pedestrian fatalities was 368 – an average of 74 fatalities per year. The total for 2014 is 70 fatalities, which seems promising.

Table 6.1 shows the change in five-year totals for counties in Massachusetts from 2009-2013 to 2010-2014.

Pedestrian Fatalities by County				
	2009-2013	2010-2014	chg	
Barnstable	17	18	5.9%	
Berkshire	9	9	0.0%	
Bristol	34	38	11.8%	
Essex	45	41	-8.9%	
Hampden	30	32	6.7%	
Hampshire	4	5	25.0%	
Middlesex	63	64	1.6%	
Norfolk	40	37	-7.5%	
Plymouth	22	31	40.9%	
Suffolk	43	51	18.6%	
Worcester	37	42	13.5%	
	344	368	7.0%	

Table 6.1 (Source: FARS)

Overall, total five-year fatalities increased five percent with Plymouth County making the biggest jump – nearly 41% - in pedestrian deaths. Suffolk's increase of eight fatalities is also significant as it is the location of many colleges, universities, and public transit options which tend to have a higher number of people willing to walk places than drive.

In terms of total pedestrian fatalities for 2010-2014 period, the top three cities are been Boston (41),

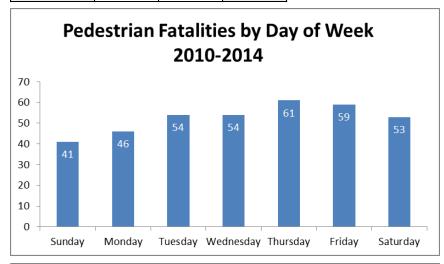
Worcester (18), and Springfield (10). Pedestrian fatalities account for half of Worcester's total motor vehicle-related fatalities during the same five-year period (36) and for nearly half of Boston's total (86). For Springfield, pedestrian fatalities were a bit less than one-third of its total (38) for 2010-2014.

Pedestrian Fatalities, 2010-2014				
Age	Male	Female	Total	
< 5	1	1	2	
5-9	4	1	5	
10-15	3	1	4	
16-20	17	7	24	
21-24	9	10	19	
25-34	26	13	39	
35-44	25	16	41	
45-54	35	19	54	
55-64	37	21	58	
65-74	22	29	51	
75+	41	28	69	
Totals	220	146	366	
	60.1%	39.9%		

**Table 6.2** (Source: FARS)

Table 6.2 shows the total pedestrian fatalities from 2010-2014 broken down by age group. By a 2:1 margin, males were more likely to be a pedestrian fatality than females. Males topped each age category with the exception of 21-24 (women +1) and 65-74 (women +7). Interestingly, the highest fatality total for an age bracket was the 75 years or older group. In fact, the top three fatality totals by age bracket were for the three oldest groups.

In terms of day of week, pedestrian fatalities were fairly spread out across all seven days. Sunday had the lowest number (41) while Thursday had the most (61).



**Figure 6.2** (Source: FARS)

Unlike day of week data, time of day for pedestrian fatalities reveals the most fatalities occur between 6pm and 8:59pm, which would be during the typical evening rush period. This time frame accounts for 26% of all pedestrian fatalities. The next two highest time frames are before and after the 6pm-8:59pm period.

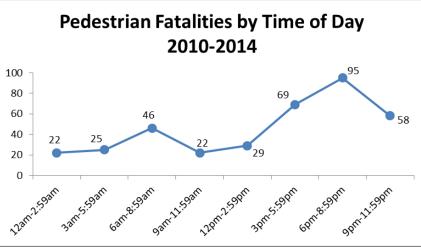


Figure 6.3 (Source: FARS)

The three time frames taken together represent 61% of all pedestrian fatalities from 2010-2014.

The two lowest times for pedestrian fatalities were 12am – 2:59am and 9am – 11:59am.

Total Pedestrian Fatalities by Month					
	2009-2013 2010-2014 % Change				
January	30	34	13%		
February	16	18	13%		
March	21	21	0%		
April	21	23	10%		
May	19	21	11%		
June	19	22	16%		
July	25	26	4%		
August	33	25	-24%		
September	25	24	-4%		
October	29	37	28%		
November	42	50	19%		
December	53	56	6%		
Total	403	357	-11%		

Table 6.3 (Source: FARS)

What months are these pedestrian fatalities typically taking place? Based on data compiled over the past five years (2010-2014), the top three months for fatalities were November, December, and January, respectively. In the previous five-year period (2009-2013), December and November were the top two months as well. Surprisingly, it seems as though when the weather gets colder, the number of fatalities increases; whereas, one would think warm weather months would have higher totals because more people would be outside walking and running around. One possibility is that the poor road conditions, especially after a

snowstorm, increases the risk of injury or death among pedestrians along roads because the sidewalk may be unshoveled and they have to use the main road to get where they need to go. Another possibility is the impact of daylight savings time in the winter, which leads to less light earlier in the late afternoon hours.

Interestingly, data compiled from FARS on pedestrian related factors revealed that the number one factor attributed to the pedestrian fatality was 'darting or running into the road.' This occurred in 30% of the fatalities from 2010-2014 where a related factor was discerned.

 Table 6.4
 Pedestrian Fatalities by Reported Related Factors, 2010-2014 (Source: FARS)

Pedestrian Fatalities by Related Factors	2009	2010	2011	2012	2013	2014	Total	%
Not visible (dark clothing, no lighting)		1	5	6	14	9	35	14.2%
Under the influence (alcohol, drugs, medication)		5	7	11	7	7	37	15.0%
Darting or running into road	20	9	10	19	12	5	75	30.4%
In roadway improperly (standing, lying, etc)	8	6	10	4	8	5	41	16.6%
Physical impairment	1	1	4	1	6	3	16	6.5%
Emotional (depressed, angry, disturbed)			2	2	2	1	7	2.8%
Entering/exiting parked/standing vehicle	1	1			1	1	4	1.6%
III, blackout					0	1	1	0.4%
Improper crossing of roadway or intersection			4	7	4	1	16	6.5%
Vision obscured (rain, sun, sign, parked vehicle)					3	1	4	1.6%
Failure to yield right of way		2	5	3			10	4.0%
Inattentive (talking, eating, etc)			1				1	0.4%

In light of the data presented in this section, EOPSS/HSD plans to work with police departments to focus future enforcement activity regarding pedestrian safety and education during FFY 2017. An effort will be made to increase pedestrian enforcement grant patrols

during periods of high risk of pedestrian fatalities such as the peak shopping time from Thanksgiving to Christmas.

#### **Performance Targets**

#### Pedestrian and Bicycle Performance Target #1

Decrease the number of pedestrian fatalities 5% from 2010-2014 calendar base year average of 74 to 70 by December 31, 2017.

#### **Performance Measures**

Number of pedestrian fatalities

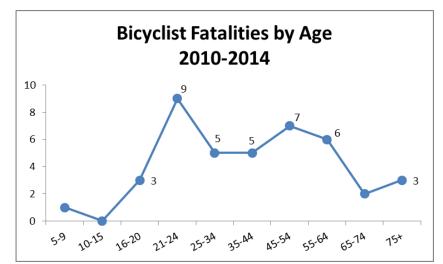
#### **Strategies**

- 1. Provide funds to 79 local police departments for the Pedestrian and Bicycle Enforcement and Equipment grants
- 2. Enhance pedestrian safety expertise among state and local enforcement, public health, highway planners, engineers, and other traffic safety advocates
- 3. Participate in Statewide Pedestrian and Bicycle Safety "Moving Together" Conference for over 200 attendees in FFY 2017
- 4. Enhance motorist awareness of bicyclists and pedestrians on roadways through communication efforts

#### **Bicycle Safety**

#### **Problem Identification and Analysis**

After recording 16 bicycle fatalities in 2012, the number dropped 63% in 2013 to 6 – which is more in line with the yearly average prior to 2012's uptick. In 2013, bicyclist fatalities accounted for 1.8% of all reported traffic fatalities. The national rate for 2013 was 2.2%.



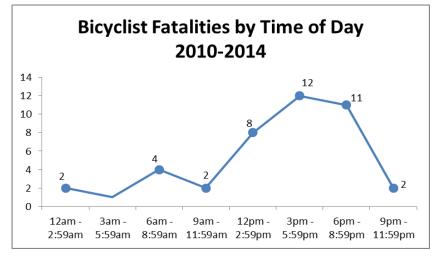


Figure 6.4 (Source: FARS)

Over the past five years (2010-2014), there have been 42 bicyclist fatalities in Massachusetts. The 21-24 age group accounts for 21% of all pedestrian fatalities. This age group tends to be most likely to ride bikes to work or live in an urban area where bicycles are often viewed as a better means of transportation than driving.

In terms of time of day, bicyclist fatalities occur more often between 3pm and 9pm. Since 2010, 55% of all fatalities (23) have taken place during this time frame.

Figure 6.5 (Source: FARS)

This time frame coincides with the high pedestrian fatalities recorded during the same period for similar reasons – evening commute period, more cars on the road, and visibility can be an issue if the sun in setting in the driver's or even the biker's eyes.

Bicyclist fatalities (Figure 6.9) tend to

happen more often during warmer months. The period from May – September accounts for 60% of all bicyclist fatalities from 2010-2014. Of the 42 reported fatalities, all but two took place on urban-designated roadways.

A review of the location of the 42 bicyclist fatalities since 2010 found 24% of the fatalities took place in Boston. Given the high density of colleges and popularity of biking among urban residents, it is not surprising Boston was at the top of the list. Furthermore, Suffolk County (Table 6.5) has reported 12 of the 42 bicyclist fatalities occurring from 2010-2014. The next three counties in total bicyclist deaths are Middlesex (6) then Plymouth and Hampden, both with five.

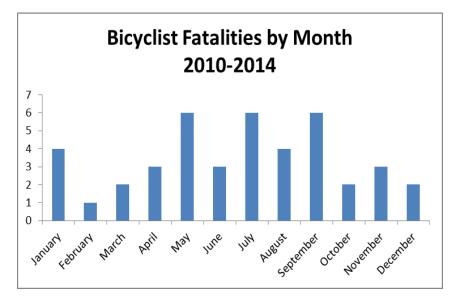


Figure 6.6 (Source: FARS)

Weather conditions (Table 6.6) did not seem to be much of a factor in bicyclist fatalities. In 64% of the fatalities, the conditions were clear skies for drivers and bicyclists alike. This is not usual as most motor vehicle crashes occur during normal conditions. During 2014, 85% of motor vehicle fatal crashes took place during clear or normal weather conditions. Nationwide, it was 89%.

Bicycle Fatalities by County			
County	2010-2014	%	
Barnstable	3	7%	
Berkshire	1	2%	
Bristol	2	5%	
Dukes	1	2%	
Essex	1	2%	
Franklin	0	0%	
Hampden	5	12%	
Hampshire	2	5%	
Middlesex	6	14%	
Nantucket	0	0%	
Norfolk	3	7%	
Plymouth	5	12%	
Suffolk	12	29%	
Worcester	1	2%	
Total	42		

Table 6.5 (Source: FARS)

In order to decrease the number of bicyclist fatalities and incapacitating injuries, drivers must continue to share the roadways and show consideration for bicycle lanes of travel. Bicyclists need to use helmets and obey applicable rules of the road. An examination of helmet use in bicyclist fatalities from 2010-2014 found that in 18 cases no helmet was used (43%).

Table 6.6 Bicycle Fatalities by Conditions

Weather	2010-2014	%
Clear	27	64%
Cloudy	9	21%
Rain	3	7%
Snow	1	2%
Not Reported	2	5%
	42	

(Source: FARS)

In addition to the traffic enforcement that will take place during CIOT and DSGPO mobilizations as well as the sustained traffic enforcement program, local police departments will be participating in the Pedestrian and Bicycle Safety Enforcement and Equipment Program.

The data above and the additional pedestrian and bicycle data found in Figures 2.26 and 2.28 will be utilized by EOPSS/HSD when working with local police departments to identify times and locations for resource deployment. Bicycle and pedestrian activities have the flexibility to

allow for continuous follow-up and adjustment based on new data and other factors such as the effectiveness of ongoing programs.

Based on the data provided in this section, pedestrian and bicycle enforcements should take place more often between 3pm and 9pm with focus on urban areas – especially Boston - which has a high level of young adults (or recent college graduates) and established professionals that live in communities that are bike-friendly. The optimal months to do enforcement would be May – September for bicycle with emphasis on school year end (late May/early June) and school year beginning (late August/early September).

In the table below, funding estimate by county for the Pedestrian/Bicycle Grant (PS-17-02) is provided:

FFY 2017 Total PS Funding by County		
Barnstable	\$ 27,057	
Berkshire	\$ 5,880	
Bristol	\$ 33,348	
Dukes	\$ -	
Essex	\$ 54,275	
Franklin	\$ -	
Hampden	\$ 25,619	
Hampshire	\$ 11,445	
Middlesex	\$ 107,297	
Norfolk	\$ 68,774	
Plymouth	\$ 32,924	
Suffolk	\$ 22,885	
Worcester	\$ 55,603	

#### **Performance Target**

Pedestrian and Bicycle Performance Target #2

Decrease bicycle fatalities 10% from 2010-2014 calendar base year average of 8 to 7 by December 31, 2017.

#### **Performance Measures**

Number of bicyclist fatalities

#### **Strategies**

- 1. Enhance bicycle safety expertise among state and local law enforcement, public health, highway planners, engineers, and traffic safety advocates
- 2. Award 79 pedestrian and bicycle enforcement, education, and equipment grants based on problem identification
- 3. Participate in Statewide Pedestrian and Bicycle Safety "Moving Together" Conference for over 200 attendees in FFY 2017
- 4. Fund paid and earned media regarding pedestrian and bicycle safety

#### **Pedestrians and Bicyclists Program Area Projects**

**Note:** These projects address both pedestrian and bicyclist safety.

#### PS-17-01 Pedestrian and Bicycle Media

Pedestrian and bicycle related media efforts will focus on sharing the road safely combined with education and enforcement of laws relative to pedestrians and bicyclists. This would include bicycle and pedestrian safety tips and press releases announcing the enforcement results of the Pedestrian and Bicycle Enforcement Program as outlined below. EOPSS/HSD's communications vendor, Argus, will be handling the media implementation. Advertising space purchases will be evaluated based on the criteria in the 402 Advertising Space Guidance. EOPSS/HSD follows a system like the NHTSA Communications Pyramid. Strong internal policies are followed noting that all media and communications activities should be in support of our data-driven objectives and in coordination with our other activities and programs, in particular, enforcement. Crash and citation data are used not only for targeting enforcement activities but also to determine the primary and secondary audiences, and media channels used to reach them. EOPSS/HSD will work the media vendor, Argus, as well as internal and external stakeholders to determine when this campaign will be implemented. NHTSA's guidelines are followed for messaging, demographics, best practices and target groups for each media effort. This task is supported by CTW Chapter 8 Sections 4.3. This task will support pedestrian and bicycle performance targets 1 and 2.

**Project Budget/Source -** \$80,000 (Sec. 402) [Paid - \$60,000; Earned - \$20,000]

Project Staff - John Fabiano

#### PS-17-02 Pedestrian and Bicycle Enforcement Program

Award 79 grants of ranging from \$1,000 to \$7,500 to municipal police departments to conduct enforcement and education aimed at reducing the incidence of pedestrian and bicycle injuries and fatalities. Enforcement patrols will take place throughout the year, and participating departments will be asked to focus on winter months and non-daylight hours as crash data shows those are the most hazardous time for cyclists and pedestrians. Grantees were selected

based upon combination of data for their respective community (crashes, injuries, fatalities) and targeted enforcement areas. Purchase of supplies will be limited to 25% of grant award. EOPSS/HSD will internally track inventory. Grantees are listed in Appendix under Table 13.6. This task is supported by CTW Chapter 8 Sections 3.1, 3.2, 4.1, 4.3, 4.4, and Chapter 9 Section 3.3. This task will support pedestrian and bicycle performance targets 1 and 2.

**Project Budget/Source - \$445,104.07 (Sec. 405h)** 

**Project Staff -** Bob Kearney

## PS-17-03 Pedestrian and Bicycle Safety Planning Initiative for High-Fatality Communities

Funds will be provided to a local nonprofit agency to work closely with ten communities that have high levels of pedestrian and cyclist fatalities to develop strategic plans for identifying why those particular communities witness high fatality and injury rates, and what can be done to address the problem locally. Working with the MassDOT, EOPSS/HSD will employ a data-driven approach to identifying communities where crashes resulting in pedestrian and cyclist fatalities and serious injuries occur at a higher rate. The partner agency will then work with regional planning agencies to set up meetings of local stakeholder groups – to include law enforcement – seeking to address the pedestrian/cyclist safety problem. Once established, the subgrantee will lead an effort to conduct safety audits in each selected community to determine what conditions exist that may be contributing to the high crash rate. The audits will help raise awareness about traffic safety hazards cyclists and pedestrians face and educate the community on how safety conditions can be improved. The partner agency will then facilitate the community groups in assembling a safety plan specifically targeting nonmotorists. This task is supported by CTW Chapter 8 Sections 3.1, 3.2, 4.1, 4.3, 4.4, and Chapter 9 Section 3.3. This task will support pedestrian and bicycle performance targets 1 and 2.

Project Budget/Source - \$55,000 (Sec. 405h)

**Project Staff -** Bob Kearney

#### PS-17-04 Training for Law Enforcement Personnel on Bicycle Safety Regulations

Funds will be provided to either MPTC or another law enforcement agency to develop a curriculum for law enforcement on bicycle safety traffic regulations. The training will include contextual instruction where participants will ride a bicycle in an environment that simulates a high traffic-volume area. Through the course, law enforcement will learn first-hand both the laws that apply to bicycles and the practical value of those regulations for keeping both cyclists and motorists safe through preventing crashes. This task is supported by CTW Chapter 9 Sections 3.2 and 3.3. This task will support pedestrian and bicycle performance targets 1 and 2.

Project Budget/Source - \$70,000 (Sec. 405h)

#### PS-17-05 Program Management

Provide sufficient staff to conduct pedestrian- and bicycle-related programming described in this plan as well as cover in and out of state travel, professional development expenses, conference fees, postage and office supplies.

**Project Budget/Source -** \$135,000 (Sec. 402)

**Project Staff -** Bob Kearney and John Fabiano

#### Pedestrian and Bicycle: Budget Summary

Project Number	Project Title	Budget	<b>Budget Source</b>
PS-17-01	Pedestrian and Bicycle Media	\$ 80,000	402
PS-17-02	Pedestrian and Bicycle Enforcement Program	\$ 445,104.07	405h
PS-17-03	Pedestrian/Bike Safety Planning for High Fatality Communities	\$ 55,000	405h
PS-17-04	Training for Law Enforcement of Bicycle Safety Regulations	\$ 70,000	405h
PS-17-05	Program Management	\$ 135,000	402
	Total all Funds	\$ 785,104.07	

## 7.0 Traffic Records Program Area

#### **Problem Identification and Analysis**

Traffic records data are vital to the analysis necessary for successful highway safety planning and programming. EOPSS/HSD, in coordination with its partners, collects and uses traffic records data to identify problem areas, develop and implement appropriate programs, and evaluate the effectiveness of these programs.

Massachusetts operates a complete set of systems to receive, store, and manage traffic records information. These systems are managed by the following agencies:

- MassDOT/RMV manages the crash, driver history and vehicle registration systems;
- The MRB maintains operator driving history records consisting of at-fault crash claim records, comprehensive claim records, out-of-state incidents and civil and criminal traffic citation information;
- The Administrative Office of the Trial Court manages adjudication information;
- The MassDOT Office of Transportation Planning manages the road inventory file; and
- The MDPH and the Center for Health Information and Analysis (formerly known as the Division of Healthcare Finance and Policy) manage injury surveillance-related information systems

As required by NHTSA's Section 405 C grant program, Massachusetts has an active Traffic Records Coordinating Committee (TRCC), which is chaired by the Traffic Records Program Coordinator. The Massachusetts Executive-Level Traffic Records Coordinating Committee (METRCC), chaired by the Undersecretary of Forensic Science and Technology, was established through the coordinated efforts of its member organizations. The METRCC is composed of agency heads who set the vision and mission for the working-level TRCC. The working level TRCC is the primary means by which communication is facilitated and perpetuated between the various users and collectors of data and owners and custodians of the data systems that make up the Commonwealth's traffic records system. This traffic records coalition fosters understanding among stakeholders and promotes the use of safety data in identifying problems and developing effective countermeasures to improve highway safety. Both committees seek to improve the accessibility, accuracy, completeness, consistency, integration, and timeliness of the six traffic records systems in Massachusetts: citation/adjudication, crash, driver, injury surveillance, roadway, and vehicle. One way this is accomplished is by ensuring that all Section 405 C funds received by Massachusetts are used for eligible, prioritized projects that will enhance these systems.

The FFY 2017 Section 405 C application and 2017 Strategic Plan for Traffic Records Improvements contains details pertaining to the current capabilities and challenges of the Massachusetts traffic records system. It also describes the progress made to date on projects funded with previous Section 405 C funds. In addition, the application details how FFY 2017 Section 405 C funds would be utilized for proposed projects that were prioritized by the METRCC.

#### **Performance Target**

<u>Traffic Records Performance Target #1</u> To improve the integration of traffic records systems by increasing the number of linked crash reports to hospital inpatient records by 10% from 91,000 in 2007 to 100,100 by September 2017.

EOPSS/HSD set Target #1 based on information provided in a project proposal from UMassSAFE (TR-17-07). Previously, Massachusetts utilized NHTSA's Crash Outcome Data Evaluation System (CODES) probabilistic linkage method to link crash, hospital, and emergency medical service datasets. Massachusetts ended CODES in 2011 and the last linkage was conducted with 2007 data. At that time, there were 91,000 crash reports linked to hospital inpatient records. UMassSAFE has received funding to investigate improved data linkage processes and strategies for linking highway safety data including crash, roadway inventory, citation, driver history (if available), emergency room, hospital and emergency medical services data. UMassSAFE is confident that Massachusetts will see a 10% increase in linked reports with this project.

