September 2019

Highway Safety Plan
FY 2020
Massachusetts

Highway Safety Plan

NATIONAL PRIORITY SAFETY PROGRAM INCENTIVE GRANTS - The State applied for the following incentive grants:

S. 405(b) Occupant Protection: Yes

S. 405(e) Distracted Driving: Yes

S. 405(c) State Traffic Safety Information System Improvements: Yes

S. 405(f) Motorcyclist Safety Grants: Yes

S. 405(d) Impaired Driving Countermeasures: Yes

S. 405(g) State Graduated Driver Licensing Incentive: Yes

S. 405(d) Alcohol-Ignition Interlock Law: Yes

S. 405(h) Nonmotorized Safety: Yes

S. 405(d) 24-7 Sobriety Programs: Yes

S. 1906 Racial Profiling Data Collection: Yes

Highway safety planning process

Data Sources and Processes

The OGR HSD team began the planning process for developing the FFY 2020 HSP by gathering all relevant data related to performance targets and doing an in-depth analysis of the data to find trends within one-year, five-year, and (if feasible) ten-year periods. The data was analyzed across different fields including county, municipality, month and day of the week, time of day, gender, and age. Furthermore, mapping software was used to provide a visual tool to help analyze trends and hot spots throughout Massachusetts. This information helped identify high-risk locations as well as behavioral trends among roadway users that require attention.

The data sources utilized in this analysis process are listed below:

Fatality Analysis Reporting System (FARS) – fatalities and fatal crashes

Massachusetts Crash Data System (CDS) – fatalities and injuries

Massachusetts Injury Surveillance Program – injuries and hospitalizations

Massachusetts Citation Data – roadway violations

Massachusetts Safety Belt Usage Observation Survey – safety belt usage, occupant protection

FHWA Highway Statistics – Vehicle Miles Traveled (VMT), licensed drivers, and road miles

U.S. Census Bureau statistics – population, income levels

FBI Crime Statistics – arrests for driving intoxicated and other vehicle-related crimes

Results of the data were coordinated and shared with the Massachusetts Department of Transportation to ensure performance targets related to fatalities, serious injuries, and fatalities per 100 million VMT are identical to what is in the Massachusetts Highway Safety Improvement Plan (HSIP) and the Strategic Highway Safety Plan (SHSP). Other performance targets were determined through trend analysis and ongoing exchanges with key federal, state, and local partners such as state and local police departments, Massachusetts Department of Public Health, the Governors Highway Safety Association, and the Traffic Records Coordinating Committee.

OGR also relied on input provided by participants during two statewide traffic safety partnership webinars held in May of 2019. A wide range of community partners including state and local police, non-profit organizations

focused on road safety, and municipal administrators attended the forums. The participants provided valuable information related to traffic safety issues facing their respective communities and constituencies along with suggestions about potential solutions to address those issues.

Taken together, data analysis and input from community partners, OGR was able to determine where to focus funding for FFY 2020 in order to have the greatest impact in reducing crashes, injuries, fatalities, and associated economic losses.

Processes Participants

To help determine problem areas to focus on, the HSD team engaged with many participants during the planning process, including but not limited to:

Massachusetts Department of Transportation (MassDOT)
Massachusetts Registry of Motor Vehicles (RMV)
Massachusetts Department of Public Health
Massachusetts Department of State Police (MSP)
Governors Highway Safety Association
Massachusetts District Attorneys Association (MDAA)
Massachusetts Executive-Level Traffic Records Coordinating Committee (ETRCC)
Massachusetts Working-Level Traffic Records Coordinating Committee
Municipal Police Training Committee (MPTC)
Merit Rating Board
University of Massachusetts Traffic Safety Research Program (UMassSafe)
Local police departments
Massachusetts Chiefs of Police Association
SHSP Executive Leadership Committee
Boston Emergency Medical Services (EMS)
Massachusetts Alcoholic Beverages Control Commission (ABCC)
Massachusetts Executive Office of Health and Human Services (EOHHS)
Safe Roads Alliance
Colleges and Universities
In Control Family Foundation

Description of Highway Safety Problems

The identification of current traffic safety issues for the FFY 2020 HSP were made using data analysis of fatalities and fatal crashes over a five-year period (2013–2017), from numerous elements including, but not limited to, counties, cities, time-of-day, month, day-of-week, road type, gender and age. Data from available monthly and year-end reports from FFY 2019 grant-funded programs provided further insight to traffic safety trends. Lastly, input from traffic safety stakeholders added a third layer of analysis to the determination of traffic safety issues in Massachusetts.

The Massachusetts population (6,895,917) ranks 15th among the 50 states of the union. There are 36,723 miles of roadway across the 7,840 square miles of the Commonwealth. Local roads account for 68% of roadways with 24,818 miles. Massachusetts drivers tallied 60,753 million VMT with interstate travel accounting for 28% of it,

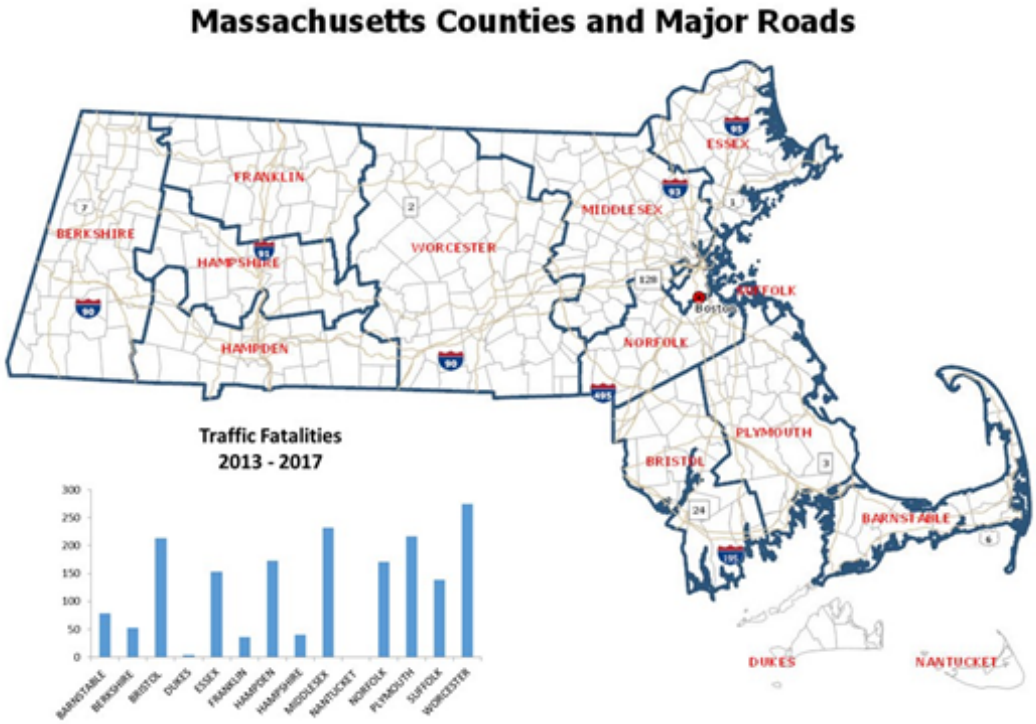
followed by major arterials (20%), minor arterials (20%) and local roads (14%). Massachusetts is among the top 25 states in total VMT despite being one of the smallest states by land area in the country.

From 2013 to 2017, Massachusetts reported 1,783 motor vehicle-related fatalities and 14,717 incapacitating injuries along its roadways. This is a 2% drop from the 1,819 deaths reported from 2012 to 2016. In terms of fatalities per VMT, Massachusetts has consistently had either the lowest or one of the lowest fatality rates in the country. In 2017, Massachusetts reported 347 fatalities for a fatality/VMT rate of 0.57. The five-year average of fatality/VMT from 2013-2017 was 0.59.

There are fourteen counties across Massachusetts: Barnstable, Berkshire, Bristol, Dukes, Essex, Franklin, Hampden, Hampshire, Middlesex, Nantucket, Norfolk, Plymouth, Suffolk, and Worcester. Over 70% of the population lives in the eastern part of the state in Essex, Middlesex, Suffolk, Norfolk, Bristol, and Plymouth counties. The eastern region of Massachusetts also encompasses most of the major roadways such as I-495, I-95, I-93, I-195, Rt. 128, Rt. 24, Rt. 9, Rt. 3, and Rt. 2. Boston, the capital, is located in Suffolk County and is the largest city in the Commonwealth.

While the eastern part of the state has more roadways and people than central or western Massachusetts, it also has an extensive public transportation system that helps alleviate the traffic congestion that comes with daily commutes into the Metro Boston area. The Massachusetts Bay Transportation Authority (MBTA) provides subway, bus, and commuter rail options for commuters as well as boat transportation from several coastal communities in locations north and south of Boston. Having public transportation options available has resulted in Suffolk County accounting for only 8% of all traffic fatalities from 2013-2017 despite the heavy volume of traffic into and out of Metro Boston every day. Worcester County, which has end terminals for the commuter rail as well as a robust local public bus transportation system, accounted for 15% of all traffic fatalities during the same time period.

Despite the low fatalities for Suffolk County, the surrounding counties of Essex, Middlesex, Norfolk, Bristol and Plymouth accounted for 55% of all traffic fatalities from 2013-2017.



At the city/town level, traffic fatalities were highest in Boston with 120 motor-vehicle related deaths during the five-year period from 2013 to 2017. Springfield, Brockton, Worcester, and Middleborough rounded out the top five, respectively.

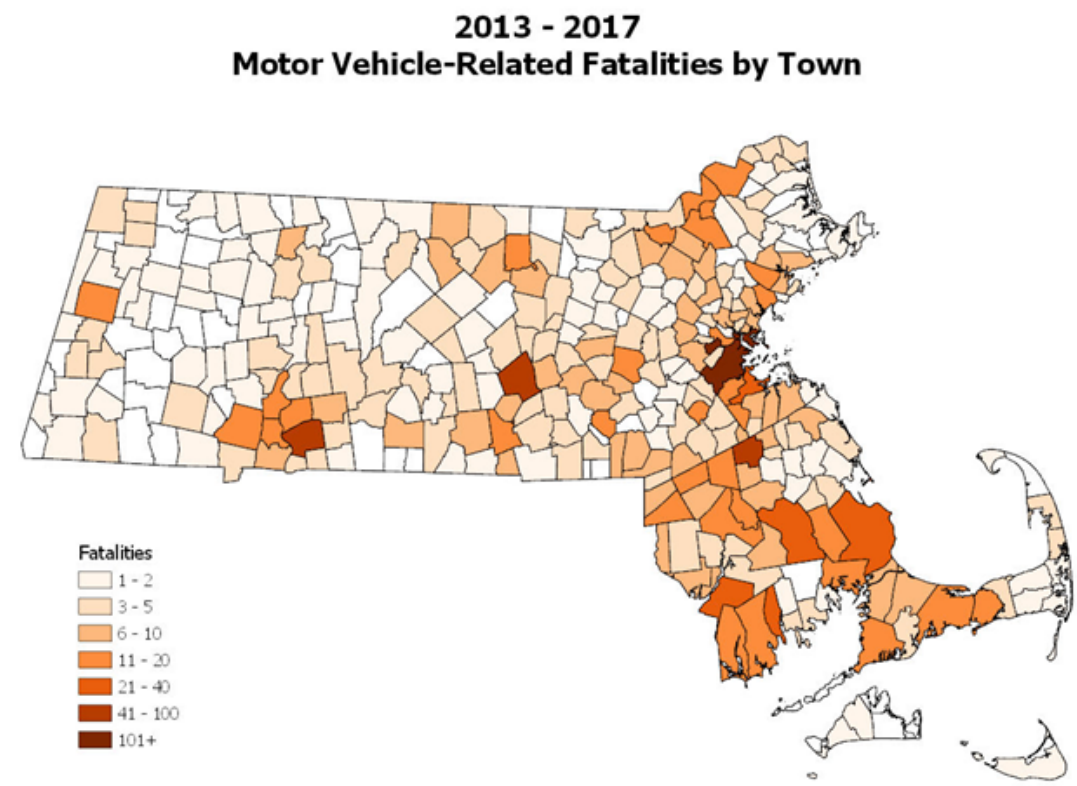
Total Fatalities (2013 - 2017)	
BOSTON	120
SPRINGFIELD	56
BROCKTON	48
WORCESTER	45
MIDDLEBORO	32
NEW BEDFORD	28
QUINCY	24
PLYMOUTH	23
FALL RIVER	22
HOLYOKE	19
DARTMOUTH	18
FITCHBURG	17
LOWELL	17
WAREHAM	17
WESTFIELD	17
WESTPORT	17
CHICOPEE	16
ANDOVER	15
MANSFIELD	15
METHUEN	15
RANDOLPH	15
RAYNHAM	15
OXFORD	14
TAUNTON	14
WEST SPRINGFIELD	14

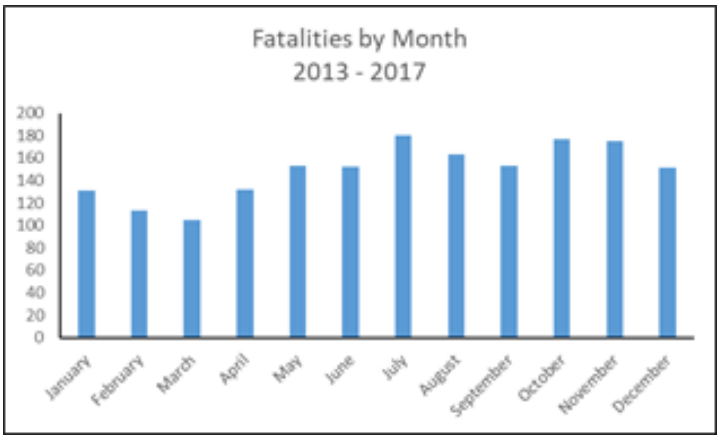
Eleven of the top 25 towns hail from Southeastern Massachusetts (Bristol County – 7; Plymouth County – 4). Brockton, Dartmouth, Fall River, Mansfield, Middleboro, New Bedford, Plymouth, Raynham, Taunton, Wareham, and Westport accounted for 58% of the combined 430 fatalities reported in Bristol and Plymouth County from 2013-2017. The map provided below reveals the high incidence of motor vehicle-related fatalities across these two counties.

Surprisingly, Middlesex County only had one town (Lowell) in the top 25 given that the county accounted for 13% of the motor vehicle-related fatalities from 2013-2017. The lack of fatalities concentrated among a few towns means Middlesex likely has had traffic fatalities occurring with regularity across all communities within its boundary.

As in prior HSP, Massachusetts will continue supporting and funding key programs to help make the roadways safer in these high fatality communities and counties. To get a better idea of where and when traffic fatalities occur in the Commonwealth, data regarding the time-of-day, day-of-week, month, roadway type, person type and age will be examined. This will help provide a fuller picture of crash fatality trends in Massachusetts, which will further assists OGR in focusing time and funding for key programs describe within this HSP.

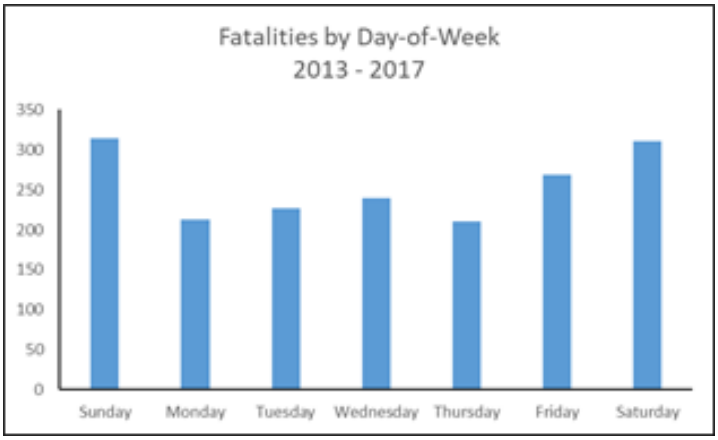
Figure 1: Fatalities by Month, 2013-2017 (Source: FARS)





From 2013 to 2017, traffic fatalities happened more frequently during the months of July, October and November. These three months make up 30% of the fatalities. The period from July to December accounted for 56% of fatalities compared to 44% from January to June.

Figure 2: Fatalities by Day-of-Week, 2013-2017 (Source: FARS)



From 2013 to 2017, the weekend accounted for the top two days for fatalities with 35% of all fatalities occurring on either Saturday or Sunday. If Friday is included as part of the weekend, the three-day period accounts for half of the fatalities that take place during the seven days of the week.

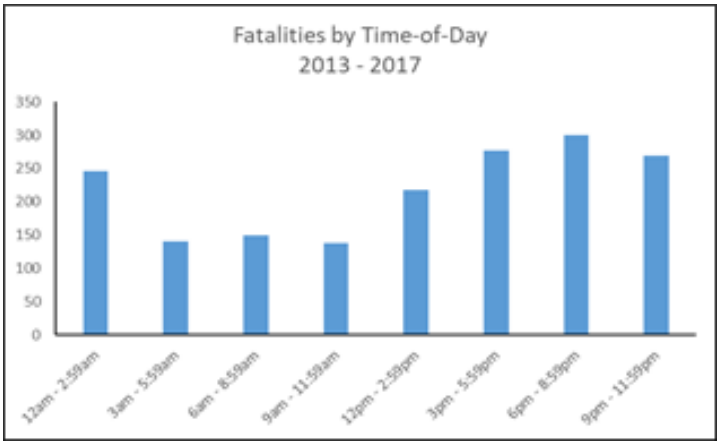
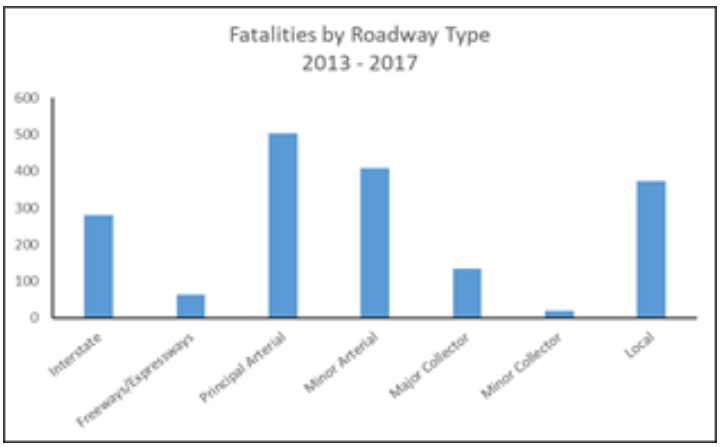


Figure 3: Fatalities by Time-of-Day, 2013-2017 (Source: FARS)

Using a three-hour range, the time from 6pm to 8:59pm recorded the most fatalities from 2013 to 2017. The three hours prior and after this time frame was the second and third highest periods for fatalities, respectively. In all, the time from 3pm to 11:59pm accounted for 47% of all traffic fatalities. Alcohol, drugs, speeding, and failure to use safety restraints, which will be analyzed further in this document, are all contributing factors to the higher totals reported during this time.

Figure 4: Fatalities by Roadway Type, 2013-2017 (Source: FARS)

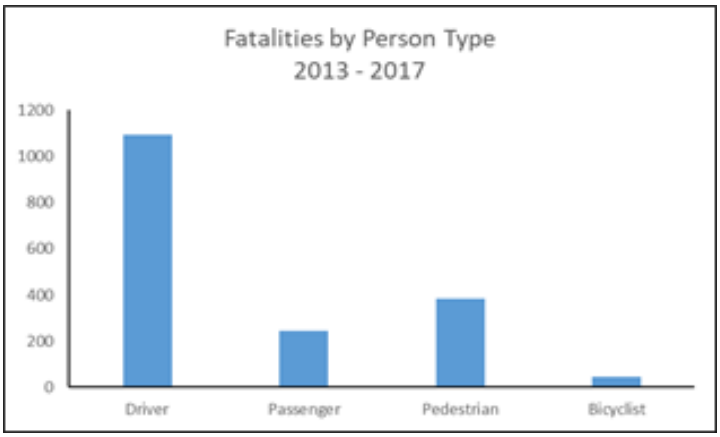


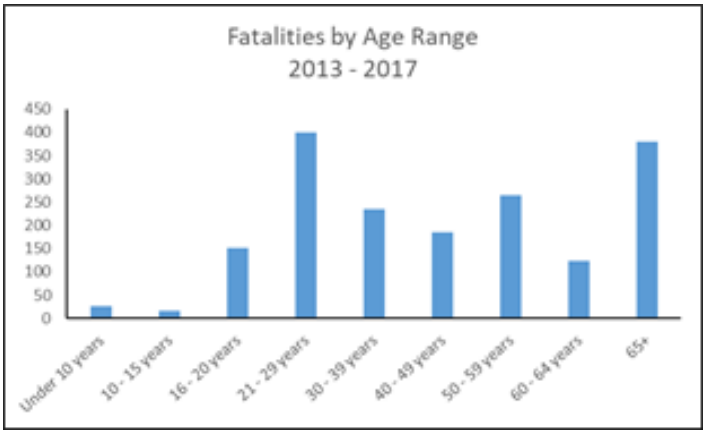
From 2013 to 2017, traffic fatalities occurred most often on principal and minor arterial roads. These two roadway types accounted for over half of all traffic fatalities during the five-year period. Local roads were the site of 21% of all fatalities.

Figure 5: Fatalities by Person Type, 2013-2017 (Source: FARS)

From 2013 to 2017, drivers made up over 60% of all fatalities in motor vehicle-related crashes. Pedestrians accounted for 22%, with passengers and bicyclists following behind with 14% and 3%, respectively.

Figure 6: Fatalities by Age Range, 2013-2017





Lastly, fatalities by age range. Young teens and children (age 15 or younger) accounted for 2% of fatalities, while older teens and young adults (age 16 to 20) accounted for 8% of traffic deaths. The low number of fatalities can be attributed to the positive impact of Massachusetts law requiring passengers age 12 or younger to be buckled up as well as meaningful Junior Operator Laws (JOL) that place restrictions on new drivers under the age of 18.

Those age 21-29 accounted for 22% of all fatalities and, as will be examined in the Occupant Protection program area, are the leading age group for unrestrained fatalities from 2013-2017. Speeding is also highly prevalent among drivers in this age group, which can increase the risk of serious or fatal injury in a crash – especially when not wearing a seat belt.

Based on the data provided thus far, traffic fatalities in Massachusetts happen more frequently in eastern Massachusetts compared to the central and western part of the state. Bristol and Plymouth County, with 11 of the top 25 communities for fatalities from 2013-2017, are of particular concern and focus for OGR.

Law enforcement will be advised of the importance of conducting overtime enforcement patrols during periods of high crash occurrences such as July thru November, Friday through Sunday, and the hours from 3pm to midnight. Particular focus on circumstances where young adults (age 21 – 29) tend to crash will likely have a positive effect on lowering the number of fatalities for this age group.

While the data presented so far provides a basic overview of the state of motor vehicle-related fatalities in Massachusetts, the FFY 2020 HSP will also look in more detail at fatalities involving impaired driving, lack of safety restraints or helmets, speeding, distracted driving, motorcyclists, and non-occupants (pedestrians and bicyclists) within the respective program area.

Methods for Project Selection

OGR will rely on a multi-faceted approach to developing and selecting the projects for FFY 2020. The input used to develop the planned activities came from several sources including:

Data – Trends in fatalities, fatal crashes, serious injuries, seat belt usage, and traffic citations

OGR staff – Provide extensive knowledge on current projects that may be renewed in FFY 2020 as well as critical insight into subrecipient concerns and suggestions

Partners – State and local government, community groups and non-profit organizations with a public safety mission.

Subrecipients – Monthly activity reports and final reports provided great information on the impacts of current programs and what could be changed or improved to make the programs more effective.

Program managers within the HSD establish spreadsheets for every grant under their purview, covering all aspects including funding, expenditures, and activity (i.e. number of stops, hours of patrol, types of violations issued). Since many projects are the same year-to-year, staff are able to compare projects across several years to see trends or where changes need to be made to improve the impact of the funds distributed.

Open meetings – The HSD team conducted two webinars in May 2019 to solicit feedback from partners about a wide range of traffic safety issues.

Combining all the sources together, OGR seeks to institute programs that will have the greatest positive impact in terms of reducing crashes, fatalities, injuries and associated economic losses. Grant subrecipients will be selected for funding based on data-backed problem identification and how their proposed activity will address the problem.

When making NHTSA funding available to the public, an Availability of Grant Funding (AGF) opportunity (our competitive application process) is posted online through the state Mass.Gov online portal and emails are sent out to prior and potential partners across the state, including, but not limited to, MSP, local police, municipalities, state agencies, hospitals and non-profit organizations to ensure eligible recipients are aware of our funding opportunities. The emails provide a hyperlink (URL) to the location in the Mass.Gov portal where the AGFs and associated grant documents are posted for a minimum of 4-6 weeks. OGR will continue to utilize a scoring process that results in all applications being rated along with several elements and then ranked from highest to lowest to determine grant awardees. The scoring process will involve convening a Review Team (RT) that will read and rate all submitted applications. Scoring will be based on application completeness, problem identification, description of planned activities, and the potential for positive impacts on a community's traffic safety.

Due to the requirements of disseminating the NHTSA funds and specific eligible recipients, many of our NHTSA grant subrecipients who receive these funds or are expected to receive these funds are not done so via a competitive review process. These subrecipients are sole source funded and a notice of intent is posted on the Mass.Gov portal for up to 30 days to inform the public of such award to be made and for the public to comment on if they wish to do so. Regardless if an award is competitive or sole-sourced, all subrecipients will be required to complete an Application Template which will provide a full description of the program to be funded, need, goals/objectives/timeline and detailed budget breakdown of all costs. All expected awards are vetted by the Executive Director, EOPSS leadership and the Governor’s Office for final approval.

List of Information and Data Sources

Fatality Analysis Reporting System (FARS)
MassDOT Crash Data System
Massachusetts Injury Surveillance Program
Massachusetts Citation Data
Massachusetts Statewide Seat Belt Observational Survey
Federal Highway Administration (FHWA)
Federal Bureau of Investigation (FBI) Crime Statistics
United States Census Bureau

Description of Outcomes

Coordination with SHSP

The SHSP has statewide goals, objectives and emphasis areas which were developed in consultation with federal, state, local, and private sector safety stakeholders using data-driven, multi-disciplinary approaches involving engineering, education, enforcement, and emergency response.

As a key contributor to the SHSP planning process, OGR has worked with MassDOT (the lead agency for the SHSP) and other key stakeholders such as EOHHS, Department of Public Health, regional transit authorities, insurance companies, WalkBoston, and hospitals to develop a tiered classification of emphasis areas. The emphasis areas are broken into three levels: Strategic, Proactive, and Emerging.

Strategic areas: Impaired Driving, Intersection Crash Prevention, Lane Departures, Occupant Protection, Speeding/Aggressive Driving, Young Drivers, Older Drivers, Pedestrians, and Motorcycle Riders.

Proactive areas: Bicycles, Truck and Bus-Involved Crashes, At-Grade Crossing, and Traffic Incident Management Safety (formerly work zone safety). These areas represent less than 10% of annual fatalities or severe injuries, but require attention to minimize potential increases.

Emerging areas: Data Systems, Drowsy Driving, and Driver Inattention (or Distracted Driving).These areas focus on improving the data system used to analyze traffic safety patterns and for safety topics where data is currently inconclusive.

In the HSP, targets many of the same emphasis areas as the SHSP including impaired driving, occupant protection, speeding/aggressive driving, young and older drivers, pedestrians, motorcycles, bicycles, distracted and drowsy driving, and data systems (traffic record systems). Intersection Crash Prevention, lane departures and at-grade crossings are not emphasis areas that are within the purview of the OGR mission. Through grant funding and media messaging, OGR seeks to change driver, passenger, and non-occupant behaviors that will result in reduced fatalities on the roadways of Massachusetts. At the same time, the SHSP looks to limit motor vehicle-related fatalities through infrastructure improvements such as better roadway design, improved crosswalks, and the upgraded installation of traffic lights. The combination of improving the physical roadway and roadway user behaviors between OGR and MassDOT, respectively, provides the best strategy for reducing fatalities.

OGR also works in collaboration with MassDOT to establish yearly targets for three key core performance measures – fatalities, fatalities/VMT, and serious injuries. Per federal law (FAST Act), the HSP and SHSP (or HSIP) must have identical targets for these three performance measures. This ensures both agencies are united

in the same objectives and will help drive all programs run by both agencies towards the common goals of decreasing fatalities, fatalities/VMT, and serious injuries in the long-term.

The performance targets identified in the following section were established as part of the problem identification process described above. Performance targets were established by reviewing data trends provided by sources such as FARS, MassDOT's Crash Portal, and NHTSA reports.

For FFY 2020, based on available data, OGR and MassDOT have adopted the following goals for calendar base year 2016-2020 for fatalities, serious injuries, and fatalities/VMT.

Five-year average for fatalities will drop 3% to 347 by December 31, 2020

Five-year average for serious injuries will decrease 4% to 2,689 by December 31, 2020

Five-year average for fatalities/VMT will drop 3.5% to 0.56 by December 31, 2020

Performance report

Progress towards meeting State performance targets from the previous fiscal year's HSP

Sort Order	Performance measure name	Progress
1	C-1) Number of traffic fatalities (FARS)	In Progress
2	C-2) Number of serious injuries in traffic crashes (State crash data files)	In Progress
3	C-3) Fatalities/VMT (FARS, FHWA)	In Progress
4	C-4) Number of unrestrained passenger vehicle occupant fatalities, all seat positions (FARS)	In Progress
5	C-5) Number of fatalities in crashes involving a driver or motorcycle operator with a BAC of .08 and above (FARS)	In Progress
6	C-6) Number of speeding-related fatalities (FARS)	In Progress
7	C-7) Number of motorcyclist fatalities (FARS)	In Progress
8	C-8) Number of unhelmeted motorcyclist fatalities (FARS)	In Progress
9	C-9) Number of drivers age 20 or younger involved in fatal crashes (FARS)	In Progress
10	C-10) Number of pedestrian fatalities (FARS)	In Progress
11	C-11) Number of bicyclists fatalities (FARS)	In Progress

12	B-1) Observed seat belt use for passenger vehicles, front seat outboard occupants (survey)	In Progress
13	Number of distraction-affected fatal crashes	In Progress
13	Number of linked Massachusetts EMS/crash reports	Not Met
13	Accuracy and completeness of the Registry of Motor Vehicles' Crash Data System	Not Met
13	Number of ambulance services submitting NEMSIS Version 3 reports	Met
13	Number of intersections with Fundamental Data Elements (FDEs)	Not Met
13	Development of a new MassTRAC	Not Met

Performance Measure: C-1) Number of traffic fatalities (FARS)

Progress: In Progress

Program-Area-Level Report

C-1 Traffic Fatalities

In the FFY 2019 HSP, the performance target for fatalities was to decrease motor vehicle fatalities 3.61% from the five-year average of 367 in 2016 to a five-year average of 353 by December 31, 2019.

One-year change (2016 to 2017): 10.3% decrease in fatalities from 387 to 347

Five-year average change (2012-2016 to 2013-2017): 2.0% decrease from 364 to 357

This performance target is currently in progress. OGR is cautiously confident the 387 fatalities reported in 2016 was an outlier and, going forward yearly fatalities will be much lower.

Performance Measure: C-2) Number of serious injuries in traffic crashes (State crash data files)

Progress: In Progress

Program-Area-Level Report

C-2 Serious Injuries

In the FFY 2019 HSP, the performance target for serious injuries was to decrease serious injuries 10.6% from the five-year average of 3,132 in 2016 to a five-year average of 2,801 by December 31, 2019.

One-year change (2016 to 2017): 13.7% decrease from 2,983 to 2,575

Five-year average change (2012-2016 to 2013-2017): -6.4% drop from 3,146 to 2,943

This performance target is currently in progress. With a five-year average decline of 6.4% in the past year and a 19.5% decline in serious injuries since 2013, Massachusetts is cautiously optimistic about achieving the five-year average goal of 2,801 by December 31, 2019.

Performance Measure: C-3) Fatalities/VMT (FARS, FHWA)

Progress: In Progress

Program-Area-Level Report

C-3 Fatality/VMT

In the FFY 2019 HSP, the performance target for fatalities/VMT was to decrease fatality/VMT rate 8.72% from the five-year average of 0.64 in 2016 to a five-year average of 0.58 by December 31, 2019.

One-year change (2016 to 2017): 7.9% decrease from 0.63 to 0.58

Five-year average (2012-2016 to 2013-2017): -3.2% decline from 0.63 to 0.61

This performance target is in progress. The one-year decrease was due to the drop in motor vehicle fatalities from 387 to 347 from 2016 to 2017. OGR believes the fatality/VMT rate will remain low as the number of fatalities remain steady or declines while VMT continues to rise. Since 2013, VMT in Massachusetts has gone up 2% from 59,588 million to 60,753 million.

Performance Measure: C-4) Number of unrestrained passenger vehicle occupant fatalities, all seat positions (FARS)

Progress: In Progress

Program-Area-Level Report

C-4 Unrestrained Motor Vehicle Occupant Fatalities

In the FFY 2019 HSP, the performance target was to decrease unrestrained passenger vehicle occupant fatalities 5% from the five-year average of 102 in 2016 to a five-year average of 97 by December 31, 2019.

One-year change (2016 to 2017): 12.9% increase from 116 to 131

Five-year average (2012-2016 to 2013-2017): 5.4% rise from 104 to 110

This performance target is in progress. Despite the uptick in unrestrained passenger fatalities from 2016 to 2017, OGR expects to see unrestrained fatalities drop in 2018 as the Statewide Seat Belt Usage rate rose from 74% in 2017 to 82% in 2018. An eight percentage point jump indicates more people than ever are utilizing their seat belts when riding in a motor vehicle and ultimately means better protection from fatal injury in the event of a crash.

Performance Measure: C-5) Number of fatalities in crashes involving a driver or motorcycle operator with a BAC of .08 and above (FARS)

Progress: In Progress

Program-Area-Level Report

C-5 Alcohol-Impaired Driving Fatalities (BAC = .08 or higher)

In the FFY 2019 HSP, the performance target was to decrease alcohol-impaired driving fatalities 5% from the five-year average of 126 in 2016 to a five-year average of 119 by December 31, 2019.

One-year change (2016 to 2017): 18.9% decrease from 148 to 120

Five-year average (2012-2016 to 2013-2017): 1.4% drop from 130 to 128

Progress is being made on this target. The total number of alcohol-impaired fatalities for the five-year period 2013-2017 was 641, down from 650 for 2012-2016. The rate of alcohol-impaired fatalities per 100 million

VMT dropped from 0.24 in 2016 to 0.20 in 2017. OGR is cautiously optimistic the decline of both alcohol-impaired fatalities and alcohol-impaired fatalities/VMT indicate a positive trend towards lower alcohol-impaired fatalities in the near future.

Performance Measure: C-6) Number of speeding-related fatalities (FARS)

Progress: In Progress

Program-Area-Level Report

C-6 Speed-Related Fatalities

In the FFY 2019 HSP, the performance target was to decrease speed-related fatalities 5% from the five-year average of 97 in 2016 to a five-year average of 94 by December 31, 2019.

One-year change (2016 to 2017): 21.6% decrease from 125 to 98

Five-year average (2012-2016 to 2013-2017): 3.2% drop from 101 to 98

This performance target is in progress as the five-year average for 2017 moves closer towards the target of 94 by the conclusion of 2019. OGR sees the number of speed-related fatalities in 2016 as an outlier as the previous three years (2013-2015) averaged 89 fatalities per year and expects the FFY 2019 target to be met in 2019.

Performance Measure: C-7) Number of motorcyclist fatalities (FARS)

Progress: In Progress

Program-Area-Level Report

C-7 Motorcyclist Fatalities

In the FFY 2019 HSP, the performance target was to decrease motorcyclist fatalities 5% from the five-year average of 49 in 2016 to a five-year average of 46 by December 31, 2019.

One-year change (2016 to 2017): 15.9% increase from 44 to 51

Five-year average (2012-2016 to 2013-2017): 2% decline from 49 to 48

This performance target is currently in progress. Despite the increase in year-to-year motorcycle fatalities, the five-year average dropped. OGR expects continued funding and focuses on improving motorcycle driver trainings and education in collaboration with the RMV during FFY 2019 will lead to declining fatalities among motorcyclists.

Performance Measure: C-8) Number of unhelmeted motorcyclist fatalities (FARS)

Progress: In Progress

Program-Area-Level Report

C-8 Unhelmeted Motorcyclist Fatalities

In the FFY 2019 HSP, the performance target was to decrease unhelmeted motorcycle fatalities 25% from the five-year average of 4 in 2016 to a five-year average of 3 by December 31, 2019.

One-year change (2016 to 2017): 66.7% drop from 3 to 1

Five-year average (2012-2016 to 2013-2017): No change, remains at 4

Although the five-year average for both 2016 and 2017 have attained the goal of four set in the FFY 2018 HSP, this performance target remains in progress as the numbers for 2018 and 2019 are yet to be determined.

Performance Measure: C-9) Number of drivers age 20 or younger involved in fatal

crashes (FARS)

Progress: In Progress

Program-Area-Level Report

C-9 Number of Drivers age 20 or younger Involved in a Fatal Crash

In the FFY 2019 HSP, the performance target was to decrease the number of young drivers (age 20 or under) involved in fatal crashes 5% from the five-year average of 38 in 2016 to a five-year average of 36 by December 31, 2019.

One-year change (2016-2017): 25% decrease from 48 to 36

Five-year average (2012-2016 to 2013-2017): 4.7% decline from 38 to 36

Although his performance target is still in progress as the numbers from 2018 and 2019 remain to be seen, the five-year average for 2017 has met the FFY 2019 target goal of 36 to be achieved by December 31, 2019.

Performance Measure: C-10) Number of pedestrian fatalities (FARS)

Progress: In Progress

Program-Area-Level Report

C-10 Pedestrian Fatalities

In the FFY 2019 HSP, the performance target was to decrease pedestrian fatalities 5% from the five-year average of 79 in 2016 to a five-year average of 75 by December 31, 2019.

One-year change (2016 to 2017): 7.7% decrease from 78 to 72

Five-year average (2012-2016 to 2013-2017): 2.6% drop from 78 to 76

This performance target is in progress. The decline in both the one-year and five-year values for 2017 point towards a high likelihood of meeting the target goal of 75 by December 31, 2019. OGR is confident the expansion of its pedestrian safety-related grant program in FFY 2018 and 2019 will have a positive impact on the numbers for those two years.

Performance Measure: C-11) Number of bicyclists fatalities (FARS)

Progress: In Progress

Program-Area-Level Report

C-11 Bicyclist Fatalities

In the FFY 2019 HSP, the performance target was to decrease bicyclist fatalities 10% from the five-year average of 10 in 2016 to a five-year average of 9 by December 31, 2019.

One-year change (2016 to 2017): 20% increase from 10 to 12

Five-year average (2012-2016 to 2013-2017): No change, remains at 10

This performance target is currently in progress. The expansion of the pedestrian safety-related grant program mentioned above involves bicyclist safety as well. Subrecipients have been allowed to purchase bicycle helmets with funding received for the Pedestrian and Bicyclist Enforcement and Equipment Grant. This recent change to the grant will further help communities improve bicyclist safety, especially among children age 12 or younger.

Performance Measure: B-1) Observed seat belt use for passenger vehicles, front seat outboard occupants (survey)

Progress: In Progress

Program-Area-Level Report

B-1 Observed Seat Belt Usage

In the FFY 2019 HSP, the performance target was to increase observed seat belt use rate 3% from the five-year average of 76% in 2016 to a five-year average of 78% by December 31, 2019.

One-year change (2016 to 2017): 10.8% increase from 74% to 82%

Five-year average (2012-2016 to 2013-2017): 1.9% increase in belt usage from 76% to 77%

This performance target is currently in progress. The increase in the five-year average, as well as the 7% rise in belt usage since 2014, provide evidence of a positive trend towards attaining the goal of 78% by December 31, 2019.

Performance Measure: Number of distraction-affected fatal crashes

Progress: In Progress

Program-Area-Level Report

NC-1 Distraction-Affected Fatal Crashes

In the FFY 2019 HSP, the performance target was to decrease the five-year average of distraction-affected fatal crashes 10% from 30 in 2016 to 27 by December 31, 2019.

One-year change (2016 to 2017): 36.4% decline from 33 to 21

Five-year average (2012-2016 to 2013-2017): 7.1% decrease from 31 to 29

This performance target is in progress. The drop in both the one-year and five-year average indicate positive movement towards the goal of 27 by December 31, 2019. OGR is confident the continued funding of statewide distracted driving messaging such as the recent “Don’t be that guy” advertising campaign will help increase driver awareness.

Performance Measure: Number of linked Massachusetts EMS/crash reports

Progress: Not Met

Program-Area-Level Report

TR-1 Number of Linked Massachusetts EMS/crash report

For FFY 2019, the target was to improve the integration of traffic records systems by increasing the number of linked Massachusetts EMS/crash reports from 0% to 75% from January 1, 2018 to December 31, 2018.

The goal was not achieved as the final linkage rate was 58% as of December 31, 2018.

Performance Measure: Accuracy and completeness of the Registry of Motor Vehicles’ Crash Data System

Progress: Not Met

Program-Area-Level Report

TR-2 Improve Accuracy and Completeness of RMV’s Crash Data System

For FFY 2019, the target was to decrease the number of crash reports rejected for not meeting the minimum criteria to be accepted into the system from 1,487 between April 1, 2017 and March 31, 2018 to 1,425 or less between April 1, 2018 and March 31, 2019.

This goal was not achieved as the number of crash reports rejected for not meeting the minimum criteria to be

accepted into the system only decreased from 1,487 to 1,466 by March 31, 2019.

Performance Measure: Number of ambulance services submitting NEMSIS Version 3 reports

Progress: Met

Program-Area-Level Report

TR-3 Number of Ambulance Services Submitting NEMSIS Version 3.0

For FFY 2019, the target was to improve the completeness of MATRIS by increasing the number of ambulance services submitting NEMSIS Version 3 reports to the system from 0 between April 1, 2017 and March 31, 2018 to 3 or more between April 1, 2018 and March 31, 2019.

This goal was achieved with the number of ambulance services submitting NEMSIS Version 3 reports to MATRIS increased from zero to eight by March 31, 2019.

Performance Measure: Number of intersections with Fundamental Data Elements (FDEs)

Progress: Not Met

Program-Area-Level Report

TR-4 Number of Intersections with Fundamental Data Elements (FDEs)

For FFY 2019, the target was to improve the completeness of the Massachusetts statewide road inventory database by increasing the number of intersections with Fundamental Data Elements (FDEs) from 0 as of June 30, 2017 to 5,400 as of December 31, 2018.

This goal was not achieved as the final number of intersections with FDEs was 1,407 by September 30, 2019.

Performance Measure: Development of a new MassTRAC

Progress: Not Met

Program-Area-Level Report

For FFY 2019, the target was to develop a tentative business plan for a new MassTRAC by September 30, 2018.

This goal was not achieved as it was deemed prudent to await further research on the upgrading of MassDOT's Crash Data Portal before proceeding with a business plan.

Performance Plan

Sort Order	Performance measure name	Target Period	Target Start Year	Target End Year	Target Value
1	C-1) Number of traffic fatalities (FARS)	5 Year	2016	2020	347.00

2	C-2) Number of serious injuries in traffic crashes (State crash data files)	5 Year	2016	2020	2689.00
3	C-3) Fatalities/VMT (FARS, FHWA)	5 Year	2016	2020	0.56
4	C-4) Number of unrestrained passenger vehicle occupant fatalities, all seat positions (FARS)	5 Year	2016	2020	108.00
5	C-5) Number of fatalities in crashes involving a driver or motorcycle operator with a BAC of .08 and above (FARS)	5 Year	2016	2020	124.00
6	C-6) Number of speeding-related fatalities (FARS)	5 Year	2016	2020	93.00
7	C-7) Number of motorcyclist fatalities (FARS)	5 Year	2016	2020	46.00
8	C-8) Number of unhelmeted motorcyclist fatalities (FARS)	5 Year	2016	2020	3.00
9	C-9) Number of drivers age 20 or younger involved in fatal crashes (FARS)	5 Year	2016	2020	35.00
10	C-10) Number of pedestrian fatalities (FARS)	5 Year	2016	2020	73.00

11	C-11) Number of bicyclists fatalities (FARS)	5 Year	2016	2020	9.00
12	B-1) Observed seat belt use for passenger vehicles, front seat outboard occupants (survey)	5 Year	2016	2020	80.00
13	Number of distraction-affected fatal crashes	5 Year	2016	2020	27.00
15	Accuracy and completeness of the Registry of Motor Vehicles' Crash Data System	Annual	2020	2020	1390
16	Number of ambulance services submitting NEMSIS Version 3 reports	Annual	2020	2020	220
18	Development of a new MassTRAC	Other	2019	2020	1.00

Performance Measure: C-1) Number of traffic fatalities (FARS)

Performance Target details

Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year
C-1) Number of traffic fatalities (FARS)-2020	Numeric	347.00	5 Year	2016

Performance Target Justification

Disclaimer: The first three performance measures and projected targets listed in this section – Traffic Fatalities, Serious Injuries, and Fatalities/VMT – are required by NHTSA and FHWA to be identical to what MassDOT projects in its annual State Highway Safety Plan report. Please be aware that FHWA has been pushing MassDOT to use the five-year average 2014-2018 to develop the 2020 targets. At this time, 2017 fatality data for Massachusetts is still not finalized and 2018 is preliminary. MassDOT and OGR's targets for these three performance measures must match or FHWA will delay funding to MassDOT until the targets are in line.

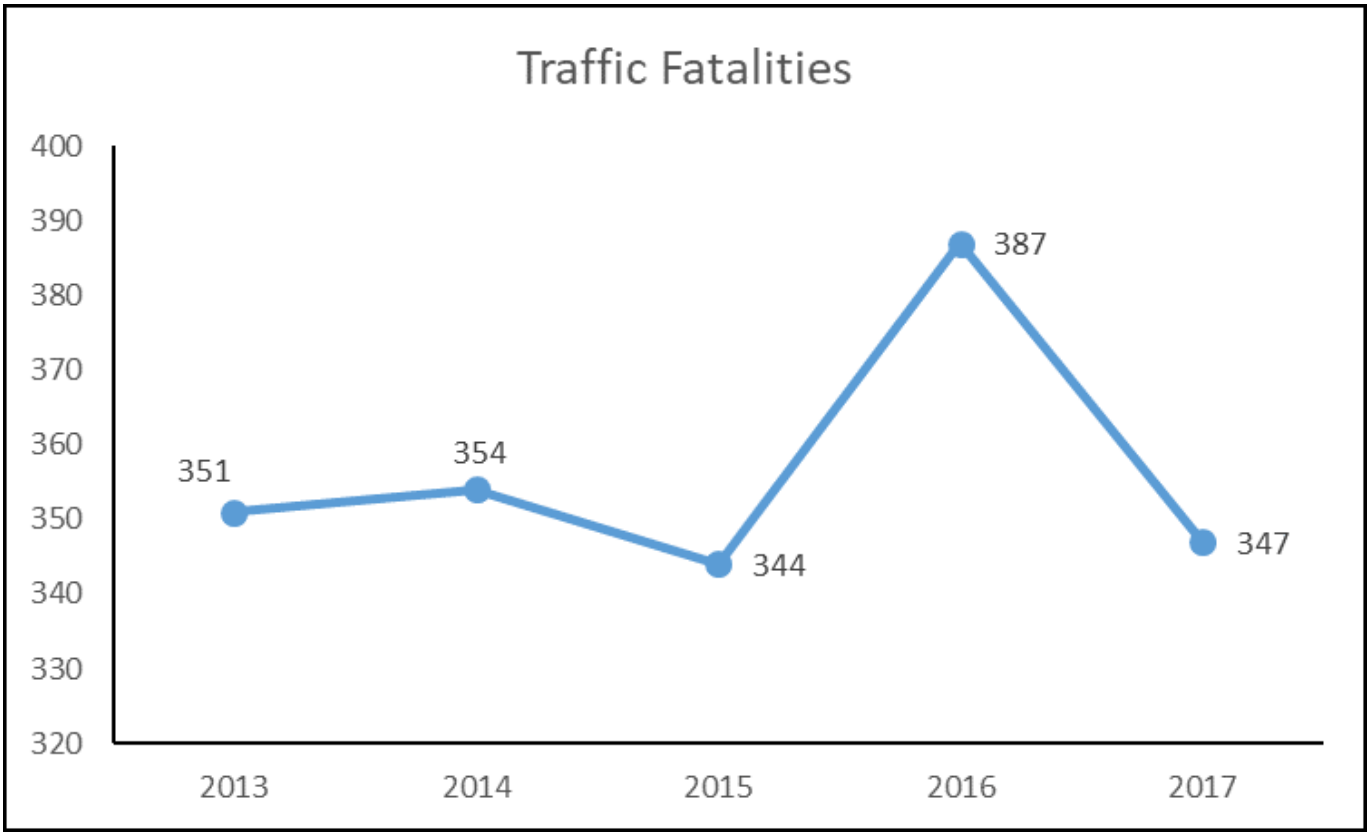
Because of this requirement, the actual data results shown for 2013-2017 may not support, at this time, the projections for 2020.

C-1 Traffic Fatalities

For the FFY 2020 HSP, OGR is projecting that the five-year average for traffic fatalities will drop 3% from 358 in 2018 to 347 by December 31, 2020.

Historical data suggests that the 387 deaths reported in 2016 will be an outlier and that data from 2018 and 2019 should show a return to the norm. As the chart below shows, the 387 reported fatalities in 2016 were preceded by three years with lower totals. Plus, the fatalities for 2017 were over 10% lower than in 2016.

Figure 6: Traffic Fatalities, 2013-2017



OGR is also confident that the slate of planned activities for FFY 2020 will help to further reduce traffic fatalities as the integrated approach of enforcement, education and media outreach positively impacts occupant and non-occupant behaviors on the roadways of Massachusetts.

Performance Measure: C-2) Number of serious injuries in traffic crashes (State crash data files)

Performance Target details

Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year
C-2) Number of serious injuries in traffic crashes (State crash data files)-2020	Numeric	2689.00	5 Year	2016

Program-Area-Level Report

For FFY 2020, OGR projects that the five-year average for serious injuries will decrease 4% from 2,810 in 2018 to 2,689 by December 31, 2020.

Serious injuries have declined nearly 20% since 2013 and OGR is confident it will continue falling in light of the jump in seat belt usage from 77% in 2017 to 82% in 2018. Safety improvements to vehicles such as collision alerts and automatic braking will further increase the safety of users of Massachusetts' roadways.

Figure 7: Serious Injuries, 2013-2017

OGR expects its FFY 2020 planned activities to have a positive impact on serious injuries with enforcement, education and media campaigns aimed at increasing safety awareness, especially wearing seat belts, distractions, impairment and maintaining reasonable speeds. Each person that wears a seat belt, drives attentively, soberly and under control increases his/her chances of surviving a crash with minimal or no injuries.

Performance Measure: C-3) Fatalities/VMT (FARS, FHWA)

Performance Target details

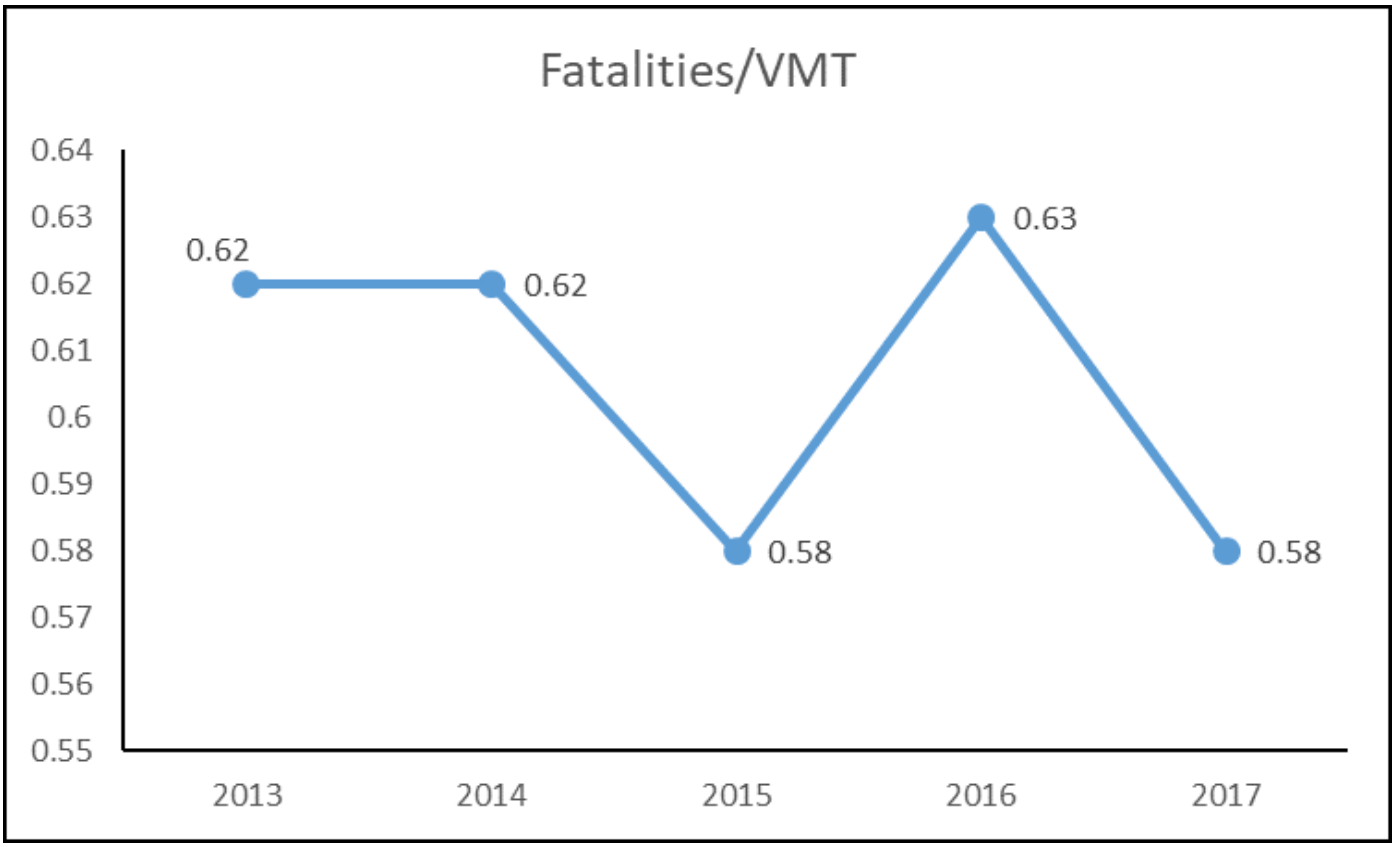
Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year
C-3) Fatalities/VMT (FARS, FHWA)-2020	Numeric	0.56	5 Year	2016

Performance Target Justification

C-3 Fatalities/VMT For FFY 2020, OGR projects the five-year average for fatalities/VMT will drop 3.5% from 0.57 in 2018 to 0.56 by December 31, 2020. In 2017, the number of fatalities dropped over 10% from 2016 and the five-year average for fatalities declined 2%. Concurrently, VMT is expected to continue rising nearly 1% yearly. This combination of increasing VMT and declining fatalities over the next few years will result in lower fatality/VMT rates.

Figure 8: Fatalities/VMT, 2013-2017

Preliminary fatality data for 2018 from RMV indicates the number of motor vehicle-related fatalities is 360. With the VMT expected to increase at least 1% in 2018, the five-year fatalities/VMT rate is projected to be 0.59. While preliminary numbers will likely lead to an unchanged five-year average rate in



2018, OGR is confident the successful implementation of its grant programs during FFY 2019 will lead to lower fatalities in 2019 that will help meet the goal of 0.56 by December 31, 2020.

Performance Measure: C-4) Number of unrestrained passenger vehicle occupant fatalities, all seat positions (FARS)

Performance Target details

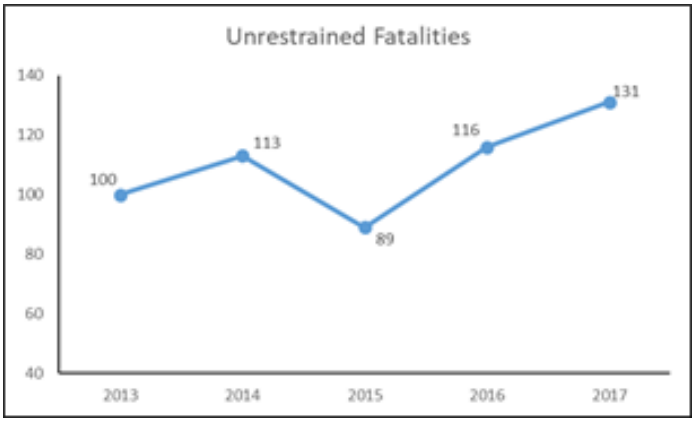
Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year
C-4) Number of unrestrained passenger vehicle occupant fatalities, all seat positions (FARS)-2020	Numeric	108.00	5 Year	2016

Program-Area-Level Report

C-4 Unrestrained MV Occupant Fatalities

For FFY 2020, the performance target is to decrease the five-year average for unrestrained passenger vehicle fatalities 2% from 110 in 2017 to 108 by December 31, 2020. After hitting a ten-year low in 2015, unrestrained fatalities have risen substantially in the following years. OGR is cautiously optimistic the jump in seat belt usage rate from 74% to 82% in 2018 is reflective of a more educated and knowledgeable motor vehicle occupant population, which would lead to lower unrestrained fatalities in 2018 and 2019.

Figure 9: Unrestrained Fatalities, 2013-2017



Given the recent increase in unrestrained fatalities, a 2% decline in the five-year average by December 31, 2020 is prudent. As done in FFY 2019, OGR will utilize detailed unrestrained data to focus messaging for seat belt usage and awareness campaign in key 'hot spots' across Massachusetts. These 'hot spots' include the counties of Worcester, Bristol and Plymouth – which account for 43% of all unrestrained fatalities from 2013 to 2017. In terms of the age range, the 21-29 segment accounted for 27% of all unrestrained fatalities and OGR will tailor messaging to appeal to drivers and passengers in that age bracket.

