



State of Vermont

Traffic Records Assessment

June 24, 2022

National Highway Traffic Safety Administration

Technical Assessment Team





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Introduction

This Traffic Records Program Assessment is the second of the online question-and-answer evaluations of Vermont's Traffic Records System. This review is built upon the previous assessment conducted five years ago. Since the last assessment, Vermont has made strides in improving many aspects of the traffic records system.

Vermont has an impressive two-tiered Traffic Records Coordinating Committee (TRCC) with executive and technical group rosters including all six core data systems. The TRCC has the responsibility of developing and updating the Traffic Records Strategic Plan. The plan aims to address the recommendations from the previous assessment and clearly outlines the process for reviewing and prioritizing projects to recommend for funding.

All law enforcement crash reports are submitted to, and the data system is managed by, the Agency of Transportation (VTrans), although the data may be captured in several ways. Crash data is analyzed and used as part of the Strategic Highway Safety Plan (SHSP) development and supports highway safety grantees.

The Vermont Department of Motor Vehicles (DMV) has custodial responsibility for the statewide driver data system and vehicle data systems. Those systems have extensive documentation and clear processes supporting evaluation and improvement.

VTrans collects and manages several data sets containing characteristics of all public roadways. The State utilizes the Model Inventory of Roadway Elements (MIRE) guidelines and collects almost all of the Fundamental Data Elements (FDE). The crash data has been integrated with the roadway data to allow in-depth analyses.

The Vermont Judicial Bureau is responsible for the citation and adjudication data systems and maintains that data in a records management system known as Odyssey. That system transmits appropriate conviction information to the DMV for posting on the driver record and serves as a resource for law enforcement agencies.

Vermont has outstanding emergency medical services, hospital (inpatient, and emergency department), and vital records data systems. Although not in place currently, efforts are underway to develop a statewide trauma registry. Data from those systems is available to analyze motor vehicle-related injuries and there is great interest in the integration of crash and EMS data.

Overall, Vermont has made significant progress over the last five years and demonstrated an organized approach to expanding the capabilities of and improving the traffic records data systems. Plans are in place to develop a trauma registry and data governance policy. Efforts to integrate data systems for analysis will enhance the State's ability to conduct problem identification, resource allocation, and program evaluation activities.





Assessment Results

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. 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’ Fixing America’s Surface Transportation Act (FAST ACT) 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.

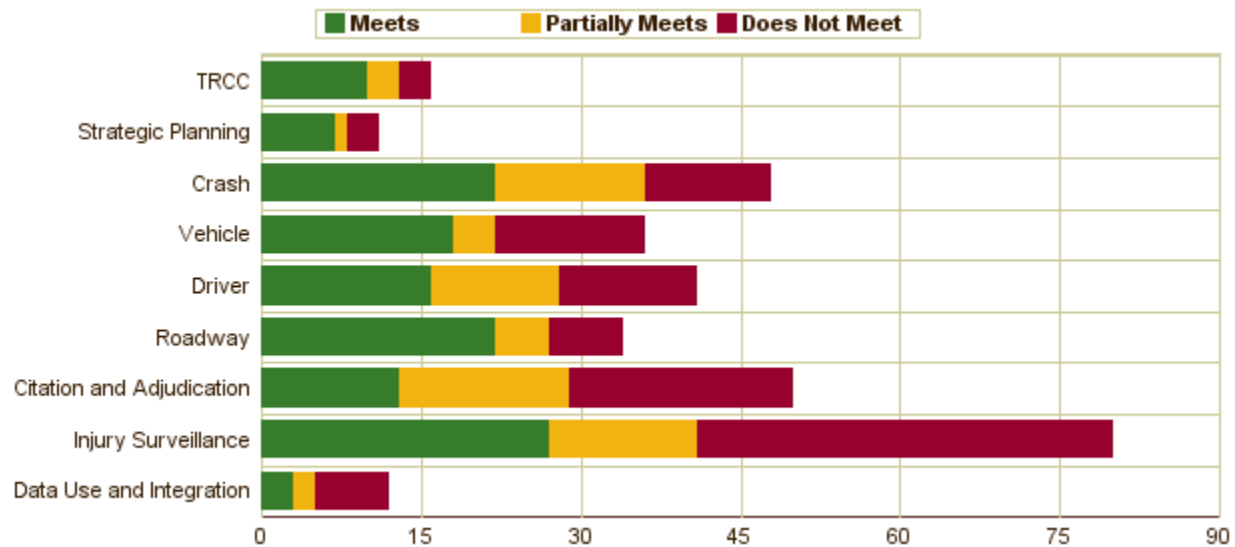
Out of 328 assessment questions, Vermont met the Advisory ideal for 138 questions (42%), partially met the Advisory ideal for 71 questions (22%), and did not meet the Advisory ideal for 119 questions (36%).

As [Figure 1: Rating Distribution by Module](#) illustrates, within each assessment module Vermont met the criteria outlined in the Traffic Records Program Assessment Advisory 63% of the time for Traffic Records Coordinating Committee Management, 64% of the time for Strategic Planning, 46% of the time for Crash, 50% of the time for Vehicle, 39% of the time for Driver, 65% of the time for Roadway, 26% of the time for Citation and Adjudication, 34% of the time for EMS / Injury Surveillance, and 25% of the time for Data Use and Integration.





Figure 1: Rating Distribution by Module



States are encouraged to use the recommendations, considerations, and conclusions of this report as a basis for the State data improvement program strategic planning process and are encouraged to review the report at least annually to gauge how the State is addressing the items outlined.

Recommendations & Considerations

According to 23 CFR Part 1200, §1200.22, applicants for State traffic safety information system improvements grants are required to maintain a State traffic records strategic plan that—

“(3) Includes a list of all recommendations from its most recent highway safety data and traffic records system assessment; (4) Identifies which such recommendations the State intends to implement and the performance measures to be used to demonstrate quantifiable and measurable progress; and (5) For recommendations that the State does not intend to implement, provides an explanation.”

The following section provides Vermont with the traffic records assessment recommendations and associated considerations detailed by the assessors. The broad recommendations provide Vermont flexibility in addressing them in an appropriate manner for your State goals and constraints. Considerations are more detailed, actionable suggestions from the assessment team that the State may wish to employ in addressing their recommendations. GO Teams, CDIPs (Crash Data Improvement Program) and MMUCC Mappings are available for targeted technical assistance and training.





TRCC Recommendations

None

Considerations for implementing your TRCC recommendations

- Pursue the development of a traffic records inventory. A comprehensive traffic records inventory is a useful and pragmatic document to ensure that efforts aren't duplicated, and data is accessible to all who need it to make sound data-driven decisions.
- Implement a program that would allow Traffic Records Coordinating Committee members to receive information regarding data quality. This would allow the committee to have some oversight and monitoring of data quality across traffic records systems.

Summary

Vermont is commended for having established a two-tiered Traffic Records Coordinating Committee (TRCC), technical and executive committees, and for ensuring representation from all six traffic records core data systems including State and local law enforcement. There is a Charter that authorizes the TRCC, outlines its mission, documents the responsibilities of the TRCC Chair, and contains the signatures of the agreement partners outlined in the strategic plan.

The technical TRCC is responsible for the development and implementation of the TRCC Strategic Plan and all core areas. The TRCC meets at least quarterly to address traffic records initiatives, challenges, and project updates, while the executive committee meets on an as-needed basis. If any of the executive committee members attend the technical committee meetings, it would be beneficial for that to be documented in the strategic plan. All core areas should be included in the plan and not just the current projects being worked on. The plan should be treated as a living document and updated as progress is made.

Vermont uses 405(c) funding for traffic records improvement projects. Other federal sources are also available which can be utilized for traffic records improvement efforts including funds from FHWA and FMCSA. Consideration should be given to exploring those and other potential funding that could be available for some of the projects.

The TRCC should have oversight responsibility for quality control and quality improvement programs affecting all traffic records data. Regularly scheduled presentations of quality control metrics should be part of the TRCC meeting agenda. The TRCC should promote projects to address the data quality problems that are presented.

The State should develop and maintain a traffic records system inventory. A complete system inventory would include the data elements, definitions, and locations within the various component systems.

Overall, the Vermont TRCC is functioning well under its current structure. It is evident that the TRCC works together to establish the strategic plan priorities. Despite the TRCC not having the authority to allocate federal traffic records improvement grant funds, the TRCC is responsible for identifying the traffic





records projects and initiatives supported by those funds. The Vermont State Highway Safety Office relies on the TRCC for recommendations and support for the projects submitted for approval. The State should be commended for implementing these practices, in lieu of the TRCC being able to allocate federal funds.

Strategic Planning Recommendations

None

Considerations for implementing your Strategic Planning recommendations

- Identify countermeasures that address the attributes for each of the six core data systems in the Traffic Records Strategic Plan. Include countermeasures that address at least one of the performance attributes of timeliness, accuracy, completeness, uniformity, integration, and accessibility.

Summary

Vermont has a well-documented strategic planning process, with the Traffic Records Strategic Plan being updated annually and voted on by the Traffic Records Coordinating Committee. The process for planning and prioritizing projects is clearly outlined in the Strategic Plan and current projects are linked back to the recommendations from the previous Traffic Records Assessment.

Vermont generally does a good job when documenting projects being undertaken in the Strategic Plan, establishing timelines and responsibilities, and considering the use of new technology, but documenting lifecycle costs would improve the plan. The State considers new technology in multiple projects but has not documented full lifecycle costs (beyond the initial program and hardware costs for agencies and maintenance costs) when implementing traffic records projects. The initial capital outlay cost is important, but it is only a portion of the costs over the asset's lifecycle that needs to be considered when making investment decisions.

Crash Recommendations

1. Improve the data quality control program for the Crash data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.
2. Improve the interfaces with the Crash data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.

Considerations for implementing your Crash recommendations

- Develop a formal, comprehensive crash data quality management program as described in the Traffic Records Advisory.
- Develop crash system performance measures for all the quality attributes (timeliness, accuracy, completeness, uniformity, integration, and accessibility) to monitor the health of and support an accountable outcome-based crash system. Provide periodic feedback reports to data collectors regarding the measure's progress and/or suggestions to improve data quality.
- Develop a fully functional data dictionary to support the regular use of the crash dataset as well as accurate and up-to-date documentation detailing the policies and procedures for key processes describing the collection, reporting, and posting of crash data.





- Develop a process to allow State quality control staff to fix obvious errors and omissions for use in studies and analyses while retaining the original crash report (legal record) if needed for reference.
- Develop a formal process for returning rejected crash reports to the originating officer when errors are identified. The process should also include tracking the corrected report's re-submission.
- Expand crash risk factors and analysis to include non-engineering (behavioral) data needs.

Summary

According to Vermont State Statute 23 V.S.A. § 1603(b), all crash reports are to be submitted to the Department of Motor Vehicles (DMV). Motorists involved in a traffic crash are required to submit an operator's crash report within 72 hours of the incident. As described in the Investigator's Guide for Completing the State of Vermont Uniform Crash Report, law enforcement reports shall be forwarded within 30 days of the investigation. Even though the statute designates DMV as the crash report custodian, in practice, the Agency of Transportation (VTrans) has custodial responsibility for the State's crash repository. Either by way of an electronic or paper copy, law enforcement crash reports are sent to VTrans. VTrans does not enter data from the operator reports into the crash repository or use the information for traffic safety analysis. The operator reports are used to support financial responsibility. Vermont should consider updating the statute to reflect the adopted practice or at least clarify the language in the Investigator's Guide.

Vermont's crash data is housed in a single, consolidated statewide database at VTrans. Vermont's Web Crash internet application is used to submit all law enforcement crash reports. VTrans has improved the application since the 2017 Traffic Records Assessment by merging its functionality from two separate systems into one, which provides additional efficiencies in the field data collection and submission process. Even though 100 percent of all crash report data is managed electronically, field data collection at the crash scene is accomplished in several ways including collecting information electronically direct to Web Crash where connectivity exists, collecting the data on a paper crash report, or collecting field notes and then entering the data at the agency or regional offices. Vermont does not track the various field data collection methods. Tracking the field data collection methods could be used as performance measures and assist in promoting full electronic field collection.

The Investigator's Guide is the primary documentation for the key processes governing the collection, reporting, and posting of crash data. The documentation supports procedures for all reportable crashes and describes in detail the processes for reporting commercial motor vehicle-involved crashes to the FMCSA, including the ability to export crash data from the Web Crash application where the results are auto-populated in the SafetyNET system. The Guide describes how enforcement agencies are required to notify VTrans when fatal crashes occur. The notification includes preliminary information related to the crash. The VTrans FARS analyst then gathers other supplemental information to populate the data in the Federal database. The Vermont crash system data dictionary is an automated output from the SQL database model that includes all the tables and elements residing in the database but does not list the acceptable values and attributes for each element or include information about linked or derived variables. While researchers and analysts could refer to the Investigator's Guide to understand the database content, the manual or current dictionary does not include all the components of a fully functional data dictionary. A comprehensive





stand-alone data dictionary would contain contact information for the data manager, information about how to gain access to the database, a list of all data elements, the allowable attributes (codes), attribute definitions, linked or derived data elements and source datasets, and how the linked or derived elements are populated. The data dictionary should also include all edit checks and validation rules applied to the elements to assure data quality. Vermont is encouraged to develop a fully functional data dictionary to support the regular use of the crash dataset as well as accurate and up-to-date documentation detailing the policies and procedures for key processes describing the collection, reporting, and posting of crash data.

The Web Crash application includes a series of edit checks and validation rules that must be cleared to submit the crash report to the repository. Web Crash has served the State well in improving the accuracy, completeness, and uniformity of its crash data. Vermont relies almost solely on Web Crash for its quality assurance processes. Although the Vermont crash system is functioning well, there are areas the State might consider to further improve crash data quality and support data-driven safety decision-making.

Vermont is encouraged to identify crash reports with errors beyond those flagged by the edit checks. It does not have a formal process for returning rejected crash reports to the originating officer when errors are identified. Processes for returning rejected reports ensure the efficient transmission of the reports between the statewide data system and the originating officer as well as tracking the corrected report's re-submission. Reports updated since the original submission could be tracked along with the changes made. The results could be used to establish timeliness performance measures, a list of high-frequency errors, the identification of additional warning and edit checks, and targeted training processes.

While VTrans staff review the crash location and may update the location information, quality control staff do not have the authority to amend other obvious errors and omissions. In certain instances, quality control staff will contact individual departments if errors are found, using an incident number to identify the report. Obvious errors include minor misspellings and location corrections. Obvious omissions include missing values that can easily be obtained from the narrative or diagram. VTrans might consider instituting a process to allow quality control staff to fix obvious errors and omissions and retain the original report (legal record) if needed for reference. Vermont is encouraged to consider implementing formal, comprehensive crash data quality management.

Vermont has established some crash system performance measures, specifically in the areas of timeliness, uniformity, and integration. The current performance measures are not always clear and do not always include all components of a complete measure. VTrans is commended for its efforts so far and is encouraged to expand performance measures to the other quality attributes. Complete performance measures provide the ability to monitor the health of the crash system and support an accountable outcome-based system that establishes the metric/goal, baseline measurement, and the ability to track and report progress over time to managers, data users, and the Traffic Records Coordinating Committee.





Vehicle Recommendations

3. Improve the data quality control program for the Vehicle data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.
4. Improve the description and contents of the Vehicle data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.

Considerations for implementing your Vehicle recommendations

- Utilize barcodes in the State's vehicle registration documents. The ongoing project should be finalized soon to achieve this goal.
- Pursue real-time processing in the State vehicle data system.
- Develop a process to detect and track high frequency errors, which could generate updates to training or system validation rules.
- Develop a concept for a formal data quality management program for the vehicle data system, which will give the State a greater ability to fully monitor the health of the system.
- Develop a mechanism for data quality feedback from key users to be regularly communicated to data collectors and managers and provide data quality reports to the Traffic Records Coordinating Committee.
- Implement the use of flags for stolen vehicles in the vehicle data system and establish procedures to remove the flag upon recovery of a junked stolen vehicle.

Summary

The Vermont Department of Motor Vehicles (DMV) has custodial responsibility for the State vehicle data system that resides in a single location and contains all information related to identification and ownership of vehicles registered in the State, as well as vehicle make, model, year, body type, and title brand history.

The State validates every vehicle identification number (VIN) at the time of the registration data entry and identifies VIN numbers that require additional correction. The State's vehicle registration documents are not barcoded, but there has been an ongoing project since 2007 to add barcodes to registration documents. The State vehicle system provides title data to the National Motor Vehicle Title Information System (NMVTIS) daily. The vehicle system queries the NMVTIS manually and only for new out-of-state title transactions. Vermont participates in the Performance and Registration Information Systems Management (PRISM) program.

The Vermont vehicle data system is supported with documentation that includes all necessary details related to the content and structure of the State's vehicle system, as well as to the titling and registration procedures. For example, for each vehicle system data field, the State's documentation provides data definitions, edit checks, and data collection rules. In addition, title and registration procedures are specified in several documents that are maintained on the DMV's internal SharePoint site. Vermont also maintains a process flow diagram, which outlines the vehicle system's key data process flows, includes information on timeliness for different processing steps, and provides information on procedures for error corrections. Edit check and data validation procedures are an integral part of the Vermont vehicle system, and the State's validation procedures also include the creation of automated reports that are reviewed for quality control purposes.





The State vehicle system maintains title brand history previously applied to vehicles by other States and the State can access title brand history for each vehicle transaction. However, the vehicle system does not contain flags for stolen vehicles.

The Vermont vehicle system data is not processed in real-time. The State's vehicle and driver data systems reside in the Vermont DMV mainframe system and are linked via the driver license number. Also, the vehicle data system is supported by error correction procedures, which are handled by Vermont Quality Control Unit staff who have authority to perform such procedures.

While some data quality control processes exist, Vermont does not have a formal data quality management program and does not track timeliness, accuracy, completeness, uniformity, accessibility, and integration performance metrics for the vehicle data system. Also, the State has an informal process for tracking and reviewing high frequency errors, which may result in error correction actions and lead to updates in training material and/or training modifications. Similarly, it does not appear that there is established formal communication on data errors from key data users, which could provide valuable information to improve processes and data collection methods.

In summary, the Vermont vehicle data system is well-maintained, and many aspects are impressive, such as those related to guidelines, data dictionary, and procedures and processes. To further enhance its vehicle data system qualities, the State should pursue improvements in particular areas, such as those related to the vehicle system data quality control.

Driver Recommendations

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

Considerations for implementing your Driver recommendations

- Create a formal documented process for error correction and handling. This will ensure error correction is managed consistently.
- Conduct facial recognition prior to issuing a driver license, utilizing the current facial recognition software.
- Participate in the American Association of Motor Vehicle Administrators' State-to-State (S2S) verification program. This would ensure drivers only hold one driver license and would provide the ability to electronically transfer and obtain the previous state of record driver history.
- Establish performance measures for timeliness, accuracy, completeness, uniformity, integration, and accessibility for the driver data system.

