State of West Virginia

Traffic Records Assessment

November 3, 2016

National Highway Traffic Safety Administration

Technical Assessment Team

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Executive Summary

Out of 391 assessment questions, West Virginia met the Advisory ideal for 101 questions (25.8%), partially met the Advisory ideal for 80 questions (20.5%), and did not meet the Advisory ideal for 210 questions (53.7%).

As Figure 1 illustrates, within each assessment module, West Virginia met the criteria outlined in the *Traffic Records Program Assessment Advisory* 36.8% of the time for Traffic Records Coordinating Committee Management, 18.8% of the time for Strategic Planning, 36.4% of the time for Crash, 48.7% of the time for Vehicle, 6.7% of the time for Driver, 13.2% of the time for Roadway, 13% of the time for Citation / Adjudication, 32.5% of the time for EMS / Injury Surveillance, and 7.7% of the time for Data Use and Integration.

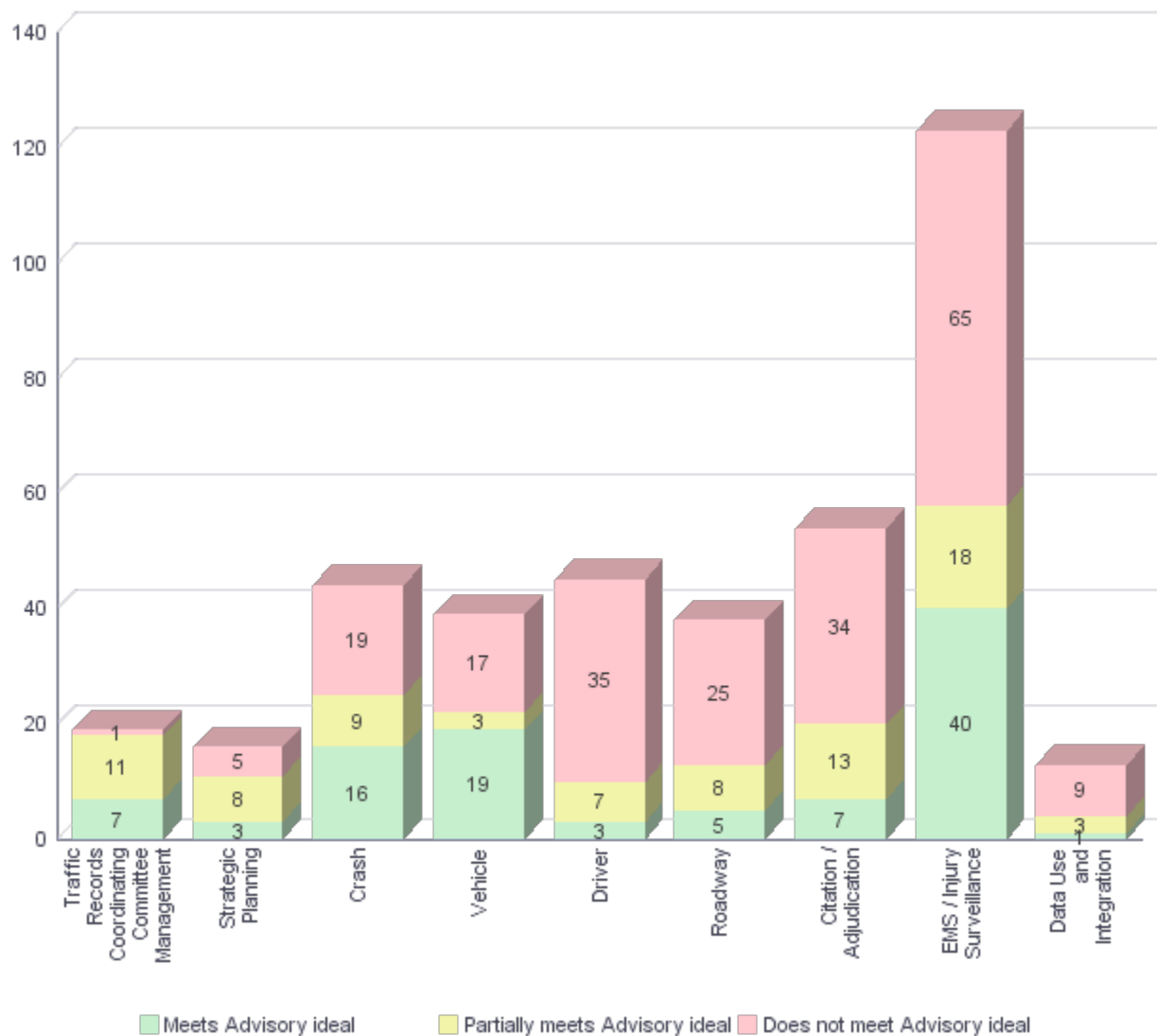### Figure 1: Rating Distribution by Module

Figure 2: Assessment Section Ratings

	Crash	Vehicle	Driver	Roadway	Citation / Adjudication	EMS / Injury Surveillance
Description and Contents	85.7%	100.0%	66.7%	86.7%	66.7%	62.7%
Applicable Guidelines	100.0%	90.9%	100.0%	66.7%	57.9%	78.9%
Data Dictionaries	86.7%	61.9%	33.3%	46.7%	44.4%	86.7%
Procedures / Process Flow	72.9%	90.9%	44.1%	39.6%	50.6%	77.0%
Interfaces	40.0%	63.6%	42.9%	63.9%	38.1%	47.6%
Data Quality Control Programs	46.4%	46.3%	33.3%	35.7%	37.2%	48.8%
Overall	64.9%	67.7%	42.6%	49.7%	48.9%	61.2%

	Overall
Traffic Records Coordinating Committee Management	78.0%
Strategic Planning for the Traffic Records System	61.9%
Data Use and Integration	46.5%

Recommendations

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

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

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

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

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

Crash Recommendations

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

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

Vehicle Recommendations

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

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

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

Driver Recommendations

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

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

Roadway Recommendations

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

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

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

Citation / Adjudication Recommendations

Improve the data dictionary for the Citation and Adjudication systems to reflect best practices identified in the Traffic Records Program Assessment Advisory.

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

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

EMS / Injury Surveillance Recommendations

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

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

Data Use and Integration Recommendations

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

Introduction

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

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

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

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

Background

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

The *Advisory* is based upon a uniform set of questions derived from the ideal model traffic records

data system. This model and suite of questions is designed to be used by independent subject matter experts in their assessment of the systems and processes that govern the collection, management, and analysis of traffic records data in a given State.

Methodology

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

Figure 3: Traffic Records Assessment Time Table

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

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

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

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

A group of qualified independent assessors rates the responses and determines how closely a State's capabilities match those of the ideal system outlined in the *Advisory*. Each system component is evaluated independently by two or more assessors, who reach a consensus on the ratings. Specifically, the assessors rate each response and 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.

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

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

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

Figure 4: State Schedule for the Traffic Records Assessment

Kickoff	August 01, 2016
Begin first Q&A Cycle	August 01, 2016
End first Q&A Cycle	August 19, 2016
Begin second Q&A Cycle	September 01, 2016
End second Q&A Cycle	September 16, 2016
Begin third Q&A Cycle	September 29, 2016
End third Q&A Cycle	October 14, 2016
Assessors' Final Results Complete	October 27, 2016
Final Report Due	November 08, 2016
Debrief	November 17, 2016

Figure 5: State Traffic Records Assessment Process

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[State GR submits          [NHTSA Region            [NHTSA TR Team           [NHTSA TR team
written request to    →     forwards written    →    confirms State      →    hosts initial call
NHTSA Region]               request to NHTSA         request &                (~4 months prior
                            TR Team]                 schedules calls]         to kickoff]
                                                                                    │
                                                                                    ↓
[Facilitator hosts         [STRAP Tech              [STRAP Tech              [State Coordinator
call (1 month prior   →     Support hosts       →    Support sends       →    sends Respondent
to kickoff)]                State Coordinator        State Coordinator        info & assigns
                            training webinar]        STRAP tokens]            questions]
                                                                                    │
                                                                                    ↓
[Facilitator leads         [STRAP Tech              [STRAP Tech              [State Respondents      x3
ASSESSMENT            →     Support launches    →    Support Sends       →    answer assigned
KICKOFF MEETING]            data collection &        Respondent STRAP         questions & supply
                            analysis phases]         tokens]                  evidence]
                                                          ↑                         │
                                                          │                         ↓
                                   [Assessors review        [STRAP Tech
                                    answers &          ←      Support sends
                                    evidence; provide         Assessor STRAP
                                    findings & ratings]       tokens]

        Answers that meet the ideal are not returned to
        respondents in subsequent rounds

[Assessors                 [Facilitator             [NHTSA TR Team           [Facilitator leads
confirm final         →     review; forwards    →    generates Final     →    ASSESSMENT
findings, ratings           to NHTSA TR              Report; sends to         REPORT OUT
and summaries]              Team]                    State]                   WEBINAR]
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Legend:

State Leadership	NHTSA Region	NHTSA TR Team	Facilitator
STRAP Support	State Respondents	Assessors	

Results

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

Legend:

Meets	Partially meets	Does not meet

Traffic Records Coordinating Committee Management

The West Virginia Traffic Records Coordinating Committee (TRCC) is a single committee with a roster of over 40 technical and executive members representing all six traffic records subsystems. Six members are federal, suggesting close working relationships. The TRCC originated as a formal entity in 1999. A charter signed by 12 State agency executives reinitiated the TRCC in 2013.

A TRCC coordinator is on the staff of the Governor's Highway Safety Program Office (GHSP). The coordinator chairs the committee and is responsible for maintaining and updating the West Virginia FY2016 Traffic Records Strategic Plan, as well as serving as data analyst for the GHSP. The GHSP is housed within the West Virginia Division of Motor Vehicles along with Driver Services (but not law enforcement). The Crash Data System resides in the Division of Highways.

The TRCC is said to meet "as needed." The meeting notes and attendees of three meetings covering the past program year did not include agendas. Meetings dealt with specific funded projects and tended to be brief (two hours and less). The TRCC appears to have been more proactive in the past. Its most ambitious projects were conceived around 2007-- the revision of the State's Uniform Traffic Crash Report and the introduction of electronic safety data collection.

At the present time, the West Virginia TRCC has numerous inconsistencies with the NHTSA Advisory. These inconsistencies are best understood by reading the Findings for both the TRCC Management and the Strategic Planning Modules. Together, these Findings suggest that the TRCC has operated with at least modest success in the past, but has become much less active in recent years. Many of the Partial ratings given in both modules are an effort to reconcile the past performance of the TRCC with the current lack of evidence that it continues to perform.

If TRCC activity is viewed chronologically, the trend becomes clear. The full ratings were achieved on work that was performed or established in the past (charter, member roster, portions of the strategic plan) while the lower ratings were given where current (within the last program year) evidence was required (meeting note contents, updates to the strategic plan's projects).

An ongoing, healthy TRCC possesses institutional knowledge and a collaborative culture that can be revealed through narrative examples, a part of evidence requirement for many questions. (Narratives of specific examples are not to be confused with narrative responses, which are present for every question and of a general nature.) Narratives of specific examples can fill gaps where meeting notes are unrevealing. If people solve problems together, they can recall and are happy to provide their recollection of how their TRCC solved a particular problem. West Virginia did not provide narrative examples of the workings of its TRCC when those were part of the evidence requirements, resulting in a lower rating.

Further cause for concern may be found in responses that describe a process, such as how the strategic plan is updated annually, but for which no evidence of occurrence can be found in the most recent program year. Apparently, the TRCC has enjoyed considerable investment of effort and talent in the past, but cannot utilize, sustain, or add to those investments now.

It would be helpful to understand what has happened. The assessment documents may shed some light in that regard. The FY2016 Traffic Records Strategic Plan indicates that the TRCC

Coordinator/GHSP Data Analyst has been in that position for a little over two years (page 7). That is a difficult transition for any State, and the Findings bear ample evidence. An additional development is found on page 9: "Improving Highway Safety Data has been selected as one of the five emphasis areas for West Virginia's revised Strategic Highway Safety Plan....in the future the Emphasis Area Implementation Team and the TRCC will be one in the same...."

The NHTSA-sponsored State Traffic Records Improvement Program and the FHWA-sponsored Strategic Highway Safety Plan efforts are complementary, not interchangeable. Efficiency may be gained through coordination, even by holding joint meetings when appropriate, rather than deleting one of those programs in favor of the other as seems to be happening.

A major initiative in West Virginia State government now taking place heavily involves the WVDOH. The massive restructuring of data systems is called Enterprise Resource Planning (ERP), also known as Our Advanced Solution with Integrated Systems (wvOASIS), intended to integrate and modernize State data systems involving both asset management and safety management. A TRCC could help connect those who will be the future users of this system to those developing and implementing the system. At the least, a TRCC could assist safety data users in re-establishing access to the new system and in understanding what transformations the data may have had in the process.

West Virginia should consider these steps in revitalizing the TRCC and the Statewide Traffic Records Improvement Program:

1.   Form an Executive Committee of the TRCC with the following responsibilities:

Review, prioritize, and vote on projects funded through the TRCC.
Provide input for all system projects.
Enable the TRCC, as a multi-agency coalition, to champion the traffic safety data emphasis area in the West Virginia Strategic Highway Safety Plan.
Define the role that the TRCC will play in the transition to, and successful implementation of, wvOASIS.

2.   Strengthen the new executive and technical committees of the TRCC by the following methods:

Establish a schedule of meetings of at least one per year for the executive committee and four per year for the technical committee.
Provide meeting agendas to the membership approximately a week ahead of each meeting (see the Advisory for agenda topics that have been missing in recent years).
Document each meeting with the printed agenda, attendees, meeting notes, and votes taken or decisions made.

3.   The two-tier, revitalized TRCC should take a new a new look at the strategic plan and consider strategic planning processes that involve the entire membership, independent of where funding has been awarded in the past.

Question 1:
Does the State have both an executive and a technical TRCC?

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:
The West Virginia TRCC does not have an executive as well as a technical committee. The State claimed that it had an integrated executive-technical TRCC. If it does, it is only to a partial degree. Executives are listed on the single roster and some of them do participate in TRCC meetings. Except for the regular attendance of the Director of the Governor's Highway Safety Program, the nature of executive involvement, along with the frequency of executive member attendance, was not revealed in the past year's meeting notes.

The evidence requirements for this question center upon the charter and member roster. Looking at those two documents, it difficult to deny partial credit here. Other questions in this module pertaining to an executive committee ask for other evidence and are rated accordingly.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 2:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

West Virginia's TRCC lacks a separate executive committee. It does have a Charter signed by 12 executives, and some of those are also listed on the TRCC roster. This question seeks to know if the executives involved in the TRCC have the power to direct resources in their areas of responsibility. That ought to be the case to some degree, but without an executive TRCC it seems difficult to confirm that the Advisory ideal is met.

With a technical group as large as 30 members or more, a formal "steering" committee would be beneficial. The GOHS should consider a small executive committee comprised of GOHS members and the directors/leaders of the crash, vehicle, driver, injury surveillance, citation and adjudication, and roadway data systems. These members should be persons able to direct their agency's resources.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 3:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

Discussions take place between technical TRCC members and their executives at their respective departments. There is no committee of executives reviewing and approving actions that have been proposed by the technical TRCC as a whole. On the other hand, as explained in Question 1, there are executives on the TRCC roster and they do, on occasion, attend the meetings. Informal interactions in a small State can be effective in some circumstances. West Virginia should consider establishing a formal TRCC executive committee in keeping with the Advisory, to improve effectiveness of the TRCC as a whole.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 4:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

Outside of the issue of not having the executive TRCC, the single TRCC is inclusive of individuals from all of the core data systems. The State is encouraged to include the five members from law enforcement in any core systems that fit their specialties, whether it is Crash, Driver, or Citation and Adjudication.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 5:

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

Standard of Evidence:

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

Question Rank:
Somewhat Important

Assessor conclusions:

Based on the roster and the narrative response, the State meets the requirement for consulting the appropriate State IT agency or offices when planning and implementing technology projects. West Virginia's TRCC includes a number of persons from the Information Technology offices of the various participating agencies. The State explains that having these persons participate as TRCC members has got them covered where IT matters are concerned.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 6:

Is there a formal document authorizing the TRCC?

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

There is a TRCC Charter of one page in length dating from March 18th, 2013. There are 12 signatures representing all agencies that are part of the TRCC.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 7:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

West Virginia's stated role for the TRCC involving the strategic plan is to "report project progress" and to engage in communication "to help streamline future endeavors by that agency and others that it may affect." Thus, the TRCC does not develop the strategic plan, but the existence of a TRCC does assist in implementation and monitoring to some degree.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 8:

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

Standard of Evidence:

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

Question Rank:
Somewhat Important

Assessor conclusions:

The State believes the TRCC can influence policy decisions that impact the State traffic records system, yet evidence was lacking. No example was provided, as stated in the evidence requirement, even after a clarification request.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 9:

Does the TRCC allocate federal traffic records improvement grant funds?

Standard of Evidence:

Specify what funds the TRCC is responsible for allocating (e.g., §405(c)) and provide a narrative describing how the TRCC allocated the most recent program year's funding.

Question Rank:
Very Important

Assessor conclusions:

The TRCC is said to allocate 405(c) and some 408 funds. However, there was no indication as to how the TRCC accomplishes this. The meeting minutes submitted (for three meetings covering the previous program year) do not give an indication as to how the TRCC allocates this funding, nor was an explanatory narrative provided.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 10:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

An excellent narrative response provides a synopsis of how the TRCC identified and monitors performance in the six core systems. Building on this foundation, West Virginia is encouraged to monitor and demonstrate changes in actual data attributes that accrue as systems are developed.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 11:

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

Standard of Evidence:

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

Question Rank:
Somewhat Important

Assessor conclusions:

The TRCC roster has 42 names spanning all core systems, with some local and federal members. Executives are also members or have signed the Charter. Meetings are well attended (the last three had 15-18 people in attendance) and each of the three local members on the TRCC showed up at one of those meetings. All of these pieces of evidence indicate the TRCC enables meaningful coordination among stakeholders.

There are still areas for improvement.

The minutes of the previous three meetings do not provide evidence that discussions involve any big-picture topics such as traffic records program challenges and investments. The minutes--actually brief meeting notes--might become more useful if an agenda was prepared in advance for each meeting and included with the notes. Then everyone on the roster could be informed of the meeting's major content, and there would be documentation of what was covered, big-picture as well as project-specific. An agenda can be a helpful tool for the note taker as well.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 12:

Does the TRCC have a traffic records inventory?

Standard of Evidence:

Provide the traffic records inventory.

Question Rank:
Somewhat Important

Assessor conclusions:

West Virginia does not have a traffic records inventory. However, there are sections within the strategic plan that could form the basis for an inventory, just by copying material describing core systems into another appendix called the inventory. Then more information such as pointers to data dictionaries could be added as time permits. The inventory would be an additional tool to determine the State's needs, shortcomings, and successes.

The existence of a traffic records inventory would have been useful in the implementation of the State data systems extensive overhaul called wvOASIS. As that implementation moves through the various subsystems of the West Virginia traffic records system, the creation of documentation such as an inventory could help data users connect their pre-OASIS and post-OASIS data and system functions.

During a data systems transition as extensive as wvOASIS, a traffic records inventory would have been most helpful.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 13:

Does the technical TRCC have a designated chair?

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

One person from the Governor's Office of Highway Safety (GOHS) serves as both Coordinator and Chair of the TRCC. Chairing the TRCC is one of many duties of the Coordinator.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 14:

Does the TRCC have a designated coordinator?

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

The West Virginia TRCC has a designated Coordinator, Austin Macri, who is on the staff of the Governor's Office of Highway Safety (GOHS). His many duties include chairing the committee.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 15:

Does the executive TRCC meet at least once annually?

Standard of Evidence:

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

Question Rank:
Somewhat Important

Assessor conclusions:

West Virginia does not have a separate executive TRCC. It claims to have executive and technical functions integrated into a single committee. Some executives are members of the single TRCC. If there was evidence of executive level discussion, agreement, or decision-making going on within the normal TRCC meeting that might fulfill the Advisory ideal or come close. However, the meeting minutes provided don't support that that sort of thing goes on in meetings. If an executive TRCC were to be formed, it could meet prior to each meeting of the entire (technical) TRCC, or do so for at least one of them, on an annual basis.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 16:

Does the technical TRCC meet at least quarterly?

Standard of Evidence:

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

Question Rank:
Somewhat Important

Assessor conclusions:

The single TRCC of West Virginia meets "as required," meaning it aims for three meetings per year. The Advisory Ideal is quarterly, which is more than "required." Time and again, the TRCC's that do hold substantial meetings quarterly, or at least four times per year, are likely to achieve many more attributes of the Advisory ideal for TRCC management than do those that meet less often.

TRCC's that hold four formal meetings per year tend to distribute agendas prior to meetings, include more formal presentations to the committee, and conduct their focused work through ad hoc subcommittees or work groups. The annual review and approval of the strategic plan by the TRCC is also clearly documented in meeting minutes, even though the bulk of preparation is done outside the meeting itself.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 17:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

In the attached minutes for 4/18/16, the Coordinator reported on some quality control issues. Since the minutes are not very detailed, you cannot discern the significance of the problem but only the existence of one, nor is there evidence that quality control is an activity the TRCC performs with regularity.

The term quality can be used in various ways. When it is used in the sense of "data" quality, it generally means the timeliness, accuracy, completeness, uniformity, integration, or accessibility of the data. It is not synonymous with the achievement of project milestones or technology implementations which are the usual substance of the updates provided at meetings, as it appears from the meeting notes supplied.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 18:

Does the TRCC address technical assistance and training needs?

Standard of Evidence:

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

Question Rank:
Somewhat Important

Assessor conclusions:

The 11/17/15 TRCC meeting minutes do have evidence of technical assistance and training in the context of specific funded projects. Unfortunately, they are not detailed minutes.

The Advisory ideal is that TRCC members have a forum in which to bring forward their training and technical assistance needs, whether or not these needs are part of a funded project. Many low cost opportunities to make improvements in data quality are lost if these needs are assumed only to exist when new systems and technologies are being put in place. For example, some reporting errors are due to the data collectors' misunderstanding of data definitions. This can be corrected by targeted training.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 19:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

The TRCC projects utilize federal 408 and 405c funds. No example of using funding from FHWA, FMCSA, or NHTSA 402 funds was provided. Also, it is not easy to see which projects are currently supported with the 408 and 405c funds without going through many pages of project description, or to know, if that information is missing, whether that is because State funds are being used.

