# Federal Fiscal Year 2025 Strategic Plan for Traffic Records Improvements

*Prepared for:*

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

*Submitted by:*

**Executive Office of Public Safety and Security's Office of Grants and Research in conjunction with the Massachusetts Traffic Records Coordinating Committees**

*6/6/24 version*

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# 1.0 BACKGROUND

## 1.1 Introduction

This FFY 2025 update to the Commonwealth of Massachusetts' Strategic Plan for Traffic Records Improvements was developed by the Massachusetts Executive Office of Public Safety and Security's (EOPSS) Office of Grants and Research (OGR), with support from the Commonwealth's Executive-level and Working-level Traffic Records Coordinating Committees (ETRCC and WTRCC).

The purpose of this document is to provide traffic records stakeholders in the Commonwealth with a strategic plan for improvements of core traffic records systems. The plan relies notably on recommendations identified through the 2023 Massachusetts Traffic Records Self-Assessment.

**The ETRCC voted to approve this FFY 2025 plan update on 6/4/24**, empowering OGR to make any remaining minor edits before the expected submission in mid-July 2024.

A TRCC is a statewide stakeholder forum to primarily facilitate the selection, implementation, and evaluation of projects to improve a state's core traffic records systems. The Massachusetts TRCC has representatives from the highway safety, transportation, law enforcement, criminal justice, and public health professions. The TRCCs, with this plan as a guide, strive to improve the accessibility, accuracy, completeness, integration, timeliness, and uniformity of the systems listed below. It is expected this will lead to better problem identification and countermeasure selection, program implementation, and program evaluation by the above-mentioned professions in Massachusetts.

The Secretary of Public Safety and Security oversees OGR, which is the lead entity in the Commonwealth for the application for and administration of federal highway safety funding from the National Highway Traffic Safety Administration (NHTSA), including those funds for traffic records improvement. In this role, the Secretary serves as the Governor's Representative for Highway Safety.

The **ETRCC Chair** is Kerry Collins, the Undersecretary of Forensic Science and Technology for EOPSS.

The **WTRCC Chair** is Bob Smith, OGR's Highway Safety Division Manager, who also serves as vice chair of the ETRCC.

The **State Traffic Records Coordinator**, Brook Chipman, is a Senior Program Manager at OGR.

TRCC purposes and responsibilities, and charters are described in Section 1.2 and 1.3.

The Commonwealth's core traffic records systems are comprised of the following systems that are accessible to varying degrees to highway safety professionals, related disciplines, and the public:

*Crash Data System*

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*Driver License/History Data System*

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*Emergency Medical Services / Injury Surveillance Data System*

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*Roadway Data System*

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*Citation/Adjudication Data System*

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*Vehicle Registration Data System*
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# 1.2 Role of the Executive-Level TRCC

The ETRCC provides a forum for senior decision-makers to ensure optimum communication and coordination occurs between collectors, custodians, and users of data involved with the Commonwealth's traffic records systems. The ETRCC receives technical assistance from the WTRCC.

The ETRCC's organization, mission, vision, purpose, governance, and membership are enumerated in the ETRCC Charter below. The full ETRCC membership list, provided to members prior to a spring ETRCC meeting, and any updates confirmed at that meeting, are incorporated by reference into this plan.

## Commonwealth of Massachusetts
## Executive-Level Traffic Records Coordinating Committee
### FFY 2025 Charter

ORGANIZATION

By recommendation of the National Highway Traffic Safety Administration (NHTSA) and the Commonwealth of Massachusetts' strategic planning activities, the Executive Office of Public Safety and Security (EOPSS) convened the first meeting of its Massachusetts Executive-Level Traffic Records Coordinating Committee (ETRCC) on January 22, 2010. A NHTSA Traffic Records Assessment for Massachusetts, which took place March 2009, recommended the Commonwealth "establish the Executive-Level of the Traffic Records Coordinating Committee (ETRCC) to ensure full support and authorization of the TRCC and its members by the executives of all agencies in whose area of responsibility the components of the traffic records system fall." To that end, EOPSS invited owners of the core traffic records systems and a small representative sample of data consumers and collectors (see below) to join the ETRCC. Broader stakeholder participation remains with the Working-level TRCC (WTRCC). In Massachusetts, the ETRCC and WTRCC share the same mission and vision.

MISSION

Through the coordinated efforts of its member organizations, provide a forum for the creation, implementation, management, and dissemination of accessible, accurate, complete, integrated, timely, and useful traffic records data to aid decision-makers working to reduce transportation-related fatalities, injuries, and economic losses in Massachusetts.

VISION

Save lives and reduce injuries on Massachusetts roadways by using efficient processes to collect, store, and analyze complete and accurate traffic safety information and make it freely available to all safety stakeholders.

PURPOSE

Ensure that accurate, complete, and timely traffic safety data is collected, integrated, analyzed, and made available for decision making by ETRCC member organizations and other public and private professionals. In alignment with requirements of NHTSA grant funding (23 CFR 1300.22), key functions of the ETRCC will include, but not be limited to:

1.      Maintain authority to review any of the Commonwealth's highway safety data and traffic records systems and any changes to such systems before the changes are implemented;

2.      Provide a forum for the discussion of highway safety data and traffic records issues and report on any such issues to the agencies and the organizations in the Commonwealth that create, maintain, and use highway safety data and traffic records;

3.      Consider and coordinate the views of organizations in the Commonwealth that are involved in the collection, administration, and use of highway safety data and traffic records systems, and represent those views to outside organizations;

4.      Represent the interests of the ETRCC and the WTRCC to outside organizations;

5.      Review and evaluate new technologies to keep the highway safety data and traffic records systems up to date;

6.      Assist ETRCC and WTRCC members applying for public and private funds to support and improve traffic records;

7.      Assure the Commonwealth's Strategic Plan for Traffic Records Improvement incorporates IT strategies and business plans and documents all sources of funding for data improvement projects in the plan;

8.      Approve the Commonwealth's annual Section 405c application, including projects supported by this funding source, submitted by EOPSS's Office of Grants and Research (OGR) to NHTSA;

9.      Review and provide input on other federal traffic records funding received by EOPSS/OGR; and

10.     Approve annually the membership of the ETRCC and the WTRCC, the TRCC coordinator, updates based on Section 405 guidance to the Commonwealth's Strategic Plan for Traffic Records Improvement, and

performance measures to be used to demonstrate quantitative progress in the accuracy, completeness, timeliness, uniformity, accessibility, or integration of at least one core highway safety database.

Notwithstanding the above, the ETRCC recognizes:

• The responsibility of its member agencies to work collaboratively to achieve the statewide vision for traffic safety information systems;

• The responsibility of its member agencies to manage their own safety information systems to accomplish their mission by improving internal business processes;

• The need to create a collective sense of responsibility among its member agencies for developing and sharing safety data in support of the Commonwealth's highway safety mission in a manner that minimizes cost, duplication of effort, and inefficiencies;

• The need to ensure regular communication with the Commonwealth's WTRCC regarding the issues they face;

• The importance of member agencies engaging in open communication to maximize the effectiveness, compatibility, and interoperability of any federally funded projects in conjunction with the Strategic Plan for Traffic Records Improvements and will facilitate compliance with all federal reporting requirements.

GOVERNANCE OF THE ETRCC

The ETRCC will be chaired by the EOPSS Undersecretary for Forensic Science and Technology. The Highway Safety Division Director at OGR will serve as vice chair of the ETRCC to serve in his/her absence (and Chair of WTRCC as necessary). The Commonwealth's Traffic Records Coordinator will be appointed by the Highway Safety Division Director at OGR to support both the ETRCC and the WTRCC.

Each ETRCC member organization shall designate its member of the ETRCC. ETRCC members will be renewed each year.

The ETRCC will meet a minimum of once per year and more as needed. Each ETRCC member organization will have one vote. The ETRCC may extend membership to additional organizations and representatives by majority vote.

Votes requiring a 2/3 majority of the ETRCC include approvals of a Strategic Plan for Traffic Records Improvements, a Section 405c application, and projects for Section 405c funding. A majority vote will be sufficient for normal ETRCC business matters.