Summary

The Vermont Department of Motor Vehicles (DMV) has custodial responsibility for the Vermont driver data system. The driver system maintains all critical information for both commercial and non-commercial drivers including personal information, driver license type, endorsements, status, conviction history, and crash involvement information. Driver training information is only captured for drivers under 18 years old.





The State's driver data system interacts with the National Driver Register's Problem Driver Pointer System (PDPS) and the Commercial Driver's License Information System (CDLIS). Vermont should be commended for system documentation. The contents of the data dictionary are well documented with each field defined and value depicted. The driver system also has edit checks and data collection guidelines. Updates to the data dictionary and edit checks occur through a formal process whenever there are changes to administrative rules, laws, or updated procedures.

Many licensing and issuance procedures for the Vermont driver data system are documented and accessible to staff through the DMV Intranet. The process flow diagram could be improved upon by including the driver system key process flows for the issuance of all credentials. While the State has a standard of no more than one percent error rate for transactions, there are not any formal procedures for error correction and handling. Vermont has processes in place to administratively suspend licenses based on an impaired arrest independent of adjudication.

Vermont has established some excellent procedures and automated system programs for deterring and detecting fraudulent non-commercial and commercial driver license activity. The DMV utilizes facial recognition software and requires review of documents at multiple levels. The American Association of Motor Vehicle Administrators' (AAMVA) Fraudulent Document Recognition Training is provided to all front-line staff. Driver license issuance activity is monitored using security cameras and covert monitoring. The State also has a Fraud Unit comprised of sworn law enforcement that investigates suspicious activity for further appropriate action if necessary.

The State has established policies and procedures for system and information security. All DMV staff are required to complete the Driver's Privacy Protection Act (DPPA) training, and the use of a "watchdog report" assists with tracking and monitoring access and release of driver data. Access to driver data is granted to law enforcement through the Vermont Department of Public Safety.

Vermont's crash data is linked to the driver data system using a nightly export file. The State's citation/adjudication systems are not electronically linked to the driver data system; however, adjudicated/citation data is updated to the driver system. Driver history records are electronically received and transferred to other States only for commercial driver license (CDL) drivers. Efforts should be made to participate in the AAMVA State-to-State (S2S) Program for non-commercial drivers. The State does not have a separate DUI tracking system. One of the benefits of a DUI tracking system is that it allows all agencies that interact with the offender to have access to all pertinent information from the point of arrest to the completion of sentencing or probation. A DUI tracking system further provides the necessary data to monitor incidents in the State over time. This information can then be used to make informed decisions on how to better reduce impaired driving.

The State has some aspects of a formal data quality management program including some quality control processes in place, such as edit checks and data validations, as well as some error tracking and error correction processes. Improvements in this program could be made by establishing meaningful performance measures with numeric goals for each quality attribute, creating a standardized process for





tracking high frequency errors, conducting quality control reviews that include independent sample-based audits, and soliciting data quality feedback. Lastly, the information obtained from these practices could produce excellent driver data quality reports that could be provided to the Traffic Records Coordinating Committee (TRCC). Improvements in these areas would create a data quality control program that would be a great tool for data managers and data users to quickly and easily recognize areas that need further improvement.

Vermont has established a good foundation on which to build and enhance the driver record system. Continued improvements will lead to enhanced driver data; thereby, assisting traffic safety stakeholders to make better informed decisions to improve traffic safety and to reduce traffic fatalities.

Roadway Recommendations

6. Improve the applicable guidelines for the Roadway data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.
7. Improve the data dictionary for the Roadway data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.
8. Improve the data quality control program for the Roadway data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.

Considerations for implementing your Roadway recommendations

- Expand performance measures to include all performance attributes for the roadway data system.
- Develop a formal process for updating the roadway data dictionary. Include the steps for adding new elements and for updating existing elements.
- Include all collected non-Fundamental Data Elements in the enterprise system data dictionary.

Summary

Vermont's roadway network includes 15,764.90 miles: State maintains 2,708.803 miles (17%), Town Highways maintain 11,386.147 miles (73%), and 1,588.95 miles (10%) are unmaintained and are under Town Highways. All roadways are mapped in a geographic information system (GIS). Two linear referencing methods (LRM) are used, the first based on the town-based measures that re-zero at each town boundary and the second using cumulative mileage for the whole route from start to end. The Vermont Agency of Transportation's (VTTrans) Mapping Section maintains a master route definition table that includes town-based and end-to-end route codes. Both LRMs are based on the same geometry, with the appropriate route codes and measures applied. The State has the capability of mapping roadway and traffic data using compatible linear reference systems (LRS) and has an online portal that displays route logs (straight line diagrams) and Annual Average Daily Traffic (AADT).

Most crashes are located using the two LRS methods and crashes not located using the LRS system are geolocated using several different methods, including GPS and E911 address. Once a year, crashes are sent to the IT mapping group (IT Support & Analytics) which prepares the data for final mapping. Vermont has about 94% of crashes mapped and the crash locations can be easily linked to other data layers for analysis.





For example, crash and roadway data was used in a research project with the University of Vermont Transportation Research Center to create a calibration factor specific for Vermont to use with the predictive models from the Highway Safety Manual. New safety performance functions for facilities on rural, undivided two-lane roads were also developed. The State also has a query tool that can be used by the public to see locations of crashes.

VTrans has been working to modify databases to support the Model Inventory of Roadway Elements (MIRE) data elements, creating new data and focusing on having the fundamental data elements (FDE). A large portion of those FDEs are part of the Highway Performance Monitoring System (HPMS) or other systems within VTrans. Almost all the MIRE FDEs are collected for all public roads. Below are the percentages:

- 2021 Roadway Segment = 86.8 %
- 2021 At-Grade Intersection/Junctions 84.29 %
- 2021 Intersection Leg (Each Approach) 100 %
- 2021 Interchange/Ramp 85.45 %

Vermont also has a scorecard providing which data fields VTrans has developed that clearly map to the MIRE FDE fields.

Vermont has individual data dictionaries for road centerline data, intersections, road width, linear reference system, functional class, and limited access, but this information has not been loaded into an enterprise data dictionary. The centerline and intersection documents cover all public roadways while the others only cover the federal aid roads. VTrans also receives roadway data from Metropolitan Planning Organizations (MPO), regional planning commissions, and municipalities, but not all data complies with Vermont's data dictionary.

VTrans is working on a pilot project within the data governance group to improve the data, data descriptions, field definitions, and field domains. The goal is to create a library for all relevant data dictionaries. Information from the project will provide the architecture for the development of an enterprise data dictionary. While Vermont does update the data dictionaries, there is no formal process at this time.

The VTrans Mapping Section integrates new data elements into the roadway information system. When a new element needs to be included, a data schema and authoritative source are defined, and the data is then set up and validated. A process is created between the data steward and IT to ensure the data is published on the preferred publishing cycle. Efforts are underway to implement more formal data governance that will develop workflows for incorporating new elements, assessment of existing standards, and linkage to existing systems.

Several guidelines have been developed for the collection of roadway data elements and are accessible to data collectors via the internet. The LRS is made available to the regional and local agencies through the REST services, but not all external systems are compatible. Local and regional entities also have access to the feature services through the Open Geodata Portal which allows them to do edits to intersection and road centerline attributes.





Vermont has nightly quality control and assurance routines for road centerline and intersections and those results are emailed to the Mapping Section chief. Prior to publishing, quality assurance routines are run for the LRS and other elements, field domains, topology, and mileage values are validated. If any errors are found, a queue is developed, and corrections are typically done the following morning. Errors identified using other means go into a different queue where some research on the issue is done. These may take longer than those found in the regular routines.

The State has a few completeness and uniformity performance measures with benchmark values and targets. There are no performance measures for the other areas and data quality reports are not provided to the Traffic Records Coordinating Committee.

Vermont is doing a good job with the roadway data program and has multiple pilot projects going that will help enhance the system. The State is confident that it will reach the 2026 deadline for the MIRE FDEs.

Citation and Adjudication Recommendations

9. Improve the data quality control program for the Citation and Adjudication systems to reflect best practices identified in the Traffic Records Program Assessment Advisory.
10. Improve the interfaces with the Citation and Adjudication systems to reflect best practices identified in the Traffic Records Program Assessment Advisory.

Considerations for implementing your Citation and Adjudication recommendations

- Explore the possibility of creating an impaired driving data tracking system that uses some or all the data elements or guidelines of NHTSA's Model Impaired Driving Records Information System (MIDRIS). If an entire system is not desired, integration efforts resulting in increased access to impaired driving data for system participants could enhance current processes.
- Create numeric goals-performance metrics-for each citation system performance measure.
- Leverage existing relationships with traffic safety partners through the Traffic Records Coordinating Committee to create new opportunities to interface systems with the unified court case management system, Odyssey, particularly the driver and vehicle systems at the Department of Motor Vehicles.

Summary

The State of Vermont has a well-developed citation and adjudication system that benefits from a unified court, electronic citations, and a statewide authority for assigning unique citation numbers. The Vermont Judicial Bureau's case management system, Odyssey, tracks all citation dispositions and transmits dispositions required by statute to the Vermont Department of Motor Vehicles (DMV). All law enforcement agencies, parole agencies, probation agencies, and courts within the State have access to several systems providing real-time information on individuals' driving and criminal histories.

State citation and adjudication agencies should participate in the appropriate national data systems to ensure compatibility and serve data management and exchange needs. Vermont participates in and uses the systems and standards developed nationally, including as a supporting member of the National Center for State Courts Justice Court initiative. Compliance with the National Information Exchange Model (NIEM)





Justice domain guidelines in several key interfaces is evident, with planned upgrades to the use of NIEM 3.0.

A data dictionary documents all elements in the data collection form and software and all attributes in the database. The data dictionary lists the name of the element in the database as well as the commonly understood description. The dictionary should provide an established data definition and validated attributes for each field in the data system. Vermont has these dictionaries, which will prove useful as the State moves toward the integration of the various electronic systems receiving data from the court.

The State of Vermont has some opportunities for improvement in the use of quality control programs and the development of performance measures for the citation and adjudication systems. It is essential that each part of the citation and adjudication system has a formal data quality assurance program. The State has multiple robust sources of data, from which meaningful performance measures can be crafted and monitored with the goals of an improved traffic records system. The State should consider future enhancements in this area with the development of a performance measure for each of the data quality measures.

The State has a well-developed citation and adjudication system which has many electronic components. The electronic integration of these various components, combined with the unified court system, could result in an exceptional system.

Injury Surveillance Recommendations

11. Improve the data quality control program for the Injury Surveillance systems to reflect best practices identified in the Traffic Records Program Assessment Advisory.
12. Improve the interfaces with the Injury Surveillance systems to reflect best practices identified in the Traffic Records Program Assessment Advisory.

Considerations for implementing your Injury Surveillance recommendations

- Develop key performance measures for use with each component of the injury surveillance system.
- Incorporate injury surveillance data in the problem identification process to better inform highway safety educational programs.
- Develop a users' guide for EMS data analysts that can be used as a "how-to" manual for commonly prepared reports. This resource is especially useful for smaller agencies in the event of employee turnover.

Summary

States with a comprehensive Injury Surveillance System (ISS) have data readily available from five core components: pre-hospital emergency medical services (EMS), trauma registry, emergency department, hospital discharge, and vital records. These data sets enable a wide variety of stakeholders (including the Traffic Records Coordinating Committee (TRCC)) to effectively develop problem identification and program evaluation efforts. A mature ISS can specifically address issues related to data quality so that subsequent analyses of injury severity, costs, and outcomes can be made accurately and reliably. These





data sources provide more detailed information on injuries sustained in motor vehicle crashes than can be found in other components of a state's traffic records system, thus they are uniquely able to detail the severity, cost, and clinical outcomes of injuries sustained in crashes.

Vermont's ISS includes four well-developed data systems housed in the Vermont Department of Health. The Statewide Incident Reporting Network (SIREN) collects NEMESIS-compliant ambulance run reports. SIREN reports are submitted 100 percent electronically. The system is well-documented, has automated edit checks that apply validation rules to submitted records, and has ongoing performance measures and goals for several of the core metrics. These metrics permit SIREN managers to provide detailed data quality feedback to the services and reports to the State's TRCC. Quality control reviews are required at the agency level, but a State-level review would ensure consistency among the State's EMS agencies.

The Vermont Green Mountain Care Board (GMCB) manages the collection of data from the State's hospitals and the resultant data set is managed by the VDH. The Vermont Uniform Hospital Discharge Data System is primarily used for utilization analysis. Public use data files are available upon request and researchers may apply for a limited-use data set through an agreement with the GMCB. While hospital data is available to researchers, its use for highway safety programs has been minimal. Given its small size and the differences in traffic safety laws in bordering states, analysis of hospital data can help to provide a more complete picture of the burden of injury resulting from motor vehicle crashes in the State.

Vital records data is also available through the VDH. The data is collected in accordance with guidelines provided by the National Center for Health Statistics. Data is available for use by researchers and other interested parties through a public records request. By Vermont law, death certificates are considered public information and are available for analytical purposes.

Vermont has many elements of a core injury surveillance data system, with the exception of a trauma registry. Limitations in funding and staffing have prevented the use of available injury surveillance data beyond mandatory reporting requirements. Identifying partners that would be able to provide analytical support for highway safety efforts through other funding opportunities would be beneficial.

Data Use and Integration Recommendations

None

Considerations for implementing your Data Use and Integration recommendations

- Develop a process guide for linking crash and EMS (Statewide Incident Reporting Network - SIREN) data that can be used to support future data integration efforts.
- Complete the linkage between Vermont's crash and EMS data systems.

Summary

Data integration involves the linking of individual datasets in varying combinations to provide data managers, data users, and policymakers the ability to view and analyze information 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 levels by incorporating other traffic records systems that provide additional levels of information and detail.

The process of integrating data can be challenging as the databases are managed and housed by different agencies and collected for the specific business activities of those agencies. Consequently, the individual data elements within each system that can be used for the integration process must be identified and standardized. This can be a difficult and time-consuming process and thus is not normally identified as a high-priority activity within the states. Vermont has some experience using linked data sets to support highway safety activities, although only the crash with roadway linkage is being performed at this time.

The Vermont State Highway Safety Office staff have access to data sources, including the State’s crash data system, local agency progress reports, and annual seatbelt and driver attitude surveys. This data is used to identify highway safety issues, problem locations, and other characteristics related to motor vehicle crashes.

The Vermont Agency of Transportation’s (VTTrans) Crash Public Query tool is available online and provides an integrated view of crash and roadway data. Several dashboards have been designed to provide crash analysis reports. In addition to VTTrans, the online query tool is used by the highway safety office, law enforcement agencies, regional planning commissions, and the public.

The State’s Traffic Records Strategic Plan identifies data integration as a priority. In addition to the current linkage between the crash and roadway files, the State is keenly interested in re-establishing a link between the crash and EMS (Statewide Incident Reporting Network –SIREN) data sets. A recent NHTSA GO Team provided recommendations on renewing a linkage effort that had been successful in previous years and efforts are underway to resume this process. Completion of this initial linkage to the State’s EMS system should be used as a springboard to the improved use of injury data to support and evaluate highway safety programs.








Assessment Rating Changes




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’. The table below shows changes in ratings from the last assessment for all the questions that were unchanged (N=223). This does not include new questions (N=21) and questions that can be partially mapped to questions from the last assessment (N=84).

Legend:

System	Rating Changes from Last Assessment		
	 Meets	 Partially Meets	 Does not Meet
Traffic Records Coordinating Committee			
Traffic Records Coordinating Committee	-1	+1	0
Strategic Planning for the Traffic Records System			
Strategic Planning for Traffic Records Systems	-2	0	+2
Crash Data System			
Description and Contents of the Crash Data System	-1	+1	0
Applicable Guidelines for the Crash Data System	0	0	0
Data Dictionary for the Crash Data System	-2	+2	0
Procedures and Process Flows for Crash Data Systems	0	0	0
Crash Data Systems Interface with Other Components	0	0	0
Data Quality Control Programs for the Crash System	-4	+3	+1
Vehicle Data System			
Description and Contents of the Vehicle Data System	0	0	0
Applicable Guidelines for the Vehicle Data System	+1	+1	-2
Vehicle System Data Dictionary	0	0	0
Procedures and Process Flows for the Vehicle Data System	-2	0	+2
Vehicle Data System Interface with Other Traffic Record System Components	0	0	0
Data Quality Control Programs for the Vehicle Data System	-2	+1	+1
Driver Data System			
Description and Contents of the Driver Data System	0	0	0
Applicable Guidelines for the Driver Data System	0	0	0
Data Dictionary for the Driver Data System	0	0	0
Procedures and Process Flows for the Driver Data System	0	0	0
Driver System Interface with Other Components	0	0	0
Data Quality Control Programs for the Driver System	0	0	0
Roadway Data System			
Description and Contents of the Roadway Data System	0	0	0








System	Rating Changes from Last Assessment		
	 Meets	 Partially Meets	 Does not Meet
Applicable Guidelines for the Roadway Data System	0	0	0
Data Dictionary for the Roadway Data System	0	+2	-2
Procedures and Process Flows for the Roadway Data System	+4	-4	0
Intrastate Roadway System Interface	+1	0	-1
Data Quality Control Programs for the Roadway Data System	+4	-3	-1
Citation and Adjudication Systems			
Description and Contents of the Citation and Adjudication Data Systems	+1	-1	0
Applicable Guidelines and Participation in National Data Exchange Systems for the Citation and Adjudication Systems	0	0	0
Data Dictionary for the Citation and Adjudication Data Systems	0	+1	-1
Procedures and Process Flows for the Citation and Adjudication Data Systems	-1	+2	-1
Citation and Adjudication Systems Interface with Other Components	0	0	0
Quality Control Programs for the Citation and Adjudication Systems	0	0	0
Injury Surveillance Systems			
Emergency Medical Systems (EMS) Description and Contents	-3	0	-5
EMS – Guidelines	0	0	-3
EMS – Data Dictionary	-3	0	-1
EMS – Procedures & Processes	-2	-1	-5
Injury Surveillance Data Interfaces	0	0	0
EMS – Quality Control	-3	+4	-1
Emergency Department and Hospital Discharge – Quality Control	0	+2	-2
Trauma Registry – Quality Control	0	0	0
Vital Records – Quality Control	+2	0	-2
Emergency Department - System Description	+1	+1	0
Emergency Department – Data Dictionary	+1	0	0
Emergency Department – Procedures & Processes	+2	0	0
Hospital Discharge – System Description	+1	+2	0
Hospital Discharge – Data Dictionary	+1	0	0
Hospital Discharge – Procedures & Processes	+2	0	0





System	Rating Changes from Last Assessment		
	 Meets	 Partially Meets	 Does not Meet
Emergency Department and Hospital Discharge – Guidelines	0	0	+1
Emergency Department and Hospital Discharge – Procedures & Processes	0	0	+1
Trauma Registry – System Description	0	0	+2
Trauma Registry – Guidelines	0	0	+2
Trauma Registry – Data Dictionary	0	0	+1
Trauma Registry – Procedures & Processes	0	0	+2
Vital Records – System Description	0	+1	0
Vital Records – Data Dictionary	+1	0	0
Vital Records – Procedures & Processes	+1	0	0
Injury Surveillance System	0	0	0
Data Use and Integration			
Data Use and Integration	0	0	0
<i>Total Change</i>	-3	+15	-12





Methodology and Background

In 2018, the National Highway Traffic Safety Administration updated the *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, primarily personnel actively working in the myriad State agencies responsible for managing the collection, management, and analysis of traffic safety data. The *Advisory* provides information on the contents, capabilities, and data quality of effective traffic records systems by describing an ideal that supports data-driven decisions and improves highway safety. Note that this ideal is used primarily as a uniform measurement tool; it is neither NHTSA's expectation nor desire that States pursue this ideal blindly without regard for their own unique circumstances. 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 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 each State. The 2018 *Advisory* reduces the number of questions, eases the evidence requirements, and appends additional guidance to lessen the burden on State respondents.

