



Commonwealth of Massachusetts

Traffic Records Assessment
April 14, 2014

National Highway Traffic Safety Administration
Technical Assessment Team





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Executive Summary

Out of 391 assessment questions, Massachusetts met the Advisory ideal for 241 questions, or 61.6% of the time; partially met the Advisory ideal for 47 questions, or 12% of the time, and did not meet the Advisory ideal for 103 questions or 26.3% of the time.

As Figure 1 illustrates, within each assessment module, Massachusetts met the criteria outlined in the *Traffic Records Program Assessment Advisory* 84.2% of the time for Traffic Records Coordinating Committee Management, 87.5% of the time for Strategic Planning, 43.2% of the time for Crash, 56.4% of the time for Vehicle, 42.2% of the time for Driver, 31.6% of the time for Roadway, 74.1% of the time for Citation / Adjudication, 74.8% of the time for EMS / Injury Surveillance, and 53.8% of the time for Data Use and Integration.

Figure 1: Rating Distribution by Module

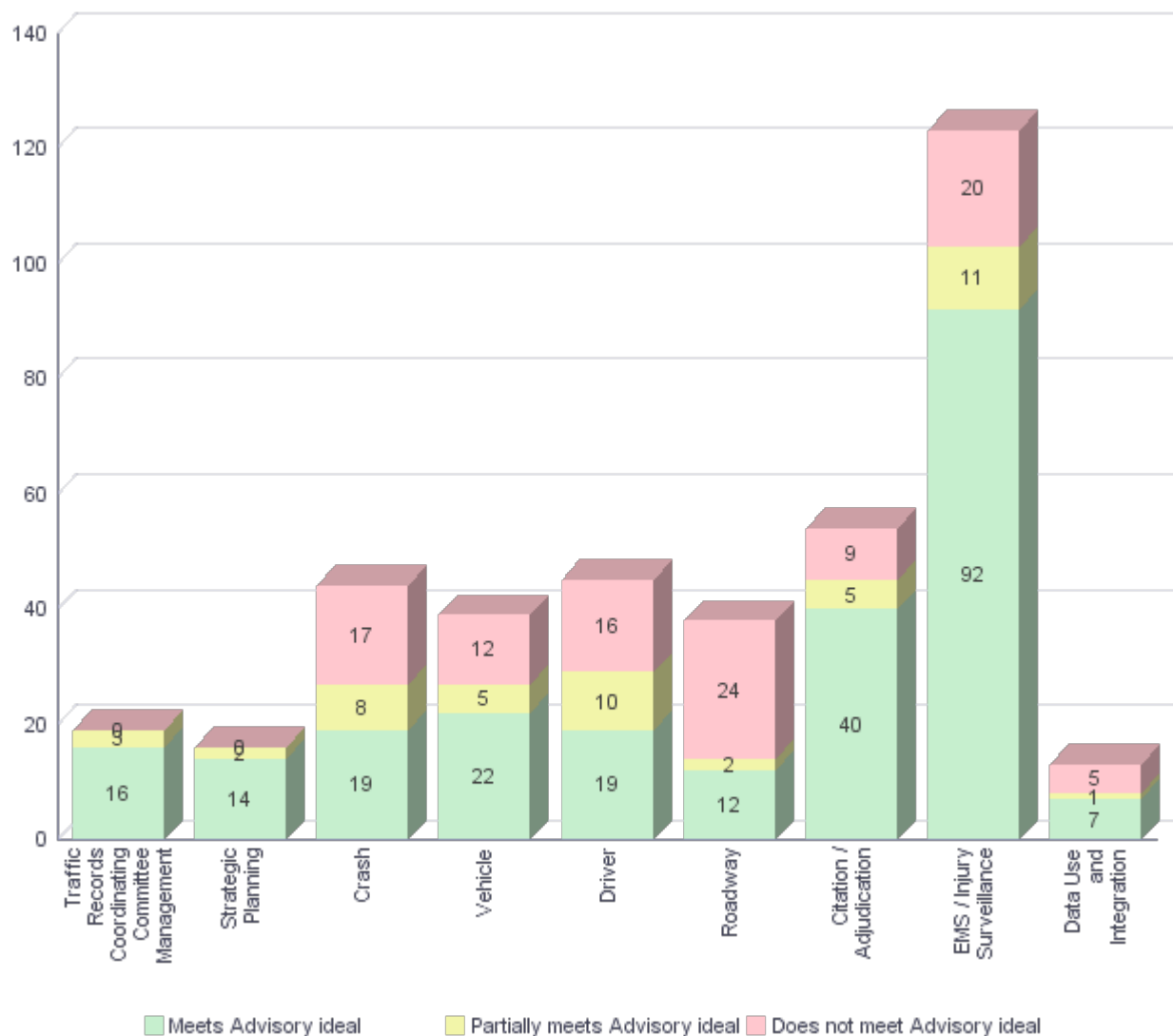










Figure 2: Assessment Section Ratings

	 Crash	 Vehicle	 Driver	 Roadway	 Citation / Adjudication	 EMS / Injury Surveillance
Description and Contents	96.4%	77.8%	90.0%	100.0%	89.5%	86.3%
Applicable Guidelines	73.3%	90.9%	66.7%	33.3%	89.5%	94.7%
Data Dictionaries	46.7%	100.0%	83.3%	43.3%	90.5%	100.0%
Procedures / Process Flow	62.5%	89.4%	86.3%	87.5%	100.0%	91.8%
Interfaces	73.3%	100.0%	85.7%	44.4%	76.2%	33.3%
Data Quality Control Programs	55.8%	48.8%	33.3%	40.3%	74.4%	82.5%
Overall	68.1%	73.8%	68.3%	57.3%	87.3%	86.0%

	Overall
Traffic Records Coordinating Committee Management	94.7%
Strategic Planning for the Traffic Records System	96.8%
Data Use and Integration	70.7%

Recommendations

Figure 2 shows the aggregate ratings by data system and assessment module. Each question's score is derived by multiplying its rank and rating (very important = 3, somewhat important = 2, and less important = 1; meets = 3, partially meets = 2, and does not meet = 1). The sum total for each module section is calculated based upon the individual question scores. Then, the percentage is calculated for each module section as follows:

$$\text{Section average (\%)} = \frac{\text{Section sum total}}{\text{Section total possible}}$$

The cells highlighted in red indicate the module sub-sections that scored below that data system's weighted average. The following priority recommendations are based on improving those module subsections with scores below the overall system score.

According to 23 CFR Part 1200, §1200.22, applicants for State traffic safety information system improvements grants are required to





“Include(s) a list of all recommendations from its most recent highway safety data and traffic records system assessment; identifies which such recommendations the State intends to implement and the performance measures to be used to demonstrate quantifiable and measurable progress; and for recommendations that the State does not intend to implement, provides an explanation.”

Massachusetts can address the recommendations below by implementing changes to improve the ratings for the questions in those section modules with lower than average scores. Massachusetts can also apply for a NHTSA Traffic Records GO Team, for targeted technical assistance.

Crash Recommendations

Improve the data dictionary for the Crash data system that reflect best practices identified in the Traffic Records Program Assessment Advisory.

Improve the procedures/ process flows for the Crash data system that reflect best practices identified in the Traffic Records Program Assessment Advisory.

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

Vehicle Recommendations

Improve the data quality control program for the Vehicle data system that reflect best practices identified in the Traffic Records Program Assessment Advisory.

Driver Recommendations

Improve the applicable guidelines for the Driver data system that reflect best practices identified in the Traffic Records Program Assessment Advisory.

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

Roadway Recommendations

Improve the applicable guidelines for the Roadway data system that reflect best practices identified in the Traffic Records Program Assessment Advisory.

Improve the data dictionary for the Roadway data system that reflect best practices identified in the Traffic Records Program Assessment Advisory.

Improve the interfaces with the Roadway data system that reflect best practices identified in the Traffic Records Program Assessment Advisory.

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





Citation / Adjudication Recommendations

Improve the interfaces with the Citation and Adjudication systems that reflect best practices identified in the Traffic Records Program Assessment Advisory.

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

EMS / Injury Surveillance Recommendations

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

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

Data Use and Integration Recommendations

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





Introduction

A traffic records system consists of data about a State's roadway transportation network and the people and vehicles that use it. The six primary components of a State traffic records system are: Crash, Driver, Vehicle, Roadway, Citation/Adjudication, and Injury Surveillance. These components address driver demographics, licensure, behavior and sanctions; vehicle types, configurations, and usage; engineering, education, enforcement measures; crash-related medical issues and actions; and how they affect highway traffic safety.

Quality traffic records data exhibiting the six primary data quality attributes—timeliness, accuracy, completeness, uniformity, integration, and accessibility—is necessary to improve traffic safety and effectively manage the motor vehicle transportation network, at the Federal, State, and local levels. Such data enables problem identification, countermeasure development and application, and outcome evaluation. Continued application of data-driven, science-based management practices can decrease the frequency of traffic crashes and mitigate their substantial negative effects on individuals and society.

State traffic records systems are the culmination of the combined efforts of collectors, managers, and users of data. Collaboration and cooperation between these groups can improve data and ensure that the data is used in ways that provide the greatest benefit to traffic safety efforts. Thoughtful, comprehensive, and uniform data use and governance policies can improve service delivery, link business processes, maximize return on investments, and improve risk management.

Congress has recognized the benefit of independent peer reviews for State traffic records data systems. These assessments help States identify areas of high performance and areas in need of improvement in addition to fostering greater collaboration among data systems. In order to encourage States to undertake such reviews regularly, Congress' Moving Ahead for Progress in the 21st Century (MAP-21) legislation requires States to conduct or update an assessment of its highway safety data and traffic records system every 5 years in order to qualify for §405(c) grant funding. The State's Governor's Representative must certify that an appropriate assessment has been completed within five years of the application deadline.

Background

In 2012, the National Highway Traffic Safety Administration published an updated *Traffic Records Program Assessment Advisory* (Report No. DOT HS 811 644). This *Advisory* was drafted by a group of traffic safety experts from a variety of backgrounds and affiliations, including: State highway safety offices, the Governors Highway Safety Association (GHSA) and the Association of Transportation Safety Data Professionals (ATSIP), as well staff from NHTSA, FMCSA, and FHWA. The *Advisory* provides information on the contents, capabilities, and data quality of effective traffic records systems by describing an ideal that supports quality data driven decisions and improves highway safety. In addition, the *Advisory* describes in detail the importance of quality data in the identification of crash causes and outcomes, the development of effective interventions, implementation of countermeasures that prevent crashes and improve crash outcomes, updating traffic safety programs, systems, and policies, and evaluating progress in reducing crash frequency and severity.





The *Advisory* is based upon a uniform set of questions derived from the ideal model traffic records data system. This model and suite of questions is designed to be used by independent subject matter experts in their assessment of the systems and processes that govern the collection, management, and analysis of traffic records data in a given State.

Methodology

A State initiates the assessment process by submitting a formal request to its NHTSA Regional Administrator. Once that request is passed onto the NHTSA National Center for Statistics and Analysis Traffic Records Team, it appoints an assessment facilitator to work with the State Governor's Representative to identify a State assessment coordinator and appropriate State respondents for each assessment question. Respondents enter the data into NHTSA's State Traffic Records Assessment Program (STRAP), the Web-based application for the assessment. The assessment facilitator works with the State assessment coordinator to plan dates and prepare for the assessment that is consistent with the general schedule outlined in Figure 3. Actual schedules may vary as dates can be altered to accommodate specific State needs.





Figure 3: Traffic Records Assessment Time Table

Upon NHTSA TR Team receipt of request		Initial pre-assessment conference call
1 month prior to kickoff meeting		Facilitator introduction pre-assessment conference call
Between facilitator conference call and kickoff		State Coordinator assigns questions, enters contact information into STRAP, and builds initial document library
Assessment	Monday, Week 1	On-site kickoff meeting
	Tuesday, Week 1 – 12pm EST, Friday, Week 3	Round 1 Data Collection: State answers standardized assessment questions
	Friday, Week 3 – Wednesday, Week 5	Round 1 Analysis: Assessors review State answers and rate the responses and, if needed, request necessary clarifications
	Thursday, Week 5 – 12pm EST, Friday, Week 7	Round 2 Data Collection: State responds to the assessors' initial ratings and requests for more information and clarification
	Friday, Week 7 – Wednesday, Week 9	Round 2 Analysis: Assessors review additional information from the State and, if needed, adjust initial ratings
	Thursday, Week 9 – 12pm EST, Friday, Week 11	Round 3 Data Collection: State provides final response to the assessors' ratings
	Friday, Week 11 – Monday, Week 13	Round 3 Analysis: make final ratings
	Tuesday, Week 13 – Monday, Week 14	Facilitator prepares final report
Week 15		NHTSA delivers final report to State and Region
(After completion of assessment, date set by State)		NHTSA hosts webinar to debrief State participants
(After completion of assessment)		(OPTIONAL) State may request GO Team targeted technical assistance or training

Following a kickoff meeting that explains the assessment process, schedule, and confirms question assignments, each respondent was sent an email with a token enabling them to log onto STRAP and answer assessment questions that had been assigned to them. The respondents may (a) answer a question, (b) answer the question and refer that question to another person to answer it as well, (c) refer the question—decline the question and send the question to someone else to answer—or (d) decline the question.

The traffic records assessment is an iterative process that includes three question-answer cycles. In each, State respondents have the opportunity to answer each question assigned to them before the assessors examine their answers and supporting evidence, at which point the





assessors rate each response. The second and third question and answer cycles are used to clarify responses and provide the most accurate rating for each question. In an attempt to prioritize the capabilities of each system being assessed, each question is ranked as “very important,” “somewhat important” or “less important.” To assist the State in responding to each question, the *Advisory* also provides State respondents with standards of evidence that identify the specific information necessary to answer each assessment question.

A group of qualified independent assessors rates the responses and determines how closely a State’s capabilities match those of the ideal system outlined in the *Advisory*. Each system component is evaluated independently by two or more assessors, who reach a consensus on the ratings. Specifically, the assessors rate each response and determined if a State (a) meets the description of the ideal traffic records system, (b) partially meets the ideal description, or (c) does not meet the ideal description. The assessors write a brief narrative to explain their rating for each question.

In order for NHTSA to accept and approve an assessment each question must have an answer. When appropriate, however, a State may answer questions with “no, we do not have this capability/use this practice” etc. These responses constitute an acceptable answer and will receive a “does not meet” rating. An assessment with unanswered or blank questions will not be acceptable and cannot be used to qualify for §405 grant funds.

The complete traffic records assessment process is outlined in Figure 5 below.

States are encouraged to use the conclusions of this report as a basis for the State data improvement program strategic planning process, and are encouraged to review the conclusions at least annually to gauge how the State is addressing the items in this report. NHTSA can provide support in addressing these conclusions by means of GO Teams. NHTSA’s Traffic Records GO Team program helps States improve their traffic records systems by deploying teams of subject matter experts to deliver tailored technical assistance and training based on States’ actual needs.

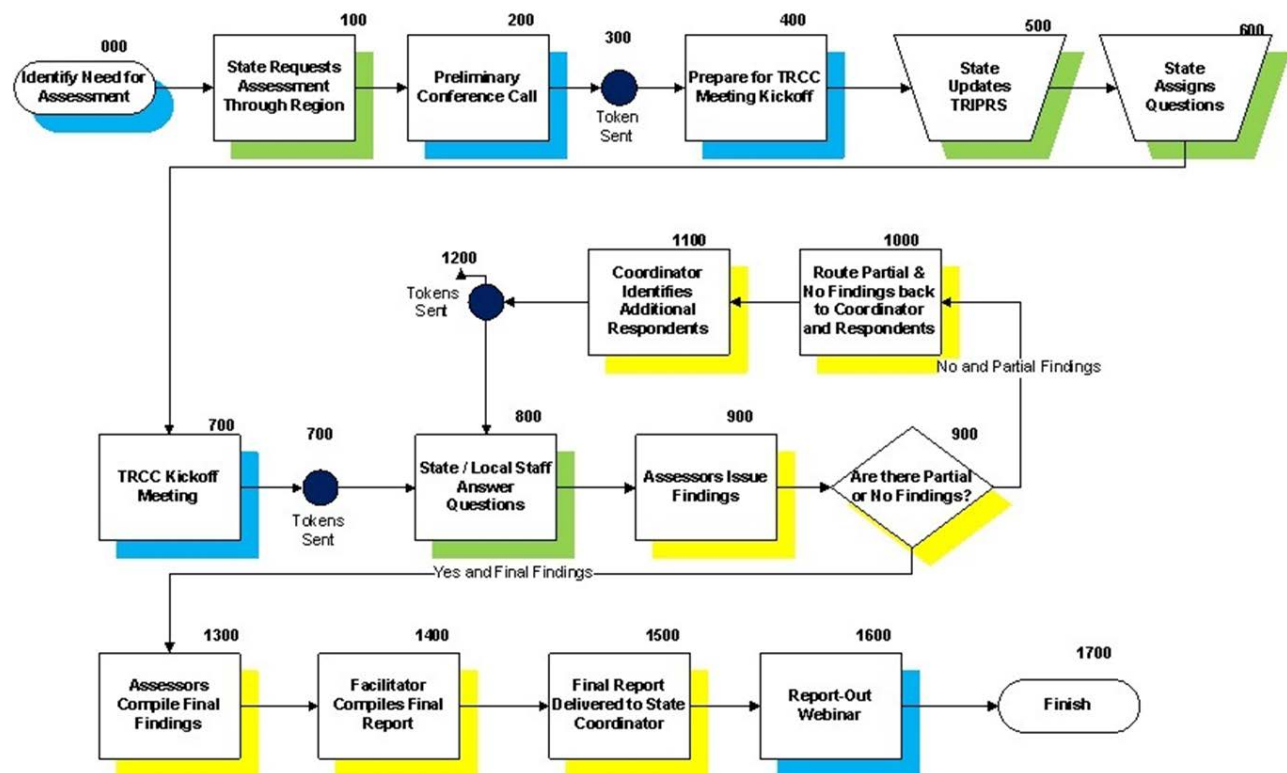
Figure 4: State Schedule for the Traffic Records Assessment

Kickoff	January 13, 2014
Begin first Q&A Cycle	January 16, 2014
End first Q&A Cycle	January 31, 2014
Begin second Q&A Cycle	February 19, 2014
End second Q&A Cycle	February 28, 2014
Begin third Q&A Cycle	March 12, 2014
End third Q&A Cycle	March 28, 2014
Assessors’ Final Results Complete	April 04, 2014
Final Report Due	April 11, 2014
Debrief	April 22, 2014





Figure 5: State Traffic Records Assessment Process



Results

For each question, a rating was assigned based on the answers and supporting documentation provided by the State. The ratings are shown as three icons, depicting 'meets', 'partially meets', or 'does not meet'.

Legend:



Meets



Partially meets



Does not meet



Traffic Records Coordinating Committee Management

In Massachusetts, the Traffic Records Coordinating Committee (TRCC) is established under the authority of the Executive Office of Public Safety and Security (EOPSS). Authorized under a formal charter, the TRCC has a technical level and an executive level whose members are at an administrative level in their respective organizations and capable of directing their agencies' resources. They also approve actions and plans proposed by the technical level. TRCC membership includes representatives from all areas of the traffic records core data systems at both the executive and technical levels. The TRCC provides the leadership and coordination necessary to develop, implement, and monitor the TRCC strategic plan. The TRCC has a comprehensive traffic records inventory.

The Massachusetts TRCC does not at this time identify core system performance measures and monitor their progress for all six core system components of the traffic records system. Currently only the injury surveillance component identified as MATRIS, the Massachusetts Trauma Registry Information System has identified performance measures and progress monitoring. The ideal oversight would include the identification and monitoring of performance measures for all core systems of the Traffic Records System.

The TRCC oversees quality control and quality improvement programs impacting the core data systems. A FHWA Crash Data Improvement Program technical assistance team conducted a comprehensive data quality assessment of Massachusetts' crash data and recommended measures for improvement in a recommendations matrix that will serve the TRCC well as it monitors core data system improvements.

The TRCC is disseminating information about upcoming conferences or training opportunities specific to the need for and use of traffic records in general, but only occasionally are they addressing regular discussion concerning the need for any technical assistance or the pursuit of any specific core system training needs for local users/agencies.

Embedded within the strategic plan are references to Section 408 and 405(C) fund allocations, but it was determined that the projects funded by these sources are only monitored by the TRCC because they have no authority to allocate these funding sources. Although the TRCC does not allocate all funds, it does provide input, guidance and oversight of projects.

Overall observations include the following items. Develop core system performance measures and monitor their progress for the remaining five core system components of the traffic records system. Ensure the executive level TRCC meets at least once every year. This is not burdensome and keeps the executive level TRCC members informed, engaged and responsive. Expand the technical level agenda to regularly include the discussion of any technical issues or technical assistance necessary as well as the need for any core system training needs for local users/agencies.

The TRCC activities were very well documented, thorough, and very comprehensive in their details. Massachusetts periodically discusses technical assistance and training needs.



Question 1:

Does the State have both an executive and a technical TRCC?

Standard of Evidence:


Provide a charter and/or MOU. Also provide a roster with all members' names, affiliations, and titles for both the executive and technical TRCC.

Question Rank:
Very Important

Assessor conclusions:

Respondents provided a charter that identified both an executive and technical level TRCC and also included a roster with all members' names, affiliations, and titles for both groups which met the description of the ideal composition for a State's TRCC.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 2:

Do the executive TRCC members have the power to direct the agencies' resources for their respective areas of responsibility?

Standard of Evidence:


Provide a charter and/or memorandum of understanding (MOU). Also provide a roster with all members' names, affiliations, and titles for the executive TRCC.

Question Rank:
Very Important

Assessor conclusions:

Massachusetts' Executive level TRCC charter does include membership consistent with the leadership level required to direct member agency resources. The TRCC as a whole does not direct individual member agencies, but relies on the appointed members at this level to oversee and direct their agency's resources as appropriate to meet the TRCC mission complying with the ideal TRCC statement empowering TRCC members the capability to direct their agency's resources to identified areas under the control of that members' area of responsibility.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 3:

Does the executive TRCC review and approve actions proposed by the technical TRCC?



Standard of Evidence:

Provide a narrative example of recent actions or programs approved by the executive TRCC (e.g., an approved project or funding proposal).

Question Rank:
Very Important

Assessor conclusions:

The process provided indicates the Executive level TRCC reviews and approves actions proposed by the technical TRCC. In the Massachusetts TRCC, the technical group is the working group level. It is clear that the TRCC is meeting the ideal requirement that the TRCC review and approve actions proposed by the technical TRCC.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 4:

Does the TRCC include representation from the core data systems at both the executive and technical levels?



Standard of Evidence:

Identify the executive and technical TRCC members that represent the core data systems: crash, driver, vehicle, roadway, citation and adjudication, and injury surveillance.

Question Rank:
Very Important

Assessor conclusions:

The Massachusetts TRCC roster supplied by the respondents indicates the TRCC is meeting the recommended ideal composition by including representation from the core data systems at both the executive and technical levels.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 5:

Does the TRCC consult with the appropriate State IT agency or offices when planning and implementing technology projects?



Standard of Evidence:

Provide a narrative example of the TRCC's process of consulting the appropriate IT agency or offices. Identify the appropriate agency or offices and their responsibilities.

Question Rank:
Somewhat Important

Assessor conclusions:

The identified business process indicates that the Executive level TRCC does indeed consult with agency IT representatives when planning and implementing technology projects thereby complying with pre-planning and pre-implementation consulting actions for technology projects recommended for the ideal TRCC.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 6:

Is there a formal document authorizing the TRCC?



Standard of Evidence:

Provide the authorizing document (e.g. MOU, charter).

Question Rank:
Very Important

Assessor conclusions:

Massachusetts met the ideal framework for a TRCC authorizing the group's existence in their formal charter that was provided.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 7:

Does the TRCC provide the leadership and coordination necessary to develop, implement, and monitor the TRCC strategic plan?



Standard of Evidence:

Provide a narrative describing the TRCC's role in developing the TRCC strategic plan as well as implementation of a project detailed in the plan.

Question Rank:
Very Important

Assessor conclusions:

Massachusetts' response confirmed that the TRCC is providing the leadership and coordination necessary to develop, implement, and monitor the TRCC strategic plan. The example provided, the Massachusetts Statewide e-Citation and Traffic Records System, demonstrated the State is meeting the ideal TRCC description in the oversight of its strategic plan.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 8:

Does the TRCC influence policy decisions that impact the State's traffic records system?



Standard of Evidence:

Provide a narrative describing a specific example of how the TRCC is engaged by component agencies in the course of their decision-making processes.

Question Rank:
Somewhat Important

Assessor conclusions:

The State's response provided an example where the Program Management Office of the Executive Office of Public Safety and Security met with members of the Massachusetts Department of Transportation and the Registry of Motor Vehicles to discuss the inclusion of certain rules for data entry in the crash module of the Motor Vehicle Automated Citation and Crash System (MACCS). While both of these agencies are part of the TRCC, this example demonstrated how Massachusetts is meeting the ideal oversight of the State's traffic records system by influencing policy decisions where appropriate.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 9:

Does the TRCC allocate federal traffic records improvement grant funds?

Standard of Evidence:

Specify what funds the TRCC is responsible for allocating (e.g., §408) and provide a narrative describing how the TRCC allocated the most recent program year's funding.

Assessor conclusions:

The Massachusetts' TRCC allocates federal traffic record improvement grant funds and provided the FFY2013 and FFY2014 allocations of §405C funds allowing them to meet the ideal condition in the Advisory for allocating traffic records improvement grant funds.



Question Rank:
Very Important

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 10:

Does the TRCC identify core system performance measures and monitor progress?

Standard of Evidence:

Provide at least one performance measure for each of the six core systems and describe how the TRCC identified it and has tracked its progress over time.

Assessor conclusions:

The Massachusetts TRCC identified MATRIS, part of the Injury Surveillance core, as at least one of the six core systems to have performance measures that the TRCC monitors along with any progress of those measures. The ideal oversight would include the identification and monitoring of performance measures for all six core systems of the Traffic Records System.



Question Rank:
Very Important

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 11:

Does the TRCC enable meaningful coordination among stakeholders and serve as a forum for the discussion of the State's traffic records programs, challenges, and investments?



Standard of Evidence:

Provide the charter or MOU and minutes from the two most recent technical TRCC meetings.

Question Rank:
Somewhat
Important

Assessor conclusions:

The charter and minutes of the last two meetings of the TRCC confirms that the TRCC is meeting the ideal environment by serving as a forum for the discussion of the State's traffic records programs, challenges, and investments.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 12:

Does the TRCC have a traffic records inventory?



Standard of Evidence:

Provide the traffic records inventory.

Question Rank:
Somewhat
Important

Assessor conclusions:

The Massachusetts TRCC maintains a traffic records inventory.

Respondents assigned	1	Responses received	1	Response rate	100%
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**Question 13:**

Does the technical TRCC have a designated chair?

Standard of Evidence:

Provide a position description, identify the individual, and describe the chair's responsibilities.

Question Rank:
Very Important

Assessor conclusions:

Massachusetts met the ideal requirements for a TRCC composition by designating a chairperson for the group whom they identified by name. This person's position description and responsibilities were identified in both the group's charter as well as in the State's narrative response.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 14:

Does the TRCC have a designated coordinator?

Standard of Evidence:

Provide a position description, identify the individual, and describe the coordinator's responsibilities.

Question Rank:
Very Important

Assessor conclusions:

Massachusetts met the ideal requirements for a TRCC composition by designating a coordinator for the group whom they identified by name. This person's position description and responsibilities were identified in the group's charter as well as in the respondent's narrative response. The TRCC coordinator and the chair are the same person which is permissible.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 15:

Does the executive TRCC meet at least once annually?

Standard of Evidence:



Provide a schedule of executive meeting dates from the past two program years.

Question Rank:

Somewhat Important

Assessor conclusions:

The Massachusetts' Executive level TRCC fell short of meeting the ideal TRCC meeting schedule by having just met in November 2013 after a considerable lapse in its meeting schedule. The group's most recent meeting prior to November 2013 was in April 2010. The TRCC currently had another meeting scheduled for February 2014 and appears to be reconstituting the group in an effort to meet the requirement to meet at least once annually.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 16:

Does the technical TRCC meet at least quarterly?

Standard of Evidence:



Provide a schedule of technical TRCC meeting dates for the past program year. If the TRCC has topical sub-committees, identify these groups, their purposes, and meeting dates as well.

Question Rank:

Somewhat Important

Assessor conclusions:

The TRCC working level, comprised of technical representatives, meets quarterly achieving the ideal frequency of meetings provided for in the Advisory.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 17:

Does the TRCC oversee quality control and quality improvement programs impacting the core data systems?



Standard of Evidence:

Provide meeting minutes or reports that document the quality control activities that the TRCC undertake regularly.