Performance Measure: C-5) Number of fatalities in crashes involving a driver or motorcycle operator with a BAC of .08 and above (FARS)

Performance Target details

Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year
C-5) Number of fatalities in crashes involving a driver or motorcycle operator with a BAC of .08 and above (FARS)-2020	Numeric	124.00	5 Year	2016

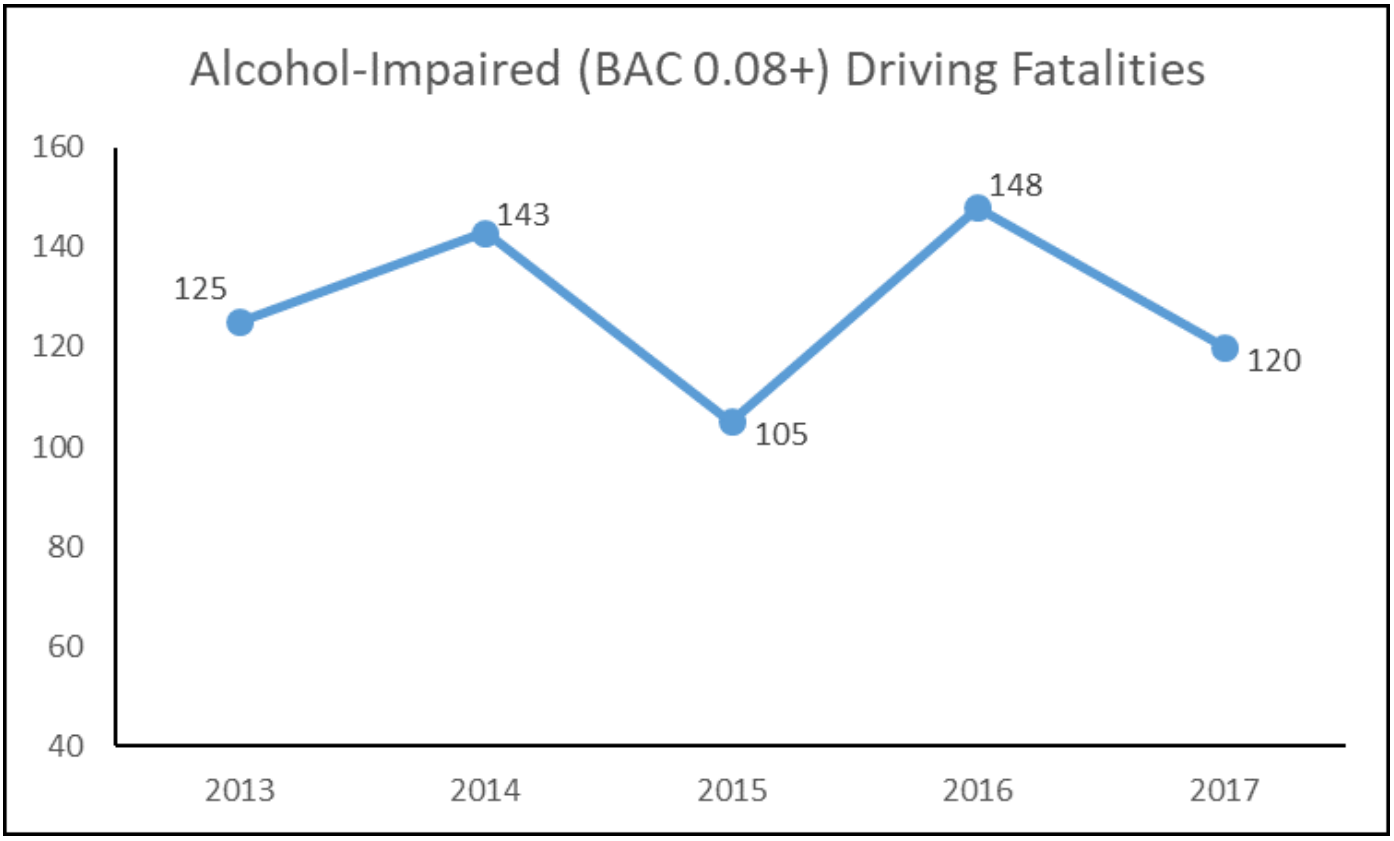
Performance Target Justification

C-5 Alcohol-Impaired Driving Fatalities (BAC = 0.08 or higher)

For FFY 2020, the performance target is to decrease alcohol-impaired driving fatalities 3% from the five-year average of 128 in 2017 to 124 by December 31, 2020. The fluctuation in alcohol-impaired driving fatalities makes it difficult to predict what 2018, 2019 and 2020 may bring.

Figure 10: Alcohol-Impaired Fatalities, 2013-2017

OGR decided to decrease the target to 3% from 5% used in FFY 2019 as a hedge against the unpredictable nature of alcohol-impaired fatalities on a year-to-year basis. For FFY 2020, there will be increased coordination between OGR and ABCC to better target areas of high impaired driving rates and expose establishments known for providing last drinks to drivers involved in fatal crashes. Additionally, the MSP Sobriety Checkpoint & Saturation Patrol Planned Activity will be structured to focus resources on clusters of communities that have



high incidences of impaired driving fatalities on local Roads. There will be extra emphasis on engaging local police departments to participate in the activities.

Performance Measure: C-6) Number of speeding-related fatalities (FARS)

Performance Target details

Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year
C-6) Number of speeding-related fatalities (FARS)-2020	Numeric	93.00	5 Year	2016

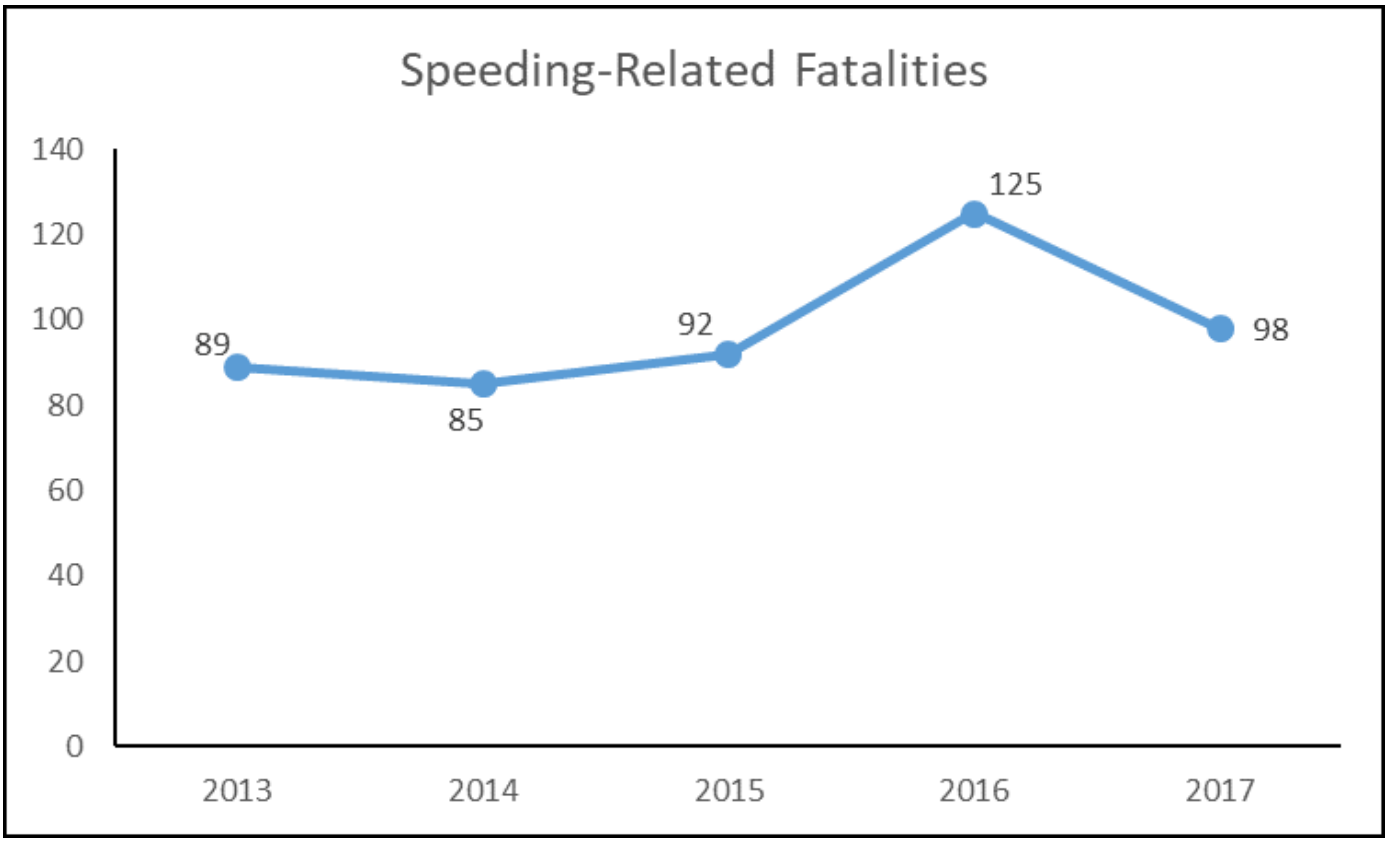
Performance Target Justification

C-6 Speeding-Related Fatalities

For FFY 2020, the performance target is to decrease speed-related fatalities 5% from the five-year average of 98 in 2017 to 93 by December 31, 2020. After a 22% drop in fatalities from 2016 to 2017, OGR is confident the 125 fatalities reported in 2016 is an outlier and speed-related deaths will return to mean of the previous three years (89, 2013-2014), making the target of 93 by 2020 feasible.

Figure 11: Speed-Related Fatalities, 2013-2017

OGR will be implementing two, speed-specific programs in FFY 2020. One will be implemented by MSP and the other will be incorporated as a new enforcement component of the Local Police Traffic Enforcement Grant Program. Also, subrecipients of the STEP and Pedestrian and Bicycle grants will continue to provide data in reports regarding the issuance of speed-related violations. Law enforcement, especially those in regions with high speed-related fatalities such as Worcester and Hampden counties, will be provided detailed data to better



align their overtime enforcement patrols with recent trends. One recommendation for FFY 2020 will be to have more patrols during the months of July, October, and November – which account for over 33% of all speed-related fatalities from 2013 to 2017.

Performance Measure: C-7) Number of motorcyclist fatalities (FARS)

Performance Target details

Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year
C-7) Number of motorcyclist fatalities (FARS)-2020	Numeric	46.00	5 Year	2016

Performance Target Justification

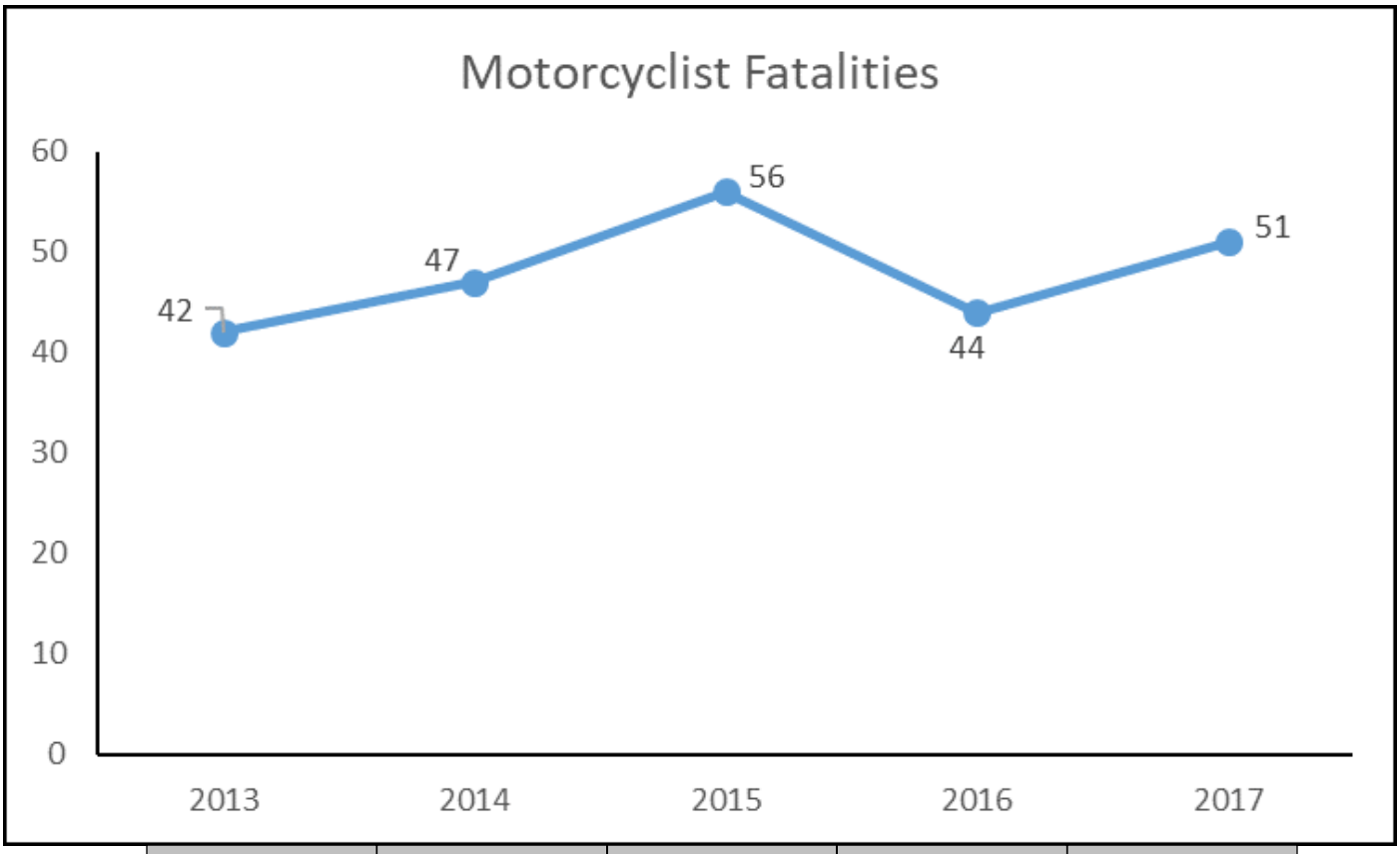
C-7 Motorcyclist Fatalities

For FFY 2020, the performance target is to decrease motorcyclist fatalities 5% from the five-year average of 48 in 2017 to 46 by December 31, 2020. Despite the increase in fatalities from 2016 to 2017, the five-year average dropped 2% from 49 to 48. The number of motorcycle fatalities per 100 million VMT has declined from 0.09 in 2013 to 0.08 in 2017, an 11% drop.

Figure 12: Motorcyclist Fatalities, 2013-2017

Performance Measure: C-8) Number of unhelmeted motorcyclist fatalities (FARS)

Performance Target details



Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year
C-8) Number of unhelmeted motorcyclist fatalities (FARS)-2020	Numeric	3.00	5 Year	2016

Performance Target Justification

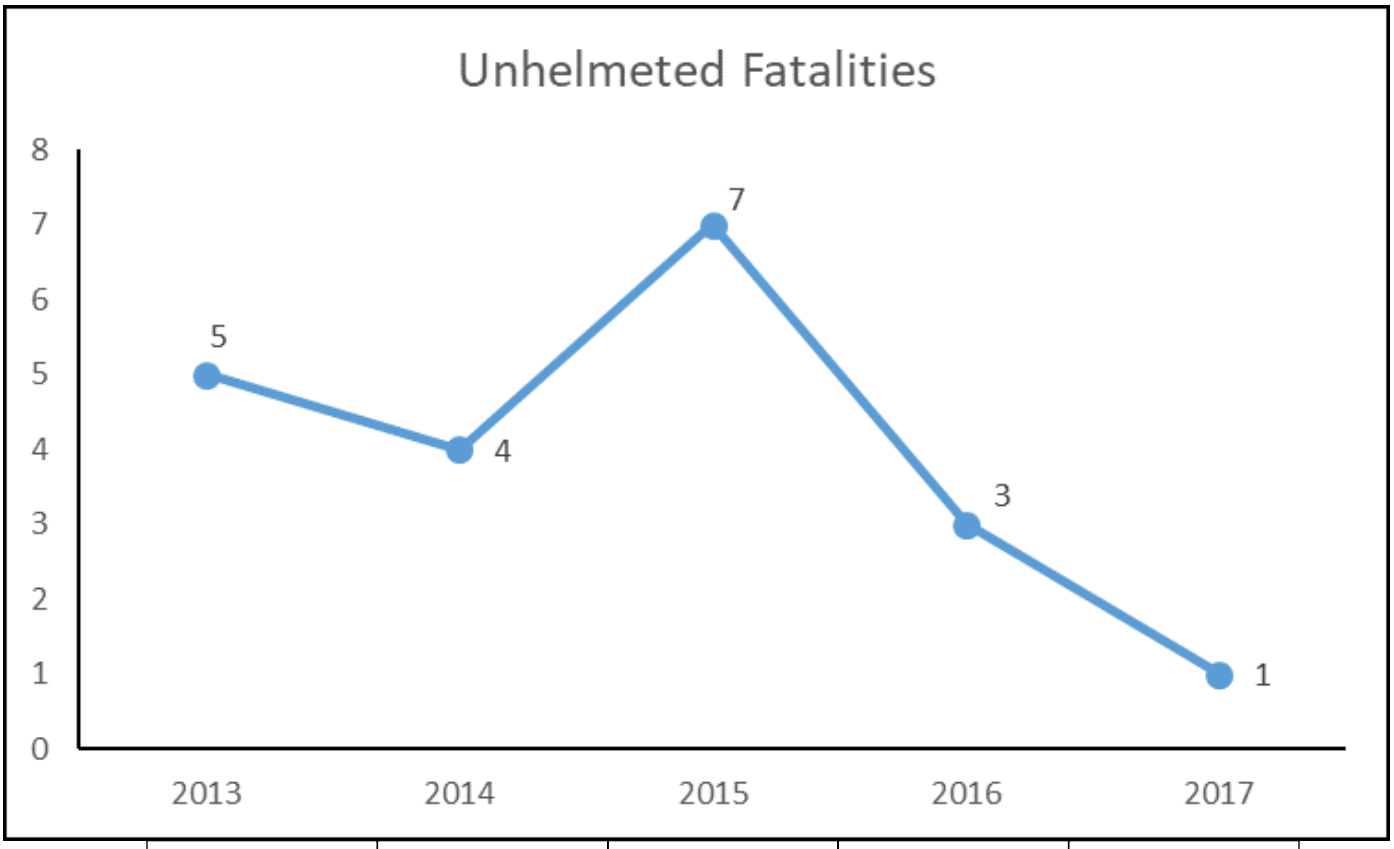
C-8 Unhelmeted Motorcyclist Fatalities For FFY 2020, the performance target is to decrease unhelmeted motorcycle fatalities 25% from the five-year average of 4 in 2017 to 3 by December 31, 2020. Since 2015, unhelmeted fatalities have fallen from seven to one – an 85% drop.

Figure 13: Unhelmeted Fatalities, 2013-2017 Despite the decline in unhelmeted motorcycle fatalities, OGR will continue working on effective messaging on the dangers of not wearing helmets, especially among the 21-24 age range. These riders accounted for 20% of all motorcyclist fatalities from 2013-2017.

Performance Measure: C-9) Number of drivers age 20 or younger involved in fatal crashes (FARS)

Performance Target details

Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year



C-9) Number of drivers age 20 or younger involved in fatal crashes (FARS)-2020	Numeric	35.00	5 Year	2016

Performance Target Justification

C-9 Young Drivers (Age 20 or younger) Involved in a Fatal Crash

For FFY 2020, the performance target is to decrease the number of young drivers (age 20 or under) involved in fatal crashes 5% from the five-year average of 36 in 2017 to 35 by December 31, 2020.

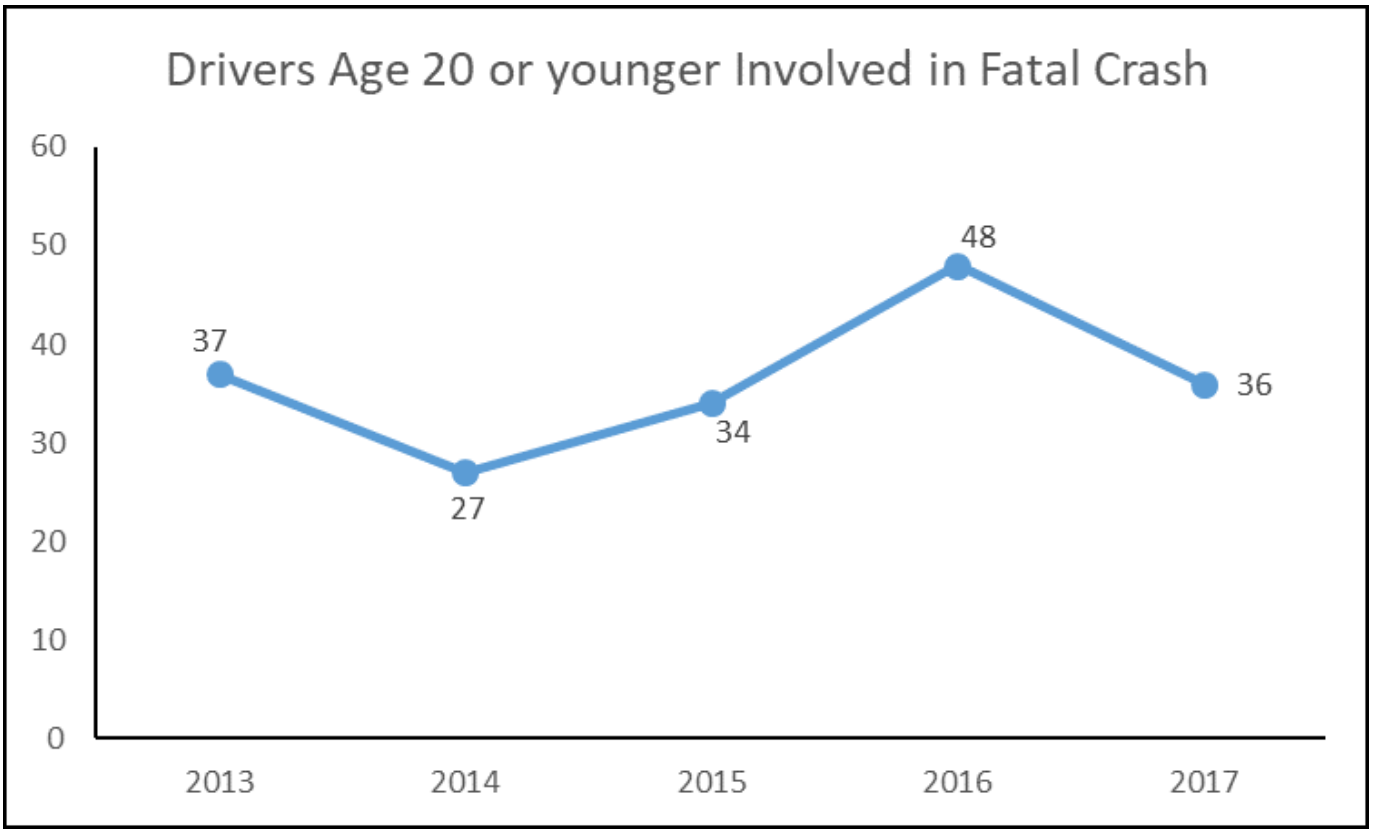
Figure 14: Young Drivers in Fatal Crashes, 2013-2017

After hitting an all-time low of 27 in 2014, the number of drivers under 21 years of age in a fatal crash has increased by 33% to 36 in 2017. While this is very concerning, the five-year average for 2013-2017 dropped nearly 5% to 36. Furthermore, young drivers accounted for only 8% of all drivers involved in a fatal crash from 2013-2017 meaning OGR's messaging as well as Junior Operator Laws (JOL) are having a positive impact.

Performance Measure: C-10) Number of pedestrian fatalities (FARS)

Performance Target details

Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year
C-10) Number of pedestrian fatalities (FARS)-2020	Numeric	73.00	5 Year	2016



Performance Target Justification

C-10 Pedestrian Fatalities

For FFY 2020, the performance target is to decrease pedestrian fatalities 5% from the five-year average of 76 in 2017 to 73 by December 31, 2020.

Figure 15: Pedestrian Fatalities, 2013-2017

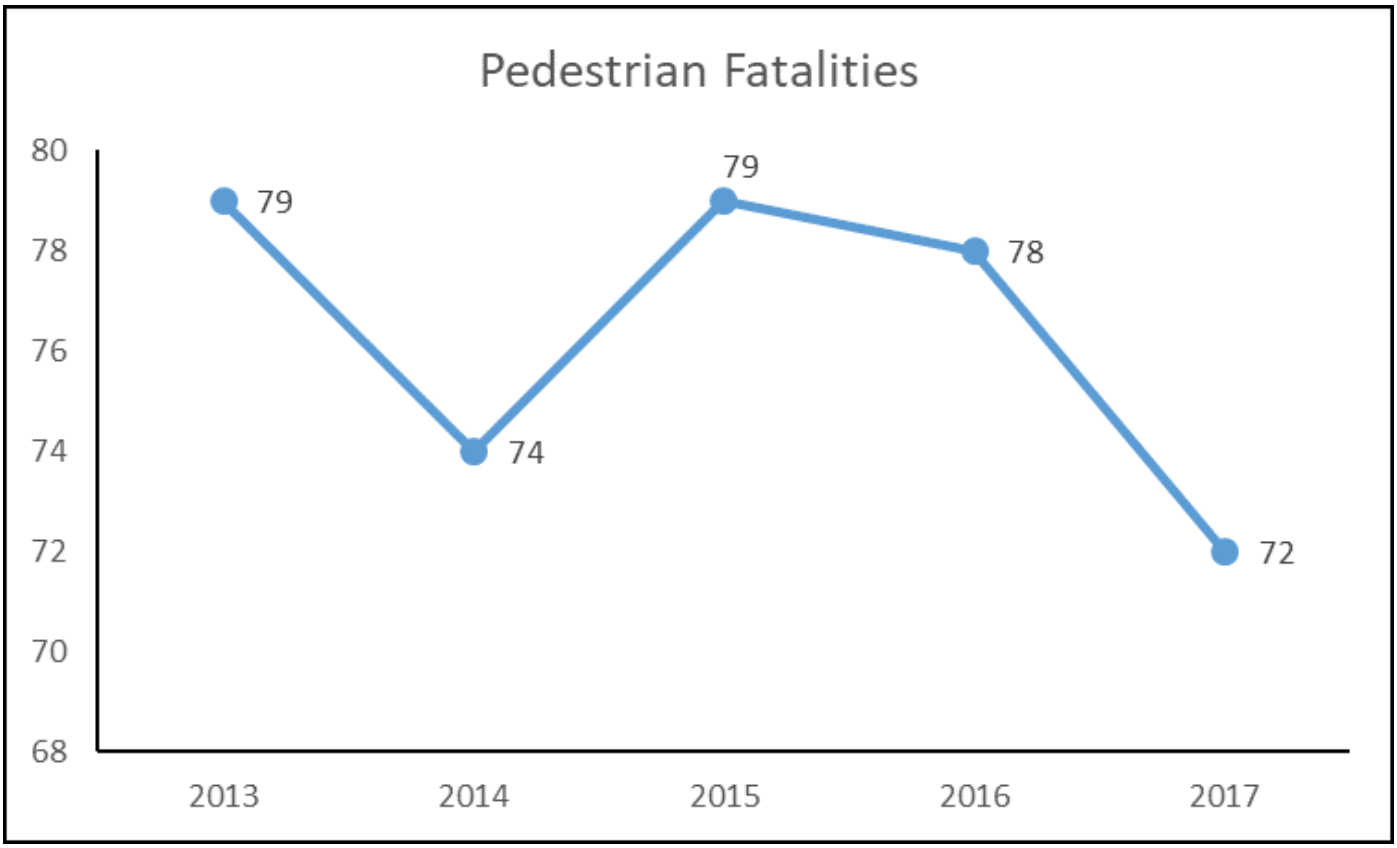
For the second consecutive year, pedestrian fatalities have declined. Since 2013, fatalities have decreased 9% and the five-year average has gone down nearly 3%. In FFY 2020, OGR will seek to expand the pool of potential applicants to the Pedestrian/Bicycle Enforcement and Equipment Grant Program as well as continue to allow subrecipients the option of spending an allotted percentage of their awarded funding on pedestrian and/or bicycle safety-related equipment such as crosswalk signs and reflectors.

OGR will reach out to communities within Suffolk County (Boston, Revere, Chelsea, Winthrop) to apply for Pedestrian and Bicyclist Enforcement and Equipment Grant Program funding as Suffolk had pedestrians and bicyclist accounting for 48% of all traffic fatalities from 2013-2017. Having Suffolk involved, especially Boston, will help improve pedestrian safety in FFY 2020.

Performance Measure: C-11) Number of bicyclists fatalities (FARS)

Performance Target details

Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year
C-11) Number of bicyclists fatalities (FARS)-2020	Numeric	9.00	5 Year	2016



Performance Target Justification

C-11 Bicyclist Fatalities For FFY 2020 HSP, the performance target is to decrease bicyclist fatalities 5% from the five-year average of 10 in 2017 to 9 by December 31, 2020.

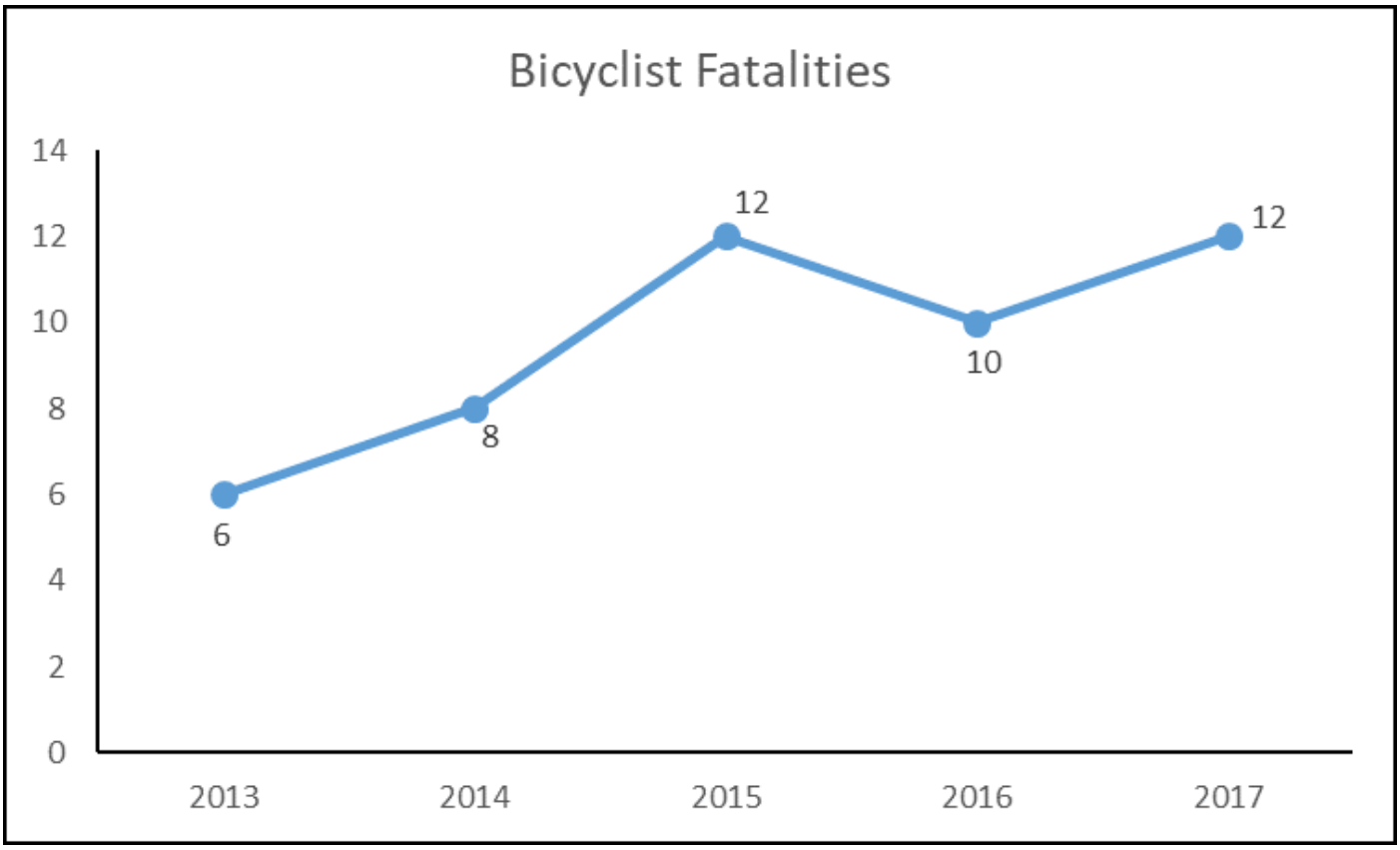


Figure 15: Bicyclist Fatalities, 2013-2017 Bicyclist fatalities rose 20% in 2017 from 10 from 12. The five-year average remained constant at 10. As with pedestrian fatalities, expanding the pool of potential applicant to the FFY 2020 Pedestrian and Bicyclist Enforcement grant will help improve bicycle safety across the Commonwealth. As mentioned in the pedestrian section above, OGR will reach out and encourage Suffolk County communities to apply for an FFY 2020 Pedestrian and Bicyclist Enforcement and Equipment Grant Program, especially Boston. The capital city saw 6% of its traffic fatalities from 2013-2017 among bicyclists. With the growth of bike rental and share programs like Blue Bikes, the number of bicyclists on the roadways of Boston – whether a resident or visitor – has risen substantially in recent years.

Performance Measure: B-1) Observed seat belt use for passenger vehicles, front seat outboard occupants (survey)

Performance Target details

Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year
B-1) Observed seat belt use for passenger vehicles, front seat outboard occupants (survey)-2020	Percentage	80.00	5 Year	2016

Performance Target Justification

B-1 Observed Seat Belt Usage Rate

For FFY 2020 HSP, the performance target is to increase the observed seat belt usage rate 4% from the five-year average of 77 in 2018 to a five-year average of 80 by December 31, 2020.

Figure 16: Observed Seat Belt Usage, 2014-2018

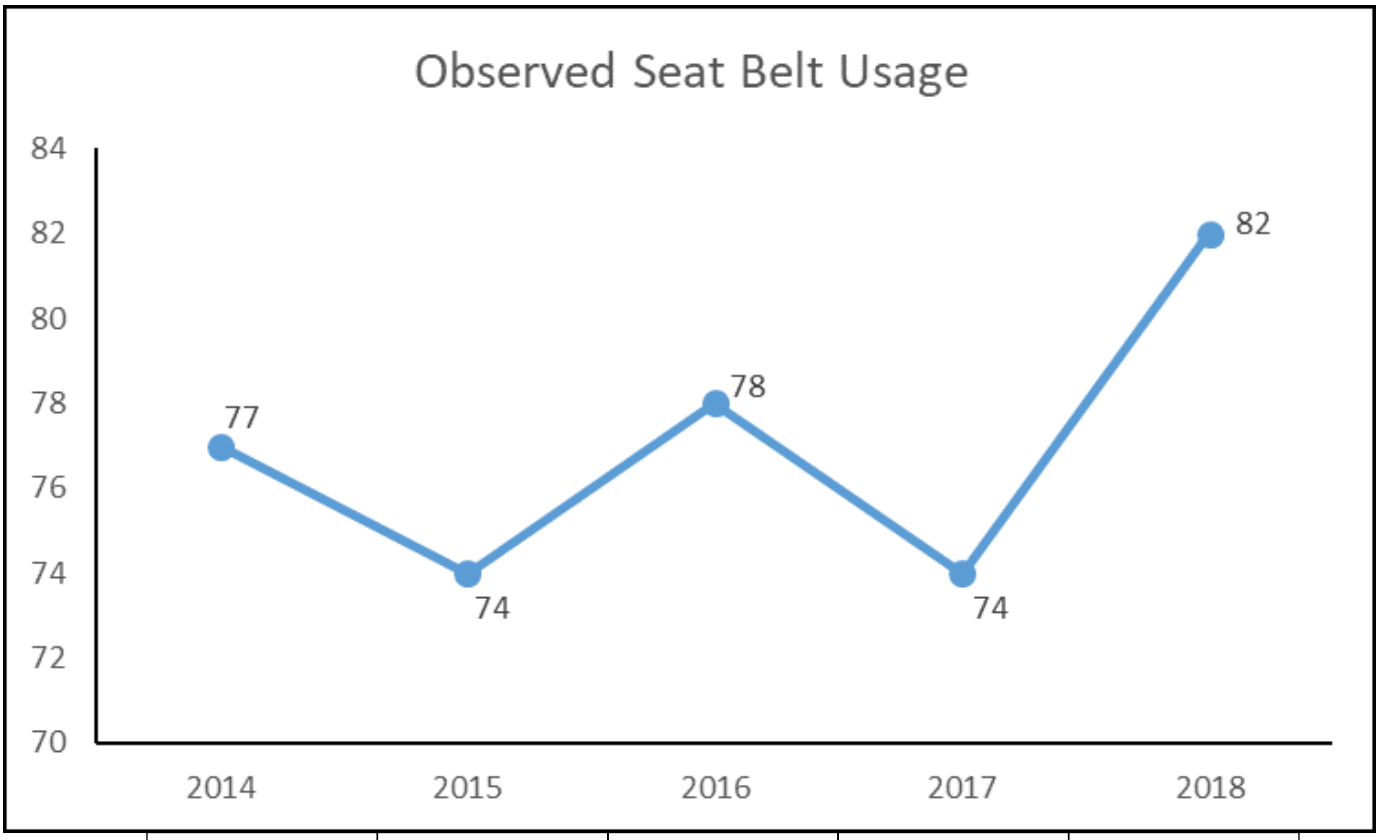
In 2018, Massachusetts saw a dramatic increase in seat belt usage. Rising from 74% to 82%, it represented a nearly 11% increase in the rate and it also was the highest usage rate ever reported for the state. Despite the rise from 2017 to 2018, OGR is cautiously optimistic the seat belt usage rate will continue improving in the coming years as evidence by performance target set for 2020. This caution is due to the history of Massachusetts' seat belt usage rate. Each year the rate rises, the following year the rate falls. Figure 16 shows how unpredictable the usage rate has been since 2014.

OGR will continue messaging the importance of seat belt usage throughout FFY 2020 as well as continue making seat belt violations among one of the key citations to be reported by law enforcement when conducting grant-funded activities.

Performance Measure: Number of distraction-affected fatal crashes

Performance Target details

Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year



Number of distraction-affected fatal crashes-2020	Numeric	27.00	5 Year	2016

Performance Target Justification

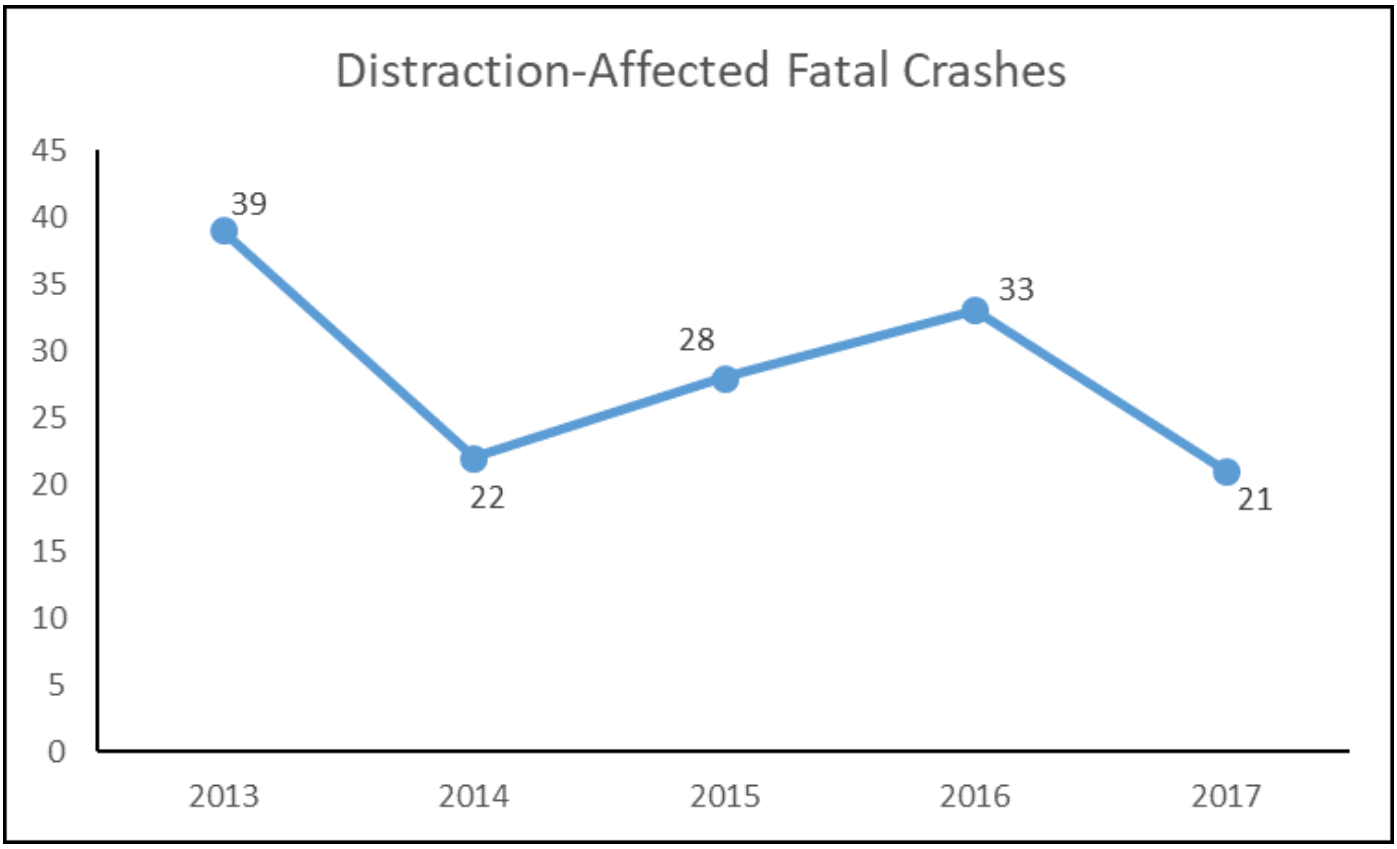
NC-1 Distraction-Affected Fatal Crashes

For FFY 2020, the performance target is to decrease the five-year average of distraction-affected fatal crashes 5% from 29 in 2017 to 27 by December 31, 2020. Since 2013, distraction-affected crashes have dropped 46%. This decline is somewhat deceiving as determining whether a distraction, especially the use of a cellphone or electronic device, attributed to a fatal crash has been found quite difficult. Of the 2,322 drivers involving in a fatal crash in Massachusetts from 2013-2017, only 143 were found to be distracted at the time of the collision, a mere 6% of all drivers. Given the popularity of cellphones as well as a multitude of internal (console dials, passengers, eating/drinking) and external (flashing lights, confusing signage, unique landmark) distractions that drivers confront each day, having only 6% of drivers distracted is hard to believe.

Figure 17: Distraction-Affected Crashes, 2013-2017

While there is a multitude of possible distractions for drivers, it is hard for police to definitively prove a distraction, whether internal or external, was a factor in a fatal crash. Lack of eyewitnesses is one issue that hinders police when trying to obtain evidence of distraction. Surviving drivers who don't recall being distracted or fail to mention having been distracted is another issue. Furthermore, the legal and bureaucratic roadblocks to obtaining cellphone records (as well as the time involved) can also discourage law enforcement from pursuing possible driver distraction.

Because of the difficulties inherent when law enforcement tries to determine if a driver in a fatal crash was distracted at the point of impact, OGR has decided to be conservative with a 2020 performance target of 5%



despite the nearly 50% drop in distracted-affected crashes since 2013.

Performance Measure: Accuracy and completeness of the Registry of Motor Vehicles' Crash Data System

Performance Target details

Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year
Accuracy and completeness of the Registry of Motor Vehicles' Crash Data System-2020	Numeric	1390	Annual	2020

Primary performance attribute: Accuracy

Core traffic records data system to be impacted: Crash

Performance Target Justification

To improve the accuracy and completeness of the RMV Crash Data System by decreasing the number of crash reports rejected for not meeting the minimum criteria to be accepted into the system from 1,466 between April 1, 2018, and March 31, 2019, to 1,390 or less between April 1, 2019, and March 31, 2020.

It is anticipated the Registry of Motor Vehicles' Law Enforcement Liaison project in FFY 2020 - building off the work done through its Data Quality Review of Crash Reports Accepted with Warning and Technical Assistance to Police Department to Improve Completeness and Reduce Errors completed in FFY 2019 - will help to further decrease the number of rejected reports and increase the accuracy and completeness of the Crash

Data System. This will be achieved through several outreach efforts by the LEL, in particular one-on-one reviews of departments' Accepted with Warning reports. Other projects detailed in the FFY 2020 Massachusetts Strategic Plan for Traffic Records Improvement will assist with reaching this target, including the Motor Vehicle Automated Citation and Crash System (MACCS) project by making submissions of crash reports easier, thus reducing the likelihood of rejected reports.

Performance Measure: Number of ambulance services submitting NEMSIS Version 3 reports

Performance Target details

Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year
Number of ambulance services submitting NEMSIS Version 3 reports-2020	Numeric	220	Annual	2020

Primary performance attribute: Completeness

Core traffic records data system to be impacted: Emergency Medical Services/Injury Surveillance Systems

Performance Target Justification

To improve the completeness of the Massachusetts Department of Public Health's Massachusetts Ambulance Trip Record Information System (MATRIS) by increasing the number of ambulance services submitting NEMSIS Version 3 reports to the system from 8 between April 1, 2018 and March 31, 2019 to 220 or more between April 1, 2019 and March 31, 2020.

It is expected that the two MATRIS related projects for FFY 2020 will increase the number of ambulance services submitting NEMSIS Version 3 reports to the system, increasing the completeness of the data into the system as well as other aspects of its data quality. Another project detailed in the FFY 2020 Massachusetts Strategic Plan for Traffic Records Improvement, the Boston Cyclist, Pedestrian, and Vehicular Incident Information System Enhancement, will assist with reaching this target by also improving the data quality of the Version 3 submissions from Boston EMS to MATRIS.

Performance Measure: Development of a new MassTRAC

Performance Target details

Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year
Development of a new MassTRAC-2020		1.00	Other	2019

Primary performance attribute: Accessibility

Core traffic records data system to be impacted: Crash

Performance Target Justification

To develop a business plan for a new MassTRAC and have it approved by the TRCC by December 31, 2019. It is anticipated achievement of this target will enable EOPSS/OGR to secure TRCC approval of upwards of $375,000 of Section 405-c funding for plans to collaborate with MassDOT to further expand its Crash Data Portal that was updated in July 2019. It is expected Section 402 funding in FFY 2020 would secure a vendor to develop a business plan and budget to add additional capabilities, data sets, etc. that traffic records stakeholders need, in particular law enforcement and frequent users of the Crash Data Portal, that the new portal doesn't now provide. Such a plan would also document further training requirements/user support needs. The vendor would assist with presenting the business plan to the TRCC. More information on this project is in the FFY 2020 Massachusetts Strategic Plan for Traffic Records Improvement.

Certification: State HSP performance targets are identical to the State DOT targets for common performance measures (fatality, fatality rate, and serious injuries) reported in the HSIP annual report, as coordinated through the State SHSP.

I certify: No

A-1) Number of seat belt citations issued during grant-funded enforcement activities*

Seat belt citations: 5599

Fiscal Year A-1: 2018

A-2) Number of impaired driving arrests made during grant-funded enforcement activities*

Impaired driving arrests: 304

Fiscal Year A-2: 2018

A-3) Number of speeding citations issued during grant-funded enforcement activities*

Speeding citations: 7829

Fiscal Year A-3: 2018

Program areas

Program Area: Distracted Driving

Description of Highway Safety Problems

Distracted driving occurs when a driver fails to pay full attention to the task of driving and instead diverts his/her attention from the roadway. While this includes traditional distractions such as talking to passengers, eating, and adjusting radio controls, the use of hand-held and built-in electronic devices such as phones, tablets, infotainment systems, laptop computers, and GPS has quickly added significant major risks to the safety and health of all road users. Compounding this problem is the continued exponential growth and use of smartphone apps.

An additional issue related to distracted driving is that data may reflect an under-reporting of the problem. Unless a driver, passenger, or witness to the crash confirms the distracted behavior, law enforcement must get access to cell phone records to confirm any usage at the point of impact or just before a crash occurred, and that does not always happen.

In 2017, nine percent of all fatal crashes in the U.S. were reported as 'distraction-affected' (Traffic Safety Facts - Distracted Driving 2017, DOT HS 812 700, April 2019) involving one or more of the following distractions: an

occupant; a moving object in the vehicle, talking on a cell phone; manipulating a cell phone; adjusting audio, climate or other controls in vehicle; reaching for a device or object; an outside person, object, or event; eating or drinking; smoking; daydreaming; and general distraction/carelessness.

Of the 2,994 drivers killed in a distraction-affected fatal crash in the United States in 2017, 36% (1,087 drivers) were under 30 years of age. This under 30 age group was found to be using a cell phone in 20% of fatal crashes (214 of 1,087). In Massachusetts, there were 22 documented 'distraction-affected' fatal crashes in 2017, six percent of all fatal crashes. These crashes resulted in 24 fatalities or 7% of all fatalities. The percentage of drivers under age 30 involved in a distracted driving crash was 32% (7 of 22) in 2017, lower than the national rate of 36%.

From 2013 to 2017, Massachusetts had 2,325 drivers involved in fatal crashes. Of these crashes, 146 drivers were documented as a 'distraction-affected' and there were 149 fatalities. Fifty-three drivers, or 36%, of the 146 drivers perished in a crash.

Table 29 shows how much males dominate nearly every type of distraction compared to females. Sixty-eight percent of distracted drivers were male. This is not too surprising given that male drivers account for over 70% of all drivers in crashes from 2013-2017.

"Driver Distracted by" Element	Gender		Total
	Male	Female	
By Other Occupant	3	2	5
By A Moving Object In Vehicle	0	0	0
While Talking Or Listening To Cellular Phone	2	5	7
While Manipulating Cellular Phone	4	1	5
Adjusting Audio Or Climate Controls	2	0	2
While Using Other Component/Controls Integral To Vehicle	0	0	0
While Using Or Reaching For Device/Object Brought Into Vehicle	0	1	1
Distracted By Outside Person, Object Or Event	10	3	13
Eating Or Drinking	7	1	8
Smoking Related	0	0	0
Other Cellular Phone Related	2	1	3
Distraction/Inattention	31	15	46
Distraction/Careless	3	0	3
Careless/Inattentive	13	3	16
Distraction (Distracted), Details Unknown	0	1	1
Inattention (Inattentive), Details Unknown	22	14	36
Lost In Thought / Day Dreaming	0	0	0
Total	99	47	146

Table 29: Driver Distraction by Gender, 2013-2017

10% of all distraction-affected fatal crashes from 2013-2017 were cellphone-related. The elements of ‘distraction/inattention’ and ‘inattention (inattentive)’ were cited in over half the drivers involved in a crash. Outside the vehicle or external distractions were cited in 9% of crashes with males accounting for 10 of the 13 drivers involved.

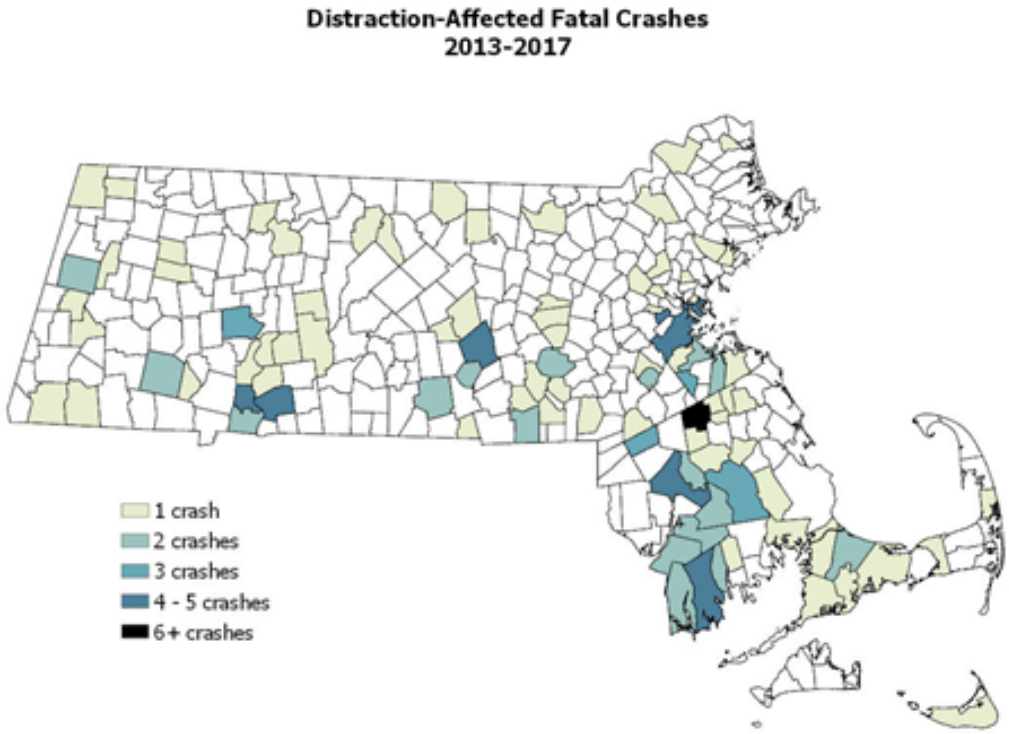
Table 30: Driver Distraction by Age Group, 2013-2017

To get a better sense of the stratification of the type of driver distraction, age groups provide a clearer view of driver behavior in a distraction-affected crash. Table 30 displays driver distraction across six age groups. The first thing that stands out is the double-digit numbers associated with the aged 60 and older drivers for ‘distraction/inattention’ and ‘inattention (inattentive)’.

Drivers under the age of 30 accounted for 60% of cell phone-related distractions. Overall, those under age of 30 were involved in 38% (55 of 146) of all distraction-affected crashes.

"Driver Distracted by" Element	16-20	21-29	30-39	40-49	50-59	60+	Total
By Other Occupant	0	1	2	1	1	0	5
While Talking Or Listening To Cellular Phone	1	4	1	1	0	0	7
While Manipulating Cellular Phone	1	2	0	0	1	1	5
Adjusting Audio Or Climate Controls	0	1	1	0	0	0	2
While Using or Reaching for Device/Object	0	0	0	0	1	0	1
Distracted By Outside Person, Object Or Event	4	1	5	1	1	1	13
Eating Or Drinking	1	3	1	0	0	3	8
Other Cellular Phone Related	1	0	0	1	1	0	3
Distraction/Inattention	9	5	4	6	7	15	46
Distraction/Careless	1	2	0	0	0	0	3
Careless/Inattentive	3	6	1	1	2	3	16
Distraction (Distracted), Details Unknown	0	0	1	0	0	0	1
Inattention (Inattentive), Details Unknown	3	6	7	1	7	12	36
Total	24	31	23	12	20	35	

Where, when and how are distraction-affected fatal crashes happening? In the map below, most of the towns with multiple crashes are near the metro regions of Boston, Springfield, and Worcester as well as in Bristol County. Both Bristol and Worcester Counties reported 23 fatal crashes from 2013-2017.



Top communities for distraction crashes were Brockton (7), Boston (5), Dartmouth (5), Springfield (5), and Worcester (5).

Given that distracted driving results in a driver taking his/her eyes off the road in front of him/her, one would think rear-end collisions would be the most frequent type of collision in a distraction-affected fatal crash. Oddly, the data from 2013-2017 does not support this hypothesis. In fact, 60% of all distraction-affected crashes occurred without a collision with another motor vehicle. Rear-end collisions (or front-to-rear) were the third most frequent collision behind angle and no motor vehicle involved.

Table 31: Type of Distraction-Affected Collision by County, 2013-2017

Plymouth led all counties with 55% of its distraction-affected crashes involving a collision with another vehicle. Surprisingly, Suffolk (home to Boston) had the lowest, with 17%.

Most distraction-affected crashes took place on either principal or minor arterial roads. These two roadway types accounted for over half the crashes from 2013-2017. Local roads made up 23% of the crashes. It is not

County	No Collision with MV	Front-to-Rear	Front-to-Front	Angle	Sideswipe Same Direction	Total
BARNSTABLE	4	2	1	1	0	8
BERKSHIRE	6	0	0	2	0	8
BRISTOL	14	3	3	3	0	23
DUKES	0	0	0	0	0	0
ESSEX	2	2	0	1	0	5
FRANKLIN	2	0	0	0	0	2
HAMPDEN	12	1	1	2	0	16
HAMPSHIRE	6	0	0	2	1	9
MIDDLESEX	6	2	0	2	0	10
NANTUCKET	1	0	0	0	0	1
NORFOLK	6	3	1	2	1	13
PLYMOUTH	10	3	5	4	0	22
SUFFOLK	5	1	0	0	0	6
WORCESTER	14	2	3	4	0	23
Total	88	19	14	23	2	

surprising arterial and local roads make up the bulk of distracted driving crashes as these roadways tend to have traffic signals and stop signs – places where drivers can easily get distracted while waiting for a light to change or for the person ahead of them to move. Furthermore, these roadways tend to have lower speed limits

Table 32: Distraction-Affected Fatal Crashes by Roadway Types, 2013-2017

Roadway Type	Total Fatal Crashes	Percent of All Fatal Crashes
Interstate	19	13%
Freeways/Expressways	7	5%
Principal Arterial	36	25%
Minor Arterial	38	26%
Major Collector	13	9%
Minor Collector	0	0%
Local	33	23%
Total	146	

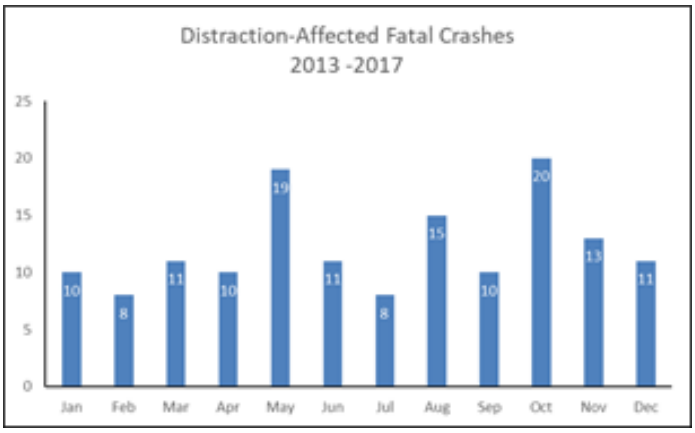
and studies have shown distracted driving, especially when using an electronic device, results in drivers slowing down rather than speeding up to focus on the distraction. Of the 146 crashes from 2013-3017, only 31 (21%) involved speeding. For comparison, speed-related crashes during the same period accounted for nearly a third of all crashes.