Respondents assigned	1	Responses received	1	Response rate	100%

Strategic Planning

The FY2016 West Virginia Traffic Records Strategic Plan shows cumulative productive effort by the TRCC over the years. Even so, at the present time the plan has numerous inconsistencies with the Advisory. These inconsistencies are best understood by reading the Findings for both the TRCC Management and the Strategic Planning Modules. Together, these Findings suggest that the TRCC has operated with at least modest success in the past, including developing and updating the strategic plan, but that some TRCC past practices are not being maintained. Many of the Partial ratings given in both modules are an effort to reconcile past performance with the current lack of evidence of performance.

If TRCC performance in the area of strategic planning is viewed chronologically, the trend becomes clear. The full ratings were achieved on work that was performed or established in the past, while the lower ratings were given where current (within the last program year) evidence was required, such as updates to project timelines within the strategic plan.

An example of excellence is found in the strategic plan's series of tables (pages 41-46) for each of the data sets that address performance measures, numerical goals and benchmarks, and anticipated improvements for timeliness, accuracy, completeness, uniformity, integration, and accessibility. Once created, these tables should guide the State's traffic records system developments into the future. To keep this work current and relevant, the TRCC needs to review these tables regularly and establish performance measures that the current members collectively agree are the best indicators of success of the statewide traffic records system and the quality of data it contains.

Of particular concern, however, was a lack of documentation that the TRCC approved the strategic plan, along with a lack of project-specific updates more current than 2013.

Another form of evidence was also lacking in both the TRCC Management and Strategic Planning Modules. In addition to narrative responses to the general question, the evidence requirement sometimes specifies that a narrative be provided of a specific example. People who work together to solve problems remember at least an example or two from their personal life experience with the TRCC. This kind of information can fill gaps where processes have not been written down or cannot be verbalized by respondents, and meeting notes are thin. West Virginia submitted only one such specific example, for managing life cycle costs, and it was very effective.

The State's strategic plan references previous Traffic Records Assessment findings of 2012 and includes progress tracking for those findings a year later. The State claimed that most of the deficiencies from the 2012 assessment are being resolved with the wvOASIS project. (See also the TRCC Management Module Summary.) State projects of that magnitude are likely to force smaller programs to wait on the sidelines until completion before regaining access to data and resuming their own responsibilities. By that time, some deficiencies may indeed have been fixed, while new deficiencies may be discovered. If any data deficiencies are being self-identified, the examples and the method for doing so are unclear.

The strategic plan includes some project funding information, but it is inconsistent or missing from project to project. It is suggested that the State consider including total project funding amounts, with a breakdown of funding from specific sources (federal, State) for each project. It is also

suggested that the State more closely tie outcomes or deliverables to specific funding, and that the strategic plan include an explanation of how projects are funded.

In West Virginia, currently, the annual potential projects fit within available traffic records funding, eliminating competition and prioritization for funding. Priorities internal to funded projects are left up to the respective agencies housing them. This is backwards of what should happen. This is the State's traffic records system strategic plan. As such, the State (via the TRCC) should reflect its priorities in the plan. All stakeholders should feel welcomed to apply for funding and should have confidence that their project will be evaluated according to its ability to advance the goals the strategic plan.

The TRCC does a good job of addressing technical assistance and training stemming from funded projects and the implementation of new technologies. It misses the opportunity to look more widely at needs. Training alone can sometimes be an effective, low cost solution to some data deficiencies, even in today's age of automated edit checks.

The strategic plan encompasses projects that address both State and local needs. However, it is unclear how local representatives of the TRCC have input to the plan, or how other local input might be obtained. Without some supporting documentation, it cannot be ruled out that local needs are being determined only by what State agency staff believe is needed.

West Virginia's strategic plan considers new technology as evidenced by the projects listed. Electronic data collection and GPS applications are being applied in multiple projects. The Enterprise Resource Planning (ERP) project, also known as wvOASIS, is an extensive modernization effort of many State government data systems, both for asset management and for safety management. WvOASIS is included in the projects list of the traffic records strategic plan, since it impacts the WV Division of Highways (WVDOH) significantly, and potentially affects all traffic records subsystems. Funding is provided by the State.

The electronic citation project was used to illustrate how the TRCC considers life-cycle costs in the projects it plans to implement. The TRCC has made a thoughtful assessment of challenges and opportunities involved in equipping agencies with new technology, so that improvements have a better chance of becoming self-sustaining within those agencies. The use of an illustration to showcase the TRCC process was effective and appreciated.

The strategic plan makes no provision for coordination with key federal traffic records data systems, and the TRCC appears to be unaware of these data systems and the need to coordinate. Likewise, there is no process for identifying and addressing impediments to coordination with key federal traffic records data systems. The State should consider steps to close this gap. The State's data quality efforts have a real effect on the national data systems used to ensure safe drivers, protection for vehicle owners, and improvement in traffic safety across the United States. Benefits of coordination will result for West Virginia.

There is insufficient evidence that the strategic plan is reviewed and updated annually by the TRCC as a whole. The State explains that the TRCC does not develop the plan, but rather assists in implementation and coordination of the plan projects. These findings reinforce the need for a two-tiered committee to guide development, review, and approval of the plan, if the existing single TRCC is not capable or not allowed to perform these functions. All of these steps regarding the

plan need documentation, whether in the plan itself or in TRCC meeting notes.

The intent of having the TRCC develop the strategic plan is to ensure a collaboration among the various owners of the State's traffic records systems. West Virginia should consider reviewing best practices from other States and revisit its strategic planning process. In addition, the State should consider initiating a total review of the strategic plan itself at least every three to five years.

Question 20:
Does the TRCC develop the TRCC strategic plan?

Standard of Evidence:

Document the process undertaken by the TRCC in developing the strategic plan.

Question Rank:
Very Important

Assessor conclusions:
The TRCC Coordinator is said to prepare an updated strategic plan annually by working with individual agencies participating in the TRCC to update their sections, and then sends the draft to members for their review. The coordinator then goes through the updated plan step by step during the next TRCC meeting. This is common practice and is good as far as it goes. However, the lack of updates in the plan itself, as indicated by dates found in the projects section, plus the absence of strategic plan discussion in the notes of the last program year's meeting notes, is cause for concern. The annual update procedure as explained in the narrative response is not supported by the documentary evidence for the most recent program year.

The strategic plan itself references a 2001 strategic plan, apparently as the basis for the FY 2016 plan. It appears from the TRCC Charter that the TRCC was established (or re-established?) in 2013. It is unclear whether the TRCC as it stands today created the FY 2016 plan.

The intent of having the TRCC develop the strategic plan is to ensure a collaboration among the various owners of the State's traffic records systems. The TRCC should consider reviewing best practices from other States and revisit its strategic planning process. In addition, the State should consider initiating a total review of the strategic plan itself at least every 3-5 years, as, at some point, simply updating the prior year's plan is not sufficiently 'strategic'.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 21:

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

Standard of Evidence:

Identify, with appropriate citations, how the strategic plan addresses existing data and data systems deficiencies and documents how they were identified.

Question Rank:
Very Important

Assessor conclusions:

The State's strategic plan references previous Traffic Records Assessment findings and includes progress tracking for those findings, which is appreciated. The intent of this question relates also to the TRCC's role in self-identifying data deficiencies, such as how the coordinating committee determines new or previously unidentified data issues so that they can be addressed timely to improve the quality of traffic records in the State. If any data deficiencies are being self-identified, the examples and the method for doing so are unclear.

The State says, "Most of these deficiencies (from the 2012 assessment) are being resolved with the wvOASIS project. One of the main goals in this project is to integrate roadway and crash data together." It is unknown how the wvOASIS project would address any pre-determined deficiencies. Looking at the project description provided for wvOASIS (also referred to as Enterprise Resource Planning) on pages 34-35 of the strategic plan, there is insufficient explanation that would meet the evidence requirement for this question.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 22:

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

Standard of Evidence:

Identify, with appropriate citations, how the strategic plan identifies strategies that address the timeliness, accuracy, completeness, uniformity, integration, and accessibility of the six core data systems.

Question Rank:
Very Important

Assessor conclusions:

The State's strategic plan includes a series of tables for each of the data sets that addresses performance measures, numerical goals and benchmarks, and anticipated improvements timeliness, accuracy, completeness, uniformity, integration, and accessibility. This is an excellent tool for high-level planning.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 23:

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

Standard of Evidence:

Identify, with appropriate citations, how efforts detailed in the plan are funded and explain how these allocations address the plan's stated goals as specified in the strategic plan.

Question Rank:
Very Important

Assessor conclusions:

The State's strategic plan includes some project funding information. The information is inconsistent from project to project, with some indicating funding amounts and source, others indicating only one or the other, and some silent with respect to funding. It is suggested that the State consider including total project funding amounts, with a breakdown of funding from specific sources (including federal and state funding), for each project. It is also suggested that the State more closely tie outcomes or deliverables to specific funding, and that the strategic plan include an explanation of how projects are funded. Federal grant funding decisions that pass through the GHSP would be of particular interest.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 24:

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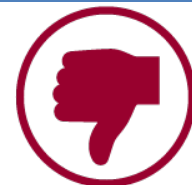
Standard of Evidence:

Identify, with appropriate citations, how the TRCC prioritizes traffic records improvement projects as specified in the strategic plan.

Question Rank:
Very Important

Assessor conclusions:

The State indicates the priority is established by the individual agencies and not by the TRCC. This is the State's traffic records system strategic plan and, as such, the State (via the TRCC) should reflect its priorities in the plan. By doing so, the TRCC can actually support the efforts of the individual agencies to obtain funding and other resources and can better coordinate the timing and connections between projects occurring at different agencies. The TRCC should have a true leadership role with respect to the State's overall traffic records needs.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 25:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

The tables on pages 41-46 of the State's TRCC strategic plan contain the performance measures for the six record systems. It is unclear how these performance measures (the numerical benchmarks and goals) were developed, although it is apparent that much work went into it. The State should consider getting more benefit from this set of tables by making sure all TRCC members are aware of it and understand their role in reaching those performance goals. Better yet, the TRCC as a whole should work together to establish performance measures that the members collectively agree are the best indicators of success of the State's traffic records systems as a whole. This process should be documented in the strategic plan as well.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 26:

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

Standard of Evidence:

Identify, with appropriate citations, how the TRCC identifies and addresses technical assistance and training needs as specified in the strategic plan.

Question Rank:
Somewhat Important

Assessor conclusions:

The TRCC does a good job of addressing technical assistance stemming from funded projects and the implementation of those projects. It misses the opportunity to look more widely and deeply for other needs, especially training needs. Providing training to cover gaps in knowledge is often a low cost method to improve data quality during collection, interpretation, and application of the data. It deserves at least a modicum of attention by the TRCC.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 27:

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

Standard of Evidence:

Identify, with appropriate citations, how the TRCC leverages federal funds and assistance programs as specified in the strategic plan.

Question Rank:
Somewhat Important

Assessor conclusions:

The TRCC has no process for leveraging additional sources of federal funds and assistance programs that could be used to help implement its strategic plan. The strategic plan references 408 grant funding and highway safety funding and lists specific funding amounts for some projects. It is not clear what role the TRCC plays in the State's grant process as it relates to traffic records systems. States should use the TRCC to assist with federal grant funding decisions, at least through a prioritization of projects. These decisions should be reflected in the State's strategic plan.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 28:

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

Standard of Evidence:

Identify, with appropriate citations, how the TRCC establishes timelines and responsibilities for projects in the plan.

Question Rank:
Very Important

Assessor conclusions:

Appendix 3 of the Strategic Plan does not support any consistent processes used by the TRCC for timelines. None of the ongoing projects show an update for 2016, and only a few for 2015. Timelines should compare current progress to the anticipated life cycle of the project, at least for those projects actively expending funding. Responsibilities are established in the project descriptions, so that a process for achieving that may be assumed. It is recommended that the strategic plan more formally describe processes to be followed by funded projects, allowing not only for consistent establishment and reporting of responsibilities, but also for displaying and reporting on timelines.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 29:

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

Standard of Evidence:

Identify, with appropriate citations, how the TRCC integrates State and local data needs and goals into the TRCC strategic plan.

Question Rank:
Very Important

Assessor conclusions:

The State's strategic plan incorporates projects that affect both State and local needs. The TRCC membership includes a small group of local representatives. How these local representatives participate in developing the plan is unclear from the supporting documentation. It is also unclear how other input is sought.

The TRCC should consider the needs of local entities as well as the impact of state-level projects on those local entities. In many cases, data quality originates at the local level where the data is initially collected.

There is the sense that TRCC practices and processes from years past are being remembered and conveyed in some of the narrative responses, albeit without any detailed narrative examples. There is little documentary evidence of these practices and processes continuing though the most recent program year.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 30:

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

Standard of Evidence:

Identify, with appropriate citations, a project or projects in the strategic plan whose development included the application or consideration of new technology.

Question Rank:
Somewhat Important

Assessor conclusions:

West Virginia's strategic plan considers new technology as evidenced by the projects listed. An example is the Enterprise Resource Planning (ERP) project. Newer yet well-established technologies such as electronic data capture and the incorporation of GPS applications are being applied in numerous projects.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 31:

Does the TRCC consider lifecycle costs in implementing improvement projects?

Standard of Evidence:

Identify, with appropriate citations, a project or projects in the strategic plan whose development included consideration of lifecycle costs.

Question Rank:
Somewhat Important

Assessor conclusions:

The electronic citation project was used to illustrate how the TRCC considers lifecycle costs in the projects it plans to implement. The TRCC has made a thoughtful assessment of challenges and opportunities involved in equipping agencies with new technology, so that improvements have a better chance of becoming self-sustaining within those agencies.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 32:

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

Standard of Evidence:

Identify, with appropriate citations, specific instances demonstrating that local stakeholder needs are incorporated into the TRCC's strategic plan.

Question Rank:
Somewhat Important

Assessor conclusions:

The State's TRCC includes members from local organizations who are said to be involved in the annual update and review of the State's strategic plan, although that process remains unclear from available documentation. As mentioned previously, it is unclear if the local member represents a single local agency or a collective association. For local agencies not represented on the TRCC, it is not known how their feedback and input is obtained.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 33:

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

Standard of Evidence:

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

Question Rank:
Somewhat Important

Assessor conclusions:

The strategic plan makes no provision for coordination with key federal traffic records data systems, and the TRCC appears to be unaware of at least some of those data systems.

Federal data systems may include CDLIS, NDR/PDPS, NMVTIS, NEMSIS, among others. Since the strategic plan is intended to be the State's strategic plan for traffic records systems, it should consider not only the requirements to connect to these systems, but the benefits to the State as well. The State's data quality efforts, or lack thereof, have a very real effect on the national data systems used to ensure safe drivers, protection for vehicle owners, and improvements in traffic safety across the US.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 34:

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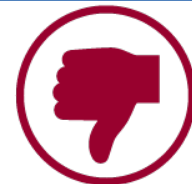
Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

The TRCC has no process for identifying and addressing impediments to coordination with key federal traffic records data systems. If individual agencies within the State do this coordination as it affects each agency, it is not made a part of the TRCC business nor included in the strategic plan.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 35:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

There was insufficient evidence that the strategic plan is reviewed and updated annually by the TRCC. No schedule was provided with respect to the annual update, and the strategic plan itself does not include a revision or approval date. Much of the plan, particularly the appendices, references projects that date back to 2013, with no evidence of project progress since then. Some projects indicate a 2013 completion date. It is unclear whether the projects discussed in the body of the plan are current and ongoing and whether the plan is up-to-date.

West Virginia is much in need of a predetermined schedule of four TRCC meetings per year, with an agenda prepared in advance for each meeting that ensures each TRCC responsibility is dealt with at least once per year. Meeting notes can be brief, but they need to document not only the date and duration of meetings and attendees, but also provide evidence that the responsibilities of the TRCC on each meeting agenda are actually addressed. Strategic plan reviews and approvals by the TRCC are the most important of these annual tasks.

Other gaps in TRCC Management and Strategic Planning found in this assessment could begin to be addressed in the same manner: organizing the meetings to serve the broad as well as the project specific responsibilities with which the TRCC is charged.

There is evidence that suggests institutional knowledge regarding TRCC Management and Strategic Planning has been lost in recent years. New staff do not have access to foundational and historical documents. The continuity within the State Traffic Records Improvement Program seems to have been broken, just when it could have been especially helpful.

Respondents assigned	1	Responses received	1	Response rate	100%

Crash

The West Virginia Crash System is consolidated into a single database housed within the West Virginia Division of Highways (WVDOH) consisting of both paper-based and electronic crash reports received from law enforcement agencies. WV uses the ReportBeam system for electronic crash data collection and data accessibility. The ReportBeam system allows for good error and rejection handling and tracking for crash reports. The crash system also has many strong validation rules and edit checks in place to ensure the accuracy, completeness, and timeliness of crash reports.

West Virginia continues to make progress in recent years and currently has improved to 80%-90% of law enforcement agencies reporting crash data electronically statewide. While the State tracks which agencies still submit paper, there is no requirement mandating electronic reporting, though elimination of paper reporting is the goal. There does not appear to be a formal plan or timeline for 100% electronic crash reporting. It would be beneficial for the State to establish a timeline with agency-by-agency goals for adoption of electronic crash reporting to help address and facilitate the transition of the remaining agencies still submitting paper-based crash reports. It would also be helpful to identify obstacles that may be hindering each respective agency's transition to full electronic reporting and could be used to help guide decision-makers at all levels. If lack of equipment is preventing adoption, there is often State Highway Safety Office grant funding available to local agencies that could help facilitate the conversion.

West Virginia utilizes MMUCC, ANSI D-16, and D-20 as primary sources for defining its crash system. It has been a few years since a review has been conducted comparing West Virginia's data elements and attributes to the MMUCC standards. The last was conducted in 2007. A more current analysis of West Virginia's crash system against MMUCC standards may be beneficial to the State and help determine if further improvements or revisions to the crash report form are needed or desired. It is anticipated that the MMUCC 5th edition will be released in 2017. Since the last MMUCC review, NHTSA recently released MMUCC Mapping Guidelines to help states with this process. This document can be found at http://www-nrd.nhtsa.dot.gov/Pubs/812184.pdf.

Given the rising importance of traffic safety data which often starts with the crash system, it would be extremely helpful to establish useful performance measures and to implement a more robust quality control program for improving and monitoring completeness, timeliness, and accuracy. More in-depth and detailed agency-level feedback for local law enforcement agencies would also be useful. Strengthening performance measures and performance measure reporting is an important aspect of a successful crash system. There is an opportunity to improve and expand the performance measures used by West Virginia's crash system by making use of NHTSA resources and the FHWA CDIP program. Performance measures should be designed to provide important actionable information to the data system managers. The "NHTSA Model Performance Measures for State Traffic Records Systems" document is a good resource for identifying and implementing measures for all the traffic records data-sets. It can be found at http://www-nrd.nhtsa.dot.gov/Pubs/811441.pdf. There will also be opportunities to utilize NHTSA Go-Teams to help improve traffic records systems processes following the completion of the assessment.

Population of data elements in the crash system from other traffic records systems such as Driver, Injury Surveillance, or Roadway can have great advantages. West Virginia through its ERP

project has made positive strides towards linkage between the roadway and crash system. These efforts should continue as interfacing between crash and roadway data is crucial to successful engineering efforts and transportation improvements. Continuing the discussion regarding possible opportunities for improvement or expansion of data linkages, interfaces, and integration amongst the State traffic records systems should begin with the TRCC where all core traffic records systems managers and stakeholders are represented. As traffic records systems data becomes more widely used, system interfaces and data integration will be crucial. Improved data linkage will assist in streamlining processes, improve data quality, reduce duplication of effort, and allow data to be more fully utilized to make roadways safer.

Overall, the West Virginia Crash System is functioning well, with continued increases in the percentage of electronic crash reporting and with flexible data accessibility options and data analytics for end users. There appears to be ample opportunities to access reliable crash data using the ReportBeam tools for use in supporting roadway improvements and law enforcement traffic safety initiatives. By focusing engineering and law enforcement efforts on locations with the greatest crash risk, traffic fatalities and injuries can be reduced resulting in safer roadways.

Opportunities for crash system growth in the coming years include: establishing a formal plan and targeted timeline to achieve 100% electronic crash reporting prior to the next traffic records assessment specific to the remaining paper reporting agencies; establishing a records retention policy that applies to crash records; expanding system interfaces and data integration efforts to improve data quality across core component traffic records systems; and instituting a more formal performance measurement program with meaningful measures that can be frequently monitored by stakeholders.

Question 36:	
Is statewide crash data consolidated into one database?	
Standard of Evidence:	
Provide a description of the statewide database and specify how the data is consolidated.	**Question Rank:** Somewhat Important
Assessor conclusions:	
West Virginia's crash data is housed in one single statewide repository using the ReportBeam software for data collection and is managed by WV Division of Highways (WVDOH). The data is then transmitted to a SQL server for data analysis purposes and then passed to an ERP system which incorporates Roadway and Geospatial data.	

Respondents assigned	2	Responses received	2	Response rate	100%

Question 37:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:
The custodial responsibility for West Virginia's crash system is addressed in State Code (§17C-4-14). The system is housed in the WV Department of Highways.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 38:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:
State Code 17C-4-7 requires all fatal crashes be reported to the statewide crash system.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 39:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:
State Code 17C-4-7 requires all injury crashes be reported to the statewide crash system.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 40:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

State Code 17C-4-7 requires all property damage crashes exceeding $1,000 in damage be reported to the statewide crash system.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 41:

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

Standard of Evidence:

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

Question Rank:
Somewhat Important

Assessor conclusions:

Non-trafficway data is captured in several data elements including Highway Class, Relation to Junction, and Other Description of location. Some attributes captured are Driveway Access and Private Property/Off Roadway. Submission of crash reports to the State system occurring in non-trafficways is up to the law enforcement officer investigating. The State collects and maintains the crash report for any non-trafficway report submitted to the crash database.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 42:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

West Virginia uses its crash database to analyze a variety of crash risk factors including, but not limited to, impaired driving, at risk age groups, safety restraint usage, and roadway departure crashes. It was indicated that these analyses can be found in statewide planning documents, though they were not available for review.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 43:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

WV uses crash data to guide a variety of engineering and transportation projects. The State described in detail how the crash data is used to determine countermeasures. One excellent example of this is the sliding window method analysis used by the Traffic Engineering Division to identify hot spots and locations with high crash rates. The Safety Management module of the ERP system is another way in which West Virginia takes advantage of their wealth of crash data and its integration with Roadway Inventory data.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 44:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

While you have demonstrated that law enforcement has access to their crash data through ReportBeam, and accessibility to crash data seems to be excellent, no evidence has been provided illustrating how law enforcement regularly uses crash data to prioritize their efforts.