<u>Traffic Records Performance Target #2</u> To increase by 5% the number of agencies able to access MassTRAC from 160 in April 2016 to 176 in June 2017.

EOPSS/HSD is confident that Performance Target #2 will be reached once up-to-date crash and citation data is added to MassTRAC, which should be completed by early August 2016. Traffic enforcement programs require departments to allocate resources to high crash locations. Unfortunately, many departments are unable to use their records management systems to analyze this information, so many departments will rely on MassTRAC.

<u>Traffic Records Performance Target #3</u> To improve the timeliness of crash data by decreasing the average number of days from crash incident to receipt of crash report by the RMV from 56.14 days for 2013 reports to fewer than 50 days for 2016 reports.

To determine Performance Target #3, EOPSS/HSD reviewed past timeliness information from the RMV and information from current and planned programs that may impact crash reporting. In early 2014, the MPTC began implementing a new online training for the updated crash report. Training participants receive information about the importance of timely reporting to the RMV. This training coupled with the move towards electronic crash reporting should decrease the average number of days from crash incident to receipt of crash report by the RMV.

<u>Traffic Records Performance Target #4</u> To improve completeness of the Massachusetts emergency medical services (EMS)/injury database, the Massachusetts Ambulance Trip Record Information System (MATRIS), by increasing the validation score from 83.64 in March 2015 to 85 in March 2017.

To determine Performance Target #4, EOPSS/HSD relied on information from DPH about their work to improve their data quality. With increased outreach by DPH through their Traffic Records projects (TR-17-15 and TR-17-19), DPH will likely improve their validity scores.

<u>Traffic Records Performance Target #5</u> To improve the completeness of the Massachusetts statewide road inventory database by increasing the number of intersections with Fundamental Data Elements (FDEs) from 0 in FFY 2016 to 5,400 in FFY 2017.

To determine Performance Target #5, EOPSS/HSD relied on data from the Central Transportation Planning Staff's project (TR-17-17). Central Transportation Planning Staff is confident that they will be able to review 5,400 intersections and add the required elements to the roadway inventory file.

To determine the performance targets for 2017, EOPSS/HSD reviewed FFY 2014, 2015 and 2016 Traffic Records project proposals, previous Strategic Plans for Traffic Records Improvement and data from DPH and the RMV.

#### **Performance Measures**

EOPSS/HSD also will work with METRCC and TRCC member agencies, who are the core system owners and data collectors, in order to improve the overall traffic records system. Performance measures established by the METRCC and the TRCC in its FFY 2017 Section 405 C Grant application including:

Number of linked records

Number of MassTRAC users

Average number of days from crash incident to receipt of crash report by the RMV

Validation score of ambulance services with NEMSIS compliant software submitting data to MATRIS

FDEs in the MassDOT's roadway inventory file

#### **Strategies**

- 1. Enhance the workings of the METRCC and TRCC
- 2. Ensure ongoing implementation of the 2017 Strategic Plan for Traffic Records Improvements
- 3. Expand access to and use of local, state, and federal traffic records data and analyses
- 4. Enhance the activities of the TRCC subcommittees
- 5. Fund and monitor the TRCC's 408/405 C funded projects
- 6. Submit on behalf of the METRCC and TRCC a Massachusetts Strategic Plan for Traffic Records Update

7. Establish EOPSS/HSD access to necessary data sets for key planning, decision-making, program selection, and evaluation purposes through agreements with data owner agencies and ensure the ability to conduct analysis of that data in-house through revitalization of its traffic records data warehouse

#### **Traffic Records Program Area Projects**

#### TR-17-01 MassTRAC

Funding will be provided to a vendor to maintain and improve MassTRAC. MassTRAC is a web-based solution for crash records analysis, mapping, and reporting. This tool helps EOPSS/HSD meet federal reporting requirements and supports safety planning processes across the Commonwealth. The software provides quick and easy user access to crash data, tabulations, maps, and counts of crashes, vehicles, drivers, passengers, and non-motorists. One of the recommendations of the 2009 Traffic Records Assessment was to provide crash data to traffic safety stakeholders. This task will support all performance targets and specifically traffic records performance target 2.

Project Budget/Source - \$50,000 (Sec. 402)

Project Staff - Barbara Rizzuti

#### TR-17-02 Statewide DDACTS Program

In March 2014, with funding from EOPSS/HSD, the MPTC hired a part-time coordinator to support DDACTS throughout Massachusetts and serve as a resource for law enforcement. EOPSS/HSD will continue to fund the coordinator position and will expand this program for FFY 2017. The MPTC will conduct at least one three-day workshop for departments that are new to DDACTS and additional follow-up workshops for those who have implemented DDACTS to discuss obstacles, successes, challenges, and next steps. The coordinator will also provide support to departments working to implement DDACTS. For departments that need additional assistance analyzing their data, the MPTC will also provide training on MassTRAC. This task will support all overall performance targets and traffic records performance measure 3.

Project Budget/Source - \$75,000 (Sec. 402)

**Project Staff** - Bob Kearney

#### **TR-17-03 FARS**

NHTSA will be provided with required fatal crash data for FARS and FastFARS through an RMV position. The FARS Analyst will collect data concerning traffic related motor vehicle

fatalities, utilizing all available resources, in order to develop a database sufficient to meet federal requirements. This task will support all overall performance targets.

Project Budget/Source - \$78,000 Per Calendar Year of FARS Cooperative Agreement

**Project Staff -** Barbara Rizzuti

#### TR-17-04 Motor Vehicle Automated Citation and Crash System (MACCS)

MACCS is a browser-based application that will be available statewide for the purpose of collecting, reconciling, and exchanging motor vehicle incident information including: electronic citation reporting, crash reporting, alcohol test refusal reporting, and traffic stop data collection. The MACCS project is the result of a partnership between the Executive Office of Public Safety and Security (EOPSS), local and state law enforcement, and MassDOT. The goals of the MACCS project are to ensure greater officer safety by making the reporting process more efficient at the roadside, improve data quality by implementing checks at the point of entry and upon submittal, and eliminate redundant data entry processes for agencies across Massachusetts. The MACCS pilot commenced in July 2013 to field test the application and in-vehicle hardware (i.e. scanners, printers), identify deficiencies and potential improvements, and support proactive planning in the future potential rollout of the MACCS system statewide.

The MACCS pilot was conducted over a nine month period to test system functionality and data exchanges with a targeted number of agencies and end-users representing a diverse cross-section of the Commonwealth's public safety community. The pilot sites were rolled out incrementally, with feedback from users on each new deployment informing changes to be tested in the next iteration. Feedback was gathered through a formal error/enhancement reporting processes, as well as several working group meetings with the project team and the end-user community. Results and feedback from the pilot have been instrumental in informing the ongoing development of MACCS, as well the strategy for a future roll-out of MACCS components statewide. To date, the pilot testing has been conducted for the citation, crash, and traffic stop data collection modules.

In FFY2015 and FFY 2016, extensive progress was made on the development of the Public Safety Data Analytics Platform and Tool (ADAPT), which will provide public safety analysts, managers, and policy-makers with the ability to analyze a range of existing public safety data. Funding in FFY 2017 will also be used to help with the interface with records management systems and to provide printers for state and local law enforcement cruisers. EOPSS will continue working with the courts and Merit Rating Board on outstanding issues related to the processing of criminal citations.

If approved by EOPSS, Section 1906 funding will be used to collect and maintain statistical information on the race and ethnicity of drivers that were stopped by law enforcement using MACCS. However, law enforcement will not be required to collect this information. These data will be collected by MSP, but local law enforcement will have the option of collecting data if they choose. Possible uses of the funding include but are not limited to the following:

interfacing records management systems with MACCS, updating ADAPT to help analyze the data, or purchasing servers and other equipment identified by EOPSS and law enforcement to help with the collection of data. EOPSS/HSD will seek prior approval from NHTSA for any equipment purchases over \$5,000.

This task will support all performance targets.

**Project Budget/Source -**\$1,750,000 (Sec. 402), \$1,000,000 (Section 405c) and \$500,000 (Section 1906 - Pending EOPSS approval)

In FFY 2012, EOPSS expended \$287,745 of Sec. 408 funding for this project and approximately \$1.3 million in additional funding from the Federal Motor Carrier Safety Administration had been allocated to MassDOT for this project. Approximately, \$2.8 million of Section 402 funding has been expended.

Project Staff - Barbara Rizzuti

#### **TR-17-05** Scanning Solution for Police Crash Reports

The primary project goal is to provide funds to the RMV to purchase software and hardware to create the ability to scan crash reports received in paper form and link them to the corresponding crash file that has been manually entered into Crash Data System. This process will create the ability for end users to access the diagram and narrative for all scanned/linked crash reports. It will improve the roadway inventory file by increasing the number of reports for which an accurate location can be determined from the scanned images. This is a continuation of an existing project and does not represent any new funds. One of the recommendations from the 2009 Traffic Records Assessment was to ensure that crash report images (including the narrative and diagram) are available for all crashes to all legitimate users of the crash data, especially those who rely on accurate location information. Scanning of paper forms and creation/storage of PDFs from electronic crash reports will allow users in law enforcement and engineering agencies to access the detailed information they need. EOPSS/HSD will receive prior authorization for all equipment for any single item costing over \$5,000. This task will support performance target 1 and 3.

Project Budget/Source -\$105,000 (Sec. 405c)

**Project Staff -** Barbara Rizzuti

#### **TR-17-06** E-Submission Project

Funding will be provided to the RMV to complete their electronic crash submission project. This project involves the purchase of a tool to redact personal information on electronic reports requested via the web. This is a continuation of an existing project and does not represent any new funds. One of the recommendations from the 2009 Traffic Records Assessment was to

move to an electronic data collection system. This task will support traffic records performance target 3.

Project Budget/Source - \$68,351.46 (Section 408)

Project Staff - Barbara Rizzuti

## TR-17-07 Investigation of Improved Linkage Strategy towards the Development of a Central and Uniformed Crash Analysis Database

Funding will be provided to UMassSAFE to investigate improved data linkage processes and strategies for linking highway safety data - crash, roadway inventory, citation, driver history (if available), emergency room, hospital and emergency medical services data. There is no plan to purchase any equipment for this project, but if equipment is needed, EOPSS/HSD will receive prior authorization for all equipment for any single item costing over \$5,000. One of the recommendations from the 2009 Traffic Records Assessment was to partner with Crash Outcome Data Evaluation System (CODES) to provide stakeholders with a linked crash and citation database. This proposed project would replace CODES. This task will support traffic records performance target 1.

**Project Budget/Source -** \$124,209 (Sec. 405c)

**Project Staff -** Barbara Rizzuti

#### TR-17-08 MSP Traffic Crash Quality Assurance Project

Funding will be provided to the MSP and will be used to examine the business process of crash data from investigation through submission to the RMV to determine data collection, processing and dissemination challenges. This will resolve the integration issues between the MSP and RMV records systems. There is no plan to purchase any equipment for this project, but if equipment is needed, EOPSS/HSD will receive prior authorization for all equipment for any single item costing over \$5,000. One of the recommendations from the 2009 Traffic Records Assessment is to establish crash reporting improvement as a top priority of the TRCC and the member agencies. This task will support traffic records performance targets 1, 2 and 3.

Project Budget/Source - \$135,000 (Sec. 405c)

**Project Staff -** Barbara Rizzuti

#### TR-17-09 Crash Data System Stakeholder Data Improvement Project

The RMV is currently in the process of designing a new mainframe database to replace the aging one now in operation. The present Crash Data System (CDS) is a stand-alone database,

which was not included in the plans to incorporate current RMV transactions into the new database, due to limitations on funding. This project is intended to position the CDS for future incorporation into the new database by defining the optimum CDS. Stakeholders will help identify needs and assess the potential for data linkages and exchange, including what is possible through the MACCS project. EOPSS/HSD will receive prior authorization for all equipment for any single item costing over \$5,000. This task will support traffic records performance target 3.

Project Budget/Source - \$168,907 (Sec. 405c)

**Project Staff -** Barbara Rizzuti

## TR-17-10 Comprehensive Analysis of Accuracy and Completeness of the Crash Data File

The Center for Leadership in Public Service of Fisher College will evaluate the RMV crash data file and propose crash system improvements. This project will also result in the development and implementation of appropriate crash file quality control measures based on the Crash Data Improvement Program (CDIP) conducted in September/October 2013 and the 2014 Traffic Records Assessment. There is no plan to purchase any equipment for this project, but if equipment is needed, EOPSS/HSD will receive prior authorization for all equipment for any single item costing over \$5,000. This task will support traffic records performance targets 1 and 3.

Project Budget/Source - \$259,500 (Sec. 405c)

**Project Staff -** Barbara Rizzuti

## TR-17-11 MATRIS and Trauma Registry Data Accuracy, Completeness, Uniformity and Accessibility

The project will analyze and address issues with data quality in areas of accuracy, completeness, consistency/uniformity, timeliness, integration and accessibility of the MATRIS EMS and Trauma Registry surveillance systems maintained by the DPH. This includes analyzing, verifying and addressing data quality issues with the existing standards and migrating to the new national standards for NEMSIS 3.0 and ICD-10-CM. There is no plan to purchase any equipment for this project, but if equipment is needed, EOPSS/HSD will receive prior authorization for all equipment for any single item costing over \$5,000. One of the recommendations from the 2009 Traffic Records Assessment was to continue to grow and promote MATRIS and the trauma registry. This task will support traffic records performance target 4.

Project Budget/Source - \$355,000 (Sec. 405c)

## TR-17-12 Crash Data Audit - An Investigation of Police Crash Reports to Establish and Assess Current Obstacles and Future Performance Measures & Monitoring

UMassSafe proposes to conduct a quality control review via a crash data audit, investigating police crash reports and thereby establishing and assessing current obstacles and future performance measures and monitoring criteria. Assessed in this audit will be the timeliness, accuracy, consistency and completeness of the crash report. Once the audit process is complete, the records for each of the reports included in the sample will be compiled into one database and queried to identify two categories of information for each field; including a percent distribution for the four categories (acceptable, inconsistent, invalid or empty) and a list of comments/notes included by the auditors. These details can be used as performance measures for timeliness, accuracy, consistency and completeness. This task will support traffic records performance targets 1 and 3.

**Project Budget/Source -** \$123,648 (Sec. 405c)

Project Staff - Barbara Rizzuti

## TR-17-13 Crash Reporting Training and Technical Assistance for Law Enforcement Agencies

There are a number of law enforcement agencies that struggle to submit their crash data to the RMV. The project is designed to provide training and technical assistance to law enforcement agencies in order to assist and improve the accessibility, timeliness, accuracy, completeness, integration, and uniformity of their crash data reporting. This will have a direct effect of the crash data quality submitted to the RMV. Fisher College will partner with the Massachusetts Association of Crime Analysts (MACA) to provide this technical assistance to local law enforcement agencies throughout the Commonwealth. MACA has approximately 200 members representing about 140 law enforcement agencies. MACA also has the most certified law enforcement analysts of any regional association in the United States and holds one of the premier technical data analysis conferences, including topics on DDACTS, in the country. Members of MACA have the knowledge and skills necessary to explain why it's important to have accurate and timely data and they are in a position to teach other members of law enforcement how to collect and analyze their own crash and citation data to make it more useful. This task will support traffic records performance targets 1, 2 and 3.

Project Budget/Source - \$81,273 (Sec. 405c)

**Project Staff -** Barbara Rizzuti

#### TR-17-14 Massachusetts Revised Crash Report Form E-Manual and Evaluation

Funding will be provided to UMassSAFE for two tasks: (1) develop the Massachusetts e-manual for crash reporting information and (2) evaluation of revised Massachusetts crash report fields. The intent of Task 1 is to improve the efficiency, accuracy, and completeness of the Massachusetts crash reporting process. UMassSafe will develop a web based, interactive crash report manual that would function like a toolkit with tabs for different information and links for further information. Task 2 would examine all fields affected by the changes, to look for problematic patterns existing at both the department and vendor levels. This task will support traffic records performance targets 1, 2 and 3.

Project Budget/Source - \$118,019 (Sec. 405c) - Pending additional approval from EOPSS

Project Staff - Barbara Rizzuti

#### TR-17-15 Trauma Registry Vendor and Database Hosting Upgrades

Funding will be provided to DPH to enhance the current processing workflow (upload, edit, process, and report back to the hospitals) for its Trauma Registry. These changes require a specific product built for trauma data that would be maintained to include all the national standards updates and quality improvement initiatives that could be used by the customer. Mass IT will be responsible for hosting the application and database for the Bureau of Health Care Safety and Quality. The hosting services will be for the full Trauma Registry Database that may hold the data from 2008 – 2015 and 2015 – onward with the greatest change being the ICD – 9 – CM and ICD - 10 – CM diagnostic codes. The database will need to meet the Mass IT compliance requirements to reside in the host site. This task will support traffic records performance target 4.

**Project Budget/Source -** \$60,000 (Sec. 405c) -Pending additional approval from EOPSS. The Commonwealth is also planning to obligate \$575,000 in state funding for this project.

**Project Staff -** Barbara Rizzuti

## TR-17-16 Boston Cyclist, Pedestrian and Vehicular Incident Information System Enhancement

Boston EMS began the Boston Cyclist, Pedestrian & Vehicular Incident Information System Enhancement project in FFY 2013 to address information gaps, inconsistent data gathering and analysis and the lack of usable real time data to guide decisions on traffic safety and transportation policy in Boston. In FFY 2017, funding would be provided to Boston EMS to expand their incident information system. This phase will focus on reducing roadway incidents through pre-billed data analysis/reporting and collaboration with key stakeholders. The next

step is to focus on integrated data exchange and public information sharing. Funding would be used to develop forward facing maps and reports on the department's website to serve as a resource for the community. This task will support traffic records performance targets 1 and 4.

**Project Budget/Source -** \$156,937 (Sec. 405c)

Project Staff - Barbara Rizzuti

## TR-17-17 Test the Template Developed by Vanasse Hangen Brustlin, Inc. (VHB) for Collecting Model Inventory Road Element (MIRE) Fundamental Data Elements (FDEs) for Intersections on a Subset of the Intersections in Massachusetts

The Federal Highway Administration (FHWA) considers the presence of a traffic control device at an intersection and the device's type, if one is present, as FDEs of a MIRE. The Massachusetts statewide road inventory currently does not contain the required FDEs for intersections. MassDOT is entering into a contract with VHB to develop a template to be used to collect these FDEs so that they can be added to the Road Inventory. This project will use the VHB template to collect FDEs for a subset of the intersections in the state and evaluate the template. This will allow the template to be modified, if deemed necessary or advisable, before it is used to collect FDEs for intersections statewide. This task will support traffic records performance target 5.

**Project Budget/Source -** \$96,732 (Sec. 405c) and \$575,000 (State funding)

**Project Staff -** Barbara Rizzuti

## TR-17-18 Data Quality Review of Crash Reports Accepted with Warning and Technical Assistance to Police Departments to Improve Completeness and Reduce Errors

The RMV will work with UMassSAFE to develop and implement processes for reviewing crash reports that have been "accepted with warning" by the RMV and will work with police departments to improve the completeness of submitted crash reports. This would include a detailed examination of the problems that exist. Further dialogue with individual police departments would improve crash reporting by expanding their understanding of specific common errors. This task will support traffic records performance target 3.

**Project Budget/Source -** \$196,802.46 (Sec. 405c)

**Project Staff -** Barbara Rizzuti

#### TR-17-19 Data Uniformity, Accuracy, Completeness and Timeliness

Funding would be provided to DPH to make improvements to MATRIS and the Trauma Registry. MATRIS is currently based on the National EMS Information System (NEMSIS) Version 2 data set standard developed in 2005. MATRIS must migrate to the new standard as NEMSIS will no longer collect Version 2 data after 2016. The electronic patient care report (ePCR) vendor software used by ambulance services to collect and submit data to MATRIS will be migrated to the new version in the next year. DPH will need to upgrade the software platform and build out a new server. Funding will also be used to expand and improve upon a process highlighted by the South Shore Hospital using MATRIS as a central location to access trip records and perform quality assurance/quality improvement reviews for 10 ambulance services. The Trauma Registry (as well as all entities covered by the Health Insurance Portability and Accountability Act) must transition from the International Classification of Diseases version 9 to version 10. Funding will also be used for coordination and training with hospitals and vendors. This task will support traffic records performance target 4.

Project Budget/Source - \$180,000 (Sec. 405c)

Project Staff - Barbara Rizzuti

#### TR-17-20 Evaluation of Fatal and Injury Data

EOPSS/HSD will work with a vendor/subgrantee to develop a report that analyzes fatality and injury data for the Commonwealth. This report will present FARS data that are reflective of the standard core measures agreed upon by NHTSA and GHSA and injury data from emergency medical services and/or hospitals. This report will be used for the FFY 2018 HSP and the FFY 2016 Annual Report. A subgrantee has not yet been selected. EOPSS/HSD will request approval from NHTSA prior to contracting. As noted in the CTW, it does not provide guidance on traffic safety data systems and analyses. This task will support all performance targets.

Project Budget/Source - \$100,000 (Sec. 402)

**Project Staff** -Barbara Rizzuti and Bob Kearney

#### TR-17-21 Program Management

Provide sufficient staff to conduct pedestrian- and bicycle-related programming described in this plan as well as cover in and out of state travel, professional development expenses, conference fees, postage and office supplies.