ETRCC MEMBER ORGANIZATIONS

- Massachusetts Association of Regional Planning Agencies
- Massachusetts Department of Public Health – Injury Surveillance Program
- Massachusetts Department of Public Health – Bureau of Health Care Safety and Quality
- MassDOT/Office of Planning
- MassDOT/Registry of Motor Vehicles
- MassDOT/Merit Rating Board
- MassDOT/Highway Division
- Massachusetts Chiefs of Police Association
- Executive Office of Public Safety and Security/Undersecretary for Forensic Science and Technology
- Executive Office of Public Safety and Security/Department of Criminal Justice Information Services
- Executive Office of Public Safety and Security/Municipal Police Training Committee
- Executive Office of Public Safety and Security/Massachusetts State Police
- Executive Office of Public Safety and Security/Office of Grants & Research
- Executive Office of Technology Services and Security
- Massachusetts Trial Court

Current advisory members, with no voting powers:

- National Highway Traffic Safety Administration (NHTSA)
- Federal Highway Administration (FHWA)

- Federal Motor Carrier Safety Administration (FMCSA)

# 1.3 Role of the Working-Level TRCC

The WTRCC helps to ensure on-going communication and coordination between collectors, custodians, and users of data that make-up the Commonwealth's traffic records systems. It provides technical assistance to the ETRCC.

The WTRCC organization, mission, vision, purpose, governance, and membership are enumerated in a WTRCC Charter that is like the ETRCC Charter above.

# 2.0 Traffic Records Systems

The Massachusetts core traffic records systems are managed by the following agencies:

- Registry of Motor Vehicles Division (RMV) of the Massachusetts Department of Transportation (MassDOT) manages the crash, driver license and history, and vehicle registration and title systems;

- Merit Rating Board (MRB) of MassDOT/RMV maintains operator driving history records consisting of at-fault crash claim records, comprehensive claim records, out-of-state incidents, and civil and criminal traffic citation information;

- Massachusetts Trial Court (MTC) manages adjudication information;

- MassDOT's Office of Transportation Planning (OTP) manages the road inventory file; and

- Massachusetts Department of Public Health (MDPH) and the Center for Health Information and Analysis (formerly known as the Division of Healthcare Finance and Policy) manage injury surveillance, EMS, and other healthcare/trauma/health insurance claims/death/behavioral risk factor information-related systems.

The following section provides a brief overview of each system. **Key changes to and accomplishments for these systems made since spring 2023 or expected through September 2024 are bolded and underlined below.**

## 2.1 Crash Data System

**System Key Points**

The RMV operates the Commonwealth's Crash Data System (CDS). Reports of more than 130,000 motor vehicle crashes are typically received annually by the RMV.

| Total Number of Crashes in IMPACT Portal | |
|---|---|
| **Year** | **Crashes** |
| 2020 | 100,516 |
| 2021 | 125,209 |
| 2022 | 132,747 |
| **2023** | **134,920** |

**As of 2024, approximately 99.2% percent of crash reports are received electronically from state and local law enforcement agencies.**

The remainder are received on paper using the Motor Vehicle Crash Police Report last revised in September 2023. 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 is: 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.

The geocoding tool within MassDOT's crash data portal, IMPACT, was implemented in July 2019.

While the 2021 file is not finalized/closed, as of April 9, 2024, 95.64% of crashes are geocoded (81.16% automatically and 14.48% manually).

While the 2022 file is not yet finalized/closed, as of April 9, 2024, 96.06% of crashes are geocoded (82.58% automatically and 13.48% manually).

**While the 2023 file is not yet finalized/closed, as of April 9, 2024, 91.95% of crashes are geocoded (81.95% automatically and 10.00% manually).**

**There are now elements in place to improve the geocoding. The new ServiceNow-based Crash Data System at the RMV has enhanced messaging to law enforcement agencies which should help to improve data quality, including geocoding. New vendors are submitting crash data to the RMV so there is more scrutiny of their data and their submission process. This has helped to find some data quality issues, including with location information, and that is in the process of being rectified. Due to staffing issues, the manual geocoding has fallen behind which reflects the poorer manually geocoding rate for 2023. We are trying to staff up to increase geocoding.**

**System Performance Measurement(s)**

No information provided.

**System Accessibility**

Public access to data in the CDS is through MassDOT's crash data portal, IMPACT, at apps.impact.dot.state.ma.us/cdp/home. Select data in this system – specifically regarding fatal crashes – is provided to NHTSA's Fatality Analysis Reporting System (FARS) at www.nhtsa.gov/research-data/fatality-analysis-reporting-system-fars.

**Training & Technical Assistance Opportunities**

RMV has a Crash System Law Enforcement Liaison (LEL) that provides training and technical assistance to state and local law enforcement agencies. The LEL has been successful in updating the crash module used for all new police officer trainings. The LEL continues to work with the Massachusetts Police Training Committee (MPTC), who oversees the police academy curriculum and is the standard for all Massachusetts and state police academies, including the MBTA. The curriculum now has an updated Crash Module that reflects critical points and procedures when reporting a crash. In addition, the LEL attends many of the academy classes during the crash module portion of the training to answer questions and clarify information.

Launched in September 2018, the 405-c funded E-Crash Report Manual web portal developed by UMassSafe serves primarily as the data dictionary of the CDS. It is available at masscrashreportmanual.com. RMV works closely with UMassSafe to

keep the manual up to date. Through mid-2023, UMassSafe worked on its latest 405-c funded project to enhance and expand the manual. Portal enhancements included new crash report interactive overlays for two more records management systems used by law enforcement agencies (LEAs), an auto updated spreadsheet of ratings/rankings of the crash report completeness of LEAs, and additions to the Traffic Records News page.

Since its 2020 release, UMassSafe's Tools Improving Crash Report Reviews Project has provided resources to assist law enforcement in better completing the narrative portion of the crash report. These and other resources produced with 405c funding to assist with crash reporting can be accessed at [masscrashreportmanual.com](masscrashreportmanual.com).

In October 2021, the Massachusetts State Police completed with UMassSafe assistance a 405-c funded project to improve its training curriculum for crash reporting for new and current troopers.

**Recent Developments & Challenges**

MassDOT IT/RMV completed phase 1 early 2023 and phase 2 in summer of 2023 of its update of the Massachusetts Crash System.

**In part with 405c funding, MassDOT IT/RMV updated the crash report form and the Crash Data System to collect, process and share the vulnerable road user data during the second half of 2023 and the beginning of 2024. There were 15 data fields added to the system and the report related to vulnerable road users.**

**Meetings with the RMS vendors continue to ensure that system updates for vulnerable road users have been tested and implemented. Of the 15 RMS vendors, 11 have been approved to submit into production by spring 2024.**

**The LEL has distributed training materials and the VU type photo and reference guide to all LEAs and the MPTC police training academy. RMV staff meets regularly to review the quality of the VU data and will provide feedback to the LEAs.**

**The Department of Criminal Justice Information Services continues to use 405-c funding to roll-out its Massachusetts Automated Citation and Crash System (MACCS) to additional local police departments and undertake system enhancements.  As of April 2024, the Massachusetts State Police and 294 local police departments were participating in MACCS.**

**The Boston Police Department launched a 405-c funded crash reporting**

**application for mobile and desktop use in late December 2021. BPD went live submitting crash data to the RMV in March of 2024, testing the electronic crash report submissions and providing feedback to BPD. It is expected that virtually all BPD crash reports will come electronically to RMV by the start of 2024.**

Through mid-2023, the Department of Public Health's Injury Surveillance Program used 405-c funding to further assess the completeness, accuracy, and uniformity of the injury status code and alcohol and drug-related variables in crash data using linked MA Crash-Related Injury Surveillance System (MA CRISS) data. The Injury Surveillance Program will present the results of their assessments and recommendations for potential data quality improvement actions and related projects to the Traffic Records Coordinating Committees.

# 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 75,000 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 90% of crash records are matched to a location automatically. 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 over 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.

**Recent updates since the last plan update to the database include improved linework to the Linear Referencing System (LRS), continued revisions to the number of travel lanes and speed regulation events, additions to the bicycle facility, street name, facility type, and functional class events, and the addition of a new Interchange event layer. Research has begun into improvements to the local traffic data.**

**System Performance Measurement(s)**

The RIF is generated from an attribute event-based database utilizing Esri's Roads and Highways system. The attributes are registered to the Linear Referencing System (LRS). The database is updated through various stakeholders within MassDOT and other agencies through Event Editors or Web Services. MassDOT's Office of Transportation Planning GIS Services team regularly provides updates to the database.

In 2023 the database was migrated to ArcGIS Pro, Esri's current GIS application.