As part of the 2018 update, the traffic records assessment process was altered as well. While it remains an iterative process that relies on the State Traffic Records Assessment Program (STRAP) for online data collection, the process has been reduced to two question-answer cycles. In each, State respondents can answer each question assigned to them before the assessors examine their answers and supporting evidence, at which point the assessors rate each response. At the behest of States who wanted increased face-to-face interaction, a second onsite review will now be held between the first and second rounds. The facilitator will lead this discussion and any input from this meeting will be entered into STRAP for the State's review. The second and final question and answer cycle is used to clarify responses and provide the most accurate rating for each question following the onsite review. To assist the State in responding to each question, the *Advisory* also provides State respondents with suggested evidence that identify the specific information appropriate to answer each assessment question.

The assessment facilitator works with the State assessment coordinator to prepare for the assessment and establish a schedule consistent with the example outlined in [Figure 2: Sample Traffic Records Assessment Timetable](#). Actual schedules may vary as dates may be altered to accommodate State-specific needs.

Independent assessors rate 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 determine 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, as well as a summary for each section and any considerations—actionable suggestions for improvement—that will be included with the assessment's recommendations.

In order for NHTSA to accept and approve an assessment each question must have an answer. When appropriate, however, a State may answer questions in the negative ("no," "don't know," 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(c) grant funds.





Figure 2: Sample Traffic Records Assessment Timetable

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	Kickoff Meeting
	Monday, 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, rate all responses and complete all draft conclusions
	Thursday, Week 5 – Monday, Week 7	Review Period: State reviews the assessors’ initial ratings in preparation for the onsite meeting.
	Tuesday, Week 7	Mid-Point Check-in Meeting: Facilitator and State respondents meet to discuss questions; clarifications entered into STRAP
	Wednesday, Week 7 – 12pm EST, Friday, Week 9	Round 2 Data Collection: State provides final response to the assessors’ preliminary ratings and onsite clarifications
	Friday, Week 9 – Monday, Week 11	Round 2 Analysis: make final ratings
	Tuesday, Week 11 – Monday, Week 12	Facilitator prepares final report
Week 12	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, CDIP or MMUCC Mapping, targeted technical assistance or training	





Figure 3: Vermont's Schedule for the 2022 Traffic Records Assessment

Kickoff	March 21, 2022
Begin first Q&A Cycle	March 21, 2022
End first Q&A Cycle	April 15, 2022
Begin Review Period	April 28, 2022
Mid-point Check-in Meeting	May 10, 2022
Begin second Q&A Cycle	May 10, 2022
End second Q&A Cycle	May 27, 2022
Assessors' Final Results Complete	June 13, 2022
Final Report Due	June 24, 2022
Debrief	June 28, 2022





Appendix A: Question Details, Ratings, and Assessor Conclusions

This section presents the assessment's results in more granular detail by providing the full text, rating, and assessor analysis for each question. This section can be useful to State personnel looking to understand why specific ratings were given and further identify areas to target for improvement.

Questions, Ratings and Assessor Conclusions

Traffic Records Coordinating Committee

1. *Does the TRCC membership include executive and technical staff representation from all six data systems?*

Meets Advisory Ideal

Vermont's Traffic Records Coordinating Committee (TRCC) has two active committees, an executive and technical, and both have members that represent all six core data systems.

Change Notes: Rating Unchanged.

2. *Do the executive members of the TRCC regularly participate in TRCC meetings and have the power to direct the agencies' resources for their respective areas of responsibility?*

Partially Meets Advisory Ideal

Vermont's executive TRCC members have the power to direct agency resources for the respective areas of responsibility. In-person executive meetings have not been held recently due to COVID.

Change Notes: Rating Changed.

From 'Meets Advisory Ideal' to 'Partially Meets Advisory Ideal'.

3. *Do the custodial agencies seek feedback from the TRCC members when major projects or system redesigns are being planned?*

Meets Advisory Ideal

The Department of Public Safety (DPS) proposed changes to the eTicket project to assist agencies to move toward using a statewide records management system (RMS) that would include an eTicket module. TRCC discussions were held on requirements and funding for the hardware needs and future growth of eTicket in Vermont.

Change Notes: New Question.

4. *Does the TRCC involve the appropriate State IT agency or offices when member agencies are planning and implementing technology projects?*

Meets Advisory Ideal

The State uses multiple IT departments when developing projects such as the plan to integrate the crash and EMS data sets. Three IT members serve on the TRCC committee.

Change Notes: Rating Unchanged.





5. *Is there a formal document authorizing the TRCC?*

Meets Advisory Ideal

Vermont has a TRCC charter that authorizes the committee, details its responsibilities, and defines its role and mission. The charter was signed by all executive members in June of 2019.

Change Notes: Rating Unchanged.

6. *Does the TRCC provide the leadership and coordination necessary to develop, implement, and monitor the State Traffic Records Strategic Plan?*

Meets Advisory Ideal

Through collaborative efforts with the various stakeholders, the TRCC develops, implements, and monitors the Traffic Records Strategic Plan. The TRCC weighs several factors in deciding the priority and schedule of projects that comprise the strategic plan. These factors include funding, impact on improving highway safety, and readiness of a project to move forward. The strategic plan lists completed projects that continue to be monitored by the TRCC.

Change Notes: Rating Unchanged.

7. *Does the TRCC advise the State Highway Safety Office on allocation of Federal traffic records improvement grant funds?*

Partially Meets Advisory Ideal

Although Vermont's TRCC does not allocate federal grant funds, the TRCC is responsible for identifying projects and initiatives to be recommended for funding. The Office of Highway Safety has the final decision on how 405c funds will be allocated based on the TRCC recommendations.

Change Notes: Rating Changed.

From 'Meets Advisory Ideal' to 'Partially Meets Advisory Ideal'.

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

Partially Meets Advisory Ideal

Vermont's TRCC tracks performance measures for citation completeness, citation uniformity, EMS timeliness, and crash uniformity which are included in the Vermont FFY2022 Traffic Records Strategic Plan. It is unclear how the TRCC identifies core system performance and monitors progress for each of the six core systems (roadway, vehicle, and driver measures are not identified).

Change Notes: Rating Changed.

From 'Meets Advisory Ideal' to 'Partially Meets Advisory Ideal'.

9. *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?*

Meets Advisory Ideal

The TRCC meetings include discussions of different projects and traffic records initiatives among a variety of stakeholders. The TRCC has representation from each of the six core systems, which shows that meaningful coordination takes place at the meetings.

Change Notes: Rating Unchanged.





10. *Does the TRCC have a traffic records inventory?*

Does Not Meet Advisory Ideal

Vermont does not have a traffic records inventory.

Change Notes: Rating Unchanged.

11. *Does the TRCC have a designated chair?*

Meets Advisory Ideal

The TRCC chair is a Data Manager at the Vermont Agency of Transportation (VTrans) and the position's responsibilities are documented in the charter.

Change Notes: Rating Unchanged.

12. *Is there a designated Traffic Records Coordinator?*

Meets Advisory Ideal

The TRCC coordinator is a Program Coordinator at VTrans and the duties are clearly defined. Those duties could be added to the charter so it's documented like the duties of the TRCC chair.

Change Notes: Rating Unchanged.

13. *Does the TRCC meet at least quarterly?*

Meets Advisory Ideal

Vermont's technical TRCC meets at least quarterly. The technical TRCC meeting dates for the past program year were: January 20, 2021; April 21, 2021; July 21, 2021; and October 20, 2021.

Change Notes: Rating Unchanged.

14. *Does the TRCC review quality control and quality improvement programs impacting the core data systems?*

Does Not Meet Advisory Ideal

There is no process in place for the TRCC to review quality control and quality improvement programs impacting the core data systems.

Change Notes: Rating Unchanged.

15. *Does the TRCC assess and coordinate the technical assistance and training needs of stakeholders?*

Meets Advisory Ideal

The TRCC does discuss the training needs of stakeholders during committee meetings. Examples include: Vermont requested and received a NHTSA GO Team technical assistance in CY2019 for developing a plan to integrate EMS and crash data for enhanced highway safety analysis. Training materials were developed by the EMS data manager to distribute to EMS chiefs on how to access the new data collection system and training has been conducted on the new crash system.

Change Notes: Rating Improved.

From 'Partially Meets Advisory Ideal' to 'Meets Advisory Ideal'.





16. Do the TRCC's program planning and coordination efforts reflect traffic records improvement funding sources beyond § 405(c) funds?

Does Not Meet Advisory Ideal

Vermont TRCC projects use funds from 405c and the Highway Safety Improvement Program Section 148 to strategically allocate resources for traffic records improvement projects. It was unclear how funding is determined and allocated from the different resources.

Change Notes: Rating Changed.

From 'Partially Meets Advisory Ideal' to 'Does Not Meet Advisory Ideal'.

Strategic Planning for Traffic Records Systems

17. Does the State Traffic Records Strategic Plan address existing data and data systems areas of opportunity and document how these are identified?

Meets Advisory Ideal

Past Traffic Records Assessment recommendations are listed along with the Vermont responses in section seven of the Vermont FFY2022 Traffic Records Strategic Plan (TRSP). Where appropriate, assessment recommendations and responses are paired with TRCC projects to indicate which projects are being implemented to respond to the assessment recommendations. Previous traffic records assessments are used to identify areas of opportunities that the TRCC will address with projects that are listed in the plan.

Change Notes: Rating Unchanged.

18. Does the State Traffic Records Strategic Plan identify countermeasures that address at least one of the performance attributes (timeliness, accuracy, completeness, uniformity, integration, and accessibility) for each of the six core data systems?

Partially Meets Advisory Ideal

The Vermont TRSP does not include countermeasures that address at least one performance attribute for each of the six core data systems. There are performance attributes for four of the core data systems (crash, roadway, citation/adjudication, and injury surveillance system).

Change Notes: Rating Changed.

From 'Meets Advisory Ideal' to 'Partially Meets Advisory Ideal'.

19. Does the TRCC have a process for identifying at least one performance measure and the corresponding metrics for the six core data systems in the State Traffic Records Strategic Plan?

Does Not Meet Advisory Ideal

Project performance measures are reviewed and discussed in the TRCC meetings and it was reported that the TRSP also identifies specific and clearly defined performance measures in support of each individual project's objective. The TRSP does include a description of four out of the six performance measures; there were no performance measures in the plan provided for accuracy and accessibility. Each project has to have a performance measure and the TRCC consults with the stakeholders to establish the baseline metrics and updates the progress during the TRCC meetings.

Change Notes: Rating Changed.

From 'Meets Advisory Ideal' to 'Does Not Meet Advisory Ideal'.





20. *Does the TRCC have a process for prioritizing traffic records improvement projects in the State Traffic Records Strategic Plan?*

Does Not Meet Advisory Ideal

The TRSP references all projects that are reviewed annually for 405c funding and it was reported that there is a formal process that the TRCC undertakes annually to approve, conditionally approve, or reject projects, and further provide rankings when projects exceed funding. There is no section in the plan that documents the project application review process or the criteria required for projects to be eligible for funding. Also, there is no reference to rankings or prioritization in the plan.

Change Notes: Rating Changed.

From 'Meets Advisory Ideal' to 'Does Not Meet Advisory Ideal'.

21. *Does the TRCC identify and address technical assistance and training needs in the State Traffic Records Strategic Plan?*

Meets Advisory Ideal

Vermont's TRCC has worked to identify and address technical assistance and training needs in the TRSP. Since the last Traffic Records Assessment, the TRCC included the Agency of Digital Services in meetings to discuss technical assistance and training needs. Additionally, a NHTSA GO Team was utilized for technical assistance to integrate crash and EMS data.

Change Notes: Rating Improved.

From 'Partially Meets Advisory Ideal' to 'Meets Advisory Ideal'.

22. *Does the TRCC have a process for establishing timelines and responsibilities for projects in the State Traffic Records Strategic Plan?*

Meets Advisory Ideal

The TRCC does have a process for establishing timelines and responsibilities for projects in the TRCC strategic plan. The project contact is responsible for providing project updates to the TRCC and all project submissions must include a timeline for each task. This is addressed by the TRCC in quarterly meetings when new projects are proposed or when project timelines and responsibilities change. Needs for establishing timelines and responsibilities for projects are addressed to the specific agency/agencies involved with the project.

Change Notes: Rating Unchanged.

23. *Does the TRCC have a process for integrating and addressing State and local (to include federally recognized Indian Tribes, where applicable) data needs and goals into the State Traffic Records Strategic Plan?*

Meets Advisory Ideal

The TRCC has a process for integrating State and local data needs and goals into the TRSP. The TRCC includes regular discussions with State and local data users. Law Enforcement Liaisons (LEL) represent local and State agencies on the TRCC and discuss State and local data user needs. For example, the eCitation project includes the ability to accept citation data from local and State agency systems.

Change Notes: Rating Unchanged.





24. *Does the TRCC consider the use of new technology when developing and managing traffic records projects in the State Traffic Records Strategic Plan?*

Meets Advisory Ideal

Vermont's TRCC considers the use of new technology when developing and managing traffic records projects in the TRSP. Examples include: Web Crash has deployed an upgrade to use Microsoft Azure Active Directory authentication to replace the legacy ADFS authentication and Web Crash is currently developing an update to the mapping functionality to replace crash location assignments using Google Maps with the Vermont Agency of Transportation's (VTrans) ESRI-based Linear Referencing System (LRS).

Change Notes: Rating Unchanged.

25. *Does the State Traffic Records Strategic Plan consider lifecycle costs in implementing improvement projects?*

Does Not Meet Advisory Ideal

The TRSP lists the funding source for the projects but does not specifically reference lifecycle costs in continuing the projects once the 405c funding is no longer available. It was reported that lifecycle costs are discussed with the agencies, but it isn't clear if those discussions are taking place during the TRCC meetings or at a different meeting.

Change Notes: Rating Changed.
From 'Meets Advisory Ideal' to 'Does Not Meet Advisory Ideal'.

26. *Does the State Traffic Records Strategic Plan make provisions for coordination with key Federal traffic records data systems?*

Meets Advisory Ideal

The TRSP does make provisions for coordination with key federal traffic records data systems, most notably with the National Emergency Medical Services Information System (NEMSIS). Federal partners, including officials from NHTSA (Region 1 office), FHWA, and FMCSA regularly attend the TRCC meetings.

Change Notes: Rating Unchanged.

27. *Is the TRCC's State Traffic Records Strategic Plan reviewed, updated and approved annually?*

Meets Advisory Ideal

The TRSP is reviewed and updated annually; it is supplemented with an annual component that includes updates to projects, budgets, and follow-ups to the specific core system improvement measures. It would be helpful to have the approval process documented in the plan and the minutes when the plan is approved.

Change Notes: Rating Unchanged.





Description and Contents of the Crash Data System

28. *Is statewide crash data consolidated into one database?*

Meets Advisory Ideal

Vermont's crash report data is housed in one consolidated statewide database at the Vermont Agency of Transportation (VTrans). Vermont's Web Crash program collects all law enforcement crash reports. VTrans has improved the program since the previous assessment by merging its functionality from two separate applications into one system which provides additional efficiencies in the field data collection and submission process.

Change Notes: Rating Unchanged.

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

Meets Advisory Ideal

According to Vermont Statutes Annotated (VSA) Title 23 V.S.A. § 1603(b), all crash reports are to be submitted to the Department of Motor Vehicles (DMV). Motorists involved in a traffic crash are required to submit an operator's crash report within 72 hours of the incident and law enforcement reports shall be forwarded within 30 days of the investigation. Even though Statute designates DMV as the crash report custodian, in practice, VTrans has custodial responsibility for the State's crash repository. Either by way of an electronic or paper copy, law enforcement crash reports are sent to VTrans. VTrans does not enter data from the operator reports into the crash repository or use the information for traffic safety analysis, rather the operator reports are used to support financial responsibility.

Change Notes: Rating Unchanged.

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

Meets Advisory Ideal

The Investigator's Guide for Completing the State of Vermont Uniform Crash Report and VSA Title 23 V.S.A. § 1603a contain criteria for the submission of fatal crash report information to the statewide crash system. In addition, Vermont has adopted the FARS reporting criteria for the data collection and submission of fatal crashes.

Change Notes: Rating Unchanged.

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

Meets Advisory Ideal

The Investigator's Guide for Completing the State of Vermont Uniform Crash Report and VSA Title 23 V.S.A. § 1603a contain criteria for the submission of injury crash report information to the statewide crash system.

Change Notes: Rating Unchanged.





32. *Does the State have criteria requiring the submission of property damage only (PDO) crashes to the statewide crash system?*

Meets Advisory Ideal

The Investigator's Guide for Completing the State of Vermont Uniform Crash Report and VSA Title 23 V.S.A. § 1603a contain criteria for the submission of property damage only (PDO) crash report information to the statewide crash system. A Vermont PDO reportable crash is defined as a crash with total damage to all property to the extent of \$3,000.00 or more.

Change Notes: Rating Unchanged.

33. *Does the State have statutes or other criteria specifying timeframes for crash report submission to the statewide crash database?*

Partially Meets Advisory Ideal

Law enforcement has 30 days to submit crash reports to VTrans; however, the sections of the statute cited a) cover primarily the operator report, or b) reports of arrests or citations must be submitted within 30 days of when the arrest is made or citation written. It is not clear how the statute requires a specific timeline for law enforcement to submit crash reports to the State.

Change Notes: New Question.

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

Partially Meets Advisory Ideal

The Vermont crash report form and the VTrans Web Crash application allow law enforcement to report crashes that occur in non-trafficway areas. However, the crash is required to occur or originate on a public way, not including private drives or recreational trails according to State statute (Title 23, Chapter 1, Section 4:13). Vermont allows the reporting of crashes that occur in non-trafficway areas but constrains the definition of those crashes that do not include locations such as parking lots or driveways.

Change Notes: Rating Changed.

From 'Meets Advisory Ideal' to 'Partially Meets Advisory Ideal'.