Project Budget/Source - \$112,000 (Sec. 402)

**Project Staff** - Barbara Rizzuti and Bob Kearney

### **Traffic Records: Budget Summary**

Project Number	Project Title	Budget	<b>Budget Source</b>
TR-17-01	MassTRAC	\$ 50,000	402
TR-17-02	MassTRAC/DDACTS	\$ 75,000	402
TR-17-03	FARS	\$ 78,000 per calendar year	FARS Cooperative Agreement
TR-17-04	MACCS	\$ 1,750,000	402
		\$1,000,000	405c
		\$500,000	1906
TR-17-05	Scanning Solution for Police Crash Reports	\$ 105,000	405c
TR-17-06	E-Submission	\$ 68,351.46	408
TR-17-07	Investigation of Improved Linkage Strategy	\$ 124,209	405c
TR-17-08	State Police Traffic Crash Quality Assurance Project	\$ 135,000	405c
TR-17-09	Crash Data System Stakeholder Data Improvement Project	\$ 168,907	405c
TR-17-10	Comprehensive Analysis of Accuracy and Completeness of the Crash Data File	\$ 259,500	405c
TR-17-11	MATRIS and Trauma Registry Data Accuracy, Completeness, Uniformity and Accessibility	\$ 355,000	405c
TR-17-12	Crash Data Audit - An Investigation of Police Crash Reports to Establish and Assess Current	\$ 123,648	405c

	Obstacles and Future Performance Measures & Monitoring		
TR-17-13	Crash Reporting Training and Technical Assistance for Law Enforcement Agencies	\$ 81,273	405c
TR-17-14	Massachusetts Revised Crash Report Form	\$ 118,019	405c
TR-17-15	Trauma Registry Vendor and Database Hosting	\$ 60,000	405c
TR-17-16	Boston Cyclist, Pedestrian, and Vehicular Incident System Enhancement (Pt. 2)	\$ 156,937	405c
TR-17-17	Analyze Accuracy of Data in MassDOT's Crash Data System	\$ 96,732	405c
TR-17-18	Data Quality Review of Crash Reports	\$ 196,802.46	405c
TR-17-19	Data Uniformity, Accuracy, Completeness and Timeliness	\$ 180,000	405c
TR-17-20	Evaluation of Fatal and Injury Data	\$ 100,000	402
TR-17-21	Program Management	\$ 112,000	402
	Total All Funds	\$ 5,894,378.92	

## 8.0 Distracted Driving

#### **Problem Identification and Analysis**

Distracted driving occurs when the driver fails to pay attention to the driving task. It occurs anytime a driver diverts his/her attention from the task of driving to something else – talking to passengers, looking at something on the cellphone, eating, even adjusting with the radio controls. In 2014, there were 3,179 people killed and an estimated additional 431,000 injured in motor vehicle crashes involving distracted drivers across the United States. The number of people killed represents 10% of all motor vehicle-related fatalities on the roads in 2014.

Much attention has been devoted to the use of cell phones or smart phones while driving. There are numerous limitations that affect the accurate recording of cell phone use in crashes such as the reluctance to admit behavior, time, resources, and legal constraints of law enforcement obtaining cell phone records. Although determining the exact causes of crashes involving distracted driving is a challenge, NHTSA's National Center for Statistics and Analysis determined in 2014 there were 385 fatal crashes reported to have involved the use of cellphone as distractions (13% of all fatal distraction-involved crashes). A total of 404 people died as a result of drivers talking on, listening to, or manipulating a cell phone.

Massachusetts passed a Safe Driving Bill in 2010. This is a primary law which bans all operators of motor vehicles from text messaging and prohibits junior operators from using any type of mobile phone device. In 2014, there were 24 fatal crashes involving distracted driving in Massachusetts – a 44% drop from 2013.

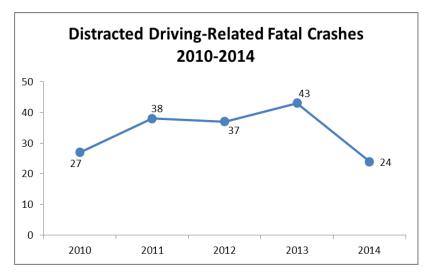
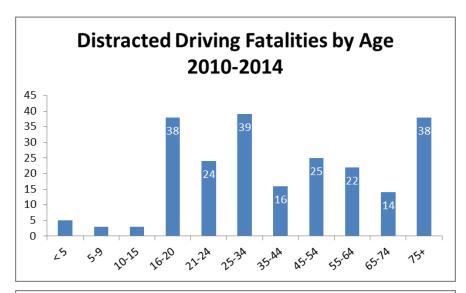


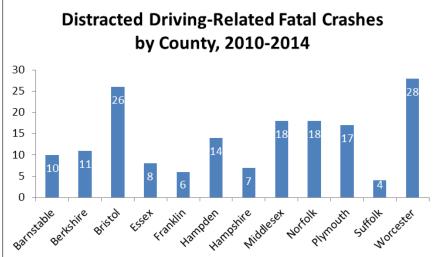
Figure 8.1 (Source: FARS)

Three-year average for distracted driving fatal crashes declined 10% from 39 (2011-2013) to 35 (2012-2014).

Distracted driving-related fatalities were highest among those in the 25-34 age bracket, followed closely by both the 16-20 and 75+ age groups. The 16-20 group are new drivers and have been found in various studies to be easily distracted (whether by cellphone or other distraction) while driving. The 25-34 age group may represent young parents

and/or young professionals relying on cellphones for communication outside of the office or home. What is unknown is why there are a high number of 75+ fatalities in a distracted driving-related crash. More research needs to be done to determine the contributing factors in these fatal crashes.





Type of Distraction Reported in Fatal Crash		
2010-2014		
By other occupant	7	
While talking/listening to cellphone	5	
While Dialing Cellular Phone	4	
While manipulating cellular phone	5	
Adjusting Audio/Climate Controls	4	
While using other device/controls	3	
While using or reaching for a device	2	
Distracted by outside person, event	7	
Other cellular phone related	5	
Eating or drinking	2	
Distraction/inattention/careless	80	
Inattentive or lost in thought	17	
Other Distraction	27	

Figure 8.2 (Source: FARS)

From 2010-2014, distracted driving-related fatal crashes took place most often in Worcester and Bristol County. These two counties accounted for over a third of all distracted driving-related fatal crashes.

An examination of roadway function on which distracted driving-related fatal crashes occurred found that nearly 40% of the crashes took place along an urban local road or street.

Figure 8.3 (Source: FARS)

Lastly, EOPSS/HSD examined reported what was the 'distraction' to the driver involved in the fatal crash to determine if it largely cellphone-related or something else entirely.

It was found that in a majority of the fatal crashes, the driver was simply distracted or inattentive rather than using a cellphone or

the controls of the vehicle.

**Table 8.1** (Source: FARS)

In fact, cell phone-related distraction accounted for 11% of the distractions reported in a fatal crash. Regarding young drivers (under 21 years of age), they were only found to be using a cell phone in five of the 19 reported cell phone-related distracted driving fatal crashes. Adult drivers (over 20 years of age) accounted for the remaining 14 crashes.

For all the concern about people focusing on cell phones or smart phones when driving, it seems as though drivers are simply not paying attention for unknown reasons at the time of crash. Then again, if a driver survived the crash, it is highly unlikely s/he would self-report cellphone use as the last thing they were doing prior to the crash. Nevertheless, the data does show how easily one can be distracted while driving, whether with a phone or not.

During the 2015 Statewide Seatbelt Observational Survey, EOPSS/HSD's vendor UMassSafe recorded cellphone usage of drivers at each of the 147 selected observation locations. Of a total of 27,204 drivers observed, 5.7 percent were using their cell phone. This is a slight decrease from the observed rate of 6.4 percent in 2013. Female drivers (6.2%) continued to have higher observed usage than male drivers (5.3%). Highest rate of cellphone usage took place during peak afternoon hours (6.3%) during weekdays and was lowest over the weekends. Regionally, Middlesex (6.7%) and Bristol (6.7%) County observation locations recorded the highest cellphone usage. In regards to passenger presence, 6.7% of drivers using cell phones were alone, compared to only 1.8% with passengers. This suggests that drivers are cognizant of the dangers of driving and cell phone usage but chose to be safe more often when they have a passenger than when alone.

Despite the recent decline in distracted driving fatalities, it remains a top concern for EOPSS/HSD. More work needs to be done educating drivers on the dangers of taking their eyes off the road, which is why EOPSS/HSD plans to offer a grant program aimed at young drivers that will include distracted driving as one of its areas of focus as well as conduct a distracted driving enforcement mobilization, with emphasis on Bristol and Worcester County.

The table below shows estimated funding by county for selected FFY 2017 Distracted Driving grants:

FFY 2017 Total DD Funding by County		
Barnstable	\$ 28,500	
Berkshire	\$ 13,000	
Bristol	\$ 49,500	
Dukes	\$ -	
Essex	\$ 53,500	
Franklin	\$ 2,500	
Hampden	\$ 57,000	
Hampshire	\$ 20,500	
Middlesex	\$ 131,000	
Norfolk	\$ 66,500	
Plymouth	\$ 57,000	
Suffolk	\$ 34,000	
Worcester	\$ 107,000	

#### **Performance Targets**

#### Distracted Driving Performance Target #1

Decrease distracted driving-related fatalities 15% from 31 in 2014 to 26 by December 31, 2017.

#### **Performance Measures**

Number of fatalities with one or more distractions

#### **Strategies**

- 1. Fund the MSP to enforce distracted driving laws
- 2. Fund the MSP and selected communities for sustained enforcement of traffic laws
- 3. Increase public awareness of the dangers of distracted driving, mobile device use and texting while driving
- 4. Educate law enforcement on the identification and citation of offending violators of mobile device laws
- 5. Document mobile device use as part of the annual seat belt observation survey
- 6. Promote the MPTC's online training for law enforcement on the importance of noting distracted driving as a factor on crash reports
- 7. Provide funding to 202 eligible municipal police departments to conduct a local distracted driving enforcement mobilization in April 2017

#### **Distracted Driving Program Area Projects**

#### DD-17-01 MSP Distracted Driving Enforcement

Based on data collected through MassTRAC and FFY 2016's distracted driving enforcement efforts, the MSP will conduct activities to enforce distracted driving laws. Although the preliminary timeline for this project will be around Distracted Driving Awareness Month in April, the dates and locations of the activity will be determined based on data, guidance from NHTSA, and other nationwide distracted driving events. Funding for this task may change based on 405 E funds awarded. MSP will employ the roving patrol technique where texting drivers are actively sought out. Daytime shifts will be the preferred timeframe making it easier for the police to spot violators. Patrols will move between locations to take advantage of traffic patterns and known high-risk locations during the shifts. If this technique proves ineffective, using spotters where one stationary police officer notes the violation and a second officer pulls the driver over, will be considered. Since distracted driving is associated with driving

behaviors such as inappropriate speeds, slow reaction times, and weaving among traffic lanes, these behaviors will receive special attention during enforcement periods. This task is supported by CTW Chapter 4 Section 1.3 and 2.2. This task will support distracted driving performance target 1.

**Project Budget/Source -** \$300,000 (Sec. 402) and \$300,000 (Sec. 405e)

**Project Staff -** Deb Firlit

#### DD-17-02 Local Distracted Driving Enforcement

Provide overtime funds to local municipal police departments to conduct activities to enforce distracted driving laws. Patrols by police will be conducted during Distracted Driving Awareness Month, which is set for April 2017. Not only will enforcement patrols seek out violators who use cellphones while driving, but also those who exhibit other distracted driving behaviors such as inappropriate speed, weaving, slow reaction times, and drifting. Participating municipalities are listed in the Appendix under Table 13.7. Participating municipalities are part of the selected grantees for the 2017 Traffic Enforcement Grant, which includes DSOGPO, CIOT, and Distracted Driving. This task is supported by CTW Chapter 4 Section 1.3 and 2.2. This task will support distracted driving performance target 1.

**Project Budget/Source -** \$622,500 (Sec. 402)

**Project Staff -** Lindsey Phelan

#### DD-17-03 Educational Outreach to Young Drivers

Funding will be provided to SADD and In Control to educate young drivers on the dangers of distracted driving. According to the 2011 MYHS, conducted by DPH, of the students who reported driving a car, 42% also reported that they have texted while driving. Students in the 12th grade were more likely to report texting while driving than students in any other high school grade and 11th grade students were more likely to report texting while driving than 10th grade students. Methods for outreach can include, but are not limited to, school presentations, peer-to-peer workshops, safety fairs, and informational campaigns. An evaluation component will be included. Funding will be used to cover expenses related to personnel, educational materials, consultants, travel/driving costs and office supplies. This task is supported by CTW Chapter 4, Section 2.1. This task will support all overall performance targets.

Project Budget/Source - \$50,000 (Sec. 402)

Project Staff - Bob Kearney

#### DD-17-04 Distracted Driving Media

Provide funding for media campaign in support of the local distracted driving mobilization planned for April 2017. EOPSS/HSD's communications vendor, Argus, will be handling the media implementation. Advertising space purchases will be evaluated based on the criteria in the 402 Advertising Space Guidance. EOPSS/HSD follows a system like the NHTSA Communications Pyramid. Strong internal policies are followed noting that all media and communications activities should be in support of our data-driven objectives and in coordination with our other activities and programs, in particular, enforcement. Crash and citation data are used not only for targeting enforcement activities but also to determine the primary and secondary audiences, and media channels used to reach them. NHTSA's guidelines are followed for messaging, demographics, best practices and target groups for each media effort. This task is supported by CTW Chapter 4, Section 2.2. This task will support distracted driving performance target 1.

Project Budget/Source - \$100,000 (Sec. 402) [Paid - \$80,000; Earned - \$20,000]

Project Staff - John Fabiano

#### DD-17-05 Program Management

Provide sufficient staff to conduct related programming described in plan to cover in and out of state travel, professional development expenses, conference fees, postage and office supplies.

Project Budget/Source - \$97,000 (Sec. 402)

Project Staff - John Fabiano, Deb Firlit, Lindsey Phelan, Bob Kearney

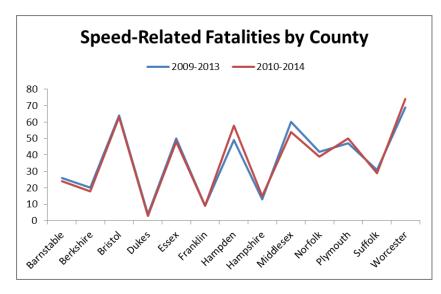
### **Distracted Driving: Budget Summary**

Project Number	Project Title	Budget	<b>Budget Source</b>
DD-17-01	MSP Distracted Driving Enforcement	\$ 300,000	402
		\$ 300,000	405e
DD-17-02	Local Distracted Driving Enforcement	\$ 622,500	402
DD-17-03	Educational Outreach to Young Drivers	\$ 50,000	402
DD-17-04	Distracted Driving Media	\$ 100,000	402
DD-17-05	Program Management	\$ 97,000	402
	Total All Funds	\$ 1,469,500	

# 9.0 Speed and Aggressive Driving Program Area

#### **Problem Identification and Analysis**

Speed-related fatalities and injuries are a significant highway safety problem often over-shadowed by the high-profile attention given to occupant protection and impaired driving at the national and state levels. In Massachusetts, 23% of crash fatalities were speed-related in 2014, which was lower than the national rate of 28%. Speed-related fatalities dropped from 89 in 2013 to 77 in 2014, a 13% decline throughout the Commonwealth. In comparison, the national rate declined 4% from 2013 to 2014.



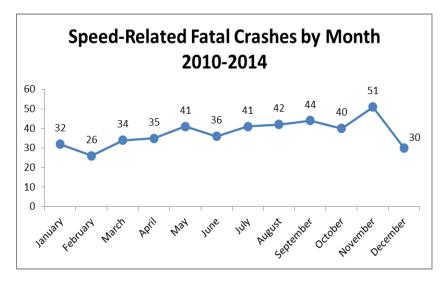


Figure 9.1 (Source: FARS)

Speed-related fatalities are highly prevalent in Worcester and Bristol County with the cities of Worcester, and New Bedford, locations for numerous fatalities. Hampden County has seen spike from its 2009-2013 totals to its 2010-2014 numbers; while Middlesex has dropped in fatalities between the two time frames.

Even though Suffolk County had one of the lower speed-related fatality totals, Boston lead all cities in location for fatalities.

Figure 9.2 (Source: FARS)

Speed-related fatal crashes declined 19% from 86 in 2013 to 70 in 2014. Five-year total of speed-related crashes in Massachusetts reveals November to be the most dangerous month, same as it was from 2009-2013.

Table 9.1 Speed-Related Fatal Crashes by Day of Week and Time Frame

2010-2014	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Total
12am - 3am	34	8	7	10	6	25	37	127
3am - 6am	18	4	4	3	2	4	12	47
6am - 9am	2	5	5	5	6	5	8	36
9am - Noon	1	8	4	3	3	3	3	25
Noon - 3pm	5	1	7	6	2	2	3	26
3pm - 6pm	12	13	8	2	3	7	10	55
6pm - 9pm	10	9	11	8	6	4	16	64
9pm - Midnight	8	7	8	9	9	16	12	69
	90	55	54	46	37	66	101	

(Source: FARS)

Speed-related fatal crashes most likely occurred during the hours between 12am – 3am on Friday, Saturday and Sunday. Not unsurprisingly, these hours follow normal evening socializing behavior that tends to take place on Thursday, Friday and Saturday. As shown previously in this document, this is also when the highest level of alcohol-related and unbelted fatalities occur as well.

By day, Saturday had the highest total of speed-related fatal crashes; followed by Sunday and Friday. Based on the data so far, any speed-related outreach or enforcement should take place over the weekend, especially during the 12am-3am time frame.

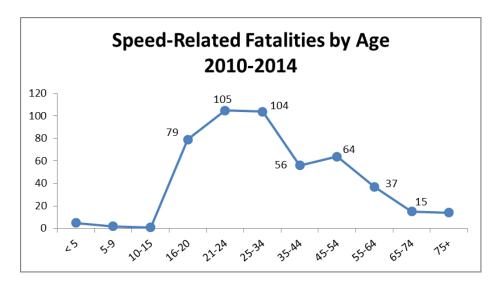


Figure 9.3 (Source: FARS)

From 2010-2014, 60% of speed-related fatalities occurred among those between age 16 and 34. This would coincide with the high rate of fatal crashes during early morning hours from Friday to Sunday – a period of time when those in the 16-34 age bracket tend to be heading home from nightly social activities.

Males represent over 75% of speed-related fatalities from 2010-

2014, accounting for 372 of the 484 deaths reported. Males also represented a majority of drivers involved in a speed-related fatal crash during the same time frame.

Table 9.2 examines the top four roadways involved in a speed-related fatal crash from 2010 to 2014. Overall, the top four – all urban roadways – accounted for 75% of all speed-related fatal crashes with local roads leading the pack with 39% of those crashes.

Table 9.2 Speed-Related Fatal Crashes by Top Four Roadway Functions, 2010-2014

	2010	2011	2012	2013	2014	Total
Urban - Principal Arterial Interstate	13	17	8	9	15	62
Urban - Other Principal Arterial	4	9	15	5	15	48
Urban - Minor Arterial	4	13	7	20	9	53
Urban - Local Road or Street	34	49	41	31	21	176
Total of Top Four	55	88	71	65	60	339
Total Fatal Crashes Reported	79	114	103	86	70	452
% of Top Four Roadways	70%	77%	69%	76%	86%	75%
% of Urban - Local Roads	43%	43%	40%	36%	30%	39%

(Source: FARS)

Given the high level of crashes along local roads, speed-related grant activity should certainly have to target streets within counties of Worcester and Bristol in order to have an impact on driver behavior in the near future.

### Speed-Related Violations

In 2015, speeding violations declined 15% from 2014. Aggressive driving violations also declined from 2014, down 15% as well.

Table 9.3 Massachusetts Speeding and Aggressive Driving Violations

	2011	2012	2013	2014	2015
Speeding Violations <sup>a</sup>	209,883	221,591	196,332	149,771	127,333
Aggressive Driving Violations <sup>b</sup>	132,843	139,010	128,349	131,529	112,222

Source: MRB Quarterly Violations Report

In conclusion, the data presented in this section shows that localized enforcement of speeding should take place during the weekend between 9pm and 3am, with emphasis in Bristol and Worcester counties. If possible, law enforcement should consider conducting speed enforcement efforts during November along local roads, a key location for crashes.

<sup>&</sup>lt;sup>a</sup> Comprising Speed County Bridge (85 20), Speeding (90 17, 90 18, and 730 708 SP), MDC Way Speeding (350 401 SP), Mass Pike Speeding (730 500 SP and 730 707 SP), Sumner Tunnel Speeding (730 300 SP)

Comprising Fail to Keep Right (89 1), Improper Passing (89 2), Keep Right No View (89 4), Lane Violation/ Unsafe Passing (89 4A), Keep in Right Lane (89 4B), Right of Way Intersection (89 8), Failure to Stop (89 9), Yield to Pedestrians (89 11), Fail to Use Safety (90 14), Fail to Signal Stop (90 14B), Speed Drag Racing (90 17B), Adult Drag Racing (90 17B AD), Operating Recklessly (90 24 OR), Vehicular Homicide (90 24G), MDC Sign/Signal (350 401), Mass Pike Tandem Trailers (730 400)

### **Performance Targets**

### Speed Performance Target #1

Decrease speed-related fatalities 5% from 2010-2014 calendar base year average of 97 to 92 by December 31, 2017.

#### **Performance Measures**

Number of speed-related fatalities

### **Strategies**

- 1. Fund the MPTC to conduct specialized training on speed measurement
- 2. Fund law enforcement to conduct speed enforcement during CIOT and DSGPO
- 3. Fund law enforcement to conduct speed enforcement during sustained enforcement activities
- 4. Provide funds to the MSP for speed enforcement activities

### **Speed and Aggressive Driving Program Area Projects**

### SC-17-01 MSP Speed Enforcement Mobilization

Funds will be provided to Massachusetts State Police to conduct speed-related enforcement activities aimed at decreasing incidence of speeding violations as well as reducing the rate of speed-related motor vehicles crashes along the Commonwealth's major highways. The MSP will not duplicate efforts with the Highway Safety Corridor Program for I-495 and I-95. This task is supported by CTW Chapter 3 Sections 2.2. This task will support speed performance targets 1 and 2.