**OTP continues to improve the completeness of the Route Feature Class of the Massachusetts Roadway Inventory System (RIS). Route Feature Class is the network feature layer for the RIF that serves as the backbone for the data organization of all the Road Inventory event layers. Between 4/1/23 and 3/18/24 an improvement in completeness of the system was achieved in Route Feature Class entries with an increase of 1,860 routes, from 212,011 to 213,878.**

**System Accessibility**

GIS data is provided to the public through GeoDOT, a web-based GIS Platform at massdot.maps.arcgis.com. GeoDOT contains GIS layers to download, including

the RIF file, as well as interactive maps and applications. Requests for services including GeoDOT accounts, software and training are available here. Municipalities provide updates to the local road network using the Road Inventory Submission Application (RISA).

**The applications RoadIE and BikeUR and the new WalkUR application allow DOT employees, municipal employees, and the public to submit requests for updates to the RIF, Bike Facility Inventory, and the pedestrian facility event respectively. These applications enable the GIS editors to rapidly respond to data update requests to improve the completeness and accuracy of the data within the RIF.**

Training & Technical Assistance Opportunities

**MassDOT's Office of Transportation Planning has deployed an improved RIF data dictionary that reflects changes made to the data schemas. Training is available for the GeoDOT GIS platform using the GIS Learning Management System for MassDOT Employees to better leverage GIS systems.**

Recent Developments & Challenges

MassDOT's Office of Transportation Planning has a GIS team member serving as GIS QC Coordinator. This position is now documenting our data management processes as well as developing metadata standards. The GIS QC Coordinator meets regularly with Road Inventory editors to understand their workflows and install best practices throughout the process.

**As of March 2024, 1,191 RoadIE requests have been completed, and 1,035 Bicycle Inventory Requests have been completed. These applications have allowed the GIS data team to keep a record of data requests and monitor response times. This will allow us to measure accuracy improvement and how rapidly the GIS data team can respond to requests for updates moving forward.**

**In the last year, an Interchange Event layer for the Road Inventory was created. This event layer was built to help crash geocoding, risk safety analysis, and characterize the state's interchange locations and types. The Interchange type classification creates compliance with the MIRE 2.0 data standardization for**

**critical data elements. Over 5,000 road segments were added to the interchange event.**

**Several quality control programs have been implemented in the last year. Workflow assignment and recordkeeping with a baked-in quality control step using the Wrike software for all data updates has been implemented and is handled by the GIS data team lead to improve data accuracy and quality. Standard editing procedures and data practices have been developed and implemented, and the editing staff has been trained with recurring refreshers. Best editing practice discussion occurs with the editing staff biweekly. In the last year data quality for certain event layers was improved with the addition of calculation and constraint attribute rules. These rules ensure that the federal aid event is correctly calculated based on the functional class and NHS events and that an opposing lane can only exist where a median exists.**

# 2.3 Driver Data System

**System Key Points**

Driver records are maintained by the RMV and kept in ATLAS, but the MRB updates operator driving history records consisting of at-fault crash claim records, comprehensive claim records, out-of-state incidents, and civil and criminal traffic citation information. ATLAS includes records for approximately five million commercial and non-commercial drivers.

The RMV has implemented six (6) service packs and has completed a version upgrade since Atlas "go live" in 2018. These Service/Sync Packs are vital in maintaining system health, providing access to new functionality, and implementing security updates to ensure the system is up to date with the core product.

RMV migrated Atlas to the FAST-Hosting Service (FHS) in November 2020. FHS is the preferred managed infrastructure service provider for the FAST application and results in a turnkey solution that is highly performant, secure, and reliable.

With creation of the new RMV database in 2018, ATLAS, by FAST Enterprise,

improvements were made to ensure the integrity of data fields for person, vehicle, violations, etc. by expanding field level validation. Use of third-party tools, such as NADA, improved the accuracy and completeness of vehicle descriptions. For person identity, checks with NAPHSIS, DPH Vital Statistics, CIS (SAVE), SPEX (S2S), USPVS (Passport checks) were included. The data dictionary is proprietary and maintained by FAST Enterprises.

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 Massachusetts Trial Court (MTC), including the District Court Department and the Boston Municipal Court Department, worked together to develop an electronic interface between the MTC and the MRB. Virtually all adjudication decisions are transferred electronically each night by MTC to the MRB. This information is used to suspend or revoke licenses and to adjust 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.

With FFY 2022 405-c funding, the MDPH Injury Surveillance Program (ISP) developed a limited Driver Data Dictionary describing the name, description, format, values, and value definitions for driver data it received from the RMV for integration into MA CRISS. ISP provided this limited data dictionary to the RMV in February 2022.

The MDPH ISP also used FFY 2022 405-c funding to assess the quality of the Driver data received from the RMV for integration into MA CRISS. These were records of drivers involved in 2015-2018 crashes in linked MA CRISS data. Data were assessed for completeness and uniformity.

**System Performance Measurement(s)**

The RMV legacy database, ALARS, was replaced by a web-based database titled ATLAS, which was developed in cooperation with FAST Enterprises. There is a team of RMV managers and staff who meet regularly with FAST

developers to monitor and improve this new system and its functionality as business operations prove the need.

**System Accessibility**

The Driver's Privacy Protection Act (DPPA), 18 USC § 2721, is a federal law that limits what information about individuals may be shared by state auto administrators. This law limits who the RMV can consider for RMV system access.

On July 1, 2023, Chapter 81 of the Acts of 2022, An Act Relative to Work and Family Mobility (WFMA) went into effect and the regulations promulgated thereunder, 940 CMR 37.00, provide state limitations on what information the RMV can share and who they may share with.

The RMV works within the legal framework of these laws and requires entities requesting access to confirm they are legally allowed to receive the information, certify to the use of the information, and sign a legally binding Agreement for Access.

**Training & Technical Assistance Opportunities**

The RMV Training Department provides training to end users of the new system as requested and needed. FAST developers provide technical assistance as requested and needed.

The RMV Training Department provides training to end users of the new system as requested and needed. FAST developers provide technical assistance as requested and needed.

**Recent Developments & Challenges**

The RMV implemented the first phase of its upgraded, web-based license and registration system known as ATLAS in March 2018. The Issuance License/Driver portion was successfully implemented. Release two of ATLAS to enhance the Vehicle and Registration portion was done in November 2019. The previous database, Automated License and Registration System (ALARS), contains historical data of both vehicle and operator data and can be queried, if needed. Since the ATLAS rollout, a team of system creators and RMV managers and staff meet to provide critical feedback to developers of the system to ensure data quality and control issues are addressed. The Director of Driver Licensing is integral to,

and involved in, these meetings. These meetings continue to occur on a regular basis. New and more efficient processes continue to be put into action to ensure efficiency and accuracy.

# 2.4. Vehicle Data System

**System Key Points**

The RMV manages vehicle title and registration information using the ATLAS system, which contains approximately seven million commercial and non-commercial registrations.

As of April 2024, below is registration and title issuance activity for 2021-2024.

| Year | Registrations | Titles |
|------|---------------|--------|
| 2021 | 687,685 | 1,285,371 |
| 2022 | 603,724 | 1,157,452 |
| 2023 | 125,931 | 244,020 |
| 2024 | 583,986 | 200,767 |

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 and title applications must include proof of insurance. 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. 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 previous title data, including brand information, is acquired through the National Motor Vehicle Title Information System (NMVTIS) of the American Association of Motor Vehicle Administrators (AAMVA). Massachusetts is a full participant in NMVTIS enabling immediate electronic inquiries with other NMVTIS Jurisdictions.

Massachusetts also uses the Electronic Lien and Title (ELT) system. ELT enables direct interactions with lien holder institutions.

Title and registration transactions are also completed by dealers, insurance companies/agents and fleet companies through the RMV's Electronic Vehicle Registration (EVR) Program using a Service Provider application that interfaces with ATLAS. Approximately 50% of the total new title and registration transactions are processed through the EVR Program.

**System Performance Measurement(s)**

No information provided.

**System Accessibility**

No information provided.

**Training & Technical Assistance Opportunities**

No information provided.

**Recent Developments & Challenges**

The new Vehicle Services portion of the ATLAS system went live in November 2019. The new system introduced point of sale scanning, an automated plate inventory system, integrated case management functionality, and the expansion of service channels and business partnerships.