When are these crashes occurring? Data from 2013-2017 reveals that nearly 70% of crashes take place between 9 am and 9 pm and Friday is the top day for crashes. Over three-fourths of crashes that day took place between 9 am and 9 pm. Saturday, surprisingly, had the lowest total for crashes. Distracted driving crashes taper off during the evening and early morning hours with 21% of crashes happening between 9 pm and 6 am.

	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Total
12am - 2:59am	4	2	0	2	0	1	3	12
3am - 5:59am	1	2	0	0	1	2	0	6
6am - 8:59am	1	4	4	5	1	1	0	16
9am - 11:59am	3	3	2	2	2	8	2	22
12pm - 2:59pm	5	3	5	5	5	5	1	29
3pm - 5:59pm	4	3	1	5	2	6	1	22
6pm - 8:59pm	2	5	6	1	3	7	1	25
9pm - 11:59pm	3	1	1	1	0	4	3	13
Total	23	23	19	21	14	34	11	

Table 33: Distraction-Affected Fatal Crashes by Time and Day, 2013-2017

Figure 27: Distraction-Affected Fatal Crashes by Month, 2013-2017



The last data element to examine regarding distracted driving crashes is by month. Three months stand out – May, August, and October. May is puzzling as it is the month following the annual nationwide Distracted Driving Awareness Month of April. Although the communications and heightened enforcement campaigns seem to work well during April, the effects appear to diminish by May. OGR plans to extend messaging about distracted driving beyond April to better cement awareness of the dangers inherent in driver inattentiveness. Further analysis is needed to determine what factors may be leading to increased crashes in both August and October. One possible factor in October could be less light in the evening with darkness falling sooner. Drivers could be distracted by the headlights of other cars or may have trouble making out signs due to decreased light resulted in eyes not focused on the roadway.

While distraction-affected fatal crashes have fluctuated in recent years, they have dropped 43% from 2013 to 2017. Despite this positive trend, the whole picture of distracted driving is incomplete. Determining if a driver was distracted at the time of the crash is extremely difficult for law enforcement investigators. Without eyewitnesses, a driver could easily lie about what he/she was doing prior to the crash to avoid any fines or penalties. A driver may honestly not recall what he/she was doing due to shock or a head injury. In general, the reported number of crashes involving distraction-affected drivers should be higher than it is, and OGR will work with partners in FFY 2020 to more effectively spread the message on the dangers of distracted driving. Furthermore, law enforcement involved in the distracted driving enforcement planned activities (DD-20-02, DD-20-03) will conduct overtime activities during the key hours and days detailed in this section as well as along high volume arterial and local roads across the state.

Associated Performance Measures

Fiscal Year	Performance measure name	Target End Year	Target Period	Target Value
2020	Number of distraction-affected fatal crashes	2020	5 Year	27.00

Countermeasure Strategies in Program Area

Countermeasure Strategy

Communication Campaign
High Visibility Cellphone/Text Messaging Enforcement
Highway Safety Office Program Management

Countermeasure Strategy: Communication Campaign

Program Area: Distracted Driving

Project Safety Impacts

Public outreach, whether by radio, television, outdoor displays or social media, is necessary to spread the message of paying attention to the road while behind the wheel. OGR sees media campaigns for distracted driving as having a two-fold impact - 1) to support and enhance the importance of keeping one's eyes on the road when driving during the planned distracted driving enforcement mobilization in April 2020; and 2) to continue reminding Massachusetts drivers of the dangers involved in using cell phones while behind the wheel.

Linkage Between Program Area

Distracted driving media campaigns will help lower the number of distracted driving crashes by making drivers aware on a regular basis of the dangers of not paying attention to the road while driving.

Rationale

Media campaigns are the best way to impact a large audience with the limited funds available.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
DD-20-01	Distracted Driving Media

Planned Activity: Distracted Driving Media

Planned activity number: DD-20-01

Primary Countermeasure Strategy ID: Communication Campaign

Planned Activity Description

OGR will develop and implement a statewide paid and earned media campaign which will highlight the dangers of distractions, state laws, and the work of local and MSP to deter distracted driving. Media will run in support of the April 2020 state and local enforcement mobilization and the September 2020 MSP mobilization. OGR will analyze state and local crash and fatality data as well as research on mobile and app usage trends, to identify the target audience(s) and the appropriate media to reach them. Public outreach will extend beyond the mobilizations to ensure the message is active during periods when fatal distracted crashes spike.

OGR will continue to message to the parents of teen drivers age 15-19 as this age group represents one of the largest proportions of drivers distracted at the time of fatal crashes. Paid and earned media funds will highlight the dangers of distractions during the "100 Deadliest Days" from Memorial-Labor Day.

OGR will contract with a marketing and advertising vendor. Internal policies will be 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 will be used not only for planning enforcement activities but also to determine the target audiences and media channels used to reach that audience. NHTSA's guidelines will be followed for messaging, demographics, best practices and target groups for each media effort.

Countermeasure Strategy Justification: Communication Campaign

Public outreach, whether by radio, television, outdoor displays or social media, is necessary to spread the message of paying attention to the road ahead while behind the wheel. OGR sees media campaigns for distracted driving as having a two-fold impact: 1) to support and enhance the importance of attentive driving during the planned distracted driving enforcement mobilization in April 2020; and, 2) to continue reminding Massachusetts drivers of the dangers involved in using cell phones while behind the wheel.

Intended Subrecipients

Media vendor yet to be determined through state procurement process.

Countermeasure strategies

Countermeasure Strategy
Communication Campaign

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2020	FAST Act NHTSA 402	Paid Advertising (FAST)	$250,000.00	$62,500.00	$0.00

Countermeasure Strategy: High Visibility Cellphone/Text Messaging Enforcement

Program Area: Distracted Driving

Project Safety Impacts

The objective of this countermeasure is to deter electronic device use by increasing the perceived risk of a ticket. The high visibility enforcement approach combines law enforcement with paid and earned media supporting the enforcement activity. Enforcement officers will seek out drivers actively using or looking at their phones while driving, either through assigned patrols or having a ‘spotter’ reporting usage to an officer at a location further up the road. During FFY 2020, the State Police will participate in a coordinated effort to make the general public aware of the dangers of distracted driving as well as increasing awareness of the possibility of receiving a ticket for violating the law regarding electronic device usage while driving.

Linkage Between Program Area

From 2013 to 2017, 13% of all ‘distraction-affected’ fatal crashes in Massachusetts occurred on interstates and 25% on principal arterial roads. State Police and local police will focus its resources along those roadways within the key time frame of 9am – 6pm in which half of all distracted driving crashes occur. The counties of Worcester, Plymouth, and Bristol will be of top focus due to high distraction-affected crashes.

Rationale

High visibility enforcement activities have been shown to be an effective countermeasure to increase awareness among drivers and passengers. OGR sees the combination of enforcement and education through a targeted media campaign as the best use of funding to impact a high percentage of the driving population in Massachusetts.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
DD-20-02	MSP Distracted Driving Enforcement
DD-20-03	Local Police Distracted Driving Enforcement
DD-20-04	Higher Education Distracted Driving Media Program
DD-20-05	Community-Based Distracted Driving Grant Program
DD-20-06	Program Management - Distracted Driving

Planned Activity: MSP Distracted Driving Enforcement

Planned activity number: DD-20-02

Primary Countermeasure Strategy ID: Supporting Enforcement

Planned Activity Description

The MSP will conduct distracted driving law enforcement during April 2020, Distracted Driving Awareness Month, using internal RAMS data to determine the appropriate days, times, and locations. The April campaign will coincide with the distracted driving mobilization period conducted by local police departments participating in the Traffic Enforcement Grant program.

MSP will employ several trusted high-visibility strategies such as spotter techniques, roving marked and unmarked cruisers and SUVs, as well as stationary vehicles. Since distracted driving is associated with driving behaviors such as operating at inappropriate speeds, slow reaction time, and weaving among traffic, these behaviors will receive special attention during enforcement periods. A second distracted driving enforcement campaign is planned for September 2020 as schools reopen.

Intended Subrecipients

Massachusetts Department of State Police

Countermeasure strategies

Countermeasure Strategy
High Visibility Cellphone/Text Messaging Enforcement

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2020	FAST Act NHTSA 402	Distracted Driving (FAST)	$500,000.00	$125,000.00	$0.00

Planned Activity: Local Police Distracted Driving Enforcement

Planned activity number: DD-20-03

Primary Countermeasure Strategy ID: Sustained Enforcement

Planned Activity Description

Provide overtime funds to local police departments to conduct enforcement of distracted driving laws, planned for April of 2020 during the national Distracted Driving Awareness Month. Not only will enforcement patrols seek out violators who use cellphones and other electronic devices while driving, but also those who exhibit associated distracted driving behaviors such as operating at an inappropriate speed, slow reaction times, and weaving among traffic. Patrols will be conducted during high-risk times and locations based on the latest available state and local data.

The 2020 eligible subrecipients list will be based on overall crash rates, VMT, crashes per VMT, fatal crashes per VMT, and percentage of fatal crashes related to speed.

Although not finalized, the number of eligible departments is estimated to be approximately 171.

Countermeasure Strategy Justification: High Visibility Cellphone/Text Messaging Enforcement

The objective of this countermeasure is to deter electronics use by increasing the perceived risk of a ticket. The high visibility approach combines law enforcement with paid and earned media campaigns supporting the enforcement activity. Enforcement officers will seek out drivers actively using, or looking at their phones while driving, either through assigned patrols or having a ‘spotter’ reporting usage to an officer at a location further up the road. During FFY 2020, local police departments will participate in a coordinated effort to make the general public aware of the dangers of distracted driving as well as increasing the awareness of the risk of receiving a ticket for violating the law regarding electronic device usage while driving.

From 2013 to 2017, a quarter of Massachusetts municipalities (94 or 351) experienced at least one fatal ‘distraction-affected’ crash. OGR will encourage eligible departments from high incidence towns including Brockton, Boston, Dartmouth, Springfield, and Worcester to apply for funding. Towns within Bristol and Worcester County – the two leading counties for crashes - will also be contacted and encouraged to apply for funding.

High visibility enforcement activities have been shown to be an effective countermeasure to increase awareness among drivers and passengers. OGR sees the combination of enforcement and education through a targeted media campaign as the best use of funding to impact a high percentage of the driving population in Massachusetts.

Intended Subrecipients

Local Police Departments

Countermeasure strategies

Countermeasure Strategy
High Visibility Cellphone/Text Messaging Enforcement

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2019	FAST Act NHTSA 402	Distracted Driving (FAST)	$373,200.00	$93,300.00	$373,200.00

Planned Activity: Higher Education Distracted Driving Media Program

Planned activity number: DD-20-04

Primary Countermeasure Strategy ID: Communication Campaign

Planned Activity Description

Provide grant funds to a college or university to develop a seat belt media campaign that resonates with younger drivers. The competitive grant award will be given to an academic department such as journalism, marketing, or one related to video/advertising production. It will be required that a department faculty member oversees the project including paying for student stipends, supplies, production costs, and travel. The university will not be reimbursed for faculty salary or related costs. NHTSA funds will pay for student stipends. NHTSA funding will also be used for program-related supplies, production costs, and travel costs incurred by students and faculty. The intent is to generate messaging that is conceptualized, developed, produced, and disseminated by young people to their peers. The end product(s) may be disseminated via social or earned media. The student workers will be given day-to-day guidance from the faculty member and also be able to work with the OGR staff and media vendor for additional direction. It is hoped that the end product(s) will be accepted by the target audience as peer-to-peer messaging as opposed to government messaging.

Countermeasure Strategy Justification: Communication Campaign

OGR sees media campaigns for distracted driving as having a two-fold impact: 1) to support and enhance the importance of keeping one's eyes on the road when driving during the planned distracted driving enforcement mobilization in April 2020; and, 2) to continue reminding Massachusetts drivers of the dangers involved in using cell phones while behind the wheel.

Tapping college or university students to develop and deliver distracted driving messaging will help OGR disseminate information that is better tailored for young drivers (those under 25 years of age). Having young adults involved will lead to a campaign that will resonate with their peers. With well over 30% of distracted driving fatal crashes involving a driver under 25, this planned activity will help increase awareness among that age group and consequently lower distracted driving crashes.

Intended Subrecipients

An institute of higher education to be selected through a competitive process.

Countermeasure strategies

Countermeasure Strategy
High Visibility Cellphone/Text Messaging Enforcement

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2020	FAST Act NHTSA 402	Distracted Driving (FAST)	$10,000.00	$2,500.00	$0.00

Planned Activity: Community-Based Distracted Driving Grant Program

Planned activity number: DD-20-05

Primary Countermeasure Strategy ID:

Planned Activity Description

Competitive grant awards will be provided to one or more organizations such as Girl Scouts, Boy Scouts, PTOs, schools, faith-based and advocacy groups, etc., that will implement community-based programs. The eligible applicants may include both non-profit 501(c)(3) or governmental agencies.

This planned activity will consist of one or more data-driven competitive grant programs that will be focused in geographical areas and/or high-risk populations that have a demonstrated need in the area of distracted driving. The programs will generally be focused on raising awareness of road safety, training, and changing social attitudes and behaviors in order to reduce crashes and associated fatalities, injuries and economic losses.

This will not be a traffic enforcement program, but OGR will encourage applicants to develop new or enhance existing partnerships with law enforcement agencies to achieve project goals.

Selected grant subrecipients will develop and implement traffic safety improvement educational and awareness programs that address issues in their communities. Programs that focus on high-risk groups or behaviors will be prioritized. Organizations will be encouraged to build partnerships that incorporate a whole-community, data-driven approach to identifying and addressing road safety problems. The formation of community-wide road safety coalitions that bring together a wide constituency to focus on aspects of road safety will also be encouraged.

Projects that will develop and implement an educational curriculum that aims to install a life-long road safety culture in the Commonwealth's citizenry will also be prioritized. Projects may also incorporate social, and/or traditional media strategies to change risky behavior on the state's roadways.

The competitive grant solicitation may guide potential applicants to various informational resources such as:

National Highway Traffic Safety Administration

Centers for Disease Control and Prevention

Governors Highway Safety Association

Insurance Institute for Highway Safety

National Safety Council

American Automobile Association

The Vision Zero Network

Mothers Against Drunk Driving

Students Against Destructive Decisions

Countermeasure Strategy Justification: Communication Campaign

OGR sees media campaigns for distracted driving as having a two-fold impact: 1) to support and enhance the importance of keeping one's eyes on the road when driving during the planned distracted driving enforcement mobilization in April 2020; and, 2) to continue reminding Massachusetts drivers of the dangers involved in using cell phones while behind the wheel.

Tapping local community organizations or agencies to develop distracted driving programs will help OGR more effectively engage local communities in addressing their specific distracted driving issues. With over 20% of distraction-affected fatal crashes occurring on local roads, this planned activity will help decrease distracted

driving safety at the municipal level.

Intended Subrecipients

Non-profit and/or governmental organizations selected through a competitive process.

Countermeasure strategies

Countermeasure Strategy
High Visibility Cellphone/Text Messaging Enforcement

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2020	FAST Act NHTSA 402	Distracted Driving (FAST)	$25,000.00	$6,250.00	$25,000.00

Planned Activity: Program Management - Distracted Driving

Planned activity number: DD-20-06

Primary Countermeasure Strategy ID: Highway Safety Office Program Management

Planned Activity Description

Provide sufficient staff to manage programming described in this plan as well as cover travel, professional development expenses, conference fees, and postage and office supplies.

Countermeasure Strategy Justification: OGR Program Management

The day-to-day operation of OGR requires funding to allow staff to properly oversee the distracted driving safety program. Lack of oversight due to reduced or no funding could lead to increased speed-related fatalities on the roadways of Massachusetts.

Intended Subrecipients

Funds will support SHSO program staff and will not be subawarded.

Countermeasure strategies

Countermeasure Strategy
High Visibility Cellphone/Text Messaging Enforcement
Highway Safety Office Program Management

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2019	FAST Act NHTSA 402	Distracted Driving (FAST)	$116,721.00	$29,180.00	$0.00

Countermeasure Strategy: Highway Safety Office Program Management

Program Area: Distracted Driving

Project Safety Impacts

Funding needed for support staff to conduct day-to-day oversight of all distracted driving-related grants and planned activities.

Linkage Between Program Area

Without proper funding, distracted driving planned activities would not occur and law enforcement agencies would not receive the necessary funding to help lower distracted driving fatalities across the state.

Rationale

This countermeasure was selected as it best covered the objectives of the planned activity.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
DD-20-06	Program Management - Distracted Driving

Planned Activity: Program Management - Distracted Driving

Planned activity number: DD-20-06

Primary Countermeasure Strategy ID: Highway Safety Office Program Management

Planned Activity Description

Provide sufficient staff to manage programming described in this plan as well as cover travel, professional development expenses, conference fees, and postage and office supplies.

Countermeasure Strategy Justification: OGR Program Management

The day-to-day operation of OGR requires funding to allow staff to properly oversee the distracted driving safety program. Lack of oversight due to reduced or no funding could lead to increased speed-related fatalities on the roadways of Massachusetts.

Intended Subrecipients

Funds will support SHSO program staff and will not be subawarded.

Countermeasure strategies

Countermeasure Strategy
High Visibility Cellphone/Text Messaging Enforcement
Highway Safety Office Program Management

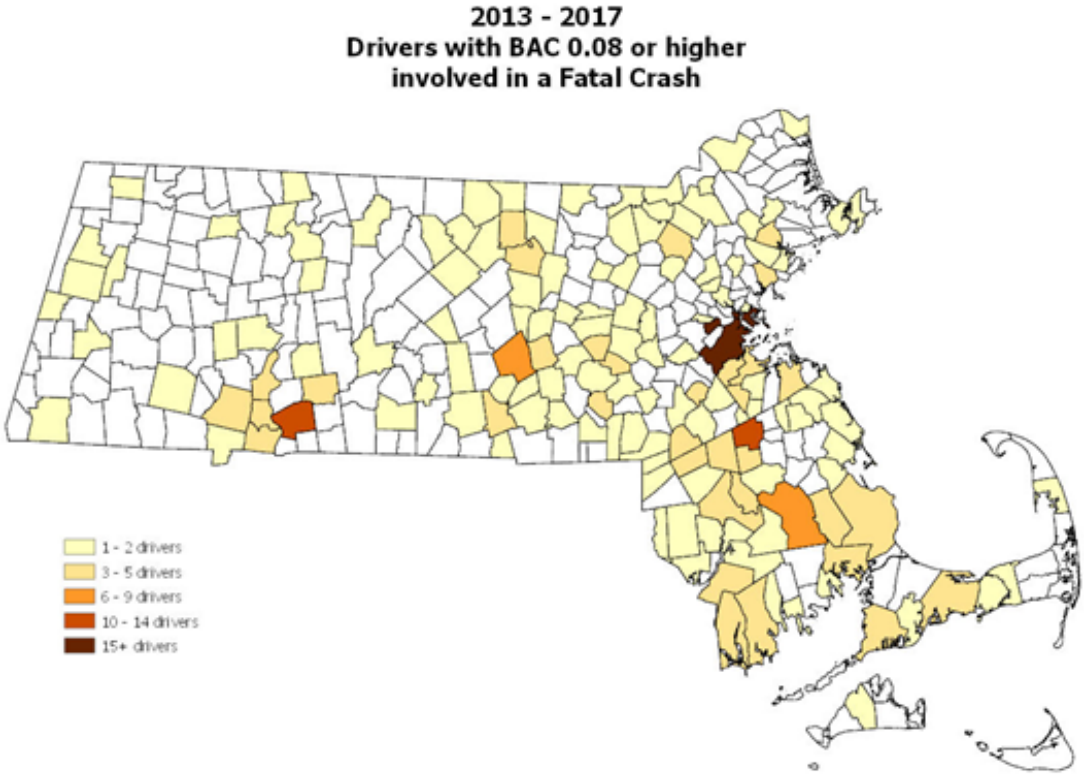
Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2019	FAST Act NHTSA 402	Distracted Driving (FAST)	$116,721.00	$29,180.00	$0.00

Program Area: Impaired Driving (Drug and Alcohol)

Description of Highway Safety Problems

Preventing impaired driving deaths will continue to be a top priority for Massachusetts. In recent years, OGR has funded projects such as Drive Sober or Get Pulled Over mobilizations with state and local police, Educational Outreach to Young Drivers (aimed at high school students), Drug Recognition Expert (DRE) training, Sobriety Checkpoints, Standardized Field Sobriety Test training and the Sustained Traffic Enforcement Program (STEP), all in an effort to reduce impaired driving crashes across the Commonwealth.



In 2017, the number of alcohol-impaired fatalities (involving driving with BAC 0.08 or higher) decreased to 120 from 148 in 2016 - a decline of 19%. This was a welcome development and OGR will continue efforts to further reduce alcohol-impaired fatalities in FFY 2020 by targeting key regions and time frames for high levels of alcohol-impaired fatal crashes.

From 2013-2017, nearly 45% of all alcohol-impaired driver-involved (BAC 0.08 or higher) fatal crashes occurred in three counties, Worcester, Plymouth, and Bristol. Southeastern Massachusetts, Bristol, and Plymouth counties accounted for almost a third of fatal crashes involving an alcohol-impaired driver. Four of the top eight towns for crashes were from this region.

When are these alcohol-impaired drivers crashing? From 2013-2017, fatal crashes involving a BAC 0.08 or higher drivers occurred most frequently between 9 pm and 3 am (nearly 50% of crashes) and most often on Friday, Saturday, and Sunday (64% of crashes). The hours and days with the highest incidences of alcohol-impaired driving are known to be associated with popular times for people to go out drinking and partying. Too often drivers are deciding to get behind the wheel after a late night out instead of opting for sober, safer alternatives such as ride-share services, taxis, public transportation, or designated drivers. OGR began in FFY 2018 and continued in FFY 2019, media messaging aimed at educating people of transportation alternatives to impaired driving. Data results for impaired driving in 2018 is not available but OGR is hopeful the messaging has positively influenced behavior and fatal crashes during these key times and days will prove to have been reduced in 2018 and 2019.

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Total
12am - 2:59am	25	7	4	11	6	16	21	**90**
3am - 5:59am	18	3	0	1	3	5	12	**42**
6am - 8:59am	3	1	0	1	2	2	7	**16**
9am - 11:59am	3	1	0	1	0	0	1	**6**
12pm - 2:59pm	3	0	3	5	0	1	1	**13**
3pm - 5:59pm	4	4	4	0	2	4	5	**23**
6pm - 8:59pm	19	7	3	7	7	8	15	**66**
9pm - 11:59pm	11	8	9	6	10	12	12	**68**
Total	**86**	**31**	**23**	**32**	**30**	**48**	**74**	

Table 1: BAC 0.08 or higher driver involved in a fatal crash, 2013-2017

The age group with the most alcohol-impaired drivers (BAC 0.08 or higher) was 21-29 years old. This group accounted for 35% of the 330 alcohol-impaired drivers in a fatal crash from 2013-2017. As the chart below shows, impaired driver involvement peaks in the 21-29 age group and then gradually declines with age.

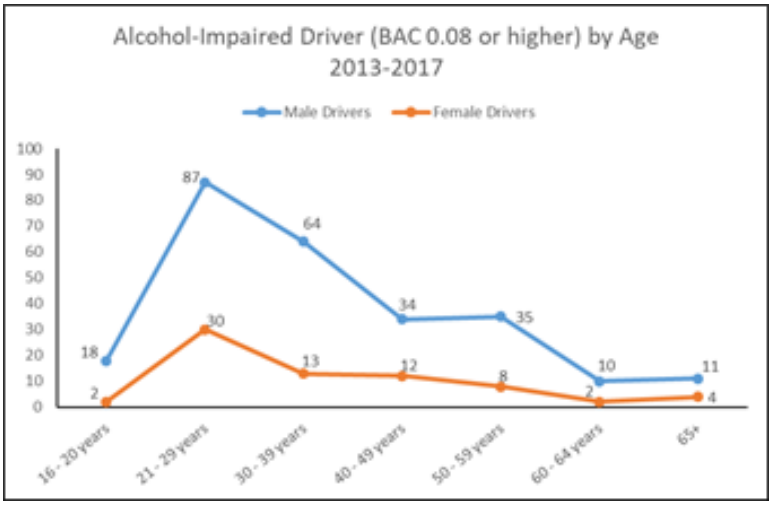


Figure 18: Alcohol-Impaired Drivers by Age Group, 2013-2017

July and June were the top months in terms of percentage of all alcohol-impaired driver crashes from 2013 to 2017. July has Independence Day celebrations and is typically a popular month for cookouts and heading to the beach. June has proms and graduation parties where drinks are imbibed. November, which has 10% of the fatal crashes, has Thanksgiving holiday weekend. These three months accounted for over a third of all BAC 0.08 or higher drivers in a fatal crash.

Month	Total Crashes 2013-2017	Percent of All Fatal Crashes
January	26	8%
February	17	5%
March	18	5%
April	25	8%
May	30	9%
June	35	11%
July	43	13%
August	26	8%
September	31	9%
October	24	7%
November	33	10%
December	22	7%

Table 2: Alcohol-Impaired Drivers (BAC 0.08 or higher) in a Fatal Crash by Month, 2013-2017

To counter these impaired driving challenges in FFY 2020, OGR will have impaired driving mobilizations

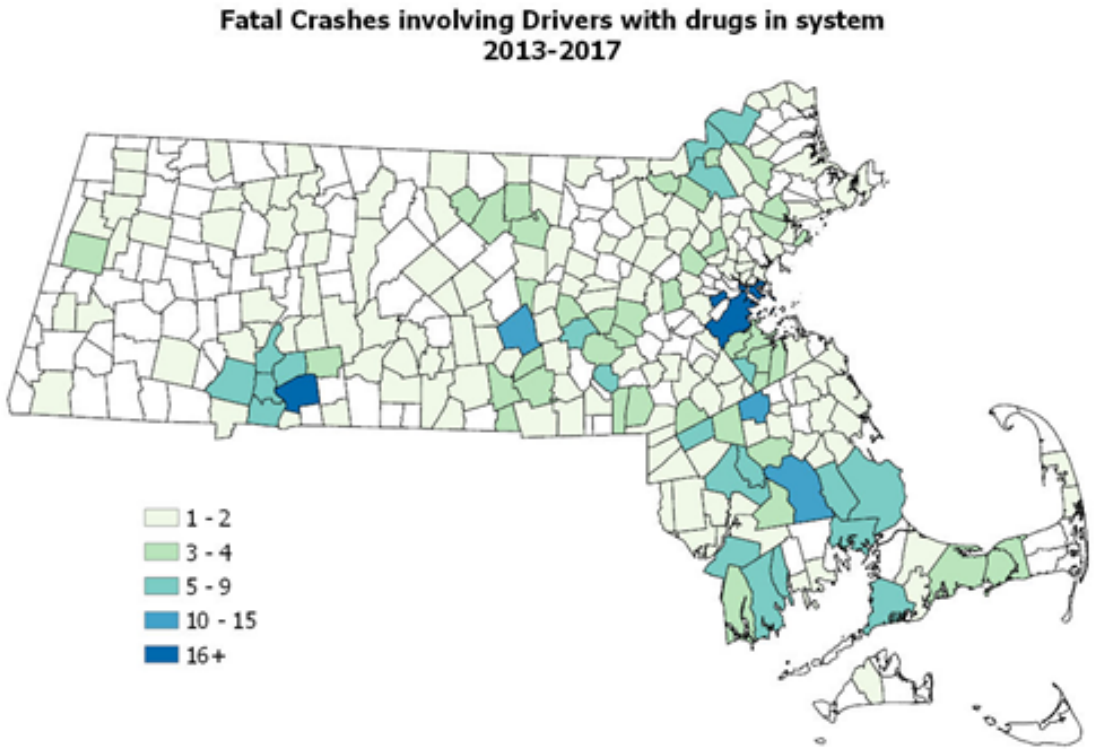
taking place with “Drive Sober or Get Pulled Over”(DSOGPO) in August and December. State and local law enforcement departments that participate in traffic enforcement mobilizations have the flexibility, based on local data, to do enforcement patrols during other periods of 'high impaired driving' activity.

There will be a larger focus in FFY 2020 to leverage the collaborative efforts of both state and local police departments during sobriety Checkpoints and Saturation Patrols that will occur throughout the year with an emphasis on months, days and times that are the most dangerous. Geographic areas that have the largest regional concentrations of impaired driving fatalities will be prioritized especially with regard to local participation.

Enforcement would be most effective during on Fridays and Saturdays with a focus from 9 pm to 3 am. Although the DSOGPO mobilizations will not take place during top months (June, July, or November), subrecipient municipalities can opt to conduct extra enforcement patrols during these months with the flexibility built into the traffic enforcement grant program.

While alcohol-impaired driving continues to be a primary concern for OGR, the rise of drug-impaired driving in recent years, combined with the potential increased risk associated with opening adult-use recreational marijuana retail stores in late 2019, will spur increased grant funding to address these road safety threats. For FFY 2020, OGR will have planned activities aimed at reducing the incidences of drug-impaired drivers on the roadways of the Commonwealth.

From 2013-2017, over 200 municipalities had at least one fatal crash involving a driver who was found with drugs in his/her system at the time of the crash. Boston and Springfield had the highest number of fatal crashes. Worcester, Middleborough, and Brockton also reported double-digits for fatal crashes. These five communities accounted for 14% of the drug-involved driver fatal crashes. Worcester led all counties with 17% of fatal crashes, followed by Plymouth (14%) and Middlesex (12%).



The most frequent drug found in use by drivers was marijuana. It was found in 175 of the 572 drivers (31%)

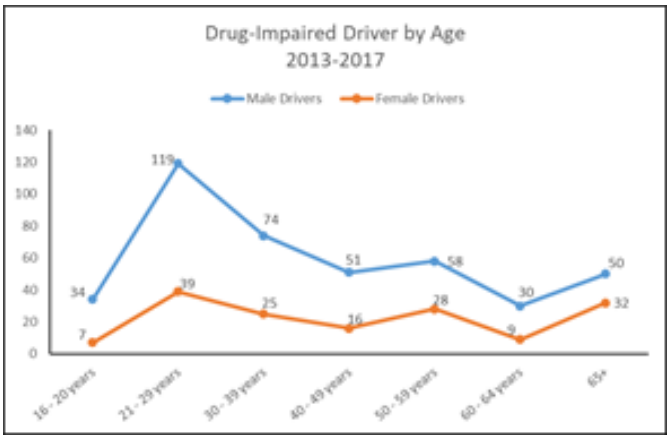
involved in fatal crashes from 2013-2017. Benzos (short for benzodiazepines) was found in 49 drivers and fentanyl in 44 drivers. Other drugs found: cocaine (36 drivers), morphine (25), buprenorphine (20), oxycodone (18) and benzoylecgonine (18).

Much like alcohol-impaired driving, a majority of drug-impaired driving crashes occurred over the Friday through Sunday period. The time of day for this type of impairment, however, extends into the daytime, taking place between the hours of 3 pm and 3 am. This time period accounted for over 60% of the crashes.

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Total
12am - 2:59am	21	10	6	12	4	14	16	**83**
3am - 5:59am	16	5	1	6	4	8	9	**49**
6am - 8:59am	6	8	6	11	3	12	11	**57**
9am - 11:59am	5	7	7	2	6	6	3	**36**
12pm - 2:59pm	10	9	19	14	6	10	9	**77**
3pm - 5:59pm	14	13	12	10	11	11	10	**81**
6pm - 8:59pm	20	11	7	8	9	10	26	**91**
9pm - 11:59pm	14	11	13	12	12	13	13	**88**
Total	**106**	**74**	**71**	**75**	**55**	**84**	**97**	

Table 3: Drugged Drivers by Day and Time Frame, 2013-2017

Figure 19: Drivers with Drugs in Fatal Crash by Gender, 2013-2017



As with alcohol-impaired driving, males accounted for a majority of the drivers found with drugs in their system that were involved in a fatal crash. Over 70% of the drivers were male and nearly a third of them were between the ages of 21 and 29. Overall, as with alcohol-impaired driving, the age group of 21-29 accounted for the highest percentage of drivers involved. This age group made up 28% (slightly lower than the 35% for alcohol) of the drivers.

Table 4: Drug-Impaired Drivers in Fatal Crash by Month, 2013-2017

The last element to examine for drugs and drivers is the months of the year. Drivers involved in a fatal crash found with drugs in their system was far more prevalent during the latter half of the year than in the first part. July through December accounted for 60% of the crashes from 2013-2017.

While the number of drivers found with drugs is high, it must be pointed that the figures are simply of drivers found with drugs in their system. In some cases is it not known if the drugs impaired driving ability or contributed to the crash. Gauging drug impairment is a very inexact science and there currently aren't devices available to law enforcement to measure the level of drug 'intoxication' like a breathalyzer can for alcohol impairment. At this time, the best option for law enforcement to determine drug impairment is through the use of Drug Recognition Experts (DREs). In FFY 2020, OGR will continue funding programs to help train current and new DREs so more will be available across the state to assist with state and local police.

Month	Total Crashes 2013-2017	Percent of All Fatal Crashes
January	33	6%
February	40	7%
March	30	5%
April	49	9%
May	43	8%
June	41	7%
July	62	11%
August	67	12%
September	56	10%
October	56	10%
November	57	10%
December	39	7%

Looking at both alcohol-impaired and drug-impaired driving in the preceding paragraphs didn't take into account that a driver may have mixed substances and be under the influence of alcohol as well as one or more other drugs at the time of a crash, known as poly-drug impairment. The Table 5 below breaks down the driver involvement by alcohol, drugs and lastly, both alcohol and drugs involved.

Table 5: Driver Impairment, 2013-2017

	2013	2014	2015	2016	2017
Total Drivers Involved in a Fatal Crash	445	455	455	501	469
Alcohol-only (BAC 0.08 or higher), no drugs	24	24	17	27	27
Drug-only (BAC 0.00), no alcohol	50	43	64	76	87
Alcohol (BAC 0.08+) and Drugs Involved	35	41	32	46	57
Total Impaired Drivers	**109**	**108**	**113**	**149**	**171**
Percentage of All Drivers	*24%*	*24%*	*25%*	*30%*	*36%*

The rate of impaired drivers involved in a fatal crash has been increasing from 2013 to 2017. More concerning is the level of drug-involvement and combination alcohol/drug usage at the time of the crash by a driver. While alcohol-only use rose 13%, drug-only use increased 74% and combine impairment went up 63%. OGR plans to continue integrating drug awareness messaging in its FFY 2020 impaired driving campaigns to stem the increased usage of drugs prior to getting behind the wheel. In FFY 2019, outreach related to impaired driving already includes referencing to impact on driving ability after drug usage with a focus on marijuana usage.

Associated Performance Measures

Fiscal Year	Performance measure name	Target End Year	Target Period	Target Value
2020	C-5) Number of fatalities in crashes involving a driver or motorcycle operator with a BAC of .08 and above (FARS)	2020	5 Year	124.00

Countermeasure Strategies in Program Area

Countermeasure Strategy
Alcohol Vendor Compliance Checks
Breath Test Devices
Communication Campaign
Drug Recognition Expert (DRE) Training
Enforcement of Drug-Impaired Driving
High Visibility Enforcement
Highway Safety Office Program Management
Integrated Enforcement
SFST training for Law Enforcement Officers

Countermeasure Strategy: Alcohol Vendor Compliance Checks

Program Area: Impaired Driving (Drug and Alcohol)

Project Safety Impacts

For FFY 2020, OGR will be conducting two planned activities that utilize the 'alcohol vendor compliance checks' countermeasure as listed in NHTSA's 8th edition of "Countermeasures That Work." The two planned activities will involve the same subrecipient, the Alcohol Beverages Control Commission (ABCC), and will focus on the sale of alcohol to minors and intoxicated patrons. Both activities, Underage Drinking Compliance Checks (AL-20-11) and Enforcement to Prevent Sale of Alcohol to Intoxicated Persons (AL-20-12), will involve monitoring local vendors of alcoholic beverages to ensure that a) they aren't selling alcohol to minors by checking IDs; and b) they aren't providing alcohol to persons that are clearly drunk.

The impact of compliance checks will restrict the ability of minors, especially underaged drivers, from obtaining alcoholic drinks and thus preventing them from drinking and driving. The enforcement of intoxicated persons is intended to send a message to establishments (bars, restaurants, pubs) that serving a person that is legally drunk will result in violations, fines, and possibly criminal charges.

Linkage Between Program Area

To decrease the number of alcohol-related fatal crashes across Massachusetts and meet the desired performance target for alcohol-related fatalities by December 31, 2020, the implementation of alcohol vendor compliance checks will help reduce frequency of minors buying alcohol, which could result in drunk drinking at a later point in time as well as pressure alcoholic establishments to refrain from serving intoxicated individuals - some whom may try to drive home later in the evening. Allocation of funding is appropriate for said activities and reflect what has been spent on similar projects in the past.

Rationale

Compliance checks have been shown to be effective in reducing the sale of alcohol to those under 21 years of age, which lowers the chance of underage drivers from navigating the roads under the influence. OGR has been funding these planned activities for several years and its impact has been noticeable with alcohol-impaired fatalities/VMT dropping from 0.21 in 2013 to 0.19 in 2017.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name

AL-20-11	ABCC - Underage Drinking Compliance Checks Program
AL-20-12	ABCC - Enforcement Program to Prevent the Sale of Alcohol to Intoxicated Persons

Planned Activity: ABCC - Underage Drinking Compliance Checks Program

Planned activity number: AL-20-11

Primary Countermeasure Strategy ID: Alcohol Vendor Compliance Checks

Planned Activity Description

This program will provide funds to ABCC for overtime pay to conduct enhanced liquor enforcement compliance checks to reduce underage drinking and impaired driving. Overtime funds will be provided to ABCC investigators to perform compliance checks in approximately 125 communities. A compliance check consists of an underage individual, under the supervision of 2 investigators, entering a licensed establishment and attempting to purchase an alcoholic beverage. 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 of municipalities within each county that are 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 ABCC will also include concert and special event enforcement operations consisting of enforcement at liquor stores surrounding large venues (Xfinity Center, Gillette Stadium, Blue Hills Pavilion, and Fenway Park) and venue parking lots prior to the event; with on-premises enforcement during the event. 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 2018 and 2019, or ABCC hasn't conducted checks in that municipality or liquor establishment to date.

Countermeasure Strategy Justification: Alcohol Vendor Compliance Checks

To reduce the sale of alcohol to minors, which lowers the chance of underage drivers from navigating the roads under the influence, the ABCC will utilize funding to focus on restricting access to alcohol by minors through compliance checks. This planned activity will involve monitoring local vendors of alcoholic beverages to ensure that a) they aren't selling alcohol to minors by checking identification and b) they aren't providing alcohol to persons that are clearly drunk or inebriated. Fewer minors drinking leads to fewer minors being impaired on the roadways and lower the number of young drivers ending up in a fatal crash due to alcohol impairment.

Intended Subrecipients

Alcoholic Beverages Control Commission

Countermeasure strategies

Countermeasure Strategy
Alcohol Vendor Compliance Checks
Alcohol Vendor Compliance Checks

Underage Drinking Enforcement

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2019	FAST Act 405d Impaired Driving Low	405d Low Youth Alcohol	$195,000.00	$48,750.00	

Planned Activity: ABCC - Enforcement Program to Prevent the Sale of Alcohol to Intoxicated Persons

Planned activity number: AL-20-12

Primary Countermeasure Strategy ID: Alcohol Vendor Compliance Checks

Planned Activity Description

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. The operations will be scheduled in coordination with NHTSA Impaired Driving initiatives, as well as during identifiable times of the year and at specific events where impaired driving is likely to result. Factors such as the number of alcohol-related fatalities and crashes, OUI violations, and sales to minor's 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.

Countermeasure Strategy Justification: Alcohol Vendor Compliance Checks

To reduce the sale of alcohol to minors, which lowers the chance of underage drivers from navigating the roads under the influence, the ABCC will utilize funding to focus on restricting access to alcohol by inebriated individuals through the monitoring of establishments that have been known to provide last drink to an impaired driver prior to being pulled over or involved in a crash. This planned activity will involve ensuring targeted bars and restaurants are complying with directives to cut off alcohol to any patron deemed too inebriated to drive.

Intended Subrecipients

Alcoholic Beverages Control Commission

Countermeasure strategies

Countermeasure Strategy
Alcohol Vendor Compliance Checks
Alcohol Vendor Compliance Checks

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2019	FAST Act 405d Impaired Driving Low	405d Low Alcohol	$195,000.00	$48,750.00	

Countermeasure Strategy: Breath Test Devices

Program Area: Impaired Driving (Drug and Alcohol)

Project Safety Impacts

A preliminary breath test (PBT) device is a small hand-held alcohol sensor used to estimate or measure a driver blood alcohol content. It is used by State and local police on patrol to help establish evidence for a possible DWI arrest. These devices are quite accurate and generally reliable. Massachusetts, along with other states use PBTs to provide evidence of alcohol use to support DWI arrest. Having these devices on hand allows officers to remove drunk drivers from the road and provides factual evidence of inebriation in the courts that can result in license suspension. In Massachusetts, the first DWI conviction results in license suspension for one year; second DWI, two years suspension and ignition interlock device installed. In general, PBTs help law enforcement remove inebriated drivers from the roadways and provide a source which can help convict the driver and lead to a loss of driving privileges. The combination of the loss of driving privileges as well as the threat of losing those privileges will provide a deterrence for drivers.

Linkage Between Program Area

Having more officers certified to use breath test devices as well as having access to more PBTs will lead to more drivers being pulled off the road for impaired driving. Breath test devices, while not admissible as evidence in Massachusetts courts as this time, help officers gauge the possible impairment of a driver pulled over for further investigation. If more impaired drivers are removed from the roadways, the number of impaired driving fatalities should decrease in the coming years.

Rationale

There is some evidence that breath test devices help increase DWI arrest and reduce alcohol-involved fatal crashes (Century Council, 2008). To bring down the number of impaired driving fatalities, adding another tool to the arsenal of field sobriety tests will help law enforcement remove more impaired drivers from the roadways.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
AL-20-07	MSP/Office of Alcohol Testing BTO Training

Planned Activity: MSP/Office of Alcohol Testing BTO Training

Planned activity number: AL-20-07

Primary Countermeasure Strategy ID: Breath Test Devices

Planned Activity Description

Provide funds to the MSP Office of Alcohol Testing (OAT) to conduct up to 86 Breath Test Operator (BTO) classes for approximately 1,800 local and MSP personnel in an effort to better detect impaired drivers. Training will take place throughout the year at the MPTC, and other facilities. Funds will also be provided for the purchase of related program equipment including Preliminary Breath Test (PBT) units and OUI Toxicology Kits. Equipment will be distributed to local police officers and MSP troopers including those who successfully complete a DRE class conducted by the MPTC. OAT will determine how the equipment is divided among agencies based on problem identification and greatest need.

For the past years, OAT has purchased OUI Toxicology Kits instead of PBTs and prior to those years, PBTs were bought. OAT will determine, through analysis of current inventory and needs of the state as well as local police, what should be purchased in FFY 2020. Regardless of whether it will be OUI Toxicology Kits, PBTs or a combination of both, the amount expected to be spent will be no more than $50,000.

Countermeasure Strategy Justification: Breath Test Devices

State and local police utilize breath test devices (typically called PBTs or preliminary breath test) to help establish evidence for a possible DWI arrest. At the current time, Massachusetts, along with 32 other states, use PBTs regularly. Having PBTs allows officers to remove drunk drivers from the road while providing factual evidence of inebriation in the courts that can result in license suspension. In Massachusetts, the first DWI conviction leads to a one-year license suspension; the second DWI, two-year suspensions and ignition interlock device installed. The combination of the loss of driving privileges as well as the threat of losing those privileges will provide deterrence for drivers.

Having more officers certified to use breath test devices and having access to more PBTs will result in more drivers being pulled off the road for impaired operation. Breath test devices help officers gauge the possible impairment of a driver and if more impaired drivers are removed from the roadways, the number of impaired driving fatalities should decrease.

Intended Subrecipients

Countermeasure strategies

Countermeasure Strategy
Breath Test Devices
Breath Test Devices
Preliminary Breath Test (PBT) Devices

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2019	FAST Act 405d Impaired Driving Low	405d Low Drug and Alcohol Training	$125,000.00	$31,250.00	

Countermeasure Strategy: Communication Campaign

Program Area: Impaired Driving (Drug and Alcohol)

Project Safety Impacts

For FFY 2020, four planned activities were designated with the countermeasure ’Communication Campaign.’ The four planned activities are:

AL-20-01 Impaired Driving Media

AL-20-14 Stakeholders Conference

AL-20-15 Higher Education Impaired Driving Media Program

AL-20-16 Community-Based Impaired Driving Grant

These four planned media-oriented campaigns aimed at reducing the frequency of drunk or inebriated driving on the roadways of Massachusetts. Communication and education outreach campaigns are crucial to ensure the messaging about the dangers of impaired driving are consistent and impactful across the state.

As with FFY 2019, media messaging will target younger drivers (those under 30 years of age) which account for a majority of impaired drivers in a fatal crash, whether under the influence of alcohol, drugs or both. Boston, Springfield, Worcester, and Brockton are key metro areas of focus along with southeastern Massachusetts (Bristol and Plymouth County).

By reaching out to stakeholders in traffic safety, OGR looks to better improved its focus and funding of critical programs that will make the roadways safety for motorists and non-motorists alike.

The higher education planned activity fully supports OGR’s impaired driving media message of educating motorists, especially drivers, of the dangers of driving under the influence of either alcohol or drugs.

The higher education planned activity will result in an impaired driving campaign aimed at college-age drivers and passengers, which will help increase awareness in the 16-25 age group. This will fully support OGR’s goal of educating motor vehicle riders, especially drivers, of the dangers of driving under the influence of either alcohol or drugs. With the legalization of marijuana in Massachusetts, this activity will help improve outreach to young drivers, which are more likely to drive under influence of marijuana than alcohol.

The local community planned activity will help lower fatalities related to impaired driving within the community or communities being funded as those with ’feet on the ground’ have the best sense of what messaging would be most impactful for its local population.

Linkage Between Program Area

Communication is a key component of OGR’s outreach efforts to educate motor vehicle occupants on the dangers of drinking and driving or getting into a car where the driver has had alcohol. The media messaging will be targeted to influence those under 30 years of age, which make up a large percentage of drivers in an impaired driving fatal crash. Key metro areas – Boston, Springfield, Worcester and Brockton – will of particular focus as well as southeastern Massachusetts counties of Plymouth and Bristol.

Without a communication campaign, increased awareness of the dangers of impaired driving will not happen and could lead to rising impaired driving fatalities in the near term.

Rationale

This countermeasure was the best option for the four planned activities described above.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name

AL-20-01	Impaired Driving Media
AL-20-14	Stakeholders Conferences
AL-20-15	Higher Education Impaired Driving Media Program
AL-20-16	Community-Based Impaired Driving Grant Program

Planned Activity: Impaired Driving Media

Planned activity number: AL-20-01

Primary Countermeasure Strategy ID: Communication Campaign

Planned Activity Description

Develop and implement a statewide paid and earned media campaign to support impaired driving efforts during the Drive Sober or Get Pulled Over mobilizations (December 2019 and August 2020). OGR will use state and national crash and fatality data to identify the target audience. Messaging will focus on alcohol, marijuana, and other drug-impaired driving. Earned media funds will promote and augment the paid campaign, while incorporating state laws and highlighting the work of state and local law enforcement agencies. Paid and earned media funds will also be used to direct messaging at teen drivers and their parents as part of the "100 Deadliest Days" from Memorial to Labor Day. OGR will contract with a marketing and advertising agency to execute these paid and earned media campaigns while running social media in-house for sustained educational efforts. Internal policies will be 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 will be used not only for planning enforcement activities but also to determine the target audiences and media channels used to reach that audience. NHTSA's guidelines will be followed for messaging, demographics, best practices and target groups for each media effort.

Countermeasure Strategy Justification: Communication Campaign

OGR has four planned media-oriented campaigns aimed at reducing the frequency of drunk or inebriated driving on the roadways of Massachusetts. Communication and education outreach campaigns are crucial to ensure the messaging about the dangers of impaired driving are consistent and impactful across the state. As with FFY 2019, messaging will target younger drivers (those under 30 years of age) which account for a majority of impaired drivers in a fatal crash, whether under the influence of alcohol, drugs or both. Boston, Springfield, Worcester, and Brockton are key metro areas of focus along with southeastern Massachusetts (Bristol and Plymouth County).

Intended Subrecipients

Media vendor yet to be determined.

Countermeasure strategies

Countermeasure Strategy
Communication Campaign

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2019	FAST Act 405d Impaired Driving Low	405d Low Paid/Earned Media	$650,000.00	$162,500.00	

Planned Activity: Stakeholders Conferences

Planned activity number: AL-20-14

Primary Countermeasure Strategy ID:

Planned Activity Description

One goal will be to fund conferences and training for traffic safety stakeholders in FFY 2020. As in previous years, topics will include alcohol and drug-impaired driving, occupant protection, distracted driving, motorcycle safety, pedestrian and bicyclist safety, traffic records, prosecution and adjudication, and speeding.

A second goal will be to initiate a dialogue with key local, state, federal, non-profit, and private sector leaders to identify highway safety program priorities, improve traffic safety, and establish focus areas for the FFY 2021 HSP. Locations and dates of conferences are yet to be determined.

Countermeasure Strategy Justification: Communication Campaign

By reaching out to stakeholders in traffic safety, OGR looks to better improved its focus and funding of critical programs that will make the roadways safer for motorists and non-motorists alike.

Intended Subrecipients

Funds may be used to contract with venue operators and related costs. Funds may also be awarded to one or more road safety partners to conduct complimentary activities.

Countermeasure strategies

Countermeasure Strategy
Communication Campaign

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2020	FAST Act NHTSA 402	Community Traffic Safety Project (FAST)	$25,000.00	$6,250.00	$0.00

Planned Activity: Higher Education Impaired Driving Media Program

Planned activity number: AL-20-15

Primary Countermeasure Strategy ID: Communication Campaign

Planned Activity Description

Provide grant funds to a college or university to develop an impaired driving media campaign that resonates with younger drivers. The competitive grant award will be given to an academic department such as journalism,

marketing, or one related to video/advertising production. It will be required that a department faculty member oversees the project including paying for student stipends, supplies, production costs, and travel. The university will not be reimbursed for faculty salary or related costs. NHTSA funds will pay for student stipends. NHTSA funding will also be used for program-related supplies, production costs, and travel costs incurred by students and faculty.

The intent is to generate messaging that is conceptualized, developed, produced, and disseminated by young people to their peers. The end product(s) may be disseminated via social or earned media. The student workers will be given day-to-day guidance from the faculty member and also be able to work with the OGR staff and media vendor for additional direction. It is hoped that the end product(s) will be accepted by the target audience as peer-to-peer messaging, as opposed to government messaging.

Countermeasure Strategy Justification: Communication Campaign

This planned activity will fully support OGR's impaired driving media message of educating motorists, especially drivers, of the dangers of driving under the influence of either alcohol or drugs. This planned activity will result in an impaired driving campaign aimed at college-age drivers and passengers, which will help increase awareness in the 16-25 age group.

Intended Subrecipients

College or university to be selected via competitive grant application process

Countermeasure strategies

Countermeasure Strategy
Communication Campaign

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2020	FAST Act NHTSA 402	Community Traffic Safety Project (FAST)	$10,000.00	$2,500.00	$0.00

Planned Activity: Community-Based Impaired Driving Grant Program

Planned activity number: AL-20-16

Primary Countermeasure Strategy ID:

Planned Activity Description

Competitive grant awards will be provided to one or more organizations such as Girl Scouts, Boy Scouts, PTOs, schools, faith-based and advocacy groups, etc., that will implement community-based programs. The eligible applicants may include both non-profit 501(c)(3) or governmental agencies.

This planned activity will consist of one or more data-driven competitive grant programs that will be focused on geographical areas and/or high-risk populations that have demonstrated need in the area of impaired driving. The programs will generally be focused on raising awareness of road safety, training, and changing social attitudes and behaviors in order to reduce vehicle crashes and their associated fatalities, serious injuries and

economic losses on the state's roadways.
This will not be a traffic enforcement program, but OGR will encourage applicants to develop new or enhance existing partnerships with law enforcement agencies to achieve project goals.
Selected grant subrecipients will develop and implement traffic safety improvement educational and awareness programs that address issues in their targeted communities. Programs that focus on high-risk groups or behaviors will be prioritized. Organizations will be encouraged to build partnerships that incorporate a whole-community, data-driven approach to identifying and addressing road safety problems. The formation of community-wide road safety coalitions that bring together a wide constituency to focus on aspects of road safety will also be encouraged.
Projects that will develop and implement an educational curriculum that aims to install a life-long road safety culture in the Commonwealth's citizenry will also be prioritized. Projects may also incorporate social, and/or traditional media strategies to change risky behavior on the state's roadways.
The competitive grant solicitation may guide potential applicants to various informational resources such as:
National Highway Traffic Safety Administration
Centers for Disease Control and Prevention
Governors Highway Safety Association
Insurance Institute for Highway Safety
National Safety Council
American Automobile Association
The Vision Zero Network
Mothers Against Drunk Driving
Students Against Destructive Decisions
Countermeasure Strategy Justification: Communication Campaign
This planned activity will fund one or more local community organizations to develop and implement awareness and education initiatives that will promote OGR's overarching impaired driving messaging theme of not driving while under the influence of alcohol or drugs. The goal of the planned activity is to lower fatalities related to impaired driving within the community or communities being funded.

Intended Subrecipients

Non-profit and/or governmental organizations to be determined.

Countermeasure strategies

Countermeasure Strategy
Communication Campaign

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit

2020	FAST Act 405d Impaired Driving Low	405d Low Community Traffic Safety	$25,000.00	$6,250.00	

Countermeasure Strategy: Drug Recognition Expert (DRE) Training

Program Area: Impaired Driving (Drug and Alcohol)

Project Safety Impacts

As the number of DWI drug violations hold steady over the last couple of years (average 1,580), there is more need than ever to increase the number of Drug Recognition Experts (DREs) among the officers in State and local police. DREs can help detect whether a suspected driver is under the influence of drugs and if so, what drug. While the use of DREs in the court of law has been contested, out in the field these officers provide crucial knowledge and support in the quest to remove drunk and drugged drivers off the road. The two planned activities that fall under this countermeasure will help increase the number of certified DREs in Massachusetts and ensure there are ample qualified DREs in all corners of the state.

Linkage Between Program Area

Without the existence of DREs, it would be much tougher for officers to determine whether a driver is under the influence of drugs or not. The need for more DREs is even more pressing with the recent approval by voters to make marijuana legal in Massachusetts.

Rationale

The DRE training countermeasure was selected because both planned activities listed in this section involve the training of DREs.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
AL-20-08	MSP Drug Recognition Expert (DRE) Training
AL-20-10	MPTC - Drug Evaluation and Classification Program (DEC)

Planned Activity: MSP Drug Recognition Expert (DRE) Training

Planned activity number: AL-20-08

Primary Countermeasure Strategy ID: Police Training Supporting Enforcement

Planned Activity Description

Funding will be provided to the MSP to expand its Drug Recognition Expert (DRE) program. With the legalization of recreational marijuana and the expansion of the utilization of marijuana for medicinal purposes, MSP troopers are seeing a marked increase in people driving under the influence of this drug. As a consequence of the legalization of retail sales of recreational marijuana, there is a public perception, on the part of some, that the consumption of marijuana while operating a motor vehicle is both safe and legal. Other states that have passed similar legislation have experienced an increase in instances of drug-impaired driving. The MSP will expand the DRE training program and train and equip twelve additional officers to assist troopers on the roadways. MSP’s goal is to have at least one certified DRE in each barrack.

Countermeasure Strategy Justification: DRE Training

As the number of drug-involved fatal crashes has increased in recent years, there is more need than ever to increase the number of Drug Recognition Experts (DREs) among the officers in State and local police. DREs can help determine whether a suspected impaired driver is under the influence of drugs and if so, what drug. While the use of DREs in the court of law has been contested, out in the field these officers provide crucial knowledge and support in the quest to remove drunk and drugged drivers off the road. This planned activity will help increase the number of certified DREs in Massachusetts and ensure there are ample qualified DREs in all corners of the state.

Without the existence of DREs, it would be much tougher for officers to determine whether a driver is under the influence of drugs or not. The need for more DREs is, even more, pressing with the recent legalization of marijuana in Massachusetts.