Project Budget/Source - \$300,000 (Sec. 402)

Project Staff -Deb Firlit

### SC-17-02 Educational Outreach to Young Drivers

Funding will be provided to SADD and In Control to educate young drivers on the dangers of speeding and aggressive driving. In 2012, over 25,000 citations were given to drivers under 21 for speeding. Methods for outreach may include, but are not limited to, school presentations, peer-to-peer workshops, safety fairs, and informational campaigns. An evaluation component will be included. Funding will be used to cover expenses related to personnel, educational materials, consultants, travel/driving costs and office supplies. This task is supported by CTW Chapter 3, Section 2.2. This task will support speed performance target 1, younger driver target 1 & 2, core performance targets 1, 2, and 3.

Project Budget/Source - \$50,000 (Sec. 402)

Project Staff - Bob Kearney

### SC-17-03 Speed Media

Provide funding for a media campaign in support of local and state speed enforcement activity. EOPSS/HSD's communications vendor, Argus, will be handling the media implementation. Advertising space purchases will be evaluated based on the criteria in the 402 Advertising Space Guidance. EOPSS/HSD follows a system like the NHTSA Communications Pyramid. Strong internal policies are followed noting that all media and communications activities should be in support of our data-driven objectives and in coordination with our other activities and programs, in particular, enforcement. Crash and citation data are used not only for targeting enforcement activities but also to determine the primary and secondary audiences, and media channels used to reach them. NHTSA's guidelines are followed for messaging, demographics, best practices and target groups for each media effort. This task is supported by CTW Chapter 3, Section 4.1 and will support speed performance target 1.

Project Budget/Source - \$65,000 (Sec. 402) [Paid - \$52,000; Earned - \$13,000]

Project Staff - John Fabiano

### SC-17-04 Program Management

Provide sufficient staff to conduct related programming described in plan to cover in and out of state travel, professional development expenses, conference fees, postage and office supplies.

Project Budget/Source - \$58,000 (Sec. 402)

Project Staff -Deb Firlit, Bob Kearney, and John Fabiano

### Speed and Aggressive Driving: Budget Summary

Project Number	Project Title	Budget	<b>Budget Source</b>
SC-17-01	Speed Enforcement Mobilization – MSP	\$ 300,000	402
SC-17-02	Educational Outreach to Young Drivers	\$ 50,000	402
SC-17-03	Speed Media	\$ 65,000	402
SC-17-04	Program Management	\$ 58,000	402
	Total All Funds	\$ 473,000	

### 10.0 Younger and Older Drivers

### **Problem Identification and Analysis**

In 2014, younger drivers (age 20 or younger) accounted for 6% of all drivers involved in fatal crashes in Massachusetts. This represents a decrease from 8% reported in 2013. Overall, the number of young drivers involved in fatal crashes has dropped 55% from 53 in 2010 to 24 in 2014. EOPSS/HSD's continued outreach and educational initiatives aimed at young drivers are having a positive impact on driving behavior.

Older drivers (age 65+) represented 12% of all drivers involved in fatal crashes during 2014. This was over five percent lower than in 2013. Since 2010, older driver involvement in a fatal crash has declined 22%. Interestingly, while the ratio of male-to-female drivers was about 2:1; the number of drivers aged 65-74 (113 male, 52 female) were comparable to those 75 years and older (114 male, 62 female.



**Figure 10.1** (Source: FARS)

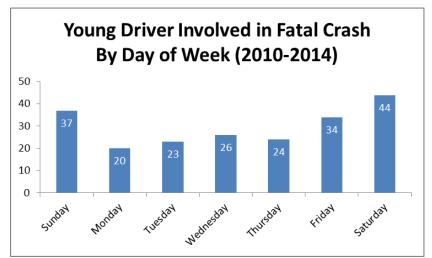
Young drivers (16-20) fatalities have been steadily declining since 2011. In the past four years, the number of fatalities has decreased 58%. The impact of JOL laws has helped increase young driver knowledge about roadway safety regarding wearing seatbelts, distracted driving, and alcohol-impairment.

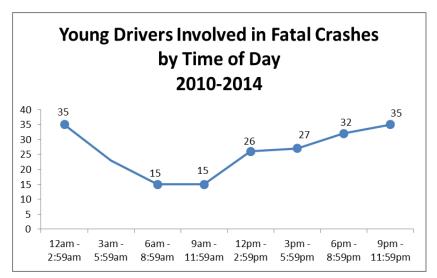
Interestingly, over the 2010-2014 period, drivers aged 20 had the most fatalities (25) of all young drivers. Age 18 was second with 22 fatalities. The lowest

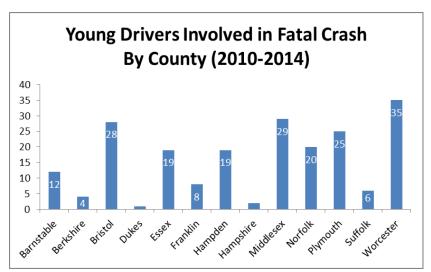
number of fatalities were reported by age 16 drivers – seven.

Despite the decline in young driver fatalities, it is critical to examine key data elements about young drivers involved in fatal crashes.

By day of week, the Friday-Saturday-Sunday period accounted for 55% of the fatal crashes. Mondays had the lowest amount of young driver involvement in fatal crashes.







### Figure 10.2 (Source: FARS)

By time of day, the period from 6pm to 2:59am represents 50% of the fatal crashes. The time between 6am to 11:59am had the lowest levels of fatal crashes.

Among young drivers, those aged 19-20 were involved in 52% of fatal crashes; whereas, drivers aged 16-17 (novice, high school age) accounted for 26% of the fatal crashes.

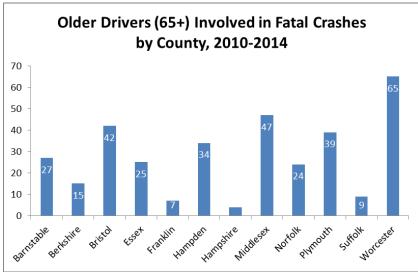
Figure 10.3 (Source: FARS)

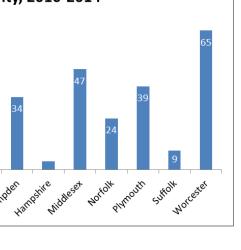
In terms of county, from 2010-2014, Worcester, Middlesex, and Bristol were the top locations for fatal crashes involving a young driver. The top three counties accounted for 45% of all fatal crashes involving a young driver. The southeast region - Plymouth, Bristol and Barnstable County - accounted for over a third of the fatal crashes. Western Massachusetts (Berkshire, Franklin, Hampshire, Hampden County) had the lowest total percentage of fatal crashes involving young drivers, 17%.

#### **Figure 10.4** (Source: FARS)

If IOL violations continue to decline, it is expected to see young driver involvement in fatal crashes to continue downward as well. The decline in violations indicates more and more young drivers are adhering to the rules of the road and taking care to drive safely whether with or without passengers. Any enforcement activity during FFY 2017 should be conducted during the weekend during key hours of 9pm to 3am through counties such as Worcester, Middlesex, Bristol Plymouth.

Older drivers (65+) involvement in fatal crashes has been declining since 2012, when it was at its highest point ever of 82. In 2013, the number dropped to 76 - a 7% drop. Then in 2014, it decline even further to 49 - a 36% decrease from 2013. It was 40% lower than in 2012.





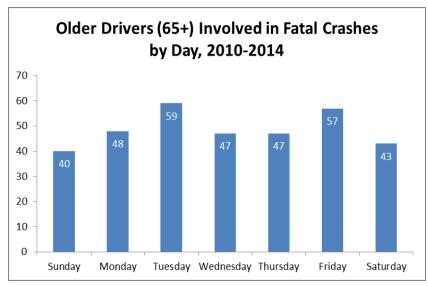


Figure 10.5 (Source: FARS)

Older drivers were involved in fatal crashes most often in Worcester County from 2010-2014. Approximately, 18% of fatal crashes occurred in this county. Worcester County is followed by Middlesex (13%) and Bristol (12%), same as it was for young drivers in Figure 10.4.

Also, as with young drivers, the southeast region of Barnstable, Bristol and Plymouth County accounted for over a third of the fatal crashes.

Figure 10.6 (Source: FARS)

In terms of day of week for older drivers involved a fatal crash, Tuesday was the worst day followed by Friday.

As of the present time, there are no specific programs listed in this section for younger and older drivers. However, enforcement and media activities for these age groups will be incorporated into other tasks. For instance, EOPSS/HSD will be conducting programs specifically for young drivers and occupants to

increase seat belt use (OP-17-09) and reduce underage drinking/impaired driving (AL-17-04, AL-17-05, AL-17-11, and AL-17-17), speeding (SC-17-02) and distracted driving (DD-17-03). This one-day summit will bring together medical professionals, engineers, law enforcement, planners and others to discuss strategies to reduce fatalities and injuries by discussing ways to extend safe driving, provide alternative transportation and design facilities to accommodate the older driver population.

This plan also allows for continuous follow-up and adjustment based on new data and the effectiveness of projects.

### **Performance Targets**

### Younger Driver Performance Target #1

Decrease number of young drivers (age 20 or under) involved in a fatal crash 10% from 2010-2014 calendar base year average of 42 to 38 by December 31, 2017.

### Younger Driver Performance Target #2

Decrease younger driver (age 20 or under) fatalities 20% from 10 in 2014 to 8 by December 31, 2017.

### Older Driver Performance Target #1

Decrease number of older drivers (65+) involved in a fatal crash 5% from 68 in 2014 to 65 by December 31, 2017.

### **Performance Measures**

Number of fatalities involving a younger driver

Number of young driver fatalities

Number of older drivers (age 65 or older) involved in fatal crashes

### 11.0 Additional Program Areas

Additional programs and projects are listed below. Many of these projects seek to address multiple traffic safety issues.

### ■ 11.1 Police Traffic Services Program Area

#### **Performance Measure**

Number of motor vehicle-related fatalities

### **Performance Target**

Reduce motor vehicle-related fatalities 18% from the 2010-2014 calendar base year average of 357 to 294 by December 31, 2017

### PT-17-01 Municipal Police Training

Provide funding to MPTC to conduct up to 38 classes for municipal police departments to improve enforcement of laws pertinent to current traffic safety issues such as speeding, pedestrian and bicyclist safety, and distracted driving. Topics will include Advanced Traffic Crash Investigation, Traffic Crash Investigation, Speed Measurement, and LiDAR training. This task is supported by CTW Chapter 1, Sections 2.1, 2.5, Chapter 2 Section 2.3, Chapter 3 Section 2.2, Chapter 4 Section 1.3, Chapter 8 Section 4.4, and Chapter 9 Section 3.3. This task will support all performance targets.

**Project Budget/Source -** \$ 260,000 (Sec. 402); \$ 22,901.96 (Sec. 1906)

**Project Staff -** Bob Kearney

### PT-17-02 Law Enforcement Liaison (LEL)

Funds will be used to hire up to three part-time LELs. In this capacity, the contract LELs will work in conjunction with EOPSS/HSD, the MPTC Executive Director, and the MSP

representative assigned to LEL responsibilities to promote strategies and policies with state and local law enforcement to strengthen our mission and make the roadways safer. Funds will also be provided for LEL travel related expenses related to state and national conferences and trainings, and in-state travel. This task is supported by CTW Chapter 1, Sections 2.5, Chapter 2 Sections 2.1, 2.2, 2.3, Chapter 3 Section 2.2, and Chapter 4 Section 1.3. This task will support all performance targets.

Project Budget/Source - \$200,000 (Sec. 402)

**Project Staff** -Bob Kearney

### PT-17-03 MDAA/TSRP

Funds will be used to support TSRP salary to conduct trainings and conferences, provide technical assistance, create and maintain vehicular crimes pages and resources for prosecutors and law enforcement about motor vehicle issues. The Massachusetts OUI Prosecutors Manual will be updated. This task is supported by CTW Chapter 1 Sections 3.1, 3.2, and 3.3. This task will support impaired driving performance targets 1 and 2 and occupant protection performance target 1.

**Project Budget/Source -** \$75,000 (Sec. 402) and \$130,000 (Sec. 405d)

Project Staff - Barbara Rizzuti

#### **PT-17-04 MSP LEL**

Provide funds to MSP for training and travel-related expenses for the LEL to attend meetings, trainings and national conferences in support of major traffic safety issues including but not limited to impaired and distracted driving, occupant protection and drug recognition expert training. National conferences will include the International Association of Chiefs of Police Conference in the Fall, 2016 and the Lifesavers Conference in the Spring, 2017. Funding will also be used to cover the cost of local travel for the LEL to attend meetings and trainings with local law enforcement and other traffic safety stakeholders. This task will support all performance targets.

**Project Staff -** Deb Firlit

Project Budget/Source - \$9,000 (Sec. 402)

#### PT-17-05 Program Management

Provide sufficient staff to conduct police traffic services-related programming described in this plan to cover in and out of state travel, professional development expenses, conference fees, postage, and office supplies.

**Project Budget/Source -** \$ 60,000 (Sec. 402)

### PT-17-06 MSP Speed Measurement Training

Funds will be provided to Massachusetts State Police to coordinate and schedule instructor training classes for MSP personnel in Radar/LiDAR operation. Certified instructors are responsible for training academy recruit classes as well as training local law enforcement and Special Officers throughout the year. This program will help increase and maintain the number of certified instructors needed to train the appropriate number of recruits. Funding will also be used to cover the cost of honoraria and travel expenses of recommended NHTSA instructors from outside the MSP in addition to the training facility and incidentals.

This task is supported by CTW Chapter 3, Sections 1.1, 1.2, 2.2, and 2.3. This task will support speed performance targets 1 and 2 as well as all core performance targets.

Project Budget/Source - \$ 18,000 (Sec. 402)

Project Staff - Deb Firlit

### **Police Traffic Services: Budget Summary**

Project Number	Project Title	Budget	<b>Budget Source</b>
PT-17-01	Municipal Police Training	\$ 260,000	402
	U	\$ 22,901.96	1906
PT-17-02	LEL	\$ 200,000	402
PT-17-03	MDAA/TSRP	\$ 75,000	402
		\$ 130,000	405d
PT-17-04	MSP LEL	\$ 9,000	402
PT-17-05	Program Management	\$ 60,000	402
PT-17-06	MSP Speed Measurement Training	\$ 18,000	402
	Total all Funds	\$ 774,902	

### ■ 11.2 Planning and Administration Program Areas

### **Performance Measures**

Deadline for submission of Highway Safety Plan Deadline for submission of Annual Report Number of financial vouchers per month

### **Performance Targets**

Submit a complete Highway Safety Plan by the deadline of July 1st Submit an Annual Report by the deadline of December 31st Submit a financial voucher once a month

### PA-17-01 Administration of Statewide Traffic Safety Program

Funding will be used to plan, implement, monitor, and evaluate programs and projects for the FFY 2017 HSP and produce the FFY 2016 Annual Report and FFY 2018 HSP. Provide required staff salaries, professional development, travel, office space, equipment, materials, and fiscal support.

Project Budget/Source - \$300,000 (Sec. 402)

Project Staff - Susan Burgess-Chin, Denise Veiga, Jeff Larason and oversight and support staff

### PA-17-02 Americans with Disabilities Act (ADA) Compliance Services

Provide funds for interpretation, translation, and specialized printing services for those in need of accommodations. Also make necessary programmatic, organizational, and procedural improvements to alert the public about the availability of such accommodations.

**Project Budget/Source -** \$25,000 (Sec. 402) and \$3,000 (Sec. 2011)

**Project Staff** -Bob Kearney

### Planning and Administration: Budget Summary

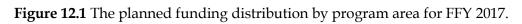
Project Number	Project Title	Budget	<b>Budget Source</b>
PA-17-01	Administration of Statewide Traffic Safety Program	\$ 300,000	402
PA-17-02	ADA Compliance Services	\$ 25,000 \$ 3,000	402 2011
	Total all Funds	\$ 328,000	

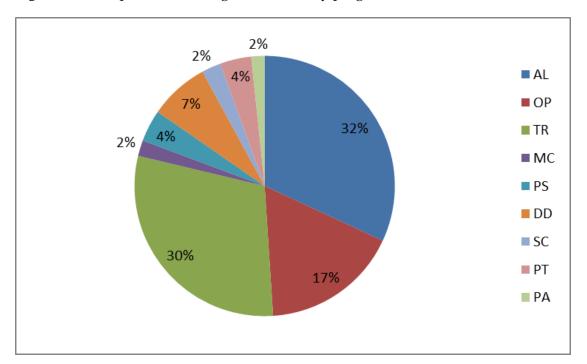
# 12.0 Highway Safety Plan Cost Summary

Table 12.1 Highway Safety Plan Cost Summary

Program Area	Project Project	State Funds	Previous Bal.	Incre/(Decre)	Current Balance	Share to Local
NHTSA 402	Froject	State Fullus	Fievious bai.	mcre/(Decre)	Current Dalance	Silare to Local
Planning and Administr	ration					
ramming and Administr	PA-2017-PA-17-01	\$325,000.00	\$.00	\$300,000.00	\$300,000.00	\$.00
	PA-2017-PA-17-02	\$.00	\$.00	\$25,000.00	\$25,000.00	\$.00
	Planning and Administration Total	\$325,000.00	\$.00	\$325,000.00	\$325,000.00	\$.00
Alcohol	Training and Administration Total	Ų3 <b>2</b> 3,000.00	ψ.00	\$323,000.00	<b>\$323</b> )000.00	φ.σσ
11101101	AL-2017-AL-17-13	\$.00	\$.00	\$338,750.00	\$338,750.00	\$338,750.00
	AL-2017-AL-17-14	\$2,000,000.00	\$.00	\$93,750.00	\$93,750.00	\$.00
	AL-2017-AL-17-15	\$.00	\$.00	\$15,000.00	\$15,000.00	\$15,000.00
	AL-2017-AL-17-18	\$.00	\$.00	\$20,000.00	\$20,000.00	\$20,000.00
	AL-2017-AL-17-20	\$.00	\$.00	\$235,000.00	\$235,000.00	\$.00
	Alcohol Total	\$2,000,000.00	\$.00	\$702,500.00	\$702,500.00	\$373,750.00
Motorcycle Safety			· · ·			
,,	MC-2017-MC-17-02	\$.00	\$.00	\$15,000.00	\$15,000.00	\$7,500.00
	MC-2017-MC-17-03	\$.00	\$.00	\$52,000.00	\$52,000.00	\$.00
	Motorcycle Safety Total	\$.00	\$.00	\$67,000.00	\$67,000.00	\$7,500.00
Occupant Protection	, ,	· .	· · ·	. ,	. ,	
•	OP-2017-OP-17-07	\$.00	\$.00	\$338,750.00	\$338,750.00	\$338,750.00
	OP-2017-OP-17-13	\$.00	\$.00	\$313,750.00	\$313,750.00	\$.00
	OP-2017-OP-17-14	\$.00	\$.00	\$200,000.00	\$200,000.00	\$.00
	Occupant Protection Total	\$.00	\$.00	\$852,500.00	\$852,500.00	\$338,750.00
Pedestrian/Bicycle Safe	ety			· · · · ·		·
	PS-2017-PS-17-01	\$.00	\$.00	\$20,000.00	\$20,000.00	\$10,000.00
	PS-2017-PS-17-05	\$.00	\$.00	\$135,000.00	\$135,000.00	\$.00
	Pedestrian/Bicycle Safety Total	\$.00	\$.00	\$155,000.00	\$155,000.00	\$10,000.00
Police Traffic Services						
	PT-2017-PT-17-01	\$.00	\$.00	\$260,000.00	\$260,000.00	\$260,000.00
	PT-2017-PT-17-02	\$.00	\$.00	\$200,000.00	\$200,000.00	\$200,000.00
	PT-2017-PT-17-03	\$.00	\$.00	\$75,000.00	\$75,000.00	\$.00
	PT-2017-PT-17-04	\$.00	\$.00	\$9,000.00	\$9,000.00	\$.00
	PT-2017-PT-17-05	\$.00	\$.00	\$60,000.00	\$60,000.00	\$.00
	PT-2017-PT-17-06	\$.00	\$.00	\$18,000.00	\$18,000.00	\$.00
	Police Traffic Services Total	\$.00	\$.00	\$622,000.00	\$622,000.00	\$460,000.00
Traffic Records						
	TR-2017-TR-17-01	\$.00	\$.00	\$50,000.00	\$50,000.00	\$.00
	TR-2017-TR-17-02	\$.00	\$.00	\$75,000.00	\$75,000.00	\$.00
	TR-2017-TR-17-04	\$.00	\$.00	\$1,750,000.00	\$1,750,000.00	\$650,000.00
	TR-2017-TR-17-20	\$.00	\$.00	\$100,000.00	\$100,000.00	\$.00
	TR-2017-TR-17-21	\$.00	\$.00	\$112,000.00	\$112,000.00	\$.00
	Traffic Records Total	\$.00	\$.00	\$2,087,000.00	\$2,087,000.00	\$650,000.00
Speed Management						
	SC-2017-SC-17-02	\$.00	\$.00	\$50,000.00	\$50,000.00	\$50,000.00
	SC-2017-SC-17-03	\$.00	\$.00	\$13,000.00	\$13,000.00	\$.00
	SC-2017-SC-17-06	\$.00	\$.00	\$58,000.00	\$58,000.00	\$.00
	Speed Management Total	\$.00	\$.00	\$121,000.00	\$121,000.00	\$50,000.00
Speed Enforcement						
	SE-2017-SE-17-01	\$.00	\$.00	\$300,000.00	\$300,000.00	\$.00
=	Speed Enforcement Total	\$.00	\$.00	\$300,000.00	\$300,000.00	\$.00
Paid Advertising	I				*** *** **	
	PM-2017-DD-17-04	\$.00	\$.00	\$80,000.00	\$80,000.00	\$50,000.00
	PM-2017-MC-17-02	\$.00	\$.00	\$65,000.00	\$65,000.00	\$50,000.00
	PM-2017-PS-17-01	\$.00	\$.00	\$60,000.00	\$60,000.00	\$40,000.00
	PM-2017-SC-17-03	\$.00	\$.00	\$52,000.00	\$52,000.00	\$30,000.00
n:	Paid Advertising Total	\$.00	\$.00	\$257,000.00	\$257,000.00	\$170,000.00
Distracted Driving		1		4200 522 22	4200 ccc I	1
	DD-2017-DD-17-01	\$.00	\$.00	\$300,000.00	\$300,000.00	\$.00
	DD-2017-DD-17-02	\$.00	\$.00	\$622,500.00	\$622,500.00	\$622,500.00
	DD-2017-DD-17-03	\$.00	\$.00	\$50,000.00	\$50,000.00	\$50,000.00
	DD-2017-DD-17-04	\$.00	\$.00	\$20,000.00	\$20,000.00	\$10,000.00
	DD-2017-DD-17-05	\$.00	\$.00	\$97,000.00	\$97,000.00	\$.00
	Distracted Driving Total	\$.00	\$.00	\$1,089,500.00	\$1,089,500.00	\$682,500.00
	NHTSA 402 Total	\$2,325,000.00	\$.00	\$6,575,500.00	\$6,575,500.00	\$2,742,500.00