The rollout of Phase 3 of the Electronic Vehicle Registration (EVR) Program began in 2021. **The EVR Lite Program allows car dealers and insurance agencies to complete select RMV transactions for their direct customers. There are 103 locations on EVR Lite as of spring 2023. Seventeen of those are car dealers, the rest are insurance agencies.**

# 2.5 Citation/Adjudication Data System

**System Key Points**

The MRB is the sole repository for all Motor Traffic Citations issued in the Commonwealth. The MRB receives copies of 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.

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. If a payment is made, it is adjudicated as an admission of responsibility. If no response is provided within 20 days, the violator is found responsible and can be charged late fees and may face additional penalties, including suspension of license.

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 the Massachusetts Trial Court (MTC). Upon disposition, MTC 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. 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.

While the exchange of criminal citation adjudication results and clerk-magistrate hearing requests and results between MTC 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.

An eCitation process, known as the Motor Vehicle Citation and Crash System (MACCS), 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 MACCS citations 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.

The MRB in collaboration with the MTC continued its efforts to streamline and improve the efficiency in the processing of criminal motor vehicle violation citations by working to add Juvenile Courts and 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 Juvenile Courts and 10 Superior Courts are now submitting electronic records to the MRB.

The RMV/MRB can 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.

**System Performance Measurement(s)**

The RMV legacy database, ALARS, was replaced by a web-based database titled ATLAS, which was developed in cooperation with FAST Enterprises. There is a team of RMV managers and staff who meet regularly with FAST developers to monitor and improve this new system and its functionality as business operations prove the need.

MRB and its partners have many ongoing efforts to increase the timeliness of processing citation submissions received from state and local police, particularly the MACCS project. **Between 5/1/3 and 4/30/24 an improvement in timeliness was achieved by reducing the average number of days to post to the system the paper and electronic citations from Massachusetts state and local police by four days, from 11 to 7 days.**

**System Accessibility**

Statutes require the MRB collect, gather, and compile citation data for drivers.

**Training & Technical Assistance Opportunities**

The RMV Training Department provides training to end users of the new system as requested and needed. FAST developers provide technical assistance as requested and needed.

**Recent Developments & Challenges**

**The Department of Criminal Justice Information Services continued to use 405-c funding to roll-out MACCS to additional local police departments and undertake system enhancements. As of April 2024, there are 294 local police departments participating in MACCS. Approximately, 92% of the Massachusetts State Police participate in MACCS. Between the launch of MACCS in April 2017 and April 2024, the State Police issued through MACCS 1,558,857 citations and local police 1,100,687 citations**. eCrash reporting through MACCS is limited at this point, as the State police and most local police use the

eCrash reporting functions of their own records management systems to report to RMV's Crash Data System.

**Using 405c funding, the Boston Police Department installed 370 printers in department cruisers and motorcycles to enable their officers to start using MACCS for e-citation submissions in summer 2023.**

In spring 2022 the MRB started a multi-phase effort to enhance the ability of traffic records stakeholders and the public to view and analyze traffic citations data and trends. The greater accessibility to this data will assist planning efforts of these stakeholders to reduce traffic crashes and resulting fatalities, injuries, and economic loss in Massachusetts. The proposed public Internet portal would make available select citation data in both summary and detail format. This project is being conducted in two phases, with this task providing 405c funding for only the first phase.

In Phase 1 the MRB's project team used MassDOT IT contractors to identify data needs and system requirements from stakeholders to develop a detailed project scope, schedule, and budget for Phase 2. This first phase also saw the development of the necessary procurement documentation to hire a vendor to complete Phase 2. Additionally in Phase 1, improvements were made to the current data dictionary of the citation data system.

In Phase 2 of the project that started January 2023 the selected vendor is working with MassDOT IT and MRB staff to build and implement the portal. The portal will feature a data dictionary for the citation data system. **It is anticipated the portal will be publicly available by summer 2024.**

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/EMS Data System

**System Key Points**

**Massachusetts Ambulance Trip Record Information System (MATRIS)**

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 NEMSIS V3, as the V3 system launched 2/28/19. As of 3/31/22, all 311 licensed ambulance services had migrated and were submitting data to MATRIS NEMSIS V3 using V3.4. The NEMSIS V3 data is superior to the previous V2 data because DPH developed comprehensive Schematron validation rules that are enforced as criteria for acceptance to MATRIS. DPH upgraded from V3.4 to V3.5 starting in July 2023 with updates needed to the Schematron validation rules to incorporate the V3.5 differences and to improve quality. DPH began submitting the NEMSIS V3 data to the NEMSIS national repository in July 2021 and continues with V3.5.

MDPH generates and sends annual data quality reports to all ambulance services as part of their re-licensure and regularly works with ambulance services to improve their quality. MATRIS data quality control improved with the migration to NEMSIS V3 which allows for rejection of records that do not meet quality standards. MDPH reviewed and amended the over 200 validation rules and implemented with the migration to V3.5 in 2023.

**Massachusetts Hospital Case-Mix Data**

Hospital discharge data (HD), emergency department (ED) discharge, and outpatient observation stay (OOS) 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). DPH receives the data from CHIA and conducts its own data quality checks and coding for DPH programs. Relevant data include ICD-10-CM diagnosis codes, which indicate the type of injury and body location affected, and external cause codes, which indicate the mechanism and

injury intent (unintentional, assault, self-inflicted, etc.), type of place the injury occurred, and activity the person was involved in when the injury occurred, patient demographics, including race and ethnicity, a unique patient identifier, medical record number, hospital facility, dates of medical care, length of stay, discharge disposition, services and procedures performed, hospital charges, and whether the visit is for active treatment, routine treatment, or treatment of sequelae. Diagnosis codes in case-mix data can also be used to identify hospitalized drivers and non-motorists who were under the influence of alcohol and/or drugs at the time of the crash, acute medical events that may have precipitated a crash, and serious health impacts, such as traumatic brain and spinal cord injuries. MDPH prioritizes racial equity in all its work and therefore analyzes data by race/ethnicity whenever possible and strives to identify underlying structural, environmental, and social factors contributing to racial inequities in MV crash injuries.

**The MDPH Office of Data Management and Outcomes Assessment (ODMOA) routinely assesses the quality of hospital case-mix data received from the Center for Health Information and Analysis (CHIA). ODMOA also creates several injury-related fields from ICD-10-CM diagnosis codes in case-mix data, including external cause of injury, place of injury, and activity being done when the injury occurred, for use by MDPH programs. The MDPH Injury Surveillance Program (ISP) also periodically assesses the quality of these injury-related fields. In 2022, ISP assessed the completeness and specificity of place of injury codes in hospital case-mix data and found a high percentage of missing values at many hospitals. In 2023, ISP worked with ODMOA to request that CHIA create designated fields for place of injury and injury activity to try to reduce the frequency of missing values. In 2022 MATRIS updated injury and MVC related validation rules to improve the quality and completeness of these incidents in the MATRIS repository.**

**Massachusetts All Payer Claims Database (MA APCD)**

MA APCD includes health insurance claims data collected from commercial payers, third party administrators and public programs (Medicare and MassHealth (the Massachusetts' Medicaid program) by the CHIA. Due to state health care reform law which had the aim of providing health insurance to all residents, Massachusetts leads states with the most complete population insurance coverage, 97% of its residents have health insurance. Therefore, the MA 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 MA 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 MA APCD includes health care data from all health care providers regardless of care settings 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. CHIA has also enhanced the MA APCD by creating a member link entity identifier which enables cross carrier analysis. This type of enhancement facilitates analysis of injured patients across the entire continuum of care from prehospital care to rehabilitation even if the patient changes insurance carriers.

**Trauma Registry**

Trauma Registry data, collected by MDPH, comes from all hospitals that treat trauma patients and their 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 e-codes, 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.

| Traumas reported to Massachusetts Trauma Registry by Calendar Year (CY)* ||
|---|---|
| CY2022 | CY2023 |
| 42,109 | 41,796 |

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

As of March 2023, data quality reports developed by MA DPH have been delivered to all hospital partners for review, comment, and to assist with any data corrections needed. Moving forward, data quality reports will be prepared and disseminated to data submitters at least annually. Once migration of historic data is complete and validated, the new Massachusetts Trauma Registry will include all hospital trauma data submitted since 2008.

**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, including occupation and industry, and date of death. **Revisions to the death certificate are underway and planned to be implemented in 2024.**

**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), talking 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, other risk behaviors, and social determinants of health.

**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 2021, 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 304 between 4/1/20 to 3/31/21 to 309 between 4/1/21 to 3/31/22. As of 3/31/22, all 311 licensed Ambulance services had migrated and were submitting data to MATRIS NEMSIS V3.