Question Rank:
Very Important

Assessor conclusions:

The Crash Data Improvement Project (CDIP) recommendations matrix and draft final report demonstrated that a Technical Assistance Team conducted a comprehensive data quality assessment of Massachusetts crash data and recommended measures for improvement. Massachusetts met the ideal condition by overseeing quality control and quality improvement programs impacting the core data systems.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 18:

Does the TRCC address technical assistance and training needs?



Standard of Evidence:

Document TRCC discussion of technical assistance and training needs with meeting agendas or minutes.

Question Rank:
Somewhat Important

Assessor conclusions:

Massachusetts provided information confirming that the TRCC does address technical assistance and training needs. The minutes provided demonstrated these two areas are covered at the TRCC meetings to address any training and technical assistance needs that may be required.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 19:

Does the TRCC use a variety of federal funds to strategically allocate resources for traffic records improvement projects?



Standard of Evidence:

Provide an inventory of federal funds used to support traffic records improvement projects in the last program year.

Question Rank:
Very Important

Assessor conclusions:

The respondent indicates the TRCC is unable to allocate funding that is not from the State Traffic Safety Information System Improvement Grants (STSISIG). The evidence provided demonstrates the TRCC does provide guidance, input and oversight for the projects funded by these sources of federal funds, e.g., Section 408 and 405C funds but cannot allocate funding because these sources are not part of STSISIG. Unless the Highway Safety Division delegates this role to the TRCC, or the TRCC is otherwise authorized to allocate these non-STSISIG funds, the ideal standard will always be difficult for the Massachusetts TRCC to fully meet. Because of the role the TRCC does play once the federal funds that are not part of the STSISIG are allocated, they are rated as partially meeting the advisory ideal.

Respondents assigned	1	Responses received	1	Response rate	100%
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Strategic Planning

The strategic plan addresses existing data and data system deficiencies and is based primarily on recommendations identified through the 2009 Commonwealth of Massachusetts Traffic Records Assessment and the Massachusetts Statewide e-Citation and Traffic Records System Business Plan. Assessment and Plan evaluations and recommendations for management processes and traffic records systems improvement have been incorporated into the strategic plan.

The TRCC strategic plan identifies a number of strategies that address the timeliness, accuracy, completeness, uniformity, integration, and accessibility of the six core data systems, and the plan reflects a project prioritization process. Performance goals and measures are updated for each project within the strategic plan. Additionally, a table identifying the impact of proposed projects with respect to the performance measures for the six core data systems is included in the strategic plan.

Training and technical assistance needs are identified through assessment and improvement plan implementation, deficiencies, and recommendations. Once these needs are identified, the TRCC and associated agency work together to develop training or provide technical assistance.

The TRCC has implemented a process for leveraging federal funds and assistance programs as depicted in the TRCC strategic plan. The strategic plan adequately addresses how these federal funds and assistance programs are used to achieve the desired results. Timelines and responsibilities for projects in the TRCC strategic plan are identified in the Massachusetts Traffic Safety Information Systems Improvement Grant application form.

Massachusetts has a process for integrating State and local data needs and goals as outlined in the Strategic Plan for Traffic Records Improvements and considers the use of new technology when evaluating projects, recommendations, and deficiencies.

Lifecycle costs in implementing improvement projects are identified in the Massachusetts Traffic Safety Information Systems Improvement Grant application form. Agencies can submit a proposal for grant funding reflecting: responsible agency, project impact, funding requested (including lifecycle costs after federal funding is expended), timeline, problem statement, project description, traffic records objectives, collaborating partners, project goals, benchmarks, and performance measures, approvals, and evaluation plans.

The TRCC has a process in place to address any impediments to the coordination with key Federal stakeholders and traffic records systems. The process calls for the membership to bring these impediments to the Chair of the TRCC, who will then raise the impediment to the Executive-Level TRCC if appropriate. It is recommended the TRCC formalize this process in the strategic plan or in their By-Laws or Charter.

Deficiencies and recommendations resulting from an evaluation conducted on the Crash Data Improvement Program (CDIP) will be incorporated into the 2015 Strategic Plan for Traffic Records Improvements. The State should be commended for taking this approach of using the traffic records assessment recommendations in developing and implementing their strategic plan.





Additionally, the State should also be commended for including recommendations from the CDIP in future plan updates.

Training and technical assistance needs can be presented to the TRCC for development and implementation. There appears to be no formal process for identifying and addressing technical assistance and training needs documented in the strategic plan. It is recommend the State be proactive and document a formal process to assess technical assistance and training needs instead of being reactive and having them identified in the assessment process or when they're presented to the TRCC.

The strategic plan adequately documents the needs of all stakeholders. The strategic plan addresses coordination with key federal traffic records systems including FARS, NEMIS and MCMIS. There was no evidence provided for coordination with the National Driver Register's Problem Pointer System (PDPS) and the Commercial Driver License Information System (CDLIS). It is recommended these two entities are incorporated into the State's coordination efforts.

The State should is incorporating the deficiencies and recommendations from an evaluation conducted on the Crash Data Improvement Program (CDIP) into the 2015 Strategic Plan for Traffic Records Improvements. It is also taking this approach of using the traffic records assessment recommendations in developing and implementing their strategic plan. The State also includes recommendations from the CDIP in future plan updates.

Question 20:

Does the TRCC develop the TRCC strategic plan?

Standard of Evidence:

Document the process undertaken by the TRCC in developing the strategic plan. (Pre-populate with most recent strategic plan.)



Question Rank:
Very Important

Assessor conclusions:

Massachusetts' Strategic Plan is developed by the Massachusetts Executive Office of Public Safety and Security's Highway Safety Division (EOPSS/HSD). Massachusetts' TRCC is comprised of two tiers: a working-level TRCC and an Executive level TRCC. Together, the two tiers are responsible for developing, maintaining, and tracking accomplishments related to the State's Strategic Plan for Traffic Records Improvement. The TRCC monitors continuous planning, addresses State and local needs, promotes data sharing and data linkage, and coordinates with Federal partners for implementaion of a comprehensive traffic records program.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 21:

Does the TRCC strategic plan address existing data and data systems deficiencies and document how these deficiencies are identified?


Standard of Evidence:

Identify, with appropriate citations, how the strategic plan addresses existing data and data systems deficiencies and documents how they were identified. (Pre-populate with most recent strategic plan.)

Question Rank:
Very Important

Assessor conclusions:

The strategic plan addresses existing data and data system deficiencies and is based primarily on recommendations identified through the 2009 Commonwealth of Massachusetts Traffic Records Assessment and the Massachusetts Statewide e-Citation and Traffic Records System Business Plan. Assessment and Plan evaluations and recommendations for management processes and traffic records systems improvement has been incorporated into the strategic plan. Deficiencies and recommendations resulting from an evaluation conducted on the Crash Data Improvement Program (CDIP) will be incorporated into the 2015 Strategic Plan for Traffic Records Improvements. The State should be commended for taking this approach of using the traffic records assessment recommendations in developing and implementing their strategic plan. Additionally, the State should also be commended for including recommendations from the CDIP in future plan updates.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 22:

Does the TRCC strategic plan identify strategies that address the timeliness, accuracy, completeness, uniformity, integration, and accessibility of the six core data systems?


Standard of Evidence:

Identify, with appropriate citations, how the strategic plan identifies strategies that address the timeliness, accuracy, completeness, uniformity, integration, and accessibility of the six core data systems. (Pre-populate with most recent strategic plan.)

Question Rank:
Very Important

Assessor conclusions:

The TRCC strategic plan identifies a number of strategies that address the timeliness, accuracy, completeness, uniformity, integration, and accessibility of the six core data systems. There is evidence throughout the strategic plan reflecting implementation, completion, and future planning of projects addressing the six core data systems.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 23:

Does the TRCC strategic plan indicate what funds are used to undertake efforts detailed in the plan and describe how these allocations contribute to the plan's stated goals?



Standard of Evidence:

Identify, with appropriate citations, how efforts detailed in the plan are funded and explain how these allocations address the plan's stated goals as specified in the strategic plan. (Pre-populate with most recent strategic plan.)

Question Rank:
Very Important

Assessor conclusions:

The strategic plans identifies traffic records system improvements utilizing a number of funding sources. It identifies traffic records improvements utilizing federal funding sources from both NHTSA and FMCSA as well as State funded traffic records improvements. In addition, it addresses how the improvements contribute to the State's traffic records goals and objectives.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 24:

Does the TRCC have a process for prioritizing traffic records improvement projects in the TRCC strategic plan?



Standard of Evidence:

Identify, with appropriate citations, how the TRCC prioritizes traffic records improvement projects as specified in the strategic plan. (Pre-populate with most recent strategic plan.)

Question Rank:
Very Important

Assessor conclusions:

The Strategic Plan for Traffic Records Improvements reflects a project prioritization process. Projects are presented to the TRCC, a feasibility evaluation is conducted, and a recommendation is provided to the Executive Level for a determination and recommendation. The project is recommended to the Secretary of EOPSS for final approval.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 25:

Does the TRCC have a process for identifying performance measures and corresponding metrics for the six core data systems in the TRCC strategic plan?



Standard of Evidence:

Identify, with appropriate citations, how the TRCC identifies performance measures and any corresponding metrics for each of the six core data systems as specified in the strategic plan. (Pre-populate with most recent strategic plan.)

Question Rank:
Very Important

Assessor conclusions:

The TRCC updates the strategic plan on an annual basis. Performance goals and measures are updated for each project within the strategic plan. Additionally, a table identifying the impact of proposed projects with respect to the performance measures for the six core data systems is included in the strategic plan.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 26:

Does the TRCC have a process for identifying and addressing technical assistance and training needs in the TRCC strategic plan?



Standard of Evidence:

Identify, with appropriate citations, how the TRCC identifies and addresses technical assistance and training needs as specified in the strategic plan. (Pre-populate with most recent strategic plan.)

Question Rank:
Somewhat Important

Assessor conclusions:

Training and technical assistance needs are identified through assessment and improvement plan implementation, deficiencies, and recommendations. Once these needs are identified, the TRCC and associated agency work together to develop training or provide technical assistance. Training and technical assistance needs can also be presented to the TRCC for development and implementation. There appears to be no formal process for identifying and addressing technical assistance and training needs documented in the strategic plan. It is recommend the State be proactive and document a formal process to assess technical assistance and training needs instead of being reactive and having them identified in the assessment process or when they're presented to the TRCC.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 27:

Does the TRCC have a process for leveraging federal funds and assistance programs in the TRCC strategic plan?



Standard of Evidence:

Identify, with appropriate citations, how the TRCC leverages federal funds and assistance programs as specified in the strategic plan. (Pre-populate with most recent strategic plan.)

Question Rank:
Somewhat Important

Assessor conclusions:

The TRCC has implemented a process for leveraging federal funds and assistance programs as depicted in the TRCC strategic plan. The strategic plan adequately addresses how these federal funds and assistance programs are used to achieve the desired results.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 28:

Does the TRCC have a process for establishing timelines and responsibilities for projects in the TRCC strategic plan?



Standard of Evidence:

Identify, with appropriate citations, how the TRCC establishes timelines and responsibilities for projects in the plan. (Pre-populate with most recent strategic plan.)

Question Rank:
Very Important

Assessor conclusions:

Timelines and responsibilities for projects in the TRCC strategic plan are identified in the Massachusetts Traffic Safety Information Systems Improvement Grant application form. Agencies can submit a proposal for grant funding and must address the following: milestones, deliverables, responsible agency, project impact, funding requested, timeline, problem statement, project description, traffic records objectives, collaborating partners, project goals, benchmarks, and performance measures, approvals, and evaluation plans.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 29:

Does the TRCC have a process for integrating State and local data needs and goals into the TRCC strategic plan?



Standard of Evidence:

Identify, with appropriate citations, how the TRCC integrates State and local data needs and goals into the TRCC strategic plan. (Pre-populate with most recent strategic plan.)

Question Rank:
Very Important

Assessor conclusions:

Massachusetts has a process for integrating State and local data needs and goals into the TRCC strategic plan as outlined in the Strategic Plan for Traffic Records Improvements. The TRCC is comprised of State and local stakeholders who are invited to the TRCC meetings to present their goals, needs, and suggested improvements to the Traffic Records Program.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 30:

Does the TRCC consider the use of new technology when developing and managing traffic records projects in the strategic plan?



Standard of Evidence:

Identify, with appropriate citations, a project or projects in the strategic plan whose development included the application or consideration of new technology. (Pre-populate with most recent strategic plan.)

Question Rank:
Somewhat Important

Assessor conclusions:

The TRCC considers the use of new technology when evaluating projects, recommendations, and deficiencies for inclusion into the Strategic Plan for Traffic Records Improvement. The Newton Police Department project to provide real-time crash reporting and analysis is a good example of utilizing new technology in a traffic records project.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 31:

Does the TRCC consider lifecycle costs in implementing improvement projects?



Standard of Evidence:

Identify, with appropriate citations, a project or projects in the strategic plan whose development included consideration of lifecycle costs. (Pre-populate with most recent strategic plan.)

Question Rank:
Somewhat Important

Assessor conclusions:

Lifecycle costs in implementing improvement projects are identified in the Massachusetts Traffic Safety Information Systems Improvement Grant application form. Agencies can submit a proposal for grant funding reflecting: responsible agency, project impact, funding requested (including lifecycle costs after federal funding is expended), timeline, problem statement, project description, traffic records objectives, collaborating partners, project goals, benchmarks, and performance measures, approvals, and evaluation plans.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 32:

Is the strategic plan responsive to the needs of all stakeholders, including local users?



Standard of Evidence:

Identify, with appropriate citations, specific instances demonstrating that local stakeholder needs are incorporated into the TRCC's strategic plan. (Pre-populate with most recent strategic plan.)

Question Rank:
Somewhat Important

Assessor conclusions:

The strategic plan adequately documents the needs of all stakeholders. Local stakeholders are well represented on the TRCC. The strategic plan includes projects to address local user needs.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 33:

Does the strategic plan make provisions for coordination with key federal traffic records data systems?



Standard of Evidence:

Provide a narrative demonstrating how the strategic plan coordinates with key federal traffic records data systems. Provide citations from the strategic plan if appropriate.

Question Rank:
Somewhat Important

Assessor conclusions:

The strategic plan addresses coordination with key federal traffic records systems including FARS, NEMSIS and MCMIS. No evidence is provided for coordination with the National Driver Register's Problem Pointer System (PDPS) and the Commercial Driver License Information System (CDLIS).

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 34:

Does the TRCC have a process for identifying and addressing impediments to coordination with key Federal traffic records data systems?



Standard of Evidence:

Provide a narrative detailing the processes used by the TRCC to identify and address impediments to coordination with key Federal traffic records data systems. Provide citations from the strategic plan if appropriate.

Question Rank:
Very Important

Assessor conclusions:

The TRCC has a process in place to address any impediments to the coordination with key Federal stakeholders and traffic records systems. The process calls for the membership to bring these impediments to the Chair of the TRCC, who will then raise the impediment to the Executive-Level TRCC if appropriate. It is recommended the TRCC formalize this process in the strategic plan or in their By-Laws or Charter.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 35:

Is the TRCC's strategic plan reviewed and updated annually?

Standard of Evidence:

Provide a narrative detailing the frequency and depth of strategic plan reviews and updates. Identify the stakeholder agencies represented in the review process. Provide a schedule or cite the plan itself if appropriate.

Assessor conclusions:

The TRCC's strategic plan is reviewed, updated and approved annually by both the working and executive level TRCC.



Question Rank:
Very Important

Respondents assigned	1	Responses received	1	Response rate	100%
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Crash

When the Registry of Motor Vehicles Crash Data System was built and implemented in 2001, the original version of MMUCC was used as the primary guide and when revisions are made to the system, up-to-date MMUCC standards are utilized. Now, sixty percent (60%) of crash reports are collected electronically from 150 law enforcement agencies within MA utilizing different crash reporting systems.

The State does not know the validation rules used within the different systems to perform edit checks on the data. A formal process has not been identified and documented to manage errors and incomplete data. While reports may be sent back to a law enforcement agency for corrections, no process is in place to monitor the process to determine which of the reports are returned.

The crash data system interfaces with the driver and vehicle components to validate the driver's personal information and identify inconsistencies between the crash and driver records and to identify vehicle ownership and characteristics. The crash system cannot access a driver's historical record for violations or prior crash involvement.

In 2007, 84% of crashes had been geocoded to a location. In 2011, 94% were geocoded. Geocoded crashes can then be linked to a road segment number in the MassDOT Office of Transportation Planning (OTP) Road Inventory File with some inconsistencies.

To improve the crash data system within Massachusetts, the State can take (7) seven action steps. First, they should identify and implement edits necessary to achieve data consistency among all crash data systems. If necessary, as is likely the case, do this in incremental steps, taking several of the most significant areas of data errors first and establish a campaign to get information corrected on those items. Second, develop a crash manual and training materials for officers and supervisors to enable their optimum use of the crash reporting procedures and to correct the deficiencies known now and those that become known when changes occur in the future. Third, develop an annotated process flow diagram showing the duration of each step in the crash data submission process, especially for paper reports, so that bottlenecks in the process can be identified and remedied. Forth, scheduled discussions of data quality in TRCC meetings and include presentations of summary reports of data quality measurements. Fifth, performance measures should be created and designed to quantify the level of accuracy, completeness, uniformity, timeliness, data integration, and data accessibility that have been achieved.

Performance measures for timeliness, completeness, and accuracy should also be produced at an agency level and shared with the TRCC and law enforcement agencies. Sixth, conduct regular reviews of a sample of crash reports. This can be performed on an agency basis and reports should be selected at random with a certain percentage represented from fatal, serious, moderate, and complaint injury levels. The results of the review should be shared with the TRCC and law enforcement agency. These results should be used to develop trainings and be compared over time to determine effectiveness. Seventh, continue to develop Filenet to store electronic images of crash reports for extended time periods and allow safety professional and





engineers to have access to the images as deemed appropriate.

The crash data system within Massachusetts has several strengths that should be recognized. First, the State does maintain up-to-date documentation describing their processes for collecting, reporting, and posting crash data to FARS and SafetyNet. Second, multiple reports, such as 'City at a Glance' and 'Top Crash Locations' have been created and are disseminated concerning the crash data. While these reports may take some time to produce due to the long lag time in closing the annual crash data file (approximately 1.5 years), this problem will resolve itself as more information is collected electronically. Third, when the Registry of Motor Vehicles Crash Data System was built and implemented in 2001, the original version of MMUCC was used as the primary guide and when revisions are made to the system, up-to-date MMUCC standards are utilized. Forth, the crash data system interfaces with the driver and vehicle records. Fifth, most crash records since 2007 have been geocoded to a location.

Question 36:

Is statewide crash data consolidated into one database?

Standard of Evidence:

Provide a description of the statewide database and specify how the data is consolidated.

Assessor conclusions:

Specific enabling legislation indicates all crash reports must be sent to RMV where they are entered into one statewide database.



Question Rank:

Somewhat Important

Respondents assigned

1

Responses received

1

Response rate

100%



**Question 37:**

Is the statewide crash system's organizational custodian clearly defined?

Standard of Evidence:

Identify what agency has the custodial responsibility for the statewide crash system, detail the extent of the agency's role, and provide all relevant statutes.

Assessor conclusions:

In MA, the MassDOT Registry of Motor Vehicles Division is the repository for all crashes that occur in the Commonwealth.



Question Rank:
Very Important

**Respondents
assigned**

1

**Responses
received**

1

**Response
rate**

100%

Question 38:

Does the State have criteria requiring the submission of fatal crashes to the statewide crash system?

Standard of Evidence:

Provide the fatal crash inclusion criteria for the statewide crash system.

Assessor conclusions:

Fatalities are part of the legal mandate outlined in the statute under Chapter 92 and are included in the statewide database. MADOT Registry of Motor Vehicles also provides evidence of an annual procedure ensuring the submission by comparing the numbers of each jurisdiction year to year for consistency.



Question Rank:
Very Important

**Respondents
assigned**

1

**Responses
received**

1

**Response
rate**

100%





Question 39:

Does the State have criteria requiring the submission of injury crashes to the statewide crash system?



Standard of Evidence:

Provide the injury crash inclusion criteria for the statewide crash system.

Question Rank:
Very Important

Assessor conclusions:

The State does have criteria requiring the submission of injury crashes to the statewide crash system. this criteria is stated in Chapter 90 section 29 within MA.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 40:

Does the State have criteria requiring the submission of PDO crashes to the statewide crash system?



Standard of Evidence:

Provide the PDO crash submission criteria for the statewide crash system.

Question Rank:
Very Important

Assessor conclusions:

Yes, the State has criteria requiring the submission of PDO crashes to the statewide crash system. In Chapter 90 section 29 any crash in which there is damage in excess of one thousand dollars to any one vehicle or other property that occurred on public way shall report in writing to the Registry of Motor Vehicles

Respondents assigned	3	Responses received	1	Response rate	33.3%
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Question 41:

Does the statewide crash system record crashes occurring in non-trafficway areas (e.g., parking lots, driveways)?

Standard of Evidence:

Provide the non-trafficway reporting criteria for the statewide crash system.

Assessor conclusions:

Yes, the Crash Data System records crashes that occur in non-trafficway areas and these reports are not considered in statistical data. For paper reports, only some of the data is entered if the crash occurred in non-trafficway areas.


Question Rank:

Somewhat Important

Respondents assigned

9

Responses received

5

Response rate

55.6%

Question 42:

Is data from the crash system used to identify crash risk factors?

Standard of Evidence:

Provide example reports and/or analyses that examine locations, roadway features, behaviors, driver characteristics, or vehicle characteristics as they relate to crash risk. If referencing large documents like the SHSP, please cite relevant page numbers.

Assessor conclusions:

Yes, data from the crash system used to identify crash risk factors. The data is used to produce 'City at a Glance' reports, used to identify Strategic and Proactive Emphasis Areas in the Massachusetts Strategic Highway Safety Plan, Road Safety Audits, corridor studies, and Local Transportation Assistance studies, etc...


Question Rank:

Very Important

Respondents assigned

9

Responses received

5

Response rate

55.6%



Question 43:

Is data from the crash system used to guide engineering and construction projects?



Standard of Evidence:

Describe the State's network screening and countermeasure selection processes. Describe how construction projects are funded based on the analysis of crash data. If referencing large documents like the SHSP, please cite relevant page numbers.

Question Rank:
Very Important

Assessor conclusions:

Each year a report entitled, Top Crash Locations Report, is prepared. Using the three latest years of crash data, this report identifies the highest crash frequency at-grade intersection crash clusters throughout the State, on roads of all jurisdictions, and provides rank, number of crashes by crash severity, and EPDO (Equivalent Property Damage Only) data for these locations. This list serves as an important screening tool for project selection and review. Also, MassDOT Crash cluster locations are used to select crash locations for Road Safety Audits and subsequent HSIP funding for improvement projects. Finally, The Central Transportation Staff, a planning agency, provides technical support to the members of the MPO as well as assist in project selection processes.

Respondents assigned	8	Responses received	4	Response rate	50%
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Question 44:

Is data from the crash system regularly used to prioritize law enforcement activity?



Standard of Evidence:

Provide a sample location-based analysis and any associated law enforcement activities. If a State DDACTS program exists, provide details.

Question Rank:
Very Important

Assessor conclusions:

Police agencies use MassTRAC (which is administered by the Highway Safety Division) to obtain data and reports for targeted law enforcement program funding requests and evaluation. Also, the Highway Safety Division uses crash data from the Registry of Motor Vehicles to allocate funding for overtime traffic enforcement grants. Finally, Fitchburg police uses the crash data to identify hot spots in Fitchburg using DDACTS methods.

Respondents assigned	9	Responses received	4	Response rate	44.4%
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Question 45:

Is data from the crash system used to evaluate safety countermeasure programs?



Standard of Evidence:

Describe how crash data is used to evaluate safety countermeasure programs. If referencing large documents like the SHSP, HSP, or Crash Facts, please cite relevant page numbers.

Question Rank:
Very Important

Assessor conclusions:

While crash data from the Crash Data System (CDS) is cited as one of the sources for the studies provided in both the State and MPO response, it is made more difficult by the long lag time (1.5 years) in closing the annual crash data file.

Respondents assigned	9	Responses received	5	Response rate	55.6%
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Question 46:

Is MMUCC a primary source for identifying what crash data elements and attributes the State collects?



Standard of Evidence:

Provide a narrative description of the process by which MMUCC was used to identify what crash data elements and attributes are included in the crash database and on the Police Accident Report (PAR).

Question Rank:
Very Important

Assessor conclusions:

When the Registry of Motor Vehicles Crash Data System was built and implemented in 2001, the original version of MMUCC was used as the primary guide and when revisions are made to the system, up-to-date MMUCC standards are used as a guide.

Respondents assigned	3	Responses received	2	Response rate	66.7%
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Question 47:

Are the ANSI D-16 and ANSI D-20 used as sources for the definitions in the crash system data dictionary?



Standard of Evidence:

Provide a narrative description of the process by which ANSI D-16 and ANSI D-20 were used to define data elements in the crash system's data dictionary and user manual.

Question Rank:
Somewhat Important

Assessor conclusions:

ANSI D-16 and ANSI D-20 were somewhat used in the beginning stages of the user manual, but it was never completed. It is not stated how much ANSI D-16 and ANSI D-20 were used for the State's crash system data dictionary.

Respondents assigned	3	Responses received	3	Response rate	100%
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Question 48:

Does the data dictionary provide a definition for each data element and define that data element's allowable values?



Standard of Evidence:

Provide a copy of the crash system data dictionary.

Question Rank:
Very Important

Assessor conclusions:

The additional supplied information is certainly evidence of a vendor data dictionary but does not sufficiently describe the data element's allowable values. It does describe the field contents. The manual crash report overlay for the State supplied report does not meet the advisory ideal by itself and no such evidence was provided that a data dictionary providing a definition for each data element and the data element's allowable values exists for the State electronic system called MACCS.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 49:

Does the data dictionary document the system edit checks and validation rules?

Standard of Evidence:

Provide a copy of the crash system data dictionary. If the crash system edit checks and validation rules are documented elsewhere, provide the appropriate document.

Assessor conclusions:

There is no one comprehensive data dictionary for the system, The information is spread across the vendor manual for electronic submission, the data base, the crash application code base, documented use cases and the crash paper form/overlay. MassDOT stated they would create a Data Dictionary if they received grant funds.



Question Rank:
Somewhat Important

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 50:

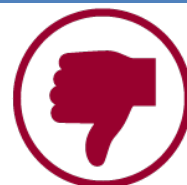
Is the data dictionary up to date and consistent with the field data collection, manual coding manual, crash report, and any training materials?

Standard of Evidence:

Describe the processes to update the crash system's data dictionary, field data collection manual, coding manual, crash report, and training manuals. Specify which of the documents exist and describe processes to keep them consistent with each other.

Assessor conclusions:

Massachusetts has not developed a data dictionary at this time.



Question Rank:
Very Important

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 51:

Does the crash system data dictionary indicate the data elements populated through links to other traffic records system components?



Standard of Evidence:

Provide a list of data elements that are populated in the crash system through linkages to other traffic records system components (e.g., the driver file, the vehicle file, the roadway inventory, or statewide mapping system).

Question Rank:
Somewhat Important

Assessor conclusions:

The driver and vehicle files appear to be used to populate the crash report from the Automated License and Registration System (ALARS) which is apparently the Records Management System (RMS) supporting these files.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 52:

Do all law enforcement agencies collect crash data electronically?



Standard of Evidence:

Provide a list of all reporting agencies and specify their data collection methods. Specify any State plans for achieving 100% electronic in-field data collection.

Question Rank:
Somewhat Important

Assessor conclusions:

Massachusetts is in the process of developing their Motor Vehicle Automated Citation and Crash System to collect the crash data electronically. They also reported that 60% of the reports are currently collected electronically.

Respondents assigned	5	Responses received	2	Response rate	40%
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Question 53:

Do all law enforcement agencies submit their data to the statewide crash system electronically?


Standard of Evidence:

Describe—using a narrative or flow diagram—all data submission processes used to transmit data from collecting agencies to the statewide crash data system. Include the percentage of total data submitted for each specified method.

Question Rank:
Very Important

Assessor conclusions:

60% of crash reports are received electronically from 150 local police agencies.

Respondents assigned	5	Responses received	1	Response rate	20%
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Question 54:

Do all law enforcement agencies collecting crash data electronically apply validation rules that are consistent with those in the statewide crash system prior to submission?


Standard of Evidence:

Describe the validation processes used by the collecting agencies. Specify if the validation rules are applied to the data prior to submission to the statewide crash system. Include, in the description, how the validation rules are distributed to the collecting agencies and how the State checks the submitted data for consistency to rules in the statewide crash system.

Question Rank:
Very Important

Assessor conclusions:

MA has multiple vendors providing crash reporting software and the State does not know the all the validation rules of the different systems. However, one of the eight vendors apparently has validation and edit checks consistent with those in the statewide RMV crash file. While this was not confirmed by submission of documentation, it at least is sufficient to provide a partial rating.