Intended Subrecipients

Massachusetts Department of State Police

Countermeasure strategies

Countermeasure Strategy
Drug Recognition Expert (DRE) Training

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2019	FAST Act 405d Impaired Driving Low	405d Low Drug and Alcohol Training	$40,000.00	$10,000.00	

Planned Activity: MPTC - Drug Evaluation and Classification Program (DEC)

Planned activity number: AL-20-10

Primary Countermeasure Strategy ID: Police Training Supporting Enforcement

Planned Activity Description

This program will provide funds to MPTC to conduct up to 39 training classes throughout the year for police officers covering Advanced Roadside Impaired Driving Enforcement (ARIDE), Drug Evaluation & Classification (DEC) and a pilot Cannabis and Driving for Law Enforcement (CDLE) training course. 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. The DRE Coordinator will be required to submit an annual report that details all of the activities of the program. Funding within this program will also be used to develop and maintain a DRE testing database, purchase tablets and associated software subscription for the tablets.

Countermeasure Strategy Justification: Enforcement of Drug-Impaired Driving

The impairing effects of alcohol and the dangers of drinking and driving are well-documented. By contrast, there is very little research available examining the potential dangers of drugged driving. Some of the

challenges involved in determining a drug's effect on driving include: the constantly changing list of drugs, illegal and legal, that can impair driving; the ambiguous relationship between blood levels of drugs and driving impairment; and the intrusive nature of measuring drug level compared to the most reliable breath tests for alcohol. To counter the unknown surrounding drugged driving, OGR has four planned activities aimed at increasing awareness as well as expertise among law enforcement when it comes to dealing with a possible drugged driver. By participating in SFST training, Massachusetts law enforcement will be better prepared to assess the level of impairment of a suspected drugged driver.

Intended Subrecipients

Municipal Police Training Committee (MPTC)

Countermeasure strategies

Countermeasure Strategy
Drug Recognition Expert (DRE) Training

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2019	FAST Act 405d Impaired Driving Low	405d Low Drug and Alcohol Training	$600,000.00	$150,000.00	

Countermeasure Strategy: Enforcement of Drug-Impaired Driving

Program Area: Impaired Driving (Drug and Alcohol)

Project Safety Impacts

The impairing effects of alcohol and the dangers of drinking and driving are well-documented. Some of the challenges involved in determining a drug's effect on driving include: the constantly changing list of drugs, illegal and legal, that can impair driving; the ambiguous relationship between blood levels of drugs and driving impairment; and the intrusive nature of measuring drug level compared to the mostly reliable breath tests for alcohol.

To counter the unknown surrounding drugged driving, OGR has four planned activities aimed at increasing awareness as well as expertise among law enforcement when it comes to dealing with a possible drugged driver. The activities - MSP DRE Training; MPTC Impaired Driving Training; MPTC DEC Training and; Local Underage Marijuana Enforcement Grant Program - involve classroom and hands-on training for Massachusetts state and local police officers on various aspects of drug impaired driving, plus an enforcement program specific to prevention of marijuana sales to minors.

By completing these offered training courses, Massachusetts law enforcement will be better prepared to enforce the laws regarding drugged driving.

Linkage Between Program Area

Since 2012, there have been, on average, 1,580 DWI Drugs violations issued and 20 DWI Drugs arrests. With

the approval by voters in November 2017 to make marijuana legal for purchase in the state, there is a high likelihood the number of DWI Drugs violations and arrests will increase in the coming years. To counter this, the planned activities associated with this countermeasure will help increase the number of police officers with expertise in the area of drug detection when dealing with a possible drunk or drugged driver.

While the planned activities described above all involve training, the increased knowledge by law enforcement as a result of attending these training sessions will lead to better and more effective enforcement of drug-impaired driving on the roadways of Massachusetts.

Rationale

At this time, there are relatively few proven countermeasures available to address drugged driving. Despite this, increasing the number of police officers with training in drug recognition, advanced roadside impaired driving enforcement (ARIDE), and other aspects of drug usage and effects will help determine the level of drug impairment at the time of interaction with the suspected drugged driver.

This countermeasure was selected to be associated with the three planned activities listed below because it encompassed the objectives of each activity best.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
AL-20-13	Local Underage Marijuana Enforcement Grant Program

Planned Activity: Local Underage Marijuana Enforcement Grant Program

Planned activity number: AL-20-13

Primary Countermeasure Strategy ID:

Planned Activity Description

Provide funds to local police departments that have licensed non-medical retail marijuana establishments within their jurisdiction to conduct enforcement activities focused on those businesses. This program will function in a similar manner as the “Cops in Shops” countermeasure used for alcohol law enforcement but instead will be directed at underage marijuana purchasers.

Departments will provide detailed monthly reports on various elements related to marijuana 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 drugged driving by young drivers. Subrecipients will be selected based upon data provided along with key problem identification areas for their respective community such as number of marijuana-related motor vehicle traffic fatalities involving persons under 21, number of OUI drug arrests, and number of arrests made for marijuana possession by persons under age 21.

Countermeasure Strategy Justification: Enforcement of Drug-Impaired Driving

The impairing effects of alcohol and the dangers of drinking and driving are well-documented. By contrast, there is very little research available examining the potential dangers of drugged driving. Some of the challenges involved in determining a drug’s effect on driving include: the constantly changing list of drugs, illegal and legal, that can impair driving; the ambiguous relationship between blood levels of drugs and driving impairment; and the intrusive nature of measuring drug level compared to the most reliable breath tests for

alcohol.

By participating in this planned activity, Massachusetts law enforcement will help OGR better understand the impact of marijuana on driving ability.

Intended Subrecipients

Up to an estimated 20 local police departments to be determined through competitive process.

Countermeasure strategies

Countermeasure Strategy
Enforcement of Drug-Impaired Driving
Enforcement of Drug-Impaired Driving

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2019	FAST Act NHTSA 402	Teen Safety Program (FAST)	$50,000.00	$12,500.00	$50,000.00

Countermeasure Strategy: High Visibility Enforcement

Program Area: Impaired Driving (Drug and Alcohol)

Project Safety Impacts

State police and local law enforcement departments will participate in two DSOGPO mobilizations (both occurring during the national DSOGPO periods in August and December) aimed at enforcing impaired and drugged driving laws. The departments will also engage in sobriety checkpoints and saturation patrols. The enforcement patrols conducted by state and local police will focus on pulling over impaired drivers as well as sending a message to local communities that impaired driving will not be tolerated. At this time, the subrecipients (local police departments) have yet to be determined but in past years upwards to 175 departments across the state have participated.

Linkage Between Program Area

Alcohol-impaired driving fatalities have dropped 4% from 2013 to 2017, falling from 125 to 120. More importantly, the number of fatalities decreased nearly 19% from 2016 to 2017 from 148 to 120. This is a testament to the efforts by OGR, state and local police to make drivers well aware of the dangers and possible consequences of making the decision to drive under the influence.

The two mobilizations planned for DSOGPO will help further increase awareness among drivers across the state as to the dangers of driving drunk, drugged or both. Coupled with an intensive media campaign during the mobilization periods, the combination will hopefully lead to an even lower number of alcohol impaired fatalities in 2020 compared to 2017.

Rationale

The countermeasures were chosen for these planned activities (Local Police Impaired Driving Enforcement & MSP & Local Police Sobriety checkpoints) as they were the best representatives of the activity's objective.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
AL-20-02	Local Police Impaired Driving Enforcement
AL-20-03	MSP and Local Police Sobriety Checkpoint & Saturation Patrols

Planned Activity: Local Police Impaired Driving Enforcement

Planned activity number: AL-20-02

Primary Countermeasure Strategy ID: High Visibility Enforcement

Planned Activity Description

Provide funds for overtime enforcement to local police departments for impaired driving patrols including, but not limited to, the Drive Sober or Get Pulled Over (DSOGPO) mobilizations in December 2019 and August 2020. Patrols will be conducted during high-risk times and locations based on the latest available state and local data.

The eligible subrecipients list will be determined on criteria such as overall crash rates,VMT, crashes per VMT, fatal crashes per VMT, and the percentage of fatal crashes related to speed.

Although not finalized, the number of eligible departments is estimated to be approximately 171

Countermeasure Strategy Justification: High Visibility Saturation Patrols

A saturation patrol consists of a large number of law enforcement officers patrolling a specific area looking for possible impaired drivers. These saturation programs are typically publicized to deter drivers from getting behind the wheel after drinking by making it known there is a perceived risk of arrest. For FFY 2020, local departments will be conducting high visibility saturation patrols – which have been extremely successful in previous years – in an effort to remove drivers who are impaired off the road as well as warn of the legal, financial, and social costs associated with an OUI arrest.

Saturation patrols are extremely effective when conducted during the same month as local impaired driving mobilizations are occurring. From 2013-2017, July and June accounted for 13% and 11%, respectively, of all BAC 0.08 or higher drivers involved in a fatal crash. In contrast, the months of Drive Sober or Get Pulled Over (DSOGPO) enforcement (August and December) accounted for 8% and 7%, respectively. Clearly, the combination of local police enforcement and MSP saturation patrols have an impact on the number of impaired driving crashes occurring in the month in which mobilization takes place. Furthermore, saturation patrols – when done regularly throughout the year – will drive changes in driver behavior as the continuous existence, rather than only being during a specific time frame like DSOGPO, will be a constant reminder of the inherent dangers in drinking and driving.

Intended Subrecipients

Local police departments

Countermeasure strategies

Countermeasure Strategy
High Visibility Enforcement
High Visibility Enforcement

Preliminary Breath Test (PBT) Devices
Underage Drinking Enforcement

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2020	FAST Act 405d Impaired Driving Low	405d Low HVE	$886,350.00	$221,588.00	
2019	FAST Act NHTSA 402	Alcohol (FAST)	$357,650.00	$89,413.00	$357,650.00

Planned Activity: MSP and Local Police Sobriety Checkpoint & Saturation Patrols

Planned activity number: AL-20-03

Primary Countermeasure Strategy ID: High Visibility Enforcement

Planned Activity Description

Provide funds for overtime for approximately 85 sobriety checkpoints and saturation patrols for the Massachusetts State Police (MSP) with support from the two Blood Alcohol Testing (BAT) mobile units whenever operationally possible. To the greatest extent possible, local police departments will be engaged in these activities.

This planned activity will take place throughout the year in locations across Massachusetts determined through ongoing data analysis. The primary focus of the program is to provide maximum visibility for deterrent purposes and to take immediate and appropriate action on all motor vehicle offenses observed, with particular focus on impaired drivers. A limited, small portion of the program funding will be used for equipment software upgrades related to the checkpoint setup and process.

Countermeasure Strategy Justification: High Visibility Saturation Patrols

A saturation patrol consists of a large number of law enforcement officers patrolling a specific area looking for possible impaired drivers. These saturation programs are typically publicized to deter drivers from getting behind the wheel after drinking by making it known there is a perceived risk of arrest. For FFY 2020, MSP will be conducting high visibility saturation patrols – which have been extremely successful in previous years – in an effort to remove drivers who are impaired off the road as well as warn of the legal, financial, and social costs associated with a DWI arrest.

Intended Subrecipients

Massachusetts State Police

Countermeasure strategies

Countermeasure Strategy
High Visibility Enforcement
High Visibility Enforcement
Publicized Sobriety Checkpoints
Underage Drinking Enforcement

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2020	FAST Act 405d Impaired Driving Low	405d Low HVE	$1,505,000.00	$376,250.00	

Countermeasure Strategy: Highway Safety Office Program Management

Program Area: Impaired Driving (Drug and Alcohol)

Project Safety Impacts

Linkage Between Program Area

Without financial support, this program area and its planned activities cannot be properly and effectively managed. The program and its planned activities will help lower the number of fatalities caused by impaired drivers through its effective media messaging, overtime enforcement, and statewide opportunities for advanced training.

Rationale

This countermeasure is the best option for this planned activity.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
AL-20-17	Program Management - Impaired Driving

Planned Activity: Program Management - Impaired Driving

Planned activity number: AL-20-17

Primary Countermeasure Strategy ID: Highway Safety Office Program Management

Planned Activity Description

Provide sufficient staff to manage programming described in this plan as well as cover travel, professional development expenses, conference fees, postage, and office supplies.

Countermeasure Strategy Justification: OGR Program Management

The day-to-day operation of OGR requires funding to allow staff to properly oversee the impaired driving program. Lack of oversight due to reduced or no funding could lead to increased impaired driving fatalities on the roadways of Massachusetts.

Intended Subrecipients

Funds will support State Highway Safety Office (SHSO) program staff and will not be subawarded.

Countermeasure strategies

Countermeasure Strategy
Highway Safety Office Program Management

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2019	FAST Act NHTSA 402	Alcohol (FAST)	$230,393.00	$57,598.00	$0.00

Countermeasure Strategy: Integrated Enforcement

Program Area: Impaired Driving (Drug and Alcohol)

Project Safety Impacts

Impaired drivers are detected and arrested through regular traffic enforcement and crash investigations as well as through special impaired driving checkpoints and saturation patrols. A third possibility is to integrate impaired driving enforcement into special enforcement activities focused on other offenses such as speeding or lack of seat belt usage, especially since impaired drivers tend to have a high rate of involvement in speed-related crashes and are more likely not to wear a seat belt while driving. In Massachusetts, the Sustained Traffic Enforcement Program (STEP) provides selected communities with the funding to take this integrated enforcement approach to traffic safety. Not only do law enforcement departments patrol for impaired drivers but also for those speeding or driving aggressively, those not wearing a seat belt or have a young child not buckled into a safety restraint seat, and those failing to keep their eyes on the road because of a distraction, especially using or looking at a cell phone.

Two planned activities for FFY 2020 involved integrated enforcement:

AL-20-04 Local Sustained Traffic Enforcement Program (STEP)

AL-20-05 MSP Sustained Traffic Enforcement Program (STEP)

Linkage Between Program Area

The funding for local STEP participants allows for increased enforcement throughout the year instead of simply during mobilization periods. This funding will help high crash and fatality communities to conduct overtime enforcement to increase traffic safety for both motorists and non-motorists.

With both local and MSP conducting increased enforcement throughout FFY 2020, not only will the number of impaired driving fatalities drop but also the number of unrestrained fatalities and speed-related fatalities. Data has shown that impaired drivers and passengers are most likely not to wear a seat belt and be involved in a speed-related fatal crash.

Rationale

This countermeasure was the best option for the planned activities.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
AL-20-04	Local Sustained Traffic Enforcement Program (STEP)
AL-20-05	MSP Sustained Traffic Enforcement Program (STEP)

Planned Activity: Local Sustained Traffic Enforcement Program (STEP)

Planned activity number: AL-20-04

Primary Countermeasure Strategy ID: Sustained Enforcement

Planned Activity Description

Local sustained enforcement of impaired driving laws will be conducted in selected communities. By using detailed data from RMV and FARS, hot-spot communities will be identified as having the highest percentage of crashes in the Commonwealth with fatal or non-fatal injuries. Previous hot spots were Barnstable, Boston, Brockton, Cambridge, Chicopee, Fall River, Framingham, Holyoke, Lowell, Lynn, New Bedford, Quincy, Springfield, Taunton, Westfield and Worcester. The communities selected to participate for FFY 2020 may be adjusted. Local police departments in the selected areas will receive overtime funding to crack down on impaired driving and other traffic safety focus areas. A portion of the funding may be used for data entry and/or traffic data analysis.

Countermeasure Strategy Justification: Integrated Enforcement

Impaired drivers are detected and arrested through regular traffic enforcement and crash investigations as well as through special impaired driving checkpoints and saturation patrols. A third possibility is to integrate impaired driving enforcement into special enforcement activities focused on other offenses such as speeding or lack of seat belt usage, especially since impaired drivers tend to have a high rate of involvement in speed-related crashes and are more likely not to wear a seat belt while driving. In Massachusetts, the Sustained Traffic Enforcement Program (STEP) provides selected communities with the funding to take this integrated enforcement approach to traffic safety. Not only do law enforcement departments patrol for impaired drivers but also for those speeding or driving aggressively, those not wearing a seat belt or have a young child not buckled into a safety restraint seat, and those failing to keep their eyes on the road because of a distraction, especially using or looking at a cell phone. The funding for local STEP participants allows for increased enforcement throughout the year instead of simply during mobilization periods. This funding will help high crash and fatality communities to conduct overtime enforcement to increase traffic safety for both motorists and non-motorists.

Intended Subrecipients

Local police departments

Countermeasure strategies

Countermeasure Strategy
Integrated Enforcement
Preliminary Breath Test (PBT) Devices

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2019	FAST Act NHTSA 402	Alcohol (FAST)	$600,000.00	$150,000.00	$600,000.00

Planned Activity: MSP Sustained Traffic Enforcement Program (STEP)

Planned activity number: AL-20-05

Primary Countermeasure Strategy ID: Sustained Enforcement

Planned Activity Description

In support of impaired driving laws this task will provide funds to the Massachusetts State Police (MSP) to deploy sustained and selective "zero tolerance" traffic enforcement overtime patrols on the day/time/location identified by each respective State Police troop. This activity will be conducted to augment local police department efforts within the same general location as outlined in support of the local STEP activities. 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.

Countermeasure Strategy Justification: Integrated Enforcement

Impaired drivers are detected and arrested through regular traffic enforcement and crash investigations as well as through special impaired driving checkpoints and saturation patrols. A third possibility is to integrate impaired driving enforcement into special enforcement activities focused on other offenses such as speeding or lack of seat belt usage, especially since impaired drivers tend to have a high rate of involvement in speed-related crashes and are more likely not to wear a seat belt while driving. In Massachusetts, the Sustained Traffic Enforcement Program (STEP) provides MSP with the funding to take this integrated enforcement approach to traffic safety. Not only do MSP troopers patrol for impaired drivers but also for those speeding or driving aggressively, those not wearing a seat belt or have a young child not buckled into a safety restraint seat, and those failing to keep their eyes on the road because of a distraction, especially using or looking at a cell phone. The funding for the MSP STEP allows for increased enforcement throughout the year instead of simply during mobilization periods. This funding will help MSP tackle high crash and fatality rates for both motorists and non-motorists across the Commonwealth.

Intended Subrecipients

Massachusetts State Police

Countermeasure strategies

Countermeasure Strategy
Integrated Enforcement
Preliminary Breath Test (PBT) Devices

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2020	FAST Act NHTSA 402	405d Low HVE	$309,000.00	$77,250.00	$0.00

Countermeasure Strategy: SFST training for Law Enforcement Officers

Program Area: Impaired Driving (Drug and Alcohol)

Project Safety Impacts

Standardized Field Sobriety Testing (SFST) classes help law enforcement better detect impaired drivers during sobriety checkpoints, traffic stops and at the scene of motor vehicle crashes. Increased awareness of driver

impairment by officers will lead to safer roads as drivers are arrested and eventually have their license suspended for anywhere from one year to lifetime.

Linkage Between Program Area

Through the Massachusetts Police Training Committee (MPTC), SFST classes will be offered at various locations across the state, with an emphasis on attracting more officers from counties with high alcohol-involved crashes. As more officers are trained in SFST, along with those who receive DRE certification, it is hoped that more impaired drivers will be removed from the roads and therefore helping Massachusetts meet its performance target.

Rationale

This countermeasure was selected because it best describes the objectives of the planned activity.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
AL-20-09	MPTC - Impaired Driving Law Enforcement Specialized Training

Planned Activity: MPTC - Impaired Driving Law Enforcement Specialized Training

Planned activity number: AL-20-09

Primary Countermeasure Strategy ID: Police Training Supporting Enforcement

Planned Activity Description

This program will provide funds to the MPTC to conduct up to 18 trainings throughout the year focused on Standardized Field Sobriety Testing (SFST). The MPTC will provide training to law enforcement officers to help reduce the number and severity of roadway crashes and pedestrian injuries due to alcohol-and-drug related impaired driving. Classes will include SFST Instructor, SFST Instructor Updates, 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.

Countermeasure Strategy Justification: SFST Training

Standardized Field Sobriety Training classes help law enforcement better detect impaired drivers during sobriety checkpoints, traffic stops and at the scene of motor vehicle crashes. Increased awareness of driver impairment by officers will lead to safer roads as drivers are arrested and eventually have their license suspended for anywhere from one year to a lifetime.

Through the MPTC, SFST classes will be offered at various locations across the state throughout FFY 2020. With an emphasis on attracting more officers from counties with high alcohol-involved crashes, MPTC will offer multiple classes in or near Bristol, Plymouth, and Worcester counties. As more officers are trained in SFST, along with those receiving DRE designation, more impaired drivers will be removed from the roads, therefore making the roadways safer and less dangerous.

Intended Subrecipients

Municipal Police Training Committee (MPTC)

Countermeasure strategies

Countermeasure Strategy
SFST Training
SFST training for Law Enforcement Officers

Funding sources

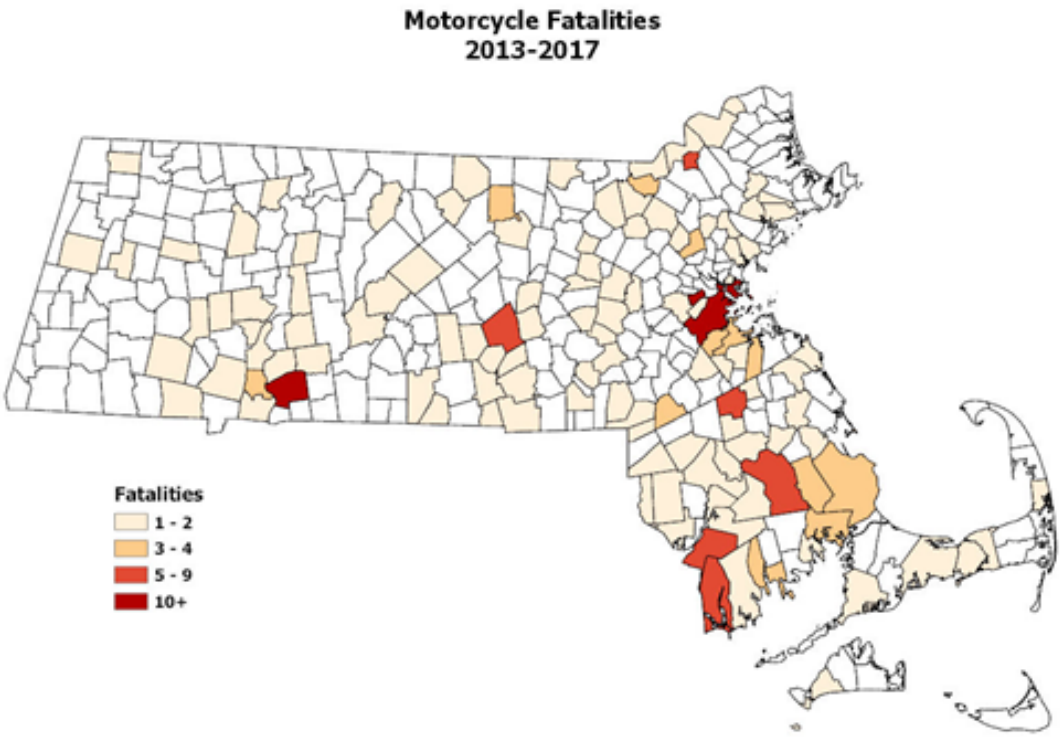
Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2019	FAST Act 405d Impaired Driving Low	405d Low Drug and Alcohol Training	$60,000.00	$15,000.00	

Program Area: Motorcycle Safety

Description of Highway Safety Problems

Motorcycling continues to be a popular mode of transportation in Massachusetts. From 2013-2017, motorcyclists fatalities accounted for nearly 14% of all traffic fatalities reported in the Commonwealth. In 2017, 51 motorcyclists lost their lives on the roadways, up from 44 in 2016. At the same time, the number of registered motorcycles dropped 2% in 2017 to 165,148 from 168,000 in 2016. Unfortunately, with more fatalities and fewer registered motorcycles, the fatality rate for motorcyclists rose to 30.88 per 100,000 registered motorcycles – up 23% from the 25.03 rate reported in 2016. Nationally, the fatality rate per 100,000 was 58.90 in 2017.

NHTSA estimates helmets saved the lives of 1,859 motorcyclists in the US in 2016. (Note: NHTSA has not released 2017 estimates at this time.) If all motorcyclists had worn helmets, an additional 802 lives could have been saved. Helmets are estimated to be 37 percent effective in preventing fatal injuries to motorcycle operators, and 41 percent for passengers. In other words, for every 100 motorcycle riders killed in crashes while not wearing helmets, 37 of them could have been saved had they worn one. According to results from the 2017 National Occupant Protection Use Survey (NOPUS), the overall rate of DOT-compliant motorcycle helmet use in the United States was 65.2 percent. Helmet use was significantly higher in States that required all motorcyclists to be helmeted than states that did not (Traffic Safety Facts, August 2018, DOT HS 812 512). Massachusetts does require that motorcyclists be helmeted. Of the 51 reported motorcycle fatalities in 2017 in the Commonwealth, only one was determined to be not wearing a helmet at the time of the crash, down from three in 2016.



County	Total	Percent of All Motorcycle Fatalities
BARNSTABLE	6	3%
BERKSHIRE	3	1%
BRISTOL	30	13%
DUKES	1	0%
ESSEX	19	8%
FRANKLIN	4	2%
HAMPDEN	24	10%
HAMPSHIRE	11	5%
MIDDLESEX	28	12%
NANTUCKET	0	0%
NORFOLK	23	10%
PLYMOUTH	38	16%
SUFFOLK	18	8%
WORCESTER	35	15%
Total	240	

Table 15: Motorcycle Fatalities by County, 2013-2017

In 2017, motorcycle fatalities accounted for 14.7% of all motor vehicle-related fatalities in Massachusetts, up from 11.4% in 2016. Males represented 94% (225 of 240) the motorcycle fatalities, up from 86% in 2016. From 2013-2017, there have been 240 motorcycle fatalities across the Commonwealth with Plymouth (16%) as the leading county. The southeastern region – Plymouth and Bristol combined – accounted for nearly a third of all motorcycle fatalities. One-fifth of motorcycle fatalities took place across five communities: Boston (15), Springfield (10), Worcester (8), Middleborough (7), and Brockton (6).

From 2013 to 2017, motorcycle fatalities involving another motor vehicle (107 crashes) accounted for 45.7% of all fatal crashes. This is slightly lower than the 46.1% (112 crashes) reported from 2012 to 2016. Norfolk County had the highest percentage of motorcycle fatalities involving a collision with a motor vehicle with 15.9% of the 107 crashes

Table 16: Motorcycle Fatalities involving a Collision with a Motor Vehicle, 2013-2017

Of the reported 107 motorcycle fatalities involving collisions with other motor vehicles, the most prevalent type

County	Motorcycle Fatalities in Collision w/MV (2013-2017)	Percent of All MV-involved Fatalities
BARNSTABLE	3	2.8%
BERKSHIRE	2	1.9%
BRISTOL	15	14.0%
DUKES	1	0.9%
ESSEX	8	7.5%
FRANKLIN	2	1.9%
HAMPDEN	13	12.1%
HAMPSHIRE	4	3.7%
MIDDLESEX	9	8.4%
NANTUCKET	0	0.0%
NORFOLK	17	15.9%
PLYMOUTH	12	11.2%
SUFFOLK	6	5.6%
WORCESTER	15	14.0%
Total	107	

of collision was at an angle. This occurred in 55% of the fatalities, followed by front-to-front (or head-on) with 22% and front-to-rear at 17%. In all, these three types of collisions accounted for 94% of all motorcycle fatal crashes involving another motor vehicle.

By roadway type, motorcycle fatalities involving another motor vehicle occurred most frequently along minor arterial roads (33%), principal arterials (30%), and local roads (25%). One likely reason for the high numbers along both principal and minor arterial roads is the amount of distractions (signs, traffic signals, motor vehicles turning in and out, pedestrians and bicyclists crossing roads) that could result in a driver of either a motor vehicle or motorcycle to not pay enough attention to other vehicles sharing the road with them.

Roadway Type	Angle	Front-to-Front	Front-to-Rear	Total
Interstate	0	1	4	5
Principal Arterial - Other Freeways And Expressways	1	0	0	1
Principal Arterial - Other	21	4	5	30
Minor Arterial	17	9	7	33
Major Collector	2	3	0	5
Minor Collector	0	2	0	2
Local	18	5	2	25
Total	59	24	18	101

Table 17: Motorcycle fatalities involving a collision with a motor vehicle by roadway type, 2013-2017

Further analysis regarding the high incidence of angle collisions along arterial and local roads would be needed to determine if roadway design flaws may be attributing to these fatalities.

Month	All MC Fatalities	MC Fatalities w/Speeding
January	0	0
February	2	1
March	4	0
April	16	7
May	26	13
June	32	9
July	46	20
August	40	13
September	29	13
October	26	10
November	16	5
December	3	0
Total	240	91

Table 18: Motorcycle Fatalities by Month, 2013-2017

Given that motorcycling exposes its riders to the elements, it is not surprising that motorcycle fatalities occur

more frequently during warmer months. The months from May through October account for 83% of all motorcycle fatalities. During the same period, speed was a factor in 78 of the 199 reported fatalities. Overall, speeding was involved in 38% of motorcycle fatalities from 2013 to 2017. This is the same rate for speed-related motorcycle fatalities from 2012 to 2016. OGR plans to integrate speed-related safety messaging into its FFY 2020 motorcycle safety campaign, as done in previous years, which will take place during the spring/summer of 2021.

Table 19: Motorcycle Fatalities by Age, 2013-2017 The dexterity and hand-eye coordination required for operating a motorcycle tends to favor younger operators as one's reflexes and reaction times diminish over time. From 2013 to 2017, motorcycle fatalities involving speeding was skewed towards the younger crowd. Those under 30 years of age accounted for 54% of all speed-related motorcycle fatalities.

Age Range	MC Fatalities 2013-2017	MC Fatalities w/ Speeding
Under 21	16	6
21-24	49	25
25-29	41	23
30-34	25	14
35-44	36	12
45-54	33	9
55-64	29	1
65-74	10	1
75+	1	0

As mentioned in the overview of fatalities in Massachusetts in Section I, 35% of traffic fatalities during 2013-2017 took place on the weekend (Saturday/Sunday) and 47% of fatalities occurred between the hours of 3 pm and 11:59 pm. Motorcycle fatalities, in comparison, were even higher on the weekend (39% of all motorcycle fatalities) and also between 3 pm to 11:59 pm (58% of all motorcycle fatalities). One possible reason for the increase compared to overall fatalities is that motorcycle enthusiasts may be more likely to be on the road recreationally, riding after work hours and during the weekend, rather than utilizing their motorcycles for commuting purposes. The typical morning rush hours only accounted for 4.6% of all motorcycle fatalities.

Table 20: Motorcycle Fatalities by Time and Day-of-Week, 2013-2017

	Sunday	Monday	Tuesday	Weds	Thursday	Friday	Saturday	Total
12am - 2:59am	6	2	0	3	2	5	7	25
3am - 5:59am	2	0	0	0	2	2	1	7
6am - 8:59am	1	2	2	2	1	1	2	11
9am - 11:59am	3	1	3	0	3	2	2	14
12pm - 2:59pm	8	3	8	5	3	1	8	36
3pm - 5:59pm	8	9	2	5	5	3	5	37
6pm - 8:59pm	10	6	8	5	9	9	14	61
9pm - 11:59pm	7	3	3	9	7	4	9	42
Total	45	26	26	29	32	27	48	240

Motorcycle riders were found with a BAC .08 or higher in 30% of motorcyclist fatalities from 2013-2017. Those under 30 years of age accounted for 40% of these alcohol-impaired fatalities. Drugs in the system among motorcyclist fatalities were more prevalent than alcohol during the same time frame. Of the 240 motorcycle fatalities reported, 51% were determined to have been under influence of one or more drugs at the time of the crash, with 42% of these fatalities being under the age of 30.

Table 21: Impaired motorcyclist fatalities by county, 2013-2017

The level of drug use among motorcyclists is concerning, especially in Hampden County, where 18 of the 24

County	MC Fatality w/BAC .08+	BAC .08+ & Under 30	MC Fatality w/Drugs	Drugs & Under 30
BARNSTABLE	2	1	3	1
BERKSHIRE	0	0	1	0
BRISTOL	5	1	14	7
DUKES	0	0	0	0
ESSEX	3	0	7	3
FRANKLIN	0	0	1	0
HAMPDEN	10	3	18	6
HAMPSHIRE	3	0	6	1
MIDDLESEX	10	9	15	10
NANTUCKET	0	0	0	0
NORFOLK	5	3	12	5
PLYMOUTH	15	7	20	9
SUFFOLK	4	0	7	3
WORCESTER	16	5	18	6
Total	73	29	122	51

fatalities reported involved drugs. For FFY 2020, OGR may look to increase impaired driving messaging among motorcyclist under 30 years of age within Hampden as well as Middlesex, Plymouth, Worcester, and Bristol.

In conclusion, OGR plans to tackle motorcyclist safety and decrease motorcyclist fatalities in FFY 2020 through the operation of two planned activities – Motorcycle Media and Motorcycle Safety Program Enhancements. Described in the section below, these two planned programs will focus on outreach and messaging to regions of the state that have high incidence of motorcyclist fatalities such as southeastern Massachusetts (Bristol and Plymouth counties) as well as work with law enforcement to better focus patrols along arterials and local roads during weekend and during the hours of 3pm to 11:59pm to have a presence when motorcyclists are more predominant.

Associated Performance Measures

Fiscal Year	Performance measure name	Target End Year	Target Period	Target Value
2020	C-7) Number of motorcyclist fatalities (FARS)	2020	5 Year	46.00
2020	C-8) Number of unhelmeted motorcyclist fatalities (FARS)	2020	5 Year	3.00

Countermeasure Strategies in Program Area

Countermeasure Strategy
Communication Campaign
Highway Safety Office Program Management
Motorcycle Rider Training

Countermeasure Strategy: Communication Campaign

Program Area: Motorcycle Safety

Project Safety Impacts

In 2017, motorcycle fatalities accounted for 14.7% of all motor vehicle-related fatalities in Massachusetts, up

from 11.4% in 2016. This increase is due in part to the year-to-year drop in overall motor vehicle fatalities from 387 to 347 in 2017 as well as the 16% rise in motorcycle fatalities from 2016 to 2017. OGR will partner with RMV's Motorcycle Rider Education Program (MREP) to develop and promote an awareness campaign about motorcycle safety. The media for the campaign – online, radio, television, and/or outdoor billboards and electronic signs, will take place during the warmer months (May to October) to take advantage of the peak riding season in Massachusetts. It is this period of the year when over 80% of motorcyclist fatalities occur.

Linkage Between Program Area

Not only will the media campaign be in full force during warmer months when motorcyclists are more likely to be on the roads, any associated media buy(s) will skew towards Bristol, Hampden, Norfolk, Plymouth, and Worcester counties. These counties represent 67% of the motorcycle crashes involving another motor vehicle from 2013 to 2017.

Emphasis on younger motorcyclist (under 30 years of age) and speeding will also be incorporated into the media messaging. Those under 30 years of age accounted for 44% (106 of 240) of motorcyclist fatalities from 2013-2017 and even more concerning is the fact that speeding was a factor in nearly 60% of those deaths.

By targeting these counties and demographics, OGR hopes to meet its stated FFY 2020 HSP motorcycle performance target by December 31, 2020.

Rationale

This countermeasure was selected because its was the best option to describe the objectives of this planned activity.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
MC-20-01	Motorcycle Safety Media

Planned Activity: Motorcycle Safety Media

Planned activity number: MC-20-01

Primary Countermeasure Strategy ID: Communication Campaign

Planned Activity Description

Develop and implement a media program will also educate motorcyclists about the importance of rider safety and the dangers of impaired riding. A combination of earned and paid media will focus on the risks of speeding and the enforcement of impaired riding laws through public service announcements, social media, and press outreach. The media campaign will run in the time frame of May-September and will target males, with a skew towards males under 30 years of age. Local and national data will be used to identify the timing and target audience of the campaign. OGR will contract with a media vendor to assist with the development and targeted distribution of motorcycle safety information to key demographics and regions in Massachusetts.

Internal policies will be 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 will be used not only for planning enforcement activities but also to determine the target audiences and media channels used to reach that audience. NHTSA's guidelines will be followed for messaging, demographics, best practices and target groups for each media effort.

Countermeasure Strategy Justification: Communication Campaign

In 2017, motorcycle fatalities accounted for 14.7% of all motor vehicle-related fatalities in Massachusetts, up from 11.4% in 2016. This increase is due in part to the year-to-year drop in overall motor vehicle fatalities from 387 to 347 in 2017 as well as the 16% rise in motorcycle fatalities from 2016 to 2017. OGR will partner with RMV's Motorcycle Rider Education Program (MREP) to develop and promote an awareness campaign about motorcycle safety. The media for the campaign – online, radio, television, and/or outdoor billboards and electronic signs, will take place during the warmer months (May to October) to take advantage of the peak riding season in Massachusetts. It is this period of the year when over 80% of motorcyclist fatalities occur. Not only will the media campaign be in full force during warmer months when motorcyclists are more likely to be on the roads, any associated media buy(s) will skew towards Bristol, Hampden, Norfolk, Plymouth, and Worcester counties. These counties represent 67% of the motorcycle crashes involving another motor vehicle from 2013 to 2017.

Emphasis on younger motorcyclist (under 30 years of age) and speeding will also be incorporated into the media messaging. Those under 30 years of age accounted for 44% (106 of 240) of motorcyclist fatalities from 2013-2017 and even more concerning is the fact that speeding was a factor in nearly 60% of those deaths.

Intended Subrecipients

Media vendor to be determined through the state procurement process,

Countermeasure strategies

Countermeasure Strategy
Communication Campaign

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2020	FAST Act NHTSA 402	Paid Advertising (FAST)	$100,000.00	$25,000.00	$0.00

Countermeasure Strategy: Highway Safety Office Program Management

Program Area: Motorcycle Safety

Project Safety Impacts

Funding for staffing to manage the stated planned activities for FFY 2020 under "Motorcycle Safety." Without funding, OGR staff cannot properly oversee the planned activities aimed at reducing motorcyclist fatalities on the roadways of Massachusetts.

Linkage Between Program Area

Without funding to support OGR staff, planned activities that will help improve motorcycle safety and reduce motorcyclist fatalities will not happen. If no programs take place, motorcyclist fatalities will likely increase in the coming years.

Rationale

Lack of funding to support a quality program management staff will lead poor programming execution and lead to many errors from little or no oversight. A well-funded program management staff will lead to improved motorcycle safety messaging and reduced motorcyclist fatalities.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
MC-20-03	Program Management - Motorcycle Safety

Planned Activity: Program Management - Motorcycle Safety

Planned activity number: MC-20-03

Primary Countermeasure Strategy ID: Highway Safety Office Program Management

Planned Activity Description

Provide sufficient staff to manage programming described in this plan as well as cover travel, professional development expenses, conference fees, postage, and office supplies.

Countermeasure Strategy Justification: OGR Program Management

The day-to-day operation of OGR requires funding to allow staff to properly oversee the speed management program. Lack of oversight due to reduced or no funding could lead to increased speed-related fatalities on the roadways of Massachusetts.

Intended Subrecipients

Funds will support SHSO program staff and will not be subawarded.

Countermeasure strategies

Countermeasure Strategy
Highway Safety Office Program Management

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2019	FAST Act NHTSA 402	Motorcycle Safety (FAST)	$59,755.00	$14,939.00	$0.00

Countermeasure Strategy: Motorcycle Rider Training

Program Area: Motorcycle Safety

Project Safety Impacts

Data has shown that motorcycle rider training does help improve motorcycle safety and reduces the likelihood of fatal crashes among those who complete the training. In FFY 2020, OGR will work with the Registry of Motor Vehicles (RMV) to help improve its Motorcycle Rider Education Program (MREP) through enhancements in the delivery of motorcycle training in urban and rural areas as well as increase the number of certified motorcycle training instructors.

Linkage Between Program Area

Forty-four percent of all motorcyclist fatalities in the last five years (2013-2017) has been among motorcycle riders under the age of 30 and OGR will work with RMV to target this age demographic in order to increase their participation in MREP training sessions. OGR will work with the RMV to promote motorcycle rider training to this age demographic. The more riders in this age group that attend training in FFY 2020, the better chance Massachusetts has to meets its stated motorcyclist fatality performance target by December 31, 2020.

Rationale

This countermeasure was selected because it wsa the best option to encompass the objectives of the planned activity.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
MC-20-02	Motorcycle Safety Program Enhancements

Planned Activity: Motorcycle Safety Program Enhancements

Planned activity number: MC-20-02

Primary Countermeasure Strategy ID: Motorcycle Rider Training

Planned Activity Description

The RMV Motorcycle Rider Education Program (MREP) will contract with the Motorcycle Safety Foundation (MSF) to hire a full-time RiderCoach Trainer. Half of this cost will come from Section 405-f funding, one quarter from MREP's state funding, and one quarter from MSF. This will give MREP personnel a single source of training information, including the three MA RiderCoach Trainers who will assist this Lead MSF RiderCoach Trainer. These RiderCoach Trainers will conduct quality assurance visits and curriculum updates with existing instructors as well as training new instructors. RMV will improve the Basic Rider Course by incorporating state motorcycle safety data to enhance its curriculum. RMV will evaluate the MSF Skill Evaluation offered at the end of the Basic Rider Course to determine if it needs enhancement and can continue to serve as a substitute for the RMV's state motorcycle license test. MSF recently developed a Basic Rider Course - 3-Wheel Seat and Steering Wheel course. RMV will review if this course can serve as a training opportunity and license test substitute for the auto cycle type vehicles in Massachusetts which are considered motorcycles.

OGR will develop paid media in coordination with the RMV's Motorcycle Rider Education Program (MREP) to enhance driver awareness of motorcyclists and educate motor vehicle operators about the need to share the road. The awareness campaign will run in late spring-summer, the time of year when motorcyclist fatalities spike. Any associated media buy(s) will skew towards areas that represent significant motorcycle crashes involving other motor vehicles between 2008-2017.

Massachusetts has 12 motorcycle schools that provide training opportunities at 26 sites, encompassing 11 of 14 counties across the state. Based on 2017 data from RMV, Massachusetts has 165,148 registered motorcycles. The number of registered motorcycles for a county is in parentheses after the county name below.

Barnstable (6,704) – West Dennis Berkshire (5,099) – Pittsfield Bristol (18,349) – South Easton, Dartmouth, Raynham, Seekonk Essex (18,865) – Beverly, North Andover Franklin (3,212) – Ashfield, Greenfield Hampden (12,144) – Palmer, Westfield (2) Middlesex (32,037) – Ayer, Bedford, Framingham, Tyngsborough Norfolk

(12,843) – Foxborough, Norwood Plymouth (15,562) – Brockton, Plympton, Wareham Suffolk (6,859) – Revere Worcester (27,649) – Auburn, Sturbridge, West Boylston

Dukes, Hampshire, and Nantucket counties have 907, 4256, and 568 registered motorcycles, respectively. At this time, no motorcycle schools are planned in these counties.

Countermeasure Strategy Justification: Motorcycle Rider Training

Data has shown that motorcycle rider training does help improve motorcycle safety and reduces the likelihood of fatal crashes among those who complete the training. In FFY 2020, OGR will work with the RMV to help improve its Motorcycle Rider Education Program (MREP) through enhancements in the delivery of motorcycle training in urban and rural areas as well as increase the number of certified motorcycle training instructors. Forty-four percent of all motorcyclist fatalities in the last five years (2013-2017) has been among motorcycle riders under the age of 30 and OGR will work with RMV to target this age demographic in order to increase their participation in MREP training sessions.

Intended Subrecipients

Massachusetts Registry of Motor Vehicles

Countermeasure strategies

Countermeasure Strategy
Motorcycle Rider Training

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2019	FAST Act 405f Motorcycle Programs	405f Motorcycle Programs (FAST)	$70,000.00	$17,500.00	
2020	FAST Act 405f Motorcycle Programs	405f Motorcycle Programs (FAST)	$80,000.00	$20,000.00	

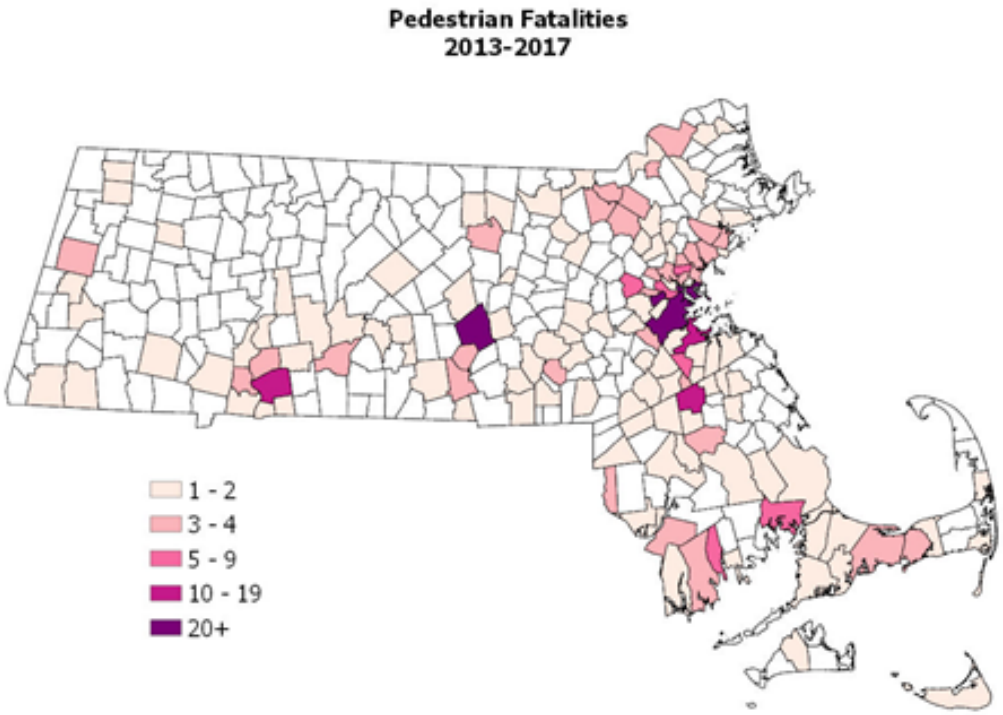
Program Area: Non-motorized (Pedestrians and Bicyclist)

Description of Highway Safety Problems

From 2013 to 2017, pedestrian fatalities in the U.S. increased by 25%. In that same period in Massachusetts, pedestrian fatalities have declined by 6%. Nationally in 2017, pedestrian fatalities accounted for 16% of all traffic deaths; in Massachusetts, that number was 21%. In 2017 males accounted for 70% of all pedestrian fatalities in the US. In Massachusetts 61% of those pedestrians killed were male.

Pedestrian fatalities from 2013 to 2017 were far more frequent in communities with high population density – Boston (54 fatalities), Brockton (13), Quincy (11), Springfield (17), and Worcester (24). Together these five cities accounted for 30% of all Massachusetts pedestrian fatalities.

Of the 384 pedestrian fatalities reported, 63% of occurred in eastern Massachusetts. Barnstable, Bristol, Essex, Middlesex, Norfolk, Plymouth, and Suffolk saw 242 pedestrian deaths. Central and Western Massachusetts



(Berkshire, Hampden, Hampshire, and Worcester County) accounted for 107 deaths or 28%.

County	Pedestrian Fatalities
Barnstable	17
Berkshire	9
Bristol	28
Dukes	1
Essex	33
Franklin	0
Hampden	36
Hampshire	8
Middlesex	66
Nantucket	1
Norfolk	38
Plymouth	34
Suffolk	59
Worcester	54

Table 22: Pedestrian Fatalities by County, 2013-2017

In Table 22, a breakdown of pedestrian fatalities by time and day of the week is provided. The hours between 3 pm and 11:59 pm is the most dangerous for pedestrians on the roadways. Nearly 60% of pedestrian fatalities occurred during this time from 2013-2017. The three hour period from 6 pm to 8:59 pm was the only time frame with double-digit fatalities for every day of the week. This would coincide with the weekday rush hour home and on the weekend with the popular period of time for people to head out to local establishments. Wednesday experienced the highest number of pedestrian fatalities with 67, 17% of all pedestrian deaths. Nearly two-thirds of Wednesday's fatalities took place between 12 pm and 8:59 pm.

Table 23: Pedestrian Fatalities by Day and Time Frame, 2013-2017

Ages of the deceased pedestrians are skewed more to those over 50 years old. Pedestrians under 30 years of age accounted for 21% of the fatalities, while those age 50 or higher represented nearly 60% of the fatalities.

	12am - 2:59am	3am - 5:59am	6am - 8:59am	9am - 11:59am	12pm - 2:59pm	3pm - 5:59pm	6pm - 8:59pm	9pm - 11:59pm	Hour Unknown	Total
Sunday	3	6	3	2	4	8	13	10	3	52
Monday	1	4	6	7	4	9	11	6	0	48
Tuesday	7	1	9	1	5	5	15	7	3	53
Wednesday	2	4	6	3	11	17	14	6	4	67
Thursday	2	3	6	5	3	8	13	11	3	54
Friday	3	3	3	2	3	7	13	16	0	50
Saturday	7	3	3	3	4	6	16	17	1	60
Total	25	24	36	23	34	60	95	73	14	

Figure 24: Pedestrian Fatalities by Age Group, 2013-2017

Of great concern is the recent jump in fatalities for those age 60 or older. This age group had 158 reported fatalities or 41% of all pedestrian fatalities from 2013-2017.

Why the high incidence of older pedestrian fatalities? A look at the location of the pedestrian at the time of crash provides a possible clue. Table 24 shows the breakdown of pedestrian location by age grouping for the locations that accounted for 90% of all pedestrian fatality locations.

Location of Pedestrian at Time of Crash	Under 16	16-20	21-29	30-39	40-49	50-59	60+
Not At Intersection - On Roadway, Not In Marked Crosswalk	12	13	27	21	29	39	64
At Intersection - In Marked Crosswalk	1	3	1	2	5	5	39
At Intersection - Not In Crosswalk	0	1	3	1	1	6	12
Not At Intersection - In Marked Crosswalk	0	0	0	0	1	3	12
Not At Intersection - On Roadway, Crosswalk Availability Unknown	2	0	2	2	1	2	7
Shoulder/Roadside	2	3	2	4	0	3	2
Sidewalk	1	0	3	1	1	2	5

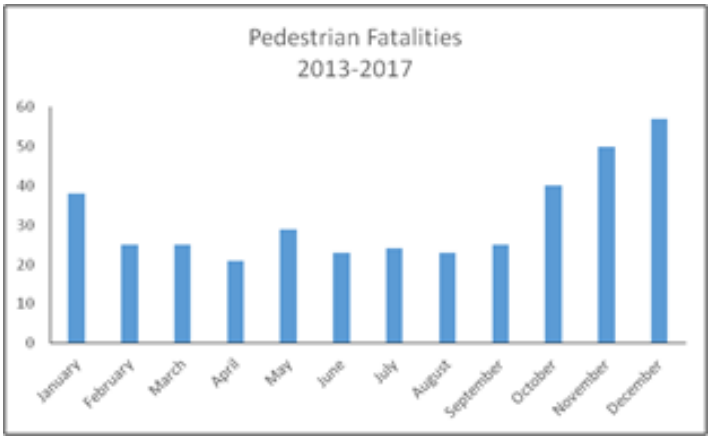
Table 24: Pedestrian Location at Time of Crash, 2013-2017

For those 60 years of age or older, over a third of the locations were in a marked crosswalk. This is dramatically higher than any other age group. In comparison, pedestrians under 30 years of age had only 10% of fatalities in a marked crosswalk. Those 50-59 experienced 13% of fatalities in marked crosswalks. Possible factors for those age 60 or older is the inability to quickly move, and poor hearing or eyesight impairs judging distance of moving vehicles. Older pedestrians are additionally less able to recover from serious injuries as well.

Figure 25: Pedestrian Fatalities by Month, 2013-2017

An assessment of the time of year shows that fatalities occur more frequently from October to January. The lack of daylight, especially around the evening commuting hours (3 pm to 6 pm), is a factor that could impact drivers' ability to see pedestrians. Data does reveal dark clothing as the top pedestrian contributing factor with 62 fatalities (16% of all pedestrian deaths) noting this as a factor.

For FFY 2020, OGR plans to continue its programming aimed at pedestrian safety in an effort to continue to reduce the number of pedestrian fatalities. The high pedestrian fatality count in the urban communities of Boston, Worcester, Springfield, Brockton, and Quincy will be addressed through the funding of pedestrian-



focused grant programming as well as sustained enforcement. More analysis is needed to determine the best strategy to counter the high rate of fatalities among pedestrian age 60 or older. OGR share key data points with local law enforcement to better target periods of expected increases in pedestrian fatalities such as conducting patrols more often during late fall/early winter and around the hours of 3 pm to midnight.

In 2017, there were 11 bicyclist fatalities reported in Massachusetts, up from 10 in 2016. Bicyclist fatalities accounted for 3% of all traffic fatalities, higher than the national rate of 2%. Middlesex County led Massachusetts with 21% of the all bicyclist fatalities from 2013-2017. Suffolk County had eight bicyclist fatalities in the same period. Together, these top two counties accounted for over a third of all bicyclist fatalities.

Table 25: Bicyclists Fatalities by County, 2013-2017

County	Bicyclists Fatalities
Barnstable	4
Berkshire	1
Bristol	4
Dukes	0
Essex	2
Franklin	2
Hampden	5
Hampshire	2
Middlesex	10
Nantucket	0
Norfolk	2
Plymouth	5
Suffolk	8
Worcester	2

Boston, with its high bicyclist population and heavy traffic, led all communities with six fatalities. In all, 34 towns and cities across Massachusetts reported at least one bicyclist fatality between 2013 and 2017.

Males are disproportionately represented with over 80% of all bicyclist fatalities. Of the 38 male fatalities, eight were found to not be wearing a helmet at the time of the crash. For females, three of the nine fatalities were

without a helmet at the time of impact.

Bicyclist fatalities were not limited to the young. In fact, riders 50 years or older accounted for 53% of fatalities. With regards to helmet use, of the 11 reported bicyclist fatalities without a helmet, over half were age 50 or older.

	Male	Female	Total
Under 16	4	1	5
16-20	4	0	4
21-29	5	2	7
30-39	2	2	4
40-49	2	0	2
50-59	10	2	12
60+	11	2	13
Total	38	9	

Table 26: Bicyclist Fatalities by Age & Gender, 2013-2017

While much of the media messaging about bicycle helmet usage has been understandably focused on children and teenagers, some outreach toward older adults is worth pursuing given the high percentage of older adults not wearing a helmet in a bicyclist crash.

Town	Bicyclists Fatalities
BOSTON	7
BROCKTON	3
CAMBRIDGE	3
LINCOLN	2
SPRINGFIELD	2
WESTFIELD	2
AMHERST	1
ATTLEBORO	1
BARNSTABLE	1
BEVERLY	1
BREWSTER	1
CHARLTON	1
CHELSEA	1
DARTMOUTH	1
DEERFIELD	1
EASTHAM	1
FITCHBURG	1
GREENFIELD	1
HOLYOKE	1
HUDSON	1
HULL	1
LITTLETON	1
MALDEN	1
MANSFIELD	1
MEDFORD	1
METHUEN	1
MIDDLEBORO	1
NORTHAMPTON	1
PITTSFIELD	1
SUDBURY	1
TAUNTON	1
WELLFLEET	1
WESTWOOD	1
WRENTHAM	1

Table 27: Top Towns for Bicyclists Fatalities, 2013-2017

Over a third of bicyclist fatalities took place between 3 pm and 6 pm. This is the time when kids are heading home from school and people are leaving work. Nearly 70% of bicyclist fatalities occurred from 12 pm to 9 pm.

	12am - 2:59am	3am - 5:59am	6am - 8:59am	9am - 11:59am	12pm - 2:59pm	3pm - 5:59pm	6pm - 8:59pm	9pm - 11:59pm	Hour Unknown	Total
Sunday	0	1	0	2	1	4	0	1	0	9
Monday	0	0	0	0	0	3	0	0	0	3
Tuesday	0	0	0	0	1	2	1	1	0	5
Wednesday	0	1	1	0	3	1	1	0	0	7
Thursday	0	0	0	0	2	1	2	1	1	7
Friday	1	0	1	2	2	2	3	0	0	11
Saturday	0	1	0	0	1	1	0	2	0	5
Total	1	3	2	4	10	14	7	5	1	

Table 28: Bicyclists Fatalities by Day & Time Frame, 2013-2017

From 2013-2017, bicyclists fatalities occurred with most frequency on Sunday and Friday. These two days accounted for over half of fatalities. Friday saw 7 of its 11 fatalities taking place between 12 pm and 8:59 pm; Sunday had 7 of its 9 happening between 9 am and 5:59 pm.

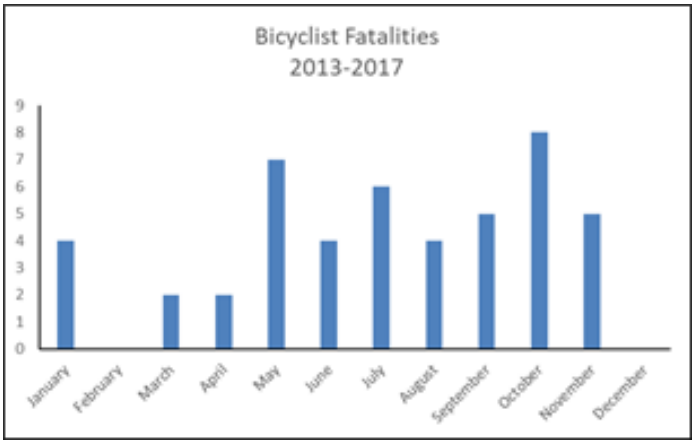


Figure 26: Bicyclist Fatalities by Month, 2013-2017

Bicyclist fatalities occurred more often during warmer months, May to October. The three highest months for fatalities were October, May, and July respectively. May is usually the final month of the college term in the Boston area as well as the first month of consistently warm weather. October is still warm enough for students as well as urban commuters to ride bikes to get to and from class or work. July is typically the height of summer vacation for students (elementary through college).

With no fatalities reported in either February or December, having four fatalities in January was unexpected. Biking is not a popular mode of transportation during winter months in New England, especially with icy and snowy roads to contend with. Data shows that three of the four fatalities were over 50 years of age.

For FFY 2020, OGR will look to target bicycle safety programming and outreach, particularly in Suffolk and Middlesex Counties. Law enforcement patrols that take place primarily between 3 pm and 9 pm on Mondays and Wednesdays will be encouraged.