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

Meets Advisory Ideal

VTrans has recently completed the five-year update of the Strategic Highway Safety Plan (SHSP) which includes a new review of the crash data to identify the critical emphasis areas such as speed, impairment, and occupant protection. The data is used by the State Highway Safety Office for criteria to justify grant funding. The Operations and Safety Bureau Data Section produces a high crash location report on a bi-annual basis along with maps showing these locations.

Change Notes: Rating Unchanged.





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

Meets Advisory Ideal

Vermont uses data from the crash system to guide engineering and construction projects. VTrans uses the crash data to determine High Crash Locations (HCL) for roadway segments and intersections where potential projects are identified and countermeasures are applied.

Change Notes: Rating Unchanged.

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

Meets Advisory Ideal

Vermont uses the crash system to regularly prioritize law enforcement activity. This includes grant funding justification to support selective enforcement for crash patterns, such as Occupant Protection, Distracted Driving, and DUI mobilization.

Change Notes: Rating Unchanged.

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

Meets Advisory Ideal

Vermont uses data from the crash system to evaluate safety countermeasures and throughout the process of project identification and prioritization. VTrans performs before and after crash data analyses of previously implemented Highway Safety Improvement Program (HSIP) projects and provides the information in the annual HSIP report to FHWA. A White paper describing the comprehensive project selection and prioritization process is available.

Change Notes: Rating Unchanged.

Applicable Guidelines for the Crash Data System

39. *Is there a process by which MMUCC is used to help identify what crash data elements and attributes the State collects?*

Meets Advisory Ideal

Vermont uses MMUCC to help identify what crash data elements and attributes it includes on the State crash report form and in the Web Crash electronic crash report application. The TRCC solicits crash report form changes from stakeholders to improve data analysis capabilities. VTrans compares the proposed changes to MMUCC to evaluate the suitability of the change as it relates to State data standards. Vermont used this process to incorporate MMUCC Bike and Pedestrian safety equipment data elements, intersection-related data elements, and injury elements into the Web Crash application. Vermont continues to evaluate its agreement with MMUCC through NHTSA reviews.

Change Notes: Rating Unchanged.

40. *Is there a process by which ANSI D.16 is used to help identify the definitions in the crash system data dictionary?*

Meets Advisory Ideal

Vermont uses ANSI D-16 as a source for definitions in the Investigator's Guide. The data dictionary and Investigator's Guide use many of the ANSI D-16 derived data element and attribute





definitions.

Change Notes: Rating Unchanged.

Data Dictionary for the Crash Data System

41. *Does the data dictionary provide a definition for each data element and define that data element's allowable values/attributes?*

Partially Meets Advisory Ideal

An output from the database model, used as a data dictionary, lists all of the tables and elements resident in the database, but it does not define or list the possible values for the elements or linked/derived variables. While an analyst could refer to the investigator's manual for the direction given to the officers, that document does not assist in developing actual database queries. A comprehensive stand-alone data dictionary would contain contact information for the data manager, information about how to access the database, the system's data elements, a list of allowable attributes (codes), attribute definitions, linked or derived data elements and their source datasets, and how the linked or derived elements are populated. The data dictionary should also include all edit checks and/or validation rules applied to the elements to assure accuracy, completeness, and uniformity.

Change Notes: Rating Changed.

From 'Meets Advisory Ideal' to 'Partially Meets Advisory Ideal'.

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

Partially Meets Advisory Ideal

The State maintains a spreadsheet, with descriptive names and clarification comments to describe the edit checks and validation rules. While the format is somewhat technical and more for machine ingestion than for human understanding, it does address a key concern of keeping documentation up-to-date and in synch by using actual code. However, some researchers and analysts would benefit from a process description/introduction and detail that would help them understand the general layout.

Change Notes: Rating Changed.

From 'Meets Advisory Ideal' to 'Partially Meets Advisory Ideal'.

43. *Is the data dictionary up-to-date and consistent with the field data collection manual, coding manual, crash report, database schema and any training materials?*

Meets Advisory Ideal

The crash system documentation is up-to-date and Vermont has outlined a step-by-step process to keep the files in synch and accurate.

Change Notes: Rating Unchanged.

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

Meets Advisory Ideal

Data elements auto-populated through links to other traffic records system components are not





documented in the data dictionary but are described in the Investigator's Guide. The Web Crash system has three links to other data systems: DMV data from eight states for auto-populating driver and vehicle information, FMCSA carrier website to auto-populate commercial vehicle carrier information, and Google maps for crash location data.

Change Notes: Rating Unchanged.

Procedures and Process Flows for Crash Data Systems

45. *Does the State collect an identical set of data elements and attributes from all reporting agencies, independent of collection method?*

Meets Advisory Ideal

All Vermont crash reports are submitted electronically in one system called Web Crash. As a result, an identical set of data elements and attributes are collected from all reporting agencies, independent of the field collection method.

Change Notes: New Question.

46. *Does the State reevaluate their crash form at regular intervals?*

Meets Advisory Ideal

The TRCC typically reevaluates the crash form in the Spring of each year to accommodate any legislative changes. In addition, the TRCC solicits input from law enforcement and other crash stakeholders. Requests received throughout the year are logged and reviewed at this time as well. The form is then updated when changes are warranted and funding is available.

Change Notes: New Question.

47. *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?*

Meets Advisory Ideal

The Investigator's Guide describes key processes governing the collection, reporting, and posting of crash data. These processes apply to all Vermont reportable crashes, including those commercial motor vehicle-involved reports to the FMCSA and the ability to export crash data from Web Crash where the results are auto-populated in the SafetyNET system. VTrans receives fatal crash notifications from all law enforcement agencies. The notification includes preliminary information related to the crash and the VTrans FARS analyst then gathers other supplemental information, for example: EMS run report, official crash report, driver's license information, etc.

Change Notes: Rating Unchanged.

48. *Are the quality assurance and quality control processes for managing errors and incomplete data documented?*

Partially Meets Advisory Ideal

All crash reports are submitted to the crash repository via the Web Crash application. The application includes a series of edit checks and validation rules that must be cleared in order to





submit the crash report to the repository. Vermont seems to rely almost solely on the Web Crash system and its edit checks/validation rules for its quality assurance processes.

Change Notes: Rating Unchanged.

49. *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?*

Meets Advisory Ideal

The Vermont document and retention statute requires archiving three years of crash data. VTrans currently retains crash data back to 2010 with no plans to delete or archive any data. This process more than meets the needs of safety engineers and other users.

Change Notes: Rating Unchanged.

50. *Do all law enforcement agencies collect crash data electronically?*

Partially Meets Advisory Ideal

Field collection can be accomplished in several ways including collecting electronically direct to Web Crash where connectivity exists or collecting the data to a paper crash report and entering the data at the agency or regional location. It does not appear the various field data collection methods are being tracked. Tracking the field data collection methods could be used as performance measures and assist in promoting more electronic field collection.

Change Notes: Rating Changed.

From 'Meets Advisory Ideal' to 'Partially Meets Advisory Ideal'.

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

Meets Advisory Ideal

All Vermont crash report data is submitted electronically via the Web Crash application.

Change Notes: Rating Unchanged.

52. *Do all law enforcement agencies collecting crash data electronically in the field apply validation rules consistent with those in the statewide crash system prior to submission?*

Meets Advisory Ideal

Since all Vermont crash report data is submitted to the crash repository via the Web Crash application, the same set of validation rules and edit checks are applied by all law enforcement agencies. However, since some manual quality assurance processes vary and are not fully documented, there may still be varying data quality control issues.

Change Notes: Rating Unchanged.





Crash Data Systems Interface with Other Components

53. *Does the crash system have a real-time interface with the driver system?*

Meets Advisory Ideal

Vermont supports a "message switch" process that allows auto-populating of driver information (name, address, date of birth, license number) of Vermont data and drivers of seven other states.

Change Notes: Rating Unchanged.

54. *Does the crash system have a real-time interface with the vehicle system?*

Meets Advisory Ideal

Vermont supports a "message switch" process that allows auto-populating of vehicle information for Vermont data and vehicles from seven other states.

Change Notes: Rating Unchanged.

55. *Does the crash system interface with the roadway system?*

Does Not Meet Advisory Ideal

VTrans is in the process of updating Web Crash to provide a Crash to Roadway interface that will populate some roadway data in the crash repository using ESRI ArcGIS.

Change Notes: Rating Unchanged.

56. *Does the crash system interface with the citation and adjudication systems?*

Does Not Meet Advisory Ideal

The crash system does not currently interface with the citation and adjudication systems.

Change Notes: Rating Unchanged.

57. *Does the crash system have an interface with EMS?*

Does Not Meet Advisory Ideal

The VTrans crash system does not currently interface with EMS. In 2019, the TRCC requested and received a NHTSA GO Team support to assist with a project to integrate EMS and crash data to provide enhanced safety analysis using a combined data set.

Change Notes: Rating Unchanged.

Data Quality Control Programs for the Crash System

58. *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?*

Meets Advisory Ideal

The VTrans Web Crash application has built-in data minimums and audit rules (errors and warnings) to reduce the error rate in the crash database. The Crash Web application audits each crash report as it is entered into the system and the audit rules are enforced via an XSL document. Incorrect or incomplete data is identified to the user correct. Reports cannot be formally submitted to the crash repository until all audit rules are passed.

Change Notes: Rating Unchanged.





59. *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?*

Does Not Meet Advisory Ideal

Quality control staff does not have the authority to amend obvious errors and omissions. In certain instances, quality control staff will contact individual departments if errors are found, usually with an incident number. VTrans does support a crash locating process that assigns roadway group, route, and milepoint to each crash report.

Change Notes: Rating Unchanged.

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

Does Not Meet Advisory Ideal

VTrans relies almost solely on the edit checks and validation rules in Web Crash to provide accurate and complete crash data. Vermont does not have a process for returning rejected crash reports to the originating officer.

Change Notes: Rating Unchanged.

61. *Does the State track crash report changes after the original report is submitted by the law enforcement agency?*

Partially Meets Advisory Ideal

The fact that the State maintains each version of a submitted (and subsequently modified) crash report, it does seem that the changes can be identified. Vermont is encouraged to identify the reports updated since the original submission and the changes being made. The results could be used to establish performance measures, a list of high frequency errors, the ability to identify additional warning/edit checks, or target training processes.

Change Notes: New Question.

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

Partially Meets Advisory Ideal

Vermont has established a crash timeliness performance measure related to a decrease in the average number of reporting days from the crash date to the date the crash report is entered into the crash database. The State has most of the performance measure components in place. It has established the performance measure, the baseline measure, actuals, and the measuring/reporting process, but the metric/goal is not identified. VTrans is commended for this effort and is encouraged to expand performance measures to the other quality attributes.

Change Notes: Rating Changed.

From 'Meets Advisory Ideal' to 'Partially Meets Advisory Ideal'.

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

Does Not Meet Advisory Ideal

Vermont has not established accuracy performance measures tailored to the needs of data managers and data users for the crash system. Performance measures provide the ability to monitor





the health of the crash system and support an accountable outcome-based system that identifies the metric, baseline measurement, and the ability to track and report progress over time to managers, data users, and the TRCC.

Change Notes: Rating Unchanged.

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

Does Not Meet Advisory Ideal

Vermont has not established completeness performance measures tailored to the needs of data managers and data users for the crash system.

Change Notes: Rating Unchanged.

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

Partially Meets Advisory Ideal

Vermont has established a crash uniformity performance measure based on updating the crash report form to improve the State's MMUCC-mapping. The performance measure shows an increase in reported data elements over time, but it is not clear which components of a uniformity performance measure are included. The performance measure is not clearly stated, the baseline measurement may be 0 percent, and the actuals for the added data elements are reported for the same time periods and show significant improvements, but a metric/goal is not included.

Change Notes: Rating Improved.

From 'Does Not Meet Advisory Ideal' to 'Partially Meets Advisory Ideal'.

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

Partially Meets Advisory Ideal

Information in the Strategic Plan describes an integration performance measure describing the success of the message switch to interface vehicle and driver information to crash reports for data from 2015 to 2021. The State is commended for establishing the crash to driver and vehicle information interface and demonstrating the success of the interface through the performance measure. However, the performance measure does not include a clear metric/goal or baseline measure.

Change Notes: Rating Changed.

From 'Meets Advisory Ideal' to 'Partially Meets Advisory Ideal'.

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

Does Not Meet Advisory Ideal

Vermont has not established accessibility performance measures tailored to the needs of data managers and data users for the crash system. Vermont is encouraged to survey potential data users, and especially focus on the non-engineering data analysis needs. That might help identify unmet needs and provide a basis for an accessibility performance measure.





Change Notes: Rating Changed.

From 'Partially Meets Advisory Ideal' to 'Does Not Meet Advisory Ideal'.

68. *Has the State established numeric goals-performance metrics-for each performance measure?*

Partially Meets Advisory Ideal

The FFY2022 Traffic Records Strategic Plan contains numeric goals-performance metrics for several performance initiatives. However, it is not clear how these numeric goals relate to the performance measures.

Change Notes: Rating Unchanged.

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

Does Not Meet Advisory Ideal

VTrans and the Vermont State Police (VSP) provide feedback during training, discuss agency compliance, and address completeness related to crash data. However, specific timeliness, accuracy, and completeness feedback is not provided to each law enforcement agency.

Change Notes: Rating Changed.

From 'Partially Meets Advisory Ideal' to 'Does Not Meet Advisory Ideal'.

70. *Are detected high-frequency errors used to prompt revisions, update the validation rules, and generate updated training content and data collection manuals?*

Partially Meets Advisory Ideal

Vermont contacts law enforcement agencies via email or DMV bulletin when high frequency errors are detected. Those errors prompt training initiatives, updates to validation rules, and form revisions as corrective measures. It is unclear how the high frequency errors are identified or the criteria for triggering a contact to the agencies for corrective measures.

Change Notes: Rating Changed.

From 'Meets Advisory Ideal' to 'Partially Meets Advisory Ideal'.

71. *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?*

Partially Meets Advisory Ideal

The State uses quality control reviews of the narrative, diagram, and coding to identify issues regarding crash location, which is one of the most important elements of the report. However, it does not appear that any other elements of the crash report are covered by this review process.

Change Notes: Rating Changed.

From 'Meets Advisory Ideal' to 'Partially Meets Advisory Ideal'.

72. *Are sample-based audits periodically conducted for crash reports and related database content?*

Does Not Meet Advisory Ideal

An audit is meant to thoroughly check specific portions (or all) of a sample number of crash reports to detect errors that are not prevented by the edit checks or caught by regular quality control checks. Such audits should be independent of the normal day-to-day review, as the intent is





different. It is not clear if such sample-based audits are being performed.

Change Notes: Rating Unchanged.

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

Does Not Meet Advisory Ideal

The idea of trend analysis for crash data would include, for example, the comparison of the number of crash reports received from an agency in the last quarter with the average number of reports received in previous years. If an agency suddenly submits significantly fewer reports, that might indicate a technical problem or a policy change within the agency. Another example of a change in trend that might indicate a concern would be if the percentage of crashes that are fatal suddenly increases. That could indicate a policy change to not report all PDO crashes. It does not appear that such trend analysis on the submitted crash data is being performed by the State.

Change Notes: Rating Unchanged.

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

Partially Meets Advisory Ideal

The "Audit Report" seems to reflect the number of times the different edit checks were triggered to flag an issue that needed to be corrected before the report could be submitted to the State. This approach may provide some information that could reflect how well officers understand the requirements, which could suggest that training and or documentation changes could be appropriate. It is not clear how regular feedback is provided from key users to data collectors and data managers. Vermont is encouraged to collect and consolidate feedback from the data users and provide that feedback to the data collectors and managers.

Change Notes: Rating Unchanged.

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

Does Not Meet Advisory Ideal

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

Change Notes: Rating Unchanged.

Description and Contents of the Driver Data System

76. *Does custodial responsibility for the driver data system—including commercially-licensed drivers—reside in a single location?*

Meets Advisory Ideal

The Vermont Department of Motor Vehicles (DMV) has custodial responsibility for the State driver data system, which contains records with all critical information for both commercial and non-commercial drivers.

Change Notes: Rating Unchanged.





77. *Does the driver data system capture details of novice driver, motorcycle, and driver improvement (remedial) training histories?*

Partially Meets Advisory Ideal

The Vermont driver data system includes information on novice driver training for drivers under 18 years old. However, the State does not capture information on driver improvement training because this type of training is not required for traffic violations. Also, motorcycle training courses are not captured in the State's driver data system.

Change Notes: Rating Changed.

From 'Meets Advisory Ideal' to 'Partially Meets Advisory Ideal'.

78. *Does the driver data 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)?*

Partially Meets Advisory Ideal

The State's driver data system captures and retains the dates of original issuance for all permits, licensing, and endorsements for 10 years. The data is purged every 10 years. While purging driver data is a necessary function for a healthy driver data system, it would be beneficial to maintain some driver record data for a longer time period, such as original issuance dates.

Change Notes: Rating Unchanged.

Applicable Guidelines for the Driver Data System

79. *Is driver information maintained in a manner that accommodates interaction with the National Driver Register's PDPS and CDLIS?*

Meets Advisory Ideal

The State driver data system interacts with National Driver Register's Problem Driver Pointer System (PDPS) and the Commercial Driver's License Information System (CDLIS), via the Unified Network Interface (UNI), which allows for two-way transactions with these systems.

Change Notes: Rating Unchanged.

Data Dictionary for the Driver Data System

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

Meets Advisory Ideal

Vermont maintains documentation with a detailed layout and structure of the States' driver license master file with definitions for all driver system data elements.

Change Notes: Rating Unchanged.

81. *Are all valid field values-including null codes-documented in the data dictionary?*

Meets Advisory Ideal

All valid field values, including null codes, are documented in the data dictionary.

Change Notes: Rating Unchanged.





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

Meets Advisory Ideal

The State's driver data system includes edit checks and data collection guidelines.

Change Notes: Rating Unchanged.

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

Meets Advisory Ideal

The State's driver system data dictionary is updated based on changes to administrative rules, laws, or procedures. The Vermont DMV has established protocols for how to initiate and execute updates to the data dictionary.

Change Notes: Rating Unchanged.

Procedures and Process Flows for the Driver Data System

84. *Does the custodial agency maintain accurate and up-to-date documentation detailing: the licensing, permitting, and endorsement issuance procedures; reporting and recording of relevant convictions, driver education, driver improvement course; and recording of information that may result in a change of license status (e.g., sanctions, withdrawals, reinstatement, revocations, cancellations and restrictions) including manual or electronic reporting and timelines, where applicable?*

Partially Meets Advisory Ideal

Documentation is maintained and updated for the licensing, permitting, and endorsement issuance procedures; reporting and recording of relevant convictions, driver education, driver improvement course; and recording of information that may result in a change of license status, including manual or electronic reporting and timelines. Commercial Driver License (CDL) licensing and permitting procedures are available, but it is unclear about non-commercial drivers.

Change Notes: New Question.

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

Partially Meets Advisory Ideal

Vermont has a process flow diagram specifying inputs and interfaces with other data systems. However, this diagram does not clearly indicate driver system key data process flows.