Program Area	Project	State Funds	Previous Bal.	Incre/(Decre)	Current Balance	Share to Local
408 Data Program SAFETEA	A-LU					
	K9-2017-TR-17-06	\$17,100.00 \$17,100.00	\$.00	\$68,351.46	\$68,351.46 \$68,351.46	\$.00
	408 Data Program Incentive Total 408 Data Program SAFETEA-LU Total	\$17,100.00	\$.00 \$.00	\$68,351.46 \$68,351.46	\$68,351.46 \$68,351.46	\$.00 \$.00
410 Alcohol SAFETEA-LU		7-1/	7.44	700/002110	700,000.10	7.77
	K8-2017-AL-17-19	\$.00	\$.00	\$25,000.00	\$25,000.00	\$.00
	410 Alcohol SAFETEA-LU Total 410 Alcohol SAFETEA-LU Total	\$.00 \$.00	\$.00 \$.00	\$25,000.00 \$25,000.00	\$25,000.00 \$25,000.00	\$.00 \$.00
2010 Motorcycle Safety		7.00	7.00	<del>+</del>	+==,=====	7.00
	K6-2017-MC-17-01	\$.00	\$.00	\$4,448.68	\$4,448.68	\$.00
	2010 Motorcycle Safety Incentive Total 2010 Motorcycle Safety Total	\$.00 \$.00	\$.00 \$.00	\$4,448.68 \$4,448.68	\$4,448.68 \$4,448.68	\$.00 \$.00
2011 Child Seats	2010 Motorcycle Sarety Total	<b>\$.00</b>	ψ.00	\$ 1, 1 10.00	ŷ I, 110.00	ŷ.00
	K3-2017-OP-17-04	\$220,000.00	\$.00	\$60,000.00	\$60,000.00	\$.00
	K3-2017-OP-17-05 K3-2017-OP-17-06	\$.00 \$.00	\$.00 \$.00	\$150,000.00 \$10,000.00	\$150,000.00 \$10,000.00	\$.00 \$.00
	K3-2017-OP-17-15	\$.00	\$.00	\$550.00	\$550.00	\$.00
	K3-2017-PA-17-02	\$.00	\$.00	\$3,000.00	\$3,000.00	\$.00
	2011 Child Seat Incentive Total 2011 Child Seats Total	\$220,000.00 \$220,000.00	\$.00 \$.00	\$223,550.00 \$223,550.00	\$223,550.00 \$223,550.00	\$.00 \$.00
1906 Prohibit Racial Profil		\$220,000.00	ψ.00	\$223,330.00	\$225,550.00	φ.σσ
	K10-2017-PT-17-01	\$5,800.00	\$.00	\$22,901.96	\$22,901.96	\$.00
	K10-2017-TR-17-04  1906 Prohibit Racial Profiling Total	\$0.00 \$5,800.00	\$.00 \$.00	\$500,000.00 \$522,901.96	\$500,000.00 \$522,901.96	\$.00 \$.00
MAP 21 405b OP Low	1300 Frombit Nacial Frombig Fotal	\$3,000.00	Ş.00	Ş322,301.30	J322,301.30	Ş.00
	M2HVE-2017-OP-17-02	\$.00	\$.00	\$450,000.00	\$450,000.00	\$.00
	M2HVE-2017-OP-17-03 M2HVE-2017-OP-17-07	\$.00 \$.00	\$.00 \$.00	\$622,500.00 \$338,750.00	\$622,500.00 \$338,750.00	\$.00 \$.00
	M2HVE-2017-OP-17-07 M2HVE-2017-OP-17-13	\$2,000,000.00	\$.00	\$338,750.00	\$338,750.00	\$.00
	405b Low HVE Total	\$2,000,000.00	\$.00	\$1,505,000.00	\$1,505,000.00	\$.00
405b Low Public Education	M2PE-2017-OP-17-01	\$.00	\$.00	\$500,000.00	\$500,000.00	\$.00
	M2PE-2017-OP-17-01 M2PE-2017-OP-17-04	\$.00	\$.00	\$121,000.00	\$121,000.00	\$.00
	M2PE-2017-OP-17-08	\$.00	\$.00	\$100,000.00	\$100,000.00	\$.00
	M2PE-2017-OP-17-09	\$.00	\$.00	\$50,000.00	\$50,000.00	\$.00
	M2PE-2017-OP-17-10 M2PE-2017-OP-17-11	\$.00 \$.00	\$.00 \$.00	\$25,000.00 \$74,500.00	\$25,000.00 \$74,500.00	\$.00 \$.00
	M2PE-2017-OP-17-12	\$.00	\$.00	\$20,000.00	\$20,000.00	\$.00
	405b Low Public Education Total	\$.00	\$.00	\$890,500.00	\$890,500.00	\$.00
MAP 21 405c Data Program	MAP 21 405b OP Low Total	\$2,000,000.00	\$.00	\$2,395,500.00	\$2,395,500.00	\$.00
	M3DA-2017-TR-17-04	\$782,900.00	\$.00	\$1,000,000.00	\$1,000,000.00	\$.00
	M3DA-2017-TR-17-05	\$.00	\$.00	\$105,000.00	\$105,000.00	\$.00
	M3DA-2017-TR-17-07 M3DA-2017-TR-17-08	\$.00 \$.00	\$.00 \$.00	\$124,209.00 \$135,000.00	\$124,209.00 \$135,000.00	\$.00 \$.00
	M3DA-2017-TR-17-09	\$.00	\$.00	\$168,907.00	\$168,907.00	\$.00
	M3DA-2017-TR-17-10	\$.00	\$.00	\$259,500.00	\$259,500.00	\$.00
	M3DA-2017-TR-17-11 M3DA-2017-TR-17-12	\$.00 \$.00	\$.00 \$.00	\$355,000.00 \$123,648.00	\$355,000.00 \$123,648.00	\$.00 \$.00
	M3DA-2017-TR-17-13	\$.00	\$.00	\$81,273.00	\$81,273.00	\$.00
	M3DA-2017-TR-17-14	\$.00	\$.00	\$118,019.00	\$118,019.00	\$.00
	M3DA-2017-TR-17-15 M3DA-2017-TR-17-16	\$.00 \$.00	\$.00 \$.00	\$60,000.00 \$156,937.00	\$60,000.00 \$156,937.00	\$.00 \$.00
	M3DA-2017-TR-17-17	\$.00	\$.00	\$96,732.00	\$96,732.00	\$.00
	M3DA-2017-TR-17-18	\$.00	\$.00	\$196,802.46	\$196,802.46	\$.00
	M3DA-2017-TR-17-19 405c Data Program Total	\$.00 \$782,900.00	\$.00 \$.00	\$180,000.00 \$3,161,027.46	\$180,000.00 \$3,161,027.46	\$.00 \$.00
	MAP 21 405c Data Program Total	\$782,900.00	\$.00	\$3,161,027.46	\$3,161,027.46	\$.00
MAP 21 405d Impaired Dri						
	M6OT-2017-AL-17-01 M6OT-2017-AL-17-02	\$.00 \$2,000,000.00	\$.00 \$.00	\$750,000.00 \$1,400,000.00	\$750,000.00 \$1,400,000.00	\$.00 \$.00
	M6OT-2017-AL-17-02 M6OT-2017-AL-17-03	\$2,000,000.00	\$.00	\$1,400,000.00	\$1,400,000.00	\$.00
	M6OT-2017-AL-17-04	\$.00	\$.00	\$175,000.00	\$175,000.00	\$.00
	M6OT-2017-AL-17-05	\$.00 \$.00	\$.00	\$25,000.00	\$25,000.00	\$.00
	M6OT-2017-AL-17-06 M6OT-2017-AL-17-07	\$.00	\$.00 \$.00	\$175,000.00 \$70,000.00	\$175,000.00 \$70,000.00	\$.00 \$.00
	M6OT-2017-AL-17-08	\$.00	\$.00	\$100,000.00	\$100,000.00	\$.00
	M6OT-2017-AL-17-09 M6OT-2017-AL-17-10	\$.00 \$.00	\$.00 \$.00	\$60,000.00 \$375,000.00	\$60,000.00 \$375,000.00	\$.00 \$.00
	M6OT-2017-AL-17-10 M6OT-2017-AL-17-11	\$.00	\$.00	\$1,245,000.00	\$1,245,000.00	\$.00
	M6OT-2017-AL-17-12	\$.00	\$.00	\$512,393.55	\$512,393.55	\$.00
	M6OT-2017-AL-17-13 M6OT-2017-AL-17-14	\$.00 \$.00	\$.00 \$.00	\$338,750.00 \$93,750.00	\$338,750.00 \$93,750.00	\$.00 \$.00
	M6OT-2017-AL-17-14 M6OT-2017-AL-17-16	\$.00	\$.00	\$40,000.00	\$40,000.00	\$.00
	M6OT-2017-AL-17-17	\$.00	\$.00	\$50,000.00	\$50,000.00	\$.00
	M6OT-2017-PT-17-03	\$.00	\$.00	\$130,000.00	\$130,000.00	\$.00
	M6OT-2017-OP-17-11 405d Low Other Based on Problem ID Total	\$.00 \$2,000,000.00	\$.00 \$.00	\$2,000.00 \$5,671,893.55	\$2,000.00 \$5,671,893.55	\$.00 \$.00
	MAP 21 405d Impaired Driving Low Total	\$2,000,000.00	\$.00	\$5,671,893.55	\$5,671,893.55	\$.00
MAP 21 405e Distracted Di	riving M8X-2017-DD-17-01	\$150,000.00	\$.00	\$300,000.00	\$300,000.00	\$.00
	405e Distracted Driving Total	\$150,000.00	\$.00	\$300,000.00	\$300,000.00	\$.00
	MAP 21 405e Distracted Driving Total	\$150,000.00	\$.00	\$300,000.00	\$300,000.00	\$.00
MAP 21 405f Motorcycle P	rograms M9MT-2017-MC-17-01	\$50,000.00	\$.00	\$125,000.00	\$125,000.00	\$.00
	405f Motorcyclist Training Total	\$50,000.00	\$.00	\$125,000.00	\$125,000.00	\$.00
405f Motorcyclist Awaren	ess					
	M9MA-2017-MC-17-01	0	\$.00	\$125,000.00 \$125,000.00	\$125,000.00 \$125,000.00	\$.00 \$.00
	405f Motorcyclist Awareness Total MAP 21 405f Motorcycle Programs Total	\$50,000.00	\$.00 \$.00	\$125,000.00	\$125,000.00	\$.00
405h Non-Motorized Safe	ty Grants		*	-	•	
	2017-PS-17-02	\$150,000	\$.00	\$445,104.07	\$445,104.07	\$.00
	2017-PS-17-03 2017-PS-17-04	\$.00 \$.00	\$.00 \$.00	\$55,000.00 \$70,000	\$55,000.00 \$70,000.00	\$.00 \$.00
	405h Non-Motorized Safety Total	\$150,000.00	\$.00	\$570,104.07	\$570,104.07	\$.00
	NHTSA Total	\$7,700,800.00	\$.00	\$19,771,277.18	\$19,771,277.18	\$2,742,500.00
L	Total	\$7,700,800.00	\$.00	\$19,771,277.18	\$19,771,277.18	\$2,742,500.00





### **Table 12.2 Acronym Glossary**

Administrative Office of the Trial Court (AOTC)

Advanced Roadside Impaired Driving Enforcement (ARIDE)

Alcoholic Beverages Control Commission (ABCC)

Americans with Disabilities Act (ADA)

Automated License and Registration System (ALARS)

Blood Alcohol Content (BAC)

Breath Alcohol Testing (BAT)

Child Passenger Safety (CPS)

Click It or Ticket (CIOT)

Countermeasures That Work (CTW)

Crash Data System (CDS)

Data-Driven Approach to Crime and Traffic Safety (DDACTS)

Drive Sober or Get Pulled Over (DSGPO)

Drug Evaluation and Classification Program (DEC)

Drug Impairment Training and Educational Professionals (DITEP)

Drug Recognition Expert (DRE)

Emergency Medical Services (EMS)

Executive Office of Public Safety and Security (EOPSS)

Fair and Impartial Policing (FAIP)

Fatality Analysis Reporting System (FARS)

Federal Fiscal Year (FFY)

Federal Highway Administration (FHWA)

Governors Highway Safety Association (GHSA)

Highway Safety Division (HSD)

Highway Safety Plan (HSP)

Junior Operator License (JOL)

Law Enforcement Liaison (LEL)

Massachusetts Ambulance Trip Record Information System (MATRIS)

Massachusetts Department of Public Health (MDPH)

Massachusetts Department of Transportation (MassDOT)

Massachusetts District Attorneys Association (MDAA)

Massachusetts Executive-Level Traffic Records Coordinating Committee (METRCC)

Massachusetts Law Enforcement Challenge (MLEC)

Massachusetts General Laws (M.G.L.)

Massachusetts Rider Education Program (MREP)

Massachusetts State Police (MSP)

Massachusetts Traffic Records Analysis Center (MassTRAC)

Massachusetts Traffic Records Coordinating Committee (TRCC)

Merit Rating Board (MRB)

Moving Ahead for Progress in the 21st Century (MAP-21)

Municipal Police Training Committee (MPTC)

National Emergency Medical Services Information System (NEMSIS)

National Highway Traffic Safety Administration (NHTSA)

Office of Grants and Research (OGR)

Office of Juvenile Justice Delinquency Prevention (OJJDP)

Preliminary Breath Testing (PBT)

Prevent Injuries Now Network (PINN)

Registry of Motor Vehicles (RMV)

Safe, Accountable, Flexible, and Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)

Standardized Field Sobriety Test (SFST)

State Traffic Safety Information (STSI)

Strategic Highway Safety Plan (SHSP)

Traffic Occupant Protection Strategies (TOPS)

Traffic Safety Resource Prosecutor (TSRP)

Vehicle Miles Traveled (VMT)

# 13.0 HSP Appendix

Table 13.1 AL-17-11 DSOGPO Eligible Communities

Grant #	Grantee	Award Amount	Grant #	Department	Award Amount
AL-17-11-01	Abington	\$5,000	AL-17-11-48	Duxbury	\$5,000
AL-17-11-02	Acton	\$5,000	AL-17-11-49	East Bridgewater	\$5,000
AL-17-11-03	Acushnet	\$5,000	AL-17-11-50	East Longmeadow	\$5,000
AL-17-11-04	Adams	\$5,000	AL-17-11-51	Eastham	\$5,000
AL-17-11-05	Agawam	\$5,000	AL-17-11-52	Easthampton	\$5,000
AL-17-11-06	Amesbury	\$5,000	AL-17-11-53	Easton	\$5,000
AL-17-11-07	Amherst	\$6,000	AL-17-11-54	Everett	\$6,000
AL-17-11-08	Andover	\$6,000	AL-17-11-55	Fairhaven	\$5,000
AL-17-11-09	Arlington	\$6,000	AL-17-11-56	Fall River	\$8,000
AL-17-11-10	Ashland	\$5,000	AL-17-11-57	Falmouth	\$6,000
AL-17-11-11	Athol	\$5,000	AL-17-11-58	Fitchburg	\$6,000
AL-17-11-12	Attleboro	\$6,000	AL-17-11-59	Foxboro	\$5,000
AL-17-11-13	Auburn	\$5,000	AL-17-11-60	Framingham	\$6,000
AL-17-11-14	Avon	\$5,000	AL-17-11-61	Franklin	\$6,000
AL-17-11-15	Ayer	\$5,000	AL-17-11-62	Freetown	\$5,000
AL-17-11-16	Barnstable	\$6,000	AL-17-11-63	Gardner	\$5,000
AL-17-11-17	Bedford	\$5,000	AL-17-11-64	Georgetown	\$5,000
AL-17-11-18	Belchertown	\$5,000	AL-17-11-65	Grafton	\$5,000
AL-17-11-19	Bellingham	\$5,000	AL-17-11-66	Granby	\$5,000
AL-17-11-20	Belmont	\$5,000	AL-17-11-67	Great Barrington	\$5,000
AL-17-11-21	Beverly	\$6,000	AL-17-11-68	Greenfield	\$5,000
AL-17-11-22	Billerica	\$6,000	AL-17-11-69	Groton	\$5,000
AL-17-11-23	Bolton	\$5,000	AL-17-11-70	Hadley	\$5,000
AL-17-11-24	Boston	\$56,000	AL-17-11-71	Halifax	\$5,000
AL-17-11-25	Bourne	\$5,000	AL-17-11-72	Hanover	\$5,000
AL-17-11-26	Braintree	\$6,000	AL-17-11-73	Harwich	\$5,000
AL-17-11-27	Brewster	\$5,000	AL-17-11-74	Haverhill	\$6,000
AL-17-11-28	Bridgewater	\$5,000	AL-17-11-75	Hingham	\$5,000
AL-17-11-29	Brockton	\$8,000	AL-17-11-76	Holbrook	\$5,000
AL-17-11-30	Brookline	\$6,000	AL-17-11-77	Holden	\$5,000
AL-17-11-31	Burlington	\$5,000	AL-17-11-78	Holliston	\$5,000
AL-17-11-32	Cambridge	\$14,000	AL-17-11-79	Holyoke	\$6,000
AL-17-11-33	Canton	\$5,000	AL-17-11-80	Hopkinton	\$5,000
AL-17-11-34	Carver	\$5,000	AL-17-11-81	Hudson	\$5,000
AL-17-11-35	Charlton	\$5,000	AL-17-11-82	lpswich	\$5,000
AL-17-11-36	Chelmsford	\$6,000	AL-17-11-83	Kingston	\$5,000
AL-17-11-37	Chelsea	\$6,000	AL-17-11-84	Lakeville	\$5,000
AL-17-11-38	Chicopee	\$6,000	AL-17-11-85	Lancaster	\$5,000
AL-17-11-39	Cohasset	\$5,000	AL-17-11-86	Lawrence	\$8,000
AL-17-11-40	Concord	\$5,000	AL-17-11-87	Leicester	\$5,000
AL-17-11-41	Danvers	\$5,000	AL-17-11-88	Lenox	\$5,000
AL-17-11-42	Dartmouth	\$6,000	AL-17-11-89	Leominster	\$6,000
AL-17-11-43	Dedham	\$5,000	AL-17-11-90	Lexington	\$6,000
AL-17-11-44	Dennis	\$5,000	AL-17-11-91	Longmeadow	\$5,000
AL-17-11-45	Douglas	\$5,000	AL-17-11-92	Lowell	\$14,000
AL-17-11-46	Dracut	\$5,000	AL-17-11-93	Ludlow	\$5,000
AL-17-11-47	Dudley	\$5,000	AL-17-11-94	Lunenburg	\$5,000