Respondents assigned	5	Responses received	1	Response rate	20%
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Question 55:

Does the State maintain accurate and up to date documentation detailing the policies and procedures for key processes governing the collection, reporting, and posting of crash data—including the submission of fatal crash data to the State FARS unit and commercial vehicle crash data to SafetyNet?



Standard of Evidence:

Provide a process flow diagram (preferred) or narrative description documenting key processes governing the collection, reporting, and posting of crash data—including the submission of fatal crashes to the State FARS unit and commercial vehicle crashes to SafetyNet.

Question Rank:
Very Important

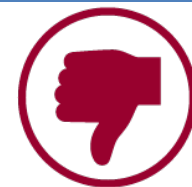
Assessor conclusions:

Narratives were provided describing the processes supporting crash, FARS and SafetyNet.

Respondents assigned	11	Responses received	3	Response rate	27.3%
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Question 56:

Are the processes for managing errors and incomplete data documented?



Standard of Evidence:

Provide a process flow diagram (preferred) or narrative description documenting the processes for managing errors and incomplete data.

Question Rank:
Very Important

Assessor conclusions:

A formal process has not been identified and documented. Also, while reports can be returned to the agency, no process is in place to monitor the process to determine if the reports are returned.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 57:

Do the document retention and archival storage policies meet the needs of safety engineers and other users with a legitimate need for long-term access to the crash data reports?



Standard of Evidence:

Provide a copy of the retention policy.

Question Rank:

Somewhat Important

Assessor conclusions:

The Registry of Motor Vehicles keeps fatal crash files permanently and non-fatal crash reports for six years. Some people feel it would be preferable to be able to access older records since not all information on the crashes is entered into the statewide crash system (narratives and diagrams) if the crash report was submitted on paper. However, this year MassDOT is implemented a solution to scan paper police crash reports into Filenet.

Respondents assigned	7	Responses received	4	Response rate	57.1%
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Question 58:

Does the crash system interface with the driver system?



Standard of Evidence:

Provide narrative description of the crash-to-driver system interfaces that enable: verification and validation of the driver's personal information, access to driver records, identification of inconsistencies between the crash and driver records, and/or identification of the driver's prior crash involvement?

Question Rank:

Somewhat Important

Assessor conclusions:

Other than not being able to access a driver's historical record for violations or prior crash involvement, it appears the CDS is able to verify and validate the driver's personal information and identify inconsistencies between the crash and driver records. The following elements are populated when the Massachusetts License number is validated in the Crash Data System: DOB, Sex, First and Last name, address, license class, restrictions, and endorsements

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 59:

Does the crash system interface with the vehicle system?

Standard of Evidence:

Provide narrative descriptions of the crash-to-vehicle system interfaces that enable: verification and validation of the vehicle information, access to vehicle records, and/or identification of inconsistencies between the crash and vehicle records.

Assessor conclusions:

The Crash Data System interfaces with ALARS to validate the Massachusetts registration number which populates the owners name, address, city, State, ZIP, vehicle year, and vehicle make.



Question Rank:
Somewhat Important

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 60:

Does the crash system interface with the roadway system?

Standard of Evidence:

Provide narrative descriptions of the crash-to-roadway interfaces that enable: verification and validation of the roadway information, and/or identification of inconsistencies between the crash and roadway records.

Assessor conclusions:

MA was able to be geocoded 94% of crashes in 2011, for 2007 the geocoding rate was 84%, 2008 it was 89%, 2009 it was 94%, 2010 it was 92%. For records that are geocoded, they are linked to a Road Segment number in the MassDOT office of Transportation Planning Roadway Inventory File.



Question Rank:
Somewhat Important

Respondents assigned	3	Responses received	3	Response rate	100%
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Question 61:

Does the crash system interface with the citation and adjudication systems?

Standard of Evidence:

Provide narrative descriptions of the crash-to-citation and -adjudication interfaces that enable: verification and validation of citations and/or alcohol or drug test information in the crash record; identification of any inconsistencies between crash and citation records; and access to criminal history, contact history, and location history.

Assessor conclusions:

There is not a crash system interface with the citation and adjudication systems



Question Rank:
Somewhat
Important

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 62:

Does the crash system interface with the injury surveillance system?

Standard of Evidence:

Provide narrative descriptions of the crash-to-injury surveillance interfaces that enable: verification and validation of EMS information, and identification of inconsistencies between crash and EMS records.

Assessor conclusions:

At this time the Crash Data System does not interface with the injury surveillance system. In the past Massachusetts was active in the Crash Outcome Data Evaluation System (CODES) linking crash data and multiple injury surveillance databases(e.g. EMS and Trauma registry data).



Question Rank:
Somewhat
Important

Respondents assigned	4	Responses received	2	Response rate	50%
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Question 63:

Are there automated edit checks and validation rules to ensure that entered data falls within a range of acceptable values and is logically consistent among data elements?



Standard of Evidence:

Provide the formal methodology or describe the process by which automated edit checks or validation rules ensure entered data falls within the range of acceptable values and is logically consistent between fields.

Question Rank:
Very Important

Assessor conclusions:

Edit checks and validation rules are controlled by the crash software that is used to process manually entered crash reports or that is used to automatically process an electronically submitted crash report.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 64:

Is limited state-level correction authority granted to quality control staff working with the statewide crash database to amend obvious errors and omissions without returning the report to the originating officer?



Standard of Evidence:

Provide the formal methodology or describe the process by which limited state-level correction authority is granted to quality control staff working with the statewide crash database.

Question Rank:
Somewhat Important

Assessor conclusions:

The State does have the authority to grant quality control staff at the RMV, Highway Division, and the Massachusetts Commercial Vehicle Section the ability to amend obvious errors and omissions without returning the report to the originating officer.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 65:

Are there formally documented processes for returning rejected crash reports to the originating officer and tracking resubmission of the report in place?



Standard of Evidence:

Provide the formal methodology or describe the process by which rejected crash reports are returned to the originating officer and then resubmitted to the statewide crash database.

Question Rank:
Very Important

Assessor conclusions:

Currently there are no formal documents explaining the process for returning rejected crash reports to the originating officer and tracking re-submission of the reports.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 66:

Are there timeliness performance measures tailored to the needs of data managers and data users?



Standard of Evidence:

Provide a complete list of crash system timeliness measures the State uses, including the most current baseline and actual values for each.

Question Rank:
Very Important

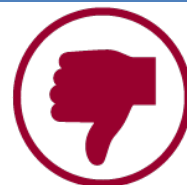
Assessor conclusions:

There are no timeliness performance measures for the Crash Data System.

Respondents assigned	3	Responses received	2	Response rate	66.7%
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Question 67:

Are there accuracy performance measures tailored to the needs of data managers and data users?



Standard of Evidence:

Provide a complete list of crash system accuracy measures the State uses, including the most current baseline and actual values for each.

Question Rank:
Very Important

Assessor conclusions:

There are no accuracy performance measures tailored to the needs of data managers and data users.

Respondents assigned	3	Responses received	2	Response rate	66.7%
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**Question 68:**

Are there completeness performance measures tailored to the needs of data managers and data users?

**Standard of Evidence:**

Provide a complete list of crash system completeness measures the State uses, including the most current baseline and actual values for each.

Question Rank:
Very Important

Assessor conclusions:

There are no completeness performance measures tailored to the needs of data managers and data users.

Respondents assigned	3	Responses received	2	Response rate	66.7%
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Question 69:

Are there uniformity performance measures tailored to the needs of data managers and data users?

**Standard of Evidence:**

Provide a complete list of crash system uniformity measures the State uses, including the most current baseline and actual values for each.

Question Rank:
Very Important

Assessor conclusions:

There are no uniformity performance measures tailored to the needs of data managers and data users.

Respondents assigned	3	Responses received	2	Response rate	66.7%
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Question 70:

Are there integration performance measures tailored to the needs of data managers and data users?

**Standard of Evidence:**

Provide a complete list of crash system integration measures the State uses, including the most current baseline and actual values for each.

Question Rank:
Very Important

Assessor conclusions:

There are no integration performance measures tailored to the needs of data managers and data users.

Respondents assigned	3	Responses received	2	Response rate	66.7%
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Question 71:

Are there accessibility performance measures tailored to the needs of data managers and data users?


Standard of Evidence:

Provide a complete list of crash system accessibility measures the State uses, including the most current baseline and actual values for each.

Question Rank:

Somewhat Important

Assessor conclusions:

No accessibility performance measures exist at this time.

Respondents assigned	3	Responses received	2	Response rate	66.7%
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Question 72:

Has the State established numeric goals—performance metrics—for each performance measure?


Standard of Evidence:

Provide the specific, State-determined numeric goals associated with each performance measure in use.

Question Rank:

Very Important

Assessor conclusions:

No numerical goals for performance metrics have been established at this time.

Respondents assigned	3	Responses received	2	Response rate	66.7%
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Question 73:

Is there performance reporting that provides specific timeliness, accuracy, and completeness feedback to each law enforcement agency?


Standard of Evidence:

Provide a sample report, list of receiving law enforcement agencies, and specify the frequency of issuance.

Question Rank:

Very Important

Assessor conclusions:

MA stated there is performance reporting that provides specific timeliness, accuracy and completeness feedback to each law enforcement agency. However, the performance measures are not explained and a sample of the report was not provided.

Respondents assigned	3	Responses received	3	Response rate	100%
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Question 74:

Is the detection of high frequency errors used to generate updates to training content and data collection manuals, update the validation rules, and prompt form revisions?



Standard of Evidence:

Provide the formal methodology or describe the process by which high frequency errors are used to generate new training content and data collection manuals, update the validation rules, and prompt form revisions.

Question Rank:
Very Important

Assessor conclusions:

This analysis of incomplete and incorrect fields were utilized to develop training. MassDOT contacts LEAs when high frequency errors are identified such as coding a crash as a fatal when there is not a injury. They have also updated data collection manuals and made prompt form revisions due to high frequency errors.

Respondents assigned	3	Responses received	3	Response rate	100%
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Question 75:

Are quality control reviews comparing the narrative, diagram, and coded contents of the report considered part of the statewide crash database's data acceptance process?



Standard of Evidence:

Provide the formal methodology or describe the process by which quality control reviews comparing the narrative, diagram, and coded contents of the report are considered part of the statewide crash database's data acceptance process.

Question Rank:
Somewhat Important

Assessor conclusions:

It appears that some quality control review takes place comparing the narrative, diagram, and coded contents of the report; however, it is unclear what level of quality control takes place, what results from it, how often it is done and if any formal procedure is involved.

Respondents assigned	3	Responses received	2	Response rate	66.7%
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Question 76:

Are independent sample-based audits periodically conducted for crash reports and related database contents?


Standard of Evidence:

Describe the formal audit methodology, provide a sample report or other output, and specify the audits' frequency.

Question Rank:

Somewhat Important

Assessor conclusions:

While independent sample-based audits have been conducted for crash reports and related database contents by UMass Safe and Fisher College in the past, there is not mention of the way the audit was conducted, the results of the audit, and how often the audits are conducted.

Respondents assigned	3	Responses received	2	Response rate	66.7%
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Question 77:

Are periodic comparative and trend analyses used to identify unexplained differences in the data across years and jurisdictions?


Standard of Evidence:

Describe the analyses, provide a sample report or other output, and specify the analyses' frequency.

Question Rank:

Very Important

Assessor conclusions:

The RMV Crash Data Section and MassDOT Highway Division Traffic Engineering/Safety section creates periodic reports to attempt to monitor the number of crash reports that were successfully submitted and entered into the RMV Crash Data System. Follow-up contact is made, by E-mail or telephone, to police agencies that are identified as not reporting or significantly under-reporting crashes.

Respondents assigned	8	Responses received	3	Response rate	37.5%
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Question 78:

Is data quality feedback from key users regularly communicated to data collectors and data managers?



Standard of Evidence:

Describe the process for transmitting and utilizing key users' data quality feedback to inform changes.

Question Rank:

Somewhat Important

Assessor conclusions:

Data quality feedback from key users is not systematically communicated to data collectors and data managers. Communications with data collectors (police officers) are infrequent and usually at chance meetings. Communications with data managers occurs more frequently, often in the context of regular meetings and workshops.

Respondents assigned	7	Responses received	4	Response rate	57.1%
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Question 79:

Are data quality management reports provided to the TRCC for regular review?



Standard of Evidence:

Provide a sample quality management report and specify how frequently they are issued to the TRCC.

Question Rank:

Very Important

Assessor conclusions:

Data quality management reports are not provided to the TRCC on a regular review. Periodic oral reports are provided but no formal quality management report is provided regularly.

Respondents assigned	7	Responses received	4	Response rate	57.1%
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Vehicle

The Massachusetts vehicle and driver data systems are unified in one system: Automated License and Registration System (ALARS) maintained by the Registry of Motor Vehicles (RMV). ALARS contains registration, title, and license information. As a result, the identical personal information is used for both data systems. Also, the ALARS is used to verify and validate vehicle information during the initial creation of citation or crash report.

The State vehicle system shares title brand information and stolen vehicle indicators with other States by the use of the National Motor Vehicle Title Information System (NMVTIS). Data is provided daily to NMVTIS and the State queries NMVTIS before issuing new titles. The Massachusetts RMV has also implemented some of the Performance and Registration Information Systems Management (PRISM) program elements and is working toward full compliance with the program.

The Massachusetts vehicle system data dictionary has a documented definition for each data field. Edit checks for data values in the vehicle system, performed to ensure their correspondence with data definitions, are done mainly using application programming. The collection, reporting, and posting procedures for registration, title, and title brand information are formally documented.

The RMV also has a process flow diagram related to their vehicle system key data processes such as the collection, reporting, posting of titling, registrations, and other transactions. The process flow diagram for titling and registration shows the steps from initial event to final entry into the vehicle system, but it does not show the time required to complete each step. However, the alternative data flow process diagram includes information on timeliness. The processes for error correction and error handling, as well as procedures for purging records from the vehicle system, are also included in the process flow diagram.

The Massachusetts vehicle system data is processed in real-time. The RMV has automated edit checks, validation rules, and other steps and procedures to ensure that entered data falls within a range of acceptable values and is logically consistent among data elements. The quality control employees who work with the vehicle system have limited state-level correction authority to amend obvious errors and omissions. Nonetheless, Massachusetts does not have a formal, comprehensive data quality management program related to the vehicle data system and it does not have established performance measures for timeliness, accuracy, completeness, uniformity, integration, and accessibility of this system.

The main area for the improvement of the Massachusetts vehicle data system is within data quality control programs. To have greater ability to fully comprehend “how good” their vehicle data system is, the State may start working on a concept for a formal quality control program for the vehicle data system, which will include a formation of the timeliness, accuracy, completeness, uniformity, integration, and accessibility performance measures. Once established, such a data quality control program will be a great tool for data managers and data users to quickly and easily recognize logical further steps toward improvements.

Similarly, the State should perform periodic independent sample-based audits to examine vehicle





reports, use high frequency errors to create new training materials, and conduct periodic comparative and trend analyses to identify unexplained differences in data across years and jurisdictions.

Finally, data quality feedback from key users should be regularly communicated to data collectors and managers and data quality reports should be created and provided to the State's TRCC committee for regular review.

The Automated License and Registration System (ALARS), which holds registration, title, and license information, is a real time that participates in the National Motor Vehicle Title Information System (NMVTIS) and meets the guidelines of the National Highway Traffic Safety Administration and the American Association of Motor Vehicle Administrators.

Question 80:

Does custodial responsibility of the identification and ownership of vehicles registered in the State—including vehicle make, model, year of manufacture, body type, and adverse vehicle history (title brands)—reside in a single location?



Standard of Evidence:

Provide the custodial agency's name.

Question Rank:

Somewhat
Important

Assessor conclusions:

The MassDOT of RMV is the custodial agency of the Massachusetts vehicle system. The information on vehicle make, model, year of manufacture, and body style are part of the MMVR-VMOD record on the IDMS database, and the title brands are on the MMVR-VEHT-BRAND record on the same database.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 81:

Does the State or its agents validate every VIN with a verification software application?


Standard of Evidence:

Describe the circumstances in which the VIN is validated and used.

Question Rank:
Less Important

Assessor conclusions:

VIN numbers are validated for model years 1981 and newer using the VINA file, that is updated 5-6 times a year, which means the RMV does not always have updated information available to validate VIN numbers.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 82:

Are vehicle registration documents barcoded—using at a minimum the 2D standard—to allow for rapid, accurate collection of vehicle information by law enforcement officers in the field using barcode readers or scanners?


Standard of Evidence:

Provide a sample document, and identify the information encoded.

Question Rank:
Very Important

Assessor conclusions:

The vehicle registration documents are not barcoded for all vehicle license plates in the State. The 2D standard barcode is used only on Apportion Plate registrations.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 83:

Does the vehicle system provide title information data to the National Motor Vehicle Title Information System (NMVTIS) at least daily?


Standard of Evidence:

Explain how and how often the State uploads data to NMVTIS, specifying the manner of transmittal and its frequency (e.g., real-time, nightly, weekly).

Question Rank:
Somewhat Important

Assessor conclusions:

Data is provided daily to NMVTIS in the nightly batch cycle (Monday through Friday). Real-time communication through online AAMVANET messaging also occurs to obtain vehicle information from the national database.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 84:

Does the vehicle system query the National Motor Vehicle Title Information System (NMVITS) before issuing new titles?



Standard of Evidence:

Provide the NMVITS query processing instructions or provide a screen print of the query tool.

Question Rank:
Very Important

Assessor conclusions:

The State queries NMVTIS before issuing new titles. A CICS NMVTIS solicited message processor is used to receive data from specific vehicle/title application programs, which is used to send/receive NMVTIS messages.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 85:

Does the State incorporate brand information on the vehicle record that are recommended by AAMVA and/or received through NMVTIS, whether or not the brand description matches the State's brand descriptions?



Standard of Evidence:

Provide the list of the State's title brands and their definitions.

Question Rank:
Very Important

Assessor conclusions:

State has provided list of State's title brands and their definition.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 86:

Does the State participate in the Performance and Registration Information Systems Management (PRISM) program?



Standard of Evidence:

Provide the PRISM processing instructions or a screen print.

Question Rank:
Very Important

Assessor conclusions:

The State has implemented some of the PRISM program elements (such as collection and validation of USDOT numbers) and is working towards full compliance with the program. PRISM is currently queried behind the scenes through the International Registration Plan (IRP) system.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 87:

Does the vehicle system have a documented definition for each data field?

Standard of Evidence:


Provide a narrative description of the data dictionary and provide an extract.

Question Rank:

Somewhat
Important

Assessor conclusions:

The State's vehicle system has a documented definition for each data field, as evident from provided extract of the data dictionary.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 88:

Does the vehicle system include edit check and data collection guidelines that correspond to the data definitions?

Standard of Evidence:


Provide a narrative description of the data dictionary's edit check and data collection guidelines and provide an extract.

Question Rank:

Somewhat
Important

Assessor conclusions:

Edit checks for data values in the vehicle system are performed mainly using application programming. As evidence, the State provided flow charts for the the vehicle entry data system that shows editor modules.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 89:

Are the collection, reporting, and posting procedures for registration, title, and title brand information formally documented?



Standard of Evidence:

Provide a narrative description of the data dictionary's procedure for applying title brands and provide a copy of the brands applied.

Question Rank:
Very Important

Assessor conclusions:

The State has formal documents related to the collection, reporting, and posting procedures for registration, title, and title brand information. The State provided the table of contents from their registration manual as evidence.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 90:

Is there a process flow diagram describing the vehicle data system?



Standard of Evidence:

Provide the process flow diagram.

Question Rank:
Somewhat Important

Assessor conclusions:

The State has a process flow diagram related to procedures and policies of the collection, reporting, posting of titling, registrations, and other transactions that are part of the vehicle data system.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 91:

Does the vehicle system flag or identify vehicles reported as stolen to law enforcement authorities?



Standard of Evidence:

Provide a narrative description of the procedures for flagging and identifying vehicles reported as stolen. Provide the appropriate excerpt from the instruction manual.

Question Rank:
Very Important

Assessor conclusions:

The vehicle system flags/identifies vehicles reported as stolen to law enforcement agencies. The flag is located on the main vehicle record (MMVR-VEHC), and can be accessed in real-time by law enforcement agencies.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 92:

If the vehicle system does flag or identify vehicles reported as stolen to law enforcement authorities, are these flags removed when a stolen vehicle has been recovered or junked?



Standard of Evidence:

Provide a narrative description of how the flags are removed. Provide the appropriate excerpt from the instruction or procedures manual.

Question Rank:
Very Important

Assessor conclusions:

When a stolen vehicle has been recovered or junked, the State removes the stolen vehicle flag by using the Automated License and Registration System (ALARS) Stolen Vehicle Maintenance (RC) online screen application.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 93:

Does the State record and maintain the title brand history (previously applied to vehicles by other States)?



Standard of Evidence:

Provide a narrative description of how title brand information is applied.

Question Rank:
Very Important

Assessor conclusions:

The State's ALARS IDMS database does not maintain title brand history; however, modifications to this field are logged into audit records after the vehicle is entered into the State's system.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 94:

Are the steps from initial event (titling, registration) to final entry into the statewide vehicle system documented in a process flow diagram?



Standard of Evidence:

Provide the process flow diagram. If diagram does not exist, provide a narrative describing the process in detail.

Question Rank:
Very Important

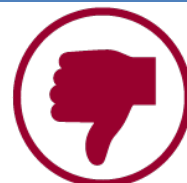
Assessor conclusions:

The State provided a process flow diagram, for titling and registration, that illustrates the steps from initial event to final entry into the vehicle system.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 95:

Is the process flow diagram or narrative annotated to show the time required to complete each step?



Standard of Evidence:

Provide the process flow diagram. If diagram does not exist, provide a narrative describing the process in detail.

Question Rank:
Somewhat Important

Assessor conclusions:

The process flow diagram does not show the time required to complete each step. The RMV does not have access to any data that describes the time required to complete each step.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 96:

Does the process flow diagram or narrative show alternative data flows and timelines?



Standard of Evidence:

Provide the process flow diagram that specifies alternative data flows and timelines. If diagram does not exist, provide a narrative describing the process in detail.

Question Rank:
Somewhat Important

Assessor conclusions:

The State maintains an alternative data flow process diagram including information on timeliness, which is evident from the narrative and documentation provided.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 97:

Does the process flow diagram or narrative include processes for error correction and error handling?



Standard of Evidence:

Provide the process flow diagram that specified the processes for error correction and error handling. If diagram does not exist, provide a narrative describing the process in detail.

Question Rank:
Somewhat Important

Assessor conclusions:

The State provided the process flow diagram and a detailed narrative description related to procedures used for error correction and error handling.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 98:

Does the process flow diagram or narrative explain the timing, conditions, and procedures for purging records from the vehicle system?



Standard of Evidence:

Provide the process flow diagram that specifies the schedule and process for purging records. If diagram does not exist, provide a narrative describing the process in detail.

Question Rank:
Somewhat Important

Assessor conclusions:

The State provided the process flow diagram and narrative description explaining procedures used for purging records from the vehicle system.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 99:

Are the driver and vehicle files unified in one system?



Standard of Evidence:

Provide a narrative description of the unified system's main components and identify the variables that link the vehicle and driver files.

Question Rank:
Somewhat Important

Assessor conclusions:

The driver and vehicle titles are unified in one system of record which holds registration, title and license information.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 100:

If the driver and vehicle files are separate, is personal information entered into the vehicle system using the same conventions used in the driver system?



Standard of Evidence:

When the driver and vehicle systems are separate, provide extracts from the driver and vehicle system manuals detailing the data entry conventions for each.

Question Rank:
Very Important

Assessor conclusions:

The ALARS system holds all registration, title, and license information in the State. Therefore, the identical personal information is used for both vehicle and driver files.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 101:

Can vehicle system data be used to verify and validate the vehicle information during initial creation of a citation or crash report?



Standard of Evidence:

Provide a narrative description of the procedures governing the use of vehicle system data to verify and validate vehicle information during initial creation of a citation or crash report. **ALTERNATIVE EVIDENCE:** Describe how the vehicle system is accessed, if it is, to validate and verify vehicle information during crash report creation.

Question Rank:
Somewhat Important

Assessor conclusions:

The State provided narrative description of procedures related to use of the ALARS IDMS database to verify and validate vehicle information during initial creation of citation or crash report.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 102:

When discrepancies are identified during data entry in the crash data system, are vehicle records flagged for possible updating?



Standard of Evidence:

Provide an appropriate extract from the vehicle system manual that details the process for addressing a record flagged by the crash system.

Question Rank:
Less Important

Assessor conclusions:

The State provided detailed description of procedures used to identify and process discrepancies during data entry in the crash system and to flag vehicle records for a review and/or update.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 103:

Are VIN, title number, and license plate number the key variables used to retrieve vehicle records?



Standard of Evidence:

Identify the key variables used to retrieve vehicle records.

Question Rank:
Very Important

Assessor conclusions:

The State provided narrative and an extract from the Registration documentation manual indicating that registration, VIN, and title number are key variables used to retrieve vehicle records.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 104:

Is the vehicle system data processed in real-time?



Standard of Evidence:

Provide a narrative statement explaining the answer.

Question Rank:
Very Important

Assessor conclusions:

The vehicle system data is processed in real-time. The State provided specific details and described relevant procedures regarding its ability to process data in real-time.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 105:

Are there automated edit checks and validation rules to ensure that entered data falls within a range of acceptable values and is logically consistent among data elements?


Standard of Evidence:

Provide the formal methodology or describe the process by which automated edit checks or validation rules ensure entered data falls within the range of acceptable values and is logically consistent between fields.

Question Rank:
Very Important

Assessor conclusions:

The State provided narrative description of automated edit checks and validation rules, procedures, and steps used to ensure that entered data falls within a range of acceptable values and is logically consistent among data elements.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 106:

Is limited state-level correction authority granted to quality control staff working with the statewide vehicle system to amend obvious errors and omissions?


Standard of Evidence:

Name the authority that allows quality control staff authority to correct the statewide vehicle database.

Question Rank:
Somewhat Important

Assessor conclusions:

Limited state-level correction authority is granted to quality control staff working with the statewide vehicle system to amend obvious errors and omissions.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 107:

Are there timeliness performance measures tailored to the needs of data managers and data users?



Standard of Evidence:

Provide a complete list of vehicle system timeliness measures the State uses, including the most current baseline and actual values for each.

Question Rank:
Very Important

Assessor conclusions:

There are not any timeliness performance measures tailored to the needs of data managers and data users.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 108:

Are there accuracy performance measures tailored to the needs of data managers and data users?



Standard of Evidence:

Provide a complete list of vehicle system accuracy measures the State uses, including the most current baseline and actual values for each.

Question Rank:
Very Important

Assessor conclusions:

There are not any accuracy performance measures tailored to the needs of data managers and data users.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 109:

Are there completeness performance measures tailored to the needs of data managers and data users?



Standard of Evidence:

Provide a complete list of vehicle system completeness measures the State uses, including the most current baseline and actual values for each.

Question Rank:
Very Important

Assessor conclusions:

There are not any completeness performance measures tailored to the needs of data managers and data users.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 110:

Are there uniformity performance measures tailored to the needs of data managers and data users?



Standard of Evidence:

Provide a complete list of vehicle system uniformity measures the State uses, including the most current baseline and actual values for each.

Question Rank:
Very Important

Assessor conclusions:

There are not any uniformity performance measures tailored to the needs of data managers and data users.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 111:

Are there integration performance measures tailored to the needs of data managers and data users?



Standard of Evidence:

Provide a complete list of vehicle system integration measures the State uses, including the most current baseline and actual values for each.

Question Rank:
Very Important

Assessor conclusions:

There are not any integration performance measures tailored to the needs of data managers and data users. -

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 112:

Are there accessibility performance measures tailored to the needs of data managers and data users?



Standard of Evidence:

Provide a complete list of vehicle system accessibility measures the State uses, including the most current baseline and actual values for each.

Question Rank:
Somewhat Important

Assessor conclusions:

There are not any accessibility performance measures tailored to the needs of data managers and data users.

Respondents assigned	1	Responses received	1	Response rate	100%
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**Question 113:**

Has the State established numeric goals—performance metrics—for each performance measure?

**Standard of Evidence:**

Provide the specific, State-determined numeric goals associated with each performance measure in use.

Question Rank:
Very Important

Assessor conclusions:

The State does not have established numeric goals for each performance measure.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 114:

Is the detection of high frequency errors used to generate updates to training content and data collection manuals, update the validation rules, and prompt form revisions?

**Standard of Evidence:**

Provide the formal methodology or describe the process by which high frequency errors are used to generate new training content and data collection manuals, update the validation rules, and prompt form revisions.

Question Rank:
Very Important

Assessor conclusions:

The detection of high frequency errors was used in developing CMV crash report training. It is not clear if detection of other high frequency errors are used to generate updates to other training content and data collection manuals, updating the validation rules, or prompt form revisions.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 115:

Are independent sample-based audits conducted periodically for vehicle reports and related database contents for that record?