Change Notes: Rating Unchanged.

86. *Are the processes for error correction and error handling documented for: license, permit, and endorsement issuance; reporting and recording of relevant 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?*

Partially Meets Advisory Ideal

The Vermont DMV has a set standard of no more than one percent error rate for transactions; however, there are no formal correction procedures. Each unit supervisor is responsible for identifying and correcting errors.

Change Notes: Rating Unchanged.





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

Meets Advisory Ideal

The State driver system has processes and procedures for purging data from the driver data system documented.

Change Notes: Rating Unchanged.

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

Meets Advisory Ideal

Vermont has the administrative authority to suspend licenses based on a DUI arrest independent of adjudication, as evident from Title 23 V.S.A. § 1205.

Change Notes: Rating Unchanged.

89. *Are there established processes to detect false identity licensure fraud?*

Meets Advisory Ideal

The State has established processes to detect false identity licensure fraud, such as utilizing facial recognition software and requiring multiple levels of document review. Security cameras are also used in all exam rooms, lobbies, and workstation areas. All frontline staff receive the American Association of Motor Vehicle Administrators' (AAMVA) Fraudulent Document Recognition Training and refer any suspicious activity to the Criminal Investigation Unit. This unit is comprised of sworn law enforcement officers and specializes in fraud detection and conducts fraud investigations as necessary.

Change Notes: Rating Unchanged.

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

Meets Advisory Ideal

The Vermont DMV has established processes to detect internal fraud by individual users or examiners. The use of cameras, as well as covert monitoring of exam staff while skill tests are administered is used to ensure proper procedures are followed. Skill exam pass/fail rates are reviewed for all examiners to identify any anomalies. All documents go through a secondary review before license issuances.

Change Notes: Rating Unchanged.

91. *Are there established processes to detect CDL fraud?*

Meets Advisory Ideal

The State has established a process to detect CDL fraud. CDL skill tests are covertly monitored for compliance and pass/fail rates are reviewed to determine any anomalies. All documents go through a secondary review before license issuance. Federal guidelines are adhered to regarding the issuance of CDL hazmat endorsement.

Change Notes: Rating Unchanged.





92. *Does the State transfer the Driver History Record (DHR) electronically to another State when requested due to a change in State of Record?*

Partially Meets Advisory Ideal

The State only transfers the Driver History Record (DHR) to other states for CDL issuances through the use of the CDLIS. Efforts should be made to participate in AAMVA State to State Program, which allows for electronic transfer of DHR for non-commercial driver licenses.

Change Notes: New Question.

93. *Does the State obtain the previous State of Record electronically upon request?*

Partially Meets Advisory Ideal

The State only obtains the previous State of Record electronically for CDL drivers. This process does not exist for non-commercial drivers.

Change Notes: New Question.

94. *Does the State run facial recognition prior to issuing a credential?*

Does Not Meet Advisory Ideal

Vermont does not run facial recognition prior to issuing a credential.

Change Notes: New Question.

95. *Does the State exchange driver photos with other State Licensing agencies upon request?*

Does Not Meet Advisory Ideal

Vermont does not exchange driver photos with other State Licensing agencies.

Change Notes: New Question.

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

Meets Advisory Ideal

Vermont has policies and procedures in place to maintain appropriate access and information security. These procedures and relevant policies are specified in the State of Vermont Physical Security for Computer Protection document. Also, all DMV staff are required to complete the Driver Policy Protection Act with confidentiality training.

Change Notes: Rating Unchanged.

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

Meets Advisory Ideal

The State has excellent processes in place to track access and release of driver data. The "watchdog report" is used to capture every query run by each employee. All record requests are documented and maintained to ensure Drivers Privacy Protection Act (DPPA) compliance.

Change Notes: Rating Unchanged.





Driver System Interface with Other Components

98. *Does the State post at-fault crashes to the driver record?*

Meets Advisory Ideal

The State posts at-fault crashes to the driver system through a nightly comma-delimited export file from the crash database.

Change Notes: Rating Unchanged.

99. *Does the State's DUI tracking system interface with the driver data system?*

Does Not Meet Advisory Ideal

The State does not maintain a separate DUI tracking system, but there are established procedures with the courts to obtain DUI conviction data via a paper process that is then updated to the driver records and used to impose driver license actions as needed. A DUI tracking system maintains all DUI-related information from court, probation, and DUI treatment requirements, that are tied to a DUI arrest. All parties (law enforcement, prosecutors, public defenders, probation officers, DUI program providers, licensing agencies, etc.) that are involved in processing DUI cases would have access to the DUI tracking system. The purposes of the DUI tracking system is to track DUI offenders from the point of arrest through adjudication, treatment, driver licensing actions, etc., and to monitor changes in DUI incidents in the State over time. This information can then be used to make informed decisions on how to better control DUIs.

Change Notes: Rating Unchanged.

100. *Is there an interface between the driver data 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?*

Partially Meets Advisory Ideal

The State has an interface between the driver data system and the PDPS, the CDLIS, and the Social Security Online Verification system (SSOLV). The driver system does not have an interface with the Systematic Alien Verification for Entitlement (SAVE) system; however, the SAVE system is used to verify eligibility for license issuance. Efforts should be made to interface with the SAVE system; thereby, eliminating this manual process.

Change Notes: Rating Unchanged.

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

Meets Advisory Ideal

The State provides access to the driver data to authorized law enforcement through the Vermont Department of Public Safety's use of the national law enforcement communication system.

Change Notes: Rating Unchanged.

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

Partially Meets Advisory Ideal





The State has the capability to grant court personnel access to driver system data. However, the courts have not requested such access.

Change Notes: Rating Unchanged.

Data Quality Control Programs for the Driver System

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

Partially Meets Advisory Ideal

The Vermont DMV has some data quality management processes and system edit checks; however, the State does not have a formal, comprehensive data quality management program for the driver system. A formal comprehensive driver data quality management program includes performance measures, numeric goals, tracking of high frequency errors, quality control reviews, independent sample-based audits, periodic comparative and trend analyses, as well as data quality management reports.

Change Notes: Rating Unchanged.

104. *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?*

Meets Advisory Ideal

The State's driver data system has edit checks and validation rules to ensure entered data falls within a range of acceptable values. Inaccurately entered data will cause the transaction to reject and the record is placed on a report for the DMV Quality Control to correct.

Change Notes: Rating Unchanged.

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

Does Not Meet Advisory Ideal

The State does not have any timeliness performance measures for the driver data system tailored to the needs of data managers and data users. An example of a driver system timeliness performance measure could be "The median or mean number of days from (a) the date of a driver's adverse action to (b) the date the adverse action is entered into the database."

Change Notes: Rating Unchanged.

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

Does Not Meet Advisory Ideal

The State does not have any accuracy performance measures for the driver data system tailored to the needs of data managers and data users. One example of an accuracy performance measure is the percentage of driver records with no errors in critical data elements. Even though the driver system has edit checks and validation rules, there is still a need to review the accuracy of the data in the driver system. Reports that are generated from transactions that are rejected could be used to create an accuracy performance measure.

Change Notes: Rating Unchanged.





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

Does Not Meet Advisory Ideal

The State does not have any completeness performance measures for the driver data system tailored to the needs of data managers and data users. When trying to measure a system's effectiveness, completeness measures are very important to ensure that there are no gaps in the data between what was supposed to be collected and what was actually collected.

Change Notes: Rating Unchanged.

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

Does Not Meet Advisory Ideal

The State does not have any uniformity performance measures for the driver data system tailored to the needs of data managers and data users. Uniformity is another important key in ensuring the system is working effectively.

Change Notes: Rating Unchanged.

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

Does Not Meet Advisory Ideal

The State does not have any integration performance measures for the driver data system tailored to the needs of data managers and data users.

Change Notes: Rating Unchanged.

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

Does Not Meet Advisory Ideal

The State does not have any accessibility performance measures for the driver data system tailored to the needs of data managers and data users. Accessibility performance measures are key in ensuring principal users are satisfied with the driver data system.

Change Notes: Rating Unchanged.

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

Does Not Meet Advisory Ideal

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

Change Notes: Rating Unchanged.





112. *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?*

Partially Meets Advisory Ideal

The State does not have a formal process for tracking errors and using the information to update training content and data collection manuals, update the validation rules, or prompt form revisions. However, when high frequency errors are identified, appropriate staff are notified for corrective action, and training is updated as necessary.

Change Notes: Rating Unchanged.

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

Does Not Meet Advisory Ideal

Independent sample-based audits are not conducted periodically for the driver reports and related database contents for that record. These audits should be independent of the normal day-to-day review, but not necessarily conducted by parties outside the department or division of State government that normally review the data.

Change Notes: Rating Unchanged.

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

Does Not Meet Advisory Ideal

The State does not conduct trend analyses to identify unexplained differences in the data across years and jurisdictions. Trend analyses can be useful for strategic planning, as well as for identifying possible system issues.

Change Notes: Rating Unchanged.

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

Partially Meets Advisory Ideal

Data quality feedback is discussed with key users when their errors are discussed with them. Efforts should be made to provide an avenue for key users to provide input about driver system issues or other enhancements that could create a more efficient data system.

Change Notes: Rating Unchanged.

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

Does Not Meet Advisory Ideal

The State does not provide driver data quality management reports to the TRCC. Providing such reports can assist in the prioritization of projects for all traffic records systems.

Change Notes: Rating Unchanged.





Description and Contents of the Vehicle Data System

117. *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?*

Meets Advisory Ideal

The Vermont Department of Motor Vehicles (DMV) has custodial responsibility for the State vehicle data system that resides in a single location. The vehicle data system includes ownership of vehicles registered, as well as vehicle make, model, year, body type, and title brand history.

Change Notes: Rating Unchanged.

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

Meets Advisory Ideal

Vermont performs VIN verification as part of the registration data entry process and identifies VIN numbers that require further correction.

Change Notes: Rating Unchanged.

119. *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?*

Does Not Meet Advisory Ideal

The State vehicle registration document does not contain barcoded data. Vermont has had an ongoing project to include the barcode on the registration document since 2017.

Change Notes: Rating Unchanged.

Applicable Guidelines for the Vehicle Data System

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

Meets Advisory Ideal

The State vehicle title information is uploaded to the National Motor Vehicle Title Information System (NMVTIS) daily.

Change Notes: Rating Improved.
From 'Does Not Meet Advisory Ideal' to 'Meets Advisory Ideal'.

121. *Does the vehicle system query NMVTIS before issuing new titles?*

Partially Meets Advisory Ideal

The State manually queries NMVTIS for each original out-of-state title transaction but is encouraged to develop procedures to query NMVTIS for all new title transactions.

Change Notes: Rating Improved.
From 'Does Not Meet Advisory Ideal' to 'Partially Meets Advisory Ideal'.





122. *Does the State incorporate brand information recommended by AAMVA and/or received via NMVTIS on the vehicle record, whether the brand description matches the State's brand descriptions?*

Meets Advisory Ideal

The State incorporates title brand information recommended by AAMVA as evident from the list of title brands listed on the Rebuilt/Salvage Title Application Form.

Change Notes: Rating Unchanged.

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

Meets Advisory Ideal

Vermont participates in the Performance and Registration Information Systems Management (PRISM) program.

Change Notes: Rating Unchanged.

Vehicle System Data Dictionary

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

Meets Advisory Ideal

The Vermont vehicle data system is supported with documentation that contains a definition for each vehicle system data field.

Change Notes: Rating Unchanged.

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

Meets Advisory Ideal

The State maintains documentation for the Vermont vehicle data system that, in addition to definitions, also includes edit checks and data collection guidelines for each data element.

Change Notes: Rating Unchanged.

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

Meets Advisory Ideal

The State has all procedures regarding title and registration transactions described in several documents and maintained on DMV's internal SharePoint site.

Change Notes: Rating Unchanged.





Procedures and Process Flows for the Vehicle Data System

127. *Is there a process flow that outlines the vehicle system's key data process flows, including inputs from other data systems?*

Meets Advisory Ideal

The Vermont vehicle system is supported by a process flow diagram outlining the system's key data process flows. This diagram could be further improved by specifically identifying when the NMVTIS query is completed on original issuances and when the daily file is provided to NMVTIS for title issuances.

Change Notes: Rating Unchanged.

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

Does Not Meet Advisory Ideal

Vermont's vehicle system does not contain a flag for stolen vehicles. However, there is a process in place that allows for a search of the vehicle in NMVTIS and the National Crime Information Center (NCIC), which could identify a stolen vehicle. If a stolen vehicle is identified, it is investigated by the Enforcement and Safety Section. Efforts should be made to require this search prior to the title being issued rather than after the title is issued.

Change Notes: Rating Changed.

From 'Meets Advisory Ideal' to 'Does Not Meet Advisory Ideal'.

129. *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?*

Does Not Meet Advisory Ideal

The State vehicle system does not maintain a stolen vehicle flag and, therefore, cannot remove such information upon recovery or junked stolen vehicles. The agency that originally entered information about stolen vehicles into the NCIC can subsequently remove it.

Change Notes: Rating Changed.

From 'Meets Advisory Ideal' to 'Does Not Meet Advisory Ideal'.

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

Meets Advisory Ideal

Title brand history information includes the previous title brands applied to vehicles by other States. The State can access title brand history for each vehicle transaction through an imaging system.

Change Notes: Rating Unchanged.

131. *Are the steps from initial event (titling, registration) to final entry into the statewide vehicle system documented?*

Meets Advisory Ideal

Vermont maintains a process flow diagram depicting the steps from initial titling event to final





entry into the statewide vehicle system. It was not clear if the registration process was included in the process flow. Efforts should be made to include the registration steps from initial entry to final entry into the vehicle system in this document.

Change Notes: Rating Unchanged.

132. *Is the process flow annotated to show the time required to complete each step?*

Meets Advisory Ideal

The State has documented the timelines for registration and titling time required to complete each step in the process from initial event to final entry into the statewide vehicle system. Adding these timelines to the process flow diagram would be beneficial.

Change Notes: Rating Unchanged.

133. *Does the process flow show alternative data flows and timelines?*

Meets Advisory Ideal

The State maintains process flow diagrams, which clearly depict the main processing steps and include information on alternative data flows for the Vermont vehicle system.

Change Notes: Rating Unchanged.

134. *Does the process flow include processes for error correction and error handling?*

Meets Advisory Ideal

The State's process flow diagram for the vehicle data system includes information on processes for error correction and error handling.

Change Notes: Rating Unchanged.

Vehicle Data System Interface with Other Traffic Record System Components

135. *Are the driver and vehicle files unified in one system?*

Meets Advisory Ideal

The State's vehicle and driver data systems reside in the Vermont DMV mainframe system and are linked via the driver license number.

Change Notes: Rating Unchanged.

136. *Is personal information entered into the vehicle system using the same conventions used in the driver system?*

Meets Advisory Ideal

The State's vehicle and driver data systems are linked through the driver license number, which means that personal information (driver license number) that relates to both data systems is identical.

Change Notes: Rating Unchanged.





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

Does Not Meet Advisory Ideal

Vehicle data discrepancies identified during data entry in the crash data system are not flagged for possible updating in the vehicle system.

Change Notes: Rating Unchanged.

Data Quality Control Programs for the Vehicle Data System

138. *Is the vehicle system data processed in real-time?*

Does Not Meet Advisory Ideal

The State's vehicle system does not process title and registration data in real-time.

Change Notes: Rating Unchanged.

139. *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?*

Meets Advisory Ideal

There are automated edit check and data validation processes for the vehicle data system that are specified in the State's documentation. The State's data validation procedures incorporate the creation of automated reports that are reviewed by the quality control staff for data correction.

Change Notes: Rating Unchanged.

140. *Are statewide vehicle system staff able to amend obvious errors and omissions for quality control purposes?*

Meets Advisory Ideal

The State has established procedures to allow only authorized staff to correct or amend obvious errors and omissions. The Vermont DMV Quality Control Unit staff have authority to amend obvious errors and omissions for quality control purposes.

Change Notes: Rating Unchanged.

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

Does Not Meet Advisory Ideal

The State vehicle system does not have timeliness performance measures tailored to the needs of data managers and data users. An example of a vehicle system timeliness performance measure could be "the percentage of vehicle record updates entered into the database within X days (e.g., 30, 60, or 90 days) of the critical status change".

Change Notes: Rating Unchanged.





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

Does Not Meet Advisory Ideal

The State vehicle system does not have accuracy performance measures tailored to the needs of data managers and data users. An example of a vehicle performance measure could be "The percentage of vehicle records with no errors in critical vehicle data elements". The error tracking that is currently being done, could be used to help establish an actual vehicle accuracy performance measure that includes a baseline and actual measurement, along with a goal.

Change Notes: Rating Unchanged.

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

Does Not Meet Advisory Ideal

The State vehicle system does not have completeness performance measures tailored to the needs of data managers and data users.

Change Notes: Rating Unchanged.

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

Does Not Meet Advisory Ideal

The State vehicle system does not have uniformity performance measures tailored to the needs of data managers and data users.

Change Notes: Rating Unchanged.

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

Does Not Meet Advisory Ideal

The State vehicle system does not have integration performance measures tailored to the needs of data managers and data users.

Change Notes: Rating Changed.

From 'Meets Advisory Ideal' to 'Does Not Meet Advisory Ideal'.

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

Does Not Meet Advisory Ideal

The State vehicle system does not have accessibility performance measures tailored to the needs of data managers and data users.

Change Notes: Rating Unchanged.





147. *Has the State established numeric goals-performance metrics-for each performance measure?*

Does Not Meet Advisory Ideal

The State has not established any performance measures; therefore, there are not any established numeric goals.

Change Notes: Rating Unchanged.

148. *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?*

Partially Meets Advisory Ideal

The State has an informal process for tracking and reviewing high frequency errors, which may result in error correction actions. In addition, these error correction actions may lead to updates in training material and/or training modifications. It is recommended that Vermont establish more formal procedures for tracking and reviewing high frequency errors, potential updating of training and training materials, and the updating of vehicle system validation rules or form revisions.

Change Notes: Rating Unchanged.

149. *Are sample-based audits conducted for vehicle reports and related database contents for that record?*

Does Not Meet Advisory Ideal

The State does not conduct sample-based audits of the vehicle data. This could help determine whether the most complex types of transactions are being completed correctly. For example, a small percentage of some of the most complex types of transactions could be reviewed on a regular basis to ensure that staff understands procedures and are completing transactions appropriately. This is an effective continuous improvement process.

Change Notes: Rating Unchanged.

150. *Are periodic comparative and trend analyses used to identify unexplained differences in the data across years and jurisdictions within the State?*

Partially Meets Advisory Ideal

The State performs comparative and trend analyses for online, mail, kiosk, and in-person registration renewal transactions over time, which is beneficial in capturing unusual anomalies or potential errors. Additional trend analyses for other vehicle transactions could be useful in a similar way. However, these analyses are not focused on trends or changes in data quality aspects of the Vermont vehicle data system (e.g., changes in timeliness, completeness, or accuracy of the vehicle system data).