Respondents assigned	3	Responses received	3	Response rate	100%

Question 45:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

The Safety Management module has built-in capabilities for conducting after project evaluation of the effectiveness of a given engineering project. However, crash data can also be utilized to measure general overall effectiveness of law enforcement campaigns and behavioral programs as well. Often, crash data is utilized to show the effectiveness of these programs in the State's HSP, SHSP, and other statewide plans, though these plans were not available for review.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 46:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

MMUCC was utilized in the creation of the West Virginia crash report form, which was last revised in 2007. However, there is an opportunity here to revisit and compare the current version of the crash report form to the new 5th edition of MMUCC which will be released in 2017. In addition, MMUCC has a new mapping tool available to assist states in evaluating their compliance with MMUCC recommendations.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 47:

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

Standard of Evidence:

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

Question Rank:
Somewhat Important

Assessor conclusions:

Both ANSI D-16 and ANSI D-20 were utilized in the creation of the West Virginia crash report form.

Respondents assigned	2	Responses received	1	Response rate	50%

Question 48:

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

Standard of Evidence:

Provide a copy of the crash system data dictionary.

Question Rank:
Very Important

Assessor conclusions:

The crash data dictionary when combined with the student training manual provides extensive definitions and detail for all data elements, allowable values, and attributes on the crash report form. Both documents are very thorough and well-organized.

Respondents assigned	2	Responses received	1	Response rate	50%

Question 49:

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

Standard of Evidence:

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

Question Rank:
Somewhat Important

Assessor conclusions:

While the data dictionary itself does not contain edit checks and validation rules, there is a separate document that contains a comprehensive set of edit and validation for all data elements and attributes contained within the crash report form.

Respondents assigned	2	Responses received	1	Response rate	50%

Question 50:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

No significant changes have been made to the crash report form since 2007; therefore all documents are up to date. When changes are made to the form, a single entity has the responsibility to make the necessary updates across all documents and training materials. As one person has been assigned this duty, consistency across all documents can be ensured. It may be beneficial to have a fallback plan, or process in place, to ensure continuity in the event that the single individual assigned these responsibilities is unavailable.

Respondents assigned	2	Responses received	1	Response rate	50%

Question 51:

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

Standard of Evidence:

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

Question Rank:
Somewhat Important

Assessor conclusions:

It does not appear that any data elements in the crash database are populated through links to other core component systems and therefore there are no references to linked data elements in the data dictionary. It is anticipated that linking data elements between traffic records systems will be possible once the State's new ERP system is completed.

Respondents assigned	2	Responses received	1	Response rate	50%

Question 52:

Do all law enforcement agencies collect crash data electronically?

Standard of Evidence:

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

Question Rank:
Somewhat Important

Assessor conclusions:

Approximately 80%-90% of law enforcement agencies in West Virginia collect crash data electronically; the remaining agencies still use the paper crash report form. There may be an opportunity for the State to establish a plan for moving the remaining paper-reporting agencies to electronic, thus progressing towards a goal of 100% electronic crash reporting.

Respondents assigned	4	Responses received	4	Response rate	100%

Question 53:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

Approximately 80%-90% of law enforcement agencies in West Virginia submit crash data electronically to the State using the ReportBeam system, the remaining agencies still use the paper crash report form and submit the paper form to the State for processing.

Respondents assigned	3	Responses received	3	Response rate	100%

Question 54:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

It appears that all law enforcement collecting data electronically utilize ReportBeam and apply all validation rules contained therein. There appears to be at least one local agency using a 3rd party software and it is unclear whether the same validation rules apply.

Respondents assigned	3	Responses received	3	Response rate	100%

Question 55:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

There appears to be a large degree of coordination in West Virginia to ensure documentation is kept current, including crash data required for reporting to federal government systems such as FARS and FMCSA. Rules for collection of fatal crash data and commercial vehicle data are addressed in detail in the Student/Coding Training Manual. The relevant sections of the Student Coding/Training Manual addressing coding of fatal crash data and commercial vehicle crash data were not available for review.

Respondents assigned	2	Responses received	1	Response rate	50%

Question 56:

Are the processes for managing errors and incomplete data documented?

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

There is an approval process at the agency level where reports are manually reviewed and the ReportBeam server documents and tracks reports that are incomplete or have errors and have been returned to the officer for correction. The most common errors involve injury classification and location data. Both issues have comprehensive processes for the correction and re-submission of revised data involving FARS analysts, investigating law enforcement agencies, and WVDOH.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 57:

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

Standard of Evidence:

Provide a copy of the retention policy.

Question Rank:
Somewhat Important

Assessor conclusions:

It appears that WVDOH does not have a records retention policy that applies to crash records. Crash data going back to 1999 is easily accessible to engineers and others with a need to access crash records long-term. The current level of retention and access is acceptable to the State's safety engineers. Consideration should be given to establishing a records retention policy for crash records. While accessibility currently is not a problem for those that require it, having a records retention policy in place not only protects the life of the crash record itself, it also provides important protection for the State.

Respondents assigned	2	Responses received	1	Response rate	50%

Question 58:

Does the crash system interface with the driver system?

Standard of Evidence:

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

Question Rank:
Somewhat Important

Assessor conclusions:

The Driver system does not currently integrate with the Crash system, though it has in the past.

Respondents assigned	3	Responses received	3	Response rate	100%

Question 59:

Does the crash system interface with the vehicle system?
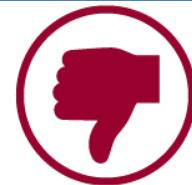
Standard of Evidence:

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

Question Rank:
Somewhat Important

Assessor conclusions:

The Vehicle System does not currently integrate with the Crash system, though it has in the past.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 60:

Does the crash system interface with the roadway system?

Standard of Evidence:

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

Question Rank:
Somewhat Important

Assessor conclusions:

The State through its ERP project has made some positive strides towards linkage between the roadway and crash system, however the efforts are still in progress. These efforts should continue as interfacing between crash and roadway data is crucial to successful engineering efforts and transportation improvements. There does not appear to be any interface currently which allows for verification or validation of roadway data by the crash system prior to establishing a crash record.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 61:

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

Standard of Evidence:

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

Question Rank:
Somewhat Important

Assessor conclusions:

The Citation System does not currently integrate with the Crash system.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 62:

Does the crash system interface with the injury surveillance system?

Standard of Evidence:

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

Question Rank:
Somewhat Important

Assessor conclusions:

The Injury Surveillance system does not currently integrate with the Crash system.

Respondents assigned	4	Responses received	3	Response rate	75%

Question 63:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

The ReportBeam system contains a comprehensive set of edit checks and validation rules to ensure collected data is consistent and accurate and control the range of acceptable values for a data field.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 64:

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

Standard of Evidence:

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

Question Rank:
Somewhat Important

Assessor conclusions:

The Traffic Engineering Division has the ability to make limited corrections at the state-level to data housed in the Crash system though the preferred method is for the investigating officer to make the correction by amending the report.

| Respondents assigned | 2 | Responses received | 2 | Response rate | 100% |

Question 65:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

There is a process for returning rejected reports and tracking those reports incorporated in the ReportBeam utility. User permissions control who has the ability to "unapprove" or reject a report and allows comments to be entered detailing why the report is being rejected. The report then is sent back to the investigating officer along with the reason for rejection, and they can then make the appropriate revisions and resubmit. The system allows for easy monitoring to ensure these reports are resubmitted. The system also logs anytime a change is made to a crash record, including what the change was and who made the change.

| Respondents assigned | 2 | Responses received | 2 | Response rate | 100% |

Question 66:

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

Standard of Evidence:

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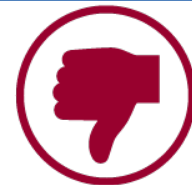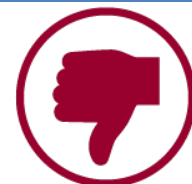
Question Rank:
Very Important

Assessor conclusions:

There are currently no performance measures in place to track timeliness, though the crash system has the ability to generate reports to monitor timeliness.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 67:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

There are currently no performance measures in place to track accuracy, though efforts have been made through crash system business rules and in the design of the State's new ERP system to improve ability to monitor accuracy.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 68:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

There are currently no performance measures in place to track completeness, though efforts have been made through crash system business rules to improve completeness. In order to meet the advisory ideal, formal performance measures with baselines and goals are needed.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 69:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

There are currently no performance measures in place to track uniformity.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 70:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

There are currently no performance measures in place to track integration.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 71:

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

Standard of Evidence:

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

Question Rank:
Somewhat Important

Assessor conclusions:

There are currently no performance measures in place to track accessibility.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 72:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

The State does not appear to have any established numeric goals or a formal set of performance metrics established.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 73:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

The State does not currently have any performance reporting that provides feedback to local law enforcement agencies.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 74:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

Though it is stated that errors that are consistently observed are used to enhance training, no specific examples were provided regarding how high frequency errors are identified and used to update training and update manuals. Additional support is needed or a more detailed description of the methodology and process used to update training content, manuals, and validation rules.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 75:

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

Standard of Evidence:

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

Question Rank:
Somewhat Important

Assessor conclusions:

The State currently does not have quality control reviews in place for the crash system that compares the narrative, diagram and coded data elements.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 76:

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

Standard of Evidence:

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

Question Rank:
Somewhat Important

Assessor conclusions:

Independent sample-based audits are not regularly conducted on the State's Crash system.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 77:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

Though it is stated that this type of comparative analysis is done for HSP and SHSP, no output or specific example was provided.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 78:

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

Standard of Evidence:

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

Question Rank:
Somewhat Important

Assessor conclusions:

An example was provided illustrating how data quality feedback has been communicated from engineers to data managers. In addition, reference was made to informal communication from key users. However, it is unclear how often this communication occurs and how this feedback is utilized to improve crash system processes.

Respondents assigned	3	Responses received	3	Response rate	100%

Question 79:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

No data quality management reports are currently provided to the TRCC.

Respondents assigned	3	Responses received	3	Response rate	100%

Vehicle

The Division of Motor Vehicles (DMV) of the West Virginia Department of Transportation meets the Advisory Ideal for the system description and guidelines with the single exception that it appears that NMVTIS is checked in the process of issuing titles instead of checking before issuing the title. The system is processed in real time, and the system design has accommodated the functionality of a data dictionary.

The registration document has a PDF417 two-dimensional barcode to the registration document. Title brands from other States are maintained in the vehicle histories.

The vehicle system and the driver system are not integrated, and the naming conventions for the two systems are different.

The DMV's vehicle system process flow document is highly readable—possibly one of the more comprehensive yet clear of any reviewed to date for vehicle systems.

There are automated edit check and validation rules built in into the application programs to ensure that entered data falls within a range of acceptable values and that it is in accordance with the State laws.

There were no positive answers to questions about performance measures, independent audits, and reports to the TRCC. The State reported, however, that they are currently working on new policies and procedures and anticipate that they will be able to provide the relevant statistical information in the future.

Opportunities

In preparation for eventually integrating the vehicle and driver systems, a change beginning now to use in the vehicle system the naming conventions in the driver system will eliminate or ameliorate the difficult migration to the integrated system.

Question 80:

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

Standard of Evidence:

Provide the custodial agency's name.

Question Rank:
Somewhat Important

Assessor conclusions:

The Division of Motor Vehicles (DMV) of the West Virginia Department of Transportation is the custodian of the vehicle system containing all registration and title records. The data is maintained on a mainframe computer system housed in the Office of Technology.

Respondents assigned	3	Responses received	1	Response rate	33.3%

Question 81:

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

Standard of Evidence:

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

Question Rank:
Less Important

Assessor conclusions:

WV uses R L Polk's VINtelligence to create a vehicle record of a new registration or title including a transfer of a previously recorded vehicle and for out-of-state titles.

Respondents assigned	3	Responses received	1	Response rate	33.3%

Question 82:

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

Standard of Evidence:

Provide a sample document, and identify the information encoded.

Question Rank:
Very Important

Assessor conclusions:

The DMV applies a PDF417 two-dimensional barcode to the registration document that enables law enforcement to populate the data into their citation and crash reports. Attached were images of the front and back of a registration document and a listing of the elements coded into the barcode.

Respondents assigned	3	Responses received	1	Response rate	33.3%

Question 83:

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

Standard of Evidence:

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

Question Rank:
Somewhat Important

Assessor conclusions:

WV DMV reports to NMVTIS daily (Monday through Saturday) and updates the vehicle from NMVTIS inquiries. The transactions use the American Association of Motor Vehicle Administrators Secure Transfer Protocol. A copy of the NMVTIS transaction log was provided in addition to the screen shot previously provided.

Respondents assigned	3	Responses received	1	Response rate	33.3%

Question 84:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

The State queries NMVTIS at the time of title entry by using the web interface with NMVTIS.

Respondents assigned	2	Responses received	1	Response rate	50%

Question 85:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

West Virginia incorporates the AAMVA brand information (received through NMVTIS) on the vehicle record. The State provided the list and definitions of the State's title brands.

Respondents assigned	3	Responses received	1	Response rate	33.3%

Question 86:

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

Standard of Evidence:

Provide the PRISM processing instructions or a screen print.

Question Rank:
Very Important

Assessor conclusions:

The State is a participant in the Performance and Registration Information Systems Management (PRISM) program, and a PDF document was provided showing the PRISM screen.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 87:

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

Standard of Evidence:

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

Question Rank:
Somewhat Important

Assessor conclusions:

An excerpt from the vehicle master record was provided showing the data content and the specifications for each field with some elements containing the definitions for each field. Although not a separate data dictionary per se, those areas needing definitions with attributes are included. The West Virginia vehicle data system is mainframe based with file structures used to define all data fields.

Respondents assigned	3	Responses received	2	Response rate	66.7%

Question 88:

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

Standard of Evidence:

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

Question Rank:
Somewhat Important

Assessor conclusions:

The State's vehicle system includes different edit checks and data validation programs during the process of data entry, including the VIN edit package program.

Respondents assigned	2	Responses received	1	Response rate	50%

Question 89:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

No procedures were described. Reference was made to DMV code 17 of the WV Code, but it was not attached. An Internet reference was provided, but that is not acceptable to NHTSA as evidence because the sited reference may not be permanent.

Respondents assigned	4	Responses received	2	Response rate	50%

Question 90:

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

Standard of Evidence:

Provide the process flow diagram.

Question Rank:
Somewhat Important

Assessor conclusions:

The State has a process flow diagram describing the vehicle data system.

Respondents assigned	2	Responses received	1	Response rate	50%

Question 91:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

The vehicle system is flagged when a notice from the West Virginia State Police is received, and there is a corresponding notification for vehicles recovered. Copies of both notifications were provided.

Respondents assigned	3	Responses received	1	Response rate	33.3%

Question 92:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

The State has a process in place to remove flags (identifiers) when a stolen vehicle has been recovered. The flag removal process is initiated by notification sent to the DMV from the State police. A screenshot copy of the DMV transaction screen was provided.

Respondents assigned	3	Responses received	1	Response rate	33.3%

Question 93:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

The State records and maintains the title brand history for out of state titles via the NMVTIS State Web interface. As needed, West Virginia contacts other State via email and updates the record via the NMVTIS State Web interface and/or through AAMVA helpdesk.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 94:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

The State maintains a process flow diagram for titling and registration that documents all steps from initial event to final entry into the vehicle data system.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 95:

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

Standard of Evidence:

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

Question Rank:
Somewhat Important

Assessor conclusions:

The time required for the steps from initial event (titling, registration) is addressed within the operations of the DMV. It does show the progression from step to step that occurs within the administration process. The flow diagram is detailed and leaves no question about time requirements.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 96:

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

Standard of Evidence:

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

Question Rank:
Somewhat Important

Assessor conclusions:

The process flow diagram does not have multiple alternative data flows but addresses the process for completing the registration and/or title process when requirements are not satisfied. In that sense, it depicts the flow required for the processes to complete.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 97:

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

Standard of Evidence:

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

Question Rank:
Somewhat Important

Assessor conclusions:

The process flow diagram includes processes for error correction and error handling.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 98:

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

Standard of Evidence:

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

Question Rank:
Somewhat Important

Assessor conclusions:

The process flow diagram does not include processes for purging records, and the narrative response did not address records purging.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 99:

Are the driver and vehicle files unified in one system?

Standard of Evidence:

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

Question Rank:
Somewhat Important

Assessor conclusions:

The driver and vehicle records are not unified in one system. West Virginia's intent is to unify these two systems in the future through modernization efforts.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 100:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

The naming conventions are different for the driver and vehicle systems.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 101:

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

Standard of Evidence:

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

Question Rank:
Somewhat Important

Assessor conclusions:

West Virginia law enforcement has direct access to the information in the vehicle file, and the registration document has a PDF417 barcode (copies provided).

Respondents assigned	3	Responses received	2	Response rate	66.7%

Question 102:

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

Standard of Evidence:

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

Question Rank:
Less Important

Assessor conclusions:

When there are discrepancies between the crash data and the codes or descriptions for the vehicle(s) involved, and flag is created. However, the resolution appears to be applied to the body style information rather than a reconciliation that would require matching of VIN numbers. That does not appear to improve the vehicle record.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 103:

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

Standard of Evidence:

Identify the key variables used to retrieve vehicle records.

Question Rank:
Very Important

Assessor conclusions:
The VIN, title number, and license plate number are key variables used to retrieve vehicle records in addition to the owner name.

Respondents assigned	3	Responses received	1	Response rate	33.3%

Question 104:

Is the vehicle system data processed in real-time?

Standard of Evidence:

Provide a narrative statement explaining the answer.

Question Rank:
Very Important

Assessor conclusions:
The vehicle system data is processed in real-time. The State uses the COBOL Customer Information Control System (CICS) for IBM mainframe environment to enter data into vehicle system through the application screens. Immediately after the information is entered, it can be looked up for verification of entry. The State provided four screen shots of the principal transactions for the system.

Respondents assigned	2	Responses received	1	Response rate	50%

Question 105:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

There are automated edit check and validation rules that are built in into the CICS COBOL application programs to ensure that entered data falls within a range of acceptable values and that it is in accordance with the State laws.

Respondents assigned	3	Responses received	2	Response rate	66.7%

Question 106:

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

Standard of Evidence:

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

Question Rank:
Somewhat Important

Assessor conclusions:

Correction authority is granted by the Director only to supervisory staff to correct the vehicle system data.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 107:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

The objective of the question is to determine the timeliness of those functions performed for the vehicle system. Examples would be how long it takes to create, update, correct, the creation and maintenance of new and existing records. Also, how long does it take now versus the time required in each of the last five years? What baseline (the timing for each of the last five years) are you working with? These examples could reflect the intent of the question, but other examples could be quoted. The Replacement Title policy document provided does not equate to the question asked.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 108:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

Although WV is working on new policies and procedures, the performance measure questions can be answered only statistical sums that become the actual values for comparison purposes to record and evaluate performance using data from previous years as the baseline for comparison.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 109:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

Although WV is working on new policies and procedures, the performance measure questions can be answered only statistical sums that become the actual values for comparison purposes to record and evaluate performance using data from previous years as the baseline for comparison.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 110:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

Although WV is working on new policies and procedures, the performance measure questions can be answered only statistical sums that become the actual values for comparison purposes to record and evaluate performance using data from previous years as the baseline for comparison.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 111:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

Although WV is working on new policies and procedures, the performance measure questions can be answered only statistical sums that become the actual values for comparison purposes to record and evaluate performance using data from previous years as the baseline for comparison.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 112:

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

Standard of Evidence:

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

Question Rank:
Somewhat Important

Assessor conclusions:

Although WV is working on new policies and procedures, the performance measure questions can be answered only statistical sums that become the actual values for comparison purposes to record and evaluate performance using data from previous years as the baseline for comparison.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 113:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

West Virginia has not established numeric goals—performance metrics—for each performance measure.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 114:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

The evidence requirement was not provided: "Provide the formal methodology or describe the process by which high frequency errors are used to generate new training content and data collection manuals, update the validation rules, and prompt form revisions."

Respondents assigned	1	Responses received	1	Response rate	100%

Question 115:

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

Standard of Evidence:

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

Question Rank:
Somewhat Important

Assessor conclusions:
The State does not conduct periodically independent sample-based audits for the vehicle data system.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 116:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:
The DMV does not make periodic comparative and trend analyses to identify unexplained differences in the data across years and among jurisdictions.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 117:

Is data quality feedback from key users regularly communicated to data collectors and data managers?
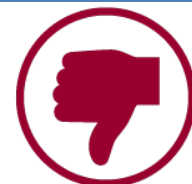
Standard of Evidence:

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

Question Rank:
Somewhat Important

Assessor conclusions:
The response did not address the question.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 118:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

The State does not provide data quality management reports to the TRCC for regular reviews.

Respondents assigned	2	Responses received	2	Response rate	100%

Driver

The West Virginia Department of Motor Vehicles (DMV) is the custodial agency of the West Virginia driver data system, which resides in a single location and includes records of commercial and non-commercial drivers.

West Virginia does not have a separate DUI system. The State's driver data system does not capture novice drivers' training histories except for novice drivers that are under the Graduated Driver License (GDL) program and for whom, subsequent to specific traffic convictions, completion of the driver improvement course is required. The State driver system captures and retains the renewal date, but not the date of original issuance for permits, licenses, and endorsements.

The State does not maintain documentation pertaining to the contents of the driver system that contains data definitions for each data field and valid data field values. It is also not evident that there are edit checks and data collection guidelines for the driver system data elements.

West Virginia does not maintain accurate and up-to-date documentation related to the policies and procedures pertaining to key processes of the driver data system such as driver licensing, permitting, and endorsement issuance. Similarly, the State does not maintain documentation for the collection, reporting, and posting of relevant citations and convictions, driver education and improvement courses, or other information that may result in change of license status. Lastly, it is not evident that the State has a process flow diagram related to key data process flows and documented procedures for purging data from the driver data system.

Different procedures are established to detect false identity license fraud such as one to one photo match through a software application during the license issuance process. However, there are not any established processes to detect internal fraud by individual users or examiners or to prevent CDL fraud. The State has established policies and procedures to maintain appropriate system and information security such as annual mandatory training for all employees to protect the personally identifiable information (PII) or use of disciplinary actions for improper release of protected information. The State also controls access to the driver data system and release of driver information.

The State's crash, citation, and adjudication data systems are not linked with the State's driver data system. However, there is an interface link between the West Virginia driver system and the Problem Driver Pointer System (PDPS), the Commercial Driver License Information System (CDLIS), and the Social Security Online Verification (SSOLV) system. An access to the West Virginia driver data system can be granted to authorized law enforcement agencies if a proper protocol is followed. Nevertheless, West Virginia cannot grant this access to authorized court personnel and to personnel from other States.

West Virginia does not have a formal, comprehensive data quality management program for the driver system. Also, the State does not have established performance measures for accuracy, completeness, uniformity, integration, and accessibility of the driver data system.

Opportunities:

West Virginia should develop documentation, such as data dictionary, where the contents of the driver data system are specified, including data definitions for each data field and valid field values. This documentation should be maintained and updated on regular basis to reflect legislative and other changes in the driver data system. The State also needs to establish edit checks and data collection guidelines for each data element in the driver data system.