In 2019 and 2020, the MDPH Office of Data Management and Outcomes Assessment (ODMOA) developed a new process to assess the quality of Hospital Case-mix data received from the Center for Health Information and Analysis (CHIA). The results of these assessments are summarized in standard reports available to MDPH epidemiologists. ODMOA communicates any serious data quality problems to CHIA and requests a new file. ODMOA also standardizes variable names and formats across the three data types (hospital discharge, emergency department discharge, and observation stay data) in the datasets analyzed by the Injury Surveillance and other programs. The MDPH Injury Surveillance Program reported a problem in the uniformity of naming diagnosis codes in Outpatient Observation Stay (OOS) and ODMOA corrected this problem in Spring 2022.

**System Accessibility**

MATRIS data is summarized and reported for quarterly opioid surveillance statistics. These reports are posted to the Mass.gov website and available to the public at www.mass.gov/lists/current-overdose-data.. In SFY 2021 the data was

submitted to the NEMSIS national repository making it accessible for the national dashboards and available for national IRB use. MATRIS data has been shared in 2023 with the Injury Surveillance Program for linkage with Crash, Hospital and Trauma Registry data and incorporated in the MA Crash Related Injury Surveillance System (MA CRISS). MATRIS data has been shared in previous years via the IRB process with other TRCC members and integrated with Crash data for analysis; provided to the Motorcycle Safety program for inclusion in training materials and conference presentation.

The Massachusetts Trauma Registry (TR) was launched 12/1/21 is more user friendly and allows for easier data submissions from our hospital partners. By selecting a national trauma vendor who adheres to the IDTX trauma submission format, the new TR will streamline submissions for trauma centers using hospital-based trauma vendor software. Community hospitals with no trauma registry continue to receive DPH and vendor-based support to assist with data submissions.

Trauma Centers will be able to extract pre-validated data from their hospital-based registries and upload directly to the new web-based Massachusetts Trauma Registry, provided by ESO. The universal IDTX format supports high-quality, uniform data meeting the national data standards. Community hospitals will have DPH and vendor support to create files, under the same standards, from their medical records systems. These data can either be direct data entered into the trauma registry web-portal or uploaded using the same process as trauma centers.

The MDPH Injury Surveillance Program (ISP) analyzes MA Hospital Case-mix, Death, BRFSS, YRBS, and YHS data to track fatal and nonfatal MV-traffic injuries, and identify disproportionately impacted populations, health outcomes, and risk factors, including being under the influence of alcohol or drugs at the time of the crash. ISP works with the MDPH Injury Prevention and Control Program to develop and disseminate data briefs and fact sheets based on findings from these analyses. Announcements about the release of data products and key data findings are disseminated to a broad range of traffic safety partners electronically. In 2022, ISP created a specific webpage for public access to transportation injury data, including data from the MA Crash-Related Injury Surveillance System (MA CRISS): www.mass.gov/info-details/transportation-injury-data. ISP data products that include transportation and other types of injuries are available at: www.mass.gov/injury-surveillance-program. BRFSS reports are available at:

www.mass.gov/behavioral-risk-factor-surveillance. YRBS reports are available at: www.doe.mass.edu/sfs/yrbs and YHS reports are available at: www.mass.gov/lists/massachusetts-youth-health-survey-myhs.

Traffic safety partners and others can also make specific data requests to ISP. ISP also frequently presents MA MV injury data at MA Traffic Safety Coalition meetings. MDPH staff, including ISP, IPCP, and BHCSQ staff, also participated in and provided relevant injury surveillance/EMS data to Emphasis Area workgroups that helped develop the 2023 MA Strategic Highway Safety Plan, released in early 2023.

**Recent Developments & Challenges**

A Trauma Registry Legacy dataset, combining all registry data through federal fiscal year (FFY) 2020, was shared with the Injury Surveillance Program (ISP) for linkage to the MA Crash-Related Injury Surveillance System (MA CRISS) in Fall 2021. **In 2023, ISP assessed the quality and completeness of federal fiscal year (FFY) 2019 and FFY 2020 Trauma Registry records involving MV crash injuries and provided BHCSQ with a summary of findings. BHCSQ and ISP staff met to discuss the findings, improvements in the data collection process since 2020, and BHCSQ's ongoing efforts to improve data quality. ISP also linked MV injury cases in FFY 2020 Trauma Registry with Hospital Case-mix data as part of the MA Crash-Related Injury Surveillance System (MA CRISS) in 2023. ISP summarized the linkage process, linkage rate (80%), and barriers to linkage and worked with BHCSQ to resolve some of these barriers. ISP is currently developing the algorithm to deterministically link MV injury cases in FFY 2020 Trauma Registry data with crash data.**

BHCSQ developed a comprehensive data dictionary for the Trauma Registry legacy dataset that includes variable names, descriptions, values, years collected, and whether variables are required of all acute care hospitals or just trauma centers. BHCSQ also releases data specification guides annually to inform facility data submission.

The NEMSIS V3 data is imported in a timelier manner, often within a day, due to the added requirement in the standard for ePCR software to automate importing to the state system, MATRIS. The data quality improved because of a superior validation rule execution process implemented in V3 where the state rules are packaged into a

file and integrated on the ePCR software used by the ambulance services. This process is managed with a technology called Schematron.

**BHCSQ provided the Injury Surveillance Program (ISP) with 2020 MATRIS data for linkage into the MA Crash-Related Injury Surveillance System (MA CRISS). ISP developed criteria to identify MV injury cases in V2 and V3 MATRIS data and assessed and summarized the completeness of potential linkage variables in 2020 MV injury cases. ISP is currently developing a linkage algorithm to deterministically link MV injury cases in 2020 MATRIS data with crash data.**

# 2.7 Data Use and Integration

- UMassSafe'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.

- The MA Crash-Related Injury Surveillance System (MA CRISS) was developed by the MDPH Injury Surveillance Program (ISP) in 2016 with funding from the MassDOT Highway Division. MA CRISS currently includes linked crash, injury surveillance, and driver data from 2012 to 2020. Each data source provides critical information that can be analyzed to inform and evaluate traffic safety strategies, particularly those aimed at reducing racial/ethnic inequities in MV crash injuries. Reports based on the analysis of MA CRISS data are available at:
  https://www.mass.gov/info-details/transportation-injury-data

  With FFY 21 405-c funding, ISP obtained driver license/history data for drivers involved in crashes in linked FY 2016-2018 MA CRISS data, assessed driver data quality and created a limited data dictionary, and integrated MA and out-of-state driver records with linked crash-hospital case-mix data. **ISP used this linked MA CRISS data to conduct an analysis of alcohol and drug impaired driving in drivers hospitalized for MV crash injuries. This analysis found that hospital discharge data identified twice as many hospitalized drivers as intoxicated by alcohol and/or drugs at the time of the crash than crash data (21% vs. 11%), that only 10% of drivers identified as intoxicated in hospital discharge data admitted to or were convicted of Operating Under the Influence (OUI), and that 24% of hospitalized drivers identified as intoxicated by alcohol**

and/or drugs in either data source had been in an at-fault crash in the previous five years. These findings were shared in a report with OGR, and presented to the ETRCC, the MA Traffic Safety Coalition, and at the 2023 Northeast Epidemiology Conference.

FFY 2022 and 2023 405-c funding supported traffic safety decision-makers' and public access to findings from the analysis of integrated MA CRISS data by supporting skilled personnel capable of conducting analysis of this complex data system. Specifically, ISP analyzed 2018 – 2019 MA CRISS data to assess the accuracy, completeness, and uniformity of the injury status code and alcohol and drug fields in MA crash data. The assessment of the injury status code in crash data found that this field was missing or invalid for approximately 10% of people involved in crashes, that half of crash victims reported to have a "suspected serious injury" were treated and released from an emergency department (ED), and that nearly 11,000 people involved in crashes who were reported to have "no apparent injury" were treated and released from an ED. These findings and associated recommendations for data quality improvement were provided to OGR and the ETRCC in 2023. In 2024, MA Department of Public Health administrators worked with the Registry of Motor Vehicles (RMV) and the RMV Law Enforcement Liaison to provide the MA Chiefs of Police and the MA Municipal Police Training Committee with recommendations to improve the completeness, uniformity, and accuracy of the alcohol and drug fields in CDS data.