Change Notes: Rating Unchanged.

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

Partially Meets Advisory Ideal

Data errors are communicated by supervisors to staff. However, there does not appear to be any type of formal communication to data managers from key data users, which can be valuable information to improve processes or data collection methods.





Change Notes: Rating Changed.
From 'Meets Advisory Ideal' to 'Partially Meets Advisory Ideal'.

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

Does Not Meet Advisory Ideal

The Vermont DMV does not provide vehicle data quality management reports to the TRCC for regular review. The value of data quality reports is to provide guidance about where to best spend time and resources in the traffic records systems to improve data for the State.

Change Notes: Rating Unchanged.

Description and Contents of the Roadway Data System

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

Meets Advisory Ideal

Vermont has all public roads mapped in a GIS system and uses a route code and mileage linear referencing system (LRS).

Change Notes: Rating Unchanged.

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

Meets Advisory Ideal

Vermont has the capability of mapping roadway and traffic data using compatible LRS systems. There is an online portal that displays the information.

Change Notes: Rating Unchanged.

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

Meets Advisory Ideal

The State has described two LRSs that can be used to link roadway and traffic data.

Change Notes: Rating Unchanged.

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

Meets Advisory Ideal

Vermont locates most crashes using an LRS. Those crashes not located using the LRS system are geolocated. Once a year, Vermont maps all crashes and a query tool can be used by the public to look at crash locations.

Change Notes: Rating Unchanged.





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

Meets Advisory Ideal

Crash data is used for safety analysis and management use. Examples include Vermont's Highway Crash Locations (HCL) and the development of a calibration factor for two-lane rural roads.

Change Notes: Rating Unchanged.

Applicable Guidelines for the Roadway Data System

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

Partially Meets Advisory Ideal

Vermont is close to having all of the MIRE Fundamental Data Elements (FDE) collected for all public roads. They have documented the percentages determined by FHWA for each of the road types.

Change Notes: Rating Unchanged.

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

Partially Meets Advisory Ideal

The State collects some non-FDE MIRE elements and tries to ensure the elements are compliant with MIRE, although not all elements collected conform.

Change Notes: Rating Unchanged.

Data Dictionary for the Roadway Data System

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

Partially Meets Advisory Ideal

Vermont does not have all of the MIRE FDEs in an enterprise system data dictionary. However, the FDEs are found within various data dictionaries. The State is working on a pilot project that will help provide the architecture for the future enterprise system data dictionary.

Change Notes: Rating Improved.

From 'Does Not Meet Advisory Ideal' to 'Partially Meets Advisory Ideal'.

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

Partially Meets Advisory Ideal

Vermont has expanded the collected non-FDE data elements to include all public roads but has indicated that the elements are not in the current MIRE schema. They do have information in other data dictionaries.

Change Notes: Rating Improved.

From 'Does Not Meet Advisory Ideal' to 'Partially Meets Advisory Ideal'.





162. *Does local, municipal, or tribal (where applicable) roadway data comply with the data dictionary?*

Partially Meets Advisory Ideal

Vermont has a process by which Metropolitan Planning Organizations (MPO), regional planning commissions, and municipalities' data is incorporated into the databases. This includes vetting the data to ensure data uses the definitions for the specific database, but not all local data complies with the State data dictionary.

Change Notes: Rating Unchanged.

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

Does Not Meet Advisory Ideal

Vermont does not have a formal process to update the data dictionary. A data governance project is underway that will include enhancing the data dictionaries.

Change Notes: Rating Unchanged.

Procedures and Process Flows for the Roadway Data System

164. *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?*

Meets Advisory Ideal

When it is necessary to add a new roadway data element, a schema and authoritative source are identified, the data is built, and the IT agency and data system manager collaborate on publishing the new data element. The VTrans Mapping Section Chief is responsible for this process. VTrans is working to implement formal data governance and will be working to develop workflows for incorporating new elements, assessment of existing standards, linkage to existing systems, and update of data dictionaries and other documentation.

Change Notes: Rating Improved.

From 'Partially Meets Advisory Ideal' to 'Meets Advisory Ideal'.

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

Meets Advisory Ideal

The State has a process for updating existing elements, which is also the responsibility of the VTrans Mapping Section Chief. This process will be improved with the implementation of data governance.

Change Notes: Rating Improved.

From 'Partially Meets Advisory Ideal' to 'Meets Advisory Ideal'.





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

Meets Advisory Ideal

Vermont has documented a workflow for the publication of roadway data and it includes information on archiving the data, which happens every six months.

Change Notes: Rating Improved.

From 'Partially Meets Advisory Ideal' to 'Meets Advisory Ideal'.

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

Meets Advisory Ideal

Vermont has multiple documents that provide direction on the collection, management, and submittal of roadway data. These include MIRE Guidance documents and a data exchange protocol document.

Change Notes: Rating Improved.

From 'Partially Meets Advisory Ideal' to 'Meets Advisory Ideal'.

168. *Are procedures for collecting and managing the local agency (to include tribal, where applicable) roadway data compatible with the State's enterprise roadway inventory?*

Meets Advisory Ideal

The State described how traffic counts and other roadway data are submitted to the state roadway database. Regional Planning Commissions work with local agencies to develop the counts, which are then submitted to VTrans for compilation.

Change Notes: Rating Improved.

From 'Does Not Meet Advisory Ideal' to 'Meets Advisory Ideal'.

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

Meets Advisory Ideal

Vermont utilizes multiple documents as guidelines for data collection, including pavement management criteria, bridge inventory system guidelines, and the Highway Performance Monitoring System.

Change Notes: Rating Improved.

From 'Partially Meets Advisory Ideal' to 'Meets Advisory Ideal'.

Intrastate Roadway System Interface

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

Meets Advisory Ideal

Vermont has multiple linear reference methods that are compatible and can be correlated using geoprocessing tools.

Change Notes: Rating Unchanged.





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

Meets Advisory Ideal

Vermont's GIS system allows all systems to be interfaced since elements are all geolocated.

Change Notes: Rating Unchanged.

172. *Are the location coding methodologies for all regional, local, and tribal roadway systems compatible?*

Meets Advisory Ideal

Vermont has a defined, coordinated standard and GIS data is collected using this format at the local and regional levels. The LRS made available by the Vermont Agency of Transportation (VTrans) is used by regional and local entities

Change Notes: Rating Unchanged.

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

Meets Advisory Ideal

Local and regional entities have access to the feature services through the Open Geodata Portal, which allows for real-time edits of intersection and road centerline attributes.

Change Notes: Rating Improved.

From 'Does Not Meet Advisory Ideal' to 'Meets Advisory Ideal'.

174. *Does the State enterprise roadway information system allow MPOs and local transportation agencies (to include federally recognized Tribes, where applicable) on-demand access to data?*

Meets Advisory Ideal

Vermont provides on-demand data to the public, including MPOs and other State agencies, through the open data portal.

Change Notes: Rating Unchanged.

Data Quality Control Programs for the Roadway Data System

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

Meets Advisory Ideal

Vermont conducts nightly quality control (QC) routines for road centerline and intersections as well as quality assurance (QA) routines for the LRS and other roadway elements.

Change Notes: Rating Improved.

From 'Partially Meets Advisory Ideal' to 'Meets Advisory Ideal'.





176. *Is there a formal program of error/edit checking for data entered into the statewide roadway data system?*

Meets Advisory Ideal

The State maintains QA/QC routines and validations that document the error-checking processes.

Change Notes: Rating Improved.

From 'Partially Meets Advisory Ideal' to 'Meets Advisory Ideal'.

177. *Are there procedures for prioritizing and addressing detected errors?*

Meets Advisory Ideal

The State reported how detected errors are prioritized for correction, basically that those identified nightly during quality control processes are corrected the next day and those on a larger or higher scale, possibly needing research, may take longer. All requests for correction are corrected in the order they are identified.

Change Notes: Rating Improved.

From 'Does Not Meet Advisory Ideal' to 'Meets Advisory Ideal'.

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

Meets Advisory Ideal

Identified errors are provided to the data collectors for correction. Email is a common form of communication, to illustrate the issue and provide links with the appropriate feature. Informal training may be done related to systematic issues and, with regional planning commissions, training may relate to what work needs to be done, data models and field values, and data development goals. Guidance documents are also used to provide insight to the projects, data development, and field domains.

Change Notes: Rating Improved.

From 'Partially Meets Advisory Ideal' to 'Meets Advisory Ideal'.

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

Does Not Meet Advisory Ideal

Vermont does not have any timeliness performance measures.

Change Notes: Rating Unchanged.

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

Does Not Meet Advisory Ideal

Vermont does not have any accuracy performance measures.

Change Notes: Rating Unchanged.





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

Meets Advisory Ideal

Vermont has provided completeness performance measures that include measurements.

Change Notes: Rating Improved.

From 'Does Not Meet Advisory Ideal' to 'Meets Advisory Ideal'.

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

Meets Advisory Ideal

Vermont has provided uniformity performance measures and has included values.

Change Notes: Rating Improved.

From 'Does Not Meet Advisory Ideal' to 'Meets Advisory Ideal'.

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

Does Not Meet Advisory Ideal

Vermont does not have any accessibility performance measures.

Change Notes: Rating Unchanged.

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

Does Not Meet Advisory Ideal

Vermont does not have any integration performance measures.

Change Notes: Rating Unchanged.

185. *Has the State established numeric goals-performance metrics-for each performance measure?*

Does Not Meet Advisory Ideal

Vermont does not have any established goals or metrics for performance measures.

Change Notes: New Question.

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

Does Not Meet Advisory Ideal

Vermont does not provide roadway data quality management reports to the TRCC.

Change Notes: New Question.





Description and Contents of the Citation and Adjudication Data Systems

187. *Is citation and adjudication data used for the prosecution of offenders; adjudication of cases; traffic safety analysis to identify problem locations, problem drivers, and issues related to the issuance of citations; and for traffic safety program planning purposes?*

Does Not Meet Advisory Ideal

The State does not use citation and adjudication data for the prosecution of offenders; adjudication of cases; traffic safety analysis to identify problem locations, problem drivers, and issues related to the issuance of citations; or for traffic safety program planning purposes.

Change Notes: Rating Unchanged.

188. *Is there a statewide authority that assigns unique citation numbers?*

Meets Advisory Ideal

The Vermont Judicial Bureau is responsible for assigning unique citation numbers for paper traffic ticket books used by law enforcement and placing the requirement on eTicket vendors to generate unique citation numbers within their systems. With the advent of Vermont's eTicketing program, agencies on the Valcour Computer-Aided Dispatch/Records Management System (CAD/RMS) system receive a numeric generated ticket number from the system. The Vermont Judicial Bureau assigned a unique starting number sequence and the CAD/RMS then generates the ticket number based on the beginning sequence number.

Change Notes: Rating Unchanged.

189. *Are all citation dispositions-both within and outside the judicial branch-tracked by a statewide citation tracking system?*

Meets Advisory Ideal

The Vermont Judicial Bureau's case management system, Odyssey, tracks all citation dispositions within the judicial branch. Reportable dispositions are transmitted electronically to the Vermont Department of Motor Vehicles (DMV), while dismissal and deferrals remain accessible in Odyssey. There are no citation dispositions outside of the Judicial Branch.

Change Notes: Rating Improved.

From 'Partially Meets Advisory Ideal' to 'Meets Advisory Ideal'.

190. *Are final dispositions (up to and including the resolution of any appeals) posted to the driver data system?*

Partially Meets Advisory Ideal

The Judiciary transmits all dispositions nightly to the DMV via FTP in the form of a list of Judicial Bureau civil complaint adjudications or judgments for the day as well as a list of notices to suspend for non-payment. The next business day the Judiciary transmits compliances to the DMV electronically. It is not clear if the resolution of any appeals is posted to the driver data system.

Change Notes: Rating Unchanged.





191. *Are the courts' case management systems interoperable among all jurisdictions within the State (including tribal, local, municipal, and State)?*

Meets Advisory Ideal

The State of Vermont has a unified court system utilizing a common case management system referred to as Odyssey.

Change Notes: Rating Unchanged.

192. *Is there a statewide system that provides real-time information on individuals' driving and criminal histories?*

Partially Meets Advisory Ideal

The State of Vermont has a network of systems, some near real-time, where individual driving and criminal histories are available. It is unclear whether both histories are available through the described Vermont Crime Information Center (VCIC) or if a query of two or more systems would be necessary to obtain both.

Change Notes: Rating Unchanged.

193. *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?*

Meets Advisory Ideal

All law enforcement agencies, parole agencies, probation agencies, and courts within the State have access to several systems providing real-time information on individuals driving and criminal histories. Access to these systems is dependent upon the role of the individual in the process. While all law enforcement agencies have access to both criminal and driving histories, probation, parole, and the courts have access to the information from either a source system (e.g., Odyssey) or through the Vermont Justice Information Sharing System (VJISS).

Change Notes: Rating Improved.

From 'Partially Meets Advisory Ideal' to 'Meets Advisory Ideal'.

Applicable Guidelines and Participation in National Data Exchange Systems for the Citation and Adjudication Systems

194. *Are DUI convictions and traffic-related felonies reported according to Uniform Crime Reporting (UCR) guidelines?*

Partially Meets Advisory Ideal

Although Vermont reports DUIs and traffic felonies into the VCIC Uniform Crime Reporting (UCR) complaint system, it is unclear if DUI convictions and traffic-related felonies are reported in accordance with UCR guidelines. The State noted various ways by which the reported DUI data from the VCIC may be UCR-compliant, but it is unclear how DUI convictions and traffic-related felonies are reported in accordance with UCR guidelines.

Change Notes: Rating Improved.

From 'Does Not Meet Advisory Ideal' to 'Partially Meets Advisory Ideal'.





195. *Do the appropriate portions of the citation and adjudication systems adhere to the NIEM Justice domain guidelines?*

Partially Meets Advisory Ideal

The State of Vermont utilizes the National Information Exchange Model (NIEM) 2.1 standards for a data exchange between the law enforcement RMS and the judiciary's case management system Odyssey. NIEM compliance is planned as part of an upgrade to the interface between the VCIC and the National Instant Criminal Background Check System (NICS). The State is also cognizant of the ability to upgrade to NIEM 3.0 standards.

Change Notes: Rating Unchanged.

196. *Does the State use any National Center for State Courts (NCSC) guidelines for court records?*

Meets Advisory Ideal

The State utilizes National Center for State Courts (NCSC) guidelines for court records. Vermont is a supporting member of the Justice Count initiative and is adopting the CourTools process for evaluation of court processes.

Change Notes: Rating Improved.
From 'Partially Meets Advisory Ideal' to 'Meets Advisory Ideal'.

Data Dictionary for the Citation and Adjudication Data Systems

197. *Does the statewide citation tracking system have a data dictionary?*

Meets Advisory Ideal

The statewide citation tracking system has a data dictionary. The Odyssey (court case management system) eTicket data dictionary is available.

Change Notes: Rating Unchanged.

198. *Do the courts' case management system data dictionaries provide a definition for each data field?*

Meets Advisory Ideal

The case management system, Odyssey, has a data dictionary that defines each data field. It should be noted that the data dictionary is proprietary information.

Change Notes: Rating Improved.
From 'Does Not Meet Advisory Ideal' to 'Meets Advisory Ideal'.

199. *Do the citation data dictionaries clearly define all data fields?*

Partially Meets Advisory Ideal

It was reported that the citation data dictionary provides a definition for each data field, but the documentation was not available for review.

Change Notes: Rating Changed.
From 'Meets Advisory Ideal' to 'Partially Meets Advisory Ideal'.





200. *Do the courts' case management system data dictionaries clearly define all data fields?*

Meets Advisory Ideal

The case management system, Odyssey, has a data dictionary that defines each data field. It should be noted that the data dictionary is proprietary information.

Change Notes: Rating Improved.

From 'Does Not Meet Advisory Ideal' to 'Meets Advisory Ideal'.

201. *Are the citation system data dictionaries up-to-date and consistent with the field data collection manual, training materials, coding manuals, and corresponding reports?*

Meets Advisory Ideal

The system housing citation data is up-to-date and updated by the eTicket project manager periodically based on changes identified throughout implementation. The data dictionary was updated to include data elements needed for the TraCS/Spillman exchange. Due to the collaboration amongst agencies, updates are consistent with field data collection manuals, training materials, coding manuals, and corresponding reports.

Change Notes: Rating Unchanged.

202. *Do the citation data dictionaries indicate the data fields that are populated through interfaces with other traffic records system components?*

Partially Meets Advisory Ideal

The citation data dictionary indicates how data fields are populated; however, it is not clear if the dictionary is populated through interfaces with other traffic records system components. It appears the Odyssey system, which captures citation, and adjudication data can be linked but there are no other indicators of linkages taking place for other traffic components. The Data Map is a solid foundation for a more comprehensive data dictionary.

Change Notes: Rating Unchanged.

203. *Do the courts' case management system data dictionaries indicate the data fields populated through interface linkages with other traffic records system components?*

Does Not Meet Advisory Ideal

It is unclear whether the citation data dictionaries indicate the data fields through interface linkages with other traffic records system components.

Change Notes: Rating Unchanged.

Procedures and Process Flows for the Citation and Adjudication Data Systems

204. *Does the State track citations from point of issuance to posting on the driver file?*

Partially Meets Advisory Ideal

The State of Vermont has the ability to track citations from point of issuance to posting on the driver file, although the information may reside in disparate systems. Information regarding the issuance and adjudication of the infraction would be available in the court's case management system, Odyssey, and the corresponding information on the driver file is maintained by the DMV.

Change Notes: Rating Changed.

From 'Meets Advisory Ideal' to 'Partially Meets Advisory Ideal'.





205. *Does the State distinguish between the administrative handling of court payments in lieu of court appearances (mail-ins) and court appearances?*

Partially Meets Advisory Ideal

The State of Vermont is able to distinguish between the administrative handling of court payments in lieu of court appearances (mail-ins) and court appearances based on the action of the driver. It is unclear whether the two are distinguishable on the driver history record once adjudicated.

Change Notes: Rating Unchanged.

206. *Does the State have a system for tracking administrative driver penalties and sanctions?*

Partially Meets Advisory Ideal

The Vermont Judicial Bureau, in concert with the DMV, maintains systems that can be used to track administrative driver penalties and sanctions.

Change Notes: Rating Changed.

From 'Meets Advisory Ideal' to 'Partially Meets Advisory Ideal'.

207. *Does the State track the number and types of traffic citations for juvenile offenders?*

Partially Meets Advisory Ideal

The State of Vermont does not separately track the number and types of traffic citations for juvenile offenders; however, the information is maintained in the case management system.

Change Notes: Rating Improved.

From 'Does Not Meet Advisory Ideal' to 'Partially Meets Advisory Ideal'.

208. *Are deferrals and dismissals tracked by the court case management systems or on the driver history record (DHR) to insure subsequent repeat offenses are not viewed as first offenses?*

Partially Meets Advisory Ideal

The State of Vermont Judiciary's case management system, Odyssey, tracks deferrals and dismissals.