Associated Performance Measures

Fiscal Year	Performance measure name	Target End Year	Target Period	Target Value
2020	C-10) Number of pedestrian fatalities (FARS)	2020	5 Year	73.00

2020	C-11) Number of bicyclists fatalities (FARS)	2020	5 Year	9.00

Countermeasure Strategies in Program Area

Countermeasure Strategy
Communication Campaign
Highway Safety Office Program Management
Pedestrian Safety Zones

Countermeasure Strategy: Communication Campaign

Program Area: Non-motorized (Pedestrians and Bicyclist)

Project Safety Impacts

In 2017, pedestrian fatalities dropped to 74 from 78 in 2016. To build upon this positive trend, OGR plans to launch a paid and earned media campaign during FFY 2020 to raise awareness among drivers, pedestrians, and bicyclists of the need to share the roadways responsibly. This campaign will use both online and offline (radio, television, electronic signs) media to spread the message and will be done concurrently with local police overtime enforcement activity. OGR will suggest any pedestrian and/or bicyclist-focused patrols to be conducted between 9am and 9pm with emphasis on Fridays and Sundays.

Linkage Between Program Area

While pedestrian fatalities have dropped slightly from 2016 to 2017, bicyclists fatalities have risen during the same period. The non-motorist media campaign will have a heavy focus on the Boston area, which has a high proportion of its traffic fatalities due to pedestrian and bicyclists. Worcester and Springfield will also receive attention as those two cities also have over a third of its fatalities attributed to non-motorists. Coupled with the enforcement patrols conducted by law enforcement departments receiving a Pedestrian Safety Enforcement & Equipment Grant, the combination of media and enforcement should help decrease pedestrian fatalities by 2020.

Rationale

This countermeasure was selected because it was the best option to describe the objectives of the planned activities.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
PS-20-01	Pedestrian and Bicyclist Safety Media

Planned Activity: Pedestrian and Bicyclist Safety Media

Planned activity number: PS-20-01

Primary Countermeasure Strategy ID: Communication Campaign

Planned Activity Description

Develop and implement a pedestrian and bicyclist safety paid and earned media campaign in conjunction with the MassDOT's Traffic Safety Division, which will encourage all road users to safely share the road, educate the public on related traffic laws, and promote the enforcement efforts of local police departments. OGR will analyze local and national crash and fatality data to identify the timing and target audience. OGR will contract

with a marketing and advertising agency to execute the media campaign. Social media will be used for sustained educational efforts.
Internal policies will be 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 will be used not only for planning enforcement activities but also to determine the target audiences and media channels used to reach that audience. NHTSA's guidelines will be followed for messaging, demographics, best practices and target groups for each media effort.
Countermeasure Strategy Justification: Communication Campaign
In 2017, pedestrian fatalities dropped to 74 from 78 in 2016. To build upon this positive trend, OGR plans to launch a paid and earned media campaign during FFY 2020 to raise awareness among drivers, pedestrians, and bicyclists of the need to share the roadways responsibly. This campaign will use both online and offline (radio, television, electronic signs) media to spread the message and will be done concurrently with local police overtime enforcement activity. OGR will suggest any pedestrian and/or bicyclist-focused patrols to be conducted between 9 am and 9 pm with emphasis on Fridays and Sundays.

Intended Subrecipients

Media vendor yet to be determined through the state procurement process.

Countermeasure strategies

Countermeasure Strategy
Communication Campaign

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2020	FAST Act NHTSA 402	Paid Advertising (FAST)	$150,000.00	$37,500.00	$0.00

Countermeasure Strategy: Highway Safety Office Program Management

Program Area: Non-motorized (Pedestrians and Bicyclist)

Project Safety Impacts

Funding needed for proper program management of Non-motorized planned activities.

Linkage Between Program Area

Without proper funding, OGR staff cannot provide adequate oversight of all non-motorized planned activities, which could lead to higher pedestrian and bicyclist fatalities in Massachusetts.

Rationale

This countermeasure was selected as it best described the objectives of the associated planned activities.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name

PS-20-04	Program Management - Pedestrian & Bicyclist Safety

Planned Activity: Program Management - Pedestrian & Bicyclist Safety

Planned activity number: PS-20-04

Primary Countermeasure Strategy ID: Highway Safety Office Program Management

Planned Activity Description

Provide sufficient staff to manage programming described in this plan as well as cover travel, professional development expenses, conference fees, postage, and office supplies.

Countermeasure Strategy Justification: OGR Program Management

The day-to-day operation of OGR requires funding to allow staff to properly oversee the pedestrian and bicyclist safety program. Lack of oversight due to reduced or no funding could lead to increased speed-related fatalities on the roadways of Massachusetts.

Intended Subrecipients

Funds will support program staff and will not be subawarded.

Countermeasure strategies

Countermeasure Strategy
Highway Safety Office Program Management

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2019	FAST Act NHTSA 402	Pedestrian/Bicycle Safety (FAST)	$77,102.00	$19,276.00	$0.00

Countermeasure Strategy: Pedestrian Safety Zones

Program Area: Non-motorized (Pedestrians and Bicyclist)

Project Safety Impacts

Pedestrian safety zones concept is aimed at more effectively targeting resources to problem areas by focusing enforcement, education, and interventions on key geographic areas of a community. For example, data analysis of crash locations involving pedestrians in a town might find a cluster within range of a public school. To counter the problem, the local police department would target the area by making presentations at the school, conducting enforcement patrols on the main streets near or by the school, and displaying public safety messaging (billboards, banners, and electronic signs) in the same area. Studies have shown this approach leads to decreased fatalities, especially among pedestrians and bicyclists.

The planned activity, the Local Police Pedestrian and Bicyclist Enforcement and Equipment Program, will utilize this approach with subrecipients in order to target regions or areas of high incidences involving motor vehicles, pedestrians, and/or bicyclists.

Linkage Between Program Area

Establishing pedestrian safety zones will help OGR in its quest to see pedestrian and bicyclist fatalities drop in the coming years by focusing resources in areas of high pedestrian and bicyclists fatality and incapacitating injuries.

Rationale

This countermeasure was selected because it best described the objectives of the planned activity.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
PS-20-02	Local Police Pedestrian and Bicyclist Enforcement and Equipment Program
PS-20-03	Community-Based Pedestrian and Bicyclist Safety Grant Program

Planned Activity: Local Police Pedestrian and Bicyclist Enforcement and Equipment Program

Planned activity number: PS-20-02

Primary Countermeasure Strategy ID: Sustained Enforcement

Planned Activity Description

Award grants to municipal police departments to conduct enforcement activities aimed at reducing the incidence of pedestrian and bicyclist injuries and fatalities. Enforcement patrols will take place throughout the year, with departments utilizing crash data and trends to select timing and locations of enforcement activities. The purchase of safety items and educational materials will be allowed, pending problem identification and a plan for public distribution. Safety items will include bicycle helmets, lights, reflectors, and other items to enhance pedestrian and bicyclist conspicuity at night.

Countermeasure Strategy Justification: Pedestrian Safety Zones

Pedestrian safety zones concept is aimed at more effectively targeting resources to problem areas by focusing on enforcement, education, and interventions on key geographic areas of a community. For example, data analysis of crash locations involving pedestrians in a town might find a cluster within range of a public school. To counter the problem, the local police department would target the area by making presentations at the school, conducting enforcement patrols on the main streets near or by the school, and displaying public safety messaging (billboards, banners, and electronic signs) in the same area. Studies have shown this approach leads to decreased fatalities, especially among pedestrians and bicyclists.

The planned activity, Local Pedestrian and Bicyclist Enforcement, will utilize this approach with subrecipients in order to target regions or areas of high incidences involving motor vehicles, pedestrians, and/or bicyclists.

Intended Subrecipients

The subrecipients will be determined through a grant application process.

All municipal law enforcement agencies within the Commonwealth will be eligible to apply.

Countermeasure strategies

Countermeasure Strategy

Pedestrian Safety Zones

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2019	FAST Act 405h Nonmotorized Safety	405h Law Enforcement	$400,000.00	$100,000.00	
2020	FAST Act 405h Nonmotorized Safety	405h Law Enforcement	$250,000.00	$62,500.00	
2020	FAST Act NHTSA 402	Pedestrian/Bicycle Safety (FAST)	$50,000.00	$12,500.00	$50,000.00

Planned Activity: Community-Based Pedestrian and Bicyclist Safety Grant Program

Planned activity number: PS-20-03

Primary Countermeasure Strategy ID:

Planned Activity Description

Competitive grant awards will be provided to one or more organizations such as Girl Scouts, Boy Scouts, PTOs, schools, faith-based and advocacy groups, etc., that will implement community-based programs. The eligible applicants may include both non-profit 501(c)(3) or governmental agencies.

This planned activity will consist of one or more data-driven competitive grant programs that will be focused in geographical areas and/or high-risk populations that have demonstrated need in the area of pedestrian and bicyclist safety.

The programs will generally be focused on raising awareness of road safety, training, and changing social attitudes and behaviors in order to reduce vehicle crashes and their associated fatalities, serious injuries and economic losses on the state’s roadways.

This will not be a traffic enforcement program, but OGR will encourage applicants to develop new or enhance existing partnerships with law enforcement agencies to achieve project goals.

Selected grant subrecipients will develop and implement traffic safety improvement educational and awareness programs that address issues in their targeted communities. Programs that focus on high-risk groups or behaviors will be prioritized. Organizations will be encouraged to build partnerships that incorporate a whole-community, data-driven approach to identifying and addressing road safety problems. The formation of community-wide road safety coalitions that bring together a wide constituency to focus on aspects of road safety will also be encouraged.

Projects that will develop and implement an educational curriculum that aims to install a life-long road safety culture in the Commonwealth’s citizenry will also be prioritized. Projects may also incorporate social, and/or traditional media strategies to change risky behavior on the state’s roadways.

The competitive grant solicitation may guide potential applicants to various informational resources such as:
National Highway Traffic Safety Administration
Centers for Disease Control and Prevention
Governors Highway Safety Association
Insurance Institute for Highway Safety
National Safety Council
American Automobile Association
The Vision Zero Network
Mothers Against Drunk Driving
Students Against Destructive Decisions
Countermeasure Strategy Justification: Communication Campaign
This planned activity will fund one or more local community organizations to develop and implement awareness and education initiatives that will promote OGR's pedestrian and bicyclist safety messaging. The ultimate goal of the planned activity is to lower pedestrian and bicyclist fatalities within the community or communities being funded.

Intended Subrecipients

Non-profit and/or governmental organizations to be determined through a competitive process.

Countermeasure strategies

Countermeasure Strategy
Pedestrian Safety Zones

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2020	FAST Act NHTSA 402	Community Traffic Safety Project (FAST)	$25,000.00	$6,250.00	$25,000.00

Program Area: Occupant Protection (Adult and Child Passenger Safety)

Description of Highway Safety Problems

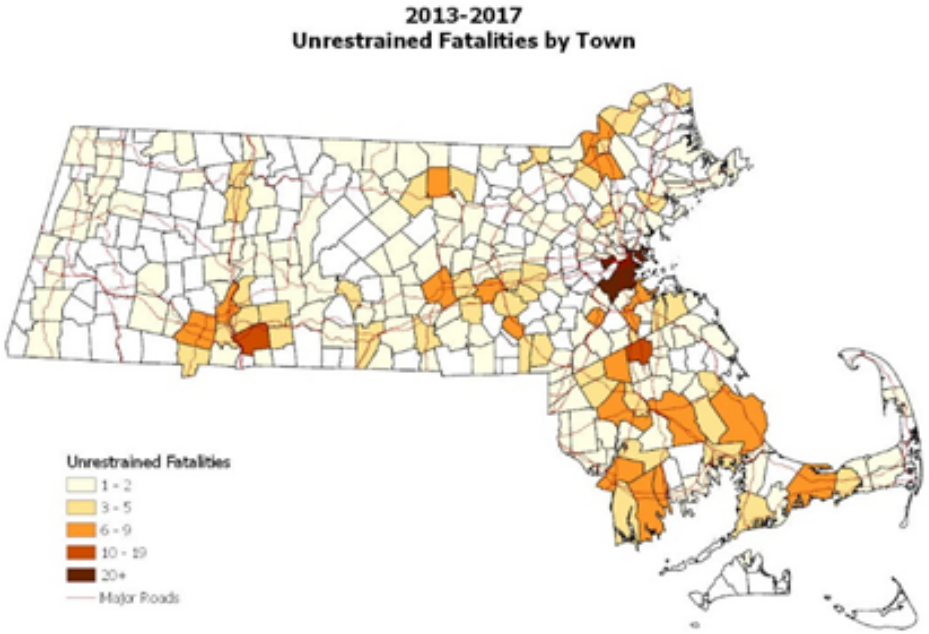
Occupant protection refers to the use of seat belts, motorcycle helmets, booster seats, and child passenger safety (CPS) seats by motor vehicle occupants. Research has found that lap/shoulder seat belts, when used, reduce the risk of fatal injury to front-seat passenger car occupants by 45 percent and the risk of moderate-to-critical injury by 50 percent. In 2017, seat belts in passenger vehicles saved an estimated 14,955 lives of occupants five years of age and older. An estimated 325 child occupants four years old and younger were saved by the use of child restraints (Traffic Safety Facts: Lives Saved in 2017 by Restraint Use and Minimum-Drinking-Age Laws, NHTSA, Report No. DOT HS 812 683). Despite the tremendous reduction in fatal injuries from seat belts, Massachusetts has not implemented a primary enforcement law which allows law enforcement to stop drivers for failure to wear a seat belt. Currently, Massachusetts has a secondary enforcement seat belt law where police

can issue citations only if the reason for pulling over the driver was related to another offense (i.e. speeding, going through a red light).

The annual Statewide Observational Seat Belt Survey, a requirement for occupant safety funding by NHTSA, has shown that Massachusetts has consistently ranked among the worst performing states year after year. From 2013 to 2017, the average usage rate for Massachusetts was 76%. By comparison, the average national rate (per the National Occupant Protection Use Survey aka NOPUS) for the same period was 88.4% and for all non-primary law states it was 81.2%. In New England, the three states with a primary seat belt law, Connecticut, Maine, and Rhode Island have average five-year seat belt rates of 87, 86, and 87 percent, respectively.

From 2013 to 2017, unrestrained occupant fatalities in Massachusetts jumped from 100 to 131. During the same period other New England states like Connecticut and Maine saw fatalities drop (3.6% and 32%, respectively), while Rhode Island increased from 19 to 24 percent. In Rhode Island, their unrestrained fatalities as a percentage of all fatalities from 2013-2017 were 29% compared to Massachusetts' 31%. Though the relationship between unrestrained fatalities and seat belt usage rate is not scientifically correlated, it is instructive of the importance of having a primary seat belt law.

Given the less than positive results for Massachusetts described above, the 2018 Statewide Observational Seat Belt Survey resulted in the highest rate ever reported for the state. It was also the biggest single-year increase of any state over the last 5 years. During the survey period, a total of 28,265 drivers and front outboard passengers in a total of 24,145 were observed across 148 locations. The statistically weighted percentage of front seat occupants using seat belts was 81.6%. It is a testament not only to the efforts by OGR but also to every state and local police officer that put in the time to enforce occupant safety while conducting enforcement patrols and checkpoints. Each percentage point increase in seat belt usage, the number of motor vehicle occupants suffering life-threatening or life-altering injuries decreases. This is why Massachusetts continues to make occupant protection safety a top priority of its highway safety program.



From 2013 to 2017, there were 549 unrestrained fatalities across Massachusetts. Unrestrained fatalities accounted for 41% of all motor vehicle occupant fatalities. Four counties – Worcester, Bristol, Plymouth, and Hampden – had over half the unrestrained fatalities reported. Worcester, with a number of major routes running

through it (I-90, I-395, I-190, I-290, Route 9), lead all counties with 18% of all unrestrained fatalities. The city of Worcester was not the top community. That position was held by Boston with 27 unrestrained fatalities. Springfield was second with 16. Southeastern Massachusetts (Bristol/Plymouth) accounted for 25% of all unrestrained fatalities.

Table 6: Occupant Fatalities and Unrestrained Fatalities by County, 2013-2017

County	Driver Fatalities	Passenger Fatalities	Total Occupant Fatalities	Total Unrestrained Occupant Fatalities	Percent Unrestrained of Total Occupant Fatalities for County	Percent of All Unrestrained (n=549)
BARNSTABLE	49	9	58	24	41.4%	4.4%
BERKSHIRE	30	10	40	16	40.0%	2.9%
BRISTOL	146	29	175	73	41.7%	13.3%
DUKES	3	0	3	1	33.3%	0.2%
ESSEX	86	20	106	45	42.5%	8.2%
FRANKLIN	25	3	28	17	60.7%	3.1%
HAMPDEN	111	30	141	60	42.6%	10.9%
HAMPSHIRE	27	5	32	12	37.5%	2.2%
MIDDLESEX	137	18	155	53	34.2%	9.7%
NANTUCKET	0	0	0	0	0.0%	0.0%
NORFOLK	99	29	128	54	42.2%	9.8%
PLYMOUTH	141	33	174	67	38.5%	12.2%
SUFFOLK	56	17	73	30	41.1%	5.5%
WORCESTER	183	39	222	97	43.7%	17.7%
Total	1,093	242	1,335	549		

Franklin County, which is located in the northwest-central region of Massachusetts, had the highest percentage of unrestrained fatalities of all its occupant fatalities with 60.7%. The next closest county was Worcester with 43.7%.

Top 15 Cities	Total Unrestrained Fatalities (2013-2017)
BOSTON	27
SPRINGFIELD	16
BROCKTON	12
FALL RIVER	9
PLYMOUTH	9
MIDDLEBORO	8
WESTBORO	8
DARTMOUTH	7
EASTON	7
HOLYOKE	7
NORWOOD	7
RANDOLPH	7
TAUNTON	7
WESTFIELD	7
WORCESTER	7

Table 7: Top Communities for Unrestrained Fatalities, 2013-2017

Boston reported the highest total number of unrestrained fatalities from 2013-2017, likely due to the high population and density and a large number of major highways (Mass Pike, I-93, Route 1, Route 9) running through the capital city. As part of Suffolk County, Boston accounted for 27 of the 30 unrestrained fatalities that occurred in the county.

Of the top fifteen communities listed in Table 7, seven were from southeastern Massachusetts (Brockton, Dartmouth, Easton, Fall River, Middleboro, Plymouth, and Taunton). Collectively, these seven cities accounted for 11% of the 549 unrestrained fatalities from 2013-2017. OGR will make every effort to get as many southeastern towns and cities involved in occupant protection grant activities, such as the Click It or Ticket mobilization, in FFY 2020.

With the key municipalities and regions of Massachusetts for unrestrained fatalities identified, a look at data related to day-of-week, time-of-day, month, age of deceased, and roadway type will provide further insight to key areas of focus for FFY 2020 occupant protection activities.

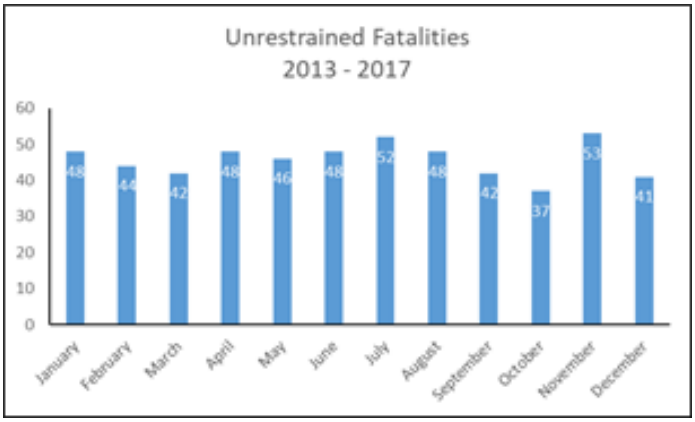
Table 8 below shows the breakdown of unrestrained fatalities by day-of-week and time of day (in three-hour sections). The time from 12 am – 2:59 am on Saturday and Sunday

Table 8: Unrestrained Fatalities by Time Frame and Day-of-Week, 2013-2017

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Total
12am - 2:59am	27	10	7	15	4	15	32	**110**
3am - 5:59am	20	2	1	4	6	9	10	**52**
6am - 8:59am	7	4	3	12	8	13	8	**55**
9am - 11:59am	7	6	3	5	8	7	4	**40**
12pm - 2:59pm	7	8	11	8	7	9	6	**56**
3pm - 5:59pm	11	9	17	8	6	10	9	**70**
6pm - 8:59pm	14	8	13	7	4	10	11	**67**
9pm - 11:59pm	14	12	13	11	9	17	14	**90**
	107	**59**	**68**	**70**	**52**	**90**	**94**	

accounted for half of all unrestrained fatalities reported during that time frame. In fact, the 12 am – 2:59 am period was the top time across all days of the week with 20% of unrestrained fatalities. Adding in 9 pm – 11:59 pm, the percentage of all unrestrained fatalities jumps to 36%. In all, the data clearly shows any unrestrained-focused enforcement patrols or checkpoints should take place between the hours of 9 pm and 3 am on Saturdays and Sundays.

Figure 20: Unrestrained Fatalities by Month, 2013-2017



Unrestrained fatalities were highest during the months of July and November from 2013-2017. The number reported for July is likely attributed to more people driving in the warm weather and staying out later at night

during the weekends. November does have an abnormally high number of unrestrained fatalities on Wednesdays (10) compared to the other months (January and May both had next highest, 8 fatalities). With Thanksgiving falling on Thursday each year, it's possible due to more people being out at night prior to the holiday.

Age Range	Unrestrained		
	Male	Female	Total
1 - 9	2	2	**4**
10 - 15	2	2	**4**
16 - 20	37	23	**60**
21 - 29	108	41	**149**
30 - 39	66	26	**92**
40 - 49	31	16	**47**
50 - 59	61	21	**82**
60 - 64	23	7	**30**
65 +	47	34	**81**
Total	**377**	**172**	

Table 9: Unrestrained Fatalities by Age and Gender, 2013-2017

Male occupants accounted for 69% of unrestrained fatalities from 2013-2017, with nearly a third coming from the age range of 21-29. Female occupants also saw the highest fatalities coming from the 21-29 age range as well, representing 24% of female unrestrained deaths. Overall, the age range from 16 to 39 was responsible for 55% of the 549 fatalities.

Impaired driving and speeding both factor heavily in the high level of unrestrained fatalities among occupants under 40 years of age. From 2013-2017, unrestrained fatalities found with a BAC of 0.08 or higher accounted for 32% of all fatalities. Those found with drugs in their system accounted for 52% of the fatalities.

Table 10: Alcohol or Drug use in Unrestrained Fatalities, 2013-2017

Found with:	Fatalities	Speeding Involved
Alcohol (BAC .08 or higher)	178	75
Drugs (any type)	287	115
Age Range (Under 40):		
Alcohol (BAC .08 or higher)	112	58
Drugs (any type)	171	87

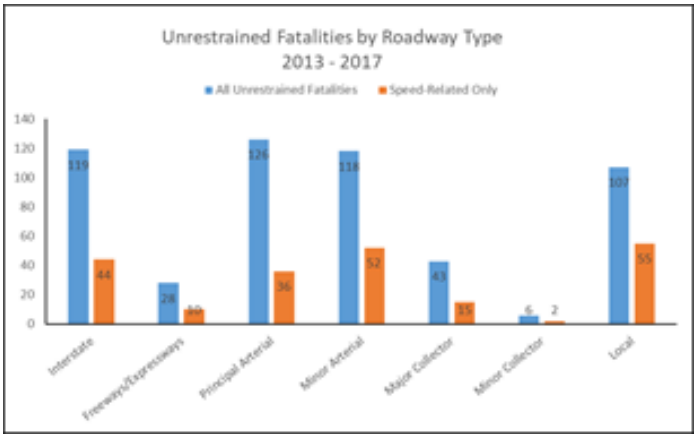
Of the 178 alcohol-impaired fatalities, 112 (63%) were age 39 or younger and of the 287 drug impaired fatalities, 171 (60%) were age 39 or younger.

Speeding was involved in over half of the unrestrained fatalities involving occupants under age 40 – both with alcohol (52%, 58 of 112) and with drugs (51%, 87 of 171). Occupants under age 40 accounted for 77% of all speed-related alcohol unrestrained fatalities and 76% of all speed-related drug unrestrained fatalities.

Over the last five Seat Belt Usage Observation Surveys (2014-2018) seat belts were worn more often by those on interstate roadways than those on arterial or local roads. Interstate users averaged an 80% usage rate while

arterial and local were in the mid-to-low 70s. Surprisingly, the unrestrained fatalities during the 2013-2017 period revealed a lack of seat belt usage is more prevalent than expected. Twenty-two percent of unrestrained fatalities took place on interstate roadways, second only to principal arterial, which accounted for 23% of fatalities. Speeding, which was involved in a third of all interstate fatalities, was a factor in over half the local unrestrained fatalities reported. Arterials (principal and minor) accounted for 44% of all unrestrained fatalities and 41% of all speed-related unrestrained fatalities.

Figure 21: Unrestrained Fatalities and Speeding by Roadway Type



The data provided in this section shows that for FFY 2020 media messaging and grant funding for occupant protection focused programs such as Click It or Ticket may be best geared toward the southeastern Massachusetts region, Metro Boston, Springfield, and Worcester with the intent of influencing potential occupants under the age of 40.

Furthermore, enforcement activity related to occupant protection may be heightened during the months of July and November, which are the months with the highest unrestrained fatalities. In terms of time-frame for law enforcement to conduct overtime funded activities, the period from Friday to Sunday with emphasis on the hours between 3 pm and midnight may have the greatest impact.

Alcohol (which is discussed in more detail in the Impaired Driving section) and speeding (covered in the Speed Management section) have both been shown to be common factors in unrestrained fatalities, especially those involving occupants under 40 years of age. OGR plans to incorporate messaging about drinking and speeding into outreach on seat belt safety, with urban (Boston, Springfield, Worcester) areas touting the importance of utilizing public transportation or car services such as Uber or Lyft.

Associated Performance Measures

Fiscal Year	Performance measure name	Target End Year	Target Period	Target Value
2020	C-4) Number of unrestrained passenger vehicle occupant fatalities, all seat positions (FARS)	2020	5 Year	108.00

2020	B-1) Observed seat belt use for passenger vehicles, front seat outboard occupants (survey)	2020	5 Year	80.00

Countermeasure Strategies in Program Area

Countermeasure Strategy
Child Restraint System Inspection Station(s)
Communication Campaign
Highway Safety Office Program Management
Occupant Protection Program Assessment (NHTSA Facilitated)
School Programs
Short-term, High Visibility Seat Belt Law Enforcement
Strategies for Child Restraint and Booster Seat Use
Sustained Enforcement

Countermeasure Strategy: Child Restraint System Inspection Station(s)

Program Area: Occupant Protection (Adult and Child Passenger Safety)

Project Safety Impacts

The misuse and/or incorrect installation of a child restraint seat has been a concern of OGR, medical professionals and law enforcement for many years. An incorrectly installed car seat or using an outdated child restraint could result in serious or fatal injuries to the child in a motor vehicle crash. Child passenger safety (CPS) inspection stations, also called 'fitting stations' are locations or events where parents and caregivers can receive instruction from certified CPS technicians on proper installation methods as well as have current car seats examined for usability and safety. In Massachusetts, CPS grantees are required to offer at least two 'fitting station' events along with regular hours (once a week at least) where parents and caregivers can come in for instruction, inspection and education on car seats.

Through these 'fitting stations' parents and caregivers increase their knowledge on how to better restrain their young passengers so a child's risk of injury in a crash is reduced greatly. Furthermore, parents and caregivers that visit 'fitting stations' are more likely to pass on this information to other parents, family and friends, which exponentially expands critical knowledge about car seats and will spur other parents and caregivers to go to a car seat event or 'fitting station.'

Linkage Between Program Area

From 2013-2017, unrestrained fatalities accounted for a third of all motor vehicle-related fatalities. Passengers under 16 years of age were less than 1% of all unrestrained fatalities but still too many as youths are a) modeling their behavior after adults (not wearing seat belts); b) adults are installing car seats improperly or using defective/outdated car seats; and c) or adults are simply not using car seats at all. In FFY 2020, OGR plans to continue funding the CPS Equipment Grant and MSP CPS Checkpoint program which will allow grantees (State police, local law enforcement, hospitals - wherever certified CPS technicians are) to purchase new car seats for distribution to families in need at car seat safety events and 'fitting stations.' In distributing

these new car seats, grantees will ensure more children are properly fitted in NHTSA-approved car seats, which will result in a lower number of fatalities among those under 16 years of age. Plus, increased car seat checkpoints hosted by State Police will result in more knowledgeable parents and caregivers and, in turn, better protected children. Both planned activities will help OGR meet its stated target for unrestrained fatalities by December 31, 2019.

Planned activities will also help target at-risk groups within Massachusetts regarding seat belt usage: Hispanics and African-Americans, which have consistently have had the lowest seat belt usage rate in the annual statewide seat belt observation survey; as well as nighttime drivers (those driving between 6pm - 3am), which have accounted for nearly 50% of all unrestrained fatalities from 2013-2017.

Rationale

This countermeasure was selected as it best encompassed the objectives of the planned activities.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
OP-20-06	Child Passenger Safety Seat Grant Program
OP-20-07	Child Passenger Safety Administration and Training
OP-20-10	MSP Child Passenger Safety Car Seat Checkpoints

Planned Activity: Child Passenger Safety Seat Grant Program

Planned activity number: OP-20-06

Primary Countermeasure Strategy ID: Child Restraint System Inspection Station(s)

Planned Activity Description

OGR will provide grants to municipal departments and non-profit agencies, including hospitals, for the purchase of car seats to enhance their child passenger safety (CPS) inspection stations and outreach efforts to low-income families. While the primary purpose of this grant will be to provide seats and education to low-income families, seats may also be distributed when technicians encounter an expired, misused, or damaged seat. Grant subrecipients will be selected based on the quality of their current CPS program, the identification of low-income residents in their coverage area, and their plans for reaching those in financial need of a car seat.

Countermeasure Strategy Justification: Child Restraint System Inspection Stations

The misuse and/or incorrect installation of a child restraint seat has been a concern of OGR, medical professionals, and law enforcement for many years. An incorrectly installed car seat or using an outdated child restraint could result in serious or fatal injuries to the child in a motor vehicle crash. Child passenger safety (CPS) inspection stations, also called ‘fitting stations’, are location or events where parents and caregivers can receive instruction from certified CPS technicians on proper installation methods as well as have current car seats examined for usability and safety. In Massachusetts, all CPS grant subrecipients are required to offer at least two ‘fitting stations’ along with regular hours (at least once a week) where parents and caregivers can go to for instruction, inspection, and education regarding car seats.

Through these ‘fitting stations’ attendees increase their knowledge on how to better restrain young passengers so a child’s risk of injury in a crash is greatly reduced. Furthermore, attendance at these ‘fitting stations’ by

parents and caregivers will lead to them passing on this information about car seats to other parents, family, and friends – thus exponentially expanding the reach of critical knowledge about car seats – and encouraging other parents and caregivers to attend 'fitting stations' near them.

Intended Subrecipients

Local municipal departments and non-profit agencies, including hospitals

Countermeasure strategies

Countermeasure Strategy
Child Restraint System Inspection Station(s)

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2020	FAST Act NHTSA 402	Child Restraint (FAST)	$225,000.00	$56,250.00	$225,000.00

Planned Activity: Child Passenger Safety Administration and Training

Planned activity number: OP-20-07

Primary Countermeasure Strategy ID:

Planned Activity Description

OGR will provide funding to Baystate Medical Center to recruit, train, and maintain a sufficient number of certified Child Passenger Safety (CPS) technicians and instructors in Massachusetts. A minimum of 20 courses will be conducted statewide, including CPS Technician, CPS Technician Renewal, CPS Update, CPS Special Needs, and CPS Ambulance. Additionally, Baystate will coordinate staffing and sign-offs at check-up events, and respond to all calls made to the Statewide CPS Information Line.

Baystate will also continue to provide half-day CPS training monthly at the Massachusetts Department of Children and Families (DCF) statewide training center. This program began as a collaborative pilot effort in January 2018 between OGR and DCF, with one optional training being offered monthly for 3-months to social workers. Social workers are frequently required to transport children in their personal vehicles, yet very few have any car seat knowledge or formal training. Based on the success of the pilot, in April 2018, DCF made it a mandatory training for all social worker technicians. The half-day training is comprised of both classroom and hands-on in-vehicle training, with the goal being for attendees to know the basics of installation and who to contact if they need further assistance. OGR proposes to continue covering the cost of instructors for these much needed monthly training at the statewide training center. OGR also continues to explore opportunities to enhance this collaboration, by either providing CPS Technician Training to DCF supervisors or by providing the half-day training at DCF's regional area offices around the state.

This planned activity will help law enforcement officers, through CPS training and education, focus on key at-risk groups within Massachusetts: minority (Hispanic/Black), which have consistently have had the lowest seat belt usage rate in the annual statewide seat belt usage observation survey; as well as nighttime drivers (those

driving between 6pm - 3am), which have accounted for nearly 50% of all unrestrained fatalities in the last decade (2007-2016). The administrator of the CPS program will focus on offering CPS-related classes in regions with high unrestrained fatalities such as Bristol County, Middlesex County, and Worcester County.
Countermeasure Strategy Justification: Child Restraint System Inspection Stations
The misuse and/or incorrect installation of a child restraint seat has been a concern of OGR, medical professionals, and law enforcement for many years. An incorrectly installed car seat or using an outdated child restraint could result in serious or fatal injuries to the child in a motor vehicle crash. Child passenger safety (CPS) inspection stations, also called 'fitting stations', are location or events where parents and caregivers can receive instruction from certified CPS technicians on proper installation methods as well as have current car seats examined for usability and safety. In Massachusetts, all CPS grant subrecipients are required to offer at least two 'fitting stations' along with regular hours (at least once a week) where parents and caregivers can go to for instruction, inspection, and education regarding car seats.
As the administrator of the statewide CPS program, Baystate Medical will offer CPS-related training classes for state and local law enforcement officers across the Commonwealth. Attendees will not only learn how to properly install and inspect car seats but also learn about various aspects of child passenger safety that can also be passed on to caregivers and parents alike. Having better-educated caregivers and parents as well as properly installed car seats will lead to lower unrestrained child fatalities.

Intended Subrecipients

Baystate Medical Center (Springfield, MA)

Countermeasure strategies

Countermeasure Strategy
Child Restraint System Inspection Station(s)

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2019	FAST Act 405b OP Low	405b Low Community CPS Services (FAST)	$170,000.00	$42,500.00	

Planned Activity: MSP Child Passenger Safety Car Seat Checkpoints

Planned activity number: OP-20-10

Primary Countermeasure Strategy ID: Child Restraint System Inspection Station(s)

Planned Activity Description

Funding will be provided to the MSP to conduct car seat checkpoints throughout Massachusetts. MSP has over 30 certified child passenger safety (CPS) technicians on staff and these checkpoints will allow them to provide education and installation assistance to local families while gaining the credits needed for their recertification. Twelve checkpoints will be conducted bimonthly from April-September.
Countermeasure Strategy Justification: Child Restraint System Inspection Stations

The misuse and/or incorrect installation of a child restraint seat has been a concern of OGR, medical professionals, and law enforcement for many years. An incorrectly installed car seat or using an outdated child restraint could result in serious or fatal injuries to the child in a motor vehicle crash. Child passenger safety (CPS) inspection stations, also called 'fitting stations', are location or events where parents and caregivers can receive instruction from certified CPS technicians on proper installation methods as well as have current car seats examined for usability and safety.

By funding CPS checkpoints by MSP, OGR is further expanding occupant protection information and knowledge to caregivers and parents by reaching those that may not be able to attend local CPS checkpoints due to factors like distance and time availability. Furthermore, MSP will improve its CPS technician skills and allow those officers needing recertification to be able to complete the hours required.

Intended Subrecipients

Massachusetts State Police

Countermeasure strategies

Countermeasure Strategy
Child Restraint System Inspection Station(s)

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2020	FAST Act NHTSA 402	Child Restraint (FAST)	$40,000.00	$10,000.00	$40,000.00

Countermeasure Strategy: Communication Campaign

Program Area: Occupant Protection (Adult and Child Passenger Safety)

Project Safety Impacts

For FFY 2020, OGR will develop and implement, through a contract with a marketing and advertising agency, a statewide paid and earned media campaign to support occupant protection efforts during the Fall 2019 and May 2020 Click it or Ticket enforcement mobilizations. The target audience of the paid media campaign will be based on the lowest use populations identified in the annual seat belt observation study. Earned media funds will promote the paid campaign, while incorporating state laws and highlighting the work of state and local law enforcement agencies. Paid and earned media funds will also be used to direct messaging at teen drivers and their parents as part of the "100 Deadliest Days" from Memorial-Labor Day and to parents and guardians of young children for Child Passenger Safety Week.

As unrestrained fatalities continues to rise (up 13% in 2017 from 2016; up 47% from 89 in 2015), an extensive media campaign in conjunction with CIOT mobilizations will hopefully improve occupant usage of car seats and child restraint seats during FFY 2020 and beyond.

Linkage Between Program Area

An online and offline motor vehicle occupant safety communication campaign will raise awareness for drivers

and passengers regarding the importance of wearing a seat belt. Furthermore, supporting the two CIOT campaigns will further impress the dangers of making the decision not to wear a seat belt (It's uncomfortable; I was only going down the street; I forgot) to potential motor vehicle occupants across the Commonwealth. The combination of enforcement and education (media) will help OGR reach its state target for unrestrained fatalities.

Rationale

This countermeasure was selected as it was the best option to describe the planned activity.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
OP-20-01	Occupant Protection Media
OP-20-08	Child Passenger Safety (CPS) Statewide Information Line
OP-20-09	Statewide Seat Belt Observation Survey
OP-20-11	Higher Education Occupant Protection Media Program
OP-20-12	Community-Based Occupant Protection Grant Program
OP-20-14	Child Passenger Safety conference

Planned Activity: Occupant Protection Media

Planned activity number: OP-20-01

Primary Countermeasure Strategy ID: Communication Campaign

Planned Activity Description

Develop and implement statewide paid and earned media to support occupant protection efforts during the 2020 Click it or Ticket enforcement mobilizations. The target audience of the paid media will be based on the lowest use populations identified in the annual seat belt observation study. Earned media funds will promote the paid media while incorporating state laws and highlighting the work of state and local law enforcement agencies. Paid and earned media funds will also be used to direct messaging at teen drivers and their parents as part of the "100 Deadliest Days" from Memorial Day to Labor Day and to parents and guardians of young children for Child Passenger Safety Week. OGR will contract with a marketing and advertising agency to execute these paid and earned media campaigns while running social media in-house for sustained educational efforts. Internal policies will be 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 will be used not only for planning enforcement activities but also to determine the target audiences and media channels used to reach that audience. NHTSA's guidelines will be followed for messaging, demographics, best practices and target groups for each media effort.

Countermeasure Strategy Justification: Communication Campaign

For FFY 2020, OGR will develop and implement, through a contract with a marketing and advertising vendor, a statewide paid and earned media campaign to support occupant protection efforts during CIOT mobilizations. The target audience of the paid media campaign will be based on the lowest use populations identified in the annual seat belt usage observation survey. Earned media funds will promote the paid campaign while

incorporating state laws and highlighting the work of State and local law enforcement agencies. Paid and earned media funds will also be used for direct messaging aimed at teen drivers and their parents as part of the “100 Deadliest Days” campaign from Memorial Day to Labor Day as well as to parents and guardians of young children for Child Passenger Safety Week (September 15-21, 2020).

Intended Subrecipients

Media vendor yet to be determined through state procurement process.

Countermeasure strategies

Countermeasure Strategy
Communication Campaign

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2020	FAST Act NHTSA 402	Paid Advertising (FAST)	$500,000.00	$125,000.00	$0.00

Planned Activity: Child Passenger Safety (CPS) Statewide Information Line

Planned activity number: OP-20-08

Primary Countermeasure Strategy ID: Communication Campaign

Planned Activity Description

Provide funding for landline telephone services so the designated CPS Administrator may respond to all calls made to the Statewide CPS Information Line. The Statewide CPS Administrator will keep a log of all calls which will be submitted to OGR on a monthly basis.

Countermeasure Strategy Justification: Communication Campaign

By offering a method to communicate with the CPS Administrator regarding any CPS issues citizens may have, OGR is improving the quality of information and knowledge about car seat safety by caregivers and parents across the state. More knowledgeable parents lead to children better secured in their car seat and lower fatalities for children in motor vehicle crashes.

Intended Subrecipients

Verizon

Countermeasure strategies

Countermeasure Strategy
Communication Campaign

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit

2020	FAST Act 405b OP Low	Child Restraint (FAST)	$1,100.00	$275.00	

Planned Activity: Statewide Seat Belt Observation Survey

Planned activity number: OP-20-09

Primary Countermeasure Strategy ID:

Planned Activity Description

Provide funding for a competitively-selected vendor to conduct the statewide seat belt usage observation survey utilizing NHTSA methodology. This survey is required of all states by NHTSA and will take place following the May Click It or Ticket (CIOT) Mobilization. This survey will capture demographic data to assist in measuring performance and targeting future occupant protection programs. A final report will be submitted to OGR for review and dissemination.

Countermeasure Strategy Justification: Communication Campaign

Taking place after the May CIOT mobilization, the statewide seat belt survey is, in a way, a measure of the impact of OGR's media messaging and enforcement grant activity by state and local police. In 2018, the seat belt usage rate was 82%, up from 74% in 2017. This shows the efforts by OGR and its partners are making a positive influence on occupant behavior leading to increase seat belt usage. For FFY 2020, the survey will again be a sounding board on occupant protection messaging and targeted enforcement areas. The results will help drive media messaging and enforcement focus for future occupant protection programs and activities.

Intended Subrecipients

Vendor yet to be determined via state procurement process.

Countermeasure strategies

Countermeasure Strategy
Communication Campaign

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2020	FAST Act 405b OP Low	405b OP Low (FAST)	$150,000.00	$37,500.00	

Planned Activity: Higher Education Occupant Protection Media Program

Planned activity number: OP-20-11

Primary Countermeasure Strategy ID: Communication Campaign

Planned Activity Description

Provide grant funds to a college or university to develop a seat belt media campaign that resonates with younger drivers. The competitive grant award will be given to an academic department such as journalism, marketing, or one related to video/advertising production. It will be required that a department faculty member oversees the project including paying for student stipends, supplies, production costs, and travel. The university will not be

reimbursed for faculty salary or related costs. NHTSA funds will pay for student stipends. NHTSA funding will also be used for program-related supplies, production costs, and travel costs incurred by students and faculty. The intent is to generate messaging that is conceptualized, developed, produced, and disseminated by young people to their peers. The end product(s) may be disseminated via social or earned media. The student workers will be given day-to-day guidance from the faculty member and also be able to work with the OGR staff and media vendor for additional direction. It is hoped that the end product(s) will be accepted by the target audience as peer-to-peer messaging as opposed to government messaging.

Countermeasure Strategy Justification: Communication Campaign

This planned activity will fully support OGR's occupant protection primary media message of getting occupants to wear seat belts each and every time they get into a motor vehicle by utilizing young drivers (18 – 21 years of age) in creating a seat belt wearing campaign that will have an impact on young drivers. Along with OGR's general messaging aimed at Massachusetts motor vehicle occupants, the college-developed campaign will help improve seat belt usage among younger occupants and lower unrestrained fatalities.

Intended Subrecipients

College or university yet to be determined through a competitive process.

Countermeasure strategies

Countermeasure Strategy
Communication Campaign

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2020	FAST Act NHTSA 402	Occupant Protection (FAST)	$10,000.00	$2,500.00	$10,000.00

Planned Activity: Community-Based Occupant Protection Grant Program

Planned activity number: OP-20-12

Primary Countermeasure Strategy ID:

Planned Activity Description

Competitive grant awards will be provided to one or more organizations such as Girl Scouts, Boy Scouts, PTOs, schools, faith-based and advocacy groups, etc., that will implement community-based programs. The eligible applicants may include both non-profit 501(c)(3) or governmental agencies.

This planned activity will consist of one or more data-driven competitive grant programs that will be focused in geographical areas and/or high-risk populations that have demonstrated need in the area of occupant protection. The programs will generally be focused on raising awareness of road safety, training, and changing social attitudes and behaviors in order to reduce vehicle crashes and their associated fatalities, serious injuries and economic losses on the state's roadways.

This will not be a traffic enforcement program, but OGR will encourage applicants to develop new or enhance

existing partnerships with law enforcement agencies to achieve project goals.
Selected grant subrecipients will develop and implement traffic safety improvement educational and awareness programs that address issues in their targeted communities. Programs that focus on high-risk groups or behaviors will be prioritized. Organizations will be encouraged to build partnerships that incorporate a whole-community, data-driven approach to identifying and addressing road safety problems. The formation of community-wide road safety coalitions that bring together a wide constituency to focus on aspects of road safety will also be encouraged.
Projects that will develop and implement an educational curriculum that aims to install a life-long road safety culture in the Commonwealth's citizenry will also be prioritized. Projects may also incorporate social, and/or traditional media strategies to change risky behavior on the state's roadways.
Countermeasure Strategy Justification: Communication Campaign
This planned activity will fund one or more local community organizations to develop and implement awareness and education initiatives that will promote OGR's overarching occupant protection messaging theme of wearing a seat belt each and every time in a motor vehicle. The ultimate goal of the planned activity is to lower occupant fatalities within the community or communities being funded.

Intended Subrecipients

Non-profit and/or governmental organizations to be determined.

Countermeasure strategies

Countermeasure Strategy
Communication Campaign

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2020	FAST Act NHTSA 402	Occupant Protection (FAST)	$25,000.00	$6,250.00	$25,000.00

Planned Activity: Child Passenger Safety conference

Planned activity number: OP-20-14

Primary Countermeasure Strategy ID: Communication Campaign

Planned Activity Description

Funding a one-day child passenger safety (CPS) conference on October 18, 2019, that will be open to all technicians and instructors from Massachusetts and, if space permits, other Region 1 states. Attendees will have the chance to earn 6 continuing education units (CEUs) to aid in their recertification. The location and agenda have yet to be finalized. Anticipated costs include renting space and speaker fees.
Countermeasure Strategy Justification: Enhancing CPS Technician skills
Building on the success of the October 2017 CPS Conference that attracted well over 150 attendees, we will host another CPS Conference in October 2019. It will be open to all CPS technicians and instructors across

Massachusetts, as well as other Region I states (if space permits). The conference will provide in-depth presentations on issues related to CPS, current laws, regulations, car seat standards, and effective installation methods. The conference will provide an effective means of reaching a large number of CPS experts and also give attendees an opportunity to network and exchange ideas, methods, and observations about child passenger safety. Attendees will then bring the new knowledge related to the car seat and child restraint safety back to their respective communities and share it with parents and caregivers through various outreach methods such as fitting stations, educational presentations at local schools and hospitals, and social media.

Intended Subrecipients

Funding will be used for conference expenses. There will be no subrecipients.

Countermeasure strategies

Countermeasure Strategy
Communication Campaign

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2019	FAST Act 405b OP Low	Child Restraint (FAST)	$15,000.00	$3,750.00	

Countermeasure Strategy: Highway Safety Office Program Management

Program Area: Occupant Protection (Adult and Child Passenger Safety)

Project Safety Impacts

Funding needed for support staff to conduct day-to-day oversight of all Occupant Protection-related grants and planned activities.

Linkage Between Program Area

Without proper funding, Occupant Protection planned activities would not occur and law enforcement agencies would not receive the necessary funding to help lower Occupant Protection-related fatalities across the state.

Rationale

This countermeasure was selected as it best covered the objectives of the planned activity.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
OP-20-15	Program Management - Occupant Protection

Planned Activity: Program Management - Occupant Protection

Planned activity number: OP-20-15

Primary Countermeasure Strategy ID: Highway Safety Office Program Management

Planned Activity Description

Provide sufficient staff to manage programming described in this plan as well as cover travel, professional development expenses, conference fees, postage, and office supplies.

Countermeasure Strategy Justification: OGR Program Management

The day-to-day operation of OGR requires funding to allow staff to properly oversee the occupant protection program. Lack of oversight due to reduced or no funding could lead to increased unrestrained fatalities on the roadways of Massachusetts.

Intended Subrecipients

Funds will support SHSO program staff and will not be subawarded.

Countermeasure strategies

Countermeasure Strategy
Highway Safety Office Program Management

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2019	FAST Act NHTSA 402	Occupant Protection (FAST)	$194,672.00	$48,668.00	$0.00

Countermeasure Strategy: Occupant Protection Program Assessment (NHTSA Facilitated)

Program Area: Occupant Protection (Adult and Child Passenger Safety)

Project Safety Impacts

NHTSA recommends a review of a State's Occupant Protection Program every five to eight years. The assessment will help Massachusetts identify gaps, needs, and strengths of its current Occupant Protection Program. By learning where weaknesses in the program exist, Massachusetts can make improvements that'll result in a more effective and efficient occupant protection program, which will lead to lower fatalities among motor vehicle occupants across the state.

Linkage Between Program Area

Occupant protection, through use of safety belts and child restraint systems, is one of the most crucial areas of traffic safety because it offers immediate and substantial reduction in deaths and injuries. Despite an uptick in usage rates, there is still a large gap between Massachusetts' belt use rate and the national average.

Rationale

Through this program assessment, Massachusetts will be better equipped to adjust its programs and achieve desired Occupant Protection Performance Targets in the future.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
OP-20-13	Occupant Protection Programs Assessment

Planned Activity: Occupant Protection Programs Assessment

Planned activity number: OP-20-13

Primary Countermeasure Strategy ID: Occupant Protection Program Assessment (NHTSA Facilitated)

Planned Activity Description

OGR will call on NHTSA to conduct a review of the Occupant Protection Program in Massachusetts to identify gaps, needs, and strengths for improving strategies and programming. NHTSA recommends each State, in cooperation with its political subdivisions and tribal governments, and other parties as appropriate should develop and implement a comprehensive highway safety program, reflective of state demographics, to achieve a significant reduction in traffic crashes, fatalities, and injuries on public roads.

Countermeasure Strategy Justification: Occupant Protection Program Assessment (NHTSA Facilitated)

This planned activity is recommended by NHTSA every 5-8 years to assess the quality and effectiveness of Massachusetts' Occupant Protection program. After the assessment concludes, NHTSA provides feedback that Massachusetts will utilize to improve the program that will lead to lower unrestrained fatalities on the roadways.

Intended Subrecipients

OGR will provide funding as necessary to cover expenses for contracted services. There are no plans to award funds to subrecipients.

Countermeasure strategies

Countermeasure Strategy
Occupant Protection Program Assessment (NHTSA Facilitated)

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2020	FAST Act NHTSA 402	Occupant Protection (FAST)	$50,000.00	$12,500.00	$0.00

Countermeasure Strategy: School Programs

Program Area: Occupant Protection (Adult and Child Passenger Safety)

Project Safety Impacts

Conducting information/education sessions at schools has been shown to increase seat belt use as well as overall understanding of the importance of restraints while driving or riding in a vehicle. For FFY 2020, funding is being provided to MSP to travel to various high schools across the state to conduct vehicle simulations to educate the public, or more specifically, young drivers (those under 20 years of age) on the necessity of wearing a seat belt anytime one is in a moving vehicle.

Linkage Between Program Area

While young drivers make up a small portion of all unrestrained fatalities reported in Massachusetts, making a lasting impression on them will be critical to decreasing the rate of unrestrained fatalities among those over 21

years of age in later years. As today's teenagers move into their 20s, OGR sees their continue adherence to wearing seat belts as an important factor in lowering the five-year average of unrestrained fatalities.

Rationale

This countermeasure was selected as it best encompassed the objectives of this planned activity.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
PT-20-06	MSP Young Drivers Education Program

Planned Activity: MSP Young Drivers Education Program

Planned activity number: PT-20-06

Primary Countermeasure Strategy ID: School Programs

Planned Activity Description

Funds will be provided to the MSP for educating young drivers, as well as the general public, on the importance of wearing a seat belt and the dangers of impaired driving. MSP will conduct demonstrations of the Rollover Simulator and SIDNE vehicle (Simulated Impaired Driving Experience) at high schools, on weekends and at highly populated events in Massachusetts.

This task will also provide funds for the purchase of two SIDNE vehicle upgrades to conduct demonstrations relative to advanced automobile technology. Before the purchase of any equipment greater than $5,000, prior authorization will be received from NHTSA. The MSP will abide by all Buy America Act requirements.

Total Estimated Funding Needed for Planned Activity: $30,000 ($20,000 for officers overtime; $10,000 for (2) equipment upgrades

Intended Subrecipients

Massachusetts State Police

Countermeasure strategies

Countermeasure Strategy
School Programs

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2020	FAST Act NHTSA 402	Youth Alcohol (FAST)	$30,000.00	$7,500.00	$30,000.00

Countermeasure Strategy: Short-term, High Visibility Seat Belt Law Enforcement

Program Area: Occupant Protection (Adult and Child Passenger Safety)

Project Safety Impacts

The CIOT mobilization, conducted concurrently with the national campaign, is usually a two-week period of intense, highly publicized periods of seat belt law enforcement patrols, frequently using checkpoints. OGR will

also provide communication support for the CIOT mobilizations in the form of press releases, online advertising, print and traditional media (radio, television, electronic billboards).

Linkage Between Program Area

OGR expects the combination of an extensive communications outreach program and targeted enforcement activity during key time frames (Friday thru Saturday, 3pm to midnight, with focus on Boston, Worcester, Springfield and southeastern Massachusetts) will lead to higher seat belt usage in the future and will help meet the state target for unrestrained fatalities.

In 2018, seat belt usage jumped to 82% from 74% the previous year.

Rationale

This countermeasure was selected as it best encompasses the objectives of the planned activities.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
OP-20-02	Local Police Occupant Protection Enforcement Campaign
OP-20-03	MSP Occupant Protection CIOT Enforcement Campaign

Planned Activity: Local Police Occupant Protection Enforcement Campaign

Planned activity number: OP-20-02

Primary Countermeasure Strategy ID: Sustained Enforcement

Planned Activity Description

In support of occupant protection laws, this Planned Activity will provide funds to local police departments to deploy sustained and selective “zero tolerance” traffic enforcement overtime patrols on the days/times/locations identified in each respective municipality to augment National efforts of the Click It or Ticket (CIOT) mobilization. Local enforcement patrols will provide maximum visibility for deterrent purposes and saturate target areas focusing on seat belt usage and child passenger safety.

The eligible subrecipients list will be determined on criteria such as overall crash rates, VMT, crashes per VMT, fatal crashes per VMT, and the percentage of fatal crashes related to speed.

Although not finalized, the number of eligible departments is estimated to be approximately 171.

Countermeasure Strategy Justification: Short-term, High Visibility Seat Belt Law Enforcement

The Click It or Ticket (CIOT) mobilization, conducted concurrently with the national campaign, is usually a two-week period of intense, highly publicized periods of seat belt law enforcement patrols and checkpoints. OGR will also provide communication support for the CIOT mobilization in the form of press releases, online advertising, print and traditional media (radio, television, electronic billboards).

OGR expects the combination of an extensive communications outreach program and targeted enforcement activity during key time frames (Friday thru Saturday, 3 pm to midnight, with focus on Boston, Worcester, Springfield, and southeastern Massachusetts) will lead to higher seat belt usage in the future. In 2018, seat belt usage jumped to 82% from 74% the previous year.

Intended Subrecipients

Local police departments

Countermeasure strategies

Countermeasure Strategy
Short-term, High Visibility Seat Belt Law Enforcement

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2020	FAST Act 405b OP Low	405b Low HVE (FAST)	$497,600.00	$124,400.00	

Planned Activity: MSP Occupant Protection CIOT Enforcement Campaign

Planned activity number: OP-20-03

Primary Countermeasure Strategy ID: Sustained Enforcement

Planned Activity Description

Provide funds to the MSP for overtime enforcement to participate in two Click It or Ticket (CIOT) mobilizations. One to take place in May 2020 during the national CIOT campaign and one to take place in the Fall of 2019 to coincide with the start of the school year.

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 incidences 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 secondarily targeted during these mobilizations.

Countermeasure Strategy Justification: Short-term, High Visibility Seat Belt Law Enforcement

The Click It or Ticket (CIOT) mobilization, conducted concurrently with the national campaign, is usually a two-week period of intense, highly publicized periods of seat belt law enforcement patrols and checkpoints. OGR will also provide communication support for the CIOT mobilization in the form of press releases, online advertising, print and traditional media (radio, television, electronic billboards).

MSP will concentrate enforcement and checkpoint efforts along key exit/entry points to major highways across the state such as Mass Pike, I-95, I-93, and I-495 during the hours between 3 pm-midnight. The period from Friday to Sunday morning will be a primary focus of enforcement by MSP.

Intended Subrecipients

Massachusetts State Police

Countermeasure strategies

Countermeasure Strategy
Short-term, High Visibility Seat Belt Law Enforcement

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit

2020	FAST Act NHTSA 402	Occupant Protection (FAST)	$450,000.00	$112,500.00	$0.00

Countermeasure Strategy: Strategies for Child Restraint and Booster Seat Use

Program Area: Occupant Protection (Adult and Child Passenger Safety)

Project Safety Impacts

Click or tap here to enter text.

Linkage Between Program Area

Click or tap here to enter text.

Rationale

Click or tap here to enter text.

Planned activities in countermeasure strategy

Countermeasure Strategy: Sustained Enforcement

Program Area: Occupant Protection (Adult and Child Passenger Safety)

Project Safety Impacts

Funding will be provided to State Police and select local police departments to deploy sustained and selective 'zero tolerance' traffic enforcement overtime patrols designated by law enforcement to target key time frames when occupant protection violations tend to occur in their respective communities. The sustained enforcement activities will help decrease unrestrained fatalities across Massachusetts as the selected local police departments includes high unrestrained fatality communities of Boston, Springfield, Taunton and Fall River. By increasing police enforcement patrols in these high fatality cities, OGR expects to see a decline in unrestrained fatalities in the coming years.