Standard of Evidence:

Describe the formal audit methodology, provide a sample report or other output, and specify the audits' frequency.

Question Rank:
Somewhat Important

Assessor conclusions:

Independent sample-based audits are not conducted periodically for vehicle reports and related database contents for that record.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 116:

Are periodic comparative and trend analyses used to identify unexplained differences in the data across years and jurisdictions?


Standard of Evidence:

Describe the analyses, provide a sample report or other output, and specify the analyses' frequency.

Question Rank:
Very Important

Assessor conclusions:

Periodic comparative and trend analyses are not used to identify unexplained differences in the data across years and jurisdictions.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 117:

Is data quality feedback from key users regularly communicated to data collectors and data managers?


Standard of Evidence:

Describe the process for transmitting and utilizing key users' data quality feedback to inform changes.

Question Rank:
Somewhat Important

Assessor conclusions:

Data quality feedback from key users is not regularly communicated to data collectors and data managers.

Respondents assigned	1	Responses received	1	Response rate	100%
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**Question 118:**

Are data quality management reports provided to the TRCC for regular review?

**Standard of Evidence:**

Provide a sample quality management report and specify how frequently they are issued to the TRCC.

Question Rank:
Very Important

Assessor conclusions:

Data quality management reports are not provided to the TRCC for regular review.

Respondents assigned	1	Responses received	1	Response rate	100%
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Driver

The custodial agency, the Registry of Motor Vehicles (RMV), has the responsibility for the driver system, the Automated License and Registration System (ALARS). DUI data is entered in ALARS, and every DUI offense is tied to a license or registration. ALARS interacts with the Commercial Driver's License Information System (CDLIS) and Problem Driver Pointer System (PDPS) system before issuance of any license.

All changes to historic, current or pending license status are documented to the driver's record and are re-traceable via the licensing audit trail. Driver training and re-training is also maintained in the driver record. ALARS records are not purged. There is a process flow diagram that depicts the process flows between RMV and other data systems.

For consistency and compliance with policy, the Internal Audit Unit reviews all applications for new credentials. Inconsistencies are referred to the Massachusetts State Police Compliance Unit for further investigation.

Emphasis should be placed upon improving the data quality management of the driver system. The framework exists within the informal management system to develop and implement an effective comprehensive data quality management program.

Efforts to continue to expand electronic submission of data should be explored and encouraged.

Timeliness, accuracy, completeness, uniformity, integration, and accessibility performance measures along with the numeric goals (performance metrics) for each measure are the basis of quality determinations for driver data.

The real time Automated License and Registration System (ALARS) is linked to the DUI data system and interacts with the Commercial Driver's License Information System (CDLIS) as appropriate and the Problem Driver Pointer System (PDPS) system before issuance of any license.

All changes to historic, current or pending license status are documented to the driver's record and are re-traceable via the licensing audit trail.

The State's crash system and citation system are linked to the driver system electronically. The crash system only validates the license number or registration number that is entered in their system with the driver system. The Citation System of the Merit Rating Board uses RMV's database.

Every citation that is entered is attached to a license or registration. It is not clear if citations are entered manually or electronically. The adjudication system is linked to the driver system and registration system. All three systems are maintained by the RMV and all three systems use the same database. Any action in the adjudication system is always tied to a license or registration.





Question 119:

Does custodial responsibility for the driver system—including commercially—licensed drivers reside in a single location?



Standard of Evidence:

Provide a narrative identifying the custodial agency.

Question Rank:
Very Important

Assessor conclusions:

The Massachusetts Registry of Motor Vehicles driver system, including commercially licenses drivers, resides in a single location

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 120:

Can the State's DUI s data system be linked electronically to the driver system?



Standard of Evidence:

Provide a narrative explanation of a State's linking protocols that demonstrated how a citation on the DUI data system is linked to a record on the driver system. Include identification of the linkage portal and organizations responsible for maintaining the link and the linking fields used.

Question Rank:
Very Important

Assessor conclusions:

The State's DUI data is linked electronically to the driver system; however response does not provide specific details explaining linking protocols (e.g., linkage portal, linking fields used).

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 121:

Does the driver system capture novice drivers' training histories, including provider names and types of education (classroom or behind-the-wheel)?

Standard of Evidence:

Provide a narrative documenting the availability of novice driver training history (including motorcycle and commercial license training), and specify the pertinent data fields and audit checks in the data dictionary or provide a sample system report.

Assessor conclusions:

The driver system captures novice drivers' training histories that include provider names and types of education.



Question Rank:
Less Important

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 122:

Does the driver system capture drivers' traffic violation and/or driver improvement training histories, including provider names and types of education (classroom or behind-the-wheel)?

Standard of Evidence:

Provide a narrative documenting the availability of traffic violation and/or driver improvement training history, including motorcycle and commercial license training, by specifying the pertinent data fields and audit checks in the data dictionary or provide a sample report.

Assessor conclusions:

The driver system captures drivers' traffic violation and/or driver improvement training histories, including provider names and types of education (classroom or behind the wheel).



Question Rank:
Less Important

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 123:

Does the driver system capture and retain the dates of original issuance for all permits, licensing, and endorsements (e.g., learner's permit, provisional license, commercial driver's license, motorcycle license)?



Standard of Evidence:

Provide a narrative documenting the availability of original issuance dates for all permits, licensing, and endorsements by specifying the pertinent data fields and audit checks in the data dictionary or provide a sample report.

Question Rank:
Somewhat Important

Assessor conclusions:

The driver system captures and retains the date of original issuance for all permits, license and endorsements that have been issued.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 124:

Is driver information maintained in a manner that accommodates interaction with the National Driver Register's Problem Driver Pointer System (PDPS) and the Commercial Driver's License Information System (CDLIS)?



Standard of Evidence:

Demonstrate functional integration with the PDPS and CDLIS. AAMVA audit reports can be provided as supporting documentation.

Question Rank:
Very Important

Assessor conclusions:

Inquiry to both CDLIS and NDR are submitted for each driver before issuing a permit or license; however, it is not clear if interaction occurs between the two systems with regards to entering pointers into these systems.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 125:

Are the contents of the driver system documented with data definitions for each field?



Standard of Evidence:

Provide, at a minimum, a table of contents and sample elements from the data dictionary or a sample data dictionary report.

Question Rank:
Very Important

Assessor conclusions:

Contents of the driver system are documented with data definitions for each field.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 126:

Are all valid field values—including null codes—documented in the data dictionary?



Standard of Evidence:

Provide sample valid data field values from the data dictionary.

Question Rank:
Very Important

Assessor conclusions:

According to the State's response, most, but not all, valid field values are documented in the data dictionary.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 127:

Are there edit checks and data collection guidelines for each data element?



Standard of Evidence:

Provide an example edit check and data collection guideline.

Question Rank:
Very Important

Assessor conclusions:

Edit checks are done for all transactions; however, it is not clear if they are done for each data element. There is also no evidence or narrative regarding data collection guidelines.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 128:

Is there guidance on how and when to update the data dictionary?

Standard of Evidence:

Provide a narrative explanation of the controls and procedures that ensure the data dictionary is kept up to date.

Assessor conclusions:

The State has guidance on how and when to update the data dictionary.



Question Rank:
Very Important

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 129:

Does the custodial agency maintain accurate and up to date documentation detailing the licensing, permitting, and endorsement issuance procedures (manual and electronic, where applicable)?

Standard of Evidence:

Provide a process flow document for this specific process area, or provide a narrative explaining how these processes are documented and how that documentation is maintained. Include the percentage of reporting that is accomplished manually and electronically.

Assessor conclusions:

The custodial agency maintains accurate and up to date documentation of licensing, permitting and endorsement issuance procedures through an online repository available to authorized staff.



Question Rank:
Somewhat Important

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 130:

Does the custodial agency maintain accurate and up to date documentation detailing the reporting and recording of relevant citations and convictions (manual and electronic, where applicable)?



Standard of Evidence:

Provide a process flow document for this specific process area, or provide a narrative explaining how these processes are documented and how that documentation is maintained. Include the percentage of reporting that is accomplished manually and electronically.

Question Rank:
Somewhat Important

Assessor conclusions:

The RMV Division Training Department maintains accurate and up-to-date documentation regarding procedures for reporting and recording citations and convictions. All involved RMV personnel are notified when there are changes in these procedures.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 131:

Does the custodial agency maintain accurate and up to date documentation detailing the reporting and recording of driver education and improvement course (manual and electronic, where applicable)?



Standard of Evidence:

Provide a process flow document for this specific process area, or provide a narrative explaining how these processes are documented and how that documentation is maintained. Include the percentage of reporting that is accomplished manually and electronically.

Question Rank:
Somewhat Important

Assessor conclusions:

The custodial agency maintains accurate and up to date documentation detailing the reporting and recording of driver education and improvement courses. The completion information for driver education is posted 100% manually, and the completion information for re-training is posted 100% electronically.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 132:

Does the custodial agency maintain accurate and up to date documentation detailing the reporting and recording of other information that may result in a change of license status (manual and electronic, where applicable)?



Standard of Evidence:

Provide a process flow document for this specific process area, or provide a narrative explaining how these processes are documented and how that documentation is maintained. Include the percentage of reporting that is accomplished manually and electronically.

Question Rank:
Somewhat Important

Assessor conclusions:

The State maintains up to date documentation detailing the reporting and recording of other information that may result in a change of license status, but the evidence regarding processes to maintain this documentation was not provided.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 133:

Does the custodial agency maintain accurate and up to date documentation detailing any change in license status (e.g., sanctions, withdrawals, reinstatement, revocations, and restrictions)?



Standard of Evidence:

Provide a narrative or flow diagram describing the processes and procedures governing the actual change to the license status, including timelines for each type of change.

Question Rank:
Somewhat Important

Assessor conclusions:

Custodial agency maintains accurate and up to date documentation detailing any change in license status; however, the specifics of the procedures governing the the actual change to license status and timelines was not provided.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 134:

Is there a process flow diagram that outlines the driver data system's key data process flows, including inputs from other data systems?


Standard of Evidence:

Provide the process flow diagram.

Question Rank:
Very Important

Assessor conclusions:

There is a process flow diagram that outlines the driver data system's key data process flows, including inputs from other data systems.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 135:

Are the processes for error correction and error handling documented for: license, permit, and endorsement issuance; reporting and recording of relevant citations and convictions; reporting and recording of driver education and improvement courses; and reporting and recording of other information that may result in a change of license status?


Standard of Evidence:

Provide the documentation or flow diagram that describes the processes and procedures for error correction and error handling in each of the listed process areas.

Question Rank:
Somewhat Important

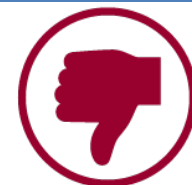
Assessor conclusions:

Most of the time the processes for error correction and error handling are documented.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 136:

Are there processes and procedures for purging data from the driver system documented?


Standard of Evidence:

Provide the documentation or flow diagram that describes the processes and procedures for purging data and the timelines for these actions.

Question Rank:
Somewhat Important

Assessor conclusions:

Data from the driver system is not currently purged.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 137:

In States that have the administrative authority to suspend licenses based on a DUI arrest independent of adjudication, are these processes documented?



Standard of Evidence:

Provide the documentation or flow diagram that describes the processes and procedures for administrative license suspension.

Question Rank:

Somewhat Important

Assessor conclusions:

The State does not have the authority to impose the administrative license suspension based on a DUI arrest.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 138:

Are there established processes to detect false identity licensure fraud?



Standard of Evidence:

Provide a narrative describing the systems or processes used to detect individuals attempting licensure under a new identity.

Question Rank:

Very Important

Assessor conclusions:

There are multi-level established processes to detect false identity licensure fraud.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 139:

Are there established processes to detect internal fraud by individual users or examiners?



Standard of Evidence:

Provide a narrative describing the systems or processes used to detect internal fraud by individual users or examiners.

Question Rank:

Very Important

Assessor conclusions:

There are established processes to detect internal fraud by individual users or examiners.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 140:

Are the established processes to detect CDL fraud (including hazmat endorsements)?



Standard of Evidence:

Provide a narrative describing the systems or processes used to detect commercial driver's license fraud, including for hazmat endorsements.

Question Rank:
Very Important

Assessor conclusions:

There are established processes to detect CDL fraud (including hazmat endorsements).

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 141:

Are there policies and procedures for maintaining appropriate system and information security?



Standard of Evidence:

Provide copies of the relevant policies and procedure manuals.

Question Rank:
Very Important

Assessor conclusions:

The State has established policies and procedures to maintain appropriate system and information security.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 142:

Are there procedures in place to ensure that driver system custodians track access and release of driver information adequately?



Standard of Evidence:

Provide copies of the relevant procedures or manuals.

Question Rank:
Very Important

Assessor conclusions:

There are procedures in place to ensure that driver system custodians track access and release driver information adequately. Access to State's driver system is based on the security level. The State routinely conducts audits on driver license transactions to track access and release of driver information. All members receive DPPA training.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 143:

Can the State's crash system be linked to the driver system electronically?

Standard of Evidence:

Provide a narrative explanation of a State's linkage protocols that demonstrates how records in the crash system are linked to the driver record. Include identification of the linkage portal and the organization responsible for maintaining the link and the linking fields used.

Assessor conclusions:

State's crash system only does validation of the license number or registration number entered in their system with the driver system. It does not appear there are any other linking protocols.



Question Rank:
Very Important

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 144:

Can the State's citation system be linked to the driver system electronically?

Standard of Evidence:

Provide a narrative explanation of a State's linkage protocols that demonstrates how records in the citation system are linked to the driver record. Include identification of the linkage portal and the organization responsible for maintaining the link and the linking fields used.

Assessor conclusions:

The State Citation System, the Merit Rating Board, is linked to the RMV's database and every citation entered by MRB is attached to a license or registration.



Question Rank:
Very Important

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 145:

Can the State's adjudication system be linked to the driver system electronically?



Standard of Evidence:

Provide a narrative explanation of a State's linkage protocols that demonstrates how records in the adjudication system are linked to the driver record. Include identification of the linkage portal and the organization responsible for maintaining the link and the linking fields used.

Question Rank:
Very Important

Assessor conclusions:

The State's adjudication system is linked to the driver system electronically.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 146:

Is there an interface link between the driver system and: the Problem Driver Pointer System, the Commercial Driver Licensing System, the Social Security Online Verification system, and the Systematic Alien Verification for Entitlement system?



Standard of Evidence:

Provide a narrative description of the policy for checking the PDPS, CDLIS, SSOLV, and SAVE for licensing commercial and non-commercial drivers (both original issuances and renewals).

Question Rank:
Very Important

Assessor conclusions:

There is an interface link between the driver system and Problem Driver Pointer System, Commercial Driver Licensing System, Social Security Online Verification system; however, there is no interface link with the Systematic Alien Verification for Entitlement system.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 147:

Does the custodial agency have the capability to grant authorized law enforcement personnel access to information in the driver system?



Standard of Evidence:

Provide a narrative description of the protocols granting authorized law enforcement personnel access to information in the driver system.

Question Rank:
Very Important

Assessor conclusions:

Authorized law enforcement personnel have access to information on the driver system through FTP or LU 6.2 connection.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 148:

Does the custodial agency have the capability to grant authorized court personnel access to information in the driver system?



Standard of Evidence:

Provide a narrative description of the protocols granting authorized law enforcement personnel access to information in the driver system.

Question Rank:
Very Important

Assessor conclusions:

Authorized court personnel have access to information on the driver system through FTP or LU 6.2 connection.

Respondents assigned	1	Responses received	1	Response rate	100%
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**Question 149:**

Does the custodial agency have the capability to grant authorized personnel from other States access to information in the driver system?

**Standard of Evidence:**

Provide a narrative description of the protocols granting authorized law enforcement personnel access to information in the driver system.

Question Rank:
Very Important

Assessor conclusions:

The custodial agency has the capability to grant authorized personnel from other States access to information in the driver system through PDPS and CDLIS; however, other access does not appear to be available.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 150:

Is there a formal, comprehensive data quality management program for the driver system?

**Standard of Evidence:**

Provide a narrative description of the driver system's data quality management programs and the most recent data quality reports issued.

Question Rank:
Very Important

Assessor conclusions:

There is not a formal, comprehensive data quality management program for the driver system.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 151:

Are there automated edit checks and validation rules to ensure entered data falls within a range of acceptable values and is logically consistent among data elements?


Standard of Evidence:

Provide the formal methodology or describe the process by which automated edit checks or validation rules ensure entered data falls within the range of acceptable values and is logically consistent between fields.

Question Rank:
Very Important

Assessor conclusions:

There are not any automated edit check and validation rules to ensure entered data falls within a range of acceptable values and is logically consistent among data elements.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 152:

Are there timeliness performance measures tailored to the needs of data managers and data users?


Standard of Evidence:

Provide a complete list of driver system timeliness measures the State uses, including the most current baseline and actual values for each.

Question Rank:
Very Important

Assessor conclusions:

There are not any timeliness performance measures tailored to the needs of the data managers and data users.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 153:

Are there accuracy performance measures tailored to the needs of data managers and data users?



Standard of Evidence:

Provide a complete list of driver system accuracy measures the State uses, including the most current baseline and actual values for each.

Question Rank:
Very Important

Assessor conclusions:

There are not any accuracy performance measures tailored to the needs of data managers and data users.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 154:

Are there completeness performance measures tailored to the needs of data managers and data users?



Standard of Evidence:

Provide a complete list of driver system completeness measures the State uses, including the most current baseline and actual values for each.

Question Rank:
Very Important

Assessor conclusions:

There are not any completeness performance measures tailored to the needs of data managers and data users.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 155:

Are there uniformity performance measures tailored to the needs of data managers and data users?



Standard of Evidence:

Provide a complete list of driver system uniformity measures the State uses, including the most current baseline and actual values for each.

Question Rank:
Very Important

Assessor conclusions:

There are not any uniformity performance measures tailored to the needs of data managers and data users.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 156:

Are there integration performance measures tailored to the needs of data managers and data users?



Standard of Evidence:

Provide a complete list of driver system integration measures the State uses, including the most current baseline and actual values for each.

Question Rank:
Very Important

Assessor conclusions:

There are not any integration performance measures tailored to the needs of data managers and data users.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 157:

Are there accessibility performance measures tailored to the needs of data managers and data users?



Standard of Evidence:

Provide a complete list of driver system accessibility measures the State uses, including the most current baseline and actual values for each.

Question Rank:
Somewhat Important

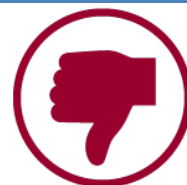
Assessor conclusions:

There are not any accessibility performance measures tailored to the needs of data managers and data users.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 158:

Has the State established numeric goals—performance metrics—for each performance measure?



Standard of Evidence:

Provide the specific, State-determined numeric goals associated with each performance measure in use.

Question Rank:
Very Important

Assessor conclusions:

The State has not established numeric goals - performance metrics- for each performance measure.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 159:

Is the detection of high frequency errors used to generate updates to training content and data collection manuals, update the validation rules, and prompt form revisions?



Standard of Evidence:

Provide the formal methodology or describe the process by which high frequency errors are used to generate new training content and data collection manuals, update the validation rules, and prompt revisions.

Question Rank:
Very Important

Assessor conclusions:

The detection of high frequency errors is not used to generate updates to training content and data collection manuals, update the validation rules, or prompt form revisions.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 160:

Are independent sample-based audits conducted periodically for the driver reports and related database contents for that record?



Standard of Evidence:

Describe the formal audit methodology, provide a sample report or other output, and specify the audits' frequency.

Question Rank:
Somewhat Important

Assessor conclusions:

There are not any independent sample-based audits conducted for the driver reports and related database contents for a record.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 161:

Are periodic comparative and trend analyses used to identify unexplained differences in the data across years and jurisdictions?


Standard of Evidence:

Describe the analyses, provide a sample report or other output, and specify the analyses' frequency.

Question Rank:
Very Important

Assessor conclusions:

There are not any periodic comparative and trend analyses used to identify unexplained differences in the data across years and jurisdictions.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 162:

Is data quality feedback from key users regularly communicated to data collectors and data managers?


Standard of Evidence:

Describe the process for transmitting and utilizing key users' data quality feedback to inform changes.

Question Rank:
Somewhat Important

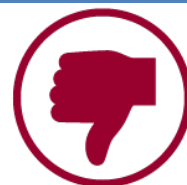
Assessor conclusions:

There is not any data quality feedback regularly communicated from key users to data collectors and data managers.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 163:

Are data quality management reports provided to the TRCC for regular review?


Standard of Evidence:

Provide a sample quality management report and specify how frequently they are issued to the TRCC.

Question Rank:
Very Important

Assessor conclusions:

There are not any data quality management reports provided to TRCC for regular review.

Respondents assigned	1	Responses received	1	Response rate	100%
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Roadway

The Commonwealth of Massachusetts has a public roadway network of over 36,000 miles. The Massachusetts Department of Transportation (MassDOT) is responsible for approximately 10% of the network or just over 3,600 miles. The remaining mileage is under the jurisdiction of cities, towns, counties, ports, federal, parks and others. All public roadways within the State are located using three Linear Referencing Systems, all for various uses. One system is based on system measures, another is used for HPMS reporting and the third system is based on mile markers. Geographic Information System (GIS) Services, Office of Transportation Planning maintains the MassDOT's geographic information system (GIS) layers, and maintains the data and produces the maps for MassDOT.

The Road Inventory File is available for download and is available in three formats, personal geodatabase format for ArcGIS 9.x users, file geodatabase format for ArcGIS 9.2 thru 10.1 users, and shapefile format for ArcGIS 3.x or other GIS or CAD software package users. A file containing all additions and changes to the roadway inventory for the previous year is also available for downloading on the website. A Road Inventory Data Dictionary which contains all the attributes with their descriptions is also available for downloading on the website. MassDOT is commended for having a robust roadway data portal which is available at: (<http://www.massdot.state.ma.us/planning/Main/MapsDataandReports.aspx>).

MassDOT also has a very robust crash portal (<http://services.massdot.state.ma.us/crashportal>) which is available for use to map crashes and query the crash database. Additionally, the crash portal provides a standard report of crashes by cities and towns and an ad hoc query tool which can be used to query the database using specific parameters. Additionally, the MassDOT identifies and maps high crash locations for safety analysis and management use. MassDOT publishes a yearly Top Locations Crash Report to use in developing safety improvement projects. It is evident that MassDOT uses this information for the development of the Highway Safety Improvement Program (HSIP). MassDOT is commended for developing a crash data portal that is very robust and is easy to use.

Ideally States are encouraged to collect the Fundamental Data Elements (FDEs) of The Model Inventory of Data Elements (MIRE) for all public roads. These fundamental data elements are the basic roadway data elements recommended to be collected that a State can combine with crash data for analysis to identify safety problems and to make more effective safety countermeasure decisions for the Highway Safety Improvement Program (HSIP). It was unclear in the responses to this assessment as to the FDEs MassDOT collects and maintains in their Roadway Inventory. With respect to the Non-Fundamental MIRE data elements, no State DOT collects all, or nearly all MIRE elements for the Roadway Inventory file. It was difficult during this assessment process to determine the level to which Mass DOT collects the non-fundamental MIRE elements. It would be beneficial to conduct an assessment of the MIRE elements collected by MassDOT to the both the recommended MIRE FDEs and Non-Fundamental MIRE data elements. To assist with this effort, MassDOT may consider requesting a Roadway Data Improvement Program (RDIP) through the FHWA Division Office. Another option would be to request a Go-Team through the National Highway Traffic Safety Administration (NHTSA). The Traffic Records Coordinating Committee (TRCC) can assist with this. Either route will provide MassDOT with technical assistance to enhance their data collection capabilities and more efficiently collect uniform roadway data.





Local agencies such as Metropolitan Planning Organizations (MPOs) often collect and maintain a wealth of roadway information. It was identified that different location methodologies are used by locals to collect data requiring MassDOT to customize the data to work with the various systems. It is critical to use compatible location methodologies to support the Roadway Inventory File and minimize the effort required to import local data in the State's enterprise roadway system.

MassDOT has no formal or documented procedures are in place to identify, prioritize or address data quality errors or issues. The overall quality of information in the Roadway system is dependent upon the GIS Services Validation report in addition to validation reports from FHWA's HPMS software for error/edit checking as data is entered into the statewide system. There was no schedule provided for the release of the validation report or process used to provide feedback to the data collectors. It was also unclear as to whether priority is placed on critical data elements. Ideally, a formal process should be developed and errors identified through the validation process is shared with the data collectors and/or office providing the data. This could be accomplished through training sessions. The RDIP process or TRCC could be instrumental in assisting with this effort.

Performance measures can provide the State a tool for helping assess data quality and establishing goals for data improvement. Ideally performance measures for timeliness, accuracy, completeness, uniformity, integration, and accessibility should be established for the roadway system. Model performance measures for the six core data systems including Roadway can assist the State in developing performance measures and can be found at: <http://www-nrd.nhtsa.dot.gov/Pubs/811441.pdf>.

As a follow-up to this publication, FHWA has also published guidance titled, Performance Measures for Roadway Inventory Data. MassDOT did not identify any formal or established performance measures for timeliness, accuracy, completeness, uniformity, integration and accessibility. MassDOT indicates that the Highway Performance Monitoring System (HPMS) requirements are met. With the wealth of data available through the MassDOT's roadway information and crash portals, it is possible to enhance the existing process to develop some of the performance measures. Formal metrics should be established to measure the performance. The State can use the documents mentioned above to assist in developing performance measures for Roadway Inventory Data or use the RDIP or Go-Team process. The TRCC can also assist in this effort.

The Road Inventory File, a file containing all additions and changes to the roadway inventory for the previous year, and a Road Inventory Data Dictionary containing all the attributes with their descriptions are available for downloading.

MassDOT has also developed a crash data portal that is very robust and is easy to use. The scope of information in MassDOT is comprehensive and is very accessible.



Question 164:

Are all public roadways within the State located using a compatible location referencing system?



Standard of Evidence:

Provide a map displaying all public roads that represents the system's statewide capabilities. Identify what percentage of the public road systems is State owned or maintained. Explain whether the State uses a single compatible location referencing system for all public roads or if it has a set of compatible location referencing systems. Prior reports are acceptable.

Question Rank:
Very Important

Assessor conclusions:

The Massachusetts Department of Transportation has a GIS road inventory database that contains all public roads in the State and a good portion of the private roads. All public roadways within the State are located using three Linear Referencing Systems, all for various uses. One system is based on system measures, another is used for HPMS reporting and the third system is based on mile markers. All public roads are shown on the map and the State is responsible for approximately 10% of the 36,350 miles that make up the public road network.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 165:

Are the roadway and traffic data elements located using a compatible location referencing system (e.g., LRS, GIS)?


Standard of Evidence:

Provide a map displaying roadway features and traffic volume (FDEs) for all public roads (State and non-State routes) that is representative of the system's statewide capabilities. Explain whether the State uses a single compatible location referencing system for all public roads or if it has a set of compatible location referencing systems. Prior reports are acceptable.

Question Rank:
Very Important

Assessor conclusions:

Massachusetts Department of Transportation's Roadway Inventory GIS has a layer containing the spatial linework for all the public and a good portion of the private roadways in Massachusetts, along with roadway attributes covering the roadway classification, ownership, physical conditions, traffic volumes, pavement conditions, highway performance monitoring information, and other attributes. MassDOT's gisRoadInventory database has three compatible Linear Referencing Systems for various uses. One system is based on system measures, another system is used for HPMS reporting and the third system is based on the Mile Marker signs in the field. This information is available for downloading at: <http://www.massdot.state.ma.us/planning/Main/MapsDataandReports/Data/GISData/RoadInventory.aspx>

**Respondents
assigned**

2

**Responses
received**

1

**Response
rate**

50%

Question 166:

Is there an enterprise roadway information system containing roadway and traffic data elements for all public roads?


Standard of Evidence:

Describe the enterprise roadway information system, which should enable linking between the various roadway information systems including: roadway, traffic, location reference, bridge, and pavement data.

Question Rank:
Very Important

Assessor conclusions:

The Massachusetts Department of Transportation's enterprise roadway information system is the gisRoadInventory database. The RoadSegment_ID from this file links to many tables including Bridge and Pavement. Fields from these tables have links to other roadway system files resulting in a seamless linking of the various roadway information systems.

**Respondents
assigned**

2

**Responses
received**

1

**Response
rate**

50%



Question 167:

Does the State have the ability to identify crash locations using a referencing system compatible with the one(s) used for roadways?