Change Notes: Rating Improved.

From 'Does Not Meet Advisory Ideal' to 'Partially Meets Advisory Ideal'.

209. *Are there State and/or local criteria for deferring or dismissing traffic citations and charges?*

Partially Meets Advisory Ideal

The State describes a Vermont court rule permitting police officers to amend, void, or dismiss a traffic violation after issuance, prior to the request for a hearing from the defendant.

Change Notes: Rating Changed.

From 'Meets Advisory Ideal' to 'Partially Meets Advisory Ideal'.





210. *Are the processes for retaining, archiving or purging citation records defined and documented?*

Partially Meets Advisory Ideal

Although the Vermont Judiciary indicated that citation records are not purged, V.S.A Title 4 Section 659 governs the preservation of court records.

Change Notes: Rating Changed.

From 'Meets Advisory Ideal' to 'Partially Meets Advisory Ideal'.

211. *Are there security protocols governing data access, modification, and release in the adjudication system?*

Meets Advisory Ideal

Odyssey's user access security protocols governing data access, modification, and release are documented.

Change Notes: Rating Unchanged.

212. *Does the State have an impaired driving data tracking system that uses some or all the data elements or guidelines of NHTSA's Model Impaired Driving Records Information System (MIDRIS), which provides a central point of access for DUI Driver information from the time of the stop/arrest through adjudication, sanctions, rehabilitation, prosecution and posting to the driver history file?*

Does Not Meet Advisory Ideal

The State of Vermont does not have an impaired driving data tracking system. The State does however have multiple systems where all information related to impaired driving is maintained.

Change Notes: Rating Changed.

From 'Partially Meets Advisory Ideal' to 'Does Not Meet Advisory Ideal'.

213. *Does the DUI tracking system include BAC and any drug testing results?*

Does Not Meet Advisory Ideal

The State of Vermont does not have an impaired driving data tracking system.

Change Notes: Rating Unchanged.

Citation and Adjudication Systems Interface with Other Components

214. *Does the citation system interface with the driver system to collect driver information to help determine the applicable charges?*

Meets Advisory Ideal

The State of Vermont citation system interfaces with the driver system to collect driver information to help determine the applicable charges. The State's RMS, Valcour, displays previous law enforcement interactions, previous convictions, and information from the Vermont driver history record for use in issuing electronic citations.

Change Notes: Rating Improved.

From 'Does Not Meet Advisory Ideal' to 'Meets Advisory Ideal'.





215. *Does the citation system interface with the vehicle system to collect vehicle information and carry out administrative actions (e.g., vehicle seizure, forfeiture, interlock)?*

Does Not Meet Advisory Ideal

The citation system in the State of Vermont does not interface with the vehicle system.

Change Notes: Rating Unchanged.

216. *Does the citation system interface with the crash system to document violations and charges related to the crash?*

Does Not Meet Advisory Ideal

The citation system in the State of Vermont does not interface with the crash system.

Change Notes: Rating Unchanged.

217. *Does the adjudication system interface with the driver system to post dispositions to the driver file?*

Does Not Meet Advisory Ideal

The adjudication system does not interface with the driver system to post dispositions to the driver file. The court transmits relevant court information via FTP to the DMV where the information is manually processed and entered on the driver record.

Change Notes: New Question.

218. *Does the adjudication system interface with the vehicle system to collect vehicle information and carry out administrative actions (e.g., vehicle seizure, forfeiture, interlock mandates, and supervision)?*

Does Not Meet Advisory Ideal

The adjudication system does not interface with the vehicle system to collect vehicle information and carry out administrative actions.

Change Notes: Rating Unchanged.

219. *Does the adjudication system interface with the crash system to document violations and charges related to the crash?*

Does Not Meet Advisory Ideal

The adjudication system does not interface with the crash system to document violations and charges related to the crash.

Change Notes: Rating Unchanged.

Quality Control Programs for the Citation and Adjudication Systems

220. *Are there timeliness performance measures tailored to the needs of citation systems managers and data users?*

Does Not Meet Advisory Ideal

There are no timeliness performance measures tailored to the needs of citation systems managers and data users.

Change Notes: Rating Changed.

From 'Meets Advisory Ideal' to 'Does Not Meet Advisory Ideal'.





221. *Are there accuracy performance measures tailored to the needs of citation systems managers and data users?*

Partially Meets Advisory Ideal

The Judiciary receives daily data exchange for all e-citations to include rejected e-citations. The Judiciary case management system can produce data quality reports to review specific measurements to improve accuracy.

Change Notes: Rating Changed.
From 'Meets Advisory Ideal' to 'Partially Meets Advisory Ideal'.

222. *Are there completeness performance measures tailored to the needs of citation systems managers and data users?*

Meets Advisory Ideal

The State has citation completeness performance measures tailored to the needs of citation systems managers and data users and has incorporated them into the Vermont Traffic Records Strategic Plan (FY2022).

Change Notes: Rating Unchanged.

223. *Are there uniformity performance measures tailored to the needs of citation systems managers and data users?*

Meets Advisory Ideal

The State has uniformity performance measures tailored to the needs of citation systems managers and data users and has incorporated them into the Vermont Traffic Records Strategic Plan (FY2022).

Change Notes: Rating Unchanged.

224. *Are there integration performance measures tailored to the needs of citation systems managers and data users?*

Does Not Meet Advisory Ideal

The State did not articulate an integration performance measure. Integration relates to the ability of records in the citation database to be linked to a set of records in another of the six core databases.

Change Notes: Rating Unchanged.

225. *Are there accessibility performance measures tailored to the needs of citation systems managers and data users?*

Does Not Meet Advisory Ideal

The State did not articulate an accessibility performance measure.

Change Notes: Rating Changed.
From 'Meets Advisory Ideal' to 'Does Not Meet Advisory Ideal'.





226. *Has the State established numeric goals-performance metrics-for each citation system performance measure?*

Partially Meets Advisory Ideal

The State has established numeric goals-performance metrics-for completeness and uniformity.

Change Notes: New Question.

227. *Are there timeliness performance measures tailored to the needs of adjudication systems managers and data users?*

Does Not Meet Advisory Ideal

The State did not articulate a timeliness performance measure; however, the Judiciary is in the process of implementing CourTools which should provide robust data to create one.

Change Notes: Rating Unchanged.

228. *Are there accuracy performance measures tailored to the needs of adjudication systems managers and data users?*

Does Not Meet Advisory Ideal

The State did not articulate an accuracy performance measure.

Change Notes: Rating Unchanged.

229. *Are there completeness performance measures tailored to the needs of adjudication systems managers and data users?*

Does Not Meet Advisory Ideal

The State did not articulate a completeness performance measure.

Change Notes: Rating Unchanged.

230. *Are there uniformity performance measures tailored to the needs of adjudication systems managers and data users?*

Does Not Meet Advisory Ideal

The State did not articulate a performance measure for uniformity, although it would appear the system described is capable of producing data to support one. Uniformity relates to the consistency among the files or records in the database measured against a standard. e.g., The percentage of citation records that have inaccurate dates- including the most current baseline and actual values.

Change Notes: New Question.

231. *Are there integration performance measures tailored to the needs of adjudication systems managers and data users?*

Does Not Meet Advisory Ideal

The State did not articulate an integration performance measure for adjudication system managers; however, it appears the Judiciary's court management system interfaces with several other crucial traffic and non-traffic systems.

Change Notes: Rating Unchanged.





232. *Are there accessibility performance measures tailored to the needs of adjudication systems managers and data users?*

Does Not Meet Advisory Ideal

The State did not articulate an accessibility performance measure.

Change Notes: New Question.

233. *Has the State established numeric goals-performance metrics-for each adjudication system performance measure?*

Does Not Meet Advisory Ideal

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

Change Notes: New Question.

234. *Does the State have performance measures for its DUI Tracking system?*

Does Not Meet Advisory Ideal

The State of Vermont does not maintain a statewide DUI Tracking system.

Change Notes: Rating Unchanged.

235. *Are sample-based audits conducted periodically for citations and related database content for that record?*

Partially Meets Advisory Ideal

The Vermont Judiciary, in conjunction with the DMV, engages in sample-based audits conducted periodically for commercial vehicle citations to verify CDL license, commercial vehicle, and HazMat data is accurate.

Change Notes: New Question.

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

Does Not Meet Advisory Ideal

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

Change Notes: New Question.

Injury Surveillance System

237. *Is there an entity in the State that quantifies the burden of motor vehicle injury using EMS, emergency department, hospital discharge, trauma registry and vital records data?*

Does Not Meet Advisory Ideal

While Vermont has access to the injury surveillance data sets, there is not a sole entity for the State that quantifies motor vehicle injury using injury surveillance data. A report "Injury and Violence in Vermont 2018" produced by the Vermont Department of Health (VDH) includes motor vehicle injury using emergency department, hospital discharge, and vital records data. The EMS data is included, but not for motor vehicle-related injuries.

Change Notes: New Question.





238. *Are there any other statewide databases that are used to quantify the burden of motor vehicle injury?*

Partially Meets Advisory Ideal

Vermont utilizes the Behavioral Risk Factor Surveillance System (BRFSS) and the Youth Risk Behavioral Survey (YRBS) to supplement their efforts. These surveys help to quantify the level of risky behaviors of Vermont drivers but do not provide additional information regarding motor vehicle injuries.

Change Notes: Rating Unchanged.

239. *Do the State's privacy laws allow for the use of protected health information to support data analysis activities?*

Meets Advisory Ideal

The VDH Guide to Data Standards and Systems outlines the policies for use of protected health information.

Change Notes: New Question.

Emergency Medical Systems (EMS) Description and Contents

240. *Is there a statewide EMS database?*

Meets Advisory Ideal

The State maintains the Statewide Incident Reporting Network (SIREN) for statewide EMS data.

Change Notes: Rating Unchanged.

241. *Does the EMS data track the frequency, severity, and nature of injuries sustained in motor vehicle crashes in the State?*

Partially Meets Advisory Ideal

The SIREN system can generate reports that demonstrate the number of responses that involve motor vehicle crash occupants and non-motorized crash injuries. EMS documentation can provide the nature of injury, but it is not known if the EMS data reports include injury severity categorizations.

Change Notes: Rating Changed.

From 'Meets Advisory Ideal' to 'Partially Meets Advisory Ideal'.

242. *Is the EMS data available for analysis and used to identify problems, evaluate programs, and allocate resources?*

Meets Advisory Ideal

EMS data is regularly used to evaluate patient care and allocate resources. Many of the recent analyses focus on opiate use and are not related to highway safety projects.

Change Notes: Rating Unchanged.





EMS – Guidelines

243. *Does the State have a NEMSIS-compliant statewide database?*

Meets Advisory Ideal

The State EMS system is NEMSIS version 3.4 compliant. They expect to transition to NEMSIS 3.5 in 2023.

Change Notes: Rating Unchanged.

EMS – Data Dictionary

244. *Does the EMS system have a formal data dictionary?*

Meets Advisory Ideal

Vermont uses the NEMSIS 3.4 data dictionary with a few modifications specific to the State's needs.

Change Notes: Rating Unchanged.

EMS – Procedures & Processes

245. *Is there a single entity that collects and compiles data from the local EMS agencies?*

Meets Advisory Ideal

The VDH is responsible for collecting and compiling data from local EMS agencies. The majority of EMS agencies submit using SIREN. Those agencies that don't use SIREN export data to VDH.

Change Notes: Rating Unchanged.

246. *Is aggregate EMS data available to outside parties (e.g., universities, traffic safety professionals) for analytical purposes?*

Meets Advisory Ideal

Through an application process, the State provides individual-level EMS data extract files to outside parties. The record-level data can be aggregated to generate ad hoc reports of the SIREN data.

Change Notes: Rating Unchanged.

247. *Are there procedures in place for the submission of all EMS patient care reports to the Statewide EMS database?*

Meets Advisory Ideal

All ambulance agencies and First Responder services are required to submit patient care reports electronically to the VDH. Paper reports are no longer accepted and the majority of reports are submitted through SIREN, but third-party vendor submissions are also accepted.

Change Notes: Rating Unchanged.





248. *Are there procedures for returning data to the reporting EMS agencies for quality assurance and improvement (e.g., correction and resubmission)?*

Partially Meets Advisory Ideal

Vermont relies on the validation rules (and validation scores) to ensure data accuracy and correctness. There are managers in place who oversee the process and make sure correct data is submitted; however, there is no standard procedure for returning EMS reports for correction of errors not captured by the validation process.

Change Notes: Rating Unchanged.

EMS – Quality Control

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

Meets Advisory Ideal

The State has validation rules and automated data checks on the entered EMS data and provides the validity rules and error messages.

Change Notes: Rating Unchanged.

250. *Are there processes for returning rejected EMS patient care reports to the collecting entity and tracking resubmission to the statewide EMS database?*

Partially Meets Advisory Ideal

Outside of the validation rules, the State does not have a process for returning rejected EMS patient care reports to the collecting entity and tracking resubmission to the statewide EMS database.

Change Notes: Rating Unchanged.

251. *Are there timeliness performance measures tailored to the needs of EMS system managers and data users?*

Meets Advisory Ideal

The Traffic Records Strategic Plan includes a timeliness measure for the SIREN system. Average submission time has been tracked over the past several years with the most current of 2.4 days.

Change Notes: Rating Unchanged.

252. *Are there accuracy performance measures tailored to the needs of EMS system managers and data users?*

Partially Meets Advisory Ideal

Validity scores are used for the accuracy performance measure. However, baseline and target scores, which are essential components of a performance measure's metrics, were not identified.

Change Notes: Rating Changed.

From 'Meets Advisory Ideal' to 'Partially Meets Advisory Ideal'.





253. *Are there completeness performance measures tailored to the needs of EMS system managers and data users?*

Partially Meets Advisory Ideal

Validation scores are used as completeness performance measures. In addition to the current scores, a complete performance measure would also include baseline and target metrics.

Change Notes: Rating Changed.

From 'Meets Advisory Ideal' to 'Partially Meets Advisory Ideal'.

254. *Are there uniformity performance measures tailored to the needs of EMS system managers and data users?*

Does Not Meet Advisory Ideal

Vermont uses the NEMESIS 3.4 data dictionary, but no performance measures have been established for uniformity.

Change Notes: Rating Unchanged.

255. *Are there integration performance measures tailored to the needs of EMS system managers and data users?*

Does Not Meet Advisory Ideal

The State does not have integration measures for EMS that include the most current baseline and actual values for each. The Traffic Records Strategic Plan has a baseline for integration with EMS and crash for an upcoming project.

Change Notes: Rating Changed.

From 'Meets Advisory Ideal' to 'Does Not Meet Advisory Ideal'.

256. *Are there accessibility performance measures tailored to the needs of EMS system managers and data users?*

Does Not Meet Advisory Ideal

Accessibility performance measures have not been established.

Change Notes: Rating Unchanged.

257. *Has the State established numeric goals-performance metrics-for each EMS system performance measure?*

Partially Meets Advisory Ideal

The State has specific numeric goals and related performance measures for timeliness and integration for EMS data.

Change Notes: Rating Improved.

From 'Does Not Meet Advisory Ideal' to 'Partially Meets Advisory Ideal'.





258. *Are quality control reviews conducted to ensure the completeness, accuracy, and uniformity of injury data in the EMS system?*

Partially Meets Advisory Ideal

By rule, quality reviews are completed at the agency level. A State-level review of these results should be conducted to determine consistency across EMS agencies.

Change Notes: Rating Improved.

From 'Does Not Meet Advisory Ideal' to 'Partially Meets Advisory Ideal'.

259. *Are periodic comparative and trend analyses used to identify unexplained differences in the EMS data across years and agencies?*

Does Not Meet Advisory Ideal

EMS data is not used to regularly provide analysis and trends that would allow the State to identify unexpected trends in motor vehicle crashes and care. This type of analysis would have been especially useful during the pandemic.

Change Notes: Rating Unchanged.

260. *Is data quality feedback from key users regularly communicated to EMS data collectors and data managers?*

Meets Advisory Ideal

All providers are able to contact the State's EMS data manager with any identified SIREN concerns. The EMS Data Manager discusses reported and identified SIREN issues during Monthly EMS teleconferences.

Change Notes: Rating Unchanged.

261. *Are EMS data quality management reports produced regularly and made available to the State TRCC?*

Meets Advisory Ideal

EMS performance measures are provided as part of the Traffic Records Coordinating Committee (TRCC) Quarterly Reports and are also available for review at the State's TRCC Sharepoint site.

Change Notes: Rating Unchanged.

Emergency Department - System Description

262. *Is there a statewide emergency department (ED) database?*

Meets Advisory Ideal

The Vermont Uniform Hospital Discharge Data System (VUHDDS) includes the statewide emergency department database. All 14 of Vermont's general acute care hospitals currently contribute records for Vermont residents and non-residents to the VUHDDS as documented on the Health Statistics and Vital Records page.

Change Notes: Rating Improved.

From 'Does Not Meet Advisory Ideal' to 'Meets Advisory Ideal'.





263. *Does the emergency department data track the frequency, severity, and nature of injuries sustained in motor vehicle crashes in the State?*

Partially Meets Advisory Ideal

The VUHDDS collects up to 20 ICD codes, but severity is determined for emergency department patients by identifying subsequent hospital admissions. The hospital data is not used to support highway safety efforts.

Change Notes: Rating Improved.

From 'Does Not Meet Advisory Ideal' to 'Partially Meets Advisory Ideal'.

264. *Is the emergency department data available for analysis and used to identify problems, evaluate programs, and allocate resources?*

Meets Advisory Ideal

A de-identified data set is available to go along with annual reports generated by the VDH.

Change Notes: Rating Unchanged.

Emergency Department – Data Dictionary

265. *Does the emergency department dataset have a formal data dictionary?*

Meets Advisory Ideal

A data dictionary is available that includes data elements and the associated description.

Change Notes: Rating Unchanged.

Emergency Department – Procedures & Processes

266. *Is there a single entity that collects and compiles data on emergency department visits from individual hospitals?*

Meets Advisory Ideal

Under the statutory authority to collect hospital data, the Vermont Green Mountain Care Board (GMCB) administers the program, the Vermont Association of Hospitals and Health Systems-Network Services Organization collects data from the hospitals, and the VDH manages the data set under an agreement with the Care Board.

Change Notes: Rating Unchanged.

267. *Is aggregate emergency department data available to outside parties (e.g., universities, traffic safety professionals) for analytical purposes?*

Meets Advisory Ideal

A public-use data set is available through a request process. There are some limitations to the type of data that is available to address State privacy concerns.

Change Notes: Rating Improved.

From 'Partially Meets Advisory Ideal' to 'Meets Advisory Ideal'.





Hospital Discharge – System Description

268. *Is there a statewide hospital discharge database?*

Meets Advisory Ideal

All 14 of Vermont's general acute care hospitals contribute records for Vermont residents and non-residents to the VUHDDS as documented on the Health Statistics and Vital Records page.

Change Notes: Rating Improved.