Simultaneously, the State should consider starting to develop an accurate and up-to-date documentation on policies and procedures related to key processes of the driver data system (e.g., licensing, permitting, and endorsement issuance). Equally important, the State needs to develop a documentation for the collection, reporting, and posting of relevant citations and convictions, driver education and improvement courses, or other information that may result in change of license status. Further step could be creating a process flow diagram that includes information on the driver system key data process flows, including input from other data systems. Finally, documentation on procedures for purging data from the driver data system should be established.

Regarding the driver data system interface with other data systems, the State should start development of an electronic linkage between the driver data system separately with both the crash system and the adjudication data system.

Finally, West Virginia should consider starting to work on a development of a formal data quality control program. The State should establish performance measures (e.g., timeliness, accuracy, completeness, uniformity, integration, and accessibility), which will give the State a greater ability to fully understand the quality of its driver data system. Once established, data quality control program would assist data managers and data users and help quickly and effectively identify areas within the driver system that need improvement. Additionally, the State should consider starting to perform periodic independent sample-based audits for the driver data system as well as to conduct periodic comparative and trend analyses, which are used to identify unexplained differences in data across years and jurisdictions. Finally, data quality reports should be created and provided to the State's TRCC committee for regular review.

Question 119:

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

Standard of Evidence:

Provide a narrative identifying the custodial agency.

Question Rank:
Very Important

Assessor conclusions:

The West Virginia Department of Motor Vehicles (DMV) is the custodial agency of the State driver data system, which resides in a single location and includes records of commercial and non-commercial drivers.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 120:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

The State does not have an electronic DUI data system. Therefore, there is no linkage between the DUI system and the driver data systems.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 121:

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

Standard of Evidence:

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

Question Rank:
Less Important

Assessor conclusions:

The State's driver data system does not capture novice driver training histories except when the novice driver is subject to the Graduated Driver License (GDL) and he/she needs to complete the driver improvement course subsequent to a particular traffic conviction.

Respondents assigned	2	Responses received	1	Response rate	50%

Question 122:

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

Standard of Evidence:

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

Question Rank:
Less Important

Assessor conclusions:

The State's driver data system contains driver's traffic violation and driver improvement training history information. A sample with specific data fields pertaining to the availability of this information is provided.

Respondents assigned	2	Responses received	1	Response rate	50%

Question 123:

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

Standard of Evidence:

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

Question Rank:
Somewhat Important

Assessor conclusions:

The State captures the renewal date, but not the original license issuance date for permits, licenses, and endorsements.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 124:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

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) in accordance with AAMVA standards. The State checks PDPS and CDLIS before every original license issuance or renewal.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 125:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

The State driver data system consists of DB2 tables that, including table layouts, reside on an IBM mainframe. The State complies with AAMVA guidelines pertaining to data field mandates and definitions for data fields. However, a sample from the data dictionary, table of contents, or some other relevant evidence were not provided.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 126:

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

Standard of Evidence:

Provide sample valid data field values from the data dictionary.

Question Rank:
Very Important

Assessor conclusions:

The State's driver data system valid field values are not documented in the data dictionary.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 127:

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

Standard of Evidence:

Provide an example edit check and data collection guideline.

Question Rank:
Very Important

Assessor conclusions:

The State does not have edit checks and data collection guidelines for the driver system data elements.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 128:

Is there guidance on how and when to update the data dictionary?
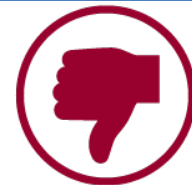
Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

The State does not maintain procedures to update the data dictionary except when related to AAMVA releases. The requested evidence pertaining to the State's protocols and procedures to update the data dictionary related to AAMVA releases is not provided.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 129:

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

Standard of Evidence:

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

Question Rank:
Somewhat Important

Assessor conclusions:

The State has documentation on procedures regarding licensing, permitting, and endorsement issuance, but it is not up to date. Also, the requested evidence is not provided. The State provided a copy of the legal rule pertaining to issuance requirements which is not an evidence of the existence of the State's documentation pertaining to the issuance procedures.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 130:

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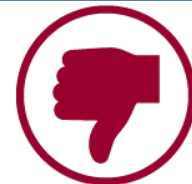
Standard of Evidence:

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

Question Rank:
Somewhat Important

Assessor conclusions:

The State updates relevant convictions on the driver records, but not citations. However, the State does not maintain documentation related to procedures for reporting and recording convictions.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 131:

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

Standard of Evidence:

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

Question Rank:
Somewhat Important

Assessor conclusions:

The State does not maintain documentation for driver improvement course reporting and recording procedures.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 132:

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

Standard of Evidence:

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

Question Rank:
Somewhat Important

Assessor conclusions:

The State does not maintain documentation pertaining to reporting and recording procedures for other information that may result in a change of license status.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 133:

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

Standard of Evidence:

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

Question Rank:
Somewhat Important

Assessor conclusions:

The State does not maintain documentation detailing changes in license status.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 134:

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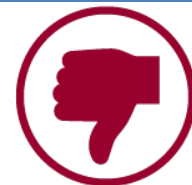
Standard of Evidence:

Provide the process flow diagram.

Question Rank:
Very Important

Assessor conclusions:

The State does not have a process flow diagram related to key data process flows.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 135:

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

Standard of Evidence:

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

Question Rank:
Somewhat Important

Assessor conclusions:

The State does not maintain documentation for error correction processes for license, permit, endorsement issuance and reporting and recording of any information that may result in a change of license status.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 136:

Are there processes and procedures for purging data from the driver system documented?
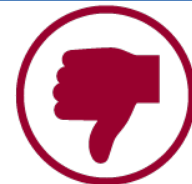
Standard of Evidence:

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

Question Rank:
Somewhat Important

Assessor conclusions:

The State does not have documented procedures for purging data from the driver data system.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 137:

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

Standard of Evidence:

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

Question Rank:
Somewhat Important

Assessor conclusions:

The State has documented procedures related to administrative license suspension based on a DUI arrest. The State performs first manual entry to allow for subsequent electronic interface with PDPS, CDLIS, and NDR etc. More specific details or flow diagram related to these procedures would have improved this rating.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 138:

Are there established processes to detect false identity licensure fraud?

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

The State has established procedures to detect false identity license fraud such as photo matching through software application during the license issuance process. More specific details related to these procedures would have improved this rating.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 139:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

The State does not have established procedures to detect internal fraud.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 140:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

The State does not have established procedures to detect CDL fraud.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 141:

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

Standard of Evidence:

Provide copies of the relevant policies and procedure manuals.

Question Rank:
Very Important

Assessor conclusions:

There are established policies and procedures to maintain appropriate system and information security such as annual mandatory training for all employees pertaining to protection of the personally identifiable information (PII) or use of disciplinary actions for improper release of protected information. More evidence like copies of the relevant policies or procedures would have improved this rating.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 142:

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

Standard of Evidence:

Provide copies of the relevant procedures or manuals.

Question Rank:
Very Important

Assessor conclusions:

The State has established procedures to ensure appropriate access to the driver data system and release of driver information. West Virginia provided a copy of the State's legislative rule pertaining to release of information from the driver data system. Requested evidence of the State's driver data system protocols and procedures to ensure appropriate access to the driver data system and release of driver information would have improved this rating.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 143:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

The State's crash system and the driver system are not linked electronically. In the past, these two data systems were integrated, which allowed for numerous comprehensive analyses such as crash risks associated with specific groups of drivers, identifying drivers in need of medical review, GDL analyses etc. Subsequent to updates and revisions of the crash data system, the DMV no longer supports integration of the driver and crash data systems citing the Driver Privacy Protection Act.

Respondents assigned	5	Responses received	3	Response rate	60%

Question 144:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

The State's citation and the driver system are not linked electronically.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 145:

Can the State's adjudication system be linked to the driver system electronically?
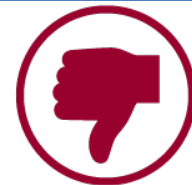
Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

The State's adjudication system cannot be linked electronically to the driver system. The State is currently working on the interface with the State's magistrate court system.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 146:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

There is an interface link between the State's driver data system and the Problem Driver Pointer System (PDPS), the Commercial Driver License Information System (CDLIS), and the Social Security Online Verification System (SSOLV). However, the State does not have an interface link with Systematic Alien Verification for Entitlement (SAVE) system.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 147:

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

Standard of Evidence:

Provide a narrative description of the protocols granting authorized law enforcement personnel access to information in the driver system.
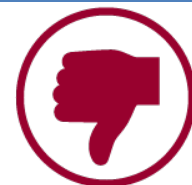
Question Rank:
Very Important

Assessor conclusions:

Access to the West Virginia driver data system can be granted to authorized law enforcement personnel. The State follows a proper protocol to grant access, provides the National Law Enforcement Telecommunication System (NLETS) training etc. More specific details related to the protocols and procedures to grant access to the driver data system would have improved this rating.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 148:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

Access to the West Virginia driver data system cannot be granted to authorized court personnel.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 149:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

Access to the West Virginia driver data system cannot be granted to authorized personnel from other States.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 150:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

The State does not have established a formal, comprehensive data quality management program for the driver system as defined in the NHTSA Advisory.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 151:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

The State does not have automated edit checks and validation rules to ensure entered data falls within a range of acceptable values and is logically consistent among data elements.

Respondents assigned	3	Responses received	2	Response rate	66.7%

Question 152:

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

Standard of Evidence:

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

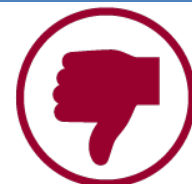**Question Rank:**
Very Important

Assessor conclusions:

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

Respondents assigned	3	Responses received	2	Response rate	66.7%

Question 153:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

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

Respondents assigned	4	Responses received	3	Response rate	75%

Question 154:

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

Standard of Evidence:

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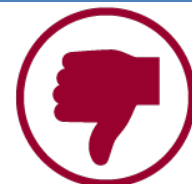
Question Rank:
Very Important

Assessor conclusions:

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

Respondents assigned	4	Responses received	2	Response rate	50%

Question 155:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

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

Respondents assigned	4	Responses received	2	Response rate	50%

Question 156:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

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

Respondents assigned	4	Responses received	2	Response rate	50%

Question 157:

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

Standard of Evidence:

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

Question Rank:
Somewhat Important

Assessor conclusions:

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

Respondents assigned	4	Responses received	2	Response rate	50%

Question 158:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

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

Respondents assigned	4	Responses received	2	Response rate	50%

Question 159:

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

Standard of Evidence:

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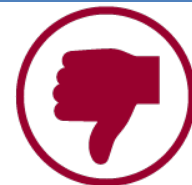
Question Rank:
Very Important

Assessor conclusions:

The high frequency errors detection is not used for training purposes and procedures updates.

Respondents assigned	4	Responses received	2	Response rate	50%

Question 160:

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

Standard of Evidence:

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

Question Rank:
Somewhat Important

Assessor conclusions:

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

Respondents assigned	2	Responses received	2	Response rate	100%

Question 161:

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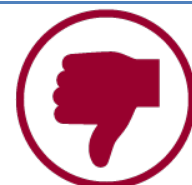
Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

The State does not perform periodic comparative and trend analyses. Some trend analyses are performed by AAMVA, but none are performed by the State.

Respondents assigned	3	Responses received	2	Response rate	66.7%

Question 162:

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

Standard of Evidence:

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

Question Rank:
Somewhat Important

Assessor conclusions:

Data quality feedback is communicated only when a problem occurs. However, supporting details or clarifying information has not been provided.

Respondents assigned	3	Responses received	1	Response rate	33.3%

Question 163:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

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

Respondents assigned	4	Responses received	3	Response rate	75%

Roadway

Safety data is the key to making sound engineering decisions for the design and operations of roadways. Critical safety data includes not only crash information but also traffic data, speed data, and roadway geometrics. The backbone of all data analysis is dependent on an accurate and up-to-date roadway information system that all other data events can be associated to within an enterprise system. This integrated system allows for storing improved and access to more robust safety data. The ability to produce quality, timely and sharable data is important to improving traffic safety not only for those State maintained roadways but also for the metropolitan and local entities. In the Moving Ahead for Progress in the 21st Century Act (MAP 21) and continuing with the Fixing America's Surface Transportation Act (FAST Act), the importance of using these multiple data sources to understand any highway safety issues has been recognized. Additionally with limited resources available, allocation of funding for safety should be based on effective data-driven decision making.

West Virginia does not currently have an enterprise roadway system containing all public roadways. Of the nearly 38,800 miles of roadway the State maintains approximately 34,600. The State maintained roadways use a location method of either county-wide or state-wide mileage using an ESRI Roads and Highways tool in ArcMap. Data elements are located on the LRS but there is very little data available on non-State maintained roads. They are able to use their crash data to perform network wide safety analysis and screen for hot spots. West Virginia is developing the necessary pieces necessary to complete an enterprise system.

The State does not collect all MIRE FDEs for all public roads. Their concentration mainly rests with those necessary for HPMS reporting. West Virginia did note that there are fields for all the MIRE data elements though they are not necessarily labeled as MIRE elements. The State does not import data from municipal or local roadway systems at this time. There is also no formal guidance for updating the data dictionary. Currently the State does not have any formal agreements about data collection procedures with local agencies. Additionally the State does not have any formal guidelines or documented standards for the collection of the data noted in the State data dictionary.

West Virginia currently has no interface links connecting the regional or local roadway information systems to the State's system. They do grant access to MPOs via special logins on a case by case basis. There is on demand access to the Safety Module which is slated to expand as their new system is implemented.

Currently the State produces annual reports of statistics but no specific quality data reports for each of the data system components. There is no formal program of error/edit checking as data is received into the system. Under the new systems being put in place they have plans to program edit checks and perform monthly/quarterly reviews. At this time there does not seem to be any procedures for prioritizing and addressing errors and no formal procedures for sharing quality control information with data collectors.

West Virginia does not have in place established performance measures for timeliness, accuracy, completeness, uniformity, accessibility or integration for the roadway system.

There does exist some potential opportunities to enhance and improve the State's roadway

system:

Of extreme importance are performance measures. These can be useful to communicate areas of need to management within the broader organization and are useful for establishing goals for data and/or system improvement and measuring success. NHTSA has published the Model Performance Measures for State Traffic Records Systems that provides guidance in developing performance measures and formal quality control programs. FHWA has also published a guidance document titled Performance Measures for Roadway Inventory Data. These documents could assist Program Managers in their data improvement efforts.

The State should also consider formalizing the guidelines and processes relating to data collection processes and include within the data dictionary which should include flow charts showing how new data is entered, tracked and by who. This will be important as the State puts in their new system. Good documentation will enable future employees to gain the knowledge to perform their assignments. These should be continually updated whenever a change occurs.

Lastly as the new systems are brought on a consideration should be to communicate with the locals and ascertain their needs and how their data can be incorporated in the State's database. One of the new requirements is to capture roadway and data for 100% of all roadways. It would be recommended that the TRCC be engaged in this effort with local municipalities on how best to accomplish this task. As part of this process an open portal should be created for all users to retrieve and analyze safety data.

Question 164:	
Are all public roadways within the State located using a compatible location referencing system?	
Standard of Evidence:	
Provide a map displaying all public roads that represents the system's statewide capabilities. Identify what percentage of the public road system is State owned or maintained. Explain whether the State uses a single compatible location referencing system for all public roads or if it has a set of compatible location referencing systems. Prior reports are acceptable.	**Question Rank:** Very Important
Assessor conclusions:	
The State reports all public roads of which 90% are State maintained use a location method of either county wide or state-wide mileage using an ESRI Roads and Highways tool in ArcMap. With the additional support documentation showing mapping capabilities the State meets the advisory ideal.	

Respondents assigned	1	Responses received	1	Response rate	100%

Question 165:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

The State has indicated that traffic data elements are located on their LRS. Most data is based on a county wide mileage system. They have stated there is very little data on non-state owned roads. The State provided documentation that showed a compatible system with the roadway inventory log in MS Access and an accompanying county LRM map in ESRI ArcMap.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 166:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

The State does not yet have an enterprise roadway traffic information system containing roadway and traffic data elements for all public roadways. The State indicated that the necessary pieces are being slowly put together by developers. The State should consider this a high priority and complete the construction of an enterprise roadway system for all public roadways.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 167:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

The State has indicated the ability to identify crash locations. Once identified they are able to obtain other data elements for the location. State provided required maps of crashes and roadway elements using their roadway referencing system.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 168:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

The crash data is incorporated into the State's enterprise roadway system for analysis. It is used to perform network wide safety analysis and screening for hot spots. With the additional documentation showing a process (sliding window analysis) the State has demonstrated one way of using data for analysis.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 169:

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

Standard of Evidence:

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

Question Rank:
Somewhat Important

Assessor conclusions:

The State does collect MIRE FDEs on all maintained roadways but not all public roads. They have indicated certain roadways are maintained by municipalities or are private roads. In order for this question to meet the advisory a listing would have to be included showing FDEs collected by all systems. The State noted that the Transportation Asset Inventory (TAI) was scoped to include all MIRE Data Elements so that all the FDE MIRE elements are currently included in the ERP system. All of these currently live MIRE FDEs will be available for analysis once the final phase of the ERP has been completed.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 170:

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

Standard of Evidence:

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

Question Rank:
Somewhat Important

Assessor conclusions:

The State noted that MIRE data elements are contained in the State geo data base, but outside the ones collected for HPMS they are sparsely collected. The State should consider expanding their current roadway information data collection process over time to include more of the non-HPMS MIRE data elements including the FDE and the non-FDE elements.

Respondents assigned	3	Responses received	3	Response rate	100%

Question 171:

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

Standard of Evidence:

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

Question Rank:
Somewhat Important

Assessor conclusions:

The State noted that there are fields for all the MIRE data elements in their database though they may not be labeled as the MIRE elements. The data dictionary provided was a 2007 version. The State should consider noting each MIRE element with a reference number in the respective State data dictionaries where each resides.

Respondents assigned	3	Responses received	2	Response rate	66.7%

Question 172:

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

Standard of Evidence:

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

Question Rank:
Somewhat Important

Assessor conclusions:

The State noted the non-FDE MIRE elements are in the database though they may not be labeled as a MIRE element. The State should consider adding a short notation indication that their state roadway variables are clearly the same as equivalent MIRE elements.

Respondents assigned	3	Responses received	2	Response rate	66.7%

Question 173:

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

Standard of Evidence:

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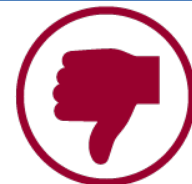
Question Rank:
Very Important

Assessor conclusions:

The State does not import local agency roadway data. The State noted that there is very little local / county /city roadways data and information that doesn't already belong to the State system. The State may still want to consider working with a few local agencies or municipalities to begin developing a relationship of cooperation for future roadway system changes. This discussion should begin within the TRCC.

Respondents assigned	3	Responses received	3	Response rate	100%

Question 174:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

The State does not have a formal guidance procedure for updating the data dictionary. The State updates the data dictionary / database on an as needed basis. They do have plans in their new system to change this process. The State should consider creating a more formal set of guidelines for updating the State roadway information data dictionary and database thus providing an audit trail for all changes and noting the date and the process used (could be an appendix to the data dictionary).

Respondents assigned	3	Responses received	2	Response rate	66.7%

Question 175:

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

Standard of Evidence:

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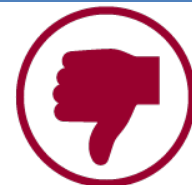
Question Rank:
Very Important

Assessor conclusions:

The State noted it does have processes in place depending on the update being processed and the system being changed. These different system component processes should each be documented and then all of them should be included in the State data dictionary. The new system being implemented should handle this better since plans are in place to have a clearer process when the new system is implemented. The current system can be updated, but it is not clearly documented. The State should consider providing a documented description of how the State adds a new variable to any part of the roadway information system database clearly listing the steps and who is responsible for each step (this applies to both the old and the new systems).

Respondents assigned	2	Responses received	1	Response rate	50%

Question 176:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

The State did note that steps and processes existed, but the State did not provide any documents or descriptions of these processes. With the new system under development, these processes have not yet been developed. The State should consider providing / creating a short description of the process for updating roadway information indicating the flow of information and who is responsible for each step along the way (in the old and the new systems).

Respondents assigned	2	Responses received	1	Response rate	50%

Question 177:

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

Standard of Evidence:

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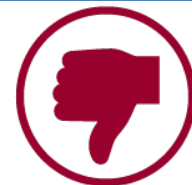
Question Rank:
Somewhat Important

Assessor conclusions:

The State noted that the steps for archiving their roadway data are included in the ERP system, but did not provide any documentation on how the data is archived or accessed after the fact. The State should consider providing / creating a short description of the archival process within ERP and how one retrieves an older copy of the previously archived roadway data.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 178:

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

Standard of Evidence:

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

Question Rank:
Somewhat Important

Assessor conclusions:

The State does not have any formal agreements about data collection procedures with local agencies. The State notes that most all public roads are owned by the State and only a few roadways are owned by any municipalities. The State should still consider working with a few local agencies just to open the lines of communication with a few local agencies with the idea of working together in sharing information and possibly importing any locally owned roadway data they collect in the future.

Respondents assigned	3	Responses received	2	Response rate	66.7%

Question 179:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

The State does not work with local agencies and does not have any agreements concerning the collection procedures the local agencies might be using. The State notes that there are no local agencies collecting roadway data. The State should still consider connecting with a few select local agencies to begin the communication process in order for them to become familiar with the State standards if they ever decide to collect local roadway data in the future.

Respondents assigned	3	Responses received	2	Response rate	66.7%

Question 180:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

The State does not have any formal guidelines and documented standards for the collection of the data noted in the State data dictionary / database. The State should consider creating a formal description of the standards for collecting roadway data elements to document it for the State and for any future local agencies collecting data. It should be included in the State roadway information system database dictionary.

Respondents assigned	3	Responses received	2	Response rate	66.7%

Question 181:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

The State has two similar LRS systems where one measures from the State line and the other measures from the county line. Both are in the State ERP system. Both are in the State ERP system and are compatible (as noted in the two attachments). The State is able to locate their assets and crashes using both.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 182:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

The State does seem to have some internal linkages (with permission granted) while external linkages are more difficult and complicated. No example of a roadway information system query was provided. The State should consider creating a formal description of how internal linkages can be provided to users while noting the minimum requirements for external systems linkages and detailing the process along with an example report for each request type.

Respondents assigned	3	Responses received	2	Response rate	66.7%

Question 183:

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

Standard of Evidence:

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

Question Rank:
Somewhat Important

Assessor conclusions:

The State indicated that none of the local agencies use their own roadway systems as they can access the State systems (both versions - State and county based). The State noted it can provide local agencies shape files through the State systems and is available now. The State should consider connecting to local agencies to encourage them to use the State systems, work together, and get input / suggestions / etc. from them. The State noted it can provide local agencies shape files with compatible systems, but does not indicate how many local agencies are compatible and which local agencies can do this.