Grant #	Grantee	Award Amount	Grant #	Department	Award Amount
AL-17-11-95	Lynn	\$8,000	AL-17-11-140	Reading	\$5,000
AL-17-11-96	Malden	\$6,000	AL-17-11-141	Rehoboth	\$5,000
AL-17-11-97	Mansfield	\$5,000	AL-17-11-142	Revere	\$6,000
AL-17-11-98	Marion	\$5,000	AL-17-11-143	Rockland	\$5,000
AL-17-11-99	Marlborough	\$6,000	AL-17-11-144	Salem	\$6,000
AL-17-11-100	Marshfield	\$5,000	AL-17-11-145	Salisbury	\$5,000
AL-17-11-101	Mashpee	\$5,000	AL-17-11-146	Sandwich	\$5,000
AL-17-11-102	Medfield	\$5,000	AL-17-11-147	Saugus	\$5,000
AL-17-11-103	Medford	\$6,000	AL-17-11-148	Scituate	\$5,000
AL-17-11-104	Medway	\$5,000	AL-17-11-149	Seekonk	\$5,000
AL-17-11-105	Melrose	\$5,000	AL-17-11-150	Sharon	\$5,000
AL-17-11-106	Mendon	\$5,000	AL-17-11-151	Sherborn	\$5,000
AL-17-11-107	Methuen	\$6,000	AL-17-11-152	Shrewsbury	\$6,000
AL-17-11-108	Middleborough	\$5,000	AL-17-11-153	Somerset	\$5,000
AL-17-11-109	Middleton	\$5,000	AL-17-11-154	Somerville	\$8,000
AL-17-11-110	Milford	\$5,000	AL-17-11-155	South Hadley	\$5,000
AL-17-11-111	Millbury	\$5,000	AL-17-11-156	Southborough	\$5,000
AL-17-11-112	Milton	\$5,000	AL-17-11-157	Southbridge	\$5,000
AL-17-11-113	Natick	\$6,000	AL-17-11-158	Southwick	\$5,000
AL-17-11-114	Needham	\$5,000	AL-17-11-159	Spencer	\$5,000
AL-17-11-115	New Bedford	\$8,000	AL-17-11-160	Springfield	\$56,000
AL-17-11-116	Newburyport	\$5,000	AL-17-11-161	Stoneham	\$5,000
AL-17-11-117	Newton	\$8,000	AL-17-11-162	Stoughton	\$5,000
AL-17-11-118	North Adams	\$5,000	AL-17-11-163	Sturbridge	\$5,000
AL-17-11-119	North Andover	\$5,000	AL-17-11-164	Sudbury	\$5,000
AL-17-11-120	North Attleboro	\$5,000	AL-17-11-165	Swampscott	\$5,000
AL-17-11-121	North Reading	\$5,000	AL-17-11-166	Swansea	\$5,000
AL-17-11-122	Northampton	\$5,000	AL-17-11-167	Taunton	\$6,000
AL-17-11-123	Northborough	\$5,000	AL-17-11-168	Tewksbury	\$5,000
AL-17-11-124	Northbridge	\$5,000	AL-17-11-169	Topsfield	\$5,000
AL-17-11-125	Norton	\$5,000	AL-17-11-170	Townsend	\$5,000
AL-17-11-126	Norwell	\$5,000	AL-17-11-171	Tyngsboro	\$5,000
AL-17-11-127	Norwood	\$5,000	AL-17-11-172	Upton	\$5,000
AL-17-11-128	Orleans	\$5,000	AL-17-11-173	Uxbridge	\$5,000
AL-17-11-129	Oxford	\$5,000	AL-17-11-174	Wakefield	\$5,000
AL-17-11-130	Palmer	\$5,000	AL-17-11-175	Walpole	\$5,000
AL-17-11-131	Peabody	\$6,000	AL-17-11-176	Waltham	\$6,000
AL-17-11-132	Pembroke	\$5,000	AL-17-11-177	Ware	\$5,000
AL-17-11-133	Pepperell	\$5,000	AL-17-11-178	Wareham	\$5,000
AL-17-11-134	Pittsfield	\$6,000	AL-17-11-179	Watertown	\$6,000
AL-17-11-135	Plainville	\$5,000	AL-17-11-180	Wayland	\$5,000
AL-17-11-136	Plymouth	\$6,000	AL-17-11-181	Webster	\$5,000
AL-17-11-137	Quincy	\$8,000	AL-17-11-182	Wellesley	\$5,000
AL-17-11-138	Randolph	\$6,000	AL-17-11-183	West Boylston	\$5,000
AL-17-11-139	Raynham	\$5,000	AL-17-11-184	West Bridgewater	\$5,000

Grant #	Grantee	Award Amount
AL-17-11-185	West Springfield	\$5,000
AL-17-11-186	Westborough	\$5,000
AL-17-11-187	Westfield	\$6,000
AL-17-11-188	Westford	\$5,000
AL-17-11-189	Westminster	\$5,000
AL-17-11-190	Weston	\$5,000
AL-17-11-191	Westport	\$5,000
AL-17-11-192	Westwood	\$5,000
AL-17-11-193	Weymouth	\$6,000
AL-17-11-194	Whitman	\$5,000
AL-17-11-195	Wilbraham	\$5,000
AL-17-11-196	Wilmington	\$5,000
AL-17-11-197	Winchendon	\$5,000
AL-17-11-198	Winchester	\$5,000
AL-17-11-199	Woburn	\$6,000
AL-17-11-200	Worcester	\$56,000
AL-17-11-201	Wrentham	\$5,000
AL-17-11-202	Yarmouth	\$5,000

Table 13.2 AL-17-12 Underage Alcohol Enforcement Communities

Grant #	Grantee	Awa	ard Amount	Grant #	Grantee	Awa	rd Amount
AL-17-12-01	Amesbury	\$	4,800	AL-17-12-39	Methuen	\$	9,917
AL-17-12-02	Amherst	\$	10,000	AL-17-12-40	Milford	\$	5,000
AL-17-12-03	Attleboro	\$	9,989	AL-17-12-41	Newton	\$	9,955
AL-17-12-04	Auburn	\$	4,814	AL-17-12-42	North Reading	\$	5,000
AL-17-12-05	Ayer	\$	4,828	AL-17-12-43	Northampton	\$	4,830
AL-17-12-06	Barnstable	\$	9,960	AL-17-12-44	Norton	\$	5,000
AL-17-12-07	Belchertown	\$	4,967	AL-17-12-45	Norwell	\$	4,996
AL-17-12-08	Billerica	\$	9,999	AL-17-12-46	Norwood	\$	5,000
AL-17-12-09	Blackstone	\$	1,032	AL-17-12-47	Orleans	\$	4,974
AL-17-12-10	Bridgewater	\$	5,000	AL-17-12-48	Plymouth	\$	10,000
AL-17-12-11	Bridgewater State U.	\$	4,992	AL-17-12-49	Quincy	\$	10,000
AL-17-12-12	Brookline	\$	9,997	AL-17-12-50	Randolph	\$	10,000
AL-17-12-13	Canton	\$	4,800	AL-17-12-51	Reading	\$	5,000
AL-17-12-14	Chelsea	\$	10,000	AL-17-12-52	Revere	\$	10,000
AL-17-12-15	Dennis	\$	5,000	AL-17-12-53	Salem	\$	9,900
AL-17-12-16	Duxbury	\$	4,976	AL-17-12-54	Salem State U.	\$	4,950
AL-17-12-17	East Bridgewater	\$	4,800	AL-17-12-55	Salisbury	\$	4,996
AL-17-12-18	Essex	\$	4,926	AL-17-12-56	Saugus	\$	5,000
AL-17-12-19	Fall River	\$	9,996	AL-17-12-57	Scituate	\$	4,968
AL-17-12-20	Falmouth	\$	10,000	AL-17-12-58	Somerville	\$	10,000
AL-17-12-21	Fitchburg	\$	9,909	AL-17-12-59	South Hadley	\$	4,951
AL-17-12-22	Franklin	\$	9,905	AL-17-12-60	Southbridge	\$	4,992
AL-17-12-23	Gardner	\$	5,000	AL-17-12-61	Stoneham	\$	4,999
AL-17-12-24	Grafton	\$	4,811	AL-17-12-62	Stoughton	\$	4,969
AL-17-12-25	Granby	\$	4,784	AL-17-12-63	Sturbridge	\$	4,971
AL-17-12-26	Hadley	\$	4,958	AL-17-12-64	Taunton	\$	10,000
AL-17-12-27	Hardwick	\$	4,343	AL-17-12-65	Tewksbury	\$	4,978
AL-17-12-28	Harwich	\$	4,960	AL-17-12-66	Uxbridge	\$	4,920
AL-17-12-29	Haverhill	\$	9,826	AL-17-12-67	Walpole	\$	5,000
AL-17-12-30	Holden	\$	5,000	AL-17-12-68	Waltham	\$	9,991
AL-17-12-31	Holliston	\$	4,940	AL-17-12-69	Westfield	\$	9,985
AL-17-12-32	Holyoke	\$	10,000	AL-17-12-70	Westford	\$	4,992
AL-17-12-33	Hull	\$	4,973	AL-17-12-71	Weymouth	\$	10,000
AL-17-12-34	Ipswich	\$	5,000	AL-17-12-72	Wilmington	\$	4,968
AL-17-12-35	Lowell	\$	15,000	AL-17-12-73	Winthrop	\$	5,000
AL-17-12-36	Lunenburg	\$	4,986	AL-17-12-74	Worcester	\$	15,000
AL-17-12-37	Lynn	\$	9,990	AL-17-12-75	Yarmouth	\$	5,000
AL-17-12-38	Melrose	\$	4,992				

Table 13.3 Sustained Traffic Enforcement Program [AL-17-13 & OP-17-07]

Grant #	Grantee	Award Amount	Grant #	Grantee	Award Amount
AL-17-13-01	Boston	\$140,000	OP-17-07-01	Boston	\$140,000
AL-17-13-02	Brockton	\$37,500	OP-17-07-02	Brockton	\$37,500
AL-17-13-03	Cambridge	\$37,500	OP-17-07-03	Cambridge	\$37,500
AL-17-13-04	Chicopee	\$37,500	OP-17-07-04	Chicopee	\$37,500
AL-17-13-05	Fall River	\$37,500	OP-17-07-05	Fall River	\$37,500
AL-17-13-06	Framingham	\$37,500	OP-17-07-06	Framingham	\$37,500
AL-17-13-07	Holyoke	\$37,500	OP-17-07-07	Holyoke	\$37,500
AL-17-13-08	Lowell	\$37,500	OP-17-07-08	Lowell	\$37,500
AL-17-13-09	Lynn	\$37,500	OP-17-07-09	Lynn	\$37,500
AL-17-13-10	New Bedford	\$37,500	OP-17-07-10	New Bedford	\$37,500
AL-17-13-11	Quincy	\$37,500	OP-17-07-11	Quincy	\$37,500
AL-17-13-12	Springfield	\$62,500	OP-17-07-12	Springfield	\$62,500
AL-17-13-13	Taunton	\$37,500	OP-17-07-13	Taunton	\$37,500
AL-17-13-14	Worcester	\$62,500	OP-17-07-14	Worcester	\$62,500
AL-17-13-15	MSP	\$187,500	OP-17-07-15	MSP	\$187,500

Table 13.4 OP-17-03 Local Police CIOT Enforcement Campaign

Grant #	Grantee	Award Amount	Grant #	Department	Award Amount
OP-17-03-01	Abington	\$2,500	OP-17-03-48	Duxbury	\$2,500
OP-17-03-02	Acton	\$2,500	OP-17-03-49	East Bridgewater	\$2,500
OP-17-03-03	Acushnet	\$2,500	OP-17-03-50	East Longmeadow	\$2,500
OP-17-03-04	Adams	\$2,500	OP-17-03-51	Eastham	\$2,500
OP-17-03-05	Agawam	\$2,500	OP-17-03-52	Easthampton	\$2,500
OP-17-03-06	Amesbury	\$2,500	OP-17-03-53	Easton	\$2,500
OP-17-03-07	Amherst	\$3,000	OP-17-03-54	Everett	\$3,000
OP-17-03-08	Andover	\$3,000	OP-17-03-55	Fairhaven	\$2,500
OP-17-03-09	Arlington	\$3,000	OP-17-03-56	Fall River	\$4,000
OP-17-03-10	Ashland	\$2,500	OP-17-03-57	Falmouth	\$3,000
OP-17-03-11	Athol	\$2,500	OP-17-03-58	Fitchburg	\$3,000
OP-17-03-12	Attleboro	\$3,000	OP-17-03-59	Foxboro	\$2,500
OP-17-03-13	Auburn	\$2,500	OP-17-03-60	Framingham	\$3,000
OP-17-03-14	Avon	\$2,500	OP-17-03-61	Franklin	\$3,000
OP-17-03-15	Ayer	\$2,500	OP-17-03-62	Freetown	\$2,500
OP-17-03-16	Barnstable	\$3,000	OP-17-03-63	Gardner	\$2,500
OP-17-03-17	Bedford	\$2,500	OP-17-03-64	Georgetown	\$2,500
OP-17-03-18	Belchertown	\$2,500	OP-17-03-65	Grafton	\$2,500
OP-17-03-19	Bellingham	\$2,500	OP-17-03-66	Granby	\$2,500
OP-17-03-20	Belmont	\$2,500	OP-17-03-67	Great Barrington	\$2,500
OP-17-03-21	Beverly	\$3,000	OP-17-03-68	Greenfield	\$2,500
OP-17-03-22	Billerica	\$3,000	OP-17-03-69	Groton	\$2,500
OP-17-03-23	Bolton	\$2,500	OP-17-03-70	Hadley	\$2,500
OP-17-03-24	Boston	\$28,000	OP-17-03-71	Halifax	\$2,500
OP-17-03-25	Bourne	\$2,500	OP-17-03-72	Hanover	\$2,500
OP-17-03-26	Braintree	\$3,000	OP-17-03-73	Harwich	\$2,500
OP-17-03-27	Brewster	\$2,500	OP-17-03-74	Haverhill	\$3,000
OP-17-03-28	Bridgewater	\$2,500	OP-17-03-75	Hingham	\$2,500
OP-17-03-29	Brockton	\$4,000	OP-17-03-76	Holbrook	\$2,500
OP-17-03-30	Brookline	\$3,000	OP-17-03-77	Holden	\$2,500
OP-17-03-31	Burlington	\$2,500	OP-17-03-78	Holliston	\$2,500
OP-17-03-32	Cambridge	\$7,000	OP-17-03-79	Holyoke	\$3,000
OP-17-03-33	Canton	\$2,500	OP-17-03-80	Hopkinton	\$2,500
OP-17-03-34	Carver	\$2,500	OP-17-03-81	Hudson	\$2,500
OP-17-03-35	Charlton	\$2,500	OP-17-03-82	lpswich	\$2,500
OP-17-03-36	Chelmsford	\$3,000	OP-17-03-83	Kingston	\$2,500
OP-17-03-37	Chelsea	\$3,000	OP-17-03-84	Lakeville	\$2,500
OP-17-03-38	Chicopee	\$3,000	OP-17-03-85	Lancaster	\$2,500
OP-17-03-39	Cohasset	\$2,500	OP-17-03-86	Lawrence	\$4,000
OP-17-03-40	Concord	\$2,500	OP-17-03-87	Leicester	\$2,500
OP-17-03-41	Danvers	\$2,500	OP-17-03-88	Lenox	\$2,500
OP-17-03-42	Dartmouth	\$3,000	OP-17-03-89	Leominster	\$3,000
OP-17-03-43	Dedham	\$2,500	OP-17-03-90	Lexington	\$3,000
OP-17-03-44	Dennis	\$2,500	OP-17-03-91	Longmeadow	\$2,500
OP-17-03-45	Douglas	\$2,500	OP-17-03-92	Lowell	\$7,000
OP-17-03-46	Dracut	\$2,500	OP-17-03-93	Ludlow	\$2,500
OP-17-03-47	Dudley	\$2,500	OP-17-03-94	Lunenburg	\$2,500

Grant #	Grantee	Award Amount	Grant #	Department	Award Amount
OP-17-03-95	Lynn	\$4,000	OP-17-03-140	Reading	\$2,500
OP-17-03-96	Malden	\$3,000	OP-17-03-141	Rehoboth	\$2,500
OP-17-03-97	Mansfield	\$2,500	OP-17-03-142	Revere	\$3,000
OP-17-03-98	Marion	\$2,500	OP-17-03-143	Rockland	\$2,500
OP-17-03-99	Marlborough	\$3,000	OP-17-03-144	Salem	\$3,000
OP-17-03-100	Marshfield	\$2,500	OP-17-03-145	Salisbury	\$2,500
OP-17-03-101	Mashpee	\$2,500	OP-17-03-146	Sandwich	\$2,500
OP-17-03-102	Medfield	\$2,500	OP-17-03-147	Saugus	\$2,500
OP-17-03-103	Medford	\$3,000	OP-17-03-148	Scituate	\$2,500
OP-17-03-104	Medway	\$2,500	OP-17-03-149	Seekonk	\$2,500
OP-17-03-105	Melrose	\$2,500	OP-17-03-150	Sharon	\$2,500
OP-17-03-106	Mendon	\$2,500	OP-17-03-151	Sherborn	\$2,500
OP-17-03-107	Methuen	\$3,000	OP-17-03-152	Shrewsbury	\$3,000
OP-17-03-108	Middleborough	\$2,500	OP-17-03-153	Somerset	\$2,500
OP-17-03-109	Middleton	\$2,500	OP-17-03-154	Somerville	\$4,000
OP-17-03-110	Milford	\$2,500	OP-17-03-155	South Hadley	\$2,500
OP-17-03-111	Millbury	\$2,500	OP-17-03-156	Southborough	\$2,500
OP-17-03-112	Milton	\$2,500	OP-17-03-157	Southbridge	\$2,500
OP-17-03-113	Natick	\$3,000	OP-17-03-158	Southwick	\$2,500
OP-17-03-114	Needham	\$2,500	OP-17-03-159	Spencer	\$2,500
OP-17-03-115	New Bedford	\$4,000	OP-17-03-160	Springfield	\$28,000
OP-17-03-116	Newburyport	\$2,500	OP-17-03-161	Stoneham	\$2,500
OP-17-03-117	Newton	\$4,000	OP-17-03-162	Stoughton	\$2,500
OP-17-03-118	North Adams	\$2,500	OP-17-03-163	Sturbridge	\$2,500
OP-17-03-119	North Andover	\$2,500	OP-17-03-164	Sudbury	\$2,500
OP-17-03-120	North Attleboro	\$2,500	OP-17-03-165	Swampscott	\$2,500
OP-17-03-121	North Reading	\$2,500	OP-17-03-166	Swansea	\$2,500
OP-17-03-122	Northampton	\$2,500	OP-17-03-167	Taunton	\$3,000
OP-17-03-123	Northborough	\$2,500	OP-17-03-168	Tewksbury	\$2,500
OP-17-03-124	Northbridge	\$2,500	OP-17-03-169	Topsfield	\$2,500
OP-17-03-125	Norton	\$2,500	OP-17-03-170	Townsend	\$2,500
OP-17-03-126	Norwell	\$2,500	OP-17-03-171	Tyngsboro	\$2,500
OP-17-03-127	Norwood	\$2,500	OP-17-03-172	Upton	\$2,500
OP-17-03-128	Orleans	\$2,500	OP-17-03-173	Uxbridge	\$2,500
OP-17-03-129	Oxford	\$2,500	OP-17-03-174	Wakefield	\$2,500
OP-17-03-130	Palmer	\$2,500	OP-17-03-175	Walpole	\$2,500
OP-17-03-131	Peabody	\$3,000	OP-17-03-176	Waltham	\$3,000
OP-17-03-132	Pembroke	\$2,500	OP-17-03-177	Ware	\$2,500
OP-17-03-133	Pepperell	\$2,500	OP-17-03-178	Wareham	\$2,500
OP-17-03-134	Pittsfield	\$3,000	OP-17-03-179	Watertown	\$3,000
OP-17-03-135	Plainville	\$2,500	OP-17-03-180	Wayland	\$2,500
OP-17-03-136	Plymouth	\$3,000	OP-17-03-181	Webster	\$2,500
OP-17-03-137	Quincy	\$4,000	OP-17-03-182	Wellesley	\$2,500
OP-17-03-138	Randolph	\$3,000	OP-17-03-183	West Boylston	\$2,500
OP-17-03-139	Raynham	\$2,500	OP-17-03-184	West Bridgewater	\$2,500

Grant #	Grantee	Award Amount
OP-17-03-185	West Springfield	\$2,500
OP-17-03-186	Westborough	\$2,500
OP-17-03-187	Westfield	\$3,000
OP-17-03-188	Westford	\$2,500
OP-17-03-189	Westminster	\$2,500
OP-17-03-190	Weston	\$2,500
OP-17-03-191	Westport	\$2,500
OP-17-03-192	Westwood	\$2,500
OP-17-03-193	Weymouth	\$3,000
OP-17-03-194	Whitman	\$2,500
OP-17-03-195	Wilbraham	\$2,500
OP-17-03-196	Wilmington	\$2,500
OP-17-03-197	Winchendon	\$2,500
OP-17-03-198	Winchester	\$2,500
OP-17-03-199	Woburn	\$3,000
OP-17-03-200	Worcester	\$28,000
OP-17-03-201	Wrentham	\$2,500
OP-17-03-202	Yarmouth	\$2,500

### Table 13.5 OP-17-04 CPS Equipment Grantee Recipients

<u>Note:</u> CPS Equipment Grantees will not receive a contract. They will be allowed to purchase the awarded amount of grant funding through EOPSS/HSD's selected car seat vendor, Mercury Distributing.