From 'Does Not Meet Advisory Ideal' to 'Meets Advisory Ideal'.

269. *Does the hospital discharge data track the frequency, severity, and nature of injuries sustained in motor vehicle crashes in the State?*

Partially Meets Advisory Ideal

Vermont's hospital data system collects up to 20 ICD diagnosis codes, but those codes are not used to calculate severity and little evaluation has been done to support highway safety efforts.

Change Notes: Rating Improved.

From 'Does Not Meet Advisory Ideal' to 'Partially Meets Advisory Ideal'.

270. *Is the hospital discharge data available for analysis and used to identify problems, evaluate programs, and allocate resources?*

Partially Meets Advisory Ideal

Hospital data is available and has been used historically to support selected highway safety programs. It does not appear as if the data is currently used to support or evaluate highway safety programs.

Change Notes: Rating Changed.

From 'Meets Advisory Ideal' to 'Partially Meets Advisory Ideal'.

Hospital Discharge – Data Dictionary

271. *Does the hospital discharge dataset have a formal data dictionary?*

Meets Advisory Ideal

A complete hospital data dictionary including the data elements and definitions is available.

Change Notes: Rating Unchanged.

Hospital Discharge – Procedures & Processes

272. *Is there a single entity that collects and compiles data on hospital discharges from individual hospitals?*

Meets Advisory Ideal

The VDH collects hospital data in collaboration with the GMCB and the Vermont Association of Hospitals and Health Systems-Network Services Organization.

Change Notes: Rating Unchanged.





273. *Is aggregate hospital discharge data available to outside parties (e.g., universities, traffic safety professionals) for analytical purposes?*

Meets Advisory Ideal

A public-use data set is available through a request process. The dataset is restricted to comply with State privacy rules.

Change Notes: Rating Improved.

From 'Does Not Meet Advisory Ideal' to 'Meets Advisory Ideal'.

Emergency Department and Hospital Discharge – Guidelines

274. *Are Abbreviated Injury Scale (AIS) and Injury Severity Score (ISS) derived from the State emergency department and hospital discharge data for motor vehicle crash patients?*

Does Not Meet Advisory Ideal

Despite the availability of ICD codes, ISS and AIS scores are not calculated in the emergency department and hospital discharge data sets.

Change Notes: Rating Unchanged.

Emergency Department and Hospital Discharge – Procedures & Processes

275. *Are there procedures for collecting, editing, error-checking, and submitting emergency department and/or hospital discharge data to the statewide repository?*

Does Not Meet Advisory Ideal

State statute describes the collection and availability of the hospital data. The statute does not describe a quality review/quality control process by which the records are reviewed at the State level and, if necessary, returned for correction.

Change Notes: Rating Unchanged.

Emergency Department and Hospital Discharge – Quality Control

276. *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?*

Does Not Meet Advisory Ideal

State statute covers the collection and accessibility of hospital data, but does not cover the specifics of data collection and quality review of individual records.

Change Notes: Rating Unchanged.





277. *Are there processes for returning rejected emergency department and/or hospital discharge records to the collecting entity and tracking resubmission to the statewide emergency department and hospital discharge databases?*

Does Not Meet Advisory Ideal

The State does not have processes for returning rejected emergency department and/or hospital discharge records to the collecting entity and tracking resubmission to the statewide databases. Vermont Law does not have information about the process for rejections and resubmissions of emergency department and/or hospital discharge records.

Change Notes: Rating Unchanged.

278. *Are there timeliness performance measures tailored to the needs of emergency department and/or hospital discharge database managers and data users?*

Does Not Meet Advisory Ideal

A timeliness performance would include an expected standard, a baseline, and a periodic measurement. For example, data must be submitted by a facility within 30 days of the end of the quarter. The performance measure would identify how many facilities meet this standard every quarter.

Change Notes: Rating Unchanged.

279. *Are there accuracy performance measures tailored to the needs of emergency department and/or hospital discharge database managers and data users?*

Does Not Meet Advisory Ideal

Specific performance measures were not available for review. Examples of performance measures can be found in NHTSA's "Model Performance Measures for State Traffic Records Systems" document.

Change Notes: Rating Unchanged.

280. *Are there completeness performance measures tailored to the needs of emergency department and/or hospital discharge database managers and data users?*

Does Not Meet Advisory Ideal

Specific performance measures were not available for review. Examples of performance measures can be found in NHTSA's "Model Performance Measures for State Traffic Records Systems" document.

Change Notes: Rating Unchanged.

281. *Are there uniformity performance measures tailored to the needs of emergency department and/or hospital discharge database managers and data users?*

Does Not Meet Advisory Ideal

Specific performance measures were not available for review. Examples of performance measures can be found in NHTSA's "Model Performance Measures for State Traffic Records Systems" document.

Change Notes: Rating Unchanged.





282. *Are there integration performance measures tailored to the needs of emergency department and/or hospital discharge database managers and data users?*

Does Not Meet Advisory Ideal

Specific performance measures were not available for review. Examples of performance measures can be found in NHTSA's "Model Performance Measures for State Traffic Records Systems" document.

Change Notes: Rating Unchanged.

283. *Are there accessibility performance measures tailored to the needs of emergency department and/or hospital discharge database managers and data users?*

Does Not Meet Advisory Ideal

Specific performance measures were not available for review. Examples of performance measures can be found in NHTSA's "Model Performance Measures for State Traffic Records Systems" document.

Change Notes: Rating Unchanged.

284. *Has the State established numeric goals-performance metrics-for each emergency department and/or hospital discharge database performance measure?*

Does Not Meet Advisory Ideal

The State does not have established metrics for the hospital discharge and or emergency department data that include specific numeric goals and related performance measures for each attribute.

Change Notes: Rating Unchanged.

285. *Are quality control reviews conducted to ensure the completeness, accuracy, and uniformity of injury data in the emergency department and/or hospital discharge databases?*

Partially Meets Advisory Ideal

The Reliability Report contains summary statistics from the hospital discharge data set. The report does not contain specific information related to each of the metrics with regard to record level quality of the data records.

Change Notes: Rating Improved.

From 'Does Not Meet Advisory Ideal' to 'Partially Meets Advisory Ideal'.

286. *Is data quality feedback from key users regularly communicated to emergency department and/or hospital discharge data collectors and data managers?*

Partially Meets Advisory Ideal

The data collection contractor provided data quality improvement feedback to the VDH through the 2020 Reliability Report on hospital discharge and emergency department data. Other ways of transmitting feedback to inform program changes were not demonstrated.

Change Notes: Rating Improved.

From 'Does Not Meet Advisory Ideal' to 'Partially Meets Advisory Ideal'.





287. *Are emergency department and/or hospital discharge data quality management reports produced regularly and made available to the State TRCC?*

Does Not Meet Advisory Ideal

Quality reports related to the data management and collection process are not provided to the TRCC for review.

Change Notes: Rating Unchanged.

Trauma Registry – System Description

288. *Is there a statewide trauma registry database?*

Does Not Meet Advisory Ideal

Vermont does not have a statewide Trauma Registry.

Change Notes: Rating Unchanged.

289. *Does the trauma registry data track the frequency, severity, and nature of injuries sustained in motor vehicle crashes in the State?*

Does Not Meet Advisory Ideal

Vermont does not have a statewide Trauma Registry.

Change Notes: Rating Unchanged.

290. *Is the trauma registry data available for analysis and used to identify problems, evaluate programs, and allocate resources?*

Does Not Meet Advisory Ideal

Vermont does not have a statewide Trauma Registry.

Change Notes: Rating Unchanged.

Trauma Registry – Guidelines

291. *Does the State's trauma registry database adhere to the National Trauma Data Standards?*

Does Not Meet Advisory Ideal

Vermont does not have a statewide Trauma Registry.

Change Notes: Rating Unchanged.

292. *Are AIS and ISS derived from the State trauma registry for motor vehicle crash patients?*

Does Not Meet Advisory Ideal

Vermont does not have a statewide Trauma Registry.

Change Notes: Rating Unchanged.





Trauma Registry – Data Dictionary

293. *Does the trauma registry have a formal data dictionary?*

Does Not Meet Advisory Ideal

Vermont does not have a statewide Trauma Registry.

Change Notes: Rating Unchanged.

Trauma Registry – Procedures & Processes

294. *Is aggregate trauma registry data available to outside parties (e.g., universities, traffic safety professionals) for analytical purposes?*

Does Not Meet Advisory Ideal

Vermont does not have a statewide Trauma Registry.

Change Notes: Rating Unchanged.

295. *Are there procedures for returning trauma data to the reporting trauma center for quality assurance and improvement (e.g., correction and resubmission)?*

Does Not Meet Advisory Ideal

Vermont does not have a statewide Trauma Registry.

Change Notes: Rating Unchanged.

Trauma Registry – Quality Control

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

Does Not Meet Advisory Ideal

Vermont does not have a statewide Trauma Registry.

Change Notes: Rating Unchanged.

297. *Are there timeliness performance measures tailored to the needs of trauma registry managers and data users?*

Does Not Meet Advisory Ideal

Vermont does not have a statewide Trauma Registry.

Change Notes: Rating Unchanged.

298. *Are there accuracy performance measures tailored to the needs of trauma registry managers and data users?*

Does Not Meet Advisory Ideal

Vermont does not have a statewide Trauma Registry.

Change Notes: Rating Unchanged.





299. *Are there completeness performance measures tailored to the needs of trauma registry managers and data users?*

Does Not Meet Advisory Ideal

Vermont does not have a statewide Trauma Registry.

Change Notes: Rating Unchanged.

300. *Are there uniformity performance measures tailored to the needs of trauma registry managers and data users?*

Does Not Meet Advisory Ideal

Vermont does not have a statewide Trauma Registry.

Change Notes: Rating Unchanged.

301. *Are there integration performance measures tailored to the needs of trauma registry managers and data users?*

Does Not Meet Advisory Ideal

Vermont does not have a statewide Trauma Registry.

Change Notes: Rating Unchanged.

302. *Are there accessibility performance measures tailored to the needs of trauma registry managers and data users?*

Does Not Meet Advisory Ideal

Vermont does not have a statewide Trauma Registry.

Change Notes: Rating Unchanged.

303. *Has the State established numeric goals-performance metrics-for each trauma registry performance measure?*

Does Not Meet Advisory Ideal

Vermont does not have a statewide Trauma Registry.

Change Notes: Rating Unchanged.

304. *Are quality control reviews conducted to ensure the completeness, accuracy, and uniformity of injury data in the trauma registry?*

Does Not Meet Advisory Ideal

Vermont does not have a statewide Trauma Registry.

Change Notes: Rating Unchanged.

305. *Is data quality feedback from key users regularly communicated to trauma registry data collectors and data managers?*

Does Not Meet Advisory Ideal

Vermont does not have a statewide Trauma Registry.

Change Notes: Rating Unchanged.





306. *Are trauma registry data quality management reports produced regularly and made available to the State TRCC?*

Does Not Meet Advisory Ideal

Vermont does not have a statewide Trauma Registry.

Change Notes: Rating Unchanged.

Vital Records – System Description

307. *Is there a statewide vital records database?*

Meets Advisory Ideal

Vermont Vital Records collects records on births, deaths, marriages, civil unions, divorces, dissolutions, fetal deaths, and abortions and is the statewide vital records database.

Change Notes: Rating Improved.

From 'Does Not Meet Advisory Ideal' to 'Meets Advisory Ideal'.

308. *Does the vital records data track the occurrence of motor vehicle fatalities in the State?*

Meets Advisory Ideal

The State tracked motor vehicle deaths by gender and age in the 2019 Vital Records Report.

Change Notes: Rating Improved.

From 'Does Not Meet Advisory Ideal' to 'Meets Advisory Ideal'.

309. *Is the vital records data available for analysis and used to identify problems, evaluate programs, and allocate resources?*

Partially Meets Advisory Ideal

Summary vital records data is available and public use data sets can be obtained. Vital records data is not regularly used to support highway safety projects.

Change Notes: Rating Unchanged.

Vital Records – Data Dictionary

310. *Does the vital records system have a formal data dictionary?*

Meets Advisory Ideal

The data dictionary for Vermont's vital records data is available for review.

Change Notes: Rating Unchanged.





Vital Records – Procedures & Processes

311. *Is aggregate vital records data available to outside parties (e.g., universities, traffic safety professionals) for analytical purposes?*

Meets Advisory Ideal

By law, Vermont death certificates are considered public information and are available for analytical purposes. Accordingly, public use files are available through a public records request.

Change Notes: Rating Improved.

From 'Does Not Meet Advisory Ideal' to 'Meets Advisory Ideal'.

Vital Records – Quality Control

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

Meets Advisory Ideal

Vermont uses the Electronic Death Registration System (EDRS), which includes data validation and business rules.

Change Notes: Rating Improved.

From 'Does Not Meet Advisory Ideal' to 'Meets Advisory Ideal'.

313. *Are quality control reviews conducted to ensure the completeness, accuracy, and uniformity of injury data in the vital records?*

Meets Advisory Ideal

Death certificates are reviewed at the local and State level in addition to the reviews conducted by the National Center for Health Statistics (NCHS).

Change Notes: Rating Improved.

From 'Does Not Meet Advisory Ideal' to 'Meets Advisory Ideal'.

314. *Are vital records data quality management reports produced regularly and made available to the State TRCC?*

Does Not Meet Advisory Ideal

Vital statistics data and supporting notes are included in the annual report. No specific data quality reports are made available regularly to the TRCC.

Change Notes: Rating Unchanged.

Injury Surveillance Data Interfaces

315. *Is there an interface among the EMS data and emergency department and hospital discharge data?*

Does Not Meet Advisory Ideal

The State does not have an interface between the EMS data and emergency department and hospital discharge data systems.

Change Notes: Rating Unchanged.





316. *Is there an interface between the EMS data and the trauma registry data?*

Does Not Meet Advisory Ideal

Vermont does not have a statewide Trauma Registry.

Change Notes: Rating Unchanged.

Data Use and Integration

317. *Do behavioral program managers have access to traffic records data and analytic resources for problem identification, priority setting, and program evaluation?*

Partially Meets Advisory Ideal

The State Governor's Highway Safety Program personnel have access to data sources including crash data and surveys. Crash data has been analyzed to focus efforts on problem locations. Only some citation information is provided by law enforcement agency reports and collated spreadsheets. Efforts should be made to use and analyze other traffic records data: roadway, driver, vehicle, statewide citation adjudication, and injury surveillance data.

Change Notes: Rating Unchanged.

318. *Does the State have a data governance process?*

Does Not Meet Advisory Ideal

The State does not have a data governance process in place but has created a data governance working group in the State Agency of Transportation/Finance and Administration division.

Change Notes: Rating Unchanged.

319. *Does the TRCC promote data integration by aiding in the development of data governance, access, and security policies for integrated data?*

Meets Advisory Ideal

The State TRCC has promoted integration and a NHTSA GO Team to develop a plan for integration of crash and EMS was completed. The TRCC is also assisting in the development of data use agreements.

Change Notes: Rating Unchanged.

320. *Is driver data integrated with crash data for specific analytical purposes?*

Does Not Meet Advisory Ideal

Crash and driver data are not integrated.

Change Notes: Rating Unchanged.

321. *Is vehicle data integrated with crash data for specific analytical purposes?*

Does Not Meet Advisory Ideal

Crash and vehicle data are not integrated.

Change Notes: Rating Unchanged.





322. *Is roadway data integrated with crash data for specific analytical purposes?*

Meets Advisory Ideal

Crash data is linked to the roadway file and is used to develop the High Crash Location Report.

Change Notes: Rating Unchanged.

323. *Is citation and adjudication data integrated with crash data for specific analytical purposes?*

Does Not Meet Advisory Ideal

Crash data is not integrated with the citation/adjudication data.

Change Notes: Rating Unchanged.

324. *Is injury surveillance data integrated with crash data for specific analytical purposes?*

Does Not Meet Advisory Ideal

Crash is not integrated with the injury surveillance files to support any analytical purpose. A plan for integration of the crash and EMS data sets was developed with the assistance of a NHTSA GO Team. The State is working to develop the linkage between crash files and EMS files.

Change Notes: Rating Unchanged.

325. *Are there examples of data integration among crash and two or more of the other component systems?*

Does Not Meet Advisory Ideal

Crash data has not been integrated with multiple other traffic records data systems.

Change Notes: Rating Unchanged.

326. *Is data from traffic records component systems-other than crash-integrated for specific analytical purposes?*

Does Not Meet Advisory Ideal

Vermont has not integrated any non-crash traffic records data systems.

Change Notes: Rating Unchanged.

327. *For integrated datasets, do decision-makers have access to resources-skilled personnel and user-friendly access tools-for use and analysis?*

Partially Meets Advisory Ideal

Multiple traffic records data sets are available individually. However, aside from the crash-roadway file, integrated data sets have not been developed for use by decision-makers or the general public.

Change Notes: Rating Unchanged.





328. *For integrated datasets, does the public have access to resources-skilled personnel and user-friendly access tools-for use and analysis?*

Meets Advisory Ideal

The Vermont Agency of Transportation (VTrans) Public Crash Data Query Tool includes integrated crash and roadway data. This resource is available to the public with contact information available on the online page.

Change Notes: Rating Unchanged.





Appendix B: Assessment Participants

State Highway Safety Office Representative(s)

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State Assessment Coordinator(s)

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State and Local Respondents

The following State and Local staff assisted in the Assessment by providing responses to the Advisory criteria and questions.

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Appendix C: Acronyms and Abbreviations

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
CDIP	NHTSA's Crash Data Improvement Program
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
NCHIP	National Criminal History Improvement Program
NCHS	National Center for Health Statistics
NCIC	National Crime Information Center
NCSC	National Center for State Courts
NDR	National Driver Register
NEMESIS	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)
RDIP	FHWA's Roadway Data Improvement Program
RPM	Regional Program Manager (NHTSA)
RTS	Revised Trauma Score
RMS	Records Management System
RPC	Regional Planning Commission
SaDIP	FMCSA's Safety Data Improvement Program
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

BRFSS	Behavioral Risk Factor Surveillance System
CAD	Computer-Aided Dispatch
CDL	Commercial Driver License
DHR	Driver History Record
DMV	Department of Motor Vehicles
DPS	Department of Public Safety
EDRS	Electronic Death Registration System
FTP	File Transfer Protocol
GMCB	Green Mountain Care Board
HCL	High Crash Locations
LEL	Law Enforcement Liaison
LRS	Linear Referencing System
NICS	National Instant Criminal Background Check System
PID	Personal Identification
PRISM	Performance and Registration Information Systems Management
SIREN	Statewide Incident Reporting Network
TRSP	Traffic Records Strategic Plan
UNI	Unified Network Interface
VCIC	Vermont Crime Information Center
VDH	Vermont Department of Health
VJISS	Vermont Justice Information Sharing System
VSA	Vermont Statutes Annotated
VSP	Vermont State Police
VTrans	Vermont Agency of Transportation
VUHDDS	Vermont Uniform Hospital Discharge Data System
YRBS	Youth Risk Behavioral Survey