Respondents assigned	3	Responses received	2	Response rate	66.7%

Question 184:

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

Standard of Evidence:

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

Question Rank:
Somewhat Important

Assessor conclusions:

The State has no interface links connecting the regional or local roadway information systems to the State's enterprise roadway information system. The State does allow MPOs to have an access via a special login on a case by case basis, but there are no formal interfaces between the State and local agencies at this time. The State should consider communicating to a few of these local agencies to begin the process of developing the interface tools to allow all the local agencies access to the State roadway system and get feedback.

Respondents assigned	3	Responses received	2	Response rate	66.7%

Question 185:

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

Standard of Evidence:

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

Question Rank:
Somewhat Important

Assessor conclusions:

The State provides on demand access to the Safety Module of the ERP system. This access will expand as the new system is completely implemented. MPOs can receive copies of area roadway data when it is requested. The State should consider working with the IT folks to expand this service to allow all local agencies full on demand access to the State roadway information system while meeting all the necessary security requirements of the State.

Respondents assigned	3	Responses received	2	Response rate	66.7%

Question 186:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

The State does produce annual reports on roadway statistics. The State report was provided showing the 2015 report along with several previous years. The State should consider creating specific quality of data reports for each of the roadway data information system components to help with monitoring and documenting the quality of data over time. The new system being developed will allow more regular reports to be analyzed.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 187:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

The State does not currently have a formal program of error/edit checking as data is entered into the statewide system. The State noted that it does have some programmed error checks and plans on performing monthly or quarterly reviews soon under the new system. No specific examples of internal checks or quality control review results were provided. The State should consider formalizing these processes in an overview document addressing all the roadway data within the State system.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 188:

Are there procedures for prioritizing and addressing detected errors?

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

The State's response does not address procedures for prioritizing and addressing detected errors. The State has some formal reviews for items like functional class. The State should consider developing a formal description of these automated and manual processes for regular review and provide them in an easily accessible location.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 189:

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

Standard of Evidence:

Describe all the procedures used for sharing quality control information with data collectors.
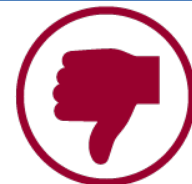
Question Rank:
Very Important

Assessor conclusions:

The State has indicated they do not have a formal procedure for sharing quality control information with data collectors through individual and agency-level feedback and training. The State used to have some procedures for sharing quality control information with data collectors, but currently does not have any formal processes in place. The State should consider re-formalizing these procedures and processes in description documents available to all State data collectors. The State noted that the GTI section of Planning was currently working on this issue.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 190:

Is there a set of established performance measures for the timeliness of the State enterprise roadway information system?

Standard of Evidence:

Provide the metrics used.

Question Rank:
Very Important

Assessor conclusions:

The State currently does not have a set of formal established measures for the timeliness of the State enterprise roadway information system. No metrics were provided. The State does have some timeliness performance measures in place for the collection of the HPMS data required by FHWA. The State is reviewing the timeliness with the intention of creating a new schedule to cover all the roadway inventory data. State should consider completing this effort so new timeliness performance measures can be created and approved by NHTSA.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 191:

Is there a set of established performance measures for the timeliness of the roadway data maintained by regional and local custodians (municipalities, MPOs, etc.)?

Standard of Evidence:

Provide the metrics used.

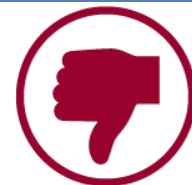**Question Rank:**
Somewhat Important

Assessor conclusions:

The State noted it has no formal agreement or process for sharing data with local agencies, though there are individual requests for State roadway data by a few local agencies. Thus, it appears that there is no local agency timeliness performance measure established. The State should consider opening a connection / communication with a few local agencies to begin the process of working with these local agencies. Receiving input from these local agencies could be valuable for establishing a timeliness performance measure for local agencies who might be maintaining their own roadway data in the future.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 192:

Is there a set of established performance measures for the accuracy of the State enterprise roadway information system?

Standard of Evidence:

Provide the metrics used.

Question Rank:
Very Important

Assessor conclusions:

The State currently does not have a set of formal established measures for the accuracy of the State enterprise roadway information system. No metrics were provided. The State does compare data, review the data, and then update any errors detected where they are corrected based on all the information available. However, the State does not have an accuracy performance measure clearly indicated. The State should consider more formally describing this overall accuracy detection and correction process and creating a formal accuracy performance measure approved by NHTSA.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 193:

Is there a set of established performance measures for the accuracy of the roadway data maintained by regional and local custodians (municipalities, MPOs, etc.)?

Standard of Evidence:

Provide the metrics used.
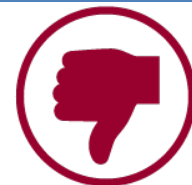
Question Rank:
Somewhat Important

Assessor conclusions:

There is not a set of established performance measures for the accuracy of the roadway data maintained by regional and local custodians. No metrics were provided. The State does not communicate or share data with local agencies. It is unknown if the local agencies have any accuracy performance measures established. The State should consider connecting with a few local agencies to begin the communication process for working with them, possibly sharing roadway data, and working with the local agencies in helping them establish accuracy performance measures in the future.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 194:

Is there a set of established performance measures for the completeness of the State enterprise roadway information system?

Standard of Evidence:

Provide the metrics used.

Question Rank:
Very Important

Assessor conclusions:

The State currently does not have a set of established performance measures for the completeness of the State enterprise roadway information system. No metrics were provided. The State has a process in place for checking and assessing the full State roadway information data collected. Detected errors are corrected based on all location information available. The State should consider creating a formal description of this process along with a completeness performance measure approved by NHTSA.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 195:

Is there a set of established performance measures for the completeness of the roadway data maintained by regional and local custodians (municipalities, MPOs, etc.)?

Standard of Evidence:

Provide the metrics used.

Question Rank:
Somewhat Important

Assessor conclusions:

There is not a set of established performance measures for the completeness of the roadway data maintained by regional and local custodians. No metrics were provided. The State does not work or share data with local agencies. There is no completeness performance measure for the local agencies provided. The State should consider communicating with a few local agencies to begin the process of sharing information and data. From there, the State can work with the local agencies in helping them establish a completeness performance measure for the local agencies.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 196:

Is there a set of established performance measures for the uniformity of the State enterprise roadway information system?

Standard of Evidence:

Provide the metrics used.

Question Rank:
Very Important

Assessor conclusions:

The State currently does not have a set of established performance measures for the uniformity of the State enterprise roadway information system. No metrics were provided. The State does check all the State roadway information data and corrects as needed. The State should consider creating a formal description of this process where a formal uniformity performance measure can be established that is approved by NHTSA.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 197:

Is there a set of established performance measures for the uniformity of the roadway data maintained by regional and local custodians (municipalities, MPOs, etc.)?

Standard of Evidence:

Provide the metrics used.

Question Rank:
Somewhat Important

Assessor conclusions:

There is not a set of established performance measures for the uniformity of the roadway data maintained by regional and local custodians. No metrics were provided. The State does not work with any local agencies and no uniformity performance measures for the local agencies were provided. The State should consider working with a few local agencies beginning a dialogue that would allow the State to share information and help the local agencies establish an approved uniformity performance measure in collaboration with the State in the future.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 198:

Is there a set of established performance measures for the accessibility of State enterprise roadway information systems?

Standard of Evidence:

Provide the metrics used.

Question Rank:
Very Important

Assessor conclusions:

The State currently does not have a set of established performance measures for the accessibility of the State enterprise roadway information system. No metrics were provided. The State should consider creating a process/procedure and a description that would allow access to the State roadway information system by all users. When the process of access is established for all users, the State could then create an accessibility performance measure approved by NHTSA.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 199:

Is there a set of established performance measures for the accessibility of the roadway data maintained by regional and local custodians (municipalities, MPOs, etc.)?

Standard of Evidence:

Provide the metrics used.

Question Rank:
Somewhat Important

Assessor conclusions:

There is not a set of established performance measures for the accessibility of the roadway data maintained by regional and local custodians. No metrics were provided. The State does not work with the local agencies. The State should consider establishing a line of communication with a few local agencies so the State could work with them, share roadway data and information about the State roadway system, and help them establish an approved performance measure for accessibility of any roadway data they maintain in the future.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 200:

Is there a set of established performance measures for the integration of State enterprise roadway information systems and other critical data systems?

Standard of Evidence:

Provide the metrics used.

Question Rank:
Very Important

Assessor conclusions:

The State currently does not have a set of established performance measures for the integration of State enterprise roadway information systems and other critical data systems. No metrics were provided. The State is currently in the process of integrating their systems into a single integrated system under ERP. The State described a performance measure where the connection to the LRS by other major systems is possible. This performance measure was not formally defined or provided, but it could be. The State should consider creating a formal integration performance measure (approved by NHTSA) based on the transition to the new State ERP system (e.g., total percent of systems integrated with a final goal of 100%).

Respondents assigned	1	Responses received	1	Response rate	100%

Question 201:

Is there a set of established performance measures for the integration of the roadway data maintained by regional and local custodians (municipalities, MPOs, etc.) and other critical data systems?

Standard of Evidence:

Provide the metrics used.

Question Rank:
Very Important

Assessor conclusions:

There is not a set of established performance measures for the integration of the roadway data maintained by regional and local custodians and other critical data systems. No metrics were provided. The State does not work with local agencies at this time. No integration performance measure for the local agencies data systems was provided. The State should consider working with a few local agencies to begin the communication process. That could lead to working together, sharing information and data, and creating an approved integration performance measure for any local agencies maintaining local roadway data in the future.

Respondents assigned	1	Responses received	1	Response rate	100%

Citation / Adjudication

West Virginia has programming underway to develop a link between the courts and the Division of Motor Vehicles. Such programming will allow the appropriate court dispositions to be automatically posted to the driver history file and will save resources for manual data entry. The State's new e-citation program will also provide new avenues for analyses and resource savings, if the citations are transmitted to the appropriate courts and automatically update the Court Case Management systems. This would be much more easily accomplished for the Unified Judicial Application, but could also be attempted for those autonomous municipal courts which handle traffic violations. Both of these efforts will serve the State well in terms of developing strategies and countermeasures to address traffic safety issues. Having a number of autonomous courts increases the complexity of developing a statewide citation tracking system, but the electronic citation system can provide the basis for that effort and mirror the State's efforts to develop XML protocols for the various prosecutors' systems to increase interoperability of the various courts' case management systems. The State already has plans to increase the number and types of analyses conducted with this data.

This development provides additional opportunities to study the types and numbers of violations cited, as well as the way that various courts and geographical areas of the State adjudicate such violations. With e-citations whose location reference matches crash report locations, it is possible to accurately assess the impact of enforcement on the incidence and severity of crashes within the State.

The e-citation effort might also provide an opportunity to develop an impaired driver tracking system, which could track both criminal and administrative actions. The real value of an impaired driver tracking system lies with its ability to track all types of interactions that the impaired driver has with the criminal justice system (courts, probation officers, alcohol evaluators), State agencies (DMV, alcohol educators and therapy providers) or private entities which perform other services (ignition interlock providers). The ability to track the types of sanctions and classes assigned an impaired driver, as well as subsequent offenses, provides the State with a gauge of the most effective programs for prevention of recidivism.

With the development of new sources of data, it is valuable to develop measures for the component traffic records data systems; citation and adjudication impact driver, vehicle, courts, and law enforcement crash. Now is an opportune time to determine the overall health of each of the data systems, if not already underway. Certainly the timeliness of the citation data should be improved dramatically. The ability to add edits to citations and to read and copy driver and vehicle information should also improve accuracy of the data. Once the citation data is upgraded, the courts' data should be impacted as well.

Development of new data systems is a prime time to ensure that data elements common to a variety of traffic records component systems are the same length and format, and that conventions of data entry for names and addresses is consistent. These efforts provide both opportunity and ideas for integration and interfaces that will continue to improve the State's data. Additionally, this effort should be included in the State's data governance policies and to ensure that all documentation related to such data systems is updated and reviewed on a regular basis in order to keep all documentation consistent and uniform.

Regular discussions of data quality within the State Traffic Records Coordinating Committee aids the State in its efforts to ensure maximum use of data. Data users are excellent sources of potential improvements and data needs and provide the communication and collaboration within the traffic records community to maintain the optimal datasets for use within the State.

Question 202:

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

Standard of Evidence:

Provide a narrative description of the statewide system that provides realtime information on individuals' driving and criminal histories.

Question Rank:
Very Important

Assessor conclusions:

Access to driver and criminal information in West Virginia is available through WEAPON, the West Virginia Police Network and NLETS. Additionally, the court system is unified and has a Unified Judicial Application, a system which is available to all law enforcement agencies, as well as appropriate judicial officials.

Respondents assigned	4	Responses received	3	Response rate	75%

Question 203:

Do all law enforcement agencies, parole agencies, probation agencies, and courts within the State participate in and have access to a system providing real-time information on individuals driving and criminal histories?

Standard of Evidence:

Name the groups that have real time access and describe the system that these agencies use to access driver or criminal histories, i.e., police dispatch, direct system access, telephone help desk.

Question Rank:
Very Important

Assessor conclusions:

The West Virginia Police Network Acts as a switch for connection of all federal, State and local agencies, with access to NLETS and NCIC available to all law enforcement agencies, probation and parole and courts.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 204:

Is there a statewide authority that assigns unique citation numbers?

Standard of Evidence:

Identify the agency responsible and describe the protocols used to generate and assign unique citation numbers. Provide a copy of the relevant statute or gubernatorial order.

Question Rank:
Very Important

Assessor conclusions:

The State indicates that numbers for paper citations are randomly assigned a 10-digit number and that electronic citations use a formula that includes the agency ORI number, the current year, and a random six-digit number. While the State indicates that the prison authority produces the citations, it is not clear whether the prison authority is the agency responsible for the decisions related to the assignment of citation numbers, the auditing of them, or other oversight. The State did not indicate which agency oversees the ReportBeam application, business rules, and generation of electronic citation numbers. Documentation was not provided.

Respondents assigned	3	Responses received	3	Response rate	100%

Question 205:

Are all citation dispositions—both within and outside the judicial branch—tracked by the statewide data system?

Standard of Evidence:

If a statewide data tracking system exists, describe the means by which citation dispositions are transmitted and posted. If the system is the driver history file, note if deferrals or dismissals are posted. If the statewide system is managed through the courts, indicate whether all courts that handle traffic violations report to the same tracking system.

Question Rank:
Somewhat Important

Assessor conclusions:

The State indicates that citations issued to Magistrate Court are tracked by the UJA data system, but citations issued to municipalities are tracked by the respective municipality. No indication is given of how the State ensures that all citations issued are accounted for as they are disposed and reported to the DMV.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 206:

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

Standard of Evidence:

Provide a flow chart or audit report documenting how all types of dispositions are posted to the driver file.

Question Rank:
Somewhat Important

Assessor conclusions:

The State indicates that citation dispositions are transmitted to the DMV, which maintains the driver record and are posted manually. Computer programming to allow automated transmission and posting of convictions to the driver file is in the works, but not complete at this time. The State did not provide supporting evidence explaining how dispositions are posted to the driving record.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 207:

Are the courts' case management systems interoperable among all jurisdictions within the State (including local, municipal and State)?
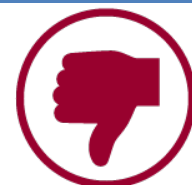
Standard of Evidence:

Provide the number of case management systems in use in the State and detail which are interoperable. Indicate if the State has a unified judicial system and if municipal or other local level courts share the same case management system.

Question Rank:
Very Important

Assessor conclusions:

The court case management systems are not interoperable in West Virginia, even though the State courts are unified.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 208:

Is citation and adjudication data used for traffic safety analysis to identify problem locations, areas, problem drivers, and issues related to the issuance of citations, prosecution of offenders, and adjudication of cases by courts?

Standard of Evidence:

Provide an example analysis and describe the policy or enforcement actions taken as a result.

Question Rank:
Very Important

Assessor conclusions:

Commendably, the State is looking forward to using the data that is being developed by virtue of the new electronic citation system. Analyses have not yet been performed, but are being planned.

Respondents assigned	2	Responses received	1	Response rate	50%

Question 209:

Do the appropriate components of the citation and adjudication systems adhere to the National Crime Information Center (NCIC) data guidelines?

Standard of Evidence:

Provide a narrative statement detailing the systems and their adherence to the NCIC guidelines. If not, specify if a comparable guideline is being used.

Question Rank:
Less Important

Assessor conclusions:

The State indicates that WEAPON provides access to NCIC. However, the question relates to whether the citation and adjudication systems comply with NCIC data guidelines. Generally NCIC will notify States of any data elements which do not match their formatting and codes. It would benefit the State to have a conversation within the Traffic Records Coordinating Committee about such issues so that there is broader understanding of NCIC guidelines and more collaboration on such issues, since several State departments or agencies are responsible for various aspects of data that is used within the NCIC or submission of such data to NCIC.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 210:

Do the appropriate portions of the citation and adjudication systems adhere to the Uniform Crime Reporting (UCR) Program guidelines?

Standard of Evidence:

Provide a narrative statement detailing the systems and their adherence to the UCR program guidelines. If not, specify if a comparable guideline is being used.

Question Rank:
Somewhat Important

Assessor conclusions:

The West Virginia Uniform Citation does not include race, which is a requirement of UCR reporting. However, UCR requires few traffic-related charges to be reported. They do, however, accept impaired driving and hit and run involving a person, as well as vehicular manslaughter cases. According to the response, if the person is arrested, a criminal investigative report is completed, which will include the race of the person arrested. If all of these reportable offenses require a custodial arrest in West Virginia, it is likely that the person's race would be included in the collected data.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 211:

Do the appropriate portions of the citation and adjudication systems adhere to the National Incident-Based Reporting System (NIBRS) guidelines?

Standard of Evidence:

Provide a narrative statement detailing the systems and their adherence to the NIBRS guidelines. If not, specify if a comparable guideline is being used.

Question Rank:
Somewhat Important

Assessor conclusions:

As is true for UCR reporting, the West Virginia Uniform Citation does not include race, which is a requirement of NIBRS reporting. However, NIBRS requires few traffic-related charges to be reported. They do, however, accept impaired driving and hit-and-run involving a person, as well as vehicular manslaughter cases. According to the response, if the person is arrested, a criminal investigative report is completed, which will include the race of the person arrested. If all of these reported offenses require a custodial arrest in West Virginia, it is likely that the person's race would be included in the collected data. The UCR guidelines are available here: https://ucr.fbi.gov/additional-ucr-publications/ucr_handbook.pdf/view.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 212:

Do the appropriate portions of the citation and adjudication systems adhere to the National Law Enforcement Telecommunications System (NLETS) guidelines?

Standard of Evidence:

Provide a narrative statement detailing the systems and their adherence to the NLETS guidelines. If not, specify if a comparable guideline is being used.

Question Rank:
Somewhat Important

Assessor conclusions:

The West Virginia Automated Police Network accesses NLETS and adheres to NLETS guidelines.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 213:

Do the appropriate portions of the citation and adjudication systems adhere to the National Law Enforcement Information Network (LEIN) guidelines?

Standard of Evidence:

Provide a narrative statement detailing the systems and their adherence to the LEIN guidelines. If not, specify if a comparable guideline is being used.

Question Rank:
Somewhat Important

Assessor conclusions:

This question relates to a Michigan-only telecommunications system. All other states are necessarily rated does not meet.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 214:

Do the appropriate portions of the citation and adjudication systems adhere to the Functional Requirement Standards for Traffic Court Case Management?

Standard of Evidence:

Provide a narrative statement detailing the systems and their adherence to the Functional Requirement Standards for Traffic Court Case Management. If not, specify if a comparable guideline is being used.

Question Rank:
Somewhat Important

Assessor conclusions:

Per the response, the currently-used traffic citation meets the needs of the court system, but no information is included about the guidelines proposed by the National Center for State Courts. The response does not address the question asked.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 215:

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

Standard of Evidence:

Provide a narrative statement detailing the systems and their adherence to the NIEM Justice domain guidelines. If not, specify if a comparable guideline is being used.

Question Rank:
Somewhat Important

Assessor conclusions:

The response to this question does not indicate whether the court system is adherent to the NIEM justice domain guidelines, thus, the response does not address the specifics of the question.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 216:

Does the State use the National Center for State Courts guidelines for court records?

Standard of Evidence:

Provide a narrative statement detailing the systems and their adherence to NCSC guidelines for court records. If not, specify if a comparable guideline is being used.

Question Rank:
Somewhat Important

Assessor conclusions:

The State advises that guidelines from the National Center for State Courts are used for court records in West Virginia.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 217:

Does the State use the Global Justice Reference Architecture (GRA)?

Standard of Evidence:

Provide a narrative statement detailing the systems and their adherence to GRA guidelines. If not, specify if a comparable guideline is being used.

Question Rank:
Somewhat Important

Assessor conclusions:

The response does not indicate whether the State uses the Global Justice Reference Architecture. This would apply to the court case management systems and court records.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 218:

Does the State have an impaired driving data tracking system that meets the specifications of NHTSA's Model Impaired Driving Records Information System (MIDRIS)?

Standard of Evidence:

Provide a narrative statement detailing the systems and their adherence to MIDRIS guidelines. If not, specify if a comparable guideline is being used.

Question Rank:
Somewhat Important

Assessor conclusions:

West Virginia does not have an impaired driver tracking system. MIDRIS (the Model Impaired driver Record Information System) provides data elements that would be used in an interactive tracking system that would be accessible to all those who deal with impaired drivers, such as police, courts, probation officers, alcohol evaluators, the department of Motor Vehicles, perhaps interlock providers, and the like.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 219:

Does the citation system have a data dictionary?

Standard of Evidence:

Provide the data dictionary for the Statewide citation tracking system if one exists. If not, provide the data dictionary for the most widely used court case management system.

Question Rank:
Very Important

Assessor conclusions:

The data dictionary provided by the State appears to be for the adjudication system. From other responses, it appears that the State does not have a single citation inventory/tracking system. The State has both paper and electronic citations, but it is not clear if they are entered into a statewide citation system used by all law enforcement agencies.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 220:

Do the citation data dictionaries clearly define all data fields?

Standard of Evidence:

If a statewide citation tracking system exists, does its data dictionary clearly define all data fields. If there are two or more repositories of citation data, provide data dictionaries for the two largest. NOTE: This response does not require data dictionaries from individual law enforcement agencies that track their own citations—it refers to a statewide system or one used by multiple agencies.