Linkage Between Program Area

The use of sustained enforcement to target key areas of high unrestrained fatalities in Massachusetts will help decrease the number of unrestrained fatalities in FFY 2020 and beyond.

Through planned activities under this countermeasure, two key at-risk groups for unrestrained fatalities within Massachusetts will be targeted: Hispanics and African-Americans, which have consistently have had the lowest seat belt usage rate in the annual statewide seat belt observation survey; as well as nighttime drivers (those driving between 6pm - 3am), which have accounted for nearly 50% of all unrestrained fatalities from 2013-2017.

Rationale

This countermeasure was selected as it was the best option to describe the planned activities.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
OP-20-04	Local Police Sustained Traffic Enforcement Program (STEP)
OP-20-05	MSP Sustained Traffic Enforcement Program (STEP)

Planned Activity: Local Police Sustained Traffic Enforcement Program (STEP)

Planned activity number: OP-20-04

Primary Countermeasure Strategy ID: Sustained Enforcement

Planned Activity Description

Local sustained enforcement of impaired driving laws will be conducted in selected communities. By using detailed data from MassTRAC, RMV, and FARS, hot spot communities will be identified as having the highest percentage of overall crashes in the Commonwealth and the highest percentage with fatal or non-fatal injuries. Previous hot spots were Barnstable, Boston, Brockton, Cambridge, Chicopee, Fall River, Framingham, Holyoke, Lowell, Lynn, New Bedford, Quincy, Springfield, Taunton, Westfield, and Worcester. The communities selected to participate for FFY 2020 may be adjusted based on updated information. Local police departments in the selected areas will receive overtime funding to crack down on impaired driving and all other traffic safety violations. A limited portion of the funding may be used for data entry and/or traffic data analysis.

Countermeasure Strategy Justification: Sustained Enforcement

Local police departments will deploy sustained and focused ‘zero tolerance’ traffic enforcement overtime patrols to target key time frames when occupant protection violations tend to occur within their respective community. The sustained enforcement activities will help decrease unrestrained fatalities across Massachusetts as the selected local police departments include high unrestrained fatality communities of Boston, Fall River, Springfield, and Taunton. By increasing police enforcement patrols in these high fatality cities, OGR expects to see a decline in unrestrained fatalities in the coming years.

Intended Subrecipients

Local Police Departments

Countermeasure strategies

Countermeasure Strategy
Sustained Enforcement

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2020	FAST Act NHTSA 402	Occupant Protection (FAST)	$600,000.00	$150,000.00	$600,000.00

Planned Activity: MSP Sustained Traffic Enforcement Program (STEP)

Planned activity number: OP-20-05

Primary Countermeasure Strategy ID: Sustained Enforcement

Planned Activity Description

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 STEP departments’ efforts within the same general location. 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, speed and, aggressive and dangerous driving.

Funds will also be provided to MSP for equipment purchases that include approximately 75 radar units and Automatic License Plate Recognition (ALPR) software upgrades which serve to enhance enforcement efforts towards the overall performance of the program.

Countermeasure Strategy Justification: Sustained Enforcement

MSP troops will deploy sustained and focused 'zero tolerance' traffic enforcement overtime patrols to target key time frames when occupant protection violations tend to occur within their respective community. The sustained enforcement activities will help decrease unrestrained fatalities across Massachusetts as the selected local police departments include high unrestrained fatality communities of Boston, Fall River, Springfield, and Taunton. By increasing police enforcement patrols in these high fatality cities, OGR expects to see a decline in unrestrained fatalities in the coming years.

Intended Subrecipients

Massachusetts State Police

Countermeasure strategies

Countermeasure Strategy
Sustained Enforcement

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2020	FAST Act NHTSA 402	Occupant Protection (FAST)	$235,000.00	$58,750.00	$0.00

Program Area: Planning & Administration

Description of Highway Safety Problems

This section covers the Planning and Administrative programming required to faithfully execute the planned activities detailed in the FFY 2020 Highway Safety Plan. Funding is needed to support OGR staff for day-to-day operations and to comply with any and all Federal and State regulations.

Associated Performance Measures

Planned Activities

Planned Activities in Program Area

Unique Identifier	Planned Activity Name	Primary Countermeasure Strategy ID
PA-20-01	Administration of Statewide Traffic Safety Program	

PA-20-02	Americans with Disabilities Act (ADA) Compliance	

Planned Activity: Administration of Statewide Traffic Safety Program

Planned activity number: PA-20-01

Primary Countermeasure Strategy ID:

Planned Activity Description

Funding to plan, implement, monitor, and evaluate programs and projects detailed in the FFY 2020 Highway Safety Plan (HSP), produce the FFY 2019 Annual Report (AR) as well as produce the FFY 2021 HSP. Provide required staff salaries, professional development, travel, office space, equipment, materials, and fiscal support. Project staff: Jeff Larason, Kevin Stanton, Fiscal Director (TBD), Diane Perrier, Denise Brown, Susan Burgess-Chin, and Annette Powell

Intended Subrecipients

Funds will support SHSO staff and will not be subawarded.

Countermeasure strategies

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2019	FAST Act NHTSA 402	Planning and Administration (FAST)	$685,000.00	$342,500.00	$0.00

Planned Activity: Americans with Disabilities Act (ADA) Compliance

Planned activity number: PA-20-02

Primary Countermeasure Strategy ID:

Planned Activity Description

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.

Intended Subrecipients

Funds will be used for contractor provided services. The contractor will be determined via state procurement process.

Funds will not be subawarded.

Countermeasure strategies

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit

2019	FAST Act NHTSA 402	Traffic Records (FAST)	$5,000.00	$2,500.00	$0.00

Program Area: Police Traffic Services

Description of Highway Safety Problems

The overarching goal of Police Traffic Services is to help reduce traffic fatalities across the state. Better educated law enforcement members and judiciary personnel will improve approaches to traffic safety as well as address legal issues surrounding such situations as pulling over suspected OUI alcohol or drug-impaired drivers. Some prior year activities under PT included, but were not limited to:

Police training classes focused on crash reconstruction, LiDAR, and speed management.

Supporting a part-time Law Enforcement Liaison (LEL) to improve communications between OGR and local police departments.

Supporting a Traffic Safety Resource Prosecutor (TSRP) to update the Massachusetts OUI Prosecutors Manual, which will help prosecutors, judges, and law enforcement better understand the legal complexity of a successful OUI prosecution.

Establishing a State Judicial Outreach Liaison (SJOL) position to help increase awareness and expertise amongst judges who handle OUI court cases. Funding for outreach to local high schools on the dangers of speeding, impaired driving, and failure to wear a seat belt.

Utilizing data analyst expertise to uncover key trends in the MSP Crash Data System (RAMS).

Through these planned activities, OGR aims to lower traffic fatalities across the Commonwealth by improving the knowledge base of traffic safety stakeholders involved in each aspect of law enforcement, from enforcement on the roadways to prosecution in the courtrooms. The more informed law enforcement members are the better they will be at detecting and removing unsafe drivers from the road before they cause any harm.

Associated Performance Measures

Fiscal Year	Performance measure name	Target End Year	Target Period	Target Value
2020	C-1) Number of traffic fatalities (FARS)	2020	5 Year	347.00

Countermeasure Strategies in Program Area

Countermeasure Strategy
DWI Courts
Highway Safety Office Program Management
Police Training Supporting Enforcement
Traffic Safety Resource Prosecutor

Countermeasure Strategy: DWI Courts

Program Area: Police Traffic Services

Project Safety Impacts

Based on the drug court model, DWI Courts are specialized courts dedicated to changing the behavior of DWI

offenders through intensive supervision and treatment. A DWI's underlying goal is to change offenders' behavior by identifying and treating their alcohol problems and by holding offenders accountable for their actions. The two planned activities that fall under the DWI Courts countermeasure are aimed at improving the knowledge and expertise of the judges and prosecutors involved in the DWI Courts. By improving the knowledge base of those involved in the DWI court system, the correct course of action for offenders can be made with more confidence and ultimately lead to lower DWI offenders coming through the courts.

Linkage Between Program Area

To reduce impaired driving fatalities on the roadways of Massachusetts, a reduction in the number of drivers attempting to navigate the roads under the influence needs to happen. The planned activities under DWI Courts will help decrease the recidivism rate for DWI offenders as the proper treatment for each individual will be better determined with more knowledgeable judges and prosecutors. Thus, in theory, leading to less drivers willing to get behind a wheel while under the influence and consequently, lower number of impaired driving fatalities.

Rationale

DWI courts have been shown to be effective in reducing the recidivism rate of offenders and by funding these two planned activities, OGR hopes to lower the number of DWI offenders in the coming years.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
AL-20-06	Judicial Education Relating to Highway Safety Strategies
PT-20-05	Enhance State Judicial Training and Awareness

Planned Activity: Judicial Education Relating to Highway Safety Strategies

Planned activity number: AL-20-06

Primary Countermeasure Strategy ID: Judicial Education

Planned Activity Description

This program will support judicial educational opportunities for Massachusetts judges such as attendance at the New England Association of Drug Court Professionals (NEADCP) conference and the Massachusetts Judicial Institute sessions at the annual conference, as well as appropriate out-of-state training and conferences.
MA Trial Court has requested support for more training on DREs and the specific issues raised.
The MA Trial Court plans to send judges to the National Judicial College in Reno, NV for training in FFY 2020. The final number of attendees will be determined once registration fees and travel expenses can be more closely estimated.
The Department Chief will decide who will attend all trainings.

Countermeasure Strategy Justification: DWI Courts

Based on the drug court model, DWI Courts are specialized courts dedicated to changing the behavior of DWI offenders through intensive supervision and treatment. A DWI Court’s underlying goal is to change offenders’ behavior by identifying and treating their alcohol and/or drug problems and holding offenders accountable for their actions. This planned activity is aimed at improving the knowledge and expertise of the judges and

prosecutors involved in DWI Courts. By improving the knowledge base of those involved in the DWI Court system, the correct course of action for offenders can be made with more confidence and ultimately lead to reduced numbers of DWI offenders coming through the courts.

Intended Subrecipients

Massachusetts Trial Court

Countermeasure strategies

Countermeasure Strategy
DWI Courts
DWI Courts

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2019	FAST Act 405d Impaired Driving Low	405d Low Court Support	$18,135.00	$4,534.00	

Planned Activity: Enhance State Judicial Training and Awareness

Planned activity number: PT-20-05

Primary Countermeasure Strategy ID: Supporting Enforcement

Planned Activity Description

Funding will be provided to the Massachusetts Executive Office of the Trial Court- Judicial Institute, and/or the Massachusetts Bar Association to enhance coordinated educational services, skills training, and professional development for judicial and non-judicial personnel that will specifically focus on the adjudication of impaired driving cases. This will be accomplished through training and/or conferences.

Funded activities may include awareness training about DWI courts and how they could potentially benefit the Commonwealth. These specialty courts are dedicated to changing the behavior of offenders through intensive supervision and treatment. According to the National Association of Drug Court Professionals (2015), there are 726 DWI courts in the U.S. A DWI Court's underlying goal is to change offenders' behavior by identifying and treating their alcohol and/or drug problems and holding offenders accountable for their actions. According to a National Center for DWI Courts (NCDC) fact sheet, DWI court participants are 19 times less likely to re-offend (Carey, S., Fuller, B. & Kissick, K. (2008). Michigan DUI Courts Outcome Evaluation: Final Report. Portland: NPC Research).

Other research shows that DWI courts can reduce recidivism by 66% (Mitchell, O., Wilson, D.B., Eggers, A. & MacKenzie, D.L. (2012). Assessing the effectiveness of drug courts on recidivism: A meta-analysis review of traditional and nontraditional drug courts. Journal of Criminal Justice, 40(1)).

According to the National Highway Traffic Safety Administration, impaired driving cases can be highly complex and difficult to adjudicate, and many judges said the training and education they received prior to assuming their position was inadequate for preparing them to prosecute and preside over such cases (Robertson

& Simpson, 2002a). This funding will help bridge gaps in training and promote fair legal outcomes for the Commonwealth, victims and loved ones of impaired driving crashes, and the defendants.

Additionally, an increasing number of law enforcement officers in Massachusetts are being trained and certified in using enhanced techniques in detecting alcohol and drug use in drivers. These certifications for Drug Recognition Experts (DRE) and Advanced Roadside Impaired Driving Evaluation (ARIDE) result in a cadre of subject matter experts that can provide invaluable expert testimony in impaired driving cases. These additional funds will provide judges and court personnel with additional opportunities to become more familiar with these proven evaluation techniques and learn how they can improve communication, performance, service, and the administration of justice in the court system.

In addition to alcohol-related cases, Massachusetts judges also must preside over drug-related traffic cases as well. This is important to note given the state's recent legalization of retails sales of marijuana for both medical and recreational use, and the ongoing deadly consequences of opioid-impaired drivers. This funding will help ensure that Massachusetts judges have up-to-date information about the impacts that alcohol and drugs have on drivers, motorcyclists, bicyclists, and pedestrians.

Countermeasure Strategy Justification: DWI Courts

DWI Courts are specialized courts dedicated to changing the behavior of DWI (OUI in Massachusetts) offenders through intensive supervision and treatment. A DWI Court's underlying goal is to change offenders' behavior by identifying and treating their alcohol and/or drug problems and holding offenders accountable for their actions. With this training, OGR will help deepen the expertise and legal knowledge available to prosecutors and judges involved with the DWI Courts. This could lead to more effective treatments and/or sentencing that will further reduce the recidivism rate of offenders.

Intended Subrecipients

MA Trial Court

and /or

MA Bar Association

Countermeasure strategies

Countermeasure Strategy
DWI Courts
DWI Courts

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2020	FAST Act NHTSA 402	Traffic Courts (FAST)	$150,000.00	$37,500.00	$0.00

Countermeasure Strategy: Highway Safety Office Program Management

Program Area: Police Traffic Services

Project Safety Impacts

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Linkage Between Program Area

Without proper funding, Police Traffic Services planned activities would not occur agencies would not receive the necessary funding to help lower fatalities across the state.

Rationale

This countermeasure was selected as it best covered the objectives of the planned activity.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
PT-20-07	Program Management- Police Traffic Services

Planned Activity: Program Management- Police Traffic Services

Planned activity number: PT-20-07

Primary Countermeasure Strategy ID: Highway Safety Office Program Management

Planned Activity Description

Provide sufficient staff to manage programming described in the FFY 2020 HSP, and cover travel, professional development expenses, conference fees, postage and office supplies.

Intended Subrecipients

Funds will be used to support SHSO program staff and will not be subawarded.

Countermeasure strategies

Countermeasure Strategy
Highway Safety Office Program Management

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2019	FAST Act NHTSA 402	Police Traffic Services (FAST)	$111,940.00	$27,985.00	$0.00

Countermeasure Strategy: Police Training Supporting Enforcement

Program Area: Police Traffic Services

Project Safety Impacts

Under the countermeasure of Police Training - Supporting Enforcement are three planned activities, MPTC Training, Law Enforcement Liaison (LEL) and MSP LEL. All projects will help law enforcement across the state. Funding for MPTC will allow the agency to offer numerous training classes for municipal police departments to attend related to speeding, pedestrian and bicyclist safety, and distracted driving. Topics include, but will not be limited to, Advanced Crash Investigation and Speed Measurement.

Funding for the LEL position will help OGR better communicate with local police departments and other traffic safety stakeholders. By improving communication channels, all agencies with traffic safety concerns will be on the same page regarding shared goals. Funding for the MSP LEL will help State Police uncover and identify 'hot spots' for various types of traffic-related fatalities, which will allow State Police to more effectively and efficiency use its limited resources.

Linkage Between Program Area

Funding for these planned activities will help OGR in its quest to reduce traffic-related fatalities in Massachusetts.

Rationale

This countermeasure was created to encompass the objectives of these Police Training-related planned activities.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
PT-20-01	MPTC- Municipal Police Training
PT-20-02	Law Enforcement Liaison (LEL)
PT-20-04	MSP Law Enforcement Liaison (LEL)

Planned Activity: MPTC- Municipal Police Training

Planned activity number: PT-20-01

Primary Countermeasure Strategy ID: Police Training Supporting Enforcement

Planned Activity Description

Provide funding to MPTC to conduct up to 29 classes for municipal police departments to improve enforcement of laws pertaining to current traffic safety issues such as speeding, pedestrian and bicyclist safety, and distracted driving. Topics will include Traffic Crash Investigation, Advanced Traffic Crash Investigation, Crash Reconstruction Investigation, Speed Measurement, Radar Operator and LiDAR training. MPTC will offer trainings with the newly released 2018 Speed Measurement Training Manuals from NHTSA. Training courses will take place at various police departments across the Commonwealth throughout the year.

Countermeasure Strategy Justification: Police Training Supporting Enforcement

Funding for MPTC will allow the agency to offer numerous training classes for municipal police departments to attend related to speeding, pedestrian and bicyclist safety, and distracted driving. Topics include, but are not limited to, Advanced Crash Investigation and Speed Measurement. Increased knowledge by law enforcement on these key topics will lead to improved and more focused policing by officers, whether on patrol or assisting with a traffic checkpoint.

Intended Subrecipients

Municipal Police Training Committee

Countermeasure strategies

Countermeasure Strategy
Police Training Supporting Enforcement

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2020	FAST Act NHTSA 402	Police Traffic Services (FAST)	$157,000.00	$39,250.00	$157,000.00

Planned Activity: Law Enforcement Liaison (LEL)

Planned activity number: PT-20-02

Primary Countermeasure Strategy ID:

Planned Activity Description

Provide funding to support the activities of an LEL including expenses for travel to attend meetings, training, and conferences in support of traffic safety issues including but not limited to impaired and distracted driving, and occupant protection. National conferences may include the International Association of Chiefs of Police Conference and the Lifesavers Conference. Funding will also be used to cover the cost of local travel as needed to meet with local law enforcement and other traffic safety stakeholders.

Countermeasure Strategy Justification: Police Training Supporting Enforcement

Funding for the LEL position will help OGR better communicate with local police departments and other traffic safety stakeholders. By improving communication channels all agencies with traffic safety concerns will be on the same page regarding shared goals. Furthermore, OGR will be better positioned to assist local and MSP with traffic fatality data to help drive enforcement patrols and messaging in their respective communities.

Intended Subrecipients

Countermeasure strategies

Countermeasure Strategy
Police Training Supporting Enforcement

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2020	FAST Act NHTSA 402	Police Traffic Services (FAST)	$60,000.00	$15,000.00	$0.00

Planned Activity: MSP Law Enforcement Liaison (LEL)

Planned activity number: PT-20-04

Primary Countermeasure Strategy ID: Police Training Supporting Enforcement

Planned Activity Description

Provide funds to MSP for training and travel-related expenses for the LEL to attend meetings, training 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 2019 and the Lifesavers Conference in spring 2020. Funding will also be used to cover the cost of local travel for the LEL to attend meetings and training with local law enforcement and other traffic safety stakeholders.

Countermeasure Strategy Justification: Police Training Support Enforcement

Funding for the MSP LEL position will help OGR better communicate with MSP and develop a shared vision of improving traffic safety. Furthermore, the MSP LEL will mitigate the flow of information between the six MSP Troops and OGR which will lead to a clearer understanding of the traffic safety issues occurring on the state highways and roads of the Commonwealth.

Intended Subrecipients

Massachusetts State Police

Countermeasure strategies

Countermeasure Strategy
Police Training Supporting Enforcement

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2020	FAST Act NHTSA 402	Police Traffic Services (FAST)	$7,000.00	$1,750.00	$0.00

Countermeasure Strategy: Traffic Safety Resource Prosecutor

Program Area: Police Traffic Services

Project Safety Impacts

NHTSA funds will pay for the support of the Traffic Safety Resource Prosecutor's (TSRP) activities associated with conducting trainings and conferences, providing technical assistance, and creating and maintaining vehicular crime resources for prosecutors and law enforcement.

The vehicular crime database/resource is for prosecutors and law enforcement to utilize in the court of law. Providing a database of vehicular crimes will assist prosecutors in handling cases, especially those involving impaired driving.

Funding the TSRP‘s activities will help reduce the number of impaired driving fatalities on the roadways of Massachusetts. The more prosecutors and law enforcement know about drivers involved in impaired driving crashes, the better they can adjudicate and mete out punishment for offenders.

The planned TSRP responsibilities dealing with impaired driving and motor vehicle-related issues include:

Train the Commonwealth’s prosecutors and, subject to resources, other professionals in the criminal justice field including law enforcement officers and the judiciary

Electronically alert prosecutors, law enforcement and other criminal justice professionals to changes in statutory and case law regarding motor vehicle crimes

Maintain a database of vehicular crimes-related expert witness transcripts
Create and maintain the vehicular crimes pages and resources on MDAA's Mass.gov public website and its secure intranet site, MDAA.net
Continue to update the Massachusetts Prosecutors OUI Manual
Monitor legislation in conjunction with MDAA's Special Counsel
Provide technical assistance to prosecutors and, subject to resources, law enforcement officers, the judiciary, and other state and local agencies
Act as a liaison between prosecutors and other stakeholder entities including the Executive Office of Public Safety and Security, Mothers Against Drunk Driving, the Massachusetts Judicial Institute, the MPTC, and the Administrative Office of the Trial Court

Countermeasure Strategy Justification: Innovative

Although there is not a specific countermeasure strategy for a TSRPs defined in the "Countermeasures That Work, Ninth Edition, 2017 (CTW) " publication, NHTSA recognized the value of these positions and developed a manual to assist new TSRPs (NHTSA, 2007b). This publication is referenced in the CWT.

A TSRP conducts training, provides technical assistance to prosecutors and law enforcement personnel to utilize in the court of law.

Linkage Between Program Area

Funding the TSRP will help OGR reduce the number of impaired driving fatalities on the roadways of Massachusetts. The more prosecutors and law enforcement know about driver involved in impaired driving crashes, the better they can adjudicate and mete out punishment for violators.

Rationale

Although there is not a specific countermeasure strategy for a TSRPs defined in the "Countermeasures That Work, Ninth Edition, 2017 (CTW) " publication, NHTSA recognized the value of these positions and developed a manual to assist new TSRPs (NHTSA, 2007b). This publication is referenced in the CWT.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
PT-20-03	MDAA/TSRP

Planned Activity: MDAA/TSRP

Planned activity number: PT-20-03

Primary Countermeasure Strategy ID: Supporting Enforcement

Planned Activity Description

NHTSA funds will be used to support the Traffic Safety Resource Prosecutor's (TSRP) activities associated with conducting trainings and conferences, providing technical assistance, and creating and maintaining vehicular crime resources for prosecutors and law enforcement.

The vehicular crime database/resource is for prosecutors and law enforcement to utilize in the court of law. Providing a database of vehicular crimes will assist prosecutors in handling cases, especially those involving impaired driving.

Funding the TSRP's activities will help reduce the number of impaired driving fatalities on the roadways of

Massachusetts. The more prosecutors and law enforcement know about drivers involved in impaired driving crashes, the better they can adjudicate and mete out punishment for offenders.

The planned TSRP responsibilities dealing with impaired driving and motor vehicle-related issues include:

Train the Commonwealth's prosecutors and, subject to resources, other professionals in the criminal justice field including law enforcement officers and the judiciary

Electronically alert prosecutors, law enforcement and other criminal justice professionals to changes in statutory and case law regarding motor vehicle crimes

Maintain a database of vehicular crimes-related expert witness transcripts

Create and maintain the vehicular crimes pages and resources on MDAA's Mass.gov public website and its secure intranet site, MDAA.net

Continue to update the Massachusetts Prosecutors OUI Manual

Monitor legislation in conjunction with MDAA's Special Counsel

Provide technical assistance to prosecutors and, subject to resources, law enforcement officers, the judiciary, and other state and local agencies

Act as a liaison between prosecutors and other stakeholder entities including the Executive Office of Public Safety and Security, Mothers Against Drunk Driving, the Massachusetts Judicial Institute, the MPTC, and the Administrative Office of the Trial Court

Countermeasure Strategy Justification: Innovative

Although there is not a specific countermeasure strategy for a TSRPs defined in the "Countermeasures That Work, Ninth Edition, 2017 (CTW) " publication, NHTSA recognized the value of these positions and developed a manual to assist new TSRPs (NHTSA, 2007b). This publication is referenced in the CWT.

A TSRP conducts training, provides technical assistance to prosecutors and law enforcement personnel to utilize in the court of law.

Intended Subrecipients

Massachusetts District Attorneys Association

Countermeasure strategies

Countermeasure Strategy
Traffic Safety Resource Prosecutor

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2020	FAST Act 405d Impaired Driving Low	405d Low Police Traffic Services	$130,000.00	$32,500.00	
2020	FAST Act NHTSA 402	Police Traffic Services (FAST)	$75,000.00	$18,750.00	$0.00

Program Area: Speed Management

Description of Highway Safety Problems

Speeding, or aggressive driving, is an ever-present danger on the roadways. In 2017, 26% of traffic fatalities in the U.S. involved speeding with drivers accounting for 73% of all speed-related fatalities. In Massachusetts, speeding was determined to be involved in 28% of all traffic fatalities with drivers accounting for 75% of fatalities. While the national rate for speed-related fatalities dropped from 27% in 2016, Massachusetts saw it rise slightly from 27%.

From 2013 to 2017, there were 489 speed-related fatalities in Massachusetts. Drivers accounted for 70% of all speed-related fatalities, followed by passengers (22%), and pedestrians (5%) and bicyclists (1%). Males represented well over 80% of all drivers and 61% of all passengers.

	Male	Female	Total
Driver	283	60	343
Passenger	68	43	111
Pedestrian	15	9	24
Bicyclist	3	2	5
Unknown	5	1	6
	374	**115**	

Table 11: Speed-related fatalities by Person Type, 2013-2017

Speed-related fatalities were more likely to occur between Friday and Sunday. Data from 2013-2017 shows this three-day period accounting for over half of all fatalities. Saturday was the worst day for speeding deaths with 101 of 489 fatalities reported.

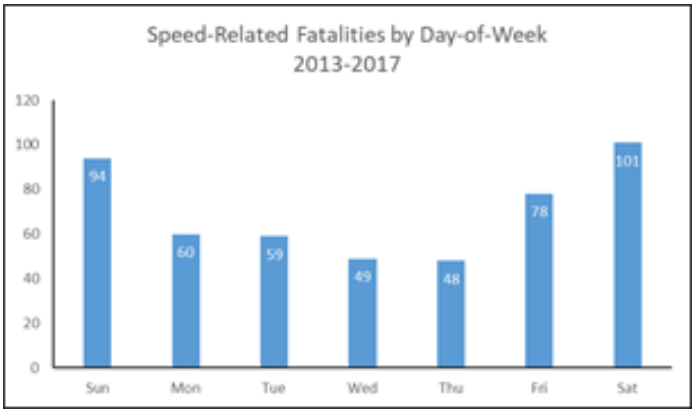


Figure 22: Speed-related fatalities by Day-of-Week, 2013-2017

During the week, the time between midnight and 2:59 am in the morning was accounted for 21% of all speeding fatalities, followed by 9 pm to 11:59 pm with 19% of speeding fatalities, and 6 pm to 8:59 with 17%. The nine-hour period from 6 pm to 2:59 am was responsible for over 60% of all speed-related fatalities from 2013-2017. On the whole, the PM hours reported more fatalities than AM hours (271 vs 209).

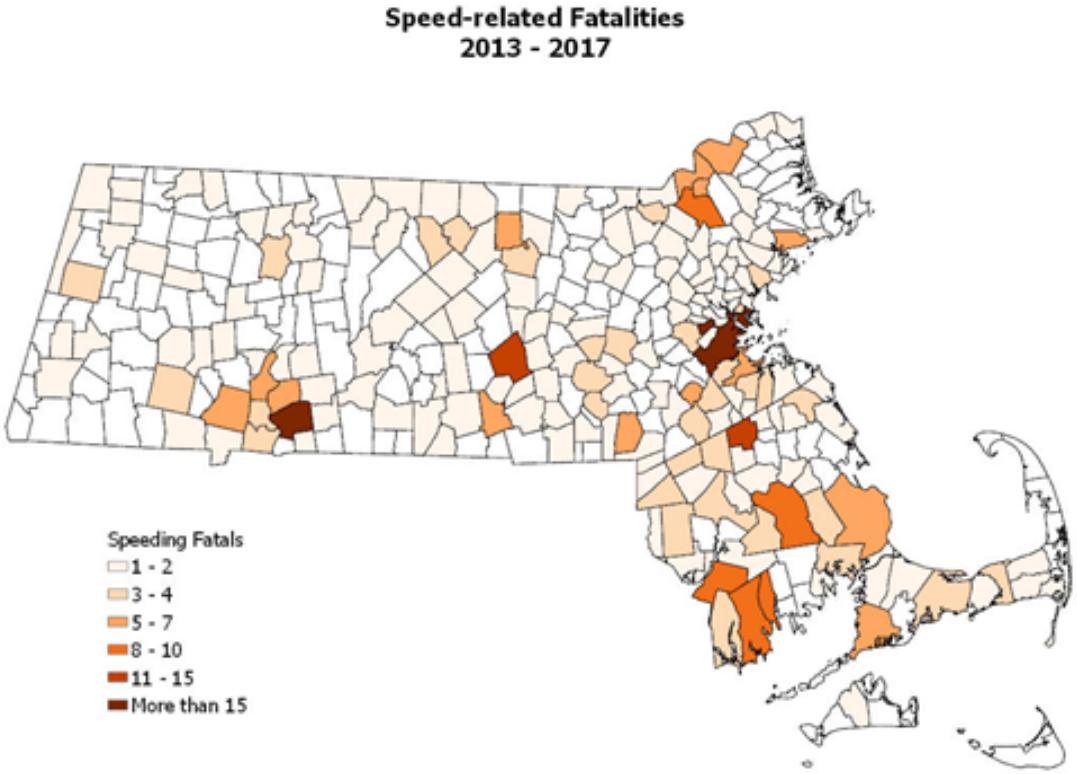
Table 12: Speed-related fatalities by Time Frame and Day-of-Week, 2013-2017

Where are the speed-related fatalities taking place around Massachusetts? From 2013-2017, Boston was the top community with 26 fatalities and Worcester was the top county with 16% of all speed-related fatalities. Both Boston and Worcester were tops for the 2012-2016 period as well.

Fifty-five percent of Massachusetts municipalities (195) experienced a speeding-related fatality between 2013 and 2017. After Boston, the next three top communities were Springfield (24 fatalities), Worcester (14), and

	12am - 2:59am	3am - 5:59am	6am - 8:59am	9am - 11:59am	AM Fatalities	12pm - 2:59pm	3pm - 5:59pm	6pm - 8:59pm	9pm - 11:59pm	PM Fatalities
Sunday	17	19	3	3	*42*	9	11	19	12	*51*
Monday	14	3	7	4	*28*	2	10	10	8	*30*
Tuesday	3	0	2	1	*6*	11	10	17	14	*52*
Wednesday	10	7	4	3	*24*	3	3	3	15	*24*
Thursday	6	3	6	3	*18*	5	5	9	9	*28*
Friday	18	10	6	4	*38*	4	7	11	16	*38*
Saturday	34	10	8	1	*53*	6	10	14	18	*48*
Total	**102**	**52**	**36**	**19**	***209***	**40**	**56**	**83**	**92**	***271***

Brockton (12).



Hampden County had a cluster of six towns (Agawam, Chicopee, Holyoke, Springfield, West Springfield, and Westfield) that accounted for 80% of the speed-related fatalities in the county. These six communities have major routes running through them including the Mass Pike, I-91, I-291, I-391 and Route 5. Overall, Hampden accounted for 13% of all reported speed-related fatalities from 2013-2017.

Table 13: Speed-related fatalities by County and Age, 2013-2017

	Under 16	16-20	21-29	30-39	40-49	50-64	65+	Total
BARNSTABLE	0	3	8	4	0	5	0	20
BERKSHIRE	0	2	4	3	1	3	2	15
BRISTOL	0	8	16	17	2	5	6	54
DUKES	0	0	1	0	0	0	0	1
ESSEX	1	8	15	8	7	5	2	46
FRANKLIN	0	2	5	3	1	1	2	14
HAMPDEN	1	11	26	12	5	7	2	64
HAMPSHIRE	1	2	3	1	0	1	2	10
MIDDLESEX	1	10	14	8	8	4	5	50
NANTUCKET	0	0	0	0	0	0	0	0
NORFOLK	2	5	14	12	9	4	4	50
PLYMOUTH	1	11	23	5	4	6	4	54
SUFFOLK	3	5	10	6	5	2	0	31
WORCESTER	1	10	32	10	12	6	9	80
Total	11	77	171	89	54	49	38	

Plymouth and Bristol County both had approximately 11% of all speed-related fatalities from 2013-2017. With two-thirds of its fatalities under the age of 30, OGR will redouble its efforts to create messaging that will resonate with younger drivers as well as work with law enforcement to improve focused overtime patrols that will better target that age group.

Those between the ages of 21-29 were the largest contingent for speed fatalities, representing 35% of all deaths. More than half of all speed-related fatalities were under 30 years of age. In fact, nine of the 14 counties in Massachusetts attributed over 50% of their speed fatalities to those under 30 years of age.

Speed-related fatalities were most likely to occur along arterial roads, followed by local and then interstate roads. Arterials accounted for 46% of all speed fatalities from 2013-2017. Nearly a third of all interstate and freeway speeding fatalities took place in the early morning hours from 12 am to 2:59 am. Local roads saw a quarter of its fatalities between 9 pm and 11:59 pm.

	12am - 2:59am	3am - 5:59am	6am - 8:59am	9am - 11:59am	12pm - 2:59pm	3pm - 5:59pm	6pm - 8:59pm	9pm - 11:59pm	Total
Interstate	24	14	6	3	11	8	4	15	85
Freeways	6	3	1	1	1	2	4	1	19
Principal Arterial	19	9	11	3	7	11	23	21	104
Minor Arterial	27	11	9	5	8	14	22	21	117
Major Collector	5	4	2	2	3	3	10	4	33
Minor Collector	2	0	0	1	1	2	0	0	6
Local	19	11	7	3	9	16	20	29	114
Total	102	52	36	18	40	56	83	91	

Table 14: Speed-related fatalities by roadway type and time-of-day, 2013-2017

OGR will work with both State and local police to ensure enforcement patrols aimed at eliminating or stopping speeding would be conducted according to the results in Table 14, MSP should do the patrols in the early morning hours while local police should focus on the hours from 6 pm to midnight.

Lastly, a look at speed-related fatalities by month. From 2013-2017, the average number of speed-related fatalities per month was 41. July, October, and November all have over 50 fatalities, which is more than 25% above average. The three-month period from September to November accounted for over a third of fatalities. More analysis would need to be done to determine why this period had high rates of fatalities over consecutive months.

Figure 23: Speed-related fatalities by month, 2013-2017

Based on the data analysis provided in this section on speed-related fatalities, OGR will focus its efforts on messaging aimed at drivers under 30, especially males, in the metro areas of Boston, Springfield and Worcester as well as across the southeastern region. Any funded overtime enforcement by either State or local police

should target the hours from 6 pm to 3 am with focus on three types of roadway – interstate, arterial, and local – and during the Friday through Sunday period.

Associated Performance Measures

Fiscal Year	Performance measure name	Target End Year	Target Period	Target Value
2020	C-6) Number of speeding-related fatalities (FARS)	2020	5 Year	93.00

Countermeasure Strategies in Program Area

Countermeasure Strategy
Communication Campaign
Highway Safety Office Program Management
Sustained Enforcement

Countermeasure Strategy: Communication Campaign

Program Area: Speed Management

Project Safety Impacts

Speed safety media campaigns will support the speed and traffic enforcement mobilizations conducted by both State and local police during FFY 2020. Stopping drivers exceeding the posted speed limit or driving too fast for current conditions is a part of the overall objectives for high-visibility as well as sustained enforcement activities. Messaging will target a key demographic occupants under age 30, which made up two-thirds of fatalities in a speed-related crash. Focus will be on metro areas surrounding Boston, Worcester and Springfield as well as Southeastern Massachusetts (Plymouth and Bristol County).

Linkage Between Program Area

Speeding-related fatalities declined 22% in 2017 falling from 125 in 2016 to 98. Despite this positive development, more work needs to be done to make drivers aware of the dangers inherent in speeding. Of the 489 speed-related fatalities between 2013 and 2017, 70% were drivers and males accounted for over 80% of all driver fatalities. The speed media campaign in FFY 2020 will not only focus on driving with care and consideration for others sharing the road but with emphasis on drivers.

Rationale

This countermeasure was selected because it was the best option to describe the planned activity.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
SC-20-01	Speed Media

Planned Activity: Speed Media

Planned activity number: SC-20-01

Primary Countermeasure Strategy ID: Communication Campaign

Planned Activity Description

Develop and implement a statewide paid and earned media campaign in support of the March and June 2020 speed mobilizations. OGR will use state and national crash and fatality data to identify the target audience. Earned media funds will promote and augment the paid campaign while incorporating state laws and highlighting the work of state and local law enforcement agencies. Paid and earned media funds will also be used to direct messaging at teen drivers and their parents as part of the “100 Deadliest Days” from Memorial Day to Labor Day. OGR will contract with a marketing and advertising agency to execute this paid and earned media campaign while running social media in-house for sustained educational efforts.
Internal policies will be followed noting that all media 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 will be used not only for planning enforcement activities but also to determine the target audiences and media channels used to reach that audience. NHTSA’s guidelines will be followed for messaging, demographics, best practices and target groups for each media effort.
Countermeasure Strategy Justification: Communication Campaign
Speed safety media campaigns will support the speed and traffic enforcement mobilizations conducted by both State and local police during FFY 2020. Stopping drivers exceeding the posted speed limit or driving too fast for current conditions is a part of the overall objectives for high-visibility as well as sustained enforcement activities. Messaging will target a key demographic of males under age 30, which made up a majority of driver fatalities in a speed-related crash with focus on metro areas surrounding Boston, Worcester, and Springfield. Southeastern Massachusetts (Plymouth and Bristol County) was also be targeted for media messaging.

Intended Subrecipients

Media vendor to be determined through the state contracting process.

Countermeasure strategies

Countermeasure Strategy
Communication Campaign

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2020	FAST Act NHTSA 402	Paid Advertising (FAST)	$150,000.00	$37,500.00	$0.00

Countermeasure Strategy: Highway Safety Office Program Management

Program Area: Speed Management

Project Safety Impacts

Funding needed to allow OGR program managers and program coordinators to properly oversee Speed Management-related planned activities.

Linkage Between Program Area

Without proper funding, speed management-related planned activities would either not take place or have very

poor oversight due to lack of staff support. There could lead to increased speed-related fatalities on the roadways of Massachusetts.

Rationale

This countermeasure was selected because it best described the objectives of the associated planned activity.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
SC-20-04	Program Management - Speed and Aggressive Driving

Planned Activity: Program Management - Speed and Aggressive Driving

Planned activity number: SC-20-04

Primary Countermeasure Strategy ID: Highway Safety Office Program Management

Planned Activity Description

Provide sufficient staff to manage programming described in this plan as well as cover travel, professional development expenses, conference fees, postage, and office supplies.

Countermeasure Strategy Justification: OGR Program Management The day-to-day operation of OGR requires funding to allow staff to properly oversee the speed management program. Lack of oversight due to reduced or no funding could lead to increased speed-related fatalities on the roadways of Massachusetts.

Intended Subrecipients

Funds will support SHSO program staff and will not be subawarded.

Countermeasure strategies

Countermeasure Strategy
Highway Safety Office Program Management

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2019	FAST Act NHTSA 402	Speed Management (FAST)	$63,331.00	$15,833.00	$0.00

Countermeasure Strategy: Sustained Enforcement

Program Area: Speed Management

Project Safety Impacts

Speed-related enforcement patrols will be conducted on a regular basis during FFY 2020 by MSP across the state with an emphasis on counties having high speed-related fatalities since 2013 such as Hampden and Worcester. Local police involved in STEP (Barnstable, Boston, Brockton, Cambridge, Chicopee, Fall River, Framingham, Holyoke, Lowell, Lynn, New Bedford, Quincy, Springfield, Taunton, Westfield, and Worcester) will also make speed enforcement among their patrol priorities along with impaired driving and occupant

protection during overtime activity. Local departments will also be funded through the Traffic Enforcement Grant Program, a specific speed focus in FFY 2020. With the inclusion of a sustained speed enforcement mobilization campaign in FFY 2020, OGR is confident the impact of efforts by both MSP and local law enforcement will further help drive speed fatalities down.

Linkage Between Program Area

By funding sustained enforcement throughout FFY 2020, OGR hopes to not only decrease the number of crashes involving speeding, but also alcohol and drugs. This approach will help OGR meet its stated performance target for speed-related fatalities by December 31, 2020 as impaired driving has been found to be involved in many speed-related fatal crashes.

Rationale

This countermeasure was selected as it was the best option to describe the planned activity.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
SC-20-02	MSP Speed Enforcement
SC-20-03	Local Police Speed Enforcement

Planned Activity: MSP Speed Enforcement

Planned activity number: SC-20-02

Primary Countermeasure Strategy ID: Sustained Enforcement

Planned Activity Description

Funds will be provided to the MSP to conduct speed-related enforcement activities aimed at decreasing the incidence of speeding violations and reducing the rate of speed-related motor vehicle crashes along the Commonwealth's major highways. In 2017, approximately 30% of all motor vehicle fatalities were related to speeding.

MSP will use internal data to determine the appropriate patrol schedule and deploy both marked and unmarked cruisers dedicated to addressing speed and aggressive driving violations as well as enforcing all other traffic safety laws. A speed enforcement mobilization is planned for June 11-28, 2020 and will run congruently with speed enforcement efforts conducted by local police departments participating in the Traffic Enforcement grant program. A supporting media campaign is planned to augment these enforcement efforts.

Countermeasure Strategy Justification: Sustained Enforcement

Speed-related enforcement patrols will be conducted on a regular basis during FFY 2020 by MSP across the state with an emphasis on counties having high speed-related fatalities since 2013 such as Hampden and Worcester. Local police involved in STEP (Barnstable, Boston, Brockton, Cambridge, Chicopee, Fall River, Framingham, Holyoke, Lowell, Lynn, New Bedford, Quincy, Springfield, Taunton, Westfield, and Worcester) will also make speed enforcement among their patrol priorities along with impaired driving and occupant protection during overtime activity. With the inclusion of a speed enforcement mobilization campaign in FFY 2020, OGR is confident the impact of efforts by both MSP and local law enforcement will further help drive speed fatalities down.

Intended Subrecipients

Massachusetts State Police

Countermeasure strategies

Countermeasure Strategy
Sustained Enforcement

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2020	FAST Act NHTSA 402	Speed Enforcement (FAST)	$250,000.00	$62,500.00	$0.00

Planned Activity: Local Police Speed Enforcement

Planned activity number: SC-20-03

Primary Countermeasure Strategy ID: Sustained Enforcement

Planned Activity Description

Funds will be provided to the local police departments to conduct speed-related enforcement activities aimed at decreasing the incidences of speeding violations and reducing the rate of speed-related motor vehicle crashes, injuries, and fatalities across the Commonwealth. Two speed and aggressive driving high-visibility enforcement campaigns are planned - one to be conducted in March, 2020 and one in June, 2020.

Funds will be provided to the local police departments to conduct speed-related enforcement activities aimed at decreasing the incidences of speeding violations and reducing the rate of speed-related motor vehicle crashes, injuries, and fatalities across the Commonwealth. Two speed and aggressive driving high-visibility enforcement campaigns are planned - one to be conducted in March 2020 and one in June 2020.

The eligible subrecipients list will be determined on criteria such as overall crash rates,VMT, crashes per VMT, fatal crashes per VMT, and the percentage of fatal crashes related to speed.

Although not finalized, the number of eligible departments is estimated to be approximately 171.

Countermeasure Strategy Justification: High-Visibility Enforcement

High-visibility enforcement campaigns have been shown in the past to be effective in helping deter speeding and aggressive driving. Based on data analysis, OGR will work with selected subrecipients to target high incidence periods of speeding and aggressive driving in Massachusetts. For example, enforcement patrols should be more frequent during the 6 pm to 3 am period, which accounted for nearly 60% of all speed-fatalities from 2013-2017. Through this data-driven targeted approach, high-visibility enforcement will lead to lower speeding and aggressive driving behavior in 2020 and beyond.

Intended Subrecipients

Local police departments

Countermeasure strategies

Countermeasure Strategy

Sustained Enforcement

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2020	FAST Act NHTSA 402	Speed Enforcement (FAST)	$373,200.00	$93,300.00	$373,200.00

Program Area: Traffic Records

Description of Highway Safety Problems

Traffic records data are vital to the analysis necessary for successful highway safety planning and programming. Our agency, in coordination with our 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

Crash

Driver history

Vehicle registration systems

Merit Rating Board

Operator driving history records consisting of at-fault crash claim records, comprehensive claim records, out-of-state incidents as well as civil and criminal traffic citation information

Administrative Office of the Trial Court

Adjudication information.

MassDOT Office of Transportation Planning

Road inventory file

Massachusetts Department of Public Health and the Center for Health Information and Analysis

Emergency medical/injury surveillance related information systems.

As required by NHTSA’s Section 405c grant program, Massachusetts has an active two-tiered Traffic Records Coordinating Committee (TRCC), which is supported by a Traffic Records Program Coordinator located within the Office of Grants and Research’s Highway Safety Division. The Executive-level TRCC, chaired by the EOPSS Undersecretary of Forensic Science and Technology, was established through the coordinated efforts of its member organizations. The ETRCC is comprised of agency heads or senior personnel who set the vision and mission for a 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 systems. These TRCCs foster understanding among stakeholders and promote 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, uniformity, integration, and timeliness of the six traffic records systems in Massachusetts: citation/adjudication, crash, driver, EMS/injury surveillance, roadway, and vehicle. One way this is

accomplished is by having the TRCCs ensure that all Section 405-c funds received by Massachusetts are used for eligible, prioritized projects that will enhance these systems.

The FFY 2020 Section 405-c application and FFY 2020 Strategic Plan for Traffic Records Improvements contain details pertaining to the current capabilities and challenges of the Massachusetts traffic records systems. These also describe the progress made to date on projects. The FFY 2020 Strategic Plan for Traffic Records was submitted in June 2019.

Although Traffic Records' performance targets are not among the core performance measures required by NHTSA, these targets (shown below) allow the TRCC to monitor progress made as well as provide key statistics for inclusion in the yearly Strategic Plan.

Performance Measures for Program Area

Performance Target #1: To develop a business plan for a new MassTRAC and have it approved by the TRCC by December 31, 2019. Performance Target #2: To improve the accuracy and completeness of the RMV Crash Data System by decreasing the number of crash reports rejected for not meeting the minimum criteria to be accepted into the system from 1,466 between April 1, 2018 and March 31, 2019 to 1,390 or less between April 1, 2019 and March 31, 2020. Performance Target #3: To improve the completeness of the Massachusetts Department of Public Health's Massachusetts Ambulance Trip Record Information System (MATRIS) by increasing the number of ambulance services submitting NEMSIS Version 3 reports to the system from 8 between April 1, 2018 and March 31, 2019 to 220 or more between April 1, 2019 and March 31, 2020.

Countermeasure Strategies to be Implemented

Traffic records-related planned activities are aimed at making core highway safety data accessible, accurate, timely, integrated, uniform, and complete. The countermeasures listed in NHTSA's Countermeasures That Work, 9th Edition do not apply to traffic records projects. Each planned activity provided below has an overarching goal of improving the quality of data that will be accessible by traffic safety agencies and stakeholders in Massachusetts and help improve resource management and fund allocation by accurately highlighting 'hot spots' and areas of concern in a timely manner.

These are the six 'countermeasure' strategies that apply to traffic records projects for FFY 2020:

Improves timeliness of a core highway safety database

Improves integration between one or more core highway safety databases

Improves completeness of a core highway safety database

Improves accuracy of a core highway safety database

Improves accessibility of a core highway safety database

Improves uniformity of a core highway safety database

Each strategy is straight-forward and self-explanatory. The TRCC will not approve any project that does not have a goal of improving the traffic records system in one of these ways.

Associated Performance Measures

Fiscal Year	Performance measure name	Target End Year	Target Period	Target Value

2020	Accuracy and completeness of the Registry of Motor Vehicles' Crash Data System	2020	Annual	1390
2020	Number of ambulance services submitting NEMSIS Version 3 reports	2020	Annual	220
2020	Development of a new MassTRAC	2020	Other	1.00

Countermeasure Strategies in Program Area

Countermeasure Strategy
Highway Safety Office Program Management
Improves accessibility of a core highway safety database
Improves accuracy of a core highway safety database
Improves completeness of a core highway safety database

Countermeasure Strategy: Highway Safety Office Program Management

Program Area: Traffic Records

Project Safety Impacts

Funding needed to support staff to handle the day-to-day operation of all traffic records-related projects.

Linkage Between Program Area

Having a fully funded staff to support all traffic records-related planned activities will help reduce fatalities on the roadway of Massachusetts.

Rationale

This countermeasure was selected as it best encompasses the planned activity.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
TR-20-10	Program Management- Traffic Records

Planned Activity: Program Management- Traffic Records

Planned activity number: TR-20-10

Primary Countermeasure Strategy ID: Highway Safety Office Program Management

Planned Activity Description

Provide sufficient staff to manage programming described in this plan as well as cover travel, professional development expenses, conference fees, and postage and office supplies.

Countermeasure Strategy Justification: OGR Program Management

The day-to-day operation of OGR requires funding to allow staff to properly oversee the traffic records

program. Lack of oversight due to reduced or no funding could lead to increased speed-related fatalities on the roadways of Massachusetts.

Intended Subrecipients

Funds will support SHSO program staff and will not be subawarded.

Countermeasure strategies

Countermeasure Strategy
Highway Safety Office Program Management

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2019	FAST Act NHTSA 402	Traffic Records (FAST)	$95,851.00	$23,963.00	$0.00

Countermeasure Strategy: Improves accessibility of a core highway safety database

Program Area: Traffic Records

Project Safety Impacts

This is a traffic records countermeasure. It is not listed in NHTSA's Countermeasures That Work, Eighth Edition. All traffic records-related planned activities are aimed at making core highway safety data accessible, accurate, timely, integrated and complete. Improving quality of the data will help traffic safety agencies in Massachusetts make better decisions about allocating resources and where 'hot spots' that require attention are.

Linkage Between Program Area

Each planned activity for traffic records will help increase accessibility to the core highway safety database system for all Massachusetts traffic safety stakeholders.

Rationale

This countermeasure is a required goal set forth by the traffic records coordinating committee (TRCC).

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
TR-20-01	MassTRAC

Planned Activity: MassTRAC

Planned activity number: TR-20-01

Primary Countermeasure Strategy ID:

Planned Activity Description

Funding will be used by OGR to secure a vendor(s) to develop and support a new MassTRAC system to reside within the open source environment of Mass.gov. Like its predecessor, the new MassTRAC will be a web-based solution for traffic records analysis, mapping, and reporting. In addition to the crash and citation data sets of its predecessor, the new tool is anticipated to also include driver, EMS/injury surveillance, roadway, and vehicle

data sets. The new MassTRAC would help OGR meet federal reporting requirements and support safety planning processes across the Commonwealth, for key stakeholders and even the general public. The new system would provide quick and easy user access to its raw data, to basic and higher data analytical functions, and data visualization/mapping tools. At this point, it is anticipated the new MassTRAC will be based on the model of the upgraded MassDOT Crash Portal expected to launch in summer 2019. One of the recommendations of the 2019 Traffic Records Assessment was to improve the traffic records systems capacity to integrate data.

This task will support traffic records performance target 1.

Projected Budget: $ 425,000

Countermeasure Strategy Justification: Improves accessibility and integration of one or more core highway safety databases

Intended Subrecipients

Funds will used for contractor services and not be subawarded

Countermeasure strategies

Countermeasure Strategy
Improves accessibility of a core highway safety database

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2019	FAST Act 405c Data Program	405c Data Program (FAST)	$375,000.00	$93,750.00	
2019	FAST Act NHTSA 402	Traffic Records (FAST)	$50,000.00	$12,500.00	$0.00

Countermeasure Strategy: Improves accuracy of a core highway safety database

Program Area: Traffic Records

Project Safety Impacts

This is a traffic records countermeasure. It is not listed in NHTSA's Countermeasures That Work, Eighth Edition. All traffic records-related planned activities are aimed at making core highway safety data accessible, accurate, timely, integrated and complete. Improving quality of the data will help traffic safety agencies in Massachusetts make better decisions about allocating resources and where 'hot spots' that require attention are.

Linkage Between Program Area

Each planned activity for traffic records will help improve the accuracy of the core highway safety database system for all Massachusetts traffic safety stakeholders.

Rationale

This countermeasure is a required goal set forth by the traffic records coordinating committee (TRCC).

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
TR-20-06	Tools for Improving Crash Report Reviews
TR-20-07	MATRIS and Trauma Registry Enhancements
TR-20-08	MATRIS and Trauma Registry National Standard Uniformity and Data Quality Project
TR-20-09	Boston Cyclist, Pedestrian and Vehicular Incident Information System

Planned Activity: Tools for Improving Crash Report Reviews

Planned activity number: TR-20-06

Primary Countermeasure Strategy ID:

Planned Activity Description

Funding unspent in FFY 2019 will enable UMassSafe to continue to build on an earlier successful project, Crash Data Audit, to identify and then implement improvements to the supervisory review of crash reports before submission to RMV. This funding, if approved by the Massachusetts Traffic Records Coordinating Committees, will enhance accuracy, completeness, and uniformity of the CDS. This project will improve the data quality control program for the crash data system as recommended in the 2019 Traffic Records Assessment. This task will support traffic records performance target 2.

Countermeasure Strategy Justification: Improves accuracy, completeness, and uniformity of a core highway safety database

Intended Subrecipients

University of Massachusetts- UMassSAFE

Countermeasure strategies

Countermeasure Strategy
Improves accuracy of a core highway safety database

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2019	FAST Act 405c Data Program	405c Data Program (FAST)	$166,768.00	$41,692.00	

Planned Activity: MATRIS and Trauma Registry Enhancements

Planned activity number: TR-20-07

Primary Countermeasure Strategy ID: Improves accuracy of a core highway safety database

Planned Activity Description

This project will continue to enhance the accuracy, completeness, integration, timeliness, and/or uniformity of the Massachusetts Ambulance Trip Record Information System (MATRIS) and the Trauma Registry (TR).

Key MATRIS deliverables will be to complete migration of MATRIS data providers to NEMSIS Version 3, necessary updates to this software, and exploration of better hosting options for MATRIS.
Major TR deliverables will be continued advancement of the procurement process for a commercial-off-the-shelf system into the development phase for the new TR application, related configuration/testing/customization, as well as better data quality reporting and linkage efforts for the TR. Expenses involved will be vendor salary costs.
This funding, approved by the Massachusetts Traffic Records Coordinating Committees, will help to meet the recommendation from the 2019 Traffic Records Assessment to improve the data quality program for the EMS/Injury Surveillance System.
This task will support traffic records performance target 3.
Countermeasure Strategy Justification: Improves accuracy, completeness, integration, timeliness, and uniformity of a core highway safety database

Intended Subrecipients

Massachusetts Department of Public Health

Countermeasure strategies

Countermeasure Strategy
Improves accuracy of a core highway safety database

Funding sources

Planned Activity: MATRIS and Trauma Registry National Standard Uniformity and Data Quality Project

Planned activity number: TR-20-08
Primary Countermeasure Strategy ID:

Planned Activity Description

With funding unspent in FFY 2019, this project will continue to enhance the accessibility, accuracy, completeness, integration, timeliness, and/or uniformity of the Massachusetts Ambulance Trip Record Information System (MATRIS) and the Trauma Registry (TR).
Remaining key MATRIS deliverables in FFY 2020 will be further migration of the 287 of the 319 ambulance services (as of July 2019) that have not transitioned yet to NEMSIS V3. Also addressing deficiencies in data quality that ambulance services submit with NEMSIS V3.
Remaining major TR deliverables in FFY 2020 will be furtherance of the vendor procurement process and contracting for a commercial-off-the-shelf system for a new TR application, configuration/testing/customization to state and federal requirements, and development of better data quality reporting for the TR. In addition, work to complete linkage to other outcomes related data sources will be continued.
Expenses involved will be vendor salary costs and equipment/software costs (NHTSA Region I approval will be sought for the latter).
This funding, approved by the Massachusetts Traffic Records Coordinating Committees, will help to meet the recommendation from the 2019 Traffic Records Assessment to improve the data quality program of the

EMS/injury surveillance system.

This task will support traffic records performance target 3.

Countermeasure Strategy Justification: Improves accessibility, accuracy, completeness, integration, timeliness, and uniformity of a core highway safety database

Intended Subrecipients

Massachusetts Department of Public Health

Countermeasure strategies

Countermeasure Strategy
Improves accuracy of a core highway safety database

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2019	FAST Act 405c Data Program	405c Data Program (FAST)	$414,779.00	$103,694.00	

Planned Activity: Boston Cyclist, Pedestrian and Vehicular Incident Information System

Planned activity number: TR-20-09

Primary Countermeasure Strategy ID: Improves completeness of a core highway safety database

Planned Activity Description

In the latest phase of this on-going project, Boston EMS will continue to promptly vet and validate roadway incidents involving bicyclists and pedestrians, enhance documentation of relevant data points, build upon just-in-time and canned reporting capabilities, and disseminate findings to inform injury prevention efforts. This project will continue to collaborate between Boston EMS, Boston Police Department, and Boston Department of Innovation Technology to enhance integration and reporting of related data. All these efforts will enhance the city's on-going efforts to improve public awareness of and infrastructure improvements for greater bicyclist and pedestrian safety. An annual report on roadway incidents involving bicyclists and pedestrians documented by Boston EMS through this project will continue. This project, approved by the Massachusetts Traffic Records Coordinating Committees, will improve the data quality control program for the EMS/injury Surveillance system as recommended in the 2019 Traffic Records Assessment.

This project will address traffic records performance target 3.