- Key findings from the assessment of the alcohol and drug fields included that all seven fields studied had high percentages of missing or invalid values, ranging from 37% - 93%. Among hospitalized drivers, alcohol and/or drug use was identified three times as often in hospital records as in crash records (24% vs. 8%). Among drivers with substance use indicators in both hospital and crash records, about half of crash records documented the substance use only in the suspected alcohol or suspected drug use fields. Findings from this assessment and associated recommendations for data quality improvements were provided to OGR, and presented to the ETRCC, the MA Traffic Safety Coalition, and at a NHTSA Region 1 meeting during 2023.

- ISP used FFY 2023 405-c funding to integrate new driver data into MA CRISS, conduct a survey of traffic safety partners' priorities, and complete an analysis of their top priority, which was injured drivers

**identified as speeding, using FFY2017 – FFY 2019 linked crash, injury surveillance, and driver data. This analysis focused on 1) driver and crash characteristics associated with speeding, 2) whether speeding violations are equitably adjudicated, and 3) the impact of being convicted of or admitting to speeding on future at-fault crashes. Preliminary findings from this analysis were provided to OGR. Results with associated recommendations will be provided to OGR and presented to the ETRCC and the MA Traffic Safety Coalition following DPH approval during 2023.**

- **In FFY 2024 the MATRIS system was migrated to the NEMSIS V3.5 standard. A new feature to this release is the Universally Unique ID (UUID) that can identify an EMS run with a unique ID. This value is also included in the new ACS National Trauma Data Bank requirements and may facilitate linkage.**

  The UUID has already been incorporated in the FFY 2021 Massachusetts Trauma Registry and the system is ready to accept this linkage data element as soon as it is available to hospital partners.

- Public access to data in the CDS is through the IMPACT Crash Data Portal at apps.impact.dot.state.ma.us/cdp/home.

# 2.8 Related Planning Documents/Resources

- MassDOT's Strategic Highway Safety Plan at www.mass.gov/service-details/strategic-highway-safety-plan

- MassDOT's State Transportation Improvement Program at www.mass.gov/service-details/state-transportation-improvement-program-stip

- MassDOT's Highway Safety Improvement Plan at www.mass.gov/service-details/highway-safety-improvement-program

- MassDOT's Highway Safety Improvement Plan (2020) at safety.fhwa.dot.gov/hsip/reports/pdf/2020/ma.pdf

- MA State Police's Commercial Motor Vehicle Plan at www.mass.gov/orgs/massachusetts-state-police

- OGR's Annual Grant Application, Safety Belt Survey and Cell Phone Survey at www.mass.gov/orgs/office-of-grants-and-research

# 3.0 Traffic Records Assessment

In September 2023, OGR with assistance from the TRCCs finished a NHTSA-approved Traffic Records Self-Assessment for Massachusetts, guided by NHTSA's *Traffic Records Program Assessment Advisory, 2018 Edition*. The OGR and the TRCCs plan to update this self-assessment every three years.

**This section includes the resulting recommendations from the 2023 assessment. After each one there is information (bolded and underlined) about what Massachusetts is or is not planning to do regarding the recommendation in FFY 2025.**

**Where action is being taken, the entry will highlight if the effort involves a 405c funded project included in OGR's proposed FFY 2025 Annual Grant Application (AGA) and in Section 4 of this plan. Such an entry needs to address an unmet recommendation from the 2023 assessment, improve a minimum of one performance attribute (accessibility, accuracy, completeness, integration, timeliness, and uniformity) of a core system, and have at least one benchmark and performance measure. Ideally the project also provides a benchmark and performance measure that can demonstrate quantitative improvement in an attribute of a core system as described in the 405-c funding guidance.**

**If the Commonwealth is unable to address a recommendation in FFY 2025, this will be explained (bolded and underlined) below in this section.**

**With its FFY 2025 405-c application, Massachusetts is submitting the following two performance measures to show quantitative improvements in the performance attributes of core systems. These measures were developed using NHTSA's *Model Performance Measures for State Traffic Records Systems, 2011 edition* and the 405-c funding guidance. These measures were also provided to NHTSA separately in Interim Progress Reports as part of our 405-c application.**

**#1. When the Roadway Data System was queried in April 2024 for the performance period of 4/1/23 to 3/31/24 it showed a completeness improvement from the baseline period's 212,011 routes to 213,871 in the current value period – an improvement of 1,860 new routes.**

**#2. When the Citation Data System was queried in May 2024 for the performance period 5/1/23 to 4/30/24 it showed a timeliness improvement from the baseline period's 11 days on average to post a citation (either electronically or through paper submission) to 7 days in the current value period – an improvement of 4 days.**

**Developing similar performance measures for other core systems and projects of the Commonwealth will be a focus for our TRCCs in FFY 2025.**

**OGR conducted in early FFY 2024 an Availability of Grant Funds (AGF) process to identify new projects to use available Section 405-c funding. With TRCC input, one project to help address recommendations from the 2023 Assessment was identified for 405-c funding in February 2024. This project was approved by NHTSA in late February 2024 for inclusion in the Massachusetts FFY 2024 AGA. The project, to continue the roll-out of the MACCS Project (TR 24-03-04), will be completed by the end of FFY 2024. It is described in Section 4 of this plan.**

**As of the most recent update of this plan for the ETRCC review in spring 2024, OGR was nearing completion with ETRCC assistance of the approval of new projects from a Second Round of FFY 2024 405-c funding AGF. It is expected these new 405c projects will be approved at an ETRCC meeting on 6/4/24 and then added to this plan in summer 2024.**

# 3.1 Traffic Records Coordinating Committee Management

The 2023 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 all its six core traffic records systems. Also, to better highlight and address unmet technical assistance and training needs for all six systems.

**For the FFY 2025 405-c application, the Massachusetts TRCCs had to meet the requirement for receipt of Section 405-c funding by meeting a minimum of three times before the application submission. Since the submission of the last**

**Section 405c application in July 2023, the ETRCC met on 10/17/23, 2/6/24, and 6/4/24.**

# 3.2 Strategic Planning

The 2023 assessment identified the following recommendation related to Strategic Planning.

*1. Strengthen the TRCC's abilities for strategic planning that reflect best practices identified in the Traffic Records Program Assessment Advisory.*

**To address in part this recommendation, ETRCC members have been asked to review NHTSA's State Challenges to Improving Traffic Safety Coordination (dot.gov). Also the Traffic Records Data Quality Management Guide: Update to the Model Performance Measures for State Traffic Records Systems (dot.gov). It is anticipated that this strategic planning recommendation, and these NHTSA documents will be the subject of an agenda item at the summer 2024 ETRCC meeting.**

# 3.3 Crash System

The 2023 assessment identified the following recommendations:

1. *Improve the applicable guidelines for the Crash Data System (CDS) that reflect best practices identified in the Traffic Records Program Assessment Advisory.*

   **Given sufficient state funding for the new CDS project, at this time no 405c grant funded work on this recommendation is planned for FFY 2025.**

2. *Improve the interfaces with the CDS that reflect best practices identified in the Traffic Records Program Assessment Advisory.*

   **Given sufficient state funding for the new CDS project, at this time no 405c grant funded work on this recommendation is planned for FFY 2025.**

3. *Improve the data quality control program for the CDS that reflect best practices identified in the Traffic Records Program Assessment Advisory.*

   **Given sufficient state funding for the new CDS project, at this time no 405-c grant funded work on this recommendation is planned for FFY 2025.**

# 3.4 Roadway

The 2023 assessment identified the following recommendations:

1. *Improve the data dictionary for the Roadway Data System (RDS) that reflect best practices identified in the Traffic Records Program Assessment Advisory.*

   **Given sufficient state-funding for work on this recommendation, at this time no 405-c grant funded work on this recommendation is planned for FFY 2025.**

2. *Improve the data quality control program for the RDS that reflect best practices identified in the Traffic Records Program Assessment Advisory.*

   **Given sufficient state-funding for work on this recommendation, at this time no 405-c grant funded work on this recommendation is planned for FFY 2025.**

# 3.5 Driver

The 2023 assessment identified the following recommendations:

1. *Improve the data quality control program for the Driver Data System (DDS) 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 2025.**

# 3.6 Vehicle

The 2023 assessment identified the following recommendations:

1. *Improve the description and contents of the Vehicle Data System (VDS) 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 2025.**

2. ***Improve the data quality control program for the VDS 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 2025.**

# 3.7 Citation / Adjudication

The 2023 assessment identified the following recommendations:

1. *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 2025.**

2. *Improve the data dictionary for 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 2025.**

3. *Improve the data quality control program for the Citation and Adjudication systems that reflect best practices identified in the Traffic Records Program Assessment Advisory.*

   **<u>At this time no 405-c grant funded work on this recommendation is planned for FFY 2025.</u>**

# 3.8 Injury Surveillance/EMS

The 2023 assessment identified the following recommendations:

1. *Improve the interfaces with the Injury Surveillance systems that reflect best practices identified in the Traffic Records Program Assessment Advisory.*

   The RMV and DPH continue to consider an interface between EMS and RMV data for the Massachusetts Fatality Analysis Reporting System (FARS) project. However, given the significant statute barriers this is not expected to occur anytime soon.