Grantee	Awarded Amount	Grantee	Awarded Amount
Pittsfield Police Department	\$ 2,000	Holbrook Emergency Communications Department	\$ 2,000
Lowell Police Department	\$ 1,970	Hull Police Department	\$ 2,000
Quincy Police Department	\$ 2,000	Northampton Police Department	\$ 2,000
Beverly Hospital	\$ 5,500	Gardner Police Department	\$ 2,000
West Newbury Police Department	\$ 2,000	Wellfleet Police Department	\$ 2,000
Holyoke Fire Department	\$ 2,000	Groton Police Department	\$ 2,000
Haverhill Police Department	\$ 2,000	Eastham Police Department	\$ 2,000
Rehoboth Police Department	\$ 2,000	Ayer Police Department	\$ 2,000
Somerville Police Department	\$ 2,000	Westford Police Department	\$ 2,000
Milford Police Department	\$ 2,000	Aquinnah Police Department	\$ 2,000
Charlton Police Department	\$ 2,000	Whitman Police Department	\$ 2,000
South Hadley Police Department	\$ 2,000	Brookline Police Department	\$ 2,000
Sturbridge Police Department	\$ 2,000	Upham's Corner Health Center	\$ 7,500
Berkley Police Department	\$ 2,000	Amesbury Police Department	\$ 2,000
Belmont Police Department	\$ 2,000	Bridgewater State University	\$ 2,000
Wakefield Police Department	\$ 2,000	Hadley Police Department	\$ 2,000
Truro Fire Department	\$ 2,000	Rochester Police Department	\$ 2,000
UMass Memorial Medical Center	\$ 7,500	New Bedford Police Department	\$ 2,000
Nashoba Valley regional Dispatch District	\$ 7,500	Taunton Police Department	\$ 2,000
Lakeville Police Department	\$ 2,000	Spencer Police Department	\$ 2,000
Merrimac Police Department	\$ 2,000	Tewksbury Police Department	\$ 2,000
Marion Police Department	\$ 2,000	Townsend Police Department	\$ 2,000
Winthrop Police Department	\$ 2,000	Boston Public Health Commission	\$ 7,500
East Bridgewater Police Department	\$ 2,000	Auburn Police Department	\$ 2,000
Andover Fire Rescue	\$ 2,000	Boston Police Department	\$ 2,000
Attleboro Police Department	\$ 2,000	Ware Police Department	\$ 2,000
Westfield Police Department	\$ 2,000	Concord Police Department	\$ 2,000
Montague Police Department	\$ 2,000		
Uxbridge Police Department	\$ 2,000	Total Awarded Funding:	\$ 161,970
Duxbury Police Department	\$ 2,000		
Revere Police Department	\$ 1,000		
Wellesley Police Department	\$ 2,000		
Stoughton Police Department	\$ 2,000		
Belchertown Police Department	\$ 2,000		
Town of Peru	\$ 2,000		
Cambridge Police Department	\$ 2,000		
Danvers Police Department	\$ 2,000		
Hudson Police Department	\$ 2,000		
South Shore Hospital	\$ 7,500		

Table 13.6 PS-17-02 Pedestrian & Bicycle Enforcement

Grant #	Grantee	Award Amount	Grant #	Grantee	Award Amount
PS-17-02-01	Amesbury	\$3,000.00	PS-17-02-40	Longmeadow	\$3,192.00
PS-17-02-02	Amherst	\$5,000.00	PS-17-02-41	Lowell	\$7,500.00
PS-17-02-03	Arlington	\$5,000.00	PS-17-02-42	Melrose	\$7,499.92
PS-17-02-04	Auburn	\$2,888.40	PS-17-02-43	Methuen	\$7,500.00
PS-17-02-05	Ayer	\$7,167.60	PS-17-02-44	Milford	\$3,015.00
PS-17-02-06	Attleboro	\$6,748.40	PS-17-02-45	Newton	\$7,490.56
PS-17-02-07	Barnstable	\$5,000.00	PS-17-02-46	Norton	\$6,600.00
PS-17-02-08	Belchertown	\$3,504.50	PS-17-02-47	Orleans	\$2,560.93
PS-17-02-09	Billerica	\$5,000.00	PS-17-02-48	Pittsfield	\$5,880.00
PS-17-02-10	Boston	\$7,405.70	PS-17-02-49	Quincy	\$7,500.00
PS-17-02-11	Bourne	\$4,880.00	PS-17-02-50	Randolph	\$7,500.00
PS-17-02-12	Boxborough	\$7,398.40	PS-17-02-51	Reading	\$3,133.92
PS-17-02-13	Bridgewater	\$7,500.00	PS-17-02-52	Rehoboth	\$7,500.00
PS-17-02-14	Brookline	\$7,506.36	PS-17-02-53	Revere	\$7,500.00
PS-17-02-15	Cambridge	\$7,500.00	PS-17-02-54	Rutland	\$3,124.20
PS-17-02-16	Canton	\$2,806.16	PS-17-02-55	Salem	\$4,946.56
PS-17-02-17	Chelmsford	\$5,000.00	PS-17-02-56	Salisbury	\$2,991.81
PS-17-02-18	Chelsea	\$5,000.00	PS-17-02-57	Saugus	\$3,752.00
PS-17-02-19	Danvers	\$3,000.00	PS-17-02-58	Scituate	\$7,304.00
PS-17-02-20	Dedham	\$3,822.40	PS-17-02-59	Sharon	\$7,000.00
PS-17-02-21	Dennis	\$3,136.00	PS-17-02-60	Somerville	\$7,500.00
PS-17-02-22	Duxbury	\$7,500.00	PS-17-02-61	South Hadley	\$2,939.68
PS-17-02-23	East Bridgewater	\$3,120.00	PS-17-02-62	Stoneham	\$6,025.00
PS-17-02-24	Easton	\$7,500.00	PS-17-02-63	Stoughton	\$7,442.00
PS-17-02-25	Essex	\$4,108.80	PS-17-02-64	Sturbridge	\$7,464.18
PS-17-02-26	Everett	\$5,000.00	PS-17-02-65	Swampscott	\$3,740.00
PS-17-02-27	Falmouth	\$7,000.00	PS-17-02-66	Taunton	\$5,000.00
PS-17-02-28	Fitchburg	\$6,122.56	PS-17-02-67	Uxbridge	\$3,000.00
PS-17-02-29	Franklin	\$7,154.52	PS-17-02-68	Walpole	\$5,667.00
PS-17-02-30	Gardner	\$7,500.00	PS-17-02-69	Waltham	\$7,500.00
PS-17-02-31	Georgetown		PS-17-02-70	Wellesley	\$3,015.60
PS-17-02-32	Groton	\$7,063.44	PS-17-02-71	Westfield	\$7,478.55
PS-17-02-33	Haverhill	\$6,942.72	PS-17-02-72	Westford	\$2,968.02
PS-17-02-34	Holden	\$7,500.00	PS-17-02-73	West Springfield	\$7,447.68
PS-17-02-35	Holliston	\$3,640.00	PS-17-02-74	Weymouth	\$6,359.50
PS-17-02-36	Holyoke	\$7,500.00	PS-17-02-75	Wilmington	\$4,910.00
PS-17-02-37	Hull	\$7,500.00	PS-17-02-76	Winthrop	\$2,978.56
PS-17-02-38	Ipswich	\$7,500.00	PS-17-02-77	Worcester	\$7,500.00
PS-17-02-39	Lancaster	\$7,489.44	PS-17-02-78	Wrentham	\$3,000.00
			PS-17-02-79	Yarmouth	\$4,480.00

Table 13.7 DD-17-02 Local Distracted Driving Enforcement

Grant #	Grantee	Award Amount	Grant #	Department	Award Amount
DD-17-02-01	Abington	\$2,500	DD-17-02-48	Duxbury	\$2,500
DD-17-02-02	Acton	\$2,500	DD-17-02-49	East Bridgewater	\$2,500
DD-17-02-03	Acushnet	\$2,500	DD-17-02-50	East Longmeadow	\$2,500
DD-17-02-04	Adams	\$2,500	DD-17-02-51	Eastham	\$2,500
DD-17-02-05	Agawam	\$2,500	DD-17-02-52	Easthampton	\$2,500
DD-17-02-06	Amesbury	\$2,500	DD-17-02-53	Easton	\$2,500
DD-17-02-07	Amherst	\$3,000	DD-17-02-54	Everett	\$3,000
DD-17-02-08	Andover	\$3,000	DD-17-02-55	Fairhaven	\$2,500
DD-17-02-09	Arlington	\$3,000	DD-17-02-56	Fall River	\$4,000
DD-17-02-10	Ashland	\$2,500	DD-17-02-57	Falmouth	\$3,000
DD-17-02-11	Athol	\$2,500	DD-17-02-58	Fitchburg	\$3,000
DD-17-02-12	Attleboro	\$3,000	DD-17-02-59	Foxboro	\$2,500
DD-17-02-13	Auburn	\$2,500	DD-17-02-60	Framingham	\$3,000
DD-17-02-14	Avon	\$2,500	DD-17-02-61	Franklin	\$3,000
DD-17-02-15	Ayer	\$2,500	DD-17-02-62	Freetown	\$2,500
DD-17-02-16	Barnstable	\$3,000	DD-17-02-63	Gardner	\$2,500
DD-17-02-17	Bedford	\$2,500	DD-17-02-64	Georgetown	\$2,500
DD-17-02-18	Belchertown	\$2,500	DD-17-02-65	Grafton	\$2,500
DD-17-02-19	Bellingham	\$2,500	DD-17-02-66	Granby	\$2,500
DD-17-02-20	Belmont	\$2,500	DD-17-02-67	Great Barrington	\$2,500
DD-17-02-21	Beverly	\$3,000	DD-17-02-68	Greenfield	\$2,500
DD-17-02-22	Billerica	\$3,000	DD-17-02-69	Groton	\$2,500
DD-17-02-23	Bolton	\$2,500	DD-17-02-70	Hadley	\$2,500
DD-17-02-24	Boston	\$28,000	DD-17-02-71	Halifax	\$2,500
DD-17-02-25	Bourne	\$2,500	DD-17-02-72	Hanover	\$2,500
DD-17-02-26	Braintree	\$3,000	DD-17-02-73	Harwich	\$2,500
DD-17-02-27	Brewster	\$2,500	DD-17-02-74	Haverhill	\$3,000
DD-17-02-28	Bridgewater	\$2,500	DD-17-02-75	Hingham	\$2,500
DD-17-02-29	Brockton	\$4,000	DD-17-02-76	Holbrook	\$2,500
DD-17-02-30	Brookline	\$3,000	DD-17-02-77	Holden	\$2,500
DD-17-02-31	Burlington	\$2,500	DD-17-02-78	Holliston	\$2,500
DD-17-02-32	Cambridge	\$7,000	DD-17-02-79	Holyoke	\$3,000
DD-17-02-33	Canton	\$2,500	DD-17-02-80	Hopkinton	\$2,500
DD-17-02-34	Carver	\$2,500	DD-17-02-81	Hudson	\$2,500
DD-17-02-35	Charlton	\$2,500	DD-17-02-82	lpswich	\$2,500
DD-17-02-36	Chelmsford	\$3,000	DD-17-02-83	Kingston	\$2,500
DD-17-02-37	Chelsea	\$3,000	DD-17-02-84	Lakeville	\$2,500
DD-17-02-38	Chicopee	\$3,000	DD-17-02-85	Lancaster	\$2,500
DD-17-02-39	Cohasset	\$2,500	DD-17-02-86	Lawrence	\$4,000
DD-17-02-40	Concord	\$2,500	DD-17-02-87	Leicester	\$2,500
DD-17-02-41	Danvers	\$2,500	DD-17-02-88	Lenox	\$2,500
DD-17-02-42	Dartmouth	\$3,000	DD-17-02-89	Leominster	\$3,000
DD-17-02-43	Dedham	\$2,500	DD-17-02-90	Lexington	\$3,000
DD-17-02-44	Dennis	\$2,500	DD-17-02-91	Longmeadow	\$2,500
DD-17-02-45	Douglas	\$2,500	DD-17-02-92	Lowell	\$7,000
DD-17-02-46	Dracut	\$2,500	DD-17-02-93	Ludlow	\$2,500
DD-17-02-47	Dudley	\$2,500	DD-17-02-94	Lunenburg	\$2,500

Grant #	Grantee	Award Amount	Grant #	Department	Award Amount
DD-17-02-95	Lynn	\$4,000	DD-17-02-140	Reading	\$2,500
DD-17-02-96	Malden	\$3,000	DD-17-02-141	Rehoboth	\$2,500
DD-17-02-97	Mansfield	\$2,500	DD-17-02-142	Revere	\$3,000
DD-17-02-98	Marion	\$2,500	DD-17-02-143	Rockland	\$2,500
DD-17-02-99	Marlborough	\$3,000	DD-17-02-144	Salem	\$3,000
DD-17-02-100	Marshfield	\$2,500	DD-17-02-145	Salisbury	\$2,500
DD-17-02-101	Mashpee	\$2,500	DD-17-02-146	Sandwich	\$2,500
DD-17-02-102	Medfield	\$2,500	DD-17-02-147	Saugus	\$2,500
DD-17-02-103	Medford	\$3,000	DD-17-02-148	Scituate	\$2,500
DD-17-02-104	Medway	\$2,500	DD-17-02-149	Seekonk	\$2,500
DD-17-02-105	Melrose	\$2,500	DD-17-02-150	Sharon	\$2,500
DD-17-02-106	Mendon	\$2,500	DD-17-02-151	Sherborn	\$2,500
DD-17-02-107	Methuen	\$3,000	DD-17-02-152	Shrewsbury	\$3,000
DD-17-02-108	Middleborough	\$2,500	DD-17-02-153	Somerset	\$2,500
DD-17-02-109	Middleton	\$2,500	DD-17-02-154	Somerville	\$4,000
DD-17-02-110	Milford	\$2,500	DD-17-02-155	South Hadley	\$2,500
DD-17-02-111	Millbury	\$2,500	DD-17-02-156	Southborough	\$2,500
DD-17-02-112	Milton	\$2,500	DD-17-02-157	Southbridge	\$2,500
DD-17-02-113	Natick	\$3,000	DD-17-02-158	Southwick	\$2,500
DD-17-02-114	Needham	\$2,500	DD-17-02-159	Spencer	\$2,500
DD-17-02-115	New Bedford	\$4,000	DD-17-02-160	Springfield	\$28,000
DD-17-02-116	Newburyport	\$2,500	DD-17-02-161	Stoneham	\$2,500
DD-17-02-117	Newton	\$4,000	DD-17-02-162	Stoughton	\$2,500
DD-17-02-118	North Adams	\$2,500	DD-17-02-163	Sturbridge	\$2,500
DD-17-02-119	North Andover	\$2,500	DD-17-02-164	Sudbury	\$2,500
DD-17-02-120	North Attleboro	\$2,500	DD-17-02-165	Swampscott	\$2,500
DD-17-02-121	North Reading	\$2,500	DD-17-02-166	Swansea	\$2,500
DD-17-02-122	Northampton	\$2,500	DD-17-02-167	Taunton	\$3,000
DD-17-02-123	Northborough	\$2,500	DD-17-02-168	Tewksbury	\$2,500
DD-17-02-124	Northbridge	\$2,500	DD-17-02-169	Topsfield	\$2,500
DD-17-02-125	Norton	\$2,500	DD-17-02-170	Townsend	\$2,500
DD-17-02-126	Norwell	\$2,500	DD-17-02-171	Tyngsboro	\$2,500
DD-17-02-127	Norwood	\$2,500	DD-17-02-172	Upton	\$2,500
DD-17-02-128	Orleans	\$2,500	DD-17-02-173	Uxbridge	\$2,500
DD-17-02-129	Oxford	\$2,500	DD-17-02-174	Wakefield	\$2,500
DD-17-02-130	Palmer	\$2,500	DD-17-02-175	Walpole	\$2,500
DD-17-02-131	Peabody	\$3,000	DD-17-02-176	Waltham	\$3,000
DD-17-02-132	Pembroke	\$2,500	DD-17-02-177	Ware	\$2,500
DD-17-02-133	Pepperell	\$2,500	DD-17-02-178	Wareham	\$2,500
DD-17-02-134	Pittsfield	\$3,000	DD-17-02-179	Watertown	\$3,000
DD-17-02-135	Plainville	\$2,500	DD-17-02-180	Wayland	\$2,500
DD-17-02-136	Plymouth	\$3,000	DD-17-02-180	Webster	\$2,500
DD-17-02-130 DD-17-02-137	Quincy	\$4,000	DD-17-02-181	Wellesley	\$2,500
DD-17-02-137 DD-17-02-138	Randolph	\$3,000	DD-17-02-183	West Boylston	\$2,500
DD-17-02-138	Raynham	\$2,500	DD-17-02-184	West Bridgewater	\$2,500

Grant #	Grantee	Award Amount
DD-17-02-185	West Springfield	\$2,500
DD-17-02-186	Westborough	\$2,500
DD-17-02-187	Westfield	\$3,000
DD-17-02-188	Westford	\$2,500
DD-17-02-189	Westminster	\$2,500
DD-17-02-190	Weston	\$2,500
DD-17-02-191	Westport	\$2,500
DD-17-02-192	Westwood	\$2,500
DD-17-02-193	Weymouth	\$3,000
DD-17-02-194	Whitman	\$2,500
DD-17-02-195	Wilbraham	\$2,500
DD-17-02-196	Wilmington	\$2,500
DD-17-02-197	Winchendon	\$2,500
DD-17-02-198	Winchester	\$2,500
DD-17-02-199	Woburn	\$3,000
DD-17-02-200	Worcester	\$28,000
DD-17-02-201	Wrentham	\$2,500
DD-17-02-202	Yarmouth	\$2,500

## OCCUPANT PROTECTION ATTACHMENT A

### Massachusetts Safety Belt Law

### THE GENERAL LAWS OF MASSACHUSETTS PART I. ADMINISTRATION OF THE GOVERNMENT

#### TITLE XIV. PUBLIC WAYS AND WORKS

#### CHAPTER 90. MOTOR VEHICLES AND AIRCRAFT - MOTOR VEHICLES

Chapter 90: Section 13A. Seat belt use required; exemptions; penalty
Original 2/1/94
Updated 10/29/08

Section 13A. No person shall operate a private passenger motor vehicle or ride in a private passenger motor vehicle, a vanpool vehicle or truck under eighteen thousand pounds on any way unless such person is wearing a safety belt which is properly adjusted and fastened; provided, however, that this provision shall not apply to:

- (a) any child less than twelve years of age who is subject to the provisions of section seven AA;
- (b) any person riding in a motor vehicle manufactured before July first, nineteen hundred and sixty-six;
- (c) any person who is physically unable to use safety belts; provided, however, that such condition is duly certified by a physician who shall state the nature of the handicap, as well as the reasons such restraint is inappropriate; provided, further, that no such physician shall be subject to liability in any civil action for the issuance or for the failure to issue such certificate;
- (d) any rural carrier of the United States Postal Service operating a motor vehicle while in the performance of his duties; provided, however, that such rural mail carrier shall be subject to department regulations regarding the use of safety belts or occupant crash protection devices;
- (e) anyone involved in the operation of taxis, liveries, tractors, trucks with gross weight of eighteen thousand pounds or over, buses, and passengers of authorized emergency vehicles.
- (f) the side facing seat on which the factory did not install a seat belt in any car owned for the purpose of antique collection.

Any person who operates a motor vehicle without a safety belt, and any person sixteen years of age or over who rides as a passenger in a motor vehicle without wearing a safety belt in violation of this section, shall be subject to a fine of twenty-five dollars. Any operator of a motor vehicle shall be subject to an additional fine of twenty-five dollars for each

person under the age of sixteen and no younger than twelve who is a passenger in said motor vehicle and not wearing a safety belt. The provisions of this section shall be enforced by law enforcement agencies only when an operator of a motor vehicle has been stopped for a violation of the motor vehicle laws or some other offense.

Any person who receives a citation for violating this section may contest such citation pursuant to section three of chapter ninety C. A violation of this section shall not be considered as a conviction of a moving violation of the motor vehicle laws for the purpose of determining surcharges on motor vehicle premiums pursuant to section one hundred and thirteen B of chapter one hundred and seventy-five.

### CREDIT(S)

Added by St.1993, c. 387, § 1. Amended by St.2008, c. 225, eff. Oct. 29, 2008.

#### HISTORICAL AND STATUTORY NOTES

St.1993, c. 387, § 1, an emergency act, returned by the Governor to the House of Representatives, the branch in which it originated, with his objections thereto, was passed by the House of Representatives, Jan. 4, 1994, and, in concur-rence, by the Senate, Jan. 4, 1994, the objections of the Governor notwithstanding, in the manner prescribed by the Constitution; and thereby has the force of law.

Sections 2 to 4 and 7 to 9 of St.1993, c. 387, provide:

"Section 2. The provisions of section one of this act shall apply to any municipal, county or district public employee.

"Section 3. Failure to wear a properly fastened safety belt shall not be considered as contributory negligence or used as evidence in any civil action.

"Section 4. The registrar of motor vehicles shall require, pursuant to his authority under section twenty-nine of chapter ninety of the General Laws, that police officers shall record the use or non-use of safety belts when reporting auto-mobile accidents."

"Section 7. The commissioner of insurance shall mandate a minimum five percent reduction in bodily injury premiums if the observed safety belt use rate among all occupants equals or exceeds fifty percent one year after this law has been in effect. Annual surveys of belt use shall be conducted by the governor's highway safety bureau and shall conform to standards approved by the National Highway Traffic Safety Administration.

"Annual safety belt survey results shall be a criterion in all future regulatory actions regarding bodily injury premiums. If at any time the safety belt use rate in the commonwealth exceeds the national average, additional reductions in bodily injury premiums shall take effect.

"Section 8. No insurance company doing business in the commonwealth shall deny coverage to any individual who has failed to wear a safety belt during the occurrence of an

accident resulting in bodily injury; nor shall any insurance company deny an individual the right to purchase a motor vehicle liability policy based on a violation of the provisions of section thirteen A of chapter ninety of the General Laws.

"Section 9. This act shall take effect on February first, nineteen hundred and ninety-four."

St.1993, c. 387, was submitted to the people and approved by them at the general election held Nov. 8, 1994, pursuant to the provisions of Article XLVIII of the Amendments to the Constitution.

St.2008, c. 225, approved July 31, 2008, effective Oct. 29, 2008, in the first paragraph, added cl. (f).

### OCCUPANT PROTECTION ATTACHMENT B

### Child Passenger Safety Law

THE GENERAL LAWS OF MASSACHUSETTS PART I. ADMINISTRATION OF THE GOVERNMENT

#### TITLE XIV. PUBLIC WAYS AND WORKS

#### CHAPTER 90. MOTOR VEHICLES AND AIRCRAFT - MOTOR VEHICLES

### Chapter 90: Section 7AA. Child passenger restraints; fine; violation as evidence in civil action

Section 7AA. A passenger in a motor vehicle on any way who is under the age of 8 shall be fastened and secured by a child passenger restraint, unless such passenger measures more than 57 inches in height. The child passenger restraint shall be properly fastened and secured according to the manufacturer's instructions.

Unless required to be properly fastened and secured by a child passenger restraint under the preceding paragraph, a passenger in a motor vehicle on any way that is under the age of 13 shall wear a safety belt which is properly adjusted and fastened according to the manufacturer's instructions.