Countermeasure Strategy Justification: Improves accuracy of a core highway safety database

Intended Subrecipients

City of Boston EMS

Countermeasure strategies

Countermeasure Strategy

Improves accuracy of a core highway safety database

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2019	FAST Act 405c Data Program	405c Data Program (FAST)	$91,981.00	$22,995.00	

Countermeasure Strategy: Improves completeness of a core highway safety database

Program Area: Traffic Records

Project Safety Impacts

This is a traffic records countermeasure. It is not listed in NHTSA's Countermeasures That Work, Eighth Edition. All traffic records-related planned activities are aimed at making core highway safety data accessible, accurate, timely, integrated and complete. Improving quality of the data will help traffic safety agencies in Massachusetts make better decisions about allocating resources and where 'hot spots' that require attention are.

Linkage Between Program Area

Each planned activity for traffic records will help increase the completeness of the core highway safety database system for all Massachusetts traffic safety stakeholders.

Rationale

This countermeasure is a required goal set forth by the traffic records coordinating committee (TRCC).

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
TR-20-02	Fatality Analysis Reporting System (FARS)
TR-20-03	Motor Vehicle Automated Citation and Crash System (MACCS)
TR-20-04	Traffic Records Projects
TR-20-05	Registry of Motor Vehicles LEL

Planned Activity: Fatality Analysis Reporting System (FARS)

Planned activity number: TR-20-02

Primary Countermeasure Strategy ID: Improves completeness of a core highway safety database

Planned Activity Description

NHTSA will be provided, through a dedicated RMV position, with the fatal crash data for FARS and FastFARS required in the NHTSA-OGR cooperative agreement. The FARS Analyst will collect and process data concerning motor vehicle-related fatalities, utilizing all available resources, in order to develop a database sufficient to meet federal requirements. This project will improve the data quality control program for the crash data system as recommended in the 2019 Traffic Records Assessment.

This task supports performance target 2.

Countermeasure Strategy Justification: Improves completeness of a core highway safety database

Intended Subrecipients

Massachusetts Registry of Motor Vehicles

Countermeasure strategies

Countermeasure Strategy
Improves completeness of a core highway safety database

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2017	Other		$82,000.00	$20,500.00	

Planned Activity: Motor Vehicle Automated Citation and Crash System (MACCS)

Planned activity number: TR-20-03

Primary Countermeasure Strategy ID:

Planned Activity Description

MACCS is a browser-based application available statewide for the purpose of collecting, reconciling, and exchanging motor vehicle incident information including electronic citation reporting, crash reporting, and traffic stop data collection. The MACCS project is the result of a partnership between EOPSS, local and state law enforcement, and MassDOT. The project has been funded with a combination of capital funds and grants from NHTSA. This project will increase the data quality of the crash and citation systems as called for in the 2019 Traffic Records Assessment.

The goals of the MACCS project are to ensure greater officer and citizen 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 roll-out of the MACCS system statewide. The MACCS application first went live with Billerica Police Department in April 2017.

In the past year, grant funding assisted with procurement and installation of in-vehicle printers, mounts, and paper, associated training, and MACCS software updates. As of spring 2019, there are 43 local police departments and the MSP using MACCS.

Next Steps:

• Further deployment of and training on MACCS and associated printers with up to 50 additional law enforcement agencies in FFY 2020.

• Continue working with the courts and Merit Rating Board on outstanding issues related to the processing of criminal citations, including an electronic integration of MACCS with the Electronic Application for Criminal Complaint.

• Work with record management system vendors to implement a data exchange via the iCJIS Broker

technology.

This task will support performance target 2. Countermeasure Strategy Justification: Improves accuracy, completeness, timeliness, and uniformity of one or more core highway safety databases

Intended Subrecipients

EOPSS Office of Technology and Information Services

Countermeasure strategies

Countermeasure Strategy
Improves completeness of a core highway safety database

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2017	FAST Act 1906 Prohibit Racial Profiling	1906 Collecting and Maintaining Data	$375,000.00	$93,750.00	
2018	FAST Act 1906 Prohibit Racial Profiling	1906 Collecting and Maintaining Data	$375,000.00	$93,750.00	
2019	FAST Act 405c Data Program	405c Data Program (FAST)	$544,034.00	$136,009.00	
2019	FAST Act NHTSA 402	Traffic Records (FAST)	$491,000.00	$122,750.00	$491,000.00
2016	MAP 21 405c Data Program	405c Data Program (MAP-21)	$375,897.00	$93,975.00	

Planned Activity: Traffic Records Projects

Planned activity number: TR-20-04

Primary Countermeasure Strategy ID:

Planned Activity Description

An Availability of Grant Funding (AGF) will be issued to provide FFY 2020 Section 405-c funding on a competitive basis to measurable projects to improve the accessibility, accuracy, completeness, integration, timeliness, and/or uniformity of one or more of the following six core traffic records systems: crash, roadway inventory, vehicle registration/title, driver history, citation/adjudication, and EMS/injury surveillance system. Improving these systems will, in turn, enhance the ability to identify priorities for local, state, and federal traffic safety programs. Permissible projects could also evaluate the effectiveness of efforts to improve these six systems; link these systems with other appropriate state or federal data systems; improve compatibility and interoperability of state data systems with national systems and those in other states; and enhance the ability of

highway safety stakeholders to observe and analyze local, state, and national trends in crash occurrences, rates, outcomes, and circumstances. Only units of state and local government or not-for-profit organizations with a public purpose would be eligible to apply for funding. All funded projects must work to meet at least one unmet recommendation(s) from the Commonwealth's 2019 Traffic Records Assessment. Preference will be given to projects that have a minimum of one benchmark and performance measure that will demonstrate at least one quantitative improvement to a performance attribute of a minimum of one of the state's six core systems. This quantitative improvement must be demonstrated with supporting information covering a 12-month performance period, starting anytime between April 1 and July 1, 2019, and comparable to a prior, contiguous benchmark period of one year. AGF responses would be reviewed by the Massachusetts Traffic Records Coordinating Committees. Those approved by the committees would then be submitted to EOPSS and then NHTSA for review and approval. Each resulting project will support one or more performance targets.

Countermeasure Strategy Justification: Improves completeness of a core highway safety database

Intended Subrecipients

Subrecipients will be determined at the completion of the competitive grant process and recommendations from the ETRCC.

Countermeasure strategies

Countermeasure Strategy
Improves completeness of a core highway safety database

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2020	FAST Act 405c Data Program (FAST)	405c Data Program (FAST)	$755,000.00	$188,750.00	

Planned Activity: Registry of Motor Vehicles LEL

Planned activity number: TR-20-05

Primary Countermeasure Strategy ID: Improves completeness of a core highway safety database

Planned Activity Description

This project will provide funding for the RMV CDS Law Enforcement Liaison (LEL). The LEL will be in regular contact with state and local police on ways they can improve their reporting to the CDS, in particular, to move from paper to electronic reporting. The LEL will also work with records management system vendors for police departments to improve reporting to the CDS. Other stakeholders the LEL would connect with would be major data users and those working to improve police training curriculum. This project, approved by the Massachusetts Traffic Records Coordinating Committees, will improve the data quality control program for the CDS as recommended in the 2019 Traffic Records Assessment.

This task will support traffic records performance target 2.

Countermeasure Strategy Justification: Improves accuracy, completeness, timeliness, and uniformity of

a core highway safety database

Intended Subrecipients

Massachusetts Registry of Motor Vehicles

Countermeasure strategies

Countermeasure Strategy
Improves completeness of a core highway safety database

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2019	FAST Act 405c Data Program (FAST)	405c Data Program (FAST)	$108,020.00	$27,005.00	

Evidence-based traffic safety enforcement program (TSEP)

Planned activities that collectively constitute an evidence-based traffic safety enforcement program (TSEP):

Unique Identifier	Planned Activity Name
DD-20-03	Local Police Distracted Driving Enforcement
AL-20-02	Local Police Impaired Driving Enforcement
OP-20-02	Local Police Occupant Protection Enforcement Campaign
PS-20-02	Local Police Pedestrian and Bicyclist Enforcement and Equipment Program
OP-20-04	Local Police Sustained Traffic Enforcement Program (STEP)
AL-20-04	Local Sustained Traffic Enforcement Program (STEP)
AL-20-03	MSP and Local Police Sobriety Checkpoint & Saturation Patrols
DD-20-02	MSP Distracted Driving Enforcement
OP-20-03	MSP Occupant Protection CIOT Enforcement Campaign
AL-20-05	MSP Sustained Traffic Enforcement Program (STEP)

Analysis of crashes, crash fatalities, and injuries in areas of highest risk.

Crash Analysis

The identification of current traffic safety issues for the FFY 2020 HSP were made using data analysis of fatalities and fatal crashes over a five-year period (2013–2017), from numerous elements including, but not limited to, counties, cities, time-of-day, month, day-of-week, road type, gender and age. Data from available monthly and year-end reports from FFY 2019 grant-funded programs provided further insight to traffic safety trends. Lastly, input from traffic safety stakeholders added a third layer of analysis to the determination of

traffic safety issues in Massachusetts.

The Massachusetts population (6,895,917) ranks 15th among the 50 states of the union. There are 36,723 miles of roadway across the 7,840 square miles of the Commonwealth. Local roads account for 68% of roadways with 24,818 miles. Massachusetts drivers tallied 60,753 million VMT with interstate travel accounting for 28% of it, followed by major arterials (20%), minor arterials (20%) and local roads (14%). Massachusetts is among the top 25 states in total VMT despite being one of the smallest states by land area in the country.

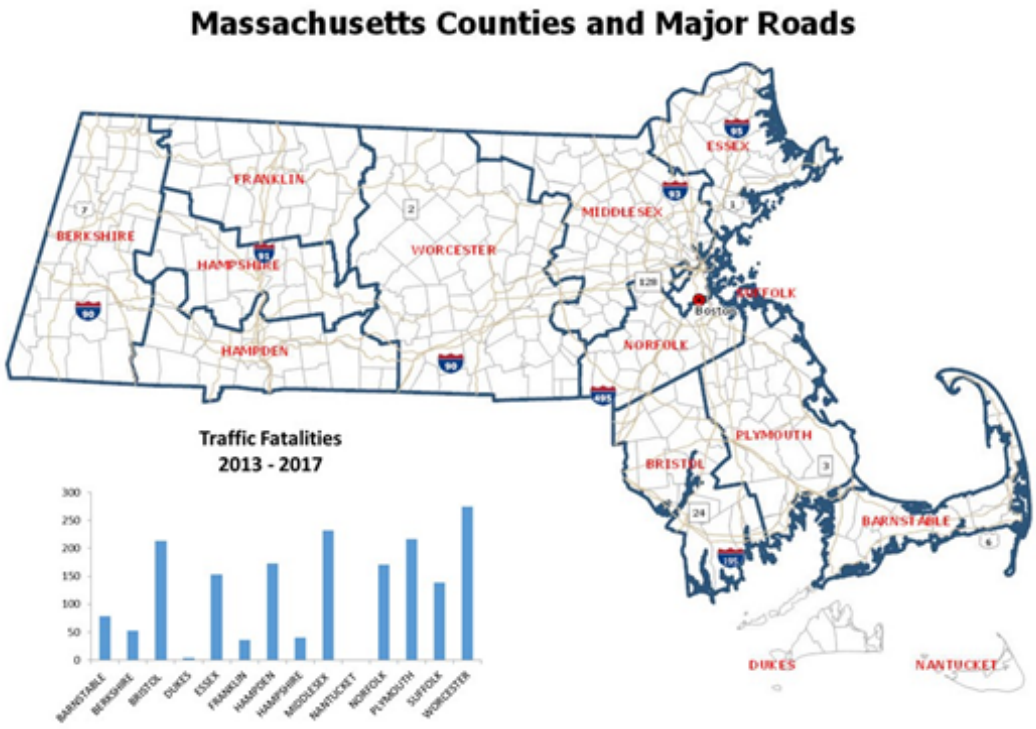
From 2013 to 2017, Massachusetts reported 1,783 motor vehicle-related fatalities and 14,717 incapacitating injuries along its roadways. This is a 2% drop from the 1,819 deaths reported from 2012 to 2016. In terms of fatalities per VMT, Massachusetts has consistently had either the lowest or one of the lowest fatality rates in the country. In 2017, Massachusetts reported 347 fatalities for a fatality/VMT rate of 0.57. The five-year average of fatality/VMT from 2013-2017 was 0.59.

There are fourteen counties across Massachusetts: Barnstable, Berkshire, Bristol, Dukes, Essex, Franklin, Hampden, Hampshire, Middlesex, Nantucket, Norfolk, Plymouth, Suffolk, and Worcester. Over 70% of the population lives in the eastern part of the state in Essex, Middlesex, Suffolk, Norfolk, Bristol, and Plymouth counties. The eastern region of Massachusetts also encompasses most of the major roadways such as I-495, I-95, I-93, I-195, Rt. 128, Rt. 24, Rt. 9, Rt. 3, and Rt. 2. Boston, the capital, is located in Suffolk County and is the largest city in the Commonwealth.

While the eastern part of the state has more roadways and people than central or western Massachusetts, it also has an extensive public transportation system that helps alleviate the traffic congestion that comes with daily commutes into the Metro Boston area. The Massachusetts Bay Transportation Authority (MBTA) provides subway, bus, and commuter rail options for commuters as well as boat transportation from several coastal communities in locations north and south of Boston. Having public transportation options available has resulted in Suffolk County accounting for only 8% of all traffic fatalities from 2013-2017 despite the heavy volume of traffic into and out of Metro Boston every day. Worcester County, which has end terminals for the commuter rail as well as a robust local public bus transportation system, accounted for 15% of all traffic fatalities during the same time period.

Despite the low fatalities for Suffolk County, the surrounding counties of Essex, Middlesex, Norfolk, Bristol and Plymouth accounted for 55% of all traffic fatalities from 2013-2017.

At the city/town level, traffic fatalities were highest in Boston with 120 motor-vehicle related deaths during the five-year period from 2013 to 2017. Springfield, Brockton, Worcester, and Middleborough rounded out the top five, respectively.



Total Fatalities (2013 - 2017)	
BOSTON	120
SPRINGFIELD	56
BROCKTON	48
WORCESTER	45
MIDDLEBORO	32
NEW BEDFORD	28
QUINCY	24
PLYMOUTH	23
FALL RIVER	22
HOLYOKE	19
DARTMOUTH	18
FITCHBURG	17
LOWELL	17
WAREHAM	17
WESTFIELD	17
WESTPORT	17
CHICOPEE	16
ANDOVER	15
MANSFIELD	15
METHUEN	15
RANDOLPH	15
RAYNHAM	15
OXFORD	14
TAUNTON	14
WEST SPRINGFIELD	14

Eleven of the top 25 towns hail from Southeastern Massachusetts (Bristol County – 7; Plymouth County – 4). Brockton, Dartmouth, Fall River, Mansfield, Middleboro, New Bedford, Plymouth, Raynham, Taunton, Wareham, and Westport accounted for 58% of the combined 430 fatalities reported in Bristol and Plymouth County from 2013-2017. The map provided below reveals the high incidence of motor vehicle-related fatalities across these two counties.

Surprisingly, Middlesex County only had one town (Lowell) in the top 25 given that the county accounted for 13% of the motor vehicle-related fatalities from 2013-2017. The lack of fatalities concentrated among a few towns means Middlesex likely has had traffic fatalities occurring with regularity across all communities within

its boundary.

As in prior HSP, Massachusetts will continue supporting and funding key programs to help make the roadways safer in these high fatality communities and counties. To get a better idea of where and when traffic fatalities occur in the Commonwealth, data regarding the time-of-day, day-of-week, month, roadway type, person type and age will be examined. This will help provide a fuller picture of crash fatality trends in Massachusetts, which will further assists OGR in focusing time and funding for key programs describe within this HSP.

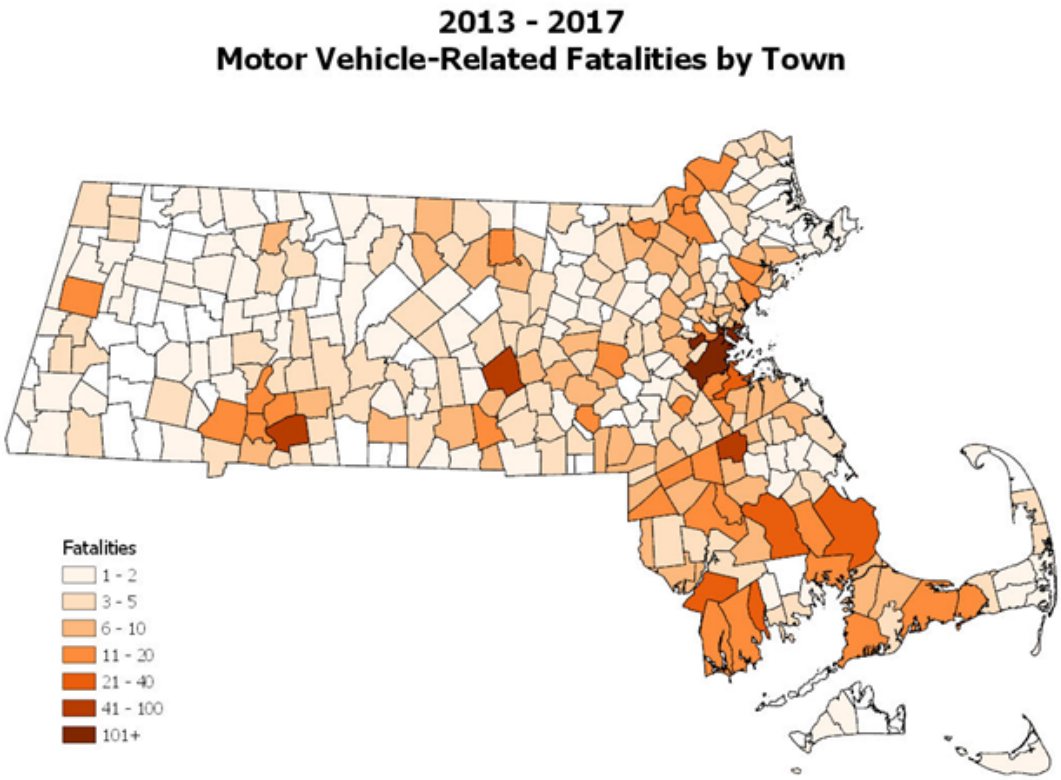
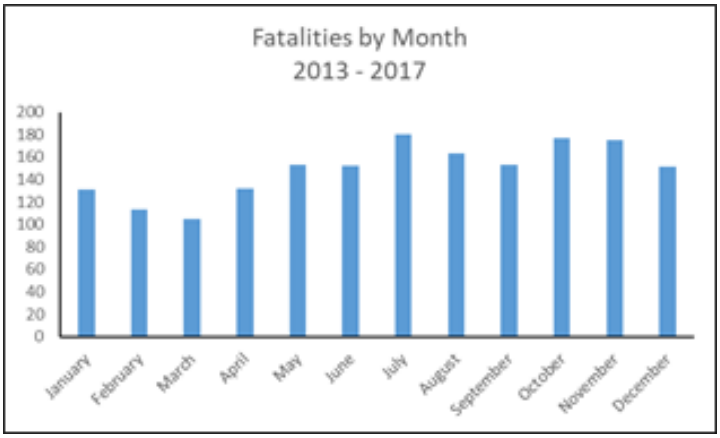


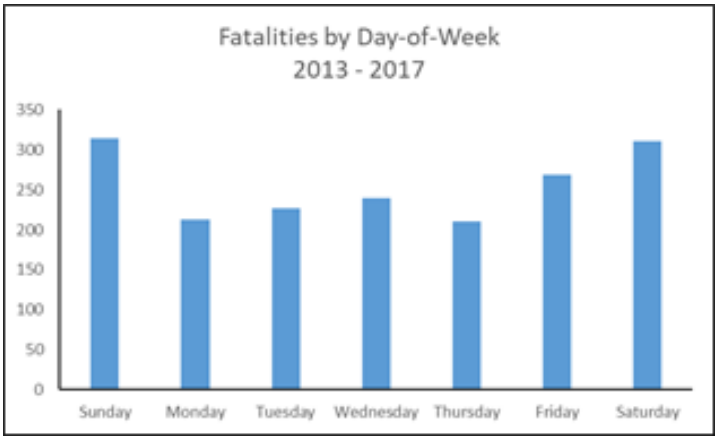
Figure 1: Fatalities by Month, 2013-2017 (Source: FARS)



From 2013 to 2017, traffic fatalities happened more frequently during the months of July, October and November. These three months make up 30% of the fatalities. The period from July to December accounted for 56% of fatalities compared to 44% for January to June.

Figure 2: Fatalities by Day-of-Week, 2013-2017 (Source: FARS)

From 2013 to 2017, the weekend accounted for the top two days for fatalities with 35% of all fatalities occurring on either Saturday or Sunday. If Friday is included as part of the weekend, the three-day period



accounts for half of the fatalities that take place during the seven days of the week.

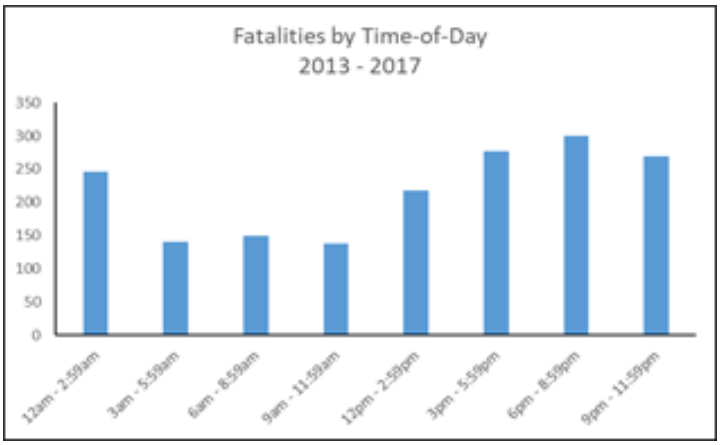
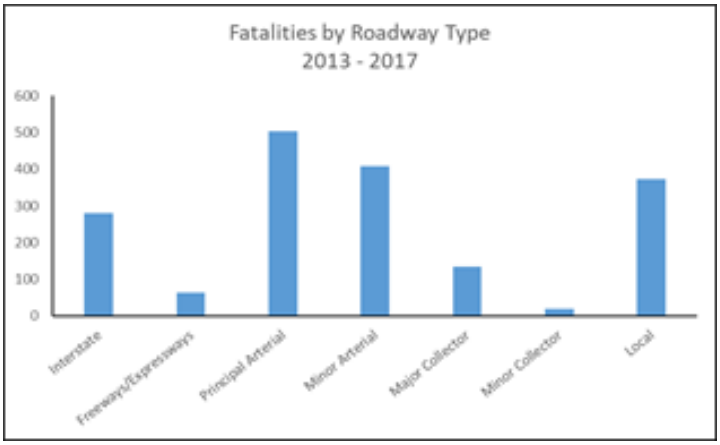


Figure 3: Fatalities by Time-of-Day, 2013-2017 (Source: FARS)

Using a three-hour range, the time from 6pm to 8:59pm recorded the most fatalities from 2013 to 2017. The three hours prior and after this time frame were the second and third highest periods for fatalities, respectively. In all, the time from 3pm to 11:59pm accounted for 47% of all traffic fatalities. Alcohol, drugs, speeding, and failure to use safety restraints, which will be analyzed further in this document, are all contributing factors to the higher totals reported during this time.

Figure 4: Fatalities by Roadway Type, 2013-2017 (Source: FARS)



From 2013 to 2017, traffic fatalities occurred most often on principal and minor arterial roads. These two roadway types accounted for over half of all traffic fatalities during the five-year period. Local roads were the site of 21% of all fatalities.

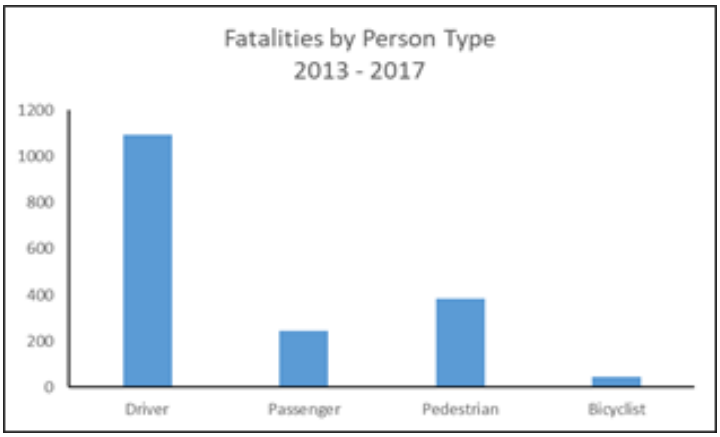
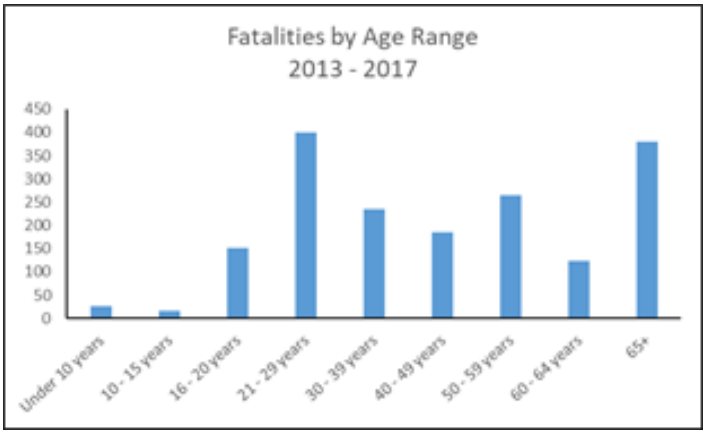


Figure 5: Fatalities by Person Type, 2013-2017 (Source: FARS)

From 2013 to 2017, drivers made up over 60% of all fatalities in motor vehicle-related crashes. Pedestrians accounted for 22%, with passengers and bicyclists following behind with 14% and 3%, respectively.

Figure 6: Fatalities by Age Range, 2013-2017



Lastly, fatalities by age range. Young teens and children (age 15 or younger) accounted for 2% of fatalities, while older teens and young adults (age 16 to 20) accounted for 8% of traffic deaths. The low number of fatalities can be attributed to the positive impact of Massachusetts law requiring passengers age 12 or younger to be buckled up as well as meaningful Junior Operator Laws (JOL) that place restrictions on new drivers under the age of 18.

Those age 21-29 accounted for 22% of all fatalities and, as will be examined in the Occupant Protection program area, are the leading age group for unrestrained fatalities from 2013-2017. Speeding is also highly prevalent among drivers in this age group, which can increase the risk of serious or fatal injury in a crash – especially when not wearing a seat belt.

Based on the data provided thus far, traffic fatalities in Massachusetts happen more frequently in eastern Massachusetts compared to the central and western part of the state. Bristol and Plymouth County, with 11 of the top 25 communities for fatalities from 2013-2017, are of particular concern and focus for OGR.

Law enforcement will be advised of the importance of conducting overtime enforcement patrols during periods of high crash occurrences such as July thru November, Friday through Sunday, and the hours from 3pm to midnight. Particular focus on circumstances where young adults (age 21 – 29) tend to crash will likely have a positive effect on lowering the number of fatalities for this age group.

While the data presented so far provides a basic overview of the state of motor vehicle-related fatalities in

Massachusetts, the FFY 2020 HSP will also look in more detail at fatalities involving impaired driving, lack of safety restraints or helmets, speeding, distracted driving, motorcyclists, and non-occupants (pedestrians and bicyclists) within the respective program area.

Deployment of Resources

When determining key areas to fund for FFY 2020, OGR utilizes data and stakeholder 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 numerous charts, graphs and tables in the FFY 2020 HSP, all planned tasks are supported by data and justify the need for funding to reduce traffic crashes, fatalities, injuries, and economic losses across the Commonwealth.

Subrecipients are mostly 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, seat belt 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 pedestrians on the roads and of the risk involved with impaired driving and failure to wear a seat belt.

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

Effectiveness Monitoring

To ensure projects remain focused on their respective objectives – namely, decreasing traffic safety-related crashes, fatalities and injuries, a two-pronged approach to oversight will be employed. First, OGR 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 subrecipient to ensure all grant requirements as well as fund expenditures are properly accounted for.

OGR will make site visits to keep enforcement agencies from lagging in their efforts as well as to ensure subrecipients are making efforts to reach desired objectives of their grant-funded project. These visits will not only be to ensure subrecipients 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 subrecipient is (or is not doing) to fight the rising tide of deaths in their respective municipality.

During FFY 2020, program coordinators will be making over 50 site visits across the Commonwealth. All visits will be documented through a standard reporting form and copies of the completed reports placed in the current files for the visited subrecipient.

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

HSD reserves the right, based upon the reporting data collected from grant funded agencies, to reduce or stop funding if a subrecipient has shown a failure to adhere to the requirements of the grant.

High-visibility enforcement (HVE) strategies

Planned HVE strategies to support national mobilizations:

Countermeasure Strategy
High Visibility Enforcement
Short-term, High Visibility Seat Belt Law Enforcement

HVE planned activities that demonstrate the State's support and participation in the National HVE mobilizations to reduce alcohol-impaired or drug impaired operation of motor vehicles and increase use of seat belts by occupants of motor vehicles:

Unique Identifier	Planned Activity Name
AL-20-02	Local Police Impaired Driving Enforcement
AL-20-03	MSP and Local Police Sobriety Checkpoint & Saturation Patrols
OP-20-02	Local Police Occupant Protection Enforcement Campaign
OP-20-03	MSP Occupant Protection CIOT Enforcement Campaign

405(b) Occupant protection grant

Occupant protection plan

State occupant protection program area plan that identifies the safety problems to be addressed, performance measures and targets, and the countermeasure strategies and planned activities the State will implement to address those problems:

Program Area Name
Occupant Protection (Adult and Child Passenger Safety)

Participation in Click-it-or-Ticket (CIOT) national mobilization

Agencies planning to participate in CIOT:

Agency
Massachusetts Department of State Police
Up to 200 local law enforcement agencies eligible

Description of the State's planned participation in the Click-it-or-Ticket national mobilization:

Planned Participation in Click-it-or-Ticket

In support of occupant protection laws, this Planned Activity will provide funds to state and local police departments to deploy sustained and selective “zero tolerance” traffic enforcement overtime patrols on the days/times/locations identified in each respective municipality to augment National efforts of the Click It or Ticket (CIOT) mobilization. Local 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 and child passenger safety.
This will be based upon NHTSA's 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.
The eligible subrecipients list will be determined on criteria such as overall crash rates, Vehicle Miles Traveled (VMT), crashes per VMT, fatal crashes per VMT, and percentage of fatal crashes related to speed.
Although not finalized, the number of eligible departments is estimated to be approximately 171.
These enforcement 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 location to reduce death, injury and economic losses.

List of Task for Participants & Organizations

Child restraint inspection stations

Countermeasure strategies demonstrating an active network of child passenger safety inspection stations and/or inspection events:

Countermeasure Strategy
Child Restraint System Inspection Station(s)

Planned activities demonstrating an active network of child passenger safety inspection stations and/or inspection events:

Unique Identifier	Planned Activity Name
OP-20-07	Child Passenger Safety Administration and Training
OP-20-06	Child Passenger Safety Seat Grant Program
OP-20-02	Local Police Occupant Protection Enforcement Campaign
OP-20-10	MSP Child Passenger Safety Car Seat Checkpoints

Total number of planned inspection stations and/or events in the State.

Planned inspection stations and/or events: 253

Total number of planned inspection stations and/or events in the State serving each of the following population categories: urban, rural, and at-risk:

Populations served - urban: 200

Populations served - rural: 53

Populations served - at risk: 100

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

Child passenger safety technicians

Countermeasure strategies for recruiting, training and maintaining a sufficient number of child passenger safety technicians:

Countermeasure Strategy
Child Restraint System Inspection Station(s)
Strategies for Child Restraint and Booster Seat Use

Planned activities for recruiting, training and maintaining a sufficient number of child passenger safety technicians:

Unique Identifier	Planned Activity Name
OP-20-07	Child Passenger Safety Administration and Training
OP-20-06	Child Passenger Safety Seat Grant Program
OP-20-10	MSP Child Passenger Safety Car Seat Checkpoints

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

Estimated total number of classes: 22

Estimated total number of technicians: 290

Maintenance of effort

ASSURANCE: The lead State agency responsible for occupant protection programs shall maintain its aggregate expenditures for occupant protection programs at or above the level of such expenditures in fiscal year 2014 and 2015.

Qualification criteria for a lower seat belt use rate State

The State applied under the following criteria:

Primary enforcement seat belt use statute: No

Occupant protection statute: Yes

Seat belt enforcement: Yes

High risk population countermeasure programs: Yes

Comprehensive occupant protection program: No

Occupant protection program assessment: No

Occupant protection statute

Requirement Description	State citation(s) captured
Requirement for occupants to be secured in a seat belt.	Yes
Requirement for occupants to be secured in an age appropriate child restraint.	Yes
Coverage of all passenger motor vehicles.	Yes
Minimum fine of at least $25.	Yes

Citations

Legal Citation Requirement: Requirement for occupants to be secured in a seat belt.
Legal Citation: Chapter 90, Section 13A
Amended Date: 10/29/2008

Citations

Legal Citation Requirement: Requirement for occupants to be secured in a seat belt.
Legal Citation: Chapter 90, Section 13A
Amended Date: 10/29/2008

Citations

Legal Citation Requirement: Requirement for occupants to be secured in an age appropriate child restraint.
Legal Citation: Chapter 90, Section 13A
Amended Date: 10/29/2008

Citations

Legal Citation Requirement: Requirement for occupants to be secured in an age appropriate child restraint.
Legal Citation: Chapter 90, Section 13A
Amended Date: 10/29/2008

Citations

Legal Citation Requirement: Coverage of all passenger motor vehicles.
Legal Citation: Chapter 90, Section 13A
Amended Date: 10/29/2008

Citations

Legal Citation Requirement: Coverage of all passenger motor vehicles.
Legal Citation: Chapter 90, Section 13A
Amended Date: 10/29/2008

Citations

Legal Citation Requirement: Minimum fine of at least $25.
Legal Citation: Chapter 90, Section 13A
Amended Date: 10/29/2008

Legal citations for exemption(s) to the State's seat belt and child restraint requirements.

Citations

Legal Citation Requirement: Requirement for occupants to be secured in a seat belt.
Legal Citation: Chapter 90, Section 13A
Amended Date: 10/29/2008

Citations

Legal Citation Requirement: Requirement for occupants to be secured in an age appropriate child restraint.
Legal Citation: Chapter 90, Section 13A
Amended Date: 10/29/2008

Citations

Legal Citation Requirement: Minimum fine of at least $25.

Legal Citation: Chapter 90, Section 13A

Amended Date: 10/29/2008

Citations

Legal Citation Requirement: Coverage of all passenger motor vehicles.

Legal Citation: Chapter 90, Section 13A

Amended Date: 10/29/2008

Citations

Legal Citation Requirement: Requirement for occupants to be secured in a seat belt.

Legal Citation: Chapter 90, Section 13A

Amended Date: 10/29/2008

Citations

Legal Citation Requirement: Requirement for occupants to be secured in an age appropriate child restraint.

Legal Citation: Chapter 90, Section 13A

Amended Date: 10/29/2008

Citations

Legal Citation Requirement: Coverage of all passenger motor vehicles.

Legal Citation: Chapter 90, Section 13A

Amended Date: 10/29/2008

Citations

Legal Citation Requirement:

Legal Citation: Chapter 90, Section 13A

Amended Date: 10/29/2008

Seat belt enforcement

Countermeasure strategies demonstrating that the State conducts sustained enforcement throughout the fiscal year of the grant to promote seat belt and child restraint enforcement and involves law enforcement agencies responsible for seat belt enforcement in geographic areas in which at least 70 percent of either the State's unrestrained passenger vehicle occupant fatalities occurred or combined fatalities and serious injuries occurred:

Countermeasure Strategy
Short-term, High Visibility Seat Belt Law Enforcement
Sustained Enforcement

Planned activities demonstrating that the State conducts sustained enforcement throughout the fiscal year of the grant to promote seat belt and child restraint enforcement, and involves law enforcement agencies responsible for seat belt enforcement in geographic areas in which at least 70 percent of either the State's unrestrained passenger vehicle occupant fatalities occurred or combined fatalities and serious injuries occurred:

Unique Identifier	Planned Activity Name
OP-20-07	Child Passenger Safety Administration and Training

OP-20-02	Local Police Occupant Protection Enforcement Campaign
OP-20-04	Local Police Sustained Traffic Enforcement Program (STEP)
OP-20-03	MSP Occupant Protection CIOT Enforcement Campaign
OP-20-05	MSP Sustained Traffic Enforcement Program (STEP)

High risk population countermeasure programs

Countermeasure strategies demonstrating that the State will implement data-driven programs to improve seat belt and child restraint use for at least two of the following at-risk populations: Drivers on rural roadways;Unrestrained nighttime drivers; Teenage drivers; Other high-risk populations identified in the occupant protection program area plan:

Countermeasure Strategy
Child Restraint System Inspection Station(s)
Short-term, High Visibility Seat Belt Law Enforcement
Strategies for Child Restraint and Booster Seat Use
Sustained Enforcement

Submit planned activities demonstrating that the State will implement data-driven programs to improve seat belt and child restraint use for at least two of the following at-risk populations: Drivers on rural roadways; Unrestrained nighttime drivers; Teenage drivers; Other high-risk populations identified in the occupant protection program area plan:

Unique Identifier	Planned Activity Name
AL-20-02	Local Police Impaired Driving Enforcement
AL-20-05	MSP Sustained Traffic Enforcement Program (STEP)

405(c) State traffic safety information system improvements grant

Traffic records coordinating committee (TRCC)

Meeting dates of the TRCC during the 12 months immediately preceding the application due date:

Meeting Date
1/29/2019
5/6/2019
5/10/2019

Name and title of the State's Traffic Records Coordinator:

Name of State's Traffic Records Coordinator: Brook Chipman

Title of State's Traffic Records Coordinator: Administrative Officer IV

TRCC members by name, title, home organization and the core safety database represented:

List of TRCC members

Executive-level TRCC Member List	current as of 5/13/2019		
Organization	Name and Title	Email Addresses	Core System/Role
EOPSS/Undersecretary for Forensic Science and Technology	Kerry Collins, Undersecretary	kerry.collins@mass.gov	Chair
EOPSS/Highway Safety Division	Jeff Larason, Division Director	jeff.larason@mass.gov	Vice Chair
EOPSS/Massachusetts State Police	Ltc Robert Favuzza (or Lt. Thomas Fitzgerald)	robert.favuzza@state.ma.us thomas.fitzgerald@state.ma.us	State-level Law Enforcement Data Provider
EOPSS/Municipal Police Training Committee	Melixza Esenyie, Grants and Records Manager	melixza.esenyie@mass.gov	Police Training
MassDOT/Merit Rating Board	Thomas Bonarrigo, Deputy Director (or Tom Bowes)	thomas.bonarrigo@dot.state.ma.us; tom.bowes@state.ma.us	Citation Data System
MassDOT/Highway Division	Neil Boudreau, Assistant Administrator for Traffic and Safety	Neil.Boudreau@state.ma.us	Major Data User
MassDOT/Registry of Motor Vehicles	Mary-Jo Griffin, Director of Vehicle Safety and Compliance	MaryJo.Griffin@State.MA.US	Crash, Driver, Vehicle Data Systems
MassDOT/Office of Planning	David Mohler, Executive Director (or Bob Frey)	david.mohler@state.ma.us bob.frey@state.ma.us	Roadway Data Systems
Department of Public Health/Injury Surveillance Program	Rebekah Thomas, Director of Injury Prevention and Control (or Jeanne Hathaway)	rebekah.thomas@state.ma.us jeanne.hathaway@mass.gov	Injury Data System
Department of Public Health/Emergency Medical Services	Scott Cluett, Interim Director	william.scott.cluett@state.ma.us	EMS Data System
Massachusetts Chiefs of Police Association	Chief Steven Wojnar (or Chief John LeLacheur)	swojnar@dudleypolice.com; jlelacheur@beverlyma.gov	Local-level Law Enforcement Data Providers
Massachusetts Association of Regional Planning Agencies	Janet Pierce, Executive Director (or Yahaira Graxirena)	jpierce@cmrpc.org; ygraxirena@cmrpc.org	Regional Planning Data Providers
Administrative Office of the Trial Court	TBD		Adjudication Data System
Executive Office of Technology Services and Security	TBD		State IT

Non Voting Members			
National Highway Traffic Safety Administration (NHTSA)	Barbara Rizzuti, Regional Program Manager	barbara.rizzuti2@dot.gov	Federal Stakeholder
Federal Highway Administration (FHWA)	Kenneth S. Miller, P.E., Assistant Division Administrator	kenneth.miller@dot.gov	Federal Stakeholders
Federal Motor Carrier Safety Administration (FMCSA)	Richard Bates, Division Administrator	richard.bates@dot.gov	Federal Stakeholder

Working-level TRCC Members List	current as of 5/9/19			
Last Name	First Name	Organization	Title	Core System/Role
Abbott	Mark	Central Transportation Planning Staff	Traffic Analysis amp Design Group Manager	Roadway
Backus	Bertina	MDPH - Division of Clinical Quality Improvement	Epidemiologist	Trauma Registry
Bowes	Tom	MassDOT/Merit Rating Board		Citation
Burman	Ed	Ashland Police Department		Local Police
Canney	John	Brookline Police Department	Traffic Officer	Local Police
Card	Paula	Massachusetts State Police/Commercial Vehicle Enforcement	Sergeant	State Police
Cheever	Maria	Boston Police Department		Local Police
Chipman	Brook	EOPSS/Highway Safety Division	Program Manager	State Traffic Records Coordinator
Doyle	Jeff	MDPH	EMS for Children	EMS
Conard	Richard	MassDOT	Transportation Planner	Highway Planning
DaVeiga	Donna	MassDOT/RMV	Law Enforcement Liaison	Crash
Dion	Derryl	Department of Fire Services	Research Analyst	Research

Eddings	Marcus	Boston Police Department		Local Police
Esenyie	Melixza	Municipal Police Training Committee	Grants and Records Manager	Police Training
Ficks	Ridgely	MDPH-OEMS	MATRIS Manager	EMS
Fitzgerald	Carol	Massachusetts State Police	Analyst	State Police
Fitzgerald	Thomas	Massachusetts State Police/Commercial Vehicle Enforcement	Lieutenant	State Police
Fitzpatrick	Cole	UMassSafe	UMassSafe Post Doc	University
Frey	Bob	MassDOT/Office of Planning		Roadway
Graxirena	Yahaira	Central Mass Regional Planning Commission	Principal Transportation Planner	Regional Planning
Guarino	Raymond	Old Colony Regional Planning Commission	Senior Transportation Planner	Regional Planning
Hathaway	Jeanne	MDPH	Epidemiologist	Injury Surv. Data System
Hines	Kathy	Center for Health Information and Analysis		Injury Surv. Data System
Hobbs	Sylvia	Center for Health Information and Analysis	Manager	Injury Surv. Data System
Hooley	James	Boston EMS	Chief of Department	EMS
Hume	Beth	MDPH	Project Director	Injury Surv. Data System
Inzana	Jennifer	MassDOT		Crash
Jacob	Kathy	Central Transportation Planning Services	Planner	Roadway
Knodler	Mike	UMassSafe	UMass Transportation Center Director, UMassSafe Director	University
Larason	Jeff	Highway Safety Division	Division Director	WRTCC Chair

LeLacheur	John	MA Chiefs of Police - Beverly Police Department	Chief	Local Police
Lopes	Kevin	MassDOT/Planning	Manager of GIS Services	Roadway
Mailhot	Benjamin	Belmont Police Department	Sergeant	Local Police
McCarthy	Steven	Massachusetts State Police		State Police
McCue	Philip	Office of Chief Medical Examiner		Fatality Data
McElroy	Nora	MDPH/Division of Quality Improvement	Data Analyst	Trauma Registry
McGill	Michael	MassDOT/Planning		Highway Planning
Krishanan	Sujatha	Central Mass Regional Planning Commission	Transportation Program Manager	Regional Planning
Panacopoulos	Ross	Municipal Police Training Committee		Police Training
Perduyn	Karen	MassDOT/RMV	Crash Data Manager	Crash
Peterson	Scott	Central Transportation Planning Staff		Roadway
Philyaw	Jacqueline	MassDOT/RMV	FARS Supervisor	Crash
Polin	Bonnie	MassDOT/Highway Division	Highway Safety Programs Manager	Highway Planning
Quan	Caroline	MassDOT/Merit Rating Board	Criminal Citations Supervisor	Citation
Riessman	Robin	UMassSafe	Associate Director	University
Salvia	James	Boston EMS	Paramedic/ePCR Project Manager	EMS
Segal	Laura	Boston EMS	Chief of Staff	EMS
Simo	Jose	MassDOT/Planning		Highway Planning
Smith	Steven	Newton Police	Bureau Commander	Local Police
Snow	George	Montachusett Regional Planning Commission	Principal Transportation Planner	Regional Planning
Zieger	Jeff	MassDOT/Merit Rating Board		Citation

Federal Partners				
Rizzuti	Barbara	National Highway Transportation Safety Administration - Region 1	Regional Program Manager	Federal Stakeholder
Otaluka	Promise	Federal Highway Administration	Operations Engineer	Federal Stakeholder
Poirier	Matthew	Federal Motor Carrier Safety Administration	Highway Safety Specialist	Federal Stakeholder
Hernandez	Wilfred	Federal Highway Administration	Safety Engineer	Federal Stakeholder

Traffic Records System Assessment

Traffic Records Assessment

In December 2018 and January 2019, EOPSS/OGR/HSD with TRCC assistance conducted a NHTSA-approved Traffic Records Self-Assessment for Massachusetts. Those completing or reviewing the assessment were guided by NHTSA's Traffic Records Program Assessment Advisory, 2018 Edition. NHTSA, currently through the federal Fixing America's Surface Transportation (FAST) Act, requires states to conduct or update an assessment of their highway safety data and traffic records system every five years in order to qualify for federal Section 405(c) grant funding from NHTSA. This section includes the resulting recommendations from the 2019 assessment. After each one there is information (bolded and underlined) about what Massachusetts is or is not doing in regards to the recommendation in FFY 2020. Where action is being taken, the entry will highlight if the effort involves a project included in the Highway Safety Division's (HSD) proposed FFY 2020 Highway Safety Plan and in Section 4 of this plan. Such an entry needs to address an unmet recommendation from the 2019 assessment. Ideally the project also provides a benchmark(s) and performance measure(s) that can demonstrate quantitative improvement in a data attribute – accessibility, accuracy, completeness, integration, timeliness, and uniformity - of a core traffic records system as described in the Section 405-c FAST Act funding guidance. If the Commonwealth is unable to address a recommendation in FFY 2020, this must be explained (bolded and underlined) below in this section. With the FFY 2020 Section 405-c application, we are proposing two performance measures to show quantitative improvement in data attributes of core traffic records systems. These measures were developed using NHTSA's Model Performance Measures for State Traffic Records Systems, 2011 edition and the Section 405-c FAST Act funding guidance. These are also provided to NHTSA separately in Interim Progress Reports as part of the Commonwealth's FFY 2019 Section 2020 405-c application. One measure will show improvement in accuracy and completeness in the RMV's Crash Data System. The other will show improvement in completeness in the MDPH's MATRIS. Developing similar measures for other core systems and projects of the Commonwealth will be a focus for our TRCCs in FFY 2020. The EOPSS/OGR/HSD conducted in the spring of 2019 an Availability of Grant Funding (AGF) process to identify new projects to use FFY 2019 and earlier Section 405-c funding. If these projects are approved by NHTSA as part of the Massachusetts FFY 2020 Highway Safety Plan, these projects will be added to this Strategic Plan. EOPSS/OGR/HSD expects to conduct during FFY 2020 another AGF process as described in

the FFY 2020 Highway Safety Plan and Section 4 of this plan under TR-20-06. Projects funded from both AGF must work to meet at least one unmet recommendation from the 2019 assessment.

3.1 Traffic Records Coordinating Committee Management

The 2019 Traffic Records Assessment did not have any related recommendations for TRCC management. However the TRCC still needs to continue to work on developing benchmarks and performance measures for four of the six core traffic records systems. Also better highlight and address unmet technical assistance and training needs for all six systems. In FFY 2020, the Massachusetts TRCCs will meet the requirement for receipt of Section 405-c funding by meeting a minimum of three times. Since the submission of the last Section 405c application in July 2018, the ETRCC met once, on 5/10/19, and the WTRCC met twice, on 1/24/19 and 5/6/19.

3.2 Strategic Planning

The 2019 Traffic Records Assessment did not have any related recommendations for Strategic Planning.

3.3 Crash System

The 2019 Traffic Records Assessment identified the following recommendations:

Improve the applicable guidelines for the Crash Data System (CDS) that reflect best practices identified in the Traffic Records Program Assessment Advisory.

MassDOT/IT and RMV have kicked off the procurement effort for a new CDS. This recommendation will be addressed in the new system. The timeline for the new system is for implementation early in 2020, so as not to pull resources from the current Release 2 of the RMV Operating System on November 12, 2019. An RFI will be posted within the next 30 days with the remainder of the process to follow.

Improve the interfaces with the CDS that reflect best practices identified in the Traffic Records Program Assessment Advisory. The new CDS RFR will include the ability to interface between the new CDS and FARS that will provide more timely and complete fatality data in microcomputer data entry.

Improve the data quality control program for the CDS that reflect best practices identified in the Traffic Records Program Assessment Advisory. Need to establish quality control measures for more attributes. Section 405-c funded projects to address this recommendation are listed in the FFY 2020 Highway Safety Plan and Section 4 of this plan under TR-20-02, TR-20-03, and TR-20-04. Additional quality control measures for attributes will be addressed with the development of a new CDS.

3.4 Roadway

The 2019 Traffic Records Assessment identified the following recommendations:

Improve the data dictionary for the Roadway data system (RDS) that reflect best practices identified in the Traffic Records Program Assessment Advisory. At this time no 405-c grant funded work on this recommendation is planned for FFY 2020.

Improve the data quality control program for the RDS that reflect best practices identified in the Traffic Records Program Assessment Advisory. At this time no 405-c grant funded work on this recommendation is planned for FFY 2020.

3.5 Driver

The 2019 Traffic Records Assessment identified the following recommendations:

Improve the data dictionary for the Driver data system (DDS) that reflect best practices identified in the Traffic Records Program Assessment Advisory. The RMVs new operating system, although rolled

out in March 2018, is still being configured for reporting and data quality purposes. At this time no 405-c grant funded work on this recommendation is planned for FFY 2020.

Improve the data quality control program for the Driver data system that reflect best practices identified in the Traffic Records Program Assessment Advisory. The RMVs new operating system, although rolled out in March 2018, is still being configured for reporting and data quality purposes. At this time no 405-c grant funded work on this recommendation is planned for FFY 2020.

3.6 Vehicle

The 2019 Traffic Records Assessment identified the following recommendations:

Improve the interfaces with the Vehicle data system (VDS) that reflect best practices identified in the Traffic Records Program Assessment Advisory. The RMV's new operating system is being implemented in two parts: Driver/person – March 2018. Vehicle - November of 2019. The new system has many quality control features. At this time no 405-c grant funded work on this recommendation is planned for FFY 2020.

Improve the data quality control program for the VDS that reflect best practices identified in the Traffic Records Program Assessment Advisory.

The RMV's new operating system is being implemented in two parts: Driver/person – March 2018. Vehicle - November of 2019. The new system has many quality control features. At this time no 405-c grant funded work on this recommendation is planned for FFY 2020.

3.7 Citation / Adjudication

The 2019 Traffic Records Assessment identified the following recommendations:

Improve the description and contents of the Citation and Adjudication systems that reflect best practices identified in the Traffic Records Program Assessment Advisory. At this time no 405-c grant funded work on this recommendation is planned for FFY 2020.

Improve the data dictionary for the Citation and Adjudication systems that reflect best practices identified in the Traffic Records Program Assessment Advisory. New licensure system implemented in March 2018, registration portion to roll out Fall 2019. At this time no 405-c grant funded work on this recommendation is planned for FFY 2020.

Improve the data quality control program for the Citation and Adjudication systems that reflect best practices identified in the Traffic Records Program Assessment Advisory. MACCS project continues to improve data quality and timeliness of Citation System by increase amount and quality of electronic citation submission. A Section 405-c funded project to address this recommendation is listed in the FFY 2020 Highway Safety Plan and Section 4 of this plan under TR-20-03.

3.8 EMS / Injury Surveillance

The 2019 Traffic Records Assessment identified the following recommendations:

Improve the interfaces with the Injury Surveillance systems that reflect best practices identified in the Traffic Records Program Assessment Advisory. The RMV and DPH looked into creating an interface between EMS and RMV data for Fatal Accident Reporting (FARS) project. A statute change is required to allow sharing of the EMS data. Other interfaces would require significant funding.

Currently the Trauma Registry has begun the work of linking Trauma Registry data with data sources that contain outcomes. The planned matches will use propensity score matching (a commonly used method) to link

Death Data and Case Mix Hospital inpatient and ED discharge data. An extract has been received of relevant Death Data and this match scheduled first, followed by an attempted Case Mix match.
At this time no 405-c grant funded work on this recommendation is planned for FFY 2020.
Improve the data quality control program for the Injury Surveillance systems that reflect best practices identified in the Traffic Records Program Assessment Advisory.
ED, hospital discharge, Vital Records have effective data quality control measures in place. MATRIS sends monthly data quality reports to all ambulance services and regularly works with ambulance services to improve their quality. MATRIS data quality control will further improve with the migration to NEMSIS V3 that allows for rejection of records that do not meet quality standards. Beginning in 2016, trauma data submitters receive automated data quality reports and whether a data submission was accepted. Additionally, in FFY 2020 the Trauma Registry plans to provide the TRCC with data quality reports.
Refinements were made to the FFY 2019 Trauma Registry and is expected to begin accepting submissions shortly. These included adding edit checks that require a higher level of consistency and completeness for several additional fields. Data submissions that do not meet the required level of completeness are returned to facilities for refinement and resubmission. FFY 2020 planning is already underway and includes a request for proposals for a new web based data collection system for this registry. A Section 405-c funded project to address this recommendation is listed in the FFY 2020 Highway Safety Plan and Section 4 of this plan under TR-20-05.
3.9 Data Use and Integration
The 2019 Traffic Records Assessment identified the following recommendations:
Improve the traffic records systems capacity to integrate data that reflect best practices identified in the Traffic Records Program Assessment Advisory. At this time no 405-c grant funded work on this recommendation is planned for FFY 2020. However this matter will be addressed in FFY 2020 through further planning/discussion by the TRCC as well as the continuation of the Mass-DOT/MDPH project entitled Statewide Crash-Injury Data Linkage Project on Mass Roadways using FHWA funding described in Section 4 of the FFY 2020 Strategic Plan.

Traffic Records for Measurable Progress

In the FFY 2020 Strategic Plan, the list of planned activities covers all the content as desired in this section on “Measurable Progress.”
Massachusetts Traffic Records Analysis Center (MassTRAC) Highway Safety Plan Task TR-20-01 EOPSS/OGR/Highway Safety Division (HSD) Budget: $50,000 (NHTSA, Section 402) Prior to 2010, the EOP SS/OGR/HSD and other traffic records stakeholders as well as the public had limited access to crash and citation data. The data sets were housed in different locations and required manual processes for analysis. To facilitate easier access and analysis of traffic safety data, EOPSS/OGR/HSD developed with a contractor a web-based traffic safety information portal, called MassTRAC. In FFY 2018 it was determined it was no longer possible to upgrade the hardware and software platforms for MassTRAC. EOPSS/OGR/HSD is working with the Executive Office of Technology Security and Services, MassDOT, and the TRCC to determine the best way expand the number of data sets from traffic records systems in the soon to be updated MassDOT Crash Data Portal. On May 21, 2018, the ETRCC voted to approve EOPSS/OGR/HSD’s new MassTRAC project concept

and to reserve up to $375,000 of FFY 2019 Section 405c funding for the project. Use of any of this funding is subject to additional ETRCC approval following a review of a related business plan. Features and capabilities of an expanded portal are expected to be:

compatiblility with the Commonwealth's open data initiative and residing on Mass.Gov portal;
contain data sets from Commonwealth's six traffic records systems: crash data, roadway inventory file, vehicle registration, driver licensing/history, citation/adjudication, and injury surveillance;
receive regular, automated updates from these six systems, based on MOU's;
varying levels of analytical and visualization tools, to serve the general public, law enforcement and highway safety officials, and even researchers;
utilize MassGIS resources;
easy access to standardized reports to assist those applying for grant funding;
allow for intensive data linkage queries, utilizing data from across as many of the six data systems as possible;
online user guide and training module as well as e-mail technical assistance;
data collected from the Race field on the Massachusetts Uniform Citation Form would ultimately be available for public viewing/analysis through this tool, assisting Massachusetts to expend Section 1906 funding its receives from NHTSA.

This project will support the following performance target: Traffic Records Performance Target #1 – Develop a business plan for a new MassTRAC by December 31, 2019.

Fatality Analysis Reporting System (FARS) Highway Safety Plan Task TR-20-02 Registry of Motor Vehicles Budget: $82,000 (NHTSA Cooperative Agreement) NHTSA will continue to be provided with required fatal crash data for FARS and FastFARS through a dedicated RMV position. The FARS Analyst will collect data concerning traffic related motor vehicle fatalities, utilizing all available resources, in order to help to develop a database sufficient to meet federal requirements. The Massachusetts FARS Manual will continue to be enhanced.

This project will support the following performance targets: Traffic Records Performance Target #2 - To improve the accuracy and completeness of the Registry of Motor Vehicles' Crash Data System by decreasing the number of crash reports rejected for not meeting the minimum criteria to be accepted into the system from 1,466 between April 1, 2018 to March 31, 2019 to 1,390 or less between April 1, 2019 to March 31, 2020.