Standard of Evidence:

Provide a map displaying crash locations on all public roads that is representative of the system's statewide capabilities. Explain whether the State uses a single compatible location referencing system for crash, roadway features, and traffic volume on all public roads or if it has a set of compatible location referencing systems. Prior reports are acceptable

Question Rank:
Very Important

Assessor conclusions:

The Massachusetts Department of Transportation has the ability to identify crash locations through ArcGIS. MassDOT has developed a crash portal which is web-based and can be used to map map crashes statewide to the basemap. Additionally, the crash portal provides a standard report of crashes by cities and towns and an ad hoc query tool for specific parameters. The crash portal can be accessed at: <http://services.massdot.state.ma.us/crashportal>. MassDOT is commended for developing a crash data portal that is very robust and is easy to use.

Respondents assigned	3	Responses received	1	Response rate	33.3%
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Question 168:

Is crash data incorporated into the enterprise roadway information system for safety analysis and management use?



Standard of Evidence:

Describe how the crash data is incorporated into the enterprise roadway information system and provide an example of how it is used for safety analysis.

Question Rank:
Very Important

Assessor conclusions:

The Massachusetts Department of Transportation has a very robust crash portal (<http://services.massdot.state.ma.us/crashportal>) which is available for use to map crashes and query the crash database. Additionally, the MassDOT identifies and maps high crash locations for safety analysis and management use. MassDOT publishes a yearly Top Locations Crash Report to use in developing safety improvement projects.

Respondents assigned	3	Responses received	1	Response rate	33.3%
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**Question 169:**

Are all the MIRE Fundamental Data Elements collected for all public roads?

Standard of Evidence:

Provide a list of FDEs collected and their definitions. Specify if the data collected is for all public roads or State roads only. If the State wishes to cite the data dictionary directly, please identify the FDEs.

Question Rank:
Somewhat Important

Assessor conclusions:

The Massachusetts Department of Transportation indicates that this information is unavailable at this time.

Respondents assigned	4	Responses received	1	Response rate	25%
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Question 170:

Do all additional collected data elements for any public roads conform to the data elements included in MIRE?

Standard of Evidence:

Provide a list of additional MIRE data elements collected beyond the FDEs. Specify if the data elements are collected for all public roads or State roads only.

Question Rank:
Somewhat Important

Assessor conclusions:

The Massachusetts Department of Transportation indicates that this information is unavailable at this time.

Respondents assigned	4	Responses received	1	Response rate	25%
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**Question 171:**

Are all the MIRE Fundamental Data Elements for all public roads documented in the enterprise system's data dictionary?

**Standard of Evidence:**

Identify, with appropriate citations, the MIRE FDE-related contents of the enterprise system's data dictionary. Specify if the data dictionary applies to all public roads or to State roads only.

Question Rank:
Somewhat Important

Assessor conclusions:

The Massachusetts Department of Transportation indicates that this information is unavailable at this time.

Respondents assigned	4	Responses received	1	Response rate	25%
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Question 172:

Are all additional (non-Fundamental Data Element) MIRE data elements for all public roads documented in the data dictionary?

**Standard of Evidence:**

Identify, with appropriate citations, the additional (non-FDE) MIRE data elements included in the data dictionary. Specify if the data dictionary applies to all public roads or to State roads only.

Question Rank:
Somewhat Important

Assessor conclusions:

The Massachusetts Department of Transportation indicates that this information is unavailable at this time.

Respondents assigned	4	Responses received	1	Response rate	25%
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Question 173:

Does roadway data imported from local or municipal sources comply with the data dictionary?


Standard of Evidence:

Provide a narrative statement explaining, how and if any roadway data are accepted and included in the statewide roadway database from local or municipal sources. Describe if the data from local or municipal sources meet the data dictionary standards.

Question Rank:
Very Important

Assessor conclusions:

The Massachusetts Department of Transportation indicates that this information is unavailable at this time.

Respondents assigned	4	Responses received	1	Response rate	25%
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Question 174:

Is there guidance on how and when to update the data dictionary?


Standard of Evidence:

Provide a narrative explanation of the controls and procedures that ensure the data dictionary is kept up to date.

Question Rank:
Very Important

Assessor conclusions:

There is no formal process or guidance on how and when to update the data dictionary. No periodic or formal review process was identified. The data dictionary is updated when requirements necessitate a change which may be the result of a FHWA or MassDOT requirement change.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 175:

Are the steps for incorporating new elements into the roadway information system (e.g., a new MIRE element) documented to show the flow of information?


Standard of Evidence:

Provide documentation or a narrative explaining the process for adding new data elements (e.g., a new MIRE element) to the roadway system. Identify who is responsible for each step in the process.

Question Rank:
Very Important

Assessor conclusions:

The Massachusetts Department of Transportation has a process for incorporating new elements into the roadway information system. Depending on the required change, managers of the various business units will determine the best method for incorporating the new element(s) into the roadway information system. Custom tools may be developed to automate the process such as the tool that was developed to add new LRS records to the database.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 176:

Are the steps for updating roadway information documented to show the flow of information?


Standard of Evidence:

Provide documentation or a narrative explaining the process for updating data elements in the roadway system. Identify who is responsible for each step in the process.

Question Rank:
Very Important

Assessor conclusions:

The Massachusetts Department of Transportation has posted the Road Inventory File Updating Process to their website. A downloadable New Road Entry Form along with the steps and required information is also on the website. The website is at:
(<http://www.massdot.state.ma.us/planning/Main/MapsDataandReports/Data/DataUpdateProcess.aspx>)

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 177:

Are the steps for archiving and accessing historical roadway inventory documented?



Standard of Evidence:

Provide documentation or a narrative explaining the process of archiving and accessing historical roadway data. Identify who is responsible for each step in the process.

Question Rank:
Somewhat Important

Assessor conclusions:

The Commonwealth of Massachusetts Road Inventory Year End Report contains selected year-end statistics from the Massachusetts Road Inventory file. Appendix D of the report summarizes the number of changes to the Road Inventory file. A CD in a Microsoft Access database provides a detailed listing of all changes by data classification - including a list of all deleted segments - and corresponding RoadSegment_ID values. Additionally, there is a ChangeLogXXXX file corresponding to the changes made to the enterprise roadway inventory system posted on the MassDOT website.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 178:

Are the procedures that local agency (e.g., county, MPO, municipality) use to collect, manage, and submit roadway data to the statewide inventory documented?



Standard of Evidence:

Provide documentation or a narrative explaining the local agency procedures for collecting, managing, and submitting data to the State roadway inventory. Identify who is responsible for each step in the process.

Question Rank:
Somewhat Important

Assessor conclusions:

The Massachusetts Department of Transportation has a Road Inventory File Updating Process posted to their website for local agencies to submit roadway data to MassDOT. The New Road Entry Form can be downloaded to provide new or corrected roadway information to MassDOT.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 179:

Are local agency procedures for collecting and managing the roadway data compatible with the State's enterprise roadway inventory?



Standard of Evidence:

Provide official documentation or a narrative explanation of the how compatibility between local data systems and the State roadway inventory is achieved. Identify who is responsible for each step in the process.

Question Rank:
Very Important

Assessor conclusions:

The Massachusetts Department of Transportation does not have local agency procedures for collecting and managing the roadway data which are compatible with the State's enterprise roadway inventory. Data must be entered manually using a tool developed for the process.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 180:

Are there guidelines for collection of data elements as they are described in the State roadway inventory data dictionary?



Standard of Evidence:

Provide the guidelines and cite an example of data collection pursuant to the data dictionary.

Question Rank:
Very Important

Assessor conclusions:

The Massachusetts Department of Transportation has guidelines for the collection of the data elements as they are described in the in the State roadway data dictionary. The data dictionary along with the guidelines can be found at:
<http://www.massdot.state.ma.us/Portals/17/docs/RoadInventory/RoadInvDictionary.pdf>

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 181:

Are the location coding methodologies for all State roadway information systems compatible?



Standard of Evidence:

Describe the location referencing system and the information systems that use it. If there is more than one location referencing system in use, list each and the associated systems.

Question Rank:
Very Important

Assessor conclusions:

The Massachusetts Department of Transportation uses different location coding methodologies for State roadway information systems which are not compatible. The data files are required to be customized to work with the different systems.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 182:

Are there interface linkages connecting the State's discrete roadway information systems?



Standard of Evidence:

Provide a narrative that describes the interface links connecting the State's roadway information systems. Provide the result of a single query (e.g., table, view) that includes both roadway features and traffic data for a segment of road.

Question Rank:
Very Important

Assessor conclusions:

The Massachusetts Department of Transportation indicates that this information is unavailable at this time.

Respondents assigned	4	Responses received	1	Response rate	25%
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Question 183:

Are the location coding methodologies for all regional and local roadway systems compatible?



Standard of Evidence:

Provide a narrative describing the location referencing system and the associated regional and local roadway systems. If there is more than one location referencing system in use, list each and the associated regional and local systems.

Question Rank:
Somewhat Important

Assessor conclusions:

The location coding methodologies for all regional and local roadway systems are not compatible. There are various methodologies that are used by each agency.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 184:

Do roadway data systems maintained by regional and local custodians (e.g., MPOs, municipalities) interface with the State enterprise roadway information system?



Standard of Evidence:

Provide a narrative that describes the interface links connecting the regional or local roadway information systems to the State's enterprise roadway information system. Provide the result of a single query (e.g., table, view) that includes both roadway features and traffic data for a local road segment.

Question Rank:
Somewhat Important

Assessor conclusions:

Roadway data systems maintained by regional and local custodians do not interface with the MassDOT enterprise roadway information system.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 185:

Does the State enterprise roadway information system allow MPOs and local transportation agencies on-demand access to data?



Standard of Evidence:

Provide a narrative that describes the system or process that enables localities to query the data system.

Question Rank:

Somewhat Important

Assessor conclusions:

MPOs and local agencies can access an archived version of the State enterprise roadway information system on-line. These agencies can access the database as needed. The file is available in three formats, personal geodatabase format for ArcGIS 9.x users, file geodatabase format for ArcGIS 9.2 thru 10.1 users, and shapefile format for ArcGIS 3.x or other GIS or CAD software package users. The file is generated each January and includes updates that were made during the previous calendar year.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 186:

Do Roadway system data managers regularly produce and analyze data quality reports?



Standard of Evidence:

Provide a sample report and specify the release schedule for the reports.

Question Rank:

Very Important

Assessor conclusions:

The Massachusetts Department of Transportation, Office of Planning's GIS Services produces a RoadInventory Validation Report which identifies and is used to correct data inconsistencies.

Respondents assigned	2	Responses received	1	Response rate	50%
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**Question 187:**

Is the overall quality of information in the Roadway system dependent on a formal program of error/edit checking as data is entered into the statewide system?

**Standard of Evidence:**

Describe the formal program of error/edit checking, to include specific procedures for both automated and manual processes.

Question Rank:
Very Important

Assessor conclusions:

The Massachusetts Department of Transportation indicates that error/edit checks exist through the HPMS-related and the MassDOT validation processes. There does not appear to be a formal program for error/edit checks in place that applies to critical data elements other than for the HPMS submittal.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 188:

Are there procedures for prioritizing and addressing detected errors?

**Standard of Evidence:**

Describe the procedures for prioritizing and addressing detected errors in both automated and manual processes. Please specify where these procedures are formally documented.

Question Rank:
Very Important

Assessor conclusions:

The Massachusetts Department of Transportation indicates that there are procedures for prioritizing and addressing detected errors; however, no description or documentation of the procedures used for prioritizing and addressing errors was provided.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 189:

Are there procedures for sharing quality control information with data collectors through individual and agency-level feedback and training?



Standard of Evidence:

Describe all the procedures used for sharing quality control information with data collectors.

Question Rank:
Very Important

Assessor conclusions:

The Massachusetts Department of Transportation does not have procedures for sharing quality control information with the data collectors.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 190:

Is there a set of established performance measures for the timeliness of the State enterprise roadway information system?



Standard of Evidence:

Provide the metrics used.

Question Rank:
Very Important

Assessor conclusions:

The Massachusetts Department of Transportation did not provide metrics to indicate there is a set of performance measures for timeliness of the State's enterprise roadway information system. Timeliness refers to the time a data element is collected to the time it takes to update the roadway information system. One timeliness measure from the Model Performance Measures for State Traffic Records Systems is, "The median or mean number of days from (a) roadway project completion to (b) the date the updated critical data elements are entered into the roadway inventory file".

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 191:

Is there a set of established performance measures for the timeliness of the roadway data maintained by regional and local custodians (municipalities, MPOs, etc.)?



Standard of Evidence:

Provide the metrics used.

Question Rank:

Somewhat Important

Assessor conclusions:

The Massachusetts Department of Transportation did not provide metrics to indicate there is a set of performance measures for timeliness of the roadway data maintained by regional and local custodians.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 192:

Is there a set of established performance measures for the accuracy of the State enterprise roadway information system?



Standard of Evidence:

Provide the metrics used.

Question Rank:

Very Important

Assessor conclusions:

The Massachusetts Department of Transportation did not provide metrics to indicate there is a set of performance measures for the accuracy of the State's enterprise roadway information system. Accuracy is defined as whether or not the information that is entered into the roadway inventory database is, in fact, a valid representation of what is found in the actual roadway environment. One accuracy measure from the Model Performance Measures for State Traffic Records Systems is, "The percentage of all road segment records with no errors in critical data elements".

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 193:

Is there a set of established performance measures for the accuracy of the roadway data maintained by regional and local custodians (municipalities, MPOs, etc.)?



Standard of Evidence:

Provide the metrics used.

Question Rank:

Somewhat Important

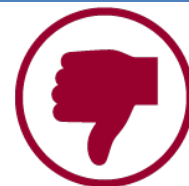
Assessor conclusions:

The Massachusetts Department of Transportation does not have a set of performance measures for accuracy of the roadway data maintained by regional and local custodians. While local roadway agencies complete a form regarding local roadway information, there is no indication metrics are used to determine the accuracy of the data submitted by the local roadway agencies.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 194:

Is there a set of established performance measures for the completeness of the State enterprise roadway information system?



Standard of Evidence:

Provide the metrics used.

Question Rank:

Very Important

Assessor conclusions:

The Massachusetts Department of Transportation did not provide metrics to indicate there is a set of performance measures for completeness of the State's enterprise roadway information system. Completeness is defined as having all required data elements (ideally accurate data) within the roadway inventory file for all required roads. One completeness measure from the Model Performance Measures for State Traffic Records Systems is, "The percentage of road segment records with no missing critical data elements."

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 195:

Is there a set of established performance measures for the completeness of the roadway data maintained by regional and local custodians (municipalities, MPOs, etc.)?



Standard of Evidence:

Provide the metrics used.

Question Rank:

Somewhat Important

Assessor conclusions:

The The Massachusetts Department of Transportation does not have performance measures for the completeness of the roadway data maintained by regional and local custodians.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 196:

Is there a set of established performance measures for the uniformity of the State enterprise roadway information system?



Standard of Evidence:

Provide the metrics used.

Question Rank:

Very Important

Assessor conclusions:

The Massachusetts Department of Transportation did not provide metrics to indicate there is a set of performance measures for uniformity of the State's enterprise roadway information system. The validation report provides a listing of the errors and does not identify performance measures or metrics used to measure for uniformity. Uniformity reflects the consistency among the files or records in a database and may be measured against some independent standard, preferably a national standard. One uniformity measure from the Model Performance Measures for State Traffic Records Systems is, "The number of Model Inventory of Roadway Elements (MIRE)-compliant data elements entered into a database or obtained via linkage to other databases."

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 197:

Is there a set of established performance measures for the uniformity of the roadway data maintained by regional and local custodians (municipalities, MPOs, etc.)?



Standard of Evidence:

Provide the metrics used.

Question Rank:

Somewhat Important

Assessor conclusions:

The The Massachusetts Department of Transportation does not have performance measures for the uniformity of the roadway data maintained by regional and local custodians.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 198:

Is there a set of established performance measures for the accessibility of State enterprise roadway information systems?



Standard of Evidence:

Provide the metrics used.

Question Rank:

Very Important

Assessor conclusions:

The Massachusetts Department of Transportation did not provide metrics to indicate there is a set of performance measures for accessibility of the State's enterprise roadway information system. Accessibility concerns the degree to which data or information from the data files are readily and easily available to legitimate users. Examples of accessibility performance measures can be found in NHTSA's, "Model Performance Measures for State Traffic Records Systems" and FHWA's "Performance Measures for Roadway Inventory Data".

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 199:

Is there a set of established performance measures for the accessibility of the roadway data maintained by regional and local custodians (municipalities, MPOs, etc.)?



Standard of Evidence:

Provide the metrics used.

Question Rank:

Somewhat Important

Assessor conclusions:

The The Massachusetts Department of Transportation does not have performance measures for the accessibility of the roadway data maintained by regional and local custodians.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 200:

Is there a set of established performance measures for the integration of State enterprise roadway information systems and other critical data systems?



Standard of Evidence:

Provide the metrics used.

Question Rank:

Very Important

Assessor conclusions:

The Massachusetts Department of Transportation does not have performance measures for the integration of State enterprise roadway information systems and other critical data systems. Integration is the ability to link the data records in one database with common or related records in another database. Linking to the various roadway systems within the roadway enterprise system is important, but linking other traffic records systems is also equally important.

Respondents assigned	2	Responses received	1	Response rate	50%
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**Question 201:**

Is there a set of established performance measures for the integration of the roadway data maintained by regional and local custodians (municipalities, MPOs, etc.) and other critical data systems?

**Standard of Evidence:**

Provide the metrics used.

Question Rank:
Very Important

Assessor conclusions:

The Massachusetts Department of Transportation does not have performance measures for the integration of the roadway data maintained by regional and local custodians and other critical data systems.

Respondents assigned	2	Responses received	1	Response rate	50%
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Citation / Adjudication

An ideal citation tracking system, rarely found in any state, accounts for the status of every citation from the time of creation whether printed or generated electronically. The accounting requires an inventory that correctly knows the status of every document at all times without exception. For a paper system, a single citation form off the press would be listed in the inventory as one in a set with numbers [nnnnnn through nnnnn] in book [nnnnnn through nnnnn] in box [nnnnnn through nnnnn] in the storehouse. When assigned to an enforcement agency, box [nnnnnn through nnnnn] would contain that unused form now in agency [aaaaaaa]'s possession in the inventory. From there, the inventory would be updated with the assignment of the citation book to officer [oooo], and each ticket's issuance to an offender (or its status as voided or destroyed), its receipt at a court for as long as it takes for an adjudication, the results of the court adjudication, and the recording of convictions in the driver history file.

Most States have fragments of a complete citation tracking system. Massachusetts has such a system administered by the Merit Rating Board in the Registry of Motor Vehicles. There are pockets of delay in updating the status of each citation, but the system functions well and is currently incorporating electronic citations.

There is an opportunity for the State to develop and/or promote an electronic citation system. Such a system will increase the efficiency of the business processes associated with administering citations, and will result in more timely and accurate capture of the data.

Some 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.

Massachusetts appears to have an effective, largely paper-based, citation system. There is an integrated case management system for the courts, and citations appear to be efficiently filed within this system. Dispositions are effectively recorded within the State driver history system. Appropriate access is provided to law enforcement and court personnel to the various electronic systems, which appear to be widely used with considerable success.

The following areas are noted as strengths:

An outstanding integrated case management system for the courts has received widespread acceptance and use.

Excellent use of electronic disposition reporting from the courts to the DMV, resulting in timely reporting of most dispositions is evident.

Good use of edit checks and validation rules to ensure data quality was clear.

Excellent use of traffic/criminal history and background information at the car has been experienced, potentially improving data quality and efficiency of enforcement.





Question 202:

Is there a statewide system that provides real-time information on individuals' driving and criminal histories?



Standard of Evidence:

Provide a narrative description of the statewide system that provides realtime information on individuals' driving and criminal histories.

Question Rank:
Very Important

Assessor conclusions:

The State has a statewide system that provides real-time information on individuals' driving and criminal histories.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 203:

Do all law enforcement agencies, parole agencies, probation agencies, and courts within the State participate in and have access to a system providing real-time information on individuals driving and criminal histories?



Standard of Evidence:

Name the groups that have real time access and describe the system that these agencies use to access driver or criminal histories, i.e., police dispatch, direct system access, telephone help desk.

Question Rank:
Very Important

Assessor conclusions:

The response indicates that most of the requisite agencies and entities have access to the necessary components of the ALARS system. However, some courts apparently do not have access to driver history records.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 204:

Is there a statewide authority that assigns unique citation numbers?

Standard of Evidence:

Identify the agency responsible and describe the protocols used to generate and assign unique citation numbers. Provide a copy of the relevant statute or gubernatorial order.

Assessor conclusions:

The Registry of Motor Vehicles (RMV) is the responsible agency for generating and issuing unique citation books and numbers. Each citation is uniquely numbered. Massachusetts uses a Uniform Citation, approved by the Administrative Justice of the District Court Department and the Registrar. Evidence reflects a Uniform Citation and the authorizing legislation for motor vehicle offenses has been verified.



Question Rank:
Very Important

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 205:

Are all citation dispositions—both within and outside the judicial branch—tracked by the statewide data system?

Standard of Evidence:

If a statewide data tracking system exists, describe the means by which citation dispositions are transmitted and posted. If the system is the driver history file, note if deferrals or dismissals are posted. If the statewide system is managed through the courts, indicate whether all courts that handle traffic violations report to the same tracking system.

Assessor conclusions:

All citation dispositions are tracked by the RMV; dispositions are entered into ALARS regardless of whether the citation is civil or criminal and regardless of whether it is adjudicated by the courts.



Question Rank:
Somewhat Important

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 206:

Are final dispositions (up to and including the resolution of any appeals) posted to the driver data system?


Standard of Evidence:

Provide a flow chart or audit report documenting how all types of dispositions are posted to the driver file.

Question Rank:

Somewhat Important

Assessor conclusions:

The provided flow charts show that final dispositions are posted to the driver data system.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 207:

Are the courts' case management systems interoperable among all jurisdictions within the State (including local, municipal and State)?


Standard of Evidence:

Provide the number of case management systems in use in the State and detail which are interoperable. Indicate if the State has a unified judicial system and if municipal or other local level courts share the same case management system.

Question Rank:

Very Important

Assessor conclusions:

The response indicates that achieving full interoperability is in progress, but has not been completed for all courts. However, interoperability has been largely achieved except for a few courts that are in progress.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 208:

Is citation and adjudication data used for traffic safety analysis to identify problem locations, areas, problem drivers, and issues related to the issuance of citations, prosecution of offenders, and adjudication of cases by courts?



Standard of Evidence:

Provide an example analysis and describe the policy or enforcement actions taken as a result.

Question Rank:
Very Important

Assessor conclusions:

Massachusetts has started using citation and adjudication data for traffic safety analysis, and the response cites a seat belt study to determine the extent to which courts are dismissing such cases.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 209:

Do the appropriate components of the citation and adjudication systems adhere to the National Crime Information Center (NCIC) data guidelines?



Standard of Evidence:

Provide a narrative statement detailing the systems and their adherence to the NCIC guidelines. If not, specify if a comparable guideline is being used.

Question Rank:
Less Important

Assessor conclusions:

The State participates in NCIC and the appropriate components of the citation system therefore adhere to the NCIC data guidelines.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 210:

Do the appropriate portions of the citation and adjudication systems adhere to the Uniform Crime Reporting (UCR) Program guidelines?



Standard of Evidence:

Provide a narrative statement detailing the systems and their adherence to the UCR program guidelines. If not, specify if a comparable guideline is being used.

Question Rank:
Somewhat Important

Assessor conclusions:

The State participates in UCR and therefore the appropriate components of the citation system meet the UCR guidelines.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 211:

Do the appropriate portions of the citation and adjudication systems adhere to the National Incident-Based Reporting System (NIBRS) guidelines?



Standard of Evidence:

Provide a narrative statement detailing the systems and their adherence to the NIBRS guidelines. If not, specify if a comparable guideline is being used.

Question Rank:
Somewhat Important

Assessor conclusions:

The State participates in NIBRS and UCR and therefore the appropriate components of the citation system meet the NIBRS and UCR guidelines.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 212:

Do the appropriate portions of the citation and adjudication systems adhere to the National Law Enforcement Telecommunications System (NLETS) guidelines?


Standard of Evidence:

Provide a narrative statement detailing the systems and their adherence to the NLETS guidelines. If not, specify if a comparable guideline is being used.

Question Rank:
Somewhat Important

Assessor conclusions:

The State participates in Nlets and therefore the appropriate components of the citation system meet the Nlets guidelines.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 213:

Do the appropriate portions of the citation and adjudication systems adhere to the National Law Enforcement Information Network (LEIN) guidelines?


Standard of Evidence:

Provide a narrative statement detailing the systems and their adherence to the LEIN guidelines. If not, specify if a comparable guideline is being used.

Question Rank:
Somewhat Important

Assessor conclusions:

The State is a participant in the LEIN and therefore the appropriate components of the citation system meet the LEIN guidelines.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 214:

Do the appropriate portions of the citation and adjudication systems adhere to the Functional Requirement Standards for Traffic Court Case Management?



Standard of Evidence:

Provide a narrative statement detailing the systems and their adherence to the Functional Requirement Standards for Traffic Court Case Management. If not, specify if a comparable guideline is being used.

Question Rank:
Somewhat Important

Assessor conclusions:

The MassCourts court management system adheres to the Functional Requirement Standards for Traffic Court Case Management.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 215:

Do the appropriate portions of the citation and adjudication systems adhere to the NIEM Justice domain guidelines?



Standard of Evidence:

Provide a narrative statement detailing the systems and their adherence to the NIEM Justice domain guidelines. If not, specify if a comparable guideline is being used.

Question Rank:
Somewhat Important

Assessor conclusions:

The Civil Motor Vehicle Infraction interface between the Courts and the MRB does adhere to the NIEM Justice domain guidelines. A spreadsheet containing the XML path names for the CMVI inbound request is attached as evidence. The Criminal interface is not NIEM compliant.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 216:

Does the State use the National Center for State Courts guidelines for court records?



Standard of Evidence:

Provide a narrative statement detailing the systems and their adherence to NCSC guidelines for court records. If not, specify if a comparable guideline is being used.

Question Rank:
Somewhat Important

Assessor conclusions:

According to the response, the Citation and Adjudication System data definitions are standard and meet the requirements of law enforcement and court systems. The Massachusetts Trial Court continue to use metrics and goals established by the National Center for State Courts.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 217:

Does the State use the Global Justice Reference Architecture (GRA)?



Standard of Evidence:

Provide a narrative statement detailing the systems and their adherence to GRA guidelines. If not, specify if a comparable guideline is being used.

Question Rank:
Somewhat Important

Assessor conclusions:

It appears that GRA is not used.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 218:

Does the State have an impaired driving data tracking system that meets the specifications of NHTSA's Model Impaired Driving Records Information System (MIDRIS)?



Standard of Evidence:

Provide a narrative statement detailing the systems and their adherence to MIDRIS guidelines. If not, specify if a comparable guideline is being used.

Question Rank:
Somewhat Important

Assessor conclusions:

Massachusetts does not have an established impaired driving data tracking system, however, the State collects the necessary components to centralize DUI data. DUI data is collected by the MRB system and the RMV (including impaired driving violations). The State also has the ability to integrate its blood alcohol results from CJIS and reports generated from the Suspension Batch Adjudication system.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 219:

Does the citation system have a data dictionary?



Standard of Evidence:

Provide the data dictionary for the Statewide citation tracking system if one exists. If not, provide the data dictionary for the most widely used court case management system.

Question Rank:
Very Important

Assessor conclusions:

According to the response, the ALARS database (which includes traffic citation records) uses the CA-IDMS database software that includes an integrated data dictionary. Since the ALARS data dictionary is integrated with the database, changes to the database are linked with changes to the data dictionary. The data dictionary attachments evidence was clear.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 220:

Do the citation data dictionaries clearly define all data fields?

Standard of Evidence:

If a statewide citation tracking system exists, does its data dictionary clearly define all data fields. If there are two or more repositories of citation data, provide data dictionaries for the two largest. NOTE: This response does not require data dictionaries from individual law enforcement agencies that track their own citations--it refers to a statewide system or one used by multiple agencies.

Assessor conclusions:

The ALARS data dictionary does define all data fields as shown in the data dictionaries.



Question Rank:
Very Important

**Respondents
assigned**

1

**Responses
received**

1

**Response
rate**

100%

Question 221:

Are the citation system data dictionaries up to date and consistent with the field data collection manual, training materials, coding manuals, and corresponding reports?

Standard of Evidence:

Provide a narrative describing the process—including timelines and the summary of changes—used to ensure uniformity in the field data collection manuals, training materials, coding manuals, and corresponding reports.

Assessor conclusions:

The data dictionaries are kept current by database administrators who update the data dictionary for any changes to the database.



Question Rank:
Very Important

**Respondents
assigned**

1

**Responses
received**

1

**Response
rate**

100%





Question 222:

Do the citation data dictionaries indicate the data fields that are populated through interface linkages with other traffic records system components?



Standard of Evidence:

Provide a list of data fields from populated through interface linkages with other traffic records system components.