Question Rank:
Very Important

Assessor conclusions:

The data dictionary provided appears to be from the adjudication system. The data elements are not backed up in the provided data dictionary with a full definition of the data to be included in the field. This type of information is beneficial to both collectors and users of data.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 221:

Are the citation system data dictionaries up to date and consistent with the field data collection manual, training materials, coding manuals, and corresponding reports?
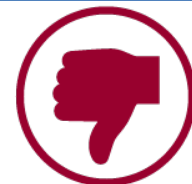
Standard of Evidence:

Provide a narrative describing the process—including timelines and the summary of changes—used to ensure uniformity in the field data collection manuals, training materials, coding manuals, and corresponding reports.

Question Rank:
Very Important

Assessor conclusions:

The Case management system is updated upon enactment of new legislation. The State's response relates to the court case management (adjudication) system and not the citation system. A likely citation system for most states would be a centralized electronic citation system. A citation system tracks the citation from creation to disposition and can tie in to coding to the driver record. A citation system accounts for each citation and helps to identify improper use and lost citations, for example, and provides data edits to improve data quality from initial data collection forward.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 222:

Do the citation data dictionaries indicate the data fields that are populated through interface linkages with other traffic records system components?

Standard of Evidence:

Provide a list of data fields populated through interface linkages with other traffic records system components.

Question Rank:
Very Important

Assessor conclusions:

The State's response relates to the court systems and not citation systems. The new e-citation system might interface with other sources, for example, when an officer creates an electronic uniform citation, the driver license data collected via the magnetic stripe or bar code on the license, or verified against the driver database. The same is true of license plate or VIN data. Location data may be verified against the roadway database. These types of interfaces vastly improve data quality.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 223:

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

Standard of Evidence:

Provide a list of Case Management Systems used by both State and local level courts and note if a data dictionary is available for each one. Provide a data dictionary for one State, one county/district, and one local (municipal) court if they do not use the same case management systems.

Question Rank:
Very Important

Assessor conclusions:

The data dictionary spells out what information belongs in each data element, but does not include a definition of the data. Driver license State, for example, is 3 characters. It is not clear to this assessor what that three letters would include, past the 2-letter standard State abbreviations. The State provided the data schema from the court's case management system. Based on other responses, it appears that the municipal courts use different case management systems and data dictionaries were not addressed for those. Additionally, data dictionaries are often meant for non-technical users to understand the data. This appears to be a technical database schema that provides information about each data item. It is recommended that the State expand this to include descriptions of data for the users.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 224:

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

Standard of Evidence:

Use the data dictionaries provided in response to Question 223.
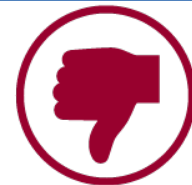
Question Rank:
Somewhat Important

Assessor conclusions:

The State indicates that the data dictionary defines all data fields and provided the data schema. A good data definition is more explanatory to both the data collectors and to the data users in terms of exactly what kind of data is expected in the data field.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 225:

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

Standard of Evidence:

Provide a list of data fields populated through interface linkages with other traffic records system components.

Question Rank:
Somewhat Important

Assessor conclusions:

The State indicates that the Court does not send / receive data from outside sources. The potential is for some or all identifying information be added to the system directly from electronic citations, negating the need for duplicate data entry of such information and preventing errors from being introduced into the data.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 226:

Do the prosecutors' information systems have data dictionaries?

Standard of Evidence:

Provide a data dictionary for the State prosecutors' office (State level courts that handle the most traffic violations). Indicate whether local prosecutors (cities, counties) have one or numerous types of data systems.

Question Rank:
Somewhat Important

Assessor conclusions:

The response indicates that the UJA uses XML to transform data from prosecutors. No additional information was provided about the number or types of prosecutor systems in use in West Virginia.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 227:

Can the State track citations from point of issuance to posting on the driver file?

Standard of Evidence:

Provide a flow diagram documenting citation lifecycle process that identifies key stakeholders. Ensure that alternative flows are included (e.g., manual and electronic submission).

Question Rank:
Very Important

Assessor conclusions:

The State indicates that citation inventory cannot be tracked from creation to issuance to posting.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 228:

Does the State measure compliance with the process outlined in the citation lifecycle flow chart?

Standard of Evidence:

Provide a narrative describing how the State measures compliance with the citation lifecycle process specified in the flow chart. If there are official guidance documents, provide them.

Question Rank:
Somewhat Important

Assessor conclusions:

There is no tracking of compliance with the citation lifecycle flow chart.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 229:

Is the State able to track DUI citations?

Standard of Evidence:

Provide a flow chart that documents the criminal and administrative DUI processes, identifies all key stakeholders, and includes disposition per the criminal and administrative charges.

Question Rank:
Very Important

Assessor conclusions:

The State courts track DUI charges and the DMV takes action on the driver upon receipt of the conviction from the court. It is not clear whether the State has a parallel administration process that allows the DMV to administratively act upon certain DUI-related offenses and how those actions are tracked. Further, because the State does not have a citation tracking system, it is unclear how it ensures that all citations issued are transmitted to the court.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 230:

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

Standard of Evidence:

If no statewide DUI tracking system is in place, indicate whether the driver history record contains the BAC test results.

Question Rank:
Very Important

Assessor conclusions:

The BAC is tracked in the Unified Judicial Application, but does not appear to be part of the DMV record or a discrete DUI tracking system. It would be beneficial to include BAC in the driver record, so that the behavioral history of the driver includes the level of alcohol present at the time of the arrest. This data can be used in various types of analyses.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 231:

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

Standard of Evidence:

Provide a narrative describing the protocol for reporting (posting) the penalty and/or sanction to the driver and/or vehicle file.

Question Rank:
Very Important

Assessor conclusions:

While the State responds that it does track administrative suspensions, it gives no additional information. Without information about how administrative sanctions are initiated, it is impossible to determine how they are tracked and by whom. For this reason, the rating is "does not meet."

Respondents assigned	1	Responses received	1	Response rate	100%

Question 232:

Does the State have a system for tracking traffic citations for juvenile offenders?

Standard of Evidence:

Provide a flow chart that documents the processing of juvenile offenders' traffic citations, specifying any charges or circumstances that cause juveniles to be processed as adult offenders.

Question Rank:
Very Important

Assessor conclusions:

Juvenile offenses may be tracked based on the type of driver license, as juveniles would generally have some level of graduated license, but this would not account for an unlicensed juvenile driver. All offenses are tracked, but it is unclear if those citations for juveniles can be tracked separately. The State did not provide supporting flow chart or other documentation or indicate in what circumstances (with appropriate statutory documentation) a juvenile might be treated as an adult.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 233:

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

Standard of Evidence:

Provide a flow chart documenting the processing of administrative handling of court payments (mail-ins).

Question Rank:
Somewhat Important

Assessor conclusions:

Applicable State statutes were provided that indicate which offenses require an actual appearance before the court. A flow chart which listed the processes for accepting pleas on citations or walk-ins was provided as well.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 234:

Does the State track deferral and dismissal of citations?

Standard of Evidence:

Provide a flow chart documenting the deferral and the dismissal of citations.

Question Rank:
Somewhat Important

Assessor conclusions:

The Court database, the Unified Judicial Application tracks both deferrals and dismissals. It is often beneficial if the deferrals are noted on the driver history file during the period of deferral, so that any officer who contacts a repeat violator is aware of the pending action. It is not clear whether there is an agency responsible for the general oversight of citation inventory and whether these dispositions are reported to the DMV for coding to the driving record, if applicable. A supporting flow chart or diagram would have been helpful, particularly outlining the process in the municipal courts.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 235:

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

Standard of Evidence:

Provide the criteria for deferring or dismissing traffic citations and charges.

Question Rank:
Somewhat Important

Assessor conclusions:

The State indicates that deferrals and dismissals are governed by statute and court rules and provides a summary of the dismissal procedures. It is not clear if there are instances where traffic citations may be dismissed outside this process, for example, if proof of compliance of the traffic violation is provided (maybe for insurance, not having the physical driver license, or equipment violations). The Rule for Dismissal was provided; no such procedural guideline was provided for deferrals.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 236:

If the State purges its records, are the timing conditions and procedures documented?

Standard of Evidence:

Provide a narrative documenting whether or not the State purges records. If so, list the types of records the State purges and provide the criteria for doing so.

Question Rank:
Somewhat Important

Assessor conclusions:

The State indicates that guidelines are in place for purging court records yet did not provide the guidelines or a list of records that are purged. Purging records is an important records management function, but should ensure that records are not purged before their value has expired. The guidelines should indicate that time frame and connect it to the rationale for the purging time period. There is no information about whether records are purged through an electronic/automated process or manually and whether records will be purged from the e-citation database.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 237:

Are the security protocols governing data access, modification, and release officially documented?

Standard of Evidence:

Provide the official security protocols governing data access, modification, and release.

Question Rank:
Somewhat Important

Assessor conclusions:

The State indicates that security exists through the use of security groups yet did not provide supporting documentation or narrative that explains these protocols.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 238:

Is citation data linked with the driver system to collect driver information, to carry out administrative actions (e.g., suspension, revocation, cancellation, interlock) and determine the applicable charges?

Standard of Evidence:

Describe how citation, adjudication and driver data are linked and by what means administrative actions are carried out or posted using these linkages.

Question Rank:
Very Important

Assessor conclusions:

One respondent indicates that there is no linkage; the other says that conviction data will soon be transmitted electronically. It appears that the DMV takes action based on conviction of some violations, which would trigger some sort of sanction, such as suspension, revocation or cancellation of the license, but this is not accomplished through a link to the court files. Other responses indicate that this linkage is in progress with the court side completed and the driver record side underway.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 239:

Is adjudication data linked with the driver system to collect certified driver records and administrative actions (e.g., suspension, revocation, cancellation, interlock) to determine the applicable charges and to post the dispositions to the driver file?

Standard of Evidence:

Provide the results of a sample query and describe how the linked information is used to collect certified driver records and administrative charges and to post dispositions to the driver file.

Question Rank:
Very Important

Assessor conclusions:

The DMV indicates that although the State is working on a link between court files and driver or vehicle files, it is not complete at this time. Driver history records are provided to the court via certified record copies.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 240:

Is citation data linked with the vehicle file to collect vehicle information and carry out administrative actions (e.g., vehicle seizure, forfeiture, interlock)?

Standard of Evidence:

Provide the results of a sample query and describe how the linked information is used to collect vehicle information and carry out administrative actions.
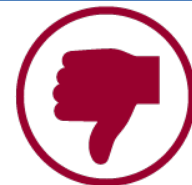
Question Rank:
Somewhat Important

Assessor conclusions:

No current linkage exists between vehicle and court files. Ideally, the new e-citation system will allow law enforcement to access vehicle data, which will improve data accuracy and reduce manual data entry. It is not clear how the State handles any administrative actions affecting a vehicle's registration.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 241:

Is adjudication data linked with the vehicle file to collect vehicle information and carry out administrative actions (e.g., vehicle seizure, forfeiture, interlock mandates and supervision)?

Standard of Evidence:

Provide the results of a sample query and describe how the linked information is used to collect vehicle information and carry out administrative actions.

Question Rank:
Somewhat Important

Assessor conclusions:

Adjudication files and vehicle files are not linked. This is less important in States without vehicle sanctions; however, such a linkage improves data accuracy and completeness, reduces manual data entry and streamlines processes to improve timeliness of reporting.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 242:

Is citation data linked with the crash file to document violations and charges related to the crash?

Standard of Evidence:

Provide the results of a sample query and describe how the linked information is used to document violations and charges related to the crash.

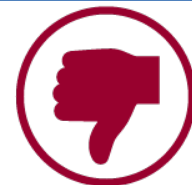**Question Rank:**
Somewhat Important

Assessor conclusions:

The response indicates no linkage between the crash file and the citation file. It is noted, however, that the Department of Health is working to develop such a linkage. The crash report includes data field for citations and charges. The new e-citation system will allow a law enforcement officer to issue e-citations while completing a crash report; the citation and crash report will be automatically linked.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 243:

Is adjudication data linked with the crash file to document violations and charges related to the crash?

Standard of Evidence:

Provide the results of a sample query and describe how the linked information is used to document violations and charges related to the crash.

Question Rank:
Somewhat Important

Assessor conclusions:

The respondent indicated this linkage is not currently available. However, this linkage will begin to be available through the linkage between crash and citation that occurs with an electronic field data collection system and ideally will provide additional data analyses and reporting options.

Respondents assigned	2	Responses received	1	Response rate	50%

Question 244:

Is there a set of established performance measures for the timeliness of the citation systems?

Standard of Evidence:

If there is a statewide citation tracking system in the State, provide timeliness measures used. If there are two or more centralized citation tracking systems, provide timeliness measures for one of them.

Question Rank:
Somewhat Important

Assessor conclusions:

While it is beneficial to have time-frames included in statutes, it remains important to have performance measures and goals which will determine whether those statutory mandates are actually being met. It is not unusual for a State to have a statutorily mandated 10-day reporting period, and for that State to find that the actual average time for reporting is either 3 days or perhaps, in violation of the mandate, 20 days. Additionally, having measures helps to guard against steady degradation of data system timeliness that might go unnoticed if not measured. In addition to timely adjudication, this question speaks to timely reporting of citation data - from the law enforcement officer to the clerk of court and from the clerk to the DMV when the case is adjudicated. The State's Traffic Records Coordinating Committee maintains a strategic plan that includes some measures for the timely reporting of citations but they are not mentioned here.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 245:

Is there a set of established performance measures for the accuracy of the citation systems?

Standard of Evidence:

Provide accuracy measures for the statewide citation tracking system. If there are several citation tracking systems, provide accuracy measures for one of them.

Question Rank:
Very Important

Assessor conclusions:

What these questions are driving at, is whether the State has any means of determining the long-term health and integrity of its data systems. Many data systems have edits, but they are often overcome by creative data-entry. It helps if the system manager actually is able to ascertain the number of errors that are either caught by the edits or manage to evade the edit and get into the system. Having this information allows for improved data edits and for improved training of those who develop the data and those who input it, if the two are different.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 246:

Is there a set of established performance measures for the completeness of the citation systems?

Standard of Evidence:

Provide completeness measures for the statewide citation tracking system. If there are several citation tracking systems, provide completeness measures for one of them.

Question Rank:
Somewhat Important

Assessor conclusions:

While edits exist to prevent adding data to the system without complete elements, these should be recorded for later correction or training. Quality control reports are said to be available yet samples were not provided.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 247:

Is there a set of established performance measures for the uniformity of the citation systems?

Standard of Evidence:

Provide uniformity measures for the statewide citation tracking system. If there are several citation tracking systems, provide uniformity measures for one of them.

Question Rank:
Somewhat Important

Assessor conclusions:

The fact that the State has a uniform citation and a Unified Judicial Authority does provide a measure of uniformity. However, it is not clear how many traffic cases are included in the UJA and how many are adjudicated by the various, apparently autonomous, municipal courts. The question regarding performance measures has not been answered.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 248:

Is there a set of established performance measures for the integration of the citation systems?

Standard of Evidence:

Provide integration measures for the statewide citation tracking system. If there are several citation tracking systems, provide integration measures for one of them.

Question Rank:
Somewhat Important

Assessor conclusions:

No integration exists at this time, so no measurements are taken. It would be a good start to compare the citation system with other traffic records system components for data elements whose formats are similar and would be potentially available for integration or linkage. This, in and of itself, would be a measure of integration capability. Otherwise, a simple measure is number of other traffic records system components with which citation systems are integrated.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 249:

Is there a set of established performance measures for the accessibility of the citation systems?

Standard of Evidence:

Provide accessibility measures for the statewide citation tracking system. If there are several citation tracking systems, provide accessibility measures for one of them.

Question Rank:
Less Important

Assessor conclusions:

While the access system is indeed beneficial, the measure of accessibility should include users both internal to the process and those who are data users outside the process. The media, for example, often requests information like: How many speeding tickets were written on highways? If there is a statewide citation tracking system and aggregate information is provided from this system, it would be beneficial for the State to track such requests and its ability to fulfill those requests in a timely manner (say 15 days), if at all. The State's response speaks to the security of the adjudication system and indicates that the court and external groups can send/receive data in XML, but these are controls, not performance measures. No response was provided specific to the citation system used to create, inventory, or track citations.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 250:

Is there a set of established performance measures for the timeliness of the adjudication systems?

Standard of Evidence:

Provide timeliness measures for the statewide adjudication tracking system. If there are several adjudication tracking systems, provide timeliness measures for one of them.
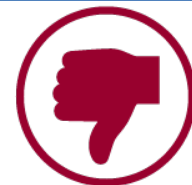
Question Rank:
Somewhat Important

Assessor conclusions:

As noted in the citation system questions, even with a mandate, measurement of the actual time for delivery of dispositions can demonstrate efficiency in excess of the mandate, or note the lack of compliance with the mandate. Also, measures can track workload increases over time that drive longer processing times and demonstrate need for additional resources.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 251:

Is there a set of established performance measures for the accuracy of the adjudication systems?

Standard of Evidence:

Provide accuracy measures for the statewide adjudication tracking system. If there are several adjudication tracking systems, provide accuracy measures for one of them.

Question Rank:
Very Important

Assessor conclusions:

The response indicates that there are procedures for accuracy of the adjudication files, but not measures of actual accuracy levels. One example of an accuracy measure for adjudication systems, which is found in the Model Performance Measures for State Traffic Records Systems, available on the NHTSA website is: The percentage of citation records with no errors in critical data elements. An example of a critical data element would be The time the citation was issued. Performance measures address the State's goals for accuracy, timeliness, completeness of a data system. Such measures allow the State to determine if those goals have been met.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 252:

Is there a set of established performance measures for the completeness of the adjudication systems?

Standard of Evidence:

Provide completeness measures for the statewide adjudication tracking system. If there are several adjudication tracking systems, provide completeness measures for one of them.

Question Rank:
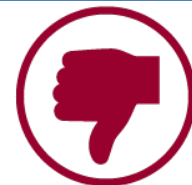Somewhat Important

Assessor conclusions:

There are two measures of completeness of a system. First, are all records that should be contained in the system, present in the system? And second, is each individual record complete? A sample measure of data completeness would be: The percentage of unknown or blanks in critical citation data elements for which unknown is not an appropriate value.

The State cites State code and rules of court yet provides no supporting documentation. The State notes that they are working on a QA system. No performance measure was provided.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 253:

Is there a set of established performance measures for the integration of the adjudication systems?

Standard of Evidence:

Provide integration measures for the statewide adjudication tracking system. If there are several adjudication tracking systems, provide integration measures for one of them.

Question Rank:
Somewhat Important

Assessor conclusions:

There are no integration measures at this time. At any time integration between systems is complete, the measures should be developed; in fact if measures are developed prior to the integration of systems, any improvement will be shown by the measures. The measure could be as simple as number of systems integrated, interfaced or linked with the adjudication system. A performance measure could help define success as the State works toward e-citation implementation and integration of some systems.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 254:

In States that have an agency responsible for issuing unique citation numbers, is information on intermediate dispositions (e.g., deferrals, dismissals) captured?

Standard of Evidence:

Provide documentation detailing the numbers of citations issued from the 10 largest law enforcement agencies and the number of dispositions for those citations that are in the driver file over a three month period.

Question Rank:
Very Important

Assessor conclusions:

The State's court system tracks citation dispositions by code, including deferral and dismissal. In previous responses, the State indicated that there is not a single citation inventory/tracking system. As such, it appears there is no means by which to track information on intermediate dispositions statewide.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 255:

Do the State's DUI tracking systems have additional quality control procedures to ensure the accuracy and timeliness of the data?

Standard of Evidence:

Provide a narrative description of the additional quality control measures for the DUI tracking systems and specify which systems use which measures.

Question Rank:
Somewhat Important

Assessor conclusions:

While DUI charges can be tracked within the court's case tracking system, a DUI tracking system is more comprehensive and is used for more than statistical analyses; it is accessible to all those who interact with the DUI offender, from the alcohol evaluator to the probation officer, to the alcohol education and therapy provider, interlock providers, the courts, the driver licensing authority in order to track the success of the violator and his compliance with sanctions prior to reinstatement of the driving privilege, as well as other administrative requirements and sanctions. No evidence of quality control measures for the DUI records was provided which demonstrate timeliness and accuracy.

Respondents assigned	1	Responses received	1	Response rate	100%

EMS / Injury Surveillance

There are several key components of a statewide injury surveillance system including emergency medical services (EMS), acute care (emergency department and hospital discharge), trauma centers, and vital records. These databases provide a valuable resource to evaluate and understand the clinical outcomes and consequences of traffic crashes, both acute and long-term. The information contained in the injury surveillance system can be helpful in the definition and analysis of serious injuries.

West Virginia collects and maintains information from all five main components of the injury surveillance system addressed by the Advisory. EMS and trauma registry data are collected by the West Virginia Department of Health & Human Resources Bureau for Public Health Office of Emergency Medical Services (OEMS). The West Virginia Health Care Authority collects uniform billing data for all hospital discharges. Vital records databases are collected by the West Virginia Department of Health & Human Resources Health Statistics Center. Emergency department data is collected as part of West Virginia's Syndromic Surveillance Reporting program.

All EMS reports in West Virginia are submitted electronically. The EMS data system adheres to the appropriate national guidelines and automated edit checks and limited range checks are in place. Several steps can be taken to strengthen and improve the information gathered. While a formal data dictionary exists for the EMS data system there is more documentation yet to be developed that can strengthen the system, among these are a process flow diagram describing the way records are received, processed, and stored; a formal summary regarding the characteristics, limitations, and exceptions for each data element; and procedures for returning and tracking rejected records. Periodic trend analysis, analyses of high frequency errors, and quality reviews can also provide insights into emerging patterns in data collection. Finally, a rigorous set of performance measures should be developed and tracked. This effort can become the framework of data quality reports to be shared with the TRCC.

The trauma registry data system has a data dictionary and adheres to the appropriate national standard. Process flow, data validation, and data quality checks are well documented. Performance reporting and the tracking of high-frequency errors are used to improve training and data quality. Trauma registry data is also available for analysis and may be approved for use by outside researchers. Development of performance measures in the six key areas of timeliness, accuracy, completeness, uniformity, integration, and accessibility should be developed. Additionally, a data quality report should be developed to be shared with the TRCC.

Information regarding emergency department visits related to motor vehicle crashes is incorporated into West Virginia's syndromic surveillance system. While this system allows for the tracking of motor vehicle crash visits, it is not directly tracking the severity and nature of these injuries. Information regarding data element names and values and process flow are available. The hospital discharge data are able to track the frequency, severity, and nature of injuries related to motor vehicle crashes. The hospital discharge data system has a process flow diagram and there are documented procedures for returning and tracking rejected data submissions. Aggregate hospital discharge data is available to outside parties. Both systems can be strengthened through the implementation of performance reporting and the development of data quality management reports. Formal quality control reviews should also be planned and conducted for the both the emergency department and inpatient discharge data systems.