Motor Vehicle Automated Citation and Crash System (MACCS) Highway Safety Plan Task TR-20-03 EOPSS/Department of Criminal Justice Information Services Budget: $2,160.92 ($544,034 in Section 405-c Fast Act; $262,396.57 in Section 405-c MAP 21; $490,161.46 in Section 402; $750,000 of Section 1906, all from NHTSA)

MACCS is a browser-based application that is available statewide for the purpose of collecting, reconciling, and exchanging motor vehicle incident information including: electronic citation reporting, crash reporting, and traffic stop data collection. The MACCS project is the result of a partnership between EOPSS, local and state law enforcement, and MassDOT. The project has been funded with a combination of capital funds and grants from NHTSA.

The goals of the MACCS project are to ensure greater safety for officers and the public by making the reporting process more efficient at the roadside, to improve data quality by implementing checks at the point of entry and

upon submittal, and to 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 application first went live with Billerica Police Department in April 2017.

In the past year, grant funding assisted with procurement and installation of in-vehicle printers, mounts, and paper, associated training, and MACCS software updates. As of spring 2019, there are 43 local police departments and the Massachusetts State Police using MACCS. Next Steps:

Further training and deployment of MACCS with additional municipal agencies.

Continue working with the courts and MRB on outstanding issues related to the processing of criminal citations, including an electronic integration of MACCS with the Electronic Application for Criminal Complaint.

Work with record management system vendors to implement a data exchange via the iCJIS Broker technology.

It is anticipated this project will be extended to 8/30/2020.

This project will support the following performance target: Traffic Records Performance Target #2 - To improve the accuracy and completeness of the Registry of Motor Vehicles' Crash Data System by decreasing the number of crash reports rejected for not meeting the minimum criteria to be accepted into the system from 1,466 between April 1, 2018 to March 31, 2019 to 1,390 or less between April 1, 2019 to March 31, 2020.

Availability of Grant Funding for Traffic Safety Information Systems Improvement Grant Program, Section 405-c funded Projects Highway Safety Plan Task TR-20-04

Executive Office of Public Safety and Security/Office of Grants and Research/ Highway Safety Division Budget: up to $750,000 (NHTSA, Section 405c).

An Availability of Grant Funding (AGF) will be issued to provide FFY 2020 Section 405(c) funding on a competitive basis to quantifiable and measurable projects to improve the accessibility, accuracy, completeness, integration, timeliness, and/or uniformity (a performance attribute) of one or more of the following six core traffic records systems: crash data system, roadway inventory file, vehicle registration, driver history, citation/adjudication, and injury surveillance system. Improving these systems will in turn enhance the ability to identify priorities for local, state, and federal traffic safety programs. Permissible projects could also evaluate the effectiveness of efforts to improve these six core traffic records systems; link these systems with other appropriate state or federal data systems; and enhance the ability of highway safety stakeholders to observe and analyze local, state, and national trends in crash occurrences, rates, outcomes, and circumstances. Only units of state and local government or not-for-profit organizations with a public purpose would be eligible to apply for funding. All funded projects must help to meet at least one unmet recommendation(s) from the Commonwealth's 2019 Traffic Records Assessment. Preference will be given to projects that have a minimum of one benchmark and one performance measure that will demonstrate at least one quantitative improvement to a performance attribute of a minimum of one of the state's six core traffic records systems. This quantitative improvement must be demonstrated with supporting information covering a 12-month performance period, starting anytime between April 1 and July 1, 2020, and comparable to a prior, contiguous benchmark period of one year. AGF responses would be reviewed by the Massachusetts Traffic Records Coordinating Committees.

Those approved by the committees would then be submitted to EOPSS and then NHTSA for review and approval.

Each resulting project will support one or more of the FFY 2020 performance targets.

Crash Data System Law Enforcement Liaison Highway Safety Plan Task TR-20-05 MassDOT/Registry of Motor Vehicles Budget: $108,019.56 (NHTSA, Section 405c) This project will provide additional funding for the Registry of Motor Vehicles (RMV) Crash Data System (CDS) Law Enforcement Liaison (LEL). The LEL will be in regular contact with state and local police on ways they can improve their reporting to the CDS, in particular to move from paper to electronic reporting. The LEL will also work with records management system vendors for police departments to improve reporting to the CDS. Other stakeholders the LEL would connect with would be major data users and those working to improve police training curriculum. This project, approved by the Massachusetts Traffic Records Coordinating Committees, will improve the data quality control program for the CDS as recommended in the 2019 Traffic Records Assessment. This project is expected to be extended to 8/30/20.

This task will support the following performance target:

Traffic Records Performance Target #2 - To improve the accuracy and completeness of the Registry of Motor Vehicles' Crash Data System by decreasing the number of crash reports rejected for not meeting the minimum criteria to be accepted into the system from 1,466 between April 1, 2018 to March 31, 2019 to 1,390 or less between April 1, 2019 to March 31, 2020.

Tools for Improving Crash Report Reviews Highway Safety Plan Task TR-20-06

UMassSafe Budget: $132,321 (NHTSA, Section 405c)

Based on initial findings of the 2017 crash data audit (CDA), this project seeks to enhance supervisory review of crash reports within a police department before they are submitted to the MassDOT RMV Division. This will yield a unique and straightforward opportunity to improve the overall completeness, accuracy and uniformity of crash data. It is expected to also have an indirect beneficial impact on timeliness. UMassSafe will develop three specific materials and tools:

Guidelines for how to effectively and concisely write crash narratives. Initial findings of the CDA demonstrate that there is significant range on both the quantity and quality of content that is or is not included in crash report narratives. Recognizing the extent to which supervisors and subsequent reviewers may rely on this narrative, this lack of uniformity makes it difficult for supervisors to use this information in reviewing crash report accuracy, completeness, and uniformity as well as challenging for analysts and other highway stakeholders to use this information to better understand crash causation and plan effective safety countermeasures. UMassSafe will use a machine learning technique to conduct analyses of crash narratives across police agencies within the Commonwealth to identify commonalities and trends in narrative structure. Additionally, we will determine which specific narrative elements of the crash narrative are most helpful to the supervisor for use in assessing the accuracy, completeness, and uniformity of the crash report. Key stakeholder interviews will be conducted with crash data collectors (state and local police officers and supervisors) and crash data users (state agencies and researchers) to determine what crash information is needed from the narrative section of the crash report to both review reports and conduct data analysis. Findings will be used in the formation of specific crash narrative guidelines to specify not only what information should be included, but also preferred formats for sequencing information for expedited reviews. A pilot test with police departments will be conducted by UMassSafe to

determine how their crash report narratives compare against the newly developed narrative guidelines. The resulting benchmark data from the pilot test will be used later in the project, after the release of the key deliverables, to determine any narrative performance improvement by the pilot test departments. Through its monthly reporting, UMassSafe will detail 1.) pilot test plan and participants, 2.) benchmark results from pilot test, 3.) performance measure results from pilot test. The narrative guidelines will ensure that accurate, complete, and uniform data is provided on crash reports. As much as possible, this work will be done in collaboration with MassDOT RMV Division's Law Enforcement Liaison (LEL). Curriculum and/or support guidance materials, for use by supervisors that review crash reports. While there are numerous resources for officers filling out crash reports, including the E-Crash Manual, there are limited materials for supervisors who often have to review multiple crash reports each day. Based on findings of the CDA as well as discussions with reviewers (previous task), targeting the ten most common crash report accuracy and completeness errors that could be corrected at the reviewer level, UMassSafe will create materials to guide supervisors in their review and approval of crash reports before they are sent to the MassDOT RMV Division. The materials will be designed to expedite the review process while ensuring that critical information is both complete and accurate, thus improving uniformity among police departments. As much as possible, this work will be done in collaboration with MassDOT RMV Division's LEL.

Resource creation and distribution.

In collaboration with MassDOT RMV Division's LEL as much as possible, UMassSafe will play an active role in promoting the new guidelines and procedures for crash narratives. Will work with the TRCC, RMV, HSD, MSP, MCOPA and other stakeholders in order to establish and implement systems of communication (in the form of at least two informational flyers, at least six in-person presentations across the state selected by RMV and HSD, email blasts, social media promotion, additional content on masscrashreportmanual.com, and at least two webinars) to convey changes to crash narrative development and review. After materials have been released, collect feedback on materials based on interviews with key stakeholders, briefly summarize, and share with EOPSS/OGR/HSD. Although the findings and materials will be available to all highway safety stakeholders, the primary users will be supervisors in the Massachusetts State Police and local police departments as well as the MassDOT/RMV Division. This project is expected to be extended to 3/31/20.

This project will support the following performance target:

Traffic Records Performance Target #2 - To improve the accuracy and completeness of the Registry of Motor Vehicles' Crash Data System by decreasing the number of crash reports rejected for not meeting the minimum criteria to be accepted into the system from 1,466 between April 1, 2018 to March 31, 2019 to 1,390 or less between April 1, 2019 to March 31, 2020.

MATRIS and Trauma Registry Project Uniformity, Accuracy, and Integration Project Highway Safety Plan Task TR-20-07 Massachusetts DPH Budget: $175,000 (NHTSA, Section 405c)

This project will continue to enhance the accuracy, completeness, integration, timeliness, and/or uniformity of the Massachusetts Ambulance Trip Record Information System (MATRIS) and the Trauma Registry (TR). Key MATRIS deliverables would be complete migration of MATRIS data providers to NEMSIS Version 3, necessary updates to this software, and exploration of better hosting options for MATRIS V3. Major TR deliverables would be advancement of the procurement process for a commercial-off-the-shelf system for a new TR application, related configuration/testing, as well as better data quality reporting and linkage efforts for the

TR. This project, approved by the Massachusetts Traffic Records Coordinating Committees, will help to improve the data quality program for the EMS/Injury Surveillance System.
This project is expected to be extended to 8/30/20. This project will support the following performance target: Traffic Record Performance Target #3 - To improve completeness of MATRIS, increase the number of ambulance services submitting NEMSIS Version 3 reports to the system from 8 between April 1, 2018 to March 31, 2019 to 220 or more between April 1, 2019 to March 31, 2020.
MATRIS and Trauma Registry National Standard Uniformity and Data Quality Project Highway Safety Plan Task TR-20-08 Massachusetts DPH Budget: $414,779 (NHTSA, Section 405c)
The Massachusetts Department of Public Health's Massachusetts Ambulance Trip Record Information System (MATRIS) is currently based on the National EMS Information System (NEMSIS) Version 2 data set standard developed in 2005. The NEMSIS Technical Assistance Center developed a major revision to NEMSIS Version 3 (V3) released in 2011 which the industry has adopted and many states and ambulance services have already converted to. MATRIS will migrate to this new standard to continue collecting NEMSIS compliant data from ambulance services as the software vendors are sun-setting their V2 products. This project is in progress but needs additional funding to complete the effort and migrate over 320 ambulance services.
For the MATRIS NEMSIS V3 upgrade, a revised data dictionary incorporating the new national and state requirements of NEMSIS V3 as well as additional data elements and values identified as important for better injury prevention and performance measurement analysis and linkage was developed in 2018. NEMSIS V3 also incorporates a more rigorous and efficient data validation method, Schematron. This method enables the state to reject records upon import from ambulance services that do not meet edit rules resulting in better data quality. In NEMSIS V2 validation edit rules are applied after import and only result in lower validation scores. To implement NEMSIS V3, MATRIS is upgraded the software platform and has built out a new server environment at MassIT. Performance, vulnerability, ADA testing was conducted. Configuration of an interface for ambulance services to manually enter and view their data in MATRIS was designed and tested internally and with pilot ambulance services.
Currently in NEMSIS V2 a subset of vendors provide the ability for ambulance services to automate data submission from their vendor ePCR systems to MATRIS; i.e. a file is automatically sent every night to MATRIS. With the migration to NEMSIS V3 all vendors are required to provide this functionality resulting in more timely, efficient and achievable data submission. Testing of this functionality was conducted with select vendors and now a number of services are submitting data to the NEMSIS V3 system in this manner. Ambulance services are being trained in both manual and automated submission in the V3 environment. The migration for the ambulance services will be phased in as they migrate to their vendor's NEMSIS V3 compliant ePCR versions. From 2/28/19 to 8/31/19, Massachusetts will be collecting both V2 and V3 records.
All hospitals are required to submit data to the Trauma Registry (TR) in accordance with Hospital Licensure regulations (105 CMR 130.851 and 105 CMR 130.852) and Circular Letters (DHCQ 08-03-483). Hospitals designated as trauma centers are held to the standards set by the American College of Surgeons' (ACS) National Trauma Data Standards (NTDS). The International Classification of Diseases, Tenth Edition (ICD-10 coding) was first implemented into the hospital coding on October 1, 2016. The ICD-10 coding has revisions to enhance and clarify the codes that are used by the trauma registrars and billing coders. In order to keep current with the industry standards from both the NTDS and ICD-10 codes, this project will enable the TR to

implement the annual ACS/NTDS and ICD-10 changes.

The current submission criteria that represents the 2016 requirements needs to be updated to include the 2017 criteria and anticipated 2018 submissions criteria changes for January 1, 2018. The pace of the changing criteria requires us to adjust to maintaining multiple submission criteria in the system. The system needs to maintain three change cycles to allow hospitals to catch up with submissions for the 2016 through 2018 quarters. Enhancements to include 2016, 2017, and 2018 submission criteria additions from NTDS and ICD-10 coding, plus submission logic to apply the requirements based on injury date are needed with data quality edits to allow TR personnel to provide better feedback to the hospitals. These system upgrade requirements are needed as minimal standard operating enhancements for the state trauma registry to accept submissions from the hospitals. The current version of the system was built on borrowed infrastructure in another agency which is inflexible and requires Department of Public Health personnel resources to build and manage annual upgrades making them costly and inefficient in today's technological environment.

A web-based COTS TR system with reporting capabilities will be set up to automatically send out timely quarterly reports to the submitting hospitals resulting in an increase in uniformity and quality of data reporting. It will have having a robust configurable GUI and editing capabilities with high quality user guides, release notes and support. The user guide will support uniformity and completeness of the data being sent by the hospitals to the state. The new system capabilities will free up resources to prioritize the annual maintenance of the state specification guidelines which will increase the accuracy and integration of the reporting data to meet the national standards and state requirements. As the data quality and accuracy improves over time, the data can be made accessible to internal and external customers as data requests, annual reports, research projects, data linkages, etc. The integration of the TR data with other datasets will help researchers, programs, and policy makers develop informed conclusions thereby helping to keep the Massachusetts population safer with target based interventions. Annual upgrades will fulfill the NTDS and other standard requirements as part of normal support and maintenance, which will ensure the timeliness of data submission and increase accessibility to the TR data. Once a vendor is selected to build the web-based system the project team will work with MassIT to define build and test the application infrastructure. CDC grant funding is also covering a portion of the MATRIS NEMSIS V3 migration project. All upgrades to the current TR have been completed and adjustments to maintain alignment with NTDB guidelines is now performed on an annual basis. Specification Guides were created to assist facilities in preparing TR data for both the 2016 and 2017/2018 reporting requirement. The upgrades included moving from IDC-9 to ICD-10, updates to the registry case definition, and the current portal sends automatically sends data quality assessments to facilities after submission. There is ongoing support for submission of 2016 and 2017/2018 trauma data and some technical assistance was provided directly to facilities in FFY 2019. The program anticipates closing 2016 submissions before the beginning of the FFY 2020.As part of FFY 2020 there will be an effort to share registry quality reports with the TRCC. For FFY 2019, specifications have already been previewed to participating facilities and other partners. After these changes are made facilities may begin submitting trauma data and some support will be available from the department and vendor. A Request for Response for a new, web-based TR application is being developed. It is expected that this new platform will be rolled out before FFY 2020 data submissions begin.

The project is expected to enhance the accessibility, accuracy, completeness, integration, timeliness, and uniformity of both systems. This project is expected to be extended to 8/30/20. This project will support the

following performance target: Traffic Record Performance Target #3 - To improve completeness of MATRIS, increase the number of ambulance services submitting NEMSIS Version 3 reports to the system from 8 between April 1, 2018 to March 31, 2019 to 220 or more between April 1, 2019 to March 31, 2020.

Boston Cyclist, Pedestrian and Vehicular Incident Information System Enhancement Highway Safety Plan Task TR-20-09 Boston EMS

Budget: $91,980.44 (NHTSA, Section 405c)

In the latest phase of this on-going project, Boston EMS will continue to promptly vet and validate roadway incidents involving bicyclists and pedestrians, enhance documentation of relevant data points, build upon just-in-time and canned reporting capabilities, and disseminate findings to inform injury prevention efforts. This project will continue collaborate between Boston EMS, Boston Police Department, and Boston Department of Innovation Technology to enhance integration and reporting of related data. All these efforts will enhance the city's on-going efforts to improve public awareness of and infrastructure improvements for greater bicyclist and pedestrian safety. An annual report on roadway incidents involving bicyclists and pedestrians documented by Boston EMS through this project will continue. This project, approved by the Massachusetts Traffic Records Coordinating Committees, will improve the data quality control program for the EMS/injury Surveillance system as recommended in the 2019 Traffic Records Assessment. This project is expected to be extended to 8/30/20. This project will support the following performance target: Traffic Record Performance Target #3 - To improve completeness of MATRIS, increase the number of ambulance services submitting NEMSIS Version 3 reports to the system from 8 between April 1, 2018 to March 31, 2019 to 220 or more between April 1, 2019 to March 31, 2020.

Statewide Crash-Injury Data Linkage Project on Mass Roadways MassDOT/Highway Division/Traffic Safety Section

Budget: up to $200,000 (FHWA)

MassDOT and the MDPH Injury Surveillance Program conducted a pilot project to link 2012 Crash and Hospital Case-mix data using deterministic linkage methods. The project successfully developed algorithms to link Crash and all three Case-mix data sets using six matching criteria. Based on the number of MV traffic-related injury cases in each Case-mix data set, the percentage of linked records was 48.3% in hospital discharge data, 42.2% in ED discharge data, and 43.9% in outpatient observation stay data. Plans are currently underway to extend this project by adding 2013 to 2015 data and conducting additional validity checks and analyses.

The potential benefits of linking crash and hospital injury data include the following. Crash data provides detailed information about the crash and motorist, non-motorist, roadway and environmental factors that may contribute to a crash, but does not provide detailed information about injured persons. Hospital Case-mix data provides detailed information about injured persons and their medical treatment. Linking these data sources will enable analysts to identify which crash-related factors are most important in contributing to worse injury outcomes in many types of crash situations. Hospital Case-mix data also contain patient race/ethnicity, which can be used to identify disparities in MV injury rates. Traffic safety and injury prevention staff can use this information to prioritize enforcement, engineering, and injury prevention programs, and public awareness campaigns.

This data linkage project is still in the early stages and some of what we have learned has been in terms of the logistics necessary to secure the data sources, funding and staff needed for the project. We have also identified

algorithms that are successful in enabling deterministic, rather than probabilistic, linkage of Crash and Hospital Case-mix data. We have identified data quality problems with some Crash variables. This information can be used to improve training of law enforcement on completion of crash reports. Preliminary analysis of crashes resulting in the hospitalization of pedestrians revealed differences in the factors that contributed to daytime as compared to night crashes.
Crash Data Portal Upgrade MassDOT/Highway Division/Traffic Safety Section

Budget: no information provided (FHWA) This project will update the MassDOT Crash Portal in early 2019. These updates will be provided by a MassDOT contractor. The expected launch of this upgraded portal is late June 2019.

Traffic Records Supporting Non-Implemented Recommendations

The recommendations from the 2019 TR Assessment not being addressed at this time are as follows:

Improve the description and contents of the Citation and Adjudication systems

Improve the data dictionary for the Roadway data system (RDS)

Improve the data quality control program for the RDS

For each of the above recommendation, limited funding and organizational priorities are the reasons for not pursuing these recommendations in FFY 2020.

Traffic Records for Model Performance Measures

2.1 Crash Data System

System Key Points The RMV operates the Commonwealth's Crash Data System (CDS). Reports of more than 140,000 motor vehicle crashes are received annually by the RMV.

Total Number of Crashes	
Year	Crashes
2016	143,472
2017	144,093
2018	133,087

As of May 2019, the 2017 file in the CDS is considered 'closed', and the 2018 file is 'preliminary'. Approximately 88 percent of crash reports are received electronically from state and local law enforcement agencies. The remainder are received on paper using either the Motor Vehicle Crash Police Report (recently updated in early 2019), or the Motor Vehicle Crash Operator Report (last revised in May 2002), or both. Police reports may be used to document the date, time, location, environment, and characteristics of a crash. The crash reporting criterion for both police and operators are: Any crash involving damage to any one vehicle or property exceeding $1,000, or any injury or fatality. The MassDOT Highway Division, Traffic Engineering and Safety Section developed an automated process for attaching location coordinates to crash master records that has been in use since 2006. This process is based on standards for location data on crash reports coupled with an extensive set of location matching algorithms that can take the street names, route numbers, exit numbers, mile markers and other location data as supplied in crash reports. Continuing improvements have been made to these algorithms to try and improve geocoding and offset the data quality issues surrounding electronic submission. Extensive updates have been made to the MassDOT Planning Roadway Inventory road names (a project

completed in 2014) to also improve the matching/geocoding rate. Crashes that are unable to be automatically geocoded are reviewed and located manually, depending on staffing availability.

Agency Reporting	YTD '19	2018	2017	2016	2015
Electronically Submissions	87.98% (315)	77.65% (278)	71.2% (236)	59.7% (214)	51.39% (184)
Paper Submissions	43	80	103	144	174
This includes Campus Police, Non-police, Other Police and Transit Police	358*	358	358	358	358

Geocoder algorithm improvements have enabled the statewide crash record geocoding rate to remain above 90%: at this point 95% for 2015, 96% for 2016, 96% for 2017. The following are the percentage of geocoded crashes that were geocoded manually: at this point 12.19% for 2015 and 12.25% for 2016, and 12.82% for 2017. Between 2015 and FFY 2017, UMassSafe conducted a quality control review through 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 was timeliness, accuracy, consistency and completeness of the crash report. Previous such audits have been done in 2001 by Data Nexus and 2005 by UMassSafe. The 2017 Crash Data Audit Report done by UMassSafe, including a Police Crash Report Data Quality Improvement Plan, is available at
http://www.umasstransportationcenter.org/umtc/UMassSafe.asp.
MassDOT/RMV Division requested a Model Minimum Uniform Crash Criteria (MMUCC) mapping assessment from NHTSA in early 2018. Since the assessment results were obtained in early 2018, this information has been helpful to plan updates to the crash report/and or CDS. The mapping results included a report that lists the Massachusetts state attributes, percentage of MMUCC attributes for each data element section that were mapped from the state attributes, and notes that provide information to why some of the MMUCC attributes were considered mappable or unmappable.

Data Structure Name	System	Percent
MA Crash Database	Crash	57.44 %
MA Crash Database	Dynamic Data Elements	0 %
MA Crash Database	Fatal Section	7.41 %
MA Crash Database	Large Vehicles & Hazardous Materials Section	22.39 %
MA Crash Database	Non-Motorist Section	6.83 %
MA Crash Database	Person	38.06 %
MA Crash Database	Roadway	0 %
MA Crash Database	Vehicle	37.71 %

A sub-committee of the WTRCC was created in spring 2018 to begin discussing the MMUCC 5th version and the Massachusetts Mapping report. A new crash report form will be implemented along with a new CDS in a few years that will include MMUCC 5th version elements and attributes. System Performance Measurement(s) RMV has a benchmark/performance measure to evaluate the accuracy and completeness of the CDS by tracking the number of submitted reports that are rejected that did not meet the minimum criteria for acceptance to the system. For FFY 2019, the benchmark/performance measure was to improve the accuracy and completeness of the CDS by decreasing the number of crash reports rejected for not meeting the minimum criteria to be accepted into the system from 1,487 between April 1, 2017 to March 31, 2018 to 1,425 or less between April 1, 2018 to March 31, 2019. System Accessibility

Public access to data in the CDS is through the MassDOT Crash Portal available at https://services.massdot.state.ma.us/crashportal/.

The RMV implemented an internal web service in 2010 that provides additional capabilities to monitor data quality of crash reports submitted electronically. A tool was also developed for authorized users (TRCC members, researchers, law enforcement, regional planners, etc.) to view all electronic police crash reports including the narrative and diagram. Training & Technical Assistance Opportunities RMV has a Crash Data System Law Enforcement Liaison (LEL) that provides training and technical assistance to state and local law enforcement agencies on the CDS. Recent Developments & Challenges In early 2018 RMV began a Data Quality Review of Crash Reports Accepted with Warning & Technical Assistance to Police Departments to Improve Completeness & Reduce Errors Project (TR-20-05). It resulted in AWW detail and summary reports now being used by the RMV's LEL to review law enforcement agencies' data quality. The reports displays data elements submitted with warning and the reason for the warning. The RMV's LEL works with agencies to address report findings. In summer 2018 an E-Crash Manual was released by UMassSafe and made available at masscrashreportmanual.com. This serves as the data dictionary for the CDS.

Currently there is very limited eCrash reporting through the MACCS system. To meet a federal requirement by spring 2019, the RMV secured through Mass/DOT IT a new serious injury definition in the CDS in early 2019. It also made related updates to the Crash Report Form (and distributed to state and local police) and the Crash Report E-Manual.

2.2 Roadway Data System

System Key Points The MassDOT Office of Transportation Planning (OTP) maintains the Road Inventory File (RIF) for Massachusetts. This file, which contains more than 36,000 centerline miles and more than 71,000 lane miles of roads, serves as the foundation for the State's Geographic Information System (GIS). This file is used for a variety of purposes, such as:

· Identifying functional classification, jurisdiction, and National Highway System (NHS) status of all roadways in the State;

· Helping to fulfill the Federal Highway Administration's Highway Performance Monitoring System (HPMS) reporting requirements;

· Determining centerline miles by city/town for allocating State Aid Funds to communities; and

· Supporting development of safety improvement projects.

The Traffic Engineering Section of the Highway Division of MassDOT works in concert with RMV to locate and geocode records in the CDS. The CDS uses roadway information as the basis for locating crashes. Approximately 80% of crash records are matched to a location automatically. Through a combination of manual data editing processes from MassDOT Highway and RMV staff, input from regional planning agencies, and assistance from OTP, the match percentage increased to over 95.4% after the 2015 was closed. However, the accuracy of crash location data depends on both the characteristics of the roadways (and the degree of difficulty in describing crash location due to the complexity of roadway geometry), and degree of precision by police in correctly providing and coding crash location information in their reports.

Traffic counts and pavement condition ratings are obtained on a three-year cycle, and this data is used to update the RIF on a continuous basis. While Massachusetts historically has used ortho-photography to verify the accuracy and completeness of road features and characteristics, the Commonwealth moved to use of a video log

for ongoing verification activities of state-owned roadways.

2.3 Driver Data System

System Key Points Driver records are created by the RMV and kept in ATLAS, but the MRB maintains operator driving history records consisting of at-fault accident claim records, comprehensive claim records, out-of-state incidents, and civil and criminal traffic citation information. ATLAS includes records for approximately five million commercial and non-commercial drivers. The Massachusetts State Police (MSP) Office of Alcohol Testing manages testing for blood alcohol concentration (BAC). The results from breathalyzer tests conducted in the field are broadcast to the MSP every 90 minutes. The MSP relays the information to the RMV nightly, which enables the RMV to have current information on file and to take immediate actions on cases pending receipt of BAC test results. In 2008, the RMV, the MRB, and the Administrative Office of the Trial Court (AOTC) worked together to develop an electronic interface between the district courts and the driver history file. Virtually all adjudication decisions are transferred electronically each night by AOTC to the MRB. This information is used to suspend or revoke licenses and to make adjustments in the insured's automobile insurance premium when applicable. This change closed a significant gap in communications and has substantially improved the process of using conviction data to suspend or revoke licenses and to adjust the insured's automobile insurance premium. Recent Developments & Challenges The RMV implemented the first phase of its upgraded license and registration system known as ATLAS on March 26, 2018. It is web based and state of the art. The Issuance License/Driver portion was successfully implemented. Release two of ATLAS will execute the Vehicle and Registration portion. It will launch November 2019. Once fully operational, ATLAS will have the capabilities to better track and integrate crash data to the driver and vehicle. Automated License and Registration System (ALARS) will contain historical data of both vehicle and operator data until Spring 2020.

2.4. Vehicle Data System

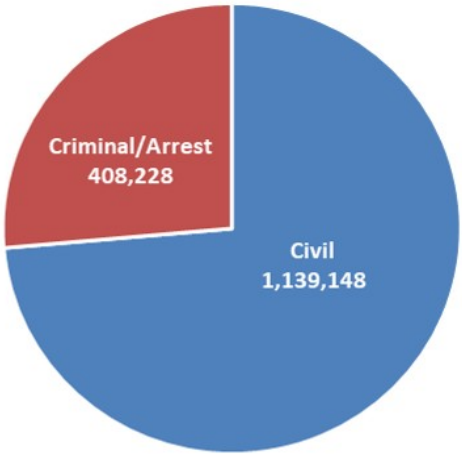
The RMV manages vehicle title and registration information using ALARS, which contains approximately seven million commercial and non-commercial registrations. Below is registration and title issuance activity for 2016 – 2018 by MRB.

2016	Registrations	1,318,569
	Titles	1,344,620
2017	Registrations	1,315,412
	Titles	1,346,097
2018	Registrations	1,312,488
	Titles	1,353,886

A registrant is identified with a Massachusetts driver license number or an assigned non-driver identification number if the registrant is not a driver.

Registration applications must include an insurance agent stamp and signature. A Manufacturer's Certificate of Origin or a previous title also must be presented along with an odometer reading as part of the title application. Six to eight weeks are required for title processing. After receiving the registration document, plates and expiration decals, a vehicle safety inspection is required within seven days. Thereafter, annual safety inspections are required. Odometer readings are recorded in connection with safety inspections and any

required emissions inspections.
Application for title must be done within 10 days of acquiring a vehicle or trailer unless the type of vehicle is exempt from titling. Information on a previous title may be acquired through the National Motor Vehicle Title Information System (NMVTIS) of the American Association of Motor Vehicle Administrators. Massachusetts is a full participant in NMVTIS enabling immediate electronic transactions with other NMVTIS States. Massachusetts also uses the Electronic Lien and Title (ELT) system. ELT enables direct interactions with lien holder institutions. 2.5 Citation/Adjudication Data System
The MRB is the sole repository for all Motor Vehicle Violation Citations issued in the Commonwealth. The MRB receives copies of motor vehicle violation citations from Massachusetts police departments and courts, and hearing requests and payments from violators and applies these records to an individual's driving history record. Citations Processed from 4/24/2016 - 4/24/2019



Civil Motor Vehicle Infractions (CMVI) citations are sent directly to the MRB from the issuing police department. The MRB applies the citation to the violator's driving history record. The violator has 20 days from the date of violation to either pay the total amount due or to request a clerk-magistrate hearing. The payment or hearing request (accompanied by a $25.00 Court Filing Fee payment) is submitted to the MRB by the violator. Failure to do either action results in late and release fees being added to the citation, as well as future suspension of their driver's license or registration. Requests for clerk-magistrate hearings along with a filing fee are processed and a file of hearing request records is sent via batch FTP transfer to Administrative Office of the Courts (AOTC). Upon disposition, AOTC transmits a file of hearing results records via batch FTP transfer to MRB. These results are uploaded to the RMV and processed, updating the operator driving history records with the submitted results. In calendar year 2017, the MRB sent AOTC 93,557 electronic CMVI hearing notices and AOTC sent the MRB 102,247 electronic hearing result records. Payments from violators are processed and the citation is adjudicated as responsible.
Multiple copies of a criminal citation are delivered to the court by the issuing police department. The court forwards a copy of the criminal citation to the MRB. The MRB applies the citation to the violator's driving history record. The court is responsible for conducting a hearing and rendering a disposition in a criminal matter. Upon issuance of a disposition, the court electronically submits the findings to the MRB. Upon receipt

of the disposition, the MRB updates the citation record. Although written warnings are not currently added to driving history records, warnings issued via electric citation (eCitation) are being applied.

While the exchange of criminal citation adjudication results and clerk-magistrate hearing requests and results between AOTC and MRB is now almost exclusively electronic, much of citation processing remains a paper-based process. This includes audit sheets, which are completed by officers to account for every citation, specifically citations that are destroyed or voided.

The new eCitation process transmits demographic and offense-specific information captured on the Massachusetts Uniform Citation electronically and this information is then validated against the ATLAS database. The data validations built into the eCitation system, in conjunction with quality controls at the MRB, have shown promising results in improving data quality.

Operators who are issued an eCitation receive an eCitation Receipt on an 8.5x11 inch sheet of paper. The eCitation should be available for inspection in ATLAS within 72 hours, with 80.1% currently available for inspection within 24 hours.

In 2014, the MRB in collaboration with the AOTC continued its efforts to streamline and improve the efficiency in the processing of criminal motor vehicle violation citations by working to add 43 Juvenile Courts and 14 Superior Courts to the electronic file transfer process to submit criminal traffic citation judgment records to the MRB. Testing was completed and all changes to MRB applications were migrated into the ATLAS production environment. All 43 Juvenile Courts and 10 Superior Courts are now submitting electronic records to the MRB. The RMV/MRB is able to promptly suspend/revoke the driver license of individuals found guilty of criminal charges by these courts. These efforts rectify any lapses in updating driving history records and ensure future records are current and sanctions promptly applied. The registrant is identified with a Massachusetts driver license number or an assigned non-driver identification number if the registrant is not a driver.

Recent Developments & Challenges Currently the Massachusetts State Police and 43 local police departments are issuing eCitations. eCrash reporting submissions are limited at this point. As of April 2019, there have been a total of 369,475 citations issued electronically.

Opportunities exist for improving linkages among various system components – such as adjudications with both the vehicle and crash files, which could improve the efficiency of vehicle-based administrative suspensions and revocations, as well as to increase the ability of the data in the system to support research. These opportunities will continue to be investigated.

2.6 Injury Surveillance Data System

The Massachusetts Ambulance Trip Record Information System (MATRIS) – managed by MDPH - collects Emergency Medical Services (EMS) trip information that complies with the National EMS Information System (NEMSIS) dataset. The department is currently collecting both NEMSIS V2 data and NEMSIS V3, as the V3 system launched 2/28/19. Ambulance services have until 8/31/19 to fully migrate to NEMSIS V3.

Trauma centers and community hospitals with Emergency Departments (ED) submit patient information to the MA Trauma Registry if the patient is kept for inpatient observation or admission, is transferred to another hospital, or dies in the ED. Facilities submit data electronically to the registry through a portal and these observations are process and moved to a server for program review and analysis.

Trauma incidents processed by Massachusetts Trauma Registry by Year		
FFY 2017 FFY 2017	FFY 2018	FFY 2019 (partial year)
22,921	72,259	47,322

Massachusetts Case-mix Data – Inpatient hospital discharge data, outpatient emergency department (ED) visit and outpatient observation stay data, collectively referred to as “Case-mix Data”, are submitted by all Massachusetts acute care hospitals to the Center for Health Information and Analysis (CHIA). The relevant data include ICD-9-CM or ICD-10-CM diagnosis codes and external cause codes (E-codes), patient demographics, hospital facility, dates of medical care, length of stay, discharge disposition, services and procedures performed and hospital charges. Diagnostic codes describe the nature and body location of injuries and other medical conditions. E-codes describe the injury mechanism and type of person injured in a crash, e.g. MV occupant, pedestrian, cyclist, etc. In FY2015, the number of diagnosis and E-code fields available increased from 16 to an unlimited number in inpatient hospital discharge data and from 7 to an unlimited number in outpatient ED discharge data. Outpatient observation stay data continue to include only 6 diagnosis and E-code fields. Massachusetts All Payer Claims Database (APCD) - includes health insurance claims data collected from commercial payers, third party administrators and public programs (Medicare and MassHealth, Massachusetts’ Medicaid program) by the CHIA. Due to state health care reform law which had the aim of providing health insurance to all residents, currently 97% of Massachusetts residents have health insurance. Therefore, the APCD is one of the most comprehensive sources of state health claims data from public and private payers in Massachusetts. These data sets come both from medical insurers and from specialty insurers and administrators of “carved-out” services including pharmacy, mental health/chemical dependency, dental, and vision. While several states have All Payer Claims Databases, the Massachusetts APCD has a unique focus on the efficiencies to be achieved by having a single independent agency (the Center for Health Information and Analysis)– as opposed to multiple state agencies. While the case mix data collects data only from Massachusetts acute care hospitals, the claims data includes health care data from all health care providers regardless of care settings regardless or geographic location. The ambulance, ED, hospitalization, rehab, and pharmaceutical claims for Massachusetts motor vehicle crash victims receiving care in state and out of state are all in the Massachusetts APCD.

Trauma Registry – collected by MDPH, all hospitals that treat trauma patients submit data on all trauma inpatient discharges, all trauma observation stays, and trauma ED visits for patients who die or are transferred from the ED. These data include patient blood pressure, respiratory rate, pulse, protective devices, airbag deployment, child specific restraints, cause of injury and location of injury ecodes, hospital based drug and alcohol test results, injury date, injury city, mode of transport to hospital, abbreviated injury scale (AIS), Glasgow coma scores, complications, and comorbidities. After submission by hospitals, MDPH may add other fields such as geocoded census data and several survival probability metrics including revised trauma score, shock index, injury severity score, new injury severity score, and AIS-based trauma mortality prediction model using up to five worst injuries, ICD-9-CM-based trauma mortality prediction model, and an indicator for multiple injuries to the same body region. The system was upgraded to include approximately 60 data elements with ICD-10-CM and AIS 2005/2008 in 2016. Enhancements were also made in 2017 to meet the NTDB 2016 and 2017 updates and ability to accept multiple submission years simultaneously. During the FFY 2019,

additional upgrades were made to conform to new National Trauma Databank (NTDB) data submission requirements. Comorbidity and complications fields were removed in accordance with NTDB requirements, and replaced with yes/no indicator fields. The option to enter 'not recorded' or 'unknown' for some fields was added and new fields were included to allow entry of Initial Field GCS, if collected. The Drug Screen field was also updated to capture when a patient had more than five classes of drug detected on a toxicity screen. Finally, the edit check on a small number of fields were adjusted to require a high level of completion in each quarterly submission. During FFY2020 the Trauma Registry will work with the TRCC to provide performance measures and data quality management reports.

Death Certificates – The Massachusetts Registry of Vital Records and Statistics collects certificates for all deaths that occur within Massachusetts as well as deaths of Massachusetts residents that occur outside of the Commonwealth. Vital Information Partnership (VIP) is the electronic death registration system. Relevant data include ICD-10 diagnostic codes for underlying and secondary causes of death (which describe injury cause, MV-person type, the nature and body location of injuries and other conditions present) patient demographics and date of death.

Behavioral Risk Factor Surveillance System (BRFSS), Youth Risk Behavior Survey (YRBS) and Youth Health Survey (YHS) – These anonymous surveys collect statewide estimates on self-reported behaviors either annually (BRFSS) or bi-annually (YRBS and YHS). The BRFSS is a telephone survey administered to a sample of adult MA residents ages 18 and up. The YRBS and YHS are written surveys administered to a sample of MA public high school students, with the YHS also administered to public middle school students. Specific questions related to motor vehicle injuries include seat belt use (BRFSS, YRBS, YHS), riding in a car driven by someone who had been drinking alcohol (YRBS, YHS middle school), riding in a car driven by someone who had been smoking marijuana (YHS middle school), driving a car after drinking alcohol (BRFSS, YRBS,YHS), driving a car after smoking marijuana (YHS), talk on a cell phone while driving (YRBS), texting while driving (YHS), texting or emailing while driving (YRBS) and drowsy driving (YHS). Responses can be broken down by respondent demographics and other risk behaviors. System Performance Measurement(s) MDPH has a benchmark/performance measure to evaluate the completeness of the MATRIS data by tracking the number of ambulance services submitting Version 3 reports to the system. For FFY 2019, the benchmark/performance measure was to improve completeness of MATRIS by increasing the number of ambulance services submitting NEMSIS Version 3 reports to the system from 0 between 4/1/17 to 3/31/18 to 3 or more between 4/1/18 to 3/31/19. MDPH has a benchmark/performance measure to evaluate the timeliness and completeness of the Trauma Registry (TR) by tracking failed electronic submissions from hospitals before a successful submission to the system occurs. For FFY 2019, the benchmark/performance measure was to improve timeliness and completeness of the TR by decreasing the number of failed electronic submissions from hospitals from > 3 failures before a success (based on NTDS as the primary requirement) during the baseline period of 4/1/17 to 3/31/18 to 3 failures before a success during the performance period 4/1/18 to 3/31/19. During the baseline period of 4/1/2017-3/31/2018, on average, there were 5 failures for 2016 submissions and 2 failures for 2017 submissions before successful data submission. From 4/1/2018 to 3/31/2019, there were on average 2 failures for 2017 submissions and 1 failure for 2018 submissions before a facility successfully submitted data. Overall this represents an improvement over the baseline period, demonstrating that facilities are successfully submitting data in fewer tries. During this period, MDPH provided technical assistance to facilities who

experienced difficulties with submissions. For FFY 2019 significant changes are being made to the Registry, which may impact measure performance until facilities have developed extracts that contain new fields.
MDPH has a benchmark/performance measure to evaluate the timeliness of the TR by tracking 'trial and error" electronic submission time for hospitals during the annual updates of ICD-10 coding and NTDS data dictionary changes. For FFY 2019, the benchmark/performance measure was to improve the timeliness of the TR by decreasing the 'trial and error' electronic submission time for hospitals during the annual updates of ICD-10 coding and NTDS data dictionary changes (2016 to 2017/2018) from 9 + months during the baseline period of 4/1/17 to 3/31/18 to 5 months during the performance period 4/1/18 to 3/31/19.
During the baseline period, there were too few successful submissions to create a reliable measure for comparison. Instead, data submissions were separated into Trauma Registry submissions for 2016, 2017, and 2018 and the trial and error period was calculated for submissions from 4/1/2018-3/31/2019. For Trauma Registry year 2016 submissions, facilities had a mean trial and error time of 13 months, compared to 3 months for submission year 2017, and 1 month for submission year 2018. This demonstrates that the trial and error period has decreased considerably over the three most recent Trauma registry iterations
Alternately, looking at completeness of facility submission would provide another method to measure data quality. This metric would evaluate the number and percentage of facilities with partial and complete quarterly data submission by FFY, and by trauma center designation. As of March 2019, 12 (71%) Trauma Centers and 15 (30%) Community hospitals have submitted complete FFY 2018 data and 14 (82%) Trauma Centers and 28 (54%) community hospitals have submitted partial FFY 2018 data. For 4/1/2019 - 3/31/2019, the Trauma Registry Program will work to increase this to 90% for all facilities for FFY 2018 and 50% for all facilities for FFY 2019.
System Accessibility MATRIS data is summarized and reported for quarterly opioid surveillance statistics. These reports are and posted to the Mass.gov website and available to the public at www.mass.gov/files/documents/2019/02/12/Emergency-Medical-Services-Data-February-2019.pdf Training & Technical Assistance Opportunities The NEMSIS v3 compliant MATRIS system was launched 2/28/19. 2 weeks prior the DPH held 3 all day training sessions in Northampton, Framingham and Brockton for ambulance services. 2 additional full days have been contracted with the vendor to deliver classes in the 2nd quarter of 2018 During the summer of 2018 MDPH performed technical assistance with specific hospital partners identified by the Trauma Registry Program. This included on site, phone, and email communication with facilities to assist in successful submission of registry data. Recent Developments & Challenges A key component of any NEMSIS V3 state system are the validation rules that are packaged into a Schematron file that is validated against by all files imported to the state from 3rd party ePCR systems. This was a significant challenge and the mechanics of developing it far more complex than anticipated. This product will enforce superior data quality however with the ability to reject records that do not meet the standards determined. There are over 200 rules in the Massachusetts state Schematron. A Trauma Registry Legacy dataset, combining all registry data through federal fiscal year (FFY) 2015, has been compiled and shared with the Injury Prevention Program for linkage to other data sources. These data are being checked for quality and completeness and have been included in updates and analyses for the Trauma Systems Committee that meets on a quarterly basis. A data dictionary for the legacy dataset has been developed and reviewed and data specification guides are released annually to inform facility data submission. Upgrades to MATRIS with NEMSIS V3 will include new

fields that will facilitate matching of MATRIS and Trauma Registry data, linking EMS and hospital interventions. The Data Dictionary for the NEMSIS V3 system was completed for standard data elements and values in October 2018. NEMSIS allows for suggested lists of ICD 10 codes for impressions and symptoms, these were finalized in December 2018.

2.7 Data Use and Integration

UMass Safe's Data Linkage Project linked EMS and Crash Data was concluded in December 2018. A final project report from March 2019 is available at www.mass.gov/service-details/traffic-records.

In FFY 2019 a MassDOT-MDPH's Statewide Crash-Injury Data Linkage Project on Mass Roadways worked to validate and improve the data linkage algorithm and begin analysis of driver alcohol and drug impairment. Through a medical record review, the MDPH Injury Surveillance Program (ISP) identified valid reasons why Hospital Discharge cases did not match any Crash record in about 75% of non-matching cases, e.g. the crash occurred out-of-state or the visit was a follow-up. The medical record review also revealed that many true matches were being excluded from the linked dataset due to missing sex in Crash data and the same individual having different addresses in each dataset. The linkage algorithm was revised to allow for missing sex and not require a location match. Subsequent linkage rates by person-type increased by 15-17 percentage points. Linkage rates with Crash data and Hospital Discharge data, based on hospitalized persons, were: 61% of MV-occupants, 53% of motorcyclists, 48% of cyclists and 44% of pedestrians. Currently ISP is developing indicators for alcohol and drug use by MV drivers and motorcycle operators in the linked Crash-Hospital Discharge data, and developing SAS programming to link data from all persons involved in a crash. In 2019 the MA Department of Public Health released the Population Health Information Tool (PHIT) at www.mass.gov/guides/phit-data-injuries-in-massachusetts. This tool allows the public to query MA health data. The PHIT includes data on unintentional MV-traffic hospitalizations, ED visits and deaths for MV-occupants, motorcyclists, cyclists and pedestrians. The website can provide maps and graphs of selected data. Data can be broken down by sex and geographic region. Currently 2007-2014 MA data are available. MassDOT's Highway Division/Traffic Safety Section is working to upgraded its Crash Data Portal. The new version is expected by summer 2019. The older version is available at https://services.massdot.state.ma.us/crashportal/.

EOPSS/OGR/HSD is working with EOTSS to determine stakeholder need for data through the Crash Data Portal from other core traffic records systems. Also what training and technical support needs portal users need short and long-term.

State traffic records strategic plan

Strategic Plan, approved by the TRCC, that— (i) Describes specific, quantifiable and measurable improvements that are anticipated in the State's core safety databases (ii) Includes a list of all recommendations from its most recent highway safety data and traffic records system assessment; (iii) Identifies which recommendations the State intends to address in the fiscal year, the countermeasure strategies and planned activities that implement each recommendation, and the performance measures to be used to demonstrate quantifiable and measurable progress; and (iv) Identifies which recommendations the State does not intend to address in the fiscal year and explains the reason for not implementing the recommendations:

Planned activities that implement recommendations:

Unique Identifier	Planned Activity Name
TR-20-08	MATRIS and Trauma Registry National Standard Uniformity and Data Quality Project
TR-20-03	Motor Vehicle Automated Citation and Crash System (MACCS)
TR-20-06	Tools for Improving Crash Report Reviews
TR-20-04	Traffic Records Projects

Quantitative and Measurable Improvement

Supporting documentation covering a contiguous 12-month performance period starting no earlier than April 1 of the calendar year prior to the application due date, that demonstrates quantitative improvement when compared to the comparable 12-month baseline period.

State Highway Safety Data and Traffic Records System Assessment

Date of the assessment of the State's highway safety data and traffic records system that was conducted or updated within the five years prior to the application due date:

Date of Assessment: 12/10/2018

Requirement for maintenance of effort

ASSURANCE: The lead State agency responsible for State traffic safety information system improvements programs shall maintain its aggregate expenditures for State traffic safety information system improvements programs at or above the average level of such expenditures in fiscal years 2014 and 2015

405(d) Impaired driving countermeasures grant

Impaired driving assurances

Impaired driving qualification: Low-Range State

ASSURANCE: The State shall use the funds awarded under 23 U.S.C. 405(d)(1) only for the implementation and enforcement of programs authorized in 23 C.F.R. 1300.23(j).

ASSURANCE: The lead State agency responsible for impaired driving programs shall maintain its aggregate expenditures for impaired driving programs at or above the average level of such expenditures in fiscal years 2014 and 2015.

405(d) Alcohol-ignition interlock law grant

Alcohol-ignition interlock laws Grant

Legal citations to demonstrate that the State statute meets the requirement.

Requirement Description	State citation(s) captured
The State has enacted and is enforcing a law that requires all individuals convicted of driving under the influence or of driving while intoxicated to drive only motor vehicles with alcohol-ignition interlocks for an authorized period of not less than 6 months.	No

405(d) 24-7 Sobriety programs grant

Mandatory license restriction requirement

The State has enacted and is enforcing a statute that requires all individuals convicted of driving under the influence of alcohol or of driving while intoxicated to receive a restriction of driving privileges, unless an exception in paragraph 1300.23(9)(2) applies, for a period of not less than 30 days.

Requirement Description	State citation(s) captured
The State has enacted and is enforcing a statute that requires all individuals convicted of driving under the influence of alcohol or of driving while intoxicated to receive a restriction of driving privileges, unless an exception in paragraph 1300.23(g)(2) applies, for a period of not less than 30 days.	Yes

Citations

Legal Citation Requirement: The State has enacted and is enforcing a statute that requires all individuals convicted of driving under the influence of alcohol or of driving while intoxicated to receive a restriction of driving privileges, unless an exception in paragraph 1300.23(g)(2) applies, for a period of not less than 30 days.
Legal Citation: Chapter 90, section 24D
Amended Date:

Sobriety program information

Legal citations: No
State program information: No

Legal citations

State law authorizes a Statewide 24-7 sobriety program.

Requirement Description	State citation(s) captured
State law authorizes a Statewide 24-7 sobriety program.	No

Program information

State program information that authorize a Statewide 24-7 sobriety program.

405(e) Distracted driving grant

Sample Questions

Click or tap here to enter text.

Legal citations

The State's texting ban statute, prohibiting texting while driving and requiring a minimum fine of at least $25, is in effect and will be enforced during the entire fiscal year of the grant.

Is a violation of the law a primary or secondary offense?:
Date enacted:
Date amended:

Requirement Description	State citation(s) captured
Prohibition on texting while driving.	No
Definition of covered wireless communication devices.	No
Minimum fine of at least $25 for an offense.	No

Legal citations for exemptions to the State's texting ban:

The State's youth cell phone use ban statute, prohibiting youth cell phone use while driving and requiring a minimum fine of at least $25, is in effect and will be enforced during the entire fiscal year of the grant.

Is a violation of the law a primary or secondary offense?:

Date enacted:

Date amended:

Requirement Description	State citation(s) captured
Prohibition on youth cell phone use while driving.	No
Definition of covered wireless communication devices.	No
Minimum fine of at least $25 for an offense.	No

Legal citations for exemptions to the State's youth cell phone use ban.

405(f) Motorcyclist safety grant

Motorcycle safety information

To qualify for a Motorcyclist Safety Grant in a fiscal year, a State shall submit as part of its HSP documentation demonstrating compliance with at least two of the following criteria:

Motorcycle rider training course: Yes

Motorcyclist awareness program: Yes

Reduction of fatalities and crashes: No

Impaired driving program: No

Reduction of impaired fatalities and accidents: No

Use of fees collected from motorcyclists: No

Motorcycle rider training course

Name and organization of the head of the designated State authority over motorcyclist safety issues:

State authority agency: Registry of Motor Vehicles

State authority name/title: Erin Deveney, Registrar

Introductory rider curricula that has been approved by the designated State authority and adopted by the State:

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

Other approved curricula:

CERTIFICATION: The head of the designated State authority over motorcyclist safety issues has approved and the State has adopted the selected introductory rider curricula.

Counties or political subdivisions in the State where motorcycle rider training courses will be conducted during

the fiscal year of the grant and the number of registered motorcycles in each such county or political subdivision according to official State motor vehicle records, provided the State must offer at least one motorcycle rider training course in counties or political subdivisions that collectively account for a majority of the State's registered motorcycles.

County or Political Subdivision	Number of registered motorcycles
Barnstable County	6,704
Berkshire County	5,099
Bristol County	18,349
Dukes County	907
Essex County	18,865
Franklin County	3,212
Hampden County	12,144
Hampshire County	4,256
Middlesex County	32,037
Nantucket County	568
Norfolk County	12,843
Plymouth County	15,562
Suffolk County	6,859
Worcester County	27,649

Total number of registered motorcycles in State.

Total # of registered motorcycles in State: 165,148

Motorcyclist awareness program

Name and organization of the head of the designated State authority over motorcyclist safety issues.

State authority agency: Registry of Motor Vehicles

State authority name/title: Jamey Tesler, Acting Registrar

CERTIFICATION: The State's motorcyclist awareness program was developed by or in coordination with the designated State authority having jurisdiction over motorcyclist safety issues.

Performance measures and corresponding performance targets developed for motorcycle awareness that identifies, using State crash data, the counties or political subdivisions within the State with the highest number of motorcycle crashes involving a motorcycle and another motor vehicle.

Fiscal Year	Performance measure name	Target Period	Target Start Year	Target End Year	Target Value	Sort Order
2020	C-7) Number of motorcyclist fatalities (FARS)	5 Year	2016	2020	46.00	7

Counties or political subdivisions within the State with the highest number of motorcycle crashes (MCC) involving a motorcycle and another motor vehicle.

County or Political Subdivision	# of MCC involving another motor vehicle
Barnstable County	0
Berkshire County	1
Bristol County	3
Dukes County	0
Essex County	1
Franklin County	0
Hampden County	3
Hampshire County	1
Middlesex County	5
Nantucket County	0
Norfolk County	8
Plymouth County	2
Suffolk County	0
Worcester County	3

Total number of motorcycle crashes (MCC) involving a motorcycle and another motor vehicle:

Total # of MCC crashes involving another motor vehicle: 27

Countermeasure strategies and planned activities that demonstrate that the State will implement data-driven programs in a majority of counties or political subdivisions where the incidence of crashes involving a motorcycle and another motor vehicle is highest.

Countermeasure Strategy
Communication Campaign
Motorcycle Rider Training

Unique Identifier	Planned Activity Name
MC-20-01	Motorcycle Safety Media
MC-20-02	Motorcycle Safety Program Enhancements

405(g) State graduated driver licensing incentive grant

Graduated driver licensing

Date that the State's graduated driver's licensing statute requiring both a learner's permit stage and intermediate stage prior to receiving an unrestricted driver's license was last amended. The statute must be in effect and be enforced during the entire fiscal year of the grant.

Graduated driver licensing law last amended on:

Legal citations demonstrating that the State statute meets the requirement.

Requirement Description	State citation(s) captured
Applies prior to receipt of any other permit, license, or endorsement by the State if applicant is younger than 18 years of age and has not been issued an intermediate license or unrestricted driver's license by any State.	No

Applicant must pass vision test and knowledge assessment.	No
Must be accompanied and supervised at all times.	No
Extension of learner's permit stage if convicted of a driving-related offense.	No
In effect for at least 6 months.	Yes
In effect until driver is at least 16 years of age.	Yes
Requires completion of State-certified driver education or training course or at least 50 hours of behind-the-wheel training, with at least 10 of those hours at night.	Yes
Prohibits use of personal wireless communications device.	Yes

Citations

Legal Citation Requirement: In effect for at least 6 months.

Legal Citation: Chapter 90 section 8

Amended Date:

Citations

Legal Citation Requirement: In effect until driver is at least 16 years of age.

Legal Citation: Chapter 90 section 8

Amended Date:

Citations

Legal Citation Requirement: Requires completion of State-certified driver education or training course or at least 50 hours of behind-the-wheel training, with at least 10 of those hours at night.

Legal Citation: Chapter 90 section 8

Amended Date:

Citations

Legal Citation Requirement: Prohibits use of personal wireless communications device.

Legal Citation: Chapter 90 section 8M

Amended Date:

Legal citations for exemptions to the State's texting ban:

Legal citations demonstrating that the State statute meets the requirement.

Requirement Description	State citation(s) captured
Commences after applicant younger than 18 years of age successfully completes the learner's permit stage, but prior to receipt of any other permit, license, or endorsement by the State.	No
Applicant must pass behind-the-wheel driving skills assessment.	No
In effect for at least 6 months.	No

In effect until driver is at least 17 years of age.	No
Must be accompanied and supervised between hours of 10:00 p.m. and 5:00 a.m. during first 6 months of stage, except when operating a motor vehicle for the purposes of work, school, religious activities, or emergencies.	No
No more than 1 nonfamilial passenger younger than 21 years of age allowed.	No
Prohibits use of personal wireless communications device.	No
Extension of intermediate stage if convicted of a driving-related offense.	No

Legal citations for exemptions to the State's texting ban:

405(h) Nonmotorized safety grant

ASSURANCE: The State shall use the funds awarded under 23 U.S.C. 405(h) only for the authorized uses identified in § 1300.27(d).

1906 Racial profiling data collection grant

Racial profiling data collection grant

Application Type: Assurance

Assurance

Countermeasure strategies and Planned activities supporting the assurance that the State will undertake activities during the fiscal year of the grant to maintain and allow public inspection of statistical information on the race and ethnicity of the driver for each motor vehicle stop made by a law enforcement officer on all public roads except those classified as local or minor rural roads.

Fiscal Year	Countermeasure Strategy	Program Area
2020	Improves accessibility of a core highway safety database	Traffic Records

Unique Identifier	Planned Activity Name
TR-20-03	Motor Vehicle Automated Citation and Crash System (MACCS)

Projects Validation:

State: MASSACHUSETTS

Legal Citation Law Validation: 1

Certifications, Assurances, and Highway Safety Plan PDFs

Certifications and Assurances for 23 U.S.C. Chapter 4 and Section 1906 grants, signed by the Governor's Representative for Highway Safety, certifying to the HSP application contents and performance conditions and providing assurances that the State will comply with applicable laws, and financial and programmatic requirements.