Question Rank:
Very Important

Assessor conclusions:

The data dictionaries indicate the data fields that are linked to other records. EXHIBIT 18 is a data diagram of some of the linkages of citation record (MMVR-CITA) with other database records. For example, the violator name, address, and license information are not kept in the citation record. The citation record contains a foreign key that points to the linked person record (MMVR-PERS).

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 223:

Do the courts' case management system data dictionaries provide a definition for each data field?



Standard of Evidence:

Provide a list of Case Management Systems used by both State and local level courts and note if a data dictionary is available for each one. Provide a data dictionary for one State, one county/district, and one local (municipal) court if they do not use the same case management systems.

Question Rank:
Very Important

Assessor conclusions:

Identification of reporting courts has been addressed in previous questions, both who submit/receive citation/adjudication data, electronically and manually. Although a data dictionary for the Courts is not attached, the Courts are receiving citation/adjudication data from ALARS and this data dictionary reflects adherence to Court data elements. Data dictionaries have been provided.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 224:

Do the courts' case management system data dictionaries clearly define all data fields?


Standard of Evidence:

Use the data dictionaries provided in response to Question 223.

Question Rank:

Somewhat Important

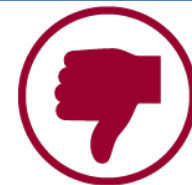
Assessor conclusions:

The response mostly meets the evidence requirement because the data dictionary records are contained in the database catalog and all fields are included. A sample page from the data dictionary is included along with a sample page from the electronic report dictionary.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 225:

Do the courts' case management system data dictionaries indicate the data fields populated through interface linkages with other traffic records system components?


Standard of Evidence:

Provide a list of data fields from populated through interface linkages with other traffic records system components.

Question Rank:

Somewhat Important

Assessor conclusions:

The courts' case management system data dictionaries do not indicate the data fields populated through interface linkages with other traffic records system components.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 226:

Do the prosecutors' information systems have data dictionaries?

Standard of Evidence:

Provide a data dictionary for the State prosecutors' office (State level courts that handle the most traffic violations). Indicate whether local prosecutors (cities, counties) have one or numerous types of data systems.

Assessor conclusions:

There are 6 different Massachusetts District Attorney's Offices (DAA). The individual DAA offices maintain their own data dictionaries. No data dictionary was provided.



Question Rank:
Somewhat Important

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 227:

Can the State track citations from point of issuance to posting on the driver file?

Standard of Evidence:

Provide a flow diagram documenting citation lifecycle process that identifies key stakeholders. Ensure that alternative flows are included (e.g., manual and electronic submission).

Assessor conclusions:

As stated in the answer to question 204, the RMV is responsible for printing and issuing citation books to Massachusetts law enforcement agencies and for assigning unique citation numbers. As a citation book is issued by the RMV to a police department, the receiving police department and book number are entered into the RMV citation audit records. Police officers are required to complete audit sheets for each citation in each book including citations that are destroyed or voided. These audit sheets are returned to the RMV.



Question Rank:
Very Important

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 228:

Does the State measure compliance with the process outlined in the citation lifecycle flow chart?



Standard of Evidence:

Provide a narrative describing how the State measures compliance with the citation lifecycle process specified in the flow chart. If there are official guidance documents, provide them.

Question Rank:
Somewhat Important

Assessor conclusions:

The State measures performance of issuing police departments and court submissions for citations submitted to ALARS. MGL Chapter 90C Section 2 requires the issuing police department to mail or to deliver, by the end of the sixth business day after the date of the violation, a citation containing only civil infractions to the Registry.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 229:

Is the State able to track DUI citations?



Standard of Evidence:

Provide a flow chart that documents the criminal and administrative DUI processes, identifies all key stakeholders, and includes disposition per the criminal and administrative charges.

Question Rank:
Very Important

Assessor conclusions:

A text-based narrative flowchart is provided showing the DUI processes, including criminal citation processing, disposition reporting and administrative license suspension.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 230:

Does the DUI tracking system include BAC and any drug testing results?

Standard of Evidence:



If no statewide DUI tracking system is in place, indicate whether the driver history record contains the BAC test results.

Question Rank:
Very Important

Assessor conclusions:

There is a narrative attached to the response showing the protocol for linking toxicology reports to the driver record.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 231:

Does the State have a system for tracking administrative driver penalties and sanctions?

Standard of Evidence:



Provide a narrative describing the protocol for reporting (posting) the penalty and/or sanction to the driver and/or vehicle file.

Question Rank:
Very Important

Assessor conclusions:

There is a narrative attached to the response describing the protocol for tracking administrative driver penalties and sanctions.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 232:

Does the State have a system for tracking traffic citations for juvenile offenders?

Standard of Evidence:



Provide a flow chart that documents the processing of juvenile offenders' traffic citations, specifying any charges or circumstances that cause juveniles to be processed as adult offenders.

Question Rank:
Very Important

Assessor conclusions:

Juvenile citations was tracked within the adult system.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 233:

Does the State distinguish between the administrative handling of court payments in lieu of court appearances (mail-ins) and court appearances?



Standard of Evidence:

Provide a flow chart documenting the processing of administrative handling of court payments (mail-ins).

Question Rank:

Somewhat Important

Assessor conclusions:

Administrative handling of court payments in lieu of appearance are distinguished from court appearances. A Traffic citation with all civil offenses is called a payable citation in the MRB procedures because the violator may pay the assessment amount to the RMV. The violator may mail-in a payment to MRB, may pay over an Internet application, may pay by phone, or may pay at an RMV office. A traffic citation with one or more criminal offenses is called a criminal citation because the citation disposition is handled by a Massachusetts court. The court does not accept a mail-in payment for a traffic citation with one or more criminal offenses. The violator must appear in person at the district court with jurisdiction for the location where the violation occurred.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 234:

Does the State track deferral and dismissal of citations?



Standard of Evidence:

Provide a flow chart documenting the deferral and the dismissal of citations.

Question Rank:

Somewhat Important

Assessor conclusions:

Deferral and dismissal of citations are tracked. If a court officer that holds a hearing for a civil citation dismisses any or all the offenses on the citation, the dismissed dispositions are entered to the Court's MassCourt system and the MassCourt system electronically sends the dismissal dispositions to be applied to the RMV statewide citation database (ALARS). If a court judge that hears a criminal citation case dismisses any or all of the offenses on the criminal citation, the dismissed dispositions are entered to the Court's MassCourt system and the MassCourt system electronically sends the dismissal dispositions to be applied to the statewide citation database (ALARS).

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 235:

Are there State and/or local criteria for deferring or dismissing traffic citations and charges?



Standard of Evidence:

Provide the criteria for deferring or dismissing traffic citations and charges.

Question Rank:

Somewhat Important

Assessor conclusions:

There are State and local criteria for deferring or dismissing traffic citations and charges.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 236:

If the State purges its records, are the timing conditions and procedures documented?



Standard of Evidence:

Provide a narrative documenting whether or not the State purges records. If so, list the types of records the State purges and provide the criteria for doing so.

Question Rank:

Somewhat Important

Assessor conclusions:

The State does not purge citations from its records. No purge has been applied since ALARS was installed in 1986.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 237:

Are the security protocols governing data access, modification, and release officially documented?



Standard of Evidence:

Provide the official security protocols governing data access, modification, and release.

Question Rank:

Somewhat Important

Assessor conclusions:

There are security protocols governing data access, modification, and release officially documented.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 238:

Is citation data linked with the driver system to collect driver information, to carry out administrative actions (e.g., suspension, revocation, cancellation, interlock) and determine the applicable charges?



Standard of Evidence:

Describe how citation, adjudication and driver data are linked and by what means administrative actions are carried out or posted using these linkages.

Question Rank:
Very Important

Assessor conclusions:

The attached evidence contains a sample query of a speeding violation that is linked to the driver system (collects driver information) and results in a suspension after the Adjudication System changes the disposition of the citation/violation to responsible (because of non payment of citation amount due – payment default of the citation).

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 239:

Is adjudication data linked with the driver system to collect certified driver records and administrative actions (e.g., suspension, revocation, cancellation, interlock) to determine the applicable charges and to post the dispositions to the driver file?



Standard of Evidence:

Provide the results of a sample query and describe how the linked information is used to collect certified driver records and administrative charges and to post dispositions to the driver file.

Question Rank:
Very Important

Assessor conclusions:

The online ALARS Function SC screen allows the user to request certified driver records for a violator.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 240:

Is citation data linked with the vehicle file to collect vehicle information and carry out administrative actions (e.g., vehicle seizure, forfeiture, interlock)?



Standard of Evidence:

Provide the results of a sample query and describe how the linked information is used to collect vehicle information and carry out administrative actions.

Question Rank:
Somewhat Important

Assessor conclusions:

Citation data are linked with the vehicle file to collect vehicle information and carry out administrative actions (e.g., vehicle seizure, forfeiture, interlock).

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 241:

Is adjudication data linked with the vehicle file to collect vehicle information and carry out administrative actions (e.g., vehicle seizure, forfeiture, interlock mandates and supervision)?



Standard of Evidence:

Provide the results of a sample query and describe how the linked information is used to collect vehicle information and carry out administrative actions.

Question Rank:
Somewhat Important

Assessor conclusions:

Although adjudication data is not linked with the vehicle file to collect vehicle information and carry out administrative actions, ALARS appears to capture the necessary data elements needed to carry out such actions.

Respondents assigned	1	Responses received	1	Response rate	100%
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**Question 242:**

Is citation data linked with the crash file to document violations and charges related to the crash?

**Standard of Evidence:**

Provide the results of a sample query and describe how the linked information is used to document violations and charges related to the crash.

Question Rank:

Somewhat Important

Assessor conclusions:

There does not appear to be any validation or linkage between a Crash report and issued citations.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 243:

Is adjudication data linked with the crash file to document violations and charges related to the crash?

**Standard of Evidence:**

Provide the results of a sample query and describe how the linked information is used to document violations and charges related to the crash.

Question Rank:

Somewhat Important

Assessor conclusions:

Adjudication data are not linked with the crash file.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 244:

Is there a set of established performance measures for the timeliness of the citation systems?



Standard of Evidence:

If there is a statewide citation tracking system in the State, provide timeliness measures used. If there are two or more centralized citation tracking systems, provide timeliness measures for one of them.

Question Rank:
Somewhat Important

Assessor conclusions:

There is a time limit on the delivery of paper citations to the court. So presumably the citations that are not delivered within this deadline (6th business day after the citation was given) are tardy and can be measured as such. However, no time limit is indicated for the processing of the data into ALARS.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 245:

Is there a set of established performance measures for the accuracy of the citation systems?



Standard of Evidence:

Provide accuracy measures for the statewide citation tracking system. If there are several citation tracking systems, provide accuracy measures for one of them.

Question Rank:
Very Important

Assessor conclusions:

The MRB traffic citation application validates all citations records received and applied to the ALARS citation database. Exhibits 11 and 12 identified in the answer to question 244 also contain reject statistics for each police department and for all police departments. The percent (%) of total statewide rejects for citations received from all police departments in calendar 2012 is 0.9%. The rejected transactions are researched by the MRB error correction unit and corrected when possible.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 246:

Is there a set of established performance measures for the completeness of the citation systems?


Standard of Evidence:

Provide completeness measures for the statewide citation tracking system. If there are several citation tracking systems, provide completeness measures for one of them.

Question Rank:
Somewhat Important

Assessor conclusions:

There is a set of established performance measures for the completeness of the citation system.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 247:

Is there a set of established performance measures for the uniformity of the citation systems?


Standard of Evidence:

Provide uniformity measures for the statewide citation tracking system. If there are several citation tracking systems, provide uniformity measures for one of them.

Question Rank:
Somewhat Important

Assessor conclusions:

The response indicates that uniformity. All traffic citations issued by Massachusetts police must use the Massachusetts Uniform Citation form (See Exhibit 01) so all paper citations received from police departments are on this form. The other source of traffic citations is the court system, MassCourt, which uses standard electronic formats for transferring data to the MRB.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 248:

Is there a set of established performance measures for the integration of the citation systems?


Standard of Evidence:

Provide integration measures for the statewide citation tracking system. If there are several citation tracking systems, provide integration measures for one of them.

Question Rank:
Somewhat Important

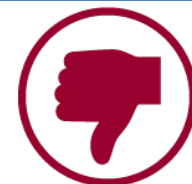
Assessor conclusions:

The overall system is well-integrated, and it doesn't seem to make sense to talk about a metric per se. As stated in the answer to question 202, the Registry of Motor Vehicles (RMV) maintains a statewide integrated database system (ALARS) that contains real-time information on individuals' driving histories. ALARS contains driver licensing records, vehicle registration records, traffic citation records, license and registration suspension records, at-fault accident records, and auto insurance records for registered vehicles.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 249:

Is there a set of established performance measures for the accessibility of the citation systems?


Standard of Evidence:

Provide accessibility measures for the statewide citation tracking system. If there are several citation tracking systems, provide accessibility measures for one of them.

Question Rank:
Less Important

Assessor conclusions:

The system is accessible, but performance measures were not provided. As stated in the answer to question 203, ALARS is connected to the Massachusetts Criminal Justice Information System (CJIS) network, to the Massachusetts State IP intranet network, to an Internet based VPN network, and to dedicated mainframe connections to a few large insurance companies.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 250:

Is there a set of established performance measures for the timeliness of the adjudication systems?



Standard of Evidence:

Provide timeliness measures for the statewide adjudication tracking system. If there are several adjudication tracking systems, provide timeliness measures for one of them.

Question Rank:
Somewhat Important

Assessor conclusions:

There is no set of established performance measures for the timeliness of the adjudication systems

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 251:

Is there a set of established performance measures for the accuracy of the adjudication systems?



Standard of Evidence:

Provide accuracy measures for the statewide adjudication tracking system. If there are several adjudication tracking systems, provide accuracy measures for one of them.

Question Rank:
Very Important

Assessor conclusions:

There is no set of established performance measures for the accuracy of the adjudication system.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 252:

Is there a set of established performance measures for the completeness of the adjudication systems?



Standard of Evidence:

Provide completeness measures for the statewide adjudication tracking system. If there are several adjudication tracking systems, provide completeness measures for one of them.

Question Rank:
Somewhat Important

Assessor conclusions:

There is no set of established performance measures for the completeness of the adjudication system.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 253:

Is there a set of established performance measures for the integration of the adjudication systems?



Standard of Evidence:

Provide integration measures for the statewide adjudication tracking system. If there are several adjudication tracking systems, provide integration measures for one of them.

Question Rank:
Somewhat Important

Assessor conclusions:

There is no set of established performance measures for the integration of the adjudication system.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 254:

In States that have an agency responsible for issuing unique citation numbers, is information on intermediate dispositions (e.g., deferrals, dismissals) captured?



Standard of Evidence:

Provide documentation detailing the numbers of citations issued from the 10 largest law enforcement agencies and the number of dispositions for those citations that are in the driver file over a three month period.

Question Rank:
Very Important

Assessor conclusions:

Massachusetts issues unique citation numbers, and information on intermediate dispositions (e.g., deferrals, dismissals) is captured.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 255:

Do the State's DUI tracking systems have additional quality control procedures to ensure the accuracy and timeliness of the data?



Standard of Evidence:

Provide a narrative description of the additional quality control measures for the DUI tracking systems and specify which systems use which measures.

Question Rank:
Somewhat Important

Assessor conclusions:

All criminal traffic citation dispositions received from courts with a DUI offense that are added to ALARS are also added to a Quality Control Report that is reviewed by a Quality Control Analyst

Respondents assigned	1	Responses received	1	Response rate	100%
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EMS / Injury Surveillance

Massachusetts has all the components to form a comprehensive statewide injury surveillance system. The Massachusetts Ambulance Trip Record Information System (MATRIS) collects information on EMS runs. Information on emergency department visits and hospital discharges is collected by the Massachusetts Center for Health Information and Analysis (CHIA).

Massachusetts Department of Health epidemiologists have access to these databases through a data use agreement with CHIA. The Erwin Hirsch State Trauma Registry collects and houses data on severe trauma cases throughout Massachusetts. The Massachusetts Department of Health Registry of Vital Records and Statistics compiles data on all deaths. These data system have been used in coordination to assess the burden of motor vehicle crashes in Massachusetts.

The Office of Emergency Medical Services, which is part of the Bureau of Healthcare Safety and Quality within the Massachusetts Department of Health oversees MATRIS under the Commonwealth's EMS statute. MATRIS is compliant with the NEMSIS 2.2.1 data standard. Agencies are required to submit data within 14 days of the event. If the incoming data pass the XML schema validation they are immediately available for analysis. Records are not rejected for erroneous or missing data but each record is given a validation score. Agencies are notified of common errors and training is developed to reduce the frequency of these issues.

MATRIS data are available to authorized users at the submitting agencies as well as other Department of Health sections that have signed data use agreements. MATRIS data have been provided to Injury Prevention, Injury Statistics, Stroke Prevention, and Schools programs. However, MATRIS data have yet to be analyzed in tandem with any other databases in the injury surveillance system. MATRIS has the ability to track the frequency and severity of injuries sustained by motor vehicle crash victims but this activity is not regularly performed.

The emergency department, hospital discharge, and outpatient databases are collected by the Massachusetts Center for Health Information and Analysis (CHIA). Massachusetts Department of Health epidemiologists have access to these databases through a data use agreement with CHIA. When data are submitted a series of data validation and verification rules check all records. If more than 1% of records are rejected in a particular submission then the hospital is required to resubmit the file. To ensure quality data, hospitals receive midyear and yearend verification reports.

The emergency department, hospital discharge, and outpatient data are available for request by the public. These data sources are also available to authorized users within the Department of Health. These databases have been used to track the frequency and severity of motor vehicle crashes in several State publications, such as *The MA Special Emphasis Report: Traumatic Brain Injury, 2010* and *The 2009 Injury Data Book: Fatal and Nonfatal Injuries Among Massachusetts Residents*.

The Erwin Hirsch State Trauma Registry collects data from all hospitals treating trauma patients. The trauma registry database conforms to the National Trauma Data Standard. Trauma data are required to be submitted within 75 days of the hospitalization. Data submissions undergo the same verification and validation methods as the other hospital databases. Submissions are





rejected if more than 1% of records fail the validation checks. Hospitals also receive detailed reports of all non-fatal errors generated during the submission process. Trauma registry managers have a number of detailed performance metrics to monitor the quality of incoming data and data quality reports are shared with the TRCC.

The trauma registry data are available to approved users within the Department of Health. Outside researchers may also apply to use the trauma registry data through IRBNet. It is currently being analyzed as part of an NIH funded disparities project. Severity of injuries can be analyzed using a number of measures, such as the Glasgow Coma Scale (GCS), the Abbreviated Injury Scale (AIS), and the Injury Severity Score (ISS).

The Massachusetts Registry of Vital Records and Statistics collects death certificates on all deaths that occur within Massachusetts, as well as those occurring to residents outside of the State. Death certificate data are coded according to national guidelines set by the National Centers for Health Statistics (NCHS) for collecting death data. Cause-of-death information is classified in accordance with the ICD-10 standard. Death records are due by the tenth day of the month following the death. Data undergo a series of verification and validation checks. If an error is identified the record is sent back and flagged in the State system until the error is resolved. Quality control reviews are not conducted on the death certificate data.

Death certificate data are shared with the Injury Prevention Program and included in many of their reports and presentations such as The MA Special Emphasis Report: Traumatic Brain Injury, 2010 and The 2009 Injury Data Book: Fatal and Nonfatal Injuries Among Massachusetts Residents. Data are also available in aggregate form pending approval through a research and data access review process. The transition to an electronic reporting system has delayed the availability of newer data. Currently there is a two-year delay in the annual data set.

The death certificates database could become more useful by improving the electronic reporting system to produce timelier data. The validation score assigned by MATRIS could be used to begin rejecting records with an unacceptable number of errors. An interface with MATRIS would increase the accuracy of the data in the trauma registry and an interface between the hospital databases and the vital records system would improve utility. The TRCC could benefit from data quality reports of all injury surveillance data systems.

Massachusetts has a robust injury surveillance system which captures data on motor vehicle crash outcomes from all phases of the injury pyramid: EMS, emergency department, outpatient, hospital discharge, trauma registry, and death certificates.





Question 256:

Does the injury surveillance system include EMS data?

Standard of Evidence:



Provide a sample report using EMS data.

Question Rank:
Very Important

Assessor conclusions:

EMS data is collected individually. While it is available for use by the injury surveillance system, it is not currently used in combination with other injury surveillance data systems.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 257:

Does the injury surveillance system include emergency department (ED) data?

Standard of Evidence:



Provide a sample report using emergency department data.

Question Rank:
Very Important

Assessor conclusions:

The MDPH uses emergency department data and hospital discharge data to compile their injury fact book.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 258:

Does the injury surveillance system include hospital discharge data?

Standard of Evidence:



Provide a sample report using hospital discharge data.

Question Rank:
Very Important

Assessor conclusions:

The MDPH uses emergency department data and hospital discharge data to compile their injury fact book.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 259:

Does the injury surveillance system include trauma registry data?

Standard of Evidence:



Provide a sample report using trauma registry data.

Question Rank:
Very Important

Assessor conclusions:

The trauma registry data warehouse utilizes data from the trauma registry, emergency department and hospital discharge datasets to generate summary reports as provided.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 260:

Does the injury surveillance system include rehabilitation data?

Standard of Evidence:



Provide a sample report using rehabilitation data.

Question Rank:
Very Important

Assessor conclusions:

The MA injury surveillance system does not include rehabilitation data.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 261:

Does the injury surveillance system include vital records data?

Standard of Evidence:



Provide a sample report using vital records data.

Question Rank:
Very Important

Assessor conclusions:

Vital statistics data is included in the injury fact book along with emergency department and hospital discharge information.

Respondents assigned	3	Responses received	1	Response rate	33.3%
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Question 262:

Does the injury surveillance system include other data?



Standard of Evidence:

List any other databases or sources included in the injury surveillance system and provide a sample report using data from each of these sources. Additional data resources may include medical examiner reports, payer-related databases, traumatic brain injury registry, and spinal cord injury registry.

Question Rank:
Very Important

Assessor conclusions:

Outpatient observation stay data is also used to generate the annual injury fact book.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 263:

Does the EMS system track the frequency, severity, and nature of injuries sustained in motor vehicle crashes in the State?



Standard of Evidence:

Provide the most recent motor vehicle-related incident counts for the EMS system, any injury severity categorizations applied, and the provider's primary impression (if applicable).

Question Rank:
Very Important

Assessor conclusions:

MATRIS, can be used to determine the frequency and nature of injuries sustained in motor vehicle crashes in MA as evidenced in the supporting documentation ("MATRIS MVC by Primary Impression 2013") and documentation attached to a subsequent question ("Motorcycle incidents by day time"). The individual data elements collected could be used to determine injury severity but assignment of severity is not being done at this time. For this reason, the rating is "Partially Meets."

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 264:

Does the emergency department data track the frequency, severity, and nature of injuries sustained in motor vehicle crashes in the State?

Standard of Evidence:

Provide the most recent motor vehicle-related incident counts for the emergency department data, any injury severity categorizations applied (e.g., Abbreviated Injury Score, Injury Severity Scale), and principal diagnosis.

Assessor conclusions:

Emergency Department (ED) data is routinely used by the MA Dept. of Public Health Injury Surveillance and Injury Prevention and Control programs to track the frequency and nature of injuries from MVC for persons treated in MA acute care hospitals. Evidence provided ("Q264-ED Counts & TBI" and "Q264-ED Principal Diagnoses") supports the State's ability to track the frequency and nature of injuries sustained in motor vehicle crashes. MDPH epidemiologists do not calculate injury severity scores (AIS or ISS); it is for this reason, the rating is "Partially Meets."



Question Rank:
Very Important

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 265:

Does the hospital discharge data track the frequency, severity, and nature of injuries sustained in motor vehicle crashes in the State?

Standard of Evidence:

Provide the most recent motor vehicle-related incident counts for the hospital discharge data, any injury severity categorizations applied (e.g., Abbreviated Injury Score, Injury Severity Scale), and principal diagnosis.

Assessor conclusions:

PHospital discharge data is routinely used by the MA Dept. of Public Health Injury Surveillance and Injury Prevention and Control programs to track the frequency and nature of injuries from MVC for persons treated in MA acute care hospitals. Evidence provided ("Q265-HD Counts & TBI" and "Q265-HD Principal Diagnoses") supports the State's ability to track the frequency and nature of injuries sustained in motor vehicle crashes. MDPH epidemiologists do not calculate injury severity scores (AIS or ISS); it is for this reason, the rating is "Partially Meets."



Question Rank:
Very Important

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 266:

Does the trauma registry data track the frequency, severity, and nature of injuries sustained in motor vehicle crashes in the State?


Standard of Evidence:

Provide the most recent motor vehicle-related incident counts for the trauma registry data, any injury severity categorizations applied (e.g., Abbreviated Injury Score, Injury Severity Scale), and principal diagnosis.

Question Rank:
Very Important

Assessor conclusions:

The trauma registry tracks the frequency of motor vehicle crashes admitted to a trauma center and calculates the ISS scores for each patient.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 267:

Does the vital records data track the frequency, severity, and nature of injuries sustained in motor vehicle crashes in the State?


Standard of Evidence:

Provide the most recent motor vehicle-related incident counts from the vital records data and the cause of death.

Question Rank:
Very Important

Assessor conclusions:

Vital records data are routinely used by the Department of Public Health to track the frequency of motor vehicle related deaths among MA residents.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 268:

Is the EMS data available for analysis and used to identify problems, evaluate programs, and allocate resources?



Standard of Evidence:

Provide a sample report or narrative description of a highway safety project that utilized EMS data to identify a problem, evaluate a program, or allocate resources.

Question Rank:
Very Important

Assessor conclusions:

EMS data are used for routine analysis. Several reports were attached showing the use of EMS data for motorcycle safety and ambulance staffing activities

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 269:

Is the emergency department data available for analysis and used to identify problems, evaluate programs, and allocate resources?



Standard of Evidence:

Provide a sample report or narrative description of a highway safety project that utilized emergency department data to identify a problem, evaluate a program, or allocate resources.

Question Rank:
Very Important

Assessor conclusions:

Emergency department and hospital discharge data are regularly used to direct injury prevention priorities and allocate resources. Evidence showing the use of these data was provided.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 270:

Is the hospital discharge data available for analysis and used to identify problems, evaluate programs, and allocate resources?


Standard of Evidence:

Provide a sample report or narrative description of a highway safety project that utilized hospital discharge data to identify a problem, evaluate a program, or allocate resources.

Question Rank:
Very Important

Assessor conclusions:

Emergency department and hospital discharge data are regularly used to direct injury prevention priorities and allocate resources. Evidence showing the use of these data was provided.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 271:

Is the trauma registry data available for analysis and used to identify problems, evaluate programs, and allocate resources?


Standard of Evidence:

Provide a sample report or narrative description of a highway safety project that utilized trauma registry data to identify a problem, evaluate a program, or allocate resources.

Question Rank:
Very Important

Assessor conclusions:

The trauma registry has been used extensively for analysis. Multiple abstracts have been produced using this data as demonstrated by the evidence provided.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 272:

Is the vital records data available for analysis and used to identify problems, evaluate programs, and allocate resources?

Standard of Evidence:

Provide a sample report or narrative description of a highway safety project that utilized vital records data to identify a problem, evaluate a program, or allocate resources (e.g., research in support of helmet or GDL legislation).

Assessor conclusions:

Vital records data has been used for analysis as evidenced in the attached report comparing fatal and non-fatal motor vehicle crashes over the last decade.



Question Rank:
Very Important

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 273:

Does the State have a NEMSIS-compliant statewide database?

Standard of Evidence:

Demonstrate submission to the nationwide NEMSIS database and provide any relevant State statutes or regulations. If not compliant, provide narrative detailing the State's efforts to achieve NEMSIS compliance.

Assessor conclusions:

MATRIS is compliant with NEMSIS 2.2.1. A data dictionary has been provided.



Question Rank:
Very Important

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 274:

Does the State's emergency department and hospital discharge data conform to the most recent uniform billing standard?



Standard of Evidence:

Provide the data dictionaries for both the emergency department and hospital discharge data as appropriate as well as any relevant State statutes or regulations.

Question Rank:
Very Important

Assessor conclusions:

The Center for Health Information and Analysis (CHIA) collects some standard uniform billing data elements (e.g., revenue codes) but other data elements (e.g., Admission Source) are not collected. A comprehensive data dictionary was provided for each: the hospital discharge data and the ED data.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 275:

Does the State's trauma registry database adhere to the National Trauma Data Standards?



Standard of Evidence:

Provide the trauma registry data dictionary and any relevant State statutes or regulations.

Question Rank:
Very Important

Assessor conclusions:

The State's trauma registry database is compliant with NTDB standards. A data dictionary is attached.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 276:

Are Abbreviated Injury Scale (AIS) and Injury Severity Scores (ISS) derived from the State emergency department and hospital discharge data for motor vehicle crash patients?