   **<u>At this time no 405-c grant funded work on this recommendation is planned for FFY 2024.</u>**

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

   **<u>At this time no 405-c grant funded work on this recommendation is planned for FFY 2025.</u>**

# 3.9 Data Use and Integration

The 2023 assessment identified the following recommendation:

1. *Improve the traffic records systems capacity to integrate data that reflects best practices identified in the Traffic Records Program Assessment Advisory.*

**Currently, the MA Department of Public Health's MA Crash-Related Injury Surveillance System (MA CRISS), managed by the MDPH Injury Surveillance Program (ISP), is integrating the largest number of MA traffic record data sources. MA CRISS currently includes integrated crash and driver data, and four injury surveillance data sources: hospital discharge, observation stay, ED discharge, and Trauma Registry data. A fifth injury surveillance data source, MATRIS (EMS) data, is currently being integrated with crash data. The years of each data source included varies by data source. MA CRISS currently includes integrated 2012-2020 crash and hospital discharge, observation stay, and ED discharge data, driver data associated with 2015-2019 crashes, and FFY 2020 Trauma Registry linked with and hospital discharge, observation stay and ED discharge data. CDC funding is supporting ISP's current integration of Trauma Registry data and incorporation of crash data in the new bulk data format. MassDOT is funding a MA CRISS epidemiologist to manage, integrate additional years of other data sources, and analyze the linked data.**

**At this time no 405-c grant funded work on this recommendation is planned for FFY 2025.**

# 4.0 Traffic Records Projects

This section lists projects planned for FFY 2025 as well as recently completed projects. This section details whether projects are funded through 405-c funding or other sources of funding.

**For FFY 2024 and 2025 405-c funded projects, this section provides (bolded and underlined) key project updates/deliverables as available, anticipated performance attribute impacts (i.e., improvements in accessibility, accuracy, completeness, integration, timeliness, and uniformity), and how projects address, ideally with quantitative improvement, recommendations from the 2023 Traffic Records Self-Assessment. Projects that helped achieve measurable progress for the FFY 25 405-c application are also below (bolded and highlighted).**

## 4.1 FFY 2025 405-c Funded Projects

**Availability of Grant Funds for Traffic Safety Information Systems Improvements Grant Program, Section 405-c funded Projects**

AGA Task: TR-25-01

Office of Grants and Research

Budget: est. $1.4 million (NHTSA, Section 405-c)

One or more Availability of Grant Funding (AGF) processes will be conducted to provide Section 405(c) funding on a competitive basis to 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 enhance the ability to identify priorities for a diverse range of local, state, and federal traffic safety programs impacting multiple areas of Massachusetts. All projects will align with one or more of the nine allowable uses of 405-c grant funding. Only units of state and local government or not-for-profit organizations with a public purpose would be eligible

to apply for funding. Project must have a minimum of one measurable benchmark and one performance measure related to a performance attribute of one of the state's six systems.  AGF responses will be reviewed and recommended by an OGR-selected AGF  review committee and the Executive-level Traffic Records Coordinating Committee. Those projects  approved for funding would then be submitted to NHTSA and then EOPSS for review and approval.

Each resulting project will support one or more of the FFY 2025 performance targets yet to be determined and/or a new one if necessary.

# 4.2  Non-405-c Funded Projects

## Fatality Analysis Reporting System (FARS)

Registry of Motor Vehicles
Budget: $120,000
(NHTSA Cooperative Agreement)

NHTSA will continue to be provided by the Registry of Motor Vehicles (RMV) with motor vehicle-related fatality data from Massachusetts for the national FARS and FastFARS through a dedicated RMV position. This FARS Analyst position will be supported with NHTSA as well as state funding. The Massachusetts FARS Manual will continue to be enhanced.

## Citation Data System

**MassDOT/Registry of Motor Vehicles/Merit Rating Board**
**Budget: $11,575,658**
**(state funding)**

**The Merit Rating Board operates a statewide citation data system. See Sections 2.5 and 3.7 for more information. MRB and its partners have many ongoing efforts to increase the timeliness of processing citation submissions received from state and local police, particularly the MACCS project.**

## Roadway Inventory System Data Completeness and Quality including Route Development Project

**MassDOT/Office of Transportation Planning**
**Budget: $230,638**
**(state funding)**

**The MassDOT Office of Transportation Planning (OTP) continues to improve the completeness of the Route Feature Class of the Massachusetts Roadway Inventory System (RIS). Route Feature Class is the network feature layer for the Roadway Inventory File that serves as the backbone for the data organization of all the Road Inventory event layers. More information on MassDOT's roadway data system can be found in Sections 2.2 and 3.4 as well as the following link: massdot.maps.arcgis.com/home/index.html.**

## MA Crash-Related Injury Surveillance System Project

MDPH Injury Surveillance Program
Budget: $370,338
FHWA Statewide Planning and Research funding through MassDOT/Highway Division/Traffic Safety Section

This project will support expansion, data quality improvement, and increased utilization of the Massachusetts Crash-Related Injury Surveillance System (MA CRISS). MA CRISS includes multiple linked traffic records data sources and is maintained by the Injury Surveillance Program (ISP) at the Massachusetts Department of Public Health (MDPH). Current linked data sources are crash, driver license/history, hospital discharge, observation stay, emergency department (ED) discharge, and trauma registry data. ISP will work closely with the MassDOT Highway Division Traffic Safety Section and other traffic safety partners to prioritize project activities. Racial equity assessments will be integral to all analyses, such as examining linkage rates and data quality by race and ethnicity and exploring factors contributing to crashes.

### Integration of Trauma Registry and Crash Data

MDPH Injury Surveillance Program
Budget: $60,000.00
CDC State Violence and Injury Prevention Program funding

This project involves deterministically linking Trauma Registry and crash data into the Massachusetts Crash-Related Injury Surveillance System. We will also assess and summarize linkage rates, barriers to linkage, and the accuracy of matched records. We will also assess the quality of key variables related to MV crash injuries in Trauma Registry data and provide the results and any recommendations for improvement to the Bureau of Health Care Safety and Quality. This funding will also support revising existing statistical programs to integrate the crash data revisions implemented in late 2023.

# 4.3 Projects Completed in FFY 2024

## Motor Vehicle Automated Citation & Crash System (MACCS) Project

AGA Task: TR-24-03-04
Registry of Motor Vehicles
Budget: $150,000
(NHTSA, Section 405-c)
Schedule for Completion by September 30, 2024

This project continued efforts since 2017 to achieve statewide use of MACCS and built off prior 405c funded projects towards that end by the Department of Criminal Justice Information Services (DCJIS). MACCS improves officer and motoring public safety on the roadways across the Commonwealth; streamlines data collection; enhances data quality; and increases reporting timeliness to local, state, and federal entities. **DCJIS expects to acquire and install approximately 70 mobile printers for police vehicles and provide associated training to assist an estimated 8 departments new to MACCS.** Printers not necessary for this effort were allocated to existing departments using MACCS with an interest in expanding their use of MACCS to more vehicles/officers. **With input from law enforcement users, DCJIS will make software improvements to MACCS.** All

efforts were coordinated on a day-to-day basis by DCJIS's state-funded MACCS Program Coordinator, assisted by other state-funded DCJIS staff.

**As of April 2024, there were 294 local police departments and the Massachusetts State Police participating in MACCS.**

This project enhanced the accuracy, completeness, integration, timeliness, and uniformity of the citation/adjudication and crash data system in Massachusetts. This project helped in part to address the unmet data quality control program for the citation/adjudication and crash data systems from the 2023 Massachusetts Traffic Records Self-Assessment.