The death certificate database has a formal dictionary which adheres to the appropriate national standard. Aggregate data can be made available to outside parties. Automatic edit checks and data validation rules are used to ensure data quality. Data undergo periodic and trend analyses to identify unexplained differences and high frequency errors are analyzed to identify facilities or providers who need additional training. As with the hospital data systems, the death certificate data system has the opportunity to track quality improvement through the development of performance measures and performance reporting.

While all of these data systems exist within West Virginia, it appears that they have not been used in conjunction with each other or the crash file to address traffic safety issues. Convening a meeting of data owners to identify a joint issue that can be addressed by multiple systems is encouraged.

Question 256:

Does the injury surveillance system include EMS data?
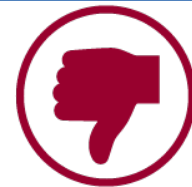
Standard of Evidence:

Provide an injury surveillance report that illustrates the use of EMS data and data from other injury surveillance systems.

Question Rank:
Very Important

Assessor conclusions:

There is no formal injury surveillance system in West Virginia. However, a data sharing agreement has been established between the West Virginia Violence and Injury Prevention Program and the Office of Emergency Medical Services to move toward the development of a data dashboard.

Respondents assigned	3	Responses received	3	Response rate	100%

Question 257:

Does the injury surveillance system include emergency department (ED) data?

Standard of Evidence:

Provide an injury surveillance report that illustrates the use of emergency department (ED) data and data from other injury surveillance systems.

Question Rank:
Very Important

Assessor conclusions:

The State has access to about 75% of ED visits from about 70% of hospitals through the Bio Sense system. The State has not created any reports that use emergency department (ED) data and data from other injury surveillance systems.

Respondents assigned	3	Responses received	3	Response rate	100%

Question 258:

Does the injury surveillance system include hospital discharge data?

Standard of Evidence:

Provide an injury surveillance report that illustrates the use of hospital discharge data and data from other injury surveillance systems.

Question Rank:
Very Important

Assessor conclusions:

While there is no formal injury surveillance system in the State, hospital discharge data is available through the West Virginia Healthcare Authority.

Respondents assigned	3	Responses received	3	Response rate	100%

Question 259:

Does the injury surveillance system include trauma registry data?

Standard of Evidence:

Provide an injury surveillance report that illustrates the use of trauma registry data and data from other injury surveillance systems.

Question Rank:
Very Important

Assessor conclusions:

While there is no formal injury surveillance system in the State, trauma registry data is available through the data agreement with the Office of Emergency Medical Services.

Respondents assigned	4	Responses received	4	Response rate	100%

Question 260:

Does the injury surveillance system include rehabilitation data?

Standard of Evidence:

Provide an injury surveillance report that illustrates the use of rehabilitation data and data from other injury surveillance systems.

Question Rank:
Very Important

Assessor conclusions:

The injury surveillance system does not include rehabilitation data, nor does the State have plans to include it.

Respondents assigned	4	Responses received	3	Response rate	75%

Question 261:

Does the injury surveillance system include vital records data?

Standard of Evidence:

Provide an injury surveillance report that illustrates the use of vital data and data from other injury surveillance systems.

Question Rank:
Very Important

Assessor conclusions:

West Virginia does not have a formal injury surveillance system in place. However, vital records data is available through the Health Statistics Center.

Respondents assigned	4	Responses received	3	Response rate	75%

Question 262:

Does the injury surveillance system include other data?

Standard of Evidence:

List any other databases or sources included in the injury surveillance system and provide a sample report using data from each of these sources. Additional data resources may include medical examiner reports, payer-related databases, traumatic brain injury registry, and spinal cord injury registry.

Question Rank:
Very Important

Assessor conclusions:

West Virginia has a traumatic brain injury registry and is in the process of developing stroke and STEMI data registries. Currently, these databases are not part of an overall injury surveillance system.

Respondents assigned	3	Responses received	2	Response rate	66.7%

Question 263:

Does the EMS system track the frequency, severity, and nature of injuries sustained in motor vehicle crashes in the State?

Standard of Evidence:

Provide the most recent motor vehicle-related incident counts for the EMS system, any injury severity categorizations applied, and the provider's primary impression (if applicable).

Question Rank:
Very Important

Assessor conclusions:

The EMS data collection system is compliant with NEMSIS v2. As such, the State has the ability to track the number of EMS transports that are related to motor vehicle crashes but have not yet been tasked with creating such a report.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 264:

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

Standard of Evidence:

Provide the most recent motor vehicle-related incident counts for the emergency department data, any injury severity categorizations applied (e.g., Abbreviated Injury Score, Injury Severity Scale), and principal diagnosis.

Question Rank:
Very Important

Assessor conclusions:

The ED surveillance system includes surveillance for "motor vehicle accidents" based on chief complaint. However, the State epidemiologist's office is not tracking the ED data for frequency, severity, and nature of injuries sustained in motor vehicle crashes. The State provided motor vehicle incident counts by county for the first half of 2016, but the report does not include injury severity and diagnosis information.

Respondents assigned	2	Responses received	1	Response rate	50%

Question 265:

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

Standard of Evidence:

Provide the most recent motor vehicle-related incident counts for the hospital discharge data, any injury severity categorizations applied (e.g., Abbreviated Injury Score, Injury Severity Scale), and principal diagnosis.

Question Rank:
Very Important

Assessor conclusions:

West Virginia's inpatient data includes mechanism of injury (E-codes) that can be used to identify persons admitted as the result of a motor vehicle crash. A sample report was provided showing the total number of MVC admissions and the top 5 diagnosis codes associated with those patients.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 266:

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

Standard of Evidence:

Provide the most recent motor vehicle-related incident counts for the trauma registry data, any injury severity categorizations applied (e.g., Abbreviated Injury Score, Injury Severity Scale), and principal diagnosis.

Question Rank:
Very Important

Assessor conclusions:

Over 2,300 patients were treated in the State's trauma centers as the result of a motor vehicle crash in 2015.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 267:

Does the vital records data track the frequency, severity, and nature of injuries sustained in motor vehicle crashes in the State?

Standard of Evidence:

Provide the most recent motor vehicle-related incident counts from the vital records data and the cause of death.

Question Rank:
Very Important

Assessor conclusions:

The State's vital records data tracks the number of fatalities resulting from motor vehicle crashes.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 268:

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

Standard of Evidence:

Provide a sample report or narrative description of a highway safety project that utilized EMS data to identify a problem, evaluate a program, or allocate resources.

Question Rank:
Very Important

Assessor conclusions:

West Virginia EMS data is available as part of the national NEMSIS data set. Use of the state-specific data set requires review by a research committee. No examples of reports created using the State's EMS data were provided.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 269:

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

Standard of Evidence:

Provide a sample report or narrative description of a highway safety project that utilized emergency department data to identify a problem, evaluate a program, or allocate resources.

Question Rank:
Very Important

Assessor conclusions:

The State reports that emergency department data is available for analysis. The State provided a report of motor vehicle incident counts, but the report does not demonstrate that the State used emergency department data in a highway safety project to identify a problem, evaluate a program, or allocate resources.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 270:

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

Standard of Evidence:

Provide a sample report or narrative description of a highway safety project that utilized hospital discharge data to identify a problem, evaluate a program, or allocate resources.

Question Rank:
Very Important

Assessor conclusions:

Hospital discharge data is reportedly available for analysis however, no sample reports were provided for review. The State provided copies of their data use agreement and request forms.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 271:

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

Standard of Evidence:

Provide a sample report or narrative description of a highway safety project that utilized trauma registry data to identify a problem, evaluate a program, or allocate resources.

Question Rank:
Very Important

Assessor conclusions:

Trauma registry data is available for analysis. The State provided a sample report of motor vehicle crash data from the trauma registry.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 272:

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

Standard of Evidence:

Provide a sample report or narrative description of a highway safety project that utilized vital records data to identify a problem, evaluate a program, or allocate resources (e.g., research in support of helmet or GDL legislation).

Question Rank:
Very Important

Assessor conclusions:
Vital records data is available for analysis and is used to support the State's Fatal Accident Reporting System.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 273:

Does the State have a NEMSIS-compliant statewide database?

Standard of Evidence:

Demonstrate submission to the nationwide NEMSIS database and provide any relevant State statutes or regulations. If not compliant, provide narrative detailing the State's efforts to achieve NEMSIS compliance.

Question Rank:
Very Important

Assessor conclusions:
The EMS data system is NEMSIS v2 silver compliant. The State has plans to transition to v3 in summer of 2017.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 274:

Does the State's emergency department and hospital discharge data conform to the most recent uniform billing standard?

Standard of Evidence:

Provide the data dictionaries for both the emergency department and hospital discharge data as appropriate as well as any relevant State statutes or regulations.

Question Rank:
Very Important

Assessor conclusions:

The State reports that the emergency department surveillance system collects ICD codes, but the State does not indicate that the system conforms to the most recent uniform billing standard. The hospital discharge data conforms to UB-04. The State provided the data dictionary and State statutes for the hospital discharge data.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 275:

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

Standard of Evidence:

Provide the trauma registry data dictionary and any relevant State statutes or regulations.

Question Rank:
Very Important

Assessor conclusions:

West Virginia uses the Digital Innovations V5 trauma registry. The data elements described in the user's manual adhere to the National Trauma Data Standards.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 276:

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

Standard of Evidence:

Provide a distribution of AIS and ISS scores for the most recent year available.

Question Rank:
Somewhat Important

Assessor conclusions:

AIS and ISS are not available from the emergency department and hospital discharge data.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 277:

Are Abbreviated Injury Scale (AIS) and Injury Severity Scores (ISS) derived from the State trauma registry for motor vehicle crash patients?

Standard of Evidence:

Provide a distribution of AIS and ISS scores for the most recent year available.
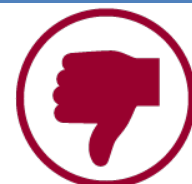
Question Rank:
Very Important

Assessor conclusions:

AIS and ISS scores are available from the State's trauma registry. A distribution of the scores was provided.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 278:

Does the State EMS database collect the Glasgow Coma Scale (GCS) data for motor vehicle crash patients?

Standard of Evidence:

Provide a distribution of GCS scores for motor vehicle crash patients for the most recent year available.

Question Rank:
Less Important

Assessor conclusions:

As a NEMSIS compliant database, it is likely that the data element is available; however, requested evidence was not provided to demonstrate the availability of a GCS score on the EMS run report.

Respondents assigned	2	Responses received	1	Response rate	50%

Question 279:

Does the State trauma registry collect the Glasgow Coma Scale (GCS) data for motor vehicle crash patients?

Standard of Evidence:

Provide a distribution of GCS scores for motor vehicle crash patients for the most recent year available.

Question Rank:
Less Important

Assessor conclusions:

GCS scores are available through the State's trauma registry. A distribution of the scores was provided.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 280:

Are there State privacy and confidentiality laws that supersede HIPAA?

Standard of Evidence:

Provide the applicable State laws and describe how they are interpreted—including the identification of situations that may impede data sharing within the State and among public health authorities.

Question Rank:
Very Important

Assessor conclusions:

While specific code or statute was not provided, West Virginia's confidentiality reportedly supersede HIPAA without preventing access to the data or the use of personal identifiers to support linkage efforts.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 281:

Does the EMS system have a formal data dictionary?

Standard of Evidence:

Provide the data dictionary including, at a minimum, the variable names and definitions.

Question Rank:
Very Important

Assessor conclusions:

The State provided a copy of its NEMSIS 2 data dictionary.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 282:

Does the EMS system have formal documentation that provides a summary dataset—characteristics, values, limitations and exceptions, whether submitted or user created—and how it is collected, managed, and maintained?

Standard of Evidence:

Provide a user's manual or other form of documentation of the EMS data collection system. Such documentation should include a list of the dataset's variables and a description of how the data is collected, managed and maintained.

Question Rank:
Very Important

Assessor conclusions:

The EMS system does not have formal documentation that describes how the data is collected, managed and maintained.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 283:

Does the emergency department dataset have a formal data dictionary?

Standard of Evidence:

Provide the data dictionary including, at a minimum, the variable names and definitions.

Question Rank:
Very Important

Assessor conclusions:

West Virginia uses CDC's Public Health Information Network (PHIN) for collection of its emergency department data. The data dictionary was provided.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 284:

Does the emergency department dataset have formal documentation that provides a summary dataset—characteristics, values, limitations and exceptions, whether submitted or user created—and how it is collected, managed, and maintained?

Standard of Evidence:

Provide the documentation.

Question Rank:
Very Important

Assessor conclusions:

The Public Health Information Network (PHIN) messaging guide for emergency department data includes documentation about how emergency department data is collected.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 285:

Does the hospital discharge dataset have a formal data dictionary?

Standard of Evidence:

Provide the data dictionary including, at a minimum, the variable names and definitions.

Question Rank:
Very Important

Assessor conclusions:

A complete list of the data elements from a PROC CONTENTS output was provided. The State should consider creating a formal document which expands this listing to include attributes associated with each data element and definitions of all fields.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 286:

Does the hospital discharge dataset have formal documentation that provides a summary dataset—characteristics, values, limitations and exceptions, whether submitted or user created—and how it is collected, managed, and maintained?

Standard of Evidence:

Provide the documentation.

Question Rank:
Very Important

Assessor conclusions:

The Data Collection Policies and Procedures manual describes how the State's hospital discharge data is collected and maintained.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 287:

Does the trauma registry have a formal data dictionary?

Standard of Evidence:

Provide the data dictionary including, at a minimum, the variable names and definitions.

Question Rank:
Very Important

Assessor conclusions:

The State provided a copy of their Policies, Procedures, Definitions and Disciplines manual for the Trauma registry. This manual contains a data dictionary, a description of the data elements, and serves as a user's guide for registry staff.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 288:

Does the trauma registry dataset have formal documentation that provides a summary dataset—characteristics, values, limitations and exceptions, whether submitted or user created—and how it is collected, managed, and maintained?

Standard of Evidence:

Provide the documentation.

Question Rank:
Very Important

Assessor conclusions:

The State provided a copy of their Policies, Procedures, Definitions and Disciplines manual for the Trauma registry. This manual contains a data dictionary, a description of the data elements, and serves as a user's guide for registry staff.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 289:

Does the vital records system have a formal data dictionary?

Standard of Evidence:

Provide the data dictionary including, at a minimum, the variable names and definitions.

Question Rank:
Very Important

Assessor conclusions:

A data dictionary was provided for the vital records system.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 290:

Does the vital records system have formal documentation that provides a summary dataset—characteristics, values, limitations and exceptions, whether submitted or user created—and how it is collected, managed, and maintained?

Standard of Evidence:

Provide the documentation.

Question Rank:
Very Important

Assessor conclusions:

The vital records coding guide includes data entry procedures, but it does not include information about how the data is collected, managed, and maintained.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 291:

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

Standard of Evidence:

Identify the State agency or third party to which the EMS data is initially submitted.

Question Rank:
Very Important

Assessor conclusions:

The Office of EMS use the EMS Performance Improvement Center (EMSPIC) to collect data from EMS agencies.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 292:

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

Standard of Evidence:

Identify the State agency or third party to which the data on emergency department visits is initially submitted.

Question Rank:
Very Important

Assessor conclusions:
The Office of EMS use the EMS Performance Improvement Center (EMSPIC) to collect data from EMS agencies.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 293:

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

Standard of Evidence:

Identify the State agency or third party to which the data on hospital discharges is initially submitted.

Question Rank:
Very Important

Assessor conclusions:
No State agency was identified that is responsible for the collection and management of hospital discharge data.

Respondents assigned	2	Responses received	1	Response rate	50%

Question 294:

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

Standard of Evidence:

Provide the flow diagram. Alternatively, provide a narrative description of the EMS data process flows from dispatch to submission of the report to the State EMS repository.

Question Rank:
Very Important

Assessor conclusions:

No process flow diagram or description of the way in which EMS data is collected, processed, and analyzed, was provided.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 295:

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

Standard of Evidence:

Provide the flow diagram. Alternatively, provide a narrative description of the emergency department data process flows from patient arrival to submission of the uniform billing data to the State repository.

Question Rank:
Very Important

Assessor conclusions:

The Bio Sense Platform Onboarding Guide includes process flow diagrams for planning, onboarding, validating, connecting, and operating data submission.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 296:

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

Standard of Evidence:

Provide the flow diagram. Alternatively, provide a narrative description of the hospital discharge data process flows from patient arrival to submission of the uniform billing data to the State repository.

Question Rank:
Very Important

Assessor conclusions:

A diagram was provided identifying the four steps involved in collecting and compiling inpatient data.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 297:

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

Standard of Evidence:

Provide the flow diagram. Alternatively, provide a narrative description of the hospital discharge data process flows, from trauma activation to submission of the trauma data to the State registry.

Question Rank:
Very Important

Assessor conclusions:

No process flow diagram or description of the way in which the State's trauma registry data is collected, processed, and analyzed, was provided.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 298:

Are there separate procedures for paper and electronic filing of EMS patient care reports?

Standard of Evidence:

Provide a copy of the procedures for paper and electronic filing or a narrative describing the procedures.

Question Rank:
Less Important

Assessor conclusions:

All prehospital care reports in the State must be submitted electronically. No separate process is available for paper reports.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 299:

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

Standard of Evidence:

Provide a copy of the procedures or a narrative describing the process of collecting, editing and submitting emergency department and hospital discharge data to the statewide repository.

Question Rank:
Very Important

Assessor conclusions:

The emergency department data are sent by hospital facilities to the National Syndromic Surveillance Program. Data that do not meet the PHIN standards will fail to be uploaded. Hospitals will need to correct the errors before they can resend the information.

Respondents assigned	2	Responses received	1	Response rate	50%

Question 300:

Does the trauma registry have documented procedures for collecting, editing, error checking, and submitting data?

Standard of Evidence:

Provide a copy of the procedures or a narrative describing the process for collecting, error-checking and submitting trauma registry data.

Question Rank:
Very Important

Assessor conclusions:

The trauma registry has a policies and procedures manual that defines each data element and identifies allowable values and format.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 301:

Are there procedures for collecting, editing, error-checking, and submitting data to the statewide vital records repository?

Standard of Evidence:

Provide a copy of the procedures or a narrative describing the process for collecting, error-checking and submitting data to the vital records repository.

Question Rank:
Very Important

Assessor conclusions:

The State referenced the instruction manuals published by the CDC. The State referenced a CDC web site but did not provide copy of the information from the web site.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 302:

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

Standard of Evidence:

Provide a copy of the procedures or a narrative describing the process for returning data to the reporting EMS agencies for correction and resubmission.

Question Rank:
Very Important

Assessor conclusions:

The State does not have documented procedures for returning EMS data to submitters for correction.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 303:

Are there documented procedures for returning data to the reporting emergency departments for quality assurance and improvement (e.g., correction and resubmission)?

Standard of Evidence:

Provide a copy of the procedures or a narrative that describes the process for returning data to the reporting emergency departments for correction and resubmission.

Question Rank:
Very Important

Assessor conclusions:

The Bio Sense Onboarding Guide contains documentation about data validation procedures for emergency department data.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 304:

Are there documented procedures for returning hospital discharge data to the reporting hospitals for quality assurance and improvement (e.g., correction and resubmission)?

Standard of Evidence:

Provide a copy of the procedures or a narrative describing the process for returning data to the reporting hospitals for correction and resubmission.

Question Rank:
Very Important

Assessor conclusions:

Hospital discharge data is reconciled quarterly. Quality control checks are run routinely during the data submission process. Warnings are brought to the attention of the submitting hospital for correction.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 305:

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

Standard of Evidence:

Provide a copy of the procedures or a narrative describing the process for returning data to the reporting trauma center for correction and resubmission.

Question Rank:
Very Important

Assessor conclusions:

The State reports that it conducts monthly trauma registry data completion reviews and semi-annual reviews with each hospital.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 306:

Are there documented procedures for returning data to the reporting vital records agency for quality assurance and improvement (e.g., correction and resubmission)?

Standard of Evidence:

Provide a copy of the procedures or a narrative describing the process for returning data to the reporting vital records agency for correction and resubmission.

Question Rank:
Very Important

Assessor conclusions:

The State reports that corrections are handled internally and by the CDC, but known problems are reported back to submitters.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 307:

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

Standard of Evidence:

Provide a copy of the data access policy, data use agreement, or link to appropriate data access website. Alternatively, provide a description of how outside parties may obtain access to the EMS data for analytical purposes.

Question Rank:
Very Important

Assessor conclusions:

West Virginia EMS data is available through NEMSIS. Special data requests are considered on a case-by-case basis with the Office of EMS. The State should consider a process to make the EMS data available to State partners through a standard data use agreement.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 308:

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

Standard of Evidence:

Provide a copy of the data access policy, data use agreement, or link to appropriate data access website. Alternatively, provide a description of how outside parties may obtain access to the emergency department data for analytical purposes.

Question Rank:
Very Important

Assessor conclusions:

Access to emergency department data is limited and, when possible, requires approval. In the near future a new software application, ESSENCE, will be added as a front-end module to the data system. This module is expected to improve access to emergency department data to outside institutions.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 309:

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

Standard of Evidence:

Provide a copy of the data access policy, data use agreement, or link to appropriate data access website. Alternatively, provide a description of how outside parties may obtain access to the hospital discharge data for analytical purposes.

Question Rank:
Very Important

Assessor conclusions:

Hospital discharge data is available to outside parties through a data request process and the completion of a data use agreement with the West Virginia Health Care Authority.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 310:

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

Standard of Evidence:

Provide a copy of the data access policy, data use agreement, or link to appropriate data access website. Alternatively, provide a description of how outside parties may obtain access to the trauma registry data for analytical purposes.

Question Rank:
Very Important

Assessor conclusions:

Trauma registry data is available for use by the research community through a request to the Office of EMS. No examples of data request forms or use agreements were provided.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 311:

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

Standard of Evidence:

Provide a copy of the data access policy, data use agreement, or link to appropriate data access website. Alternatively, provide a description of how outside parties may obtain access to the vital records data for analytical purposes.

Question Rank:
Very Important

Assessor conclusions:

The State reports that State administrative code provides for the release of vital records data. The data is published by the Health Statistics Center and is available through the CDC.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 312:

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

Standard of Evidence:

Provide a narrative description of the interface link between the EMS data and the emergency department and hospital discharge data. If available provide the applicable data exchange agreement.

Question Rank:
Somewhat Important

Assessor conclusions:

Patient histories are required to be provided to the receiving center and the patient care report must be provided within 72 hours. This process is valuable but is not the same as an interface that would transmit near real time data from the EMS data collection system directly to the trauma registry.

Respondents assigned	3	Responses received	3	Response rate	100%

Question 313:

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

Standard of Evidence:

Provide a narrative description of the interface link between the EMS data and the trauma registry data. If available provide the applicable data exchange agreement.

Question Rank:
Very Important

Assessor conclusions:

Trauma registrars have access to the EMS data system at the time they enter trauma registry records. However, there is no direct interface between the EMS and trauma registry data systems.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 314:

Is there an interface between the vital statistics and hospital discharge data?