Standard of Evidence:

Provide a distribution of AIS and ISS scores for the most recent year available.

Question Rank:
Somewhat Important

Assessor conclusions:

Hospital discharge data and ED data are integrated with the Trauma Registry in the warehouse and are used to calculate the ISS for submissions from trauma hospitals and TPM for submissions from all hospitals (including non trauma).

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 277:

Are Abbreviated Injury Scale (AIS) and Injury Severity Scores (ISS) derived from the State trauma registry for motor vehicle crash patients?


Standard of Evidence:

Provide a distribution of AIS and ISS scores for the most recent year available.

Question Rank:
Very Important

Assessor conclusions:

The ISS score is calculated for all patients included in the trauma registry.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 278:

Does the State EMS database collect the Glasgow Coma Scale (GCS) data for motor vehicle crash patients?


Standard of Evidence:

Provide a distribution of GCS scores for motor vehicle crash patients for the most recent year available.

Question Rank:
Less Important

Assessor conclusions:

GCS is required by the EMS data system. A distribution of GCS scores for 2013 was provided.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 279:

Does the State trauma registry collect the Glasgow Coma Scale (GCS) data for motor vehicle crash patients?



Standard of Evidence:

Provide a distribution of GCS scores for motor vehicle crash patients for the most recent year available.

Question Rank:
Less Important

Assessor conclusions:

The trauma registry routinely collects the GCS for their subset of patients. A report showing the distribution of 2010 GCS scores was provided.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 280:

Are there State privacy and confidentiality laws that supersede HIPAA?



Standard of Evidence:

Provide the applicable State laws and describe how they are interpreted—including the identification of situations that may impede data sharing within the State and among public health authorities.

Question Rank:
Very Important

Assessor conclusions:

The Fair Information Practices Act limits access to personal data to instances where there is specific legal authority or consent of the data subject and would appear similar in scope to HIPAA requirements.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 281:

Does the EMS system have a formal data dictionary?

Standard of Evidence:

Provide the data dictionary including, at a minimum, the variable names and definitions.

Assessor conclusions:

The “MA Ambulance Trip Record Information System (MATRIS) Data Dictionary” was provided as evidence for this response.



Question Rank:
Very Important

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 282:

Does the EMS system have formal documentation that provides a summary dataset—characteristics, values, limitations and exceptions, whether submitted or user created—and how it is collected, managed, and maintained?

Standard of Evidence:

Provide a user's manual or other form of documentation of the EMS data collection system. Such documentation should include a list of the dataset's variables and a description of how the data is collected, managed and maintained.

Assessor conclusions:

The MATRIX data dictionary and Administrative Requirement document provide information on the EMS dataset and it's policies.



Question Rank:
Very Important

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 283:

Does the emergency department dataset have a formal data dictionary?

Standard of Evidence:

Provide the data dictionary including, at a minimum, the variable names and definitions.

Assessor conclusions:

The Center for Health Information and Analysis maintain a data dictionary for their Emergency Department Databases. The FY2011 version was provided.



Question Rank:
Very Important

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 284:

Does the emergency department dataset have formal documentation that provides a summary dataset—characteristics, values, limitations and exceptions, whether submitted or user created—and how it is collected, managed, and maintained?

Standard of Evidence:

Provide the documentation.

Assessor conclusions:

The “FY:2011 Outpatient Hospital Emergency Department Database Documentation Manual” was provided as evidence for this response. A link within the data dictionary was to “Outpatient Emergency Department Visit Data, Electronic Records Submission Specification, December 2010.” The Records Submission Specification document contains the data element characteristics, values, limitations and exceptions, whether submitted or user created.



Question Rank:
Very Important

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 285:

Does the hospital discharge dataset have a formal data dictionary?

Standard of Evidence:

Provide the data dictionary including, at a minimum, the variable names and definitions.

Assessor conclusions:

The CHIA maintains a data dictionary for the hospital discharge database. A copy has been provided.



Question Rank:
Very Important

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 286:

Does the hospital discharge dataset have formal documentation that provides a summary dataset—characteristics, values, limitations and exceptions, whether submitted or user created—and how it is collected, managed, and maintained?

Standard of Evidence:

Provide the documentation.

Assessor conclusions:

The “FY:2011 Inpatient Hospital Discharge Database Documentation Manual” was provided as evidence for this response. A link within the data dictionary was to “Hospital Inpatient Discharge Data, Electronic Records Submission Specification, May 2011.” The Records Submission Specification document contains the data element characteristics, values, limitations and exceptions, whether submitted or user created.



Question Rank:
Very Important

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 287:

Does the trauma registry have a formal data dictionary?

Standard of Evidence:

Provide the data dictionary including, at a minimum, the variable names and definitions.

Assessor conclusions:

A data dictionary for the trauma registry was provided.



Question Rank:
Very Important

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 288:

Does the trauma registry dataset have formal documentation that provides a summary dataset—characteristics, values, limitations and exceptions, whether submitted or user created—and how it is collected, managed, and maintained?

Standard of Evidence:

Provide the documentation.

Assessor conclusions:

The State trauma registry includes the data elements in accordance with NTDB standards.



Question Rank:
Very Important

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 289:

Does the vital records system have a formal data dictionary?

Standard of Evidence:

Provide the data dictionary including, at a minimum, the variable names and definitions.

Assessor conclusions:

A format for vital records data was provided for 1999. No changes to the system were reported since that time.



Question Rank:
Very Important

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 290:

Does the vital records system have formal documentation that provides a summary dataset—characteristics, values, limitations and exceptions, whether submitted or user created—and how it is collected, managed, and maintained?


Standard of Evidence:

Provide the documentation.

Question Rank:
Very Important

Assessor conclusions:

The "Commonwealth of Massachusetts Death Tape Format - 1999" document is the formal documentation that provides data element characteristics, values, limitations and exceptions.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 291:

Is there a single entity that collects and compiles data from the local EMS agencies?


Standard of Evidence:

Identify the State agency or third party to which the EMS data is initially submitted.

Question Rank:
Very Important

Assessor conclusions:

The Office of Emergency Medical Services collects and compiles EMS data in the State.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 292:

Is there a single entity that collects and compiles data on emergency department visits from individual hospitals?


Standard of Evidence:

Identify the State agency or third party to which the data on emergency department visits is initially submitted.

Question Rank:
Very Important

Assessor conclusions:

The Center for Health Information and Analysis collects and compiles emergency department and hospital discharge data for the State.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 293:

Is there a single entity that collects and compiles data on hospital discharges from individual hospitals?



Standard of Evidence:

Identify the State agency or third party to which the data on hospital discharges is initially submitted.

Question Rank:
Very Important

Assessor conclusions:

The Center for Health Information and Analysis collects and compiles emergency department and hospital discharge data for the State.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 294:

Is there a process flow diagram that outlines the EMS system's key data process flows, including inputs from other systems?



Standard of Evidence:

Provide the flow diagram. Alternatively, provide a narrative description of the EMS data process flows from dispatch to submission of the report to the State EMS repository.

Question Rank:
Very Important

Assessor conclusions:

A process flow diagram for the EMS data system was provided.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 295:

Is there a process flow diagram that outlines the emergency department data's key data process flows, including inputs from other systems?

Standard of Evidence:

Provide the flow diagram. Alternatively, provide a narrative description of the emergency department data process flows from patient arrival to submission of the uniform billing data to the State repository.

Assessor conclusions:

MA does not have a process flow diagram that outlines the emergency department data's key data process flows, including inputs from other systems.



Question Rank:
Very Important

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 296:

Is there a process flow diagram that outlines the hospital discharge data's key data process flows, including inputs from other systems?

Standard of Evidence:

Provide the flow diagram. Alternatively, provide a narrative description of the hospital discharge data process flows from patient arrival to submission of the uniform billing data to the State repository.

Assessor conclusions:

MA does not have a process flow diagram that outlines the hospital discharge data's key data process flows, including inputs from other systems.



Question Rank:
Very Important

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 297:

Is there a process flow diagram that outlines the trauma registry's key data process flows, including inputs from other systems?

Standard of Evidence:

Provide the flow diagram. Alternatively, provide a narrative description of the hospital discharge data process flows, from trauma activation to submission of the trauma data to the State registry.

Assessor conclusions:

A flow chart was provided for the State's trauma registry data.



Question Rank:
Very Important

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 298:

Are there separate procedures for paper and electronic filing of EMS patient care reports?

Standard of Evidence:

Provide a copy of the procedures for paper and electronic filing or a brief narrative describing the procedures.

Assessor conclusions:

A description of the procedures for submitting EMS patient care reports was provided.



Question Rank:
Less Important

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 299:

Are there procedures for collecting, editing, error-checking, and submitting emergency department and hospital discharge data to the statewide repository?



Standard of Evidence:

Provide a copy of the procedures or a brief narrative describing the process of collecting, editing and submitting emergency department and hospital discharge data to the statewide repository.

Question Rank:
Very Important

Assessor conclusions:

As reported by the State, "CHIA runs a series of edits on all the data fields collected. If more than 1% of discharge records fail the online edits, the files are not accepted and returned to providers for correction/resubmission."

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 300:

Does the trauma registry have documented procedures for collecting, editing, error checking, and submitting data?



Standard of Evidence:

Provide a copy of the procedures or a brief narrative describing the process for collecting, error-checking and submitting trauma registry data.

Question Rank:
Very Important

Assessor conclusions:

Documents describing the data specifications and procedures for uploading the information to INET were provided.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 301:

Are there procedures for collecting, editing, error-checking, and submitting data to the statewide vital records repository?



Standard of Evidence:

Provide a copy of the procedures or a brief narrative describing the process for collecting, error-checking and submitting data to the vital records repository.

Question Rank:
Very Important

Assessor conclusions:

A description of the procedures for submitting vital records data was provided.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 302:

Are there documented procedures for returning data to the reporting EMS agencies for quality assurance and improvement (e.g., correction and resubmission)?



Standard of Evidence:

Provide a copy of the procedures or a brief narrative describing the process for returning data to the reporting EMS agencies for correction and resubmission.

Question Rank:
Very Important

Assessor conclusions:

Patient care data cannot be returned to service providers. Feedback is given to the service providers; providers submitting erroneous or incomplete patient care reports must resubmit after correcting.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 303:

Are there documented procedures for returning data to the reporting emergency departments for quality assurance and improvement (e.g., correction and resubmission)?



Standard of Evidence:

Provide a copy of the procedures or a brief narrative that describes the process for returning data to the reporting emergency departments for correction and resubmission.

Question Rank:
Very Important

Assessor conclusions:

Field edit reports are provided to the hospitals after each submission of data. This offers the opportunity to correct, clarify and resubmit data as necessary.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 304:

Are there documented procedures for returning hospital discharge data to the reporting hospitals for quality assurance and improvement (e.g., correction and resubmission)?



Standard of Evidence:

Provide a copy of the procedures or a brief narrative describing the process for returning data to the reporting hospitals for correction and resubmission.

Question Rank:
Very Important

Assessor conclusions:

Field edit reports are sent to the hospitals after each submission of data. This provides the opportunity for correction and clarification as necessary.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 305:

Are there documented procedures for returning trauma data to the reporting trauma center for quality assurance and improvement (e.g., correction and resubmission)?



Standard of Evidence:

Provide a copy of the procedures or a brief narrative describing the process for returning data to the reporting trauma center for correction and resubmission.

Question Rank:
Very Important

Assessor conclusions:

There are procedures for returning trauma data to the reporting trauma center for correction and resubmission. It is unclear if these procedures are documented, but it is an automated system that generates feedback for the submitting trauma centers.

Respondents assigned	3	Responses received	1	Response rate	33.3%
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Question 306:

Are there documented procedures for returning data to the reporting vital records agency for quality assurance and improvement (e.g., correction and resubmission)?



Standard of Evidence:

Provide a copy of the procedures or a brief narrative describing the process for returning data to the reporting vital records agency for correction and resubmission.

Question Rank:
Very Important

Assessor conclusions:

A narrative was provided describing the procedures by which vital records data are coded from the death certificate and the way in which corrections may be made.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 307:

Is aggregate EMS data available to outside parties (e.g., universities, traffic safety professionals) for analytical purposes?



Standard of Evidence:

Provide a copy of the data access policy, data use agreement, or link to appropriate data access website. Alternatively provide a brief description of how outside parties may obtain access to the EMS data for analytical purposes.

Question Rank:
Very Important

Assessor conclusions:

Outside parties may request aggregated EMS data through requests submitted to the OEMS. Each request is handled on an individual basis.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 308:

Is aggregate emergency department data available to outside parties (e.g., universities, traffic safety professionals) for analytical purposes?



Standard of Evidence:

Provide a copy of the data access policy, data use agreement, or link to appropriate data access website. Alternatively provide a brief description of how outside parties may obtain access to the emergency department data for analytical purposes.

Question Rank:
Very Important

Assessor conclusions:

An application for use of emergency department and hospital discharge data was provided. Six levels of access, based on the identifiers requested, are available.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 309:

Is aggregate hospital discharge data available to outside parties (e.g., universities, traffic safety professionals) for analytical purposes?


Standard of Evidence:

Provide a copy of the data access policy, data use agreement, or link to appropriate data access website. Alternatively provide a brief description of how outside parties may obtain access to the hospital discharge data for analytical purposes.

Question Rank:
Very Important

Assessor conclusions:

An application for data access was provided for both emergency department and hospital discharge data was provided. There are six levels of access available based on the level of detail requested.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 310:

Is aggregate trauma registry data available to outside parties (e.g., universities, traffic safety professionals) for analytical purposes?


Standard of Evidence:

Provide a copy of the data access policy, data use agreement, or link to appropriate data access website. Alternatively provide a brief description of how outside parties may obtain access to the trauma registry data for analytical purposes.

Question Rank:
Very Important

Assessor conclusions:

Aggregate trauma data are available to outside parties for analytical purposes upon IRB approval (IRBnet). Trauma data is being used in the NIH Disparities project. The evidence provided in response to this question includes the link to IRBnet and the presentation "Trauma Registry MVC Mortality Prediction by Trauma Level."

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 311:

Is aggregate vital records data available to outside parties (e.g., universities, traffic safety professionals) for analytical purposes?



Standard of Evidence:

Provide a copy of the data access policy, data use agreement, or link to appropriate data access website. Alternatively provide a brief description of how outside parties may obtain access to the vital records data for analytical purposes.

Question Rank:
Very Important

Assessor conclusions:

Vital records data are not available through regular reports but can be 'ordered'. All requests for aggregate data go through a research and data access review and approval process.

Respondents assigned	3	Responses received	2	Response rate	66.7%
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Question 312:

Is there an interface among the EMS data and emergency department and hospital discharge data?



Standard of Evidence:

Provide a narrative description of the interface link between the EMS data and the emergency department and hospital discharge data. If available provide the applicable data exchange agreement.

Question Rank:
Somewhat Important

Assessor conclusions:

There is no current interface between the EMS and hospital databases.

Respondents assigned	2	Responses received	1	Response rate	50%
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**Question 313:**

Is there an interface between the EMS data and the trauma registry data?

Standard of Evidence:

Provide a narrative description of the interface link between the EMS data and the trauma registry data. If available provide the applicable data exchange agreement.

Assessor conclusions:

The description provided shows that there is an integration between EMS and trauma registry. An interfaces involves the direct transfer of data between the data systems and does not exist at this time.



Question Rank:
Very Important

**Respondents
assigned**

2

**Responses
received**

1

**Response
rate**

50%

Question 314:

Is there an interface between the vital statistics and hospital discharge data?

Standard of Evidence:

Provide a narrative description of the interface link between the vital statistics and hospital discharge data. If available provide the applicable data exchange agreement.

Assessor conclusions:

While vital statistics and hospital discharge data are integrated, there is not an interface between the the systems at this time.



Question Rank:
Somewhat Important

**Respondents
assigned**

2

**Responses
received**

1

**Response
rate**

50%





Question 315:

Are there automated edit checks and validation rules to ensure that entered data falls within a range of acceptable values and is logically consistent among data elements?



Standard of Evidence:

Provide the formal methodology or describe the process by which automated edit checks and validation rules ensure entered data falls within the range of acceptable values and is logically consistent among fields.

Question Rank:
Very Important

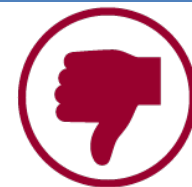
Assessor conclusions:

A list of rules and validation 'points' was provided for use in the automated edit check process.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 316:

Is limited state-level correction authority granted to quality control staff working with the statewide EMS database in order to amend obvious errors and omissions without returning the report to the originating entity?



Standard of Evidence:

Provide the formal methodology or describe the process by which limited state-level correction authority is granted to quality control staff working with the statewide EMS database.

Question Rank:
Somewhat Important

Assessor conclusions:

All corrections to the transport report must be made at the ambulance service level.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 317:

Are there formally documented processes for returning rejected EMS patient care reports to the collecting entity and tracking resubmission to the statewide EMS database?



Standard of Evidence:

Provide the formal methodology or describe the process by which rejected EMS patient care reports are returned to the collecting agency and tracked through resubmission to the statewide EMS database.

Question Rank:
Very Important

Assessor conclusions:

While records are not rejected, each submission receives a validation score and services are provided an aggregated report of the errors encountered in their data submission. The individual service is then responsible for reviewing the scores and implementing strategies to resolve similar errors going forward. A data quality report at the state-level that would provide feedback to the services and medical directors is being tested.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 318:

Are there timeliness performance measures tailored to the needs of EMS system managers and data users?



Standard of Evidence:

Provide a complete list of timeliness performance measures for the EMS system and explain how these measures are used to inform decision-making.

Question Rank:
Very Important

Assessor conclusions:

There is only one timeliness performance measure - data submission from the EMS agency is required within 14 days of the incident. It is not clear how this measure is used to inform decision-making.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 319:

Are there accuracy performance measures tailored to the needs of EMS system managers and data users?


Standard of Evidence:

Provide a complete list of accuracy performance measures for the EMS system and explain how these measures are used to inform decision-making.

Question Rank:
Very Important

Assessor conclusions:

The validation scoring process is used to identify and set accuracy performance measures.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 320:

Are there completeness performance measures tailored to the needs of EMS system managers and data users?


Standard of Evidence:

Provide a complete list of completeness performance measures for the EMS system and explain how these measures are used to inform decision-making.

Question Rank:
Very Important

Assessor conclusions:

Validation points are used to determine completeness of the records.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 321:

Are there uniformity performance measures tailored to the needs of EMS system managers and data users?


Standard of Evidence:

Provide a complete list of uniformity performance measures for the EMS system and explain how these measures are used to inform decision-making.

Question Rank:
Very Important

Assessor conclusions:

Uniformity is driven by the use of the drop down lists and validation edits built into the EMS data collection system.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 322:

Are there integration performance measures tailored to the needs of EMS system managers and data users?


Standard of Evidence:

Provide a complete list of integration performance measures for the EMS system and explain how these measures are used to inform decision-making.

Question Rank:
Very Important

Assessor conclusions:

The data collection system requires that data elements needed to integrate the injury surveillance data systems be collected. However, there are no specific integration performance measures reported (i.e. percentage of EMS reports linking to a emergency department record)

Respondents assigned	2	Responses received	1	Response rate	50%
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**Question 323:**

Are there accessibility performance measures tailored to the needs of EMS system managers and data users?

**Standard of Evidence:**

Provide a complete list of accessibility performance measures for the EMS system and explain how these measures are used to inform decision-making.

Question Rank:
Very Important

Assessor conclusions:

Multiple performance measures are available for the EMS data system. A list of each performance measure and its current status was provided.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 324:

Has the State established numeric goals—performance metrics—for each EMS system performance measure?

**Standard of Evidence:**

Provide specific numeric goals and related performance measures for each attribute as determined by the State.

Question Rank:
Somewhat Important

Assessor conclusions:

Multiple performance measures for each metric were provided as well as their current status.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 325:

Is there performance reporting for the EMS system that provides specific timeliness, accuracy, and completeness feedback to each submitting entity?



Standard of Evidence:

Provide a sample report, list of receiving agencies, and specify frequency of issuance.

Question Rank:
Very Important

Assessor conclusions:

The Ambulance Run Data Report in MATRIS provides feedback on completeness, accuracy, and timeliness. The Data Quality Report, created for each imported file, summarizes the validation errors encountered and guides services to address the most frequent errors

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 326:

Are high frequency errors used to update EMS system training content, data collection manuals, and validation rules?



Standard of Evidence:

Provide the formal methodology or describe the process by which high frequency errors are used to update EMS system training content, data collection manuals, and validation rules.

Question Rank:
Very Important

Assessor conclusions:

MATRIS Data Quality Workgroup was created from providers across the State and uses multiple reports (data quality report, ambulance run data report, QA/QI report) to identify chronic errors and to develop a plan for upgrading the rules and educating the ambulance services.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 327:

Are quality control reviews conducted to ensure the completeness, accuracy, and uniformity of injury data in the EMS system?


Standard of Evidence:

Provide a sample quality control review of injury records that details the system's data completeness.

Question Rank:

Somewhat Important

Assessor conclusions:

Quality controls are routinely conducted on selected data elements. A sample report is provided.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 328:

Are periodic comparative and trend analyses used to identify unexplained differences in the EMS data across years and agencies?


Standard of Evidence:

Describe the analyses, provide a sample record or output, and specify their frequency.

Question Rank:

Less Important

Assessor conclusions:

A standardized report in MATRIS is available to conduct comparative analysis. The ePCR software has been problematic for some agencies, preventing the necessary data export.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 329:

Is data quality feedback from key users regularly communicated to EMS data collectors and data managers?


Standard of Evidence:

Describe the process for transmitting and utilizing key users' data quality feedback to inform program changes.

Question Rank:

Somewhat Important

Assessor conclusions:

A data quality advisory board was assembled during the last year to revise the validation rules based on feedback from MATRIS users.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 330:

Are EMS data quality management reports produced regularly and made available to the State TRCC?



Standard of Evidence:

Provide a sample quality management report and specify frequency of transmission to the State TRCC.

Question Rank:

Somewhat Important

Assessor conclusions:

EMS data quality reports are provided to the TRCC upon request.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 331:

Are there automated edit checks and validation rules to ensure that entered data falls within a range of acceptable values and is logically consistent among data elements?



Standard of Evidence:

Provide the formal methodology or describe the process by which automated edit checks and validation rules ensure entered data falls within the range of acceptable values and is logically consistent among fields.

Question Rank:

Very Important

Assessor conclusions:

The Center for Health Information and Analysis runs a series of edit checks on the submitted fields.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 332:

Is limited state-level correction authority granted to quality control staff working with the statewide emergency department and hospital discharge databases in order to amend obvious errors and omissions without returning the report to the originating entity?


Standard of Evidence:

Provide the formal methodology or describe the process by which limited state-level correction authority is granted to quality control staff working with the statewide emergency department and hospital discharge databases.

Question Rank:
Somewhat Important

Assessor conclusions:

Correction would be possible at the state-level, but the CHIA relies on local agencies to make corrections.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 333:

Are there formally documented processes for returning rejected emergency department and hospital discharge records to the collecting entity and tracking resubmission to the statewide emergency department and hospital discharge databases?


Standard of Evidence:

Provide the formal methodology or describe the process by which rejected emergency department and hospital discharge records are returned to the collecting agency and tracked through resubmission to the statewide emergency department and hospital discharge databases.

Question Rank:
Very Important

Assessor conclusions:

The Center for Health Information and Analysis tracks the data submission process. The database manual is provided.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 334:

Are there timeliness performance measures tailored to the needs of emergency department and hospital discharge database managers and data users?



Standard of Evidence:

Provide a complete list of timeliness performance measures for the emergency department and hospital discharge databases and explain how these measures are used to inform decision-making.

Question Rank:
Very Important

Assessor conclusions:

The Center for Health Information and Analysis requires emergency department and hospital discharge data to be submitted within 75 days of the close of each quarter.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 335:

Are there accuracy performance measures tailored to the needs of emergency department and hospital discharge database managers and data users?



Standard of Evidence:

Provide a complete list of accuracy performance measures for the emergency department and hospital discharge databases and explain how these measures are used to inform decision-making.

Question Rank:
Very Important

Assessor conclusions:

The Center for Health Information and Analysis performs a series of edit checks on all data fields. More than 1% of the records failing this check will require correction or resubmission.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 336:

Are there completeness performance measures tailored to the needs of emergency department and hospital discharge database managers and data users?


Standard of Evidence:

Provide a complete list of completeness performance measures for the emergency department and hospital discharge databases and explain how these measures are used to inform decision-making.

Question Rank:
Very Important

Assessor conclusions:

The State describes a series of edit checks that are conducted by the CHIA. Errors in excess of the 1% threshold are returned for correction and resubmission.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 337:

Are there uniformity performance measures tailored to the needs of emergency department and hospital discharge database managers and data users?


Standard of Evidence:

Provide a complete list of uniformity performance measures for the emergency department and hospital discharge databases and explain how these measures are used to inform decision-making.

Question Rank:
Very Important

Assessor conclusions:

Submission guidelines are designed to promote uniformity but no specific performance measures were provided.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 338:

Are there integration performance measures tailored to the needs of emergency department and hospital discharge database managers and data users?


Standard of Evidence:

Provide a complete list of integration performance measures for the emergency department and hospital discharge databases and explain how these measures are used to inform decision-making.

Question Rank:
Very Important

Assessor conclusions:

The submission guidelines and data structure as detailed in the "...Discharge Data Electronic Records Submission Specifications" for inpatient, outpatient observation, and outpatient emergency department data provides integration ability between the datasets however, a list of specific performance measures were not provided

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 339:

Are there accessibility performance measures tailored to the needs of emergency department and hospital discharge database managers and data users?


Standard of Evidence:

Provide a complete list of accessibility performance measures for the emergency department and hospital discharge database and explain how these measures are used to inform decision-making.

Question Rank:
Very Important

Assessor conclusions:

No accessibility measures were available for emergency department and hospital discharge data.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 340:

Has the State established numeric goals—performance metrics—for each emergency department and hospital discharge database performance measure?


Standard of Evidence:

Provide specific numeric goals and related performance measures for each attribute as determined by the State.

Question Rank:

Somewhat Important

Assessor conclusions:

The State has not established specific performance measures for the emergency department or hospital discharge databases.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 341:

Is there performance reporting for the emergency department and hospital discharge databases that provides specific timeliness, accuracy, and completeness feedback to each submitting entity?


Standard of Evidence:

Provide a sample report, list of receiving agencies, and specify frequency of issuance.

Question Rank:

Very Important

Assessor conclusions:

Verification reports are provided to the submitting hospitals twice per year. These reports provide information on the accuracy and completeness of the data they have submitted.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 342:

Are high frequency errors used to update emergency department and hospital discharge database training content, data collection manuals, and validation rules?



Standard of Evidence:

Provide the formal methodology or describe the process by which high frequency errors are used to update emergency department and hospital discharge database training content, data collection manuals, and validation rules.

Question Rank:
Very Important

Assessor conclusions:

High frequency errors are used to improve the data collection. The database documentation manual was provided. When identified, users are required to resubmit the data to CHIA.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 343:

Are quality control reviews conducted to ensure the completeness, accuracy, and uniformity of injury data in the emergency department and hospital discharge databases?



Standard of Evidence:

Provide a sample quality control review of injury records that details the system's data completeness.

Question Rank:
Somewhat Important

Assessor conclusions:

Provided in response to other quality questions were the Discharge Documentation Manuals; these manuals, while not provided for this question, are relevant. Quality control reviews are conducted to ensure the completeness, accuracy, and uniformity in the emergency department and hospital discharge databases overall, not specific to injury. The injury data ARE subject to the same edit checks and validation reviews as the rest of the database.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 344:

Are periodic comparative and trend analyses used to identify unexplained differences in the emergency department and hospital discharge data across years and agencies?


Standard of Evidence:

Describe the analyses, provide a sample record or output, and specify their frequency.

Question Rank:
Less Important

Assessor conclusions:

It was reported that when information is provided that shows unexplained differences, the information is discussed with the providers and may result in corrections and resubmissions.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 345:

Is data quality feedback from key users regularly communicated to emergency department and hospital discharge data collectors and data managers?


Standard of Evidence:

Describe the process for transmitting and utilizing key users' data quality feedback to inform program changes.

Question Rank:
Somewhat Important

Assessor conclusions:

The Department of Public Health has produced hospital specific reports to identify any data quality concerns. A sample report is provided.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 346:

Are emergency department and hospital discharge data quality management reports produced regularly and made available to the State TRCC?


Standard of Evidence:

Provide a sample quality management report and specify frequency of transmission to the State TRCC.

Question Rank:

Somewhat Important

Assessor conclusions:

No data quality management reports for emergency department or hospital discharge data have been made available to the State TRCC.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 347:

Are there automated edit checks and validation rules to ensure that entered data falls within a range of acceptable values and is logically consistent among data elements?


Standard of Evidence:

Provide the formal methodology or describe the process by which automated edit checks and validation rules ensure entered data falls within the range of acceptable values and is logically consistent among fields.