## Accessible Citation Data – Phase II

AGA Task: TR-23-06
Budget: $550,000, with $311,764.48 in FFY 23 and $238,235 in FFY 24
(NHTSA, Section 405-c)
Scheduled for Completion by August 31, 2024


This project enabled the MassDOT/Merit Rating Board (MRB) to have a vendor build a publicly accessible citation data web-based tool that is part of the IMPACT Crash Data Portal. During phase one of the project in FFY 2022, MRB conducted extensive outreach to citation data stakeholders in Massachusetts to determine their current uses and needs for citation data as well as what content and features they want in such a portal. Due to a late start with their FFY 23 405c grant award, MRB and its vendor were only able to complete 70% on the portal by the end of FFY 2023. Work resumed in February 2024. **Expected to be launched in summer 2024, the new tool will provide users with dashboards, pre-defined reports, raw data downloads, and query visualization to quickly access the citation data they need to develop, implement, and evaluate traffic safety programs or conduct related analysis.**

This project enhanced the accessibility of the citation data system in Massachusetts. The project helped meet the unmet data dictionary recommendation for the Massachusetts citation data system from the 2023 Massachusetts Traffic Records Self-Assessment.

## Motor Vehicle Automated Citation & Crash System (MACCS) Project

AGA Task: TR-24-03-03
Registry of Motor Vehicles
Budget: $500,000, with $256,303.58 in FFY 23 and $234,696 in FFY 24
(NHTSA, Section 405-c)
Scheduled for Completion by June 30, 2024

This project continued efforts since 2017 to achieve statewide use of MACCS and built off prior 405c funded projects towards that end by the Department of Criminal Justice Information Services (DCJIS). MACCS improves officer and motoring public safety on the roadways across the Commonwealth; streamlines data collection; enhances data quality; and increases reporting timeliness to local, state, and federal entities. **DCJIS expects to acquire and install approximately 500 mobile printers for police vehicles and provide associated training to assist an estimated 53 departments new to MACCS.** Printers not necessary for this effort were allocated to existing departments using MACCS with an interest in expanding their use of MACCS to more vehicles/officers. **With input from law enforcement users, DCJIS will make software improvements to MACCS in the FFY 24 phase of the project.** All efforts were coordinated on a day-to-day basis by DCJIS's state-funded MACCS Program Coordinator, assisted by other state-funded DCJIS staff.

**As of April 2024, there were 294 local police departments and the Massachusetts State Police participating in MACCS.**

This project enhanced the accuracy, completeness, integration, timeliness, and uniformity of the citation/adjudication and crash data system in Massachusetts. This project helped in part to address the unmet data quality control program for the citation/adjudication and crash data systems from the 2023 Massachusetts Traffic Records Self-Assessment.

## Inclusion of Vulnerable Users in Crash Reporting to RMV Project

AGA Task: TR-24-01

Registry of Motor Vehicles
Budget: $637,000, with $177,400 in FFY 23 and $459,600 in FFY 24
(NHTSA, Section 405-c)
Completed March 1, 2024

**Through this project the MassDOT/Registry of Motor Vehicles (RMV) updated the Massachusetts crash reporting form (CR65) and its Crash Data System (CDS) to enable the greater collection, processing, and sharing of vulnerable road users (VRU) data. In addition, state and local law enforcement records management systems received VRU updating. In the FFY 23 portion of the project 22 new VU data elements (and definitions) were added to the MA crash reporting form. Distribution of the updated form then began to law enforcement still using paper crash reporting and to the Municipal Police Training Committee. VRU data became available in MassDOT's crash data portal (IMPACT) in early 2024. With this additional VRU data publicly available in IMPACT, a wide range of traffic records stakeholders were able to access it for traffic safety planning, implementation, and evaluation purposes.** Another portion of the project worked to find ways for the Massachusetts Department of Public Health to contribute existing and new VRU data it collects through the Massachusetts Ambulance Trip Run Information System (MATRIS) to further expand and improve the quality of the VRU data in the CDS and ultimately in IMPACT. Using state capital funds, an earlier phase of this project involved outreach to project stakeholders and focus groups to decide the new VRU data fields to add to the crash reporting form. It also determined necessary CDS and state/local RMS data system enhancements as well as training and public outreach.

This project enhanced the accessibility, completeness, and integration of the crash data system in Massachusetts. The project helped in part to address the unmet recommendations to improve the interfaces of the CDS (specifically with the injury surveillance/EMS data sets) and its data quality control program from the 2023 Massachusetts Traffic Records Self-Assessment.

## Improving Data Accuracy from the Scene of Motor Vehicle Crashes Project

AGA Task: TR-24-02

Massachusetts State Police
Budget: $81,341, with $45,431 in FFY 23 and $35,910 in FFY 24
(NHTSA, Section 405-c)

Completed January 31, 2024

The Massachusetts State Police (MSP) improved the accuracy, completeness, and uniformity of fatality and serious injury data collected at motor vehicle crash scenes. These improvements resulted in a timelier sharing of this data with local, state, and federal partners working on traffic safety/enforcement countermeasures and roadway improvements. To accomplish this, **members of the MSP Collision Analysis and Reconstruction Section (CARS) were provided with specialized trainings (*Pedestrian/Bicycle Crash Investigations and Human Factors*) and improved field equipment (accelerometers and cases, straight scales, and drag sleds).** The trainings enhanced the ability of investigators to establish the cause of fatal and serious injury crashes, in particular involving pedestrian and bicyclists. The equipment is being used to better measure tire/roadway friction and analyze roadway materials to determine involvement in the crashes.

This project enhanced the accuracy, completeness, timeliness, and uniformity of the crash data system in Massachusetts. This project helped in part to address the system's unmet data quality control program recommendation from the 2023 Massachusetts Traffic Records Self-Assessment.

# 4.4 Update on FFY 2024 Performance Targets

Below is an update on the work done to meet the performance targets in the FFY 2024 Massachusetts Annual Grant Application and its Strategic Plan for Traffic Records Improvement:

**Traffic Records Performance Target #1 –** Between 6/1/23 and 12/31/23, update the Massachusetts Crash Reporting Form and Crash Data System (CDS) to collect, process, and share via MassDOT's IMPACT portal the necessary vulnerable road user data confirmed through the phase one focus groups/outreach.

**Progress -** As of the end of 2023, changes to the electronic crash reporting form and the CDS were in progress but had not been fully adopted by the records management systems for all law enforcement agencies. Vulnerable User data will be shared as new data is received into the CDS. This is expected to increase in 2024. During the performance period for the MA Registry of Motor Vehicles' *Inclusion of Vulnerable Road Users in Crash Reporting to RMV Project* (TR 24-01), all necessary

changes to the paper crash reporting form had been made and a new section has been added that is specific to Vulnerable Users.

**Traffic Records Performance Target #2 –** To date in State FY 2023 (July 1, 2022 to May 2, 2023, 2023), MSP-CARS responded to 232 serious/fatal injury crashes. Of these, 58 crashes (25%) involved a pedestrian or bicyclist. Investigating Troopers measured the frictional value of the roadway in approximately 22% of these crashes involving non-motorists. MSP aims to increase the percentage of crashes involving non-motorists where frictional value of the roadway data is collected to **75%** between October 1 to December 31, 2023.

**Progress –** Between October 1 and December 31, 2023, CARS responded to 22 crashes involving non-motorists (vulnerable users). Sixteen (16) had roadway friction measured, for a final total of 73%. Of those, 6 were measured by accelerometer, 13 by drag sled, and 3 by both methods.

**Traffic Records Performance Target #3:** Between July 1, 2023 and June 30, 2024, MA Department of Criminal Justice Services (DJCJIS) will work to install approximately 500 mobile printers for police vehicles and provide associated training for an estimated 53 departments new to the Massachusetts Automated Citation and Crash System (MACCS) Project.

**Progress -** This phase of DCJIS's MACCS project (TR 24-03) made progress toward this performance target, with 188 printers for police vehicles at departments new to MACCS being installed between October 1, 2023 and April 2024.

**Traffic Records Performance Target #4:** Following the anticipated 7/10/24 launch of MRB's citation data portal, survey principal users identified during the needs assessment done during the project's phase one to determine the level of satisfaction of these users with access through the new portal to needed citation data they previously identified. Provide survey results to OGR with final progress report for project in mid-August 2024.

**Progress –** This project is still working towards its target.

**Traffic Records Performance Target #5:** Between May 2024 and 9/30/24, MA

DJCJIS will work to install approximately 70 mobile printers for police vehicles and provide associated training for an estimated 8 departments new to the MACCS Project.

**Progress -** This project is still working towards its target.