The provisions of this section shall not apply to any such child who is: (1) riding as a passenger in a school bus; (2) riding as a passenger in a motor vehicle made before July first, nineteen hundred and sixty-six, that is not equipped with safety belts; (3) physically unable to use either a conventional child passenger restraint or a child restraint specifically designed for children with special needs; provided, however, that such condition is duly certified in writing by a physician who shall state the nature of the disability as well as the reasons such restraints are inappropriate; provided, further, that no such certifying physician shall be subject to liability in a civil action for the issuance of or for the failure to issue such certificate. An operator of a motor vehicle who violates the provisions of this section shall be subject to a fine of not more than twenty-five dollars; provided, however, that said twenty-five dollar fine shall not apply to an operator of a motor vehicle licensed as a taxi cab not equipped with a child passenger restraint device.

A violation of this section shall not be used as evidence of contributory negligence in any civil action.

A person who receives a citation for a violation of any of the provisions of this section may contest such citation pursuant to section three of chapter ninety C. A violation of this section shall not be deemed to be a conviction of a moving violation of the motor vehicle laws for the purpose of determining surcharges on motor vehicle premiums pursuant to section one hundred and thirteen B of chapter one hundred and seventy-five.

# OCCUPANT PROTECTION ATTACHMENT C

### **Statewide Fitting Stations**

	2010 Census		Fitting	
Location / Name	Population	Phone Number		Hours / Time of Day / Schedules
Acushnet Police Department		508-771-8157	Yes	once a week by appt.
Amesbury Police Department	-,	978-388-1212	Yes	Four days a month / Four hour periods
Amherst Police Department		413-256-4011	Yes	7 days a week/8am - midnight, by appointment
Amherst Fire Department	37,819	413-259-3085	Yes	By appointment
Andover Police Department		978-475-0411	Yes	By appointment
Andover Fire Department	33,201	978-475-1281	Yes	4 days/week, 8:00am-8:00pm
Aquinnah Police Department	311	508-645-2313	Yes	Sun-Wed, 8am-4pm by appt or walk-in
Ashland Police Department	16,593	508-881-1212	Yes	By appointment
Attleboro Police Department	43,593	508-222-2324	Yes	Call in / Scheduled
Auburn Police Department		508-832-7777	Yes	Walk In-as long as officer is present
Ayer Police Department		978-772-8200	Yes	Daily 1:30-2:45pm
Barnstable Fire Department	45,193	508-362-3312	Yes	By appointment
Bay State Medical Center/Safe Kids of				
Western MA - Springfield	4	413-794-2255	Yes	Every Thurs, 9am-5pm at Bay State Ambulance
Bay State Ambulance Service - Springfield		413-794-2255	Yes	Appointments Thursdays only
Bedford Police Department		781-275-1212	Yes	Appointments / Walk in
Belmont Police Department		617-993-2554	Yes	By appointment
Belchertown Police Department		413-323-6685	Yes	By appointment
Berkley Police Department		508-822-7040	Yes	By appointment
Bernardston Police Department		413-648-9208	Yes	Wednesday Evenings 4-7pm
Beverly Police Department		978-816-2670	Yes	By appointment
Boston Children's Hospital	617,594	617-355-5400	Yes	Wednesdays 10:00am - 12:00pm
Boston Police Department	4	617-343-5273	Yes	By appointment
Boston Public Health Commission/Boston	047.504	047 504 0005	\/	B
EMS	617,594	617-534-2635	Yes	By appointment
Bourne Fire/Rescue Station 1  Bourne Fire/Rescue Station 4		508-759-4412	Yes	By appointment
	40.754	508-563-2419	Yes	Appointment / Walk in
Bourne State Police  Boxborough Police Department		508-759-4488	Yes	By appointment
		978-263-8299	Yes Yes	By appointment
Braintree Police Department		781-794-8703		By appointment
Brewster Police Department Brockton Police Department		508-896-7011 508-897-5208	Yes Yes	By appointment Weds. Nights by Appt.
Brookline Police Department		617-730-2609	Yes	4pm-7pm by appointment
Burlington Police Department		781-505-4968	Yes	By appointment
C.O.M.M (Centerville, Osterville, Marston	24,490	761-303-4906	162	Ву арропштетк
Mills) Fire Department	170 695	508-790-2375	Yes	By appointment
Cambridge Police Department		617-349-3321	Yes	7:00am-2:00pm every other Friday
Canton Police Department		781-828-5090	Yes	9:00am-12:00pm 1st + 3rd Saturday
Cape and Islands EDDY	21,501	508-982-3940	Yes	By appointment
Carlisle Police Department	4 852	978-369-1155	Yes	By appointment
Carver Police Department		508-866-2000	Yes	By appointment
Charlton Police		508-248-2250	Yes	By appointment
Chatham Fire Rescue		508-945-2324	Yes	By appointment
Chelmsford Fire Department		978-250-5267	Yes	By appointment
Concord Police Department		978-318-3400	Yes	By appointment
Cotuit Fire Department		508-428-2210	Yes	By appointment
Danvers Fire Department	12,700	978-762-0245	Yes	By appointment
Danvers Police Department	26,493	978-774-1213	Yes	By appointment
Dennis Fire Department		508-398-2242	Yes	Appointment, events
Dennis Police Department	14,207	508-394-1313	Yes	Appointment, events
Devens State Police		978-772-8800	Yes	Days are open (walk in) midnight shifts are appt.
Dighton Fire Department		508-669-6611	Yes	By appointment
Dover Police Department		508-785-1130	Yes	By appointment
Dracut Fire Dept.		978-454-2113	Yes	By appointment
Dudley Police Department		508-943-4411	Yes	By appointment
East Boston Neighborhood Health Center		617-568-4740	Yes	By appointment
East Bridgewater Police Department		508-378-7223	Yes	By appointment
Easton Police Department		508-230-3322	Yes	By appointment
Eastham Fire Department	,	508-255-2324	Yes	By appointment
Eastham Police Department	4,956	508-255-0551	Yes	7:30am-4:30pm, 5 days/week
	4.067	508-627-4343	Yes	Leave a message
Edgartown Police Department				
Edgartown Police Department Essex Police Department		978-768-6628	Yes	By appointment
	3,504	978-768-6628 508-676-8511	Yes Yes	By appointment By appointment

Location / Name		Phone Number	Fitting St	Hours / Time of Day / Schedules
Gardner Police Department	20,228	978-632-5600	<b>.</b>	, , , , , , , , , , , , , , , , , , , ,
Gloucester Police	28,789	978-281-9898	Yes	By appointment
Grafton Police	17,765	508-839-2858	Yes	By appointment
Groton Fire Department		978-448-5555	Yes	Appointments / Walk in
Hamilton Police Department		978-468-1212	Yes	By appointment
Hanover Police		781-826-3231	Yes	By appointment
Hanson Police Station		781-293-4625	Yes	By appointment
Harvard Police Department		978-456-8276	Yes	By appointment
Haverhill Police Department Hingham Police Department		978-373-1212 781-749-1212	Yes Yes	By appointment By appointment
Holbrook Police and Fire		787-767-2233	Yes	By appointment
Holliston Police Department		508-429-1212	Yes	By appointment
Holyoke Fire Department		413-534-2250	Yes	By appointment
Hopkinton Police Department	,	508-435-6365	Yes	By appointment
Hopkinton Fire Department	14,925	508-435-6365	Yes	By appointment
Hudson Police		978-562-7122	Yes	By appointment
Hull Police		781-925-1212	Yes	By appointment
Hyannis Fire Department	14,809	508-775-1300	Yes	walk in- call ahead his shift varies
lpswich Fire Department	40.475	978-356-6630	Yes	Appointments / Walk in
Ipswich Police Department		978-356-4343	Yes	By appointment
Lakeville Police Department  Lawrence General Hospital		508-947-0046 978-683-4000	Yes Yes	By appointment Mon-Fri, 7am-3pm, by appt only
Leominster Police Department		978-537-0741	Yes	By appointment
Lexington Police Department		781-862-1212	Yes	By appointment
Lincoln Police Department		781-259-8111	Yes	By appointment
Littleton Police Department		978-952-2300	Yes	By appointment
Lowell Police Department	106,519	978-937-3200	Yes	By appointment
Lynn Fire Department	90,329	781-593-7528	Yes	By appointment
Lynnfield Fire Department		781-334-5152	Yes	By appointment
Malden Police Department		781-397-7171	Yes	By appointment
Mansfield Police Department		508-261-7300	Yes	By appointment
Martha's Vineyard/Oak Bluffs		506-693-0750	Yes	By appointment
MA State Police - Dartmouth  MA State Police - Framingham HQ		508-993-8373 508-988-7021	Yes	By appointment
MA State Police - Framingham AQ  MA State Police - Holden		508-829-8300	res	By appointment
MA State Police - Middleboro		508-947-2222		
Mattapoisett Police Department		508-758-4141	Yes	Appointments / Walk in (One safety officer)
Medford Police Department		781-391-6770	Yes	By appointment
Medway Police Department		508-533-3212	Yes	Appointments / Walk in (One safety officer)
Melrose Police Department	26,983	781-665-1212	Yes	Only if officer has time
	<b>5</b> 000	500 470 0707	.,	Appointments - Interior of the car MUST be cleaned /
Mendon Police Department		508-478-2737	Yes	Carseat must be put in. Officer will make adjustments
Merrimac Police Middleton Fire Department		978-346-8321 978-774-4424	Yes Yes	By appointment By appointment
Milford Police Department		508-634-2362	Yes	By appointment
Millville Police Department		508-883-3117	Yes	By appointment
Montague Police Department		413-863-8911	Yes	By appointment
Nantucket Fire Department		508-228-2324	Yes	By appointment
Nashoba Valley Regional Dispatch District	34,264	978-772-1900	Yes	By appointment
Natick Police Department	33,006	508-647-9500	Yes	Appointments / Residents only / 2 week notice
Needham Police Department		781-455-7570	Yes	By appointment
New Bedford Police Department		508-991-6360	Yes	By appointment
Newburyport Police Department		978-462-4411	Yes	By appointment
Norfolk Fire Department		508-528-3207	Yes	Appointments / Walk in
North Attlebore Police Department	28,352	978-683-3168	Yes	By appointment Appointments / Walk in
North Attleboro Police Department North Attleboro Fire Department	2Q 712	508-695-1212 508-699-0140	Yes Yes	By appointment
North Reading Police Department		978-664-3131	Yes	ру арропштетк
Northhampton Fire Department	14,032	413-587-1032	Yes	By appointment
Northampton Police Department	28.549	413-587-1100	Yes	Appointments / Wednesday
Norwell Police Department		781-659-7979	Yes	By appointment
Norwood Police Department		781-440-5149	Yes	Appointments / Saturday
Oxford Police Department		508-987-0156	Yes	By appointment
Pepperell Police Department		978-433-2424	Yes	By appointment
Pittsfield Police Department	44,737	413-448-9700	Yes	By appointment
Plainville Fire Department		508-695-5252	Yes	Appointments / Walk in
Plainville Police Department		508-699-1212	Yes	By appointment
Quincy Police Department		617-479-1212	Yes	7 days a week, 8:30am-3pm
Randolph Police Raynham Police Department		781-963-1212 508-824-2716	Yes Yes	Mon-Fri, 7am-3pm, by appt only By appointment
Rehoboth Police	13,363	000-02 <del>4-</del> 2110	163	ру арропшнени
Revere Police Department	51 755	781-286-8337	Yes	By appointment on Fridays
	31,733			i - · ·
	5.232	508-763-5112	Yes	IBv appointment
Rochester Police Department Rutland Police Department		508-763-5112 508-886-4033	Yes Yes	By appointment By appointment

Logotion / Nome		Dhana Numbar	Eitting Ct	Hours / Time of Day / Schodules
Location / Name	0.202	978-465-3121		Hours / Time of Day / Schedules  By appointment
Salisbury Fire Department			Yes	By appointment
Seekonk Police		508-336-8123	V	Annaiste anta / Danidanta anta
Sharon Police Department		781-784-1588	Yes	Appointments / Residents only
Sheffield Police Department		413-229-8522	Yes	By appointment
Shrewsbury Police		508-841-8577	Yes	By appointment
Somerset Police Department		508-679-2138	Yes	Walk in
Somerville Police Department		617-625-1600	Yes	Bi-monthly
South Hadley Police Department		413-538-8231	Yes	By appointment
Southboro Police Department		508-485-2121	Yes	By appointment
Southbridge Police Department		508-764-5420	Yes	By appointment
Spencer Police Department		508-885-6333	Yes	Sat, 10am - 2pm
Springfield Police Department		413-787-6359	Yes	By appointment
Stoughton Police Department		781-344-2424	Yes	By appointment
Sturbridge Police Department	9,268	508-347-2525	Yes	By appointment
Swansea Police Department		508-674-8464	Yes	By appointment
Taunton Police	55,874	508-824-7522	Yes	By appointment
Tewksbury Police Department	28,961	978-851-7355	Yes	By appointment
Topsfield Fire Department	6,085	978-887-5148	Yes	Walk in
UMASS Amherst Police	22,000	413-545-2121	Yes	By appointment
UMASS Memorial Medical Center -				
Worcester	399,276	774-443-8626	Yes	Bi-weekly, by appointment only
Upham's Corner Health Center - Boston	,	617-825-9205	Yes	By appointment every 2nd Thursday
Upton Police Department	7.542	508-529-3200	Yes	By appointment
Uxbridge Police Department	,-	508-278-7755	Yes	By appointment
Uxbridge Fire Department	13.457	508-278-2787	Yes	By appointment
Village Ambulance Service - Williamstown		413-458-4889	Yes	Mon-Fri, 8am-4pm
Wakefield Police Department		339-219-4507	Yes	By appointment
Waltham Police Department		781-314-3600	Yes	Once a month - Appointment
Wareham Police Department		508-295-1473	Yes	By appointment
Wayland Police Department		508-358-4721	Yes	By appointment
Webster Police Department		508-943-1212	Yes	By appointment
Wellesley Police Department		781-235-1212	Yes	Appointments / Residents only
Wellfleet Police Department		508-349-3702	Yes	By appointment
West Newbury Police Department		978-363-1213	Yes	By appointment
Westborough Police Department	7,200	508-366-3060	Yes	By appointment
Westborough Fire Department	18 272	508-366-3040	Yes	By appointment
Westfield Police Department		413-562-4597	Yes	By appointment
Westford Fire Department	41,034	978-692-5542	Yes	By appointment
Westford Police Department	21 051	978-692-3342	Yes	By appointment
Westminster Police Department		978-874-2900	Yes	By appointment
		508-636-1122	Yes	By appointment
Westport Police Department				Varies by officers schedule
Westwood Police Department		781-326-1903 781-447-1212	Yes	,
Whitman Police Department	,	_	Yes	By appointment
Williamsburg Police Department		413-268-7237	Yes	By appointment
Wilmington Police Department		978-658-5071	Yes	Every Weds, 10am-2pm
Winthrop Police Department		617-539-5800	Yes	By appointment
Woburn Police Department	38,120	781-933-1212	Yes	By appointment
Population Covered	6,583,089			
2010 Census - Total MA Population	6,547,629			
Percent of Total Population	101%			
reiteilt of Total Population	101%			

### FFY 2016 Checkup Events in Massachusetts

Date	Location	Time	Host Agency
10/17/2015	Halloween Safety Event-South Bay Lot	11:00am-	Boston Police Department - Uphams
		2:00pm	Corner Health Center - Boston Public
			Health Commission
10/25/2015	Gardner Police Department	10:00am-	Gardner Police Department
		2:00pm	
10/31/2015	Maurice's Market-Wellfleet	10:00am-	Wellfleet+Eastham Police Departments
		2:00pm	
11/4/2015	Barre Public Library	10:00am-	Barre Police Department
		2:00pm	
11/13/2015	Wellesley Tree House	10:00am-	Wellesley Police Department
2/20/46		2:00pm	
2/28/16	Boston Public Health Commission-	10:00am-	Boston Public Health Commission -
4/2/16	Roxbury Taunton DPW	2:00pm	Boston Police Department
4/2/16		9:00am-1:00pm	Taunton Poilice Department
4/16/16	Millville Police Station	9:00am-1:00pm	Millville Police Department
4/22/16	Northeast Regional Vocational School	4:00-8:00pm	Wakefield Police Department
4/24/16	137 Myricks Street	10:00am-	Lakeville+Berkley Police Departments
		1:00pm	
4/30/16	Charlton Town Common-Earth Day	10:00am-	Charlton Police Department
. / /	Festival	2:00pm	
4/30/16	Williamsburg Police Department	10:00am-	Williamsburg Police Department
4/20/46	Walladay Law Isaasa Hayaisa Dastas Dd	2:00pm	Malladay Palias Dagastus sut
4/30/16	Wellesley Low-Income Housing-Barton Rd	10:00am-	Wellesley Police Department
4/30/16	Eastham Elks Club	1:00pm 12:00-4:00pm	Eastham+Wellfleet Police Departments
			,
4/30/16	Quincy YMCA Healthy Kids Day	10:00am- 1:00pm	Quincy Police Department
5/1/16	Eastham Touch-A-Truck Day	10:00pm-	Eastham+Wellfleet Police Departments
3/1/10	Edstriam Touch-A-Truck Day	2:00pm	Eastham+Weimeet Fonce Departments
5/1/16	Anna Jacques Hospital	3:00-5:00pm	Riverside Pediatrics
5/7/16	Christian Fellowship of Boston-Somerville	1:00-5:00pm	Boston Children's Hospital
5/8/16	Roxbury Presbyterian Church	1:00-5:00pm	Boston Children's Hospital
5/11/16	Upham's Corner Health Center	9:00am-1:00pm	Upham's Corner Health Center - Boston
3/11/10	ophan's corner reach center	3.00diii 1.00piii	EMS
5/13/16	UMass Amherst	5:00-8:00pm	UMass Amherst
5/14/16	South Shore Hospital-Weymouth	9:30am-1:30pm	South Shore Hospital
5/14/16	Sholan Farms-Leominster	10:00am-	MA State Police
		2:00pm	
5/19/16	585 East Pleasant St, Amherst	1:00-3:00pm	Amherst Fire Department
5/21/16	Milford Highway Department	9:00am-1:00pm	Milford Police Department

5/21/16	Hannaford Parking Lot-Lowell	10:00am-	Lowell+Tewksbury Police Departments
		12:00pm	
5/21/16	Commonwealth Motors-Lawrence	10:00am-	Lawrence General Hospital
		2:00pm	
5/22/16	Walmart-Pittsfield	10:00am-	Baystate Medical Center
		1:00pm	
5/26/16	Second Baptist Church-South Hadley	10:00am-	Baystate Medical Center
		2:00pm	
6/5/16	Herb Chambers-Westborough	10:00am-	Baystate Medical Center
		2:00pm	
6/11/16	Littleville Elementary School-Huntington	10:00am-	Baystate Medical Center
		2:00pm	
6/18/16	270 Barnum Rd-Devens MA	10:00am-	Nashoba Valley Regional Dispatch
		2:00pm	Center
6/25/16	30 Warren Street, Brighton MA	12-4:00pm	Franciscan Hospital for Children

### OCCUPANT PROTECTION ATTACHMENT D

### Communications Plan FFY 2017 Executive Office of Public Safety and Security Highway Safety Division

For each of the campaigns listed below, HSD will work with our media vendor, as well as internal and external stakeholders, to develop comprehensive outreach campaigns comprised of earned media (press events/releases/interviews) and paid media (video ad creation, online/TV/radio buys, out-of-home advertising, and signage).

HSD has also recently started collaborating with our state agency partner, DigitalMass, to further our outreach. They have helped us launch our Facebook and Twitter accounts and help us create social media messaging and graphics/animation. DigitalMass, through their close relationship with the Governor's Office, promotes our campaigns on their widely-read blog and social media accounts, as well as the Governor's Twitter account. Through a partnership with MassDOT's Office of Outdoor Advertising, HSD is allotted 2 PSA ads to run on 90+ digital billboards statewide.

The campaigns and dates below are subject to change, but HSD will note which sources will be used for promote campaign messaging. HSD will use the 2017 NHTSA Communications Calendar, trafficsafetymarketing.gov, and local and national crash, citation, and fatality data to guide us in developing target audiences and messaging.

October 16-22, 2016: National Teen Driver Safety week.

Social Media, Digital Billboards

**November 2016: Drowsy Driving Awareness** 

Earned and Paid Media, Social Media, Digital Billboards

November 24-27, 2016: Thanksgiving Holiday Travel period.

Social Media, Digital Billboards

December 9, 2016- January 1, 2017: Drive Sober or Get Pulled Over National Enforcement Mobilization

Earned and Paid Media, Social Media, Digital Billboards

January-February 2017: Child Passenger Safety Winter Tips

Earned and Paid Media, Social Media, Digital Billboards

March 17, 2017: St. Patrick's Day

Social Media

April 2017: National Distracted Driving Awareness month

Earned and Paid Media, Social Media, Digital Billboards

### April 2017 TBD: Work Zone Safety and the Move Over Law.

Social Media, Digital Billboards

### May 2017: Motorcycle Safety Awareness Month and Bicycle Safety Month

Earned and Paid Media, Social Media, Digital Billboards

### May 18-29, 2017: Click it or Ticket National Enforcement Mobilization

Earned and Paid Media, Social Media, Digital Billboards

### May-June 2017: 100 Deadliest Days for Teen Drivers

Earned and Paid Media, Social Media, Digital Billboards

### June-July 2017: Pedestrian and Bicycle Safety

Earned and Paid Media, Social Media, Digital Billboards

### July 4, 2017 - Fourth of July Impaired Driving

Social Media, Digital Billboards

### August 14-September 4, 2017: Drive Sober or Get Pulled Over National Enforcement Mobilization

Earned and Paid Media, Social Media, Digital Billboards

### September 2017: Back to School Safety and Child Passenger Safety Week

Earned and Paid Media, Social Media, Digital Billboards