Question Rank:

Very Important

Assessor conclusions:

Automated edit checks and validation rules are documented in the Erwin Hirsch State Trauma Registry Data Dictionary.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 348:

Is limited state-level correction authority granted to quality control staff working with the statewide trauma registry in order to amend obvious errors and omissions without returning the report to the originating entity?



Standard of Evidence:

Provide the formal methodology or describe the process by which limited state-level correction authority is granted to quality control staff working with the statewide trauma registry.

Question Rank:
Somewhat Important

Assessor conclusions:

Calculated fields are added at the state level. Erroneous AIS and ICD9 codes are excluded from ISS calculations.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 349:

Are there formally documented processes for returning rejected data to the collecting entity and tracking resubmission to the statewide trauma registry?



Standard of Evidence:

Provide the formal methodology or describe the process by which rejected data is returned to the collecting agency and tracked through resubmission to the statewide trauma registry.

Question Rank:
Very Important

Assessor conclusions:

The report is rejected if there are more than 1% fatal errors as designated in the submission specifications which were provided.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 350:

Are there timeliness performance measures tailored to the needs of trauma registry managers and data users?



Standard of Evidence:

Provide a complete list of timeliness performance measures for the trauma registry and explain how these measures are used to inform decision-making.

Question Rank:
Very Important

Assessor conclusions:

Hospitals are required to submit data within 75 days of discharge. This is a standard, not a performance measure. If the goal is 100% of hospitals report within 75 days, that would could be measured.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 351:

Are there accuracy performance measures tailored to the needs of trauma registry managers and data users?



Standard of Evidence:

Provide a complete list of accuracy performance measures for the trauma registry and explain how these measures are used to inform decision-making.

Question Rank:
Very Important

Assessor conclusions:

Performance measures for all categories were provided for the State trauma registry.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 352:

Are there completeness performance measures tailored to the needs of trauma registry managers and data users?


Standard of Evidence:

Provide a complete list of completeness performance measures for the trauma registry and explain how these measures are used to inform decision-making.

Question Rank:
Very Important

Assessor conclusions:

A complete list of performance measures for the trauma registry system was provided.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 353:

Are there uniformity performance measures tailored to the needs of trauma registry managers and data users?


Standard of Evidence:

Provide a complete list of uniformity performance measures for the trauma registry and explain how these measures are used to inform decision-making.

Question Rank:
Very Important

Assessor conclusions:

A complete list of performance measures for the trauma registry system was provided.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 354:

Are there integration performance measures tailored to the needs of trauma registry managers and data users?


Standard of Evidence:

Provide a complete list of integration performance measures for the trauma registry and explain how these measures are used to inform decision-making.

Question Rank:
Very Important

Assessor conclusions:

A complete list of performance measures for the trauma registry system was provided.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 355:

Are there accessibility performance measures tailored to the needs of trauma registry managers and data users?



Standard of Evidence:

Provide a complete list of accessibility performance measures for the trauma registry and explain how these measures are used to inform decision-making.

Question Rank:
Very Important

Assessor conclusions:

There are accessibility performance measures as specified in the narrative and supported by the MATRIS and Trauma Injury Prevention Performance Measures NHTSA 2011 document.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 356:

Has the State established numeric goals—performance metrics—for each trauma registry performance measure?



Standard of Evidence:

Provide specific numeric goals and related performance measures for each attribute as determined by the State.

Question Rank:
Somewhat Important

Assessor conclusions:

The State has established numeric goals—performance metrics—for each trauma registry performance measure as provided in the MATRIS and Trauma Injury Prevention Performance Measures NHTSA 2011.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 357:

Is there performance reporting for the trauma registry that provides specific timeliness, accuracy, and completeness feedback to each submitting entity?



Standard of Evidence:

Provide a sample report, list of receiving agencies, and specify frequency of issuance.

Question Rank:
Very Important

Assessor conclusions:

Upon submission, the data collection system provides feedback to the agency through feedback reports that indicate errors and omissions with the data.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 358:

Are high frequency errors used to update trauma registry training content, data collection manuals, and validation rules?



Standard of Evidence:

Provide the formal methodology or describe the process by which high frequency errors are used to update trauma registry training content, data collection manuals, and validation rules.

Question Rank:
Very Important

Assessor conclusions:

Submission error reports have been reportedly used to identify hospitals with a high frequency errors for identified fields. The result is an improvement on submission methodology to mitigate the problem.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 359:

Are quality control reviews conducted to ensure the completeness, accuracy, and uniformity of injury data in the trauma registry?

Standard of Evidence:

Provide a sample quality control review of injury records that details the system's data completeness.

Assessor conclusions:

Quality control reviews are conducted to ensure the completeness, accuracy, and uniformity in the trauma data overall, with additional quality control reviews specific to motor vehicle crashes. Injury data are subject to the same edit checks and validation reviews as the rest of the database.


Question Rank:

Somewhat Important

Respondents assigned

2

Responses received

1

Response rate

50%

Question 360:

Are periodic comparative and trend analyses used to identify unexplained differences in the trauma registry data across years and agencies?

Standard of Evidence:

Describe the analyses, provide a sample record or output, and specify their frequency.

Assessor conclusions:

Several examples were provided showing posters developed using analysis of trauma registry data. One example compared the available codes in the trauma registry with available hospital discharge codes. The comparative analyses meet the advisory ideal.


Question Rank:

Less Important

Respondents assigned

3

Responses received

2

Response rate

66.7%



Question 361:

Is data quality feedback from key users regularly communicated to trauma registry data collectors and data managers?



Standard of Evidence:

Describe the process for transmitting and utilizing key users' data quality feedback to inform program changes.

Question Rank:

Somewhat Important

Assessor conclusions:

DPH works regularly with hospital trauma registrars to update protocols and methodology to reduce the number of identified errors. In particular, improving the completeness and accuracy of SSN has been a priority.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 362:

Are trauma registry data quality management reports produced regularly and made available to the State TRCC?



Standard of Evidence:

Provide a sample quality management report and specify frequency of transmission to the State TRCC.

Question Rank:

Somewhat Important

Assessor conclusions:

Trauma data quality reports are produced regularly, but only provided to the TRCC upon request.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 363:

Are there automated edit checks and validation rules to ensure that entered data falls within a range of acceptable values and is logically consistent among data elements?



Standard of Evidence:

Provide the formal methodology or describe the process by which automated edit checks and validation rules ensure entered data falls within the range of acceptable values and is logically consistent among fields.

Question Rank:
Very Important

Assessor conclusions:

Edit checks are provided through a multi-step process by which a query is run against previously entered data. Coding and data entry errors are corrected at that time.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 364:

Is limited state-level correction authority granted to quality control staff working with vital records in order to amend obvious errors and omissions without returning the report to the originating entity?



Standard of Evidence:

Provide the formal methodology or describe the process by which limited state-level correction authority is granted to quality control staff working with vital records.

Question Rank:
Somewhat Important

Assessor conclusions:

Errors found at the State level can be identified and the record returned to the local agency for correction.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 365:

Are there formally documented processes for returning rejected data to the collecting entity and tracking resubmission to vital records?


Standard of Evidence:

Provide the formal methodology or describe the process by which rejected data is returned to the collecting agency and tracked through resubmission to vital records.

Question Rank:
Very Important

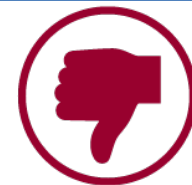
Assessor conclusions:

It was reported that when a record is rejected it is documented in the application. The indicator that is placed on the record is not removed until the record is corrected and returned.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 366:

Are there timeliness performance measures tailored to the needs of vital records managers and data users?


Standard of Evidence:

Provide a complete list of timeliness performance measures for vital records and explain how these measures are used to inform decision-making.

Question Rank:
Very Important

Assessor conclusions:

There is one timeliness measure: MGL ch.46§17B requires that the clerk of each city or town transmit the original record of death on or before the tenth day of the month. There are no other timeliness performance measures. The State has not moved to an electronic death certificate yet; all coding and data entry is done manually resulting in an extended turnaround time. Rated as "Does not meet" because the narrative reads as though the submission of death records by the tenth of the month is not enforced (no penalties for non-compliance were stated in the legislation) and there are no other performance measures related to timeliness.

Respondents assigned	2	Responses received	1	Response rate	50%
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**Question 367:**

Are there accuracy performance measures tailored to the needs of vital records managers and data users?

**Standard of Evidence:**

Provide a complete list of accuracy performance measures for vital records and explain how these measures are used to inform decision-making.

Question Rank:
Very Important

Assessor conclusions:

When the cause of death information is entered into supermicar, they are ALL QC'ed internally. The record is entered initially then undergoes a quality control process before it goes to NCHS for coding. Once back the NCHS can request clarification if there are still questionable data.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 368:

Are there completeness performance measures tailored to the needs of vital records managers and data users?

**Standard of Evidence:**

Provide a complete list of completeness performance measures for vital records and explain how these measures are used to inform decision-making.

Question Rank:
Very Important

Assessor conclusions:

All death certificate reports are QC'ed internally. No specific performance measures have been identified.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 369:

Are there uniformity performance measures tailored to the needs of vital records managers and data users?


Standard of Evidence:

Provide a complete list of uniformity performance measures for vital records and explain how these measures are used to inform decision-making.

Question Rank:
Very Important

Assessor conclusions:

All death certificate reports are QC'ed internally. No specific performance measures have been identified.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 370:

Are there integration performance measures tailored to the needs of vital records managers and data users?


Standard of Evidence:

Provide a complete list of integration performance measures for vital records and explain how these measures are used to inform decision-making.

Question Rank:
Very Important

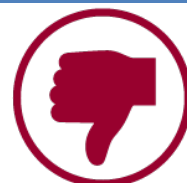
Assessor conclusions:

The State does not have integration performance measures tailored to the needs of vital records managers and data users.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 371:

Are there accessibility performance measures tailored to the needs of vital records managers and data users?


Standard of Evidence:

Provide a complete list of accessibility performance measures for vital records and explain how these measures are used to inform decision-making.

Question Rank:
Very Important

Assessor conclusions:

No accessibility performance measures are reportedly used.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 372:

Has the State established numeric goals—performance metrics—for each vital records performance measure?

Standard of Evidence:

Provide specific numeric goals and related performance measures for each attribute as determined by the State.

Assessor conclusions:

No State established numeric goals for vital records are available.



Question Rank:

Somewhat Important

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 373:

Is there performance reporting for vital records that provides specific timeliness, accuracy, and completeness feedback to each submitting entity?

Standard of Evidence:

Provide a sample report, list of receiving agencies, and specify frequency of issuance.

Assessor conclusions:

No performance reports are made available to the submitting agencies.



Question Rank:

Very Important

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 374:

Are high frequency errors used to update vital records training content, data collection manuals, and validation rules?

Standard of Evidence:

Provide the formal methodology or describe the process by which high frequency errors are used to update vital records training content, data collection manuals, and validation rules.

Assessor conclusions:

While not currently ongoing the Electronic Death Reporting System (EDRS) currently in development will address these issues.



Question Rank:

Very Important

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 375:

Are quality control reviews conducted to ensure the completeness, accuracy, and uniformity of injury data in the vital records?


Standard of Evidence:

Provide a sample quality control review of injury records that details the system's data completeness.

Question Rank:

Somewhat Important

Assessor conclusions:

Injury data is not subject to separate quality control performance measures. Quality control is performed on all vital (death) records.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 376:

Are periodic comparative and trend analyses used to identify unexplained differences in the vital records data across years and agencies?


Standard of Evidence:

Describe the analyses, provide a sample record or output, and specify their frequency.

Question Rank:

Less Important

Assessor conclusions:

Trend data is analyzed using Joinpoint. Deviations are noted and investigated.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 377:

Is data quality feedback from key users regularly communicated to vital records data collectors and data managers?


Standard of Evidence:

Describe the process for transmitting and utilizing key users' data quality feedback to inform program changes.

Question Rank:

Somewhat Important

Assessor conclusions:

It was reported that users of the data within the Department of Public Health provide feedback. Comments and concerns are investigated.

Respondents assigned	2	Responses received	1	Response rate	50%
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Question 378:

Are vital records data quality management reports produced regularly and made available to the State TRCC?

Standard of Evidence:

Provide a sample quality management report and specify frequency of transmission to the State TRCC.

Assessor conclusions:

Vital records reports are not made available to the TRCC.



Question Rank:

Somewhat Important

Respondents assigned	2	Responses received	1	Response rate	50%
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Data Use and Integration

Data integration involves the use of disparate datasets in varying combinations to provide data users and policy makers the ability to view and analyze data in a manner that is not possible using a single data source. Integrated data can be used to improve problem identification and program evaluation activities at the state and local level by using other traffic records systems to provide an additional level of information and detail. These additional data can often help decision makers develop a more accurate picture of existing and emerging highway safety problems. The process of integrating data, however, is frequently challenging as the databases are managed and housed by different agencies and collected for the specific business activities of those particular agencies.

Massachusetts has a long history of using traffic records data for analysis and with integrating various components of the traffic records system for further investigation. Initially, data linkage efforts were achieved through the CODES project and currently they are conducted through the activities of MassTRAC and UMassSafe. Both the public and the State's decision-makers have access to a variety of epidemiologists, analysts, and user-friendly access tools for the use and analysis of traffic records data. At this time, the focus appears to be primarily on the crash, roadway, and citation data files. However, data from the other traffic records system components are available and the State is working with its partners to improve access and integration.

The traffic safety and public health stakeholders in Massachusetts have access to data from the six primary traffic records components (crash, roadway, driver, vehicle, citation, and injury surveillance). As with most States, the data are housed separately and individual data owners are responsible for maintaining their own data sets and providing data quality management under the oversight of the Statewide Quality Advisory Committee.

In addition to the availability of individual data from these systems, Massachusetts was a member of the CODES data network from the mid-1990s through 2010. Through the CODES program the State had established an integrated data set comprised of crash, emergency department, and hospital inpatient information. This data set was used to provide injury and hospital charge information on a variety of highway safety topics. While the CODES project is no longer active in Massachusetts, other activities have been undertaken to improve traffic records data quality and access.

With the support of the State's Traffic Records Coordinating Committee, there are two primary efforts underway to update and improve the use of integrated highway safety data. In the first, the Highway Safety Division (HSD) contracted with a vendor to help alleviate the limited access that the HSD and other stakeholders had to crash and citation data. The resultant product – the Massachusetts Traffic Records Analysis Center (MassTRAC) – allows users to analyze crash, person, and vehicle data in a variety of applications. In addition to the ability to develop map-based displays and perform spatial queries, summary data tables can be produced for use in the development of various highway safety plans. The MassTRAC software is versatile enough to support the needs of users with varying levels of training and analytical skills and includes an ad hoc reporting function to allow users to produce custom report that include up to three years of data.





The second effort, UMassSafe, is a multidisciplinary traffic safety research program housed in the University of Massachusetts Transportation Center. UMassSafe collects and analyzes crash data, examines data quality issues, provides data training, and makes recommendations for improvements in the systems. For the coming year, the TRCC has approved a project for UMassSafe to investigate linkage strategies that would lead towards the development of a centralized, uniform crash analysis database.

Several specific projects that have utilized integrated traffic records data include: MassDOT's use of the geographical location of crash data integrated with the roadway file to provide the information for the development of safety improvement projects and to report the top 200 high crash intersection locations within the State; crash data and citation data are linked in MassTRAC using driver's license number and date and location of incident; records that result in an exact match on all three attributes are included in a database that is uploaded biannually by MassTRAC.

With support from the TRCC, the expertise and infrastructure is available in Massachusetts to take advantage of a number of opportunities related to data integration: coordinate efforts of MassTRAC and UMassSafe to maximize the use of data from the traffic records system components, both individually and collectively; pursue the re-inclusion of injury surveillance system data within the guidelines of the State's data committee; pursue the inclusion of driver and vehicle information in the MassTRAC or UMassSafe projects; and complete the update of the Data Resource Guide to include information about the traffic records data systems and integration methodology.

Massachusetts has a long history of using disparate datasets in varying combinations to provide data users and policy makers the ability to view and analyze data. Data linkage efforts were achieved through the CODES project operated in prior years. Currently they are conducted through the activities of MassTRAC and UMassSafe.





Question 379:

Do behavioral program managers have access to traffic records data and analytic resources for problem identification, priority setting, and program evaluation?



Standard of Evidence:

Identify the data source(s), (crash, roadway, driver, vehicle, citation adjudication, injury surveillance), discuss and provide examples of program specific analysis (e.g., reports, fact sheets, web pages, ad hoc analyses).

Question Rank:
Very Important

Assessor conclusions:

Injury Prevention Specialists in the Injury Prevention and Control Program (IPCP) work closely with epidemiologists in the Injury Surveillance and other MDPH programs who regularly provide IPCP staff with MV injury data. Massachusetts Department of Public Health (MDPH) injury epidemiologists routinely provide IPCP staff with MV injury data based on emergency department, hospital discharge, observation stay data and vital records data. MDPH injury epidemiologists also provide IPCP staff with MV-related risk behavior data from the MA Youth Risk Behavior Survey and MA Youth Health Survey. Within the Highway Safety Division the Massachusetts Traffic Records Analysis Center has been developed allowing users the ability to perform key spatial and statistical analytic functions using crash, person, and vehicle data; create map-based displays and perform queries of crash locations, etc. The products are used to assist the development of various highway safety plans.

Respondents assigned	2	Responses received	2	Response rate	100%
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Question 380:

Does the State have a data governance process?



Standard of Evidence:

Provide a narrative detailing the State's data governance process, identifying the personnel involved and describing how it supports traffic safety data integration and formal data quality management.

Question Rank:
Somewhat Important

Assessor conclusions:

The data owners of the individual agencies are responsible for managing their own information and providing quality control.

Respondents assigned	2	Responses received	2	Response rate	100%
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Question 381:

Does the State have a formal traffic records system inventory that identifies linkages useful to the State and data access policies?



Standard of Evidence:

Provide a copy of the system inventory specifying all traffic records data sources, system custodians, data elements and attributes, linkage variables, linkages useful to the State, and data access policies.

Question Rank:
Very Important

Assessor conclusions:

The Data Resource Guide was begun in 2000. That document would provide a system inventory for traffic records data but needs to be completed and updated.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 382:

Does the TRCC promote data integration by aiding in the development of data governance, access, and security policies for integrated data?



Standard of Evidence:

Identify, with appropriate citations, the TRCC strategic plan sections that demonstrate the promotion of data integration. (Pre-populate with latest strategic plan.)

Question Rank:
Somewhat Important

Assessor conclusions:

Massachusetts was a CODES State through 2010 but linkage activities have not been continued. The TRCC has approved a project for 2014 to investigate additional linkage strategies.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 383:

Is driver data integrated with crash data for specific analytical purposes?

Standard of Evidence:

Document an integrative crash-driver link, the linkage variables, and example analysis, and the frequency of linkage. Example analyses could include an assessment of graduated drivers' license (GDL) law effectiveness or of crash risk associated with motorcycle rider training, licensing, and behavior.

Assessor conclusions:

Driver data is reportedly not currently integrated with crash data for analysis.



Question Rank:
Very Important

**Respondents
assigned**

1

**Responses
received**

1

**Response
rate**

100%

Question 384:

Is vehicle data integrated with crash data for specific analytical purposes?

Standard of Evidence:

Document an integrative crash-vehicle link, the linkage variables, and example analysis, and the frequency of linkage. Example analyses could include crash trends among vehicle types or vehicle weight restriction by road classification.

Assessor conclusions:

Vehicle data are reportedly not integrated with crash data for analysis purposes.



Question Rank:
Very Important

**Respondents
assigned**

1

**Responses
received**

1

**Response
rate**

100%



Question 385:

Is roadway data integrated with crash data for specific analytical purposes?

Standard of Evidence:

Document an integrative crash-roadway link, the linkage variables, and example analysis, and the frequency of linkage. Example analyses could include the identification of high crash locations and locations with similar roadway attributes or an assessment of engineering countermeasures' effectiveness.

Assessor conclusions:

The MassDOT Highway Division has developed an automated procedure for processing, standardizing, matching, and aggregating the crash data by geographical location daily using GIS tools and procedures. At least one of supporting documents appears to use data from 2010.



Question Rank:
Very Important

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 386:

Is citation and adjudication data integrated with crash data for specific analytical purposes?

Standard of Evidence:

Document an integrative crash-citation or adjudication link, the linkage variables, and example analysis, and the frequency of linkage. Example analyses could include an assessment of the relationship between illegal actions and crashes for specific driver subpopulations (e.g., older drivers) or of crash-involved DUI offenders' adjudications.

Assessor conclusions:

Efforts are made to link crashes and citations through MassTRAC using driver's license number, date, and city/town.



Question Rank:
Very Important

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 387:

Is injury surveillance data integrated with crash data for specific analytical purposes?



Standard of Evidence:

Document an integrative crash-injury surveillance link, the linkage variables, and example analysis, and the frequency of linkage. Example analyses could include injury outcomes by specific crash type or injuries associated with occupant protection.

Question Rank:
Very Important

Assessor conclusions:

Currently, ISS data sets are not integrated with the crash file. Historically this was accomplished under the CODES program in Massachusetts.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 388:

Are there examples of data integration among crash and two or more of the other component systems?



Standard of Evidence:

Document an integrative link among crash and multiple data systems, the linkage variables, and example analysis, and the frequency of linkage. Example analyses could include an assessment of the safety impact of differential speed limits for different vehicle types.

Question Rank:
Somewhat Important

Assessor conclusions:

No examples were provided of data integration between the crash file and two or more other components of the traffic records system.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 389:

Is data from traffic records component systems—excluding crash—integrated for specific analytical purposes?



Standard of Evidence:

Document an integrative link using at least two traffic record component systems excluding the crash system. Include the systems, their linkage variables, example analysis, and the frequency of linkage. Example analyses could include an assessment of recidivism among specific driver populations.

Question Rank:
Somewhat Important

Assessor conclusions:

No integration was reported using traffic records components systems (excluding the crash file) for analytic purposes.

Respondents assigned	1	Responses received	1	Response rate	100%
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Question 390:

Do decision-makers have access to resources—skilled personnel and user-friendly access tools—for the use and analysis of integrated datasets?



Standard of Evidence:

Identify the analytical resources available: personnel, software, or online resources. Specify the decision-makers who have access to these resources.

Question Rank:
Somewhat Important

Assessor conclusions:

There are multiple resources within MassTRAC and the Massachusetts Department of Public Health that are available to assist with the integration and analysis of traffic records components data sets. In addition to personnel, an online query system is available to generate ad-hoc reports and maps. -

Respondents assigned	2	Responses received	2	Response rate	100%
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**Question 391:**

Does the public have access to resources—skilled personnel and user-friendly access tools—for the use and analysis of integrated datasets?

**Standard of Evidence:**

Identify the analytical resources available to the public: personnel, software, or online resources. Specify how the public has access to these resources.

Question Rank:

Somewhat Important

Assessor conclusions:

The public has access to data analysts who are able to receive and respond to data requests. The Department of Public Health also provides access to Community Health Information Profile system which provides access to an online query system for several ISS components.

Respondents assigned

2

Responses received

2

Response rate

100%





Appendix A

Assessment Participants

State Highway Safety Office Representative(s)

Mr. Arthur Kinsman
Highway Safety Division of the Office of Grants and Research
Director

Ms. Barbara Rizzuti
Highway Safety Division
Program Coordinator

Traffic Records Coordinator(s)

Ms. Barbara Rizzuti
Highway Safety Division
Program Coordinator

State Assessment Coordinator(s)

Mr. Richard Conard
Massachusetts Department of Transportation
Transportation Planner

Ms. Ridgely Ficks
Massachusetts Department of Public Health
-

Mr. Richard Hill
Registry of Motor Vehicles / Merit Rating Board
Assistant Director of Operators

Ms. Sylvia D Hobbs
Center for Health Information and Analysis (formerly known as the DHCFP)
Director of Research & Evaluation

Mr. Jerry O'Keefe
Bureau of Health Information, Statistics, Research, and Evaluation
Director

Ms. Karen Perduyn
Massachusetts Department of Transportation
Crash Data Manager

Ms. Barbara Rizzuti
Highway Safety Division
Program Coordinator





NHTSA Regional Office Coordinator(s)

Ms. Charlene Oakley
NHTSA
Regional Program Manager

NHTSA Headquarters Coordinator

Mr. Luke Johnson
National Highway Traffic Safety Administration
Program Analyst





State and Local Respondents

The following State and Local staff assisted in the Assessment by providing responses to the Advisory criteria and questions.

Name	Agency	Title
Mr. Richard Conard	Massachusetts Department of Transportation	Transportation Planner
Ms. Ridgely Ficks	Massachusetts Department of Public Health	-
Mr. Raymond Guarino	Old Colony Planning Council	Planner
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Appendix B

National Acronyms and Abbreviations

AADT	average annual daily traffic
AAMVA	American Association of Motor Vehicle Administrators
AASHTO	American Association of State Highway and Transportation Officials
ACS	American College of Surgeons
AIS	Abbreviated Injury Score
ANSI	American National Standards Institute
ATSIP	Association of Transportation Safety Information Professionals
BAC	Blood Alcohol Concentration
CDC	Center for Disease Control
CDLIS	Commercial Driver License Information System
CODES	Crash Outcome Data Evaluation System
DDACTS	Data Driven Approaches to Crime and Traffic Safety
DHS	Department of Homeland Security
DMV	Department of Motor Vehicles
DPPA	Drivers Privacy Protection Act
DOH	Department of Health
DOJ	Department of Justice
DOT	Department of Transportation
DOT-TRCC	The US DOT Traffic Records Coordinating Committee
DRA	Deputy Regional Administrator (NHTSA)
DUI	driving under the influence
DUID	driving under the influence of drugs
DWI	driving while intoxicated
ED	Emergency Department
EMS	Emergency Medical Service
FARS	Fatality Analysis Reporting System
FDEs	Fundamental Data Elements
FHWA	Federal Highway Administration
FMCSA	Federal Motor Carrier Safety Administration
GCS	Glasgow Coma Scale
GDL	graduated driver licensing
GES	General Estimates System
GHSA	Governors Highway Safety Association
GIS	Geographic Information System
GJXDM	Global Justice XML Data Model
GPS	Global Positioning System
GRA	Government Reference Architecture
HIPAA	Health Information Privacy and Accountability Act
HPMS	Highway Performance Monitoring System
HSIP	Highway Safety Improvement Plan
HSP	Highway Safety Plan
ICD-10	International Classification of Diseases and Related Health Problems





IRB	Institutional Review Board
ISS	Injury Severity Score
IT	information technology
JIEM	Justice Information Exchange Model
LEIN	Law Enforcement Information Network
MADD	Mothers Against Drunk Driving
MCMIS	Motor Carrier Management Information System
MIDRIS	Model Impaired Driving Records Information System
MIRE	Model Inventory of Roadway Elements
MMUCC	Model Minimum Uniform Crash Criteria
MOU	memorandum of understanding
MPO	metropolitan planning organization
NAPHSIS	National Association for Public Health Statistics and Information Systems
NCHS	National Center for Health Statistics
NCIC	National Crime Information Center
NCSC	National Center for State Courts
NDR	National Driver Registry
NEMSIS	National Emergency Medical Service Information System
NGA	National Governor's Association
NHTSA	National Highway Traffic Safety Administration
NIBRS	National Incident-Based Reporting System
NIEM	National Information Exchange Model
NLETS	National Law Enforcement Telecommunication System
NMVTIS	National Motor Vehicle Title Information System
NTDS	National Trauma Data Standard
PAR	police accident report
PDPS	Problem Driver Pointer System
PDO	property damage only
PII	personally identifiable information
RA	Regional Administrator (NHTSA)
RPM	Regional Program Manager (NHTSA)
RTS	Revised Trauma Score
RMS	records management system
RPC	Regional Planning Commission
SAVE	Systematic Alien Verification for Entitlements
SHSP	Strategic Highway Safety Plan
SME	subject matter expert
SSOLV	Social Security Online Verification
STRAP	State Traffic Records Assessment Program
SWISS	Statewide Injury Surveillance System
TCD	Traffic Control Devices
TRA	Traffic Records Assessment
TRIPRS	Traffic Records Improvement Program Reporting System
TRCC	Traffic Records Coordinating Committee
TRS	Traffic Records System
UCR	Uniform Crime Reports
VIN	Vehicle Identification Number
VMT	vehicle miles traveled
XML	Extensible Markup Language





State-Specific Acronyms and Abbreviations

ALARS	Automated License and Registration System
CDS	Crash Data System
CHIA	Massachusetts Center for Health Information and Analysis
EDRS	Electronic Death Reporting System
EOPSS	Executive Office of Public Safety and Security
MACCS	Motor Vehicle Automated Citation and Crash System
MATRIS	Massachusetts Trauma Registry Information System
MassDOT	Massachusetts Department of Transportation
STSIG	State Traffic Safety Information System Improvement Grants