Standard of Evidence:

Provide a narrative description of the interface link between the vital statistics and hospital discharge data. If available provide the applicable data exchange agreement.

Question Rank:
Somewhat Important

Assessor conclusions:
No direct interface exists between the vital records and hospital discharge data.

Respondents assigned	3	Responses received	3	Response rate	100%

Question 315:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:
The State has limited data validation capability in its NEMSIS 2 data system, ensuring that data falls within a range of acceptable values but not ensuring logical consistency among data elements. The State shares data quality scores with submitting EMS agencies on a monthly basis.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 316:

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

Standard of Evidence:

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

Question Rank:
Somewhat Important

Assessor conclusions:

The Office of EMS does not report having the authority to make correction to the patient care report data.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 317:

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

Standard of Evidence:

Provide the formal methodology or describe the process by which rejected EMS patient care reports are returned to the collecting agency and tracked through resubmission to the statewide EMS database.

Question Rank:
Very Important

Assessor conclusions:

The State does not have processes for returning rejected data to EMS agencies and tracking resubmission.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 318:

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

Standard of Evidence:

Provide a complete list of timeliness performance measures for the EMS system and explain how these measures are used to inform decision-making.
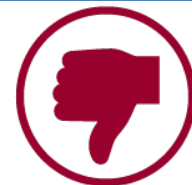
Question Rank:
Very Important

Assessor conclusions:

All run sheets are required to be submitted within 72 hours of the patient being dropped off at the receiving hospital. To turn this policy into a performance measure, the percentage of run reports that are submitted within the 72 hour period should be calculated and tracked to identify improvements and deficiencies in the data system.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 319:

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

Standard of Evidence:

Provide a complete list of accuracy performance measures for the EMS system and explain how these measures are used to inform decision-making.

Question Rank:
Very Important

Assessor conclusions:

A data quality score is calculated for each record but no specific performance measures have been developed.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 320:

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

Standard of Evidence:

Provide a complete list of completeness performance measures for the EMS system and explain how these measures are used to inform decision-making.

Question Rank:
Very Important

Assessor conclusions:

No performance measures related to completeness have been developed for the EMS data system. Sample performance measures are available through NHTSA's Model Performance Measures for State Traffic Records Systems (2011).

Respondents assigned	1	Responses received	1	Response rate	100%

Question 321:

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

Standard of Evidence:

Provide a complete list of uniformity performance measures for the EMS system and explain how these measures are used to inform decision-making.

Question Rank:
Very Important

Assessor conclusions:

The State did not provide any uniformity performance measures. An example of a uniformity performance measure would be - The percentage of records on the State EMS data file that are National Emergency Medical Service Information System (NEMSIS)-compliant. Each performance measure should have a baseline metric and then be measured on a regular basis to identify improvements in the data system.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 322:

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

Standard of Evidence:

Provide a complete list of integration performance measures for the EMS system and explain how these measures are used to inform decision-making.

Question Rank:
Very Important

Assessor conclusions:

The State did not provide any integration performance measures. An example of an integration performance measure would be - The percentage of appropriate records in the EMS file that are linked to another system or file.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 323:

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

Standard of Evidence:

Provide a complete list of accessibility performance measures for the EMS system and explain how these measures are used to inform decision-making.

Question Rank:
Very Important

Assessor conclusions:

The State did not provide any accessibility performance measures. From NHTSA's advisory document - To measure accessibility of the EMS file: Identify the principal users of the file, Query the principal users to assess (a) their ability to obtain the data or other services requested and (b) their satisfaction with the timeliness of the response to their request, document the method of data collection and the principal users.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 324:

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

Standard of Evidence:

Provide specific numeric goals and related performance measures for each attribute as determined by the State.

Question Rank:
Somewhat Important

Assessor conclusions:

No specific metrics have been established to measure the performance of the EMS data system.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 325:

Is there performance reporting for the EMS system that provides specific timeliness, accuracy, and completeness feedback to each submitting entity?

Standard of Evidence:

Provide a sample report, list of receiving agencies, and specify frequency of issuance.
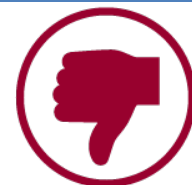
Question Rank:
Very Important

Assessor conclusions:

The reports provided as evidence serve to support quality assurance and control practices but are not related to EMS data system performance measures.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 326:

Are high frequency errors used to update EMS system training content, data collection manuals, and validation rules?

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

Data quality error reports are produced and distributed but is not currently used to support education or training activities.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 327:

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

Standard of Evidence:

Provide a sample quality control review of injury records that details the system's data completeness.

Question Rank:
Somewhat Important

Assessor conclusions:

The State reports that it does not conduct quality control reviews.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 328:

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

Standard of Evidence:

Describe the analyses, provide a sample record or output, and specify their frequency.

Question Rank:
Less Important

Assessor conclusions:

The State reports that it does not use comparative or trend analyses to identify differences in EMS data.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 329:

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

Standard of Evidence:

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

Question Rank:
Somewhat Important

Assessor conclusions:

The State reports that it provides feedback to users, but it did not report whether it collects feedback from users.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 330:

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

Standard of Evidence:

Provide a sample quality management report and specify frequency of transmission to the State TRCC.

Question Rank:
Somewhat Important

Assessor conclusions:
EMS data quality management reports are not yet developed or made available to the TRCC.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 331:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:
Edit checks and business rules are built into the PHIN data collection system.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 332:

Is limited state-level correction authority granted to quality control staff working with the statewide emergency department and hospital discharge databases in order to amend obvious errors and omissions without returning the report to the originating entity?

Standard of Evidence:

Provide the formal methodology or describe the process by which limited state-level correction authority is granted to quality control staff working with the statewide emergency department and hospital discharge databases.

Question Rank:
Somewhat Important

Assessor conclusions:

No authority is granted at the state-level to correct obvious errors in the hospital data. All corrections must be done at the facility level in conjunction with existing business rules and edit checks.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 333:

Are there formally documented processes for returning rejected emergency department and hospital discharge records to the collecting entity and tracking resubmission to the statewide emergency department and hospital discharge databases?

Standard of Evidence:

Provide the formal methodology or describe the process by which rejected emergency department and hospital discharge records are returned to the collecting agency and tracked through resubmission to the statewide emergency department and hospital discharge databases.

Question Rank:
Very Important

Assessor conclusions:

For emergency department data, submitters are notified of rejected records via HL7 messaging as defined in the PHIN messaging guidelines. For hospital discharge data, submitters are notified of rejected records at the time of record submission.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 334:

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

Standard of Evidence:

Provide a complete list of timeliness performance measures for the emergency department and hospital discharge databases and explain how these measures are used to inform decision-making.

Question Rank:
Very Important

Assessor conclusions:

Emergency department data is submitted near real-time, but no performance measures have been established for the timeliness of the data. While the submission schedule provided identifies the 'due dates' for submission, a corresponding performance measure (i.e. percentage of records submitted by the due date) was not provided.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 335:

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

Standard of Evidence:

Provide a complete list of accuracy performance measures for the emergency department and hospital discharge databases and explain how these measures are used to inform decision-making.

Question Rank:
Very Important

Assessor conclusions:

Accuracy performance measures are reportedly in place for the emergency department data, but no specific measures were identified. Business rules have been established to provide warnings when information for certain data elements is complete. However, there are no associated measures to track changes in the number of times these warnings are generated.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 336:

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

Standard of Evidence:

Provide a complete list of completeness performance measures for the emergency department and hospital discharge databases and explain how these measures are used to inform decision-making.

Question Rank:
Very Important

Assessor conclusions:

Completeness performance measures are reportedly in place for the emergency department data, but no specific measures were identified. The policy manual and edit checks description indicate standards are in place but no baseline or tracking metrics are identified.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 337:

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

Standard of Evidence:

Provide a complete list of uniformity performance measures for the emergency department and hospital discharge databases and explain how these measures are used to inform decision-making.

Question Rank:
Very Important

Assessor conclusions:

Uniformity performance measures are reportedly in place for the emergency department data, but no specific measures were identified other than the standards set in the edit check description.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 338:

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

Standard of Evidence:

Provide a complete list of integration performance measures for the emergency department and hospital discharge databases and explain how these measures are used to inform decision-making.

Question Rank:
Very Important

Assessor conclusions:

The State did not provide any integration performance measures for emergency department data. An example of a performance measure would be- The percentage of appropriate records in the hospital file that are linked to another system or file (i.e. crash).

Respondents assigned	2	Responses received	2	Response rate	100%

Question 339:

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

Standard of Evidence:

Provide a complete list of accessibility performance measures for the emergency department and hospital discharge database and explain how these measures are used to inform decision-making.

Question Rank:
Very Important

Assessor conclusions:

The State did not provide any accessibility performance measures for emergency department data. To measure accessibility of the hospital data file: Identify the principal users of the file, query the principal users to assess (a) their ability to obtain the data or other services requested and (b) their satisfaction with the timeliness of the response to their request, document the method of data collection and the principal users' responses

Respondents assigned	2	Responses received	2	Response rate	100%

Question 340:

Has the State established numeric goals—performance metrics—for each emergency department and hospital discharge database performance measure?

Standard of Evidence:

Provide specific numeric goals and related performance measures for each attribute as determined by the State.

Question Rank:
Somewhat Important

Assessor conclusions:

All data elements are required but no specific metrics have been established.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 341:

Is there performance reporting for the emergency department and hospital discharge databases that provides specific timeliness, accuracy, and completeness feedback to each submitting entity?

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

Data quality feedback reports are planned for emergency department data. For hospital discharge data, the State provides Data Quality Reports (DQRs) to submitting entities; however, the State did not provide a sample report.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 342:

Are high frequency errors used to update emergency department and hospital discharge database training content, data collection manuals, and validation rules?

Standard of Evidence:

Provide the formal methodology or describe the process by which high frequency errors are used to update emergency department and hospital discharge database training content, data collection manuals, and validation rules.

Question Rank:
Very Important

Assessor conclusions:

The State does not use high frequency errors to update training, documentation, or validation rules for emergency department data. The State reports that it may do so for hospital discharge data but did not provide a methodology or describe a process.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 343:

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

Standard of Evidence:

Provide a sample quality control review of injury records that details the system's data completeness.

Question Rank:
Somewhat Important

Assessor conclusions:

The State reports that it conducts quality control reviews for emergency department data but did not provide a sample. The State reports that it does not conduct injury data-specific quality control reviews for hospital discharge data.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 344:

Are periodic comparative and trend analyses used to identify unexplained differences in the emergency department and hospital discharge data across years and agencies?

Standard of Evidence:

Describe the analyses, provide a sample record or output, and specify their frequency.

Question Rank:
Less Important

Assessor conclusions:

Trend data is used to identify patterns within the emergency department database. The example provided showed a peak in influenza cases in February, however, this question is asking about trend analyses for the purpose of identifying data quality issues in the system. Similar charts were not available for hospital discharge data.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 345:

Is data quality feedback from key users regularly communicated to emergency department and hospital discharge data collectors and data managers?

Standard of Evidence:

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

Question Rank:
Somewhat Important

Assessor conclusions:

The State reports that it plans to provide feedback about emergency department data to hospitals but not whether it collects feedback from hospitals. For the hospital discharge data, the State reports that it receives and responds to feedback from users but did not describe the process.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 346:

Are emergency department and hospital discharge data quality management reports produced regularly and made available to the State TRCC?

Standard of Evidence:

Provide a sample quality management report and specify frequency of transmission to the State TRCC.

Question Rank:
Somewhat Important

Assessor conclusions:

Data quality reports related to hospital data are not provided to the TRCC for review.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 347:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

The software provided by Digital Innovations includes business rules and validation checks to support data quality at the entry level.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 348:

Is limited state-level correction authority granted to quality control staff working with the statewide trauma registry in order to amend obvious errors and omissions without returning the report to the originating entity?

Standard of Evidence:

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

Question Rank:
Somewhat Important

Assessor conclusions:

State-level corrections can only be made by the Director of the Division of Trauma. Corrections will be made only after corresponding directly with the submitting facility with respect to the needed corrections.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 349:

Are there formally documented processes for returning rejected data to the collecting entity and tracking resubmission to the statewide trauma registry?

Standard of Evidence:

Provide the formal methodology or describe the process by which rejected data is returned to the collecting agency and tracked through resubmission to the statewide trauma registry.

Question Rank:
Very Important

Assessor conclusions:

Reviews of the trauma registry data are conducted on a biannual basis with each facility and the necessary corrections are tracked both prior to the facility's scheduled Trauma Registry Review conference call and then again afterward.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 350:

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

Standard of Evidence:

Provide a complete list of timeliness performance measures for the trauma registry and explain how these measures are used to inform decision-making.

Question Rank:
Very Important

Assessor conclusions:

The audit filter report is a measure of data quality and not a specific performance measure. A timeliness performance measure would be the percentage of trauma registry records that are submitted to the State system within a specified period of time.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 351:

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

Standard of Evidence:

Provide a complete list of accuracy performance measures for the trauma registry and explain how these measures are used to inform decision-making.

Question Rank:
Very Important

Assessor conclusions:

Validation reports are not the same as performance measures. Performance measures are designed to track improvements in the data system.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 352:

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

Standard of Evidence:

Provide a complete list of completeness performance measures for the trauma registry and explain how these measures are used to inform decision-making.

Question Rank:
Very Important

Assessor conclusions:

Policies requiring all data fields to be complete are not the same as performance measures. An example would be - The percentage of trauma registry patient care reports with no missing critical data elements. State policy may require all fields to be completed but developing a performance metric will confirm that policy is being followed and repeated measures will help identify improvements or problems with the system.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 353:

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

Standard of Evidence:

Provide a complete list of uniformity performance measures for the trauma registry and explain how these measures are used to inform decision-making.

Question Rank:
Very Important

Assessor conclusions:

No specific uniformity performance measures were provided. A good performance measure will have a baseline metric and subsequent periodic measurements to track the health of the data system.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 354:

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

Standard of Evidence:

Provide a complete list of integration performance measures for the trauma registry and explain how these measures are used to inform decision-making.

Question Rank:
Very Important

Assessor conclusions:

No integration performance measures were provided. Integration refers to the merging of the trauma registry data with another data set related to traffic records. The filter report is specific to the trauma registry itself.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 355:

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

Standard of Evidence:

Provide a complete list of accessibility performance measures for the trauma registry and explain how these measures are used to inform decision-making.

Question Rank:
Very Important

Assessor conclusions:

Customized querying tools are available to each facilities' staff but no specific metrics have been developed as performance measures.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 356:

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

Standard of Evidence:

Provide specific numeric goals and related performance measures for each attribute as determined by the State.

Question Rank:
Somewhat Important

Assessor conclusions:

The metrics provided, while in the proper format for a performance measure, appear to be specific to patient care and not the data system.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 357:

Is there performance reporting for the trauma registry that provides specific timeliness, accuracy, and completeness feedback to each submitting entity?

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

The State provided a sample email that it sends to hospitals on a monthly basis that addresses timeliness, accuracy, and completeness.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 358:

Are high frequency errors used to update trauma registry training content, data collection manuals, and validation rules?

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:
Data quality reports are used to improve training and to provide feedback to the submitting facilities.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 359:

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

Standard of Evidence:

Provide a sample quality control review of injury records that details the system's data completeness.

Question Rank:
Somewhat Important

Assessor conclusions:
The State reports that it conducts biannual facility trauma registry reviews but did not provide a sample.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 360:

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

Standard of Evidence:

Describe the analyses, provide a sample record or output, and specify their frequency.

Question Rank:
Less Important

Assessor conclusions:

The State reports that it uses comparative and trend analyses but did not describe them or provide a sample.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 361:

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

Standard of Evidence:

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

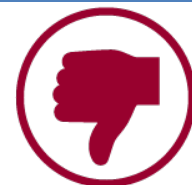**Question Rank:**
Somewhat Important

Assessor conclusions:

The State reports that it collects feedback from users but did not describe the process.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 362:

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

Standard of Evidence:

Provide a sample quality management report and specify frequency of transmission to the State TRCC.

Question Rank:
Somewhat Important

Assessor conclusions:

Data quality reports are not provided to the TRCC.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 363:

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

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

Edit checks are performed at the State-level and again at the federal-level after submission. Many of the fields contain text so validation rules cannot be applied to the entire record.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 364:

Is limited state-level correction authority granted to quality control staff working with vital records in order to amend obvious errors and omissions without returning the report to the originating entity?

Standard of Evidence:

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

Question Rank:
Somewhat Important

Assessor conclusions:

The State has limited correction authority prior to the formal filing of death records and after direct communication with submitters.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 365:

Are there formally documented processes for returning rejected data to the collecting entity and tracking resubmission to vital records?

Standard of Evidence:

Provide the formal methodology or describe the process by which rejected data is returned to the collecting agency and tracked through resubmission to vital records.

Question Rank:
Very Important

Assessor conclusions:
An informal process is in place to return records for correction but it was not well described.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 366:

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

Standard of Evidence:

Provide a complete list of timeliness performance measures for vital records and explain how these measures are used to inform decision-making.
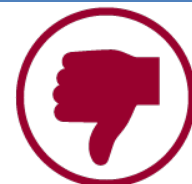
Question Rank:
Very Important

Assessor conclusions:
The State's contract with the CDC sets forth timeliness measures for submission of individual birth, fetal death, and death records as well as for full-year record sets.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 367:

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

Standard of Evidence:

Provide a complete list of accuracy performance measures for vital records and explain how these measures are used to inform decision-making.

Question Rank:
Very Important

Assessor conclusions:
Guidelines for data quality have been provided by the NCHS but no specific performance measures, with their associated baseline and periodic tracking, have been identified.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 368:

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

Standard of Evidence:

Provide a complete list of completeness performance measures for vital records and explain how these measures are used to inform decision-making.

Question Rank:
Very Important

Assessor conclusions:

Guidelines for data quality have been provided by the NCHS but no specific performance measures, with their associated baseline and periodic tracking, have been identified.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 369:

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

Standard of Evidence:

Provide a complete list of uniformity performance measures for vital records and explain how these measures are used to inform decision-making.
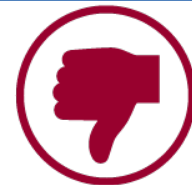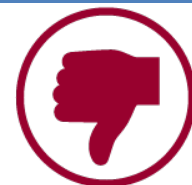
Question Rank:
Very Important

Assessor conclusions:

Guidelines for data quality have been provided by the NCHS but no specific performance measures, with their associated baseline and periodic tracking, have been identified.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 370:

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

Standard of Evidence:

Provide a complete list of integration performance measures for vital records and explain how these measures are used to inform decision-making.

Question Rank:
Very Important

Assessor conclusions:

No integration performance measures have been established for the vital records system.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 371:

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

Standard of Evidence:

Provide a complete list of accessibility performance measures for vital records and explain how these measures are used to inform decision-making.

Question Rank:
Very Important

Assessor conclusions:

The State does not have accessibility performance measures for vital records data. To measure accessibility of the vital records file: Identify the principal users of the file, query the principal users to assess (a) their ability to obtain the data or other services requested and (b) their satisfaction with the timeliness of the response to their request, document the method of data collection and the principal users.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 372:

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

Standard of Evidence:

Provide specific numeric goals and related performance measures for each attribute as determined by the State.

Question Rank:
Somewhat Important

Assessor conclusions:

No numeric goals have been established by the State for the vital records data system.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 373:

Is there performance reporting for vital records that provides specific timeliness, accuracy, and completeness feedback to each submitting entity?

Standard of Evidence:

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

Question Rank:
Very Important

Assessor conclusions:

The State does not provide performance reporting for vital records data submitters.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 374:

Are high frequency errors used to update vital records training content, data collection manuals, and validation rules?

Standard of Evidence:

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

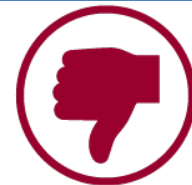**Question Rank:**
Very Important

Assessor conclusions:

The majority of high frequency errors in the State's vital records reporting are often associated with specific facilities and often related to new staff. When errors are identified efforts are made to identify the source and provide the necessary training.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 375:

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

Standard of Evidence:

Provide a sample quality control review of injury records that details the system's data completeness.

Question Rank:
Somewhat Important

Assessor conclusions:

Formal data quality reviews are not routinely performed.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 376:

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

Standard of Evidence:

Describe the analyses, provide a sample record or output, and specify their frequency.

Question Rank:
Less Important

Assessor conclusions:

The State does not use comparative and trend analyses to identify differences in vital records data.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 377:

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

Standard of Evidence:

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

Question Rank:
Somewhat Important

Assessor conclusions:

The State receives regular feedback from NCHS. However, the State did not indicate whether it collects and responds to feedback from data submitters.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 378:

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

Standard of Evidence:

Provide a sample quality management report and specify frequency of transmission to the State TRCC.

Question Rank:
Somewhat Important

Assessor conclusions:

The State does not produce vital records data quality reports or make them available to the TRCC.

Respondents assigned	1	Responses received	1	Response rate	100%

Data Use and Integration

Data integration combines more than one data-set to create a larger, more robust set of data. When data from more than one traffic records system is integrated, it gives the State access to better data to use in decision-making and planning. West Virginia has every system to perform integration between these data-sets, but there is very little integration within the State other than crash and roadway data. Driver and Vehicle data-sets have not been made available to the traffic safety community citing privacy laws. Without these data-sets, there is valuable data missing to perform analysis of the data within traffic records community. Discussions with DMV to overcome this would prove beneficial for the State. Certain data can be protected and still be shared from the driver and vehicle records if there are privacy concerns. Most analysis is not looking for the personal information from these specific systems.

There is no statewide data governance process or policy given during the assessment. There was a link shared to a website where multiple files were located. There was no clear indication which document was a data governance policy implemented throughout the State. Unless a data governance process is in place, the State will need to address each agency's requirements to access and integrate data efficiently. A State level data governance process will assist with standardizing and gaining access to data from the multiple agencies that own and release data. Data governance policies implemented across these agencies will assist with the driver and vehicle file sharing. Integration of the multiple systems will allow the State to analyze and act upon the given data with better understanding and knowledge of the problems. Integration will promote a data-driven approach to traffic safety across the multiple agencies involved instead of looking at just data easily accessible within one or two components of the traffic records system.

The State does not have a traffic records system inventory. Without an inventory, it is difficult to understand what data is available for users. An inventory would include the data elements, possible linkages between systems, and detailed information about the data structure. With a detailed inventory containing the known integration points, as well as the elements, it will further increase the use and integration of the data. When the data elements and values are transparent to the potential users of the data, the State will see more value in the data and the need to integrate. The inventory will also assist in planning upgrades to systems. A detailed inventory can assist agencies in determining what data is already captured elsewhere to reduce duplication of data collection.

Although data is available to decision-makers within the State, there are data-sets not included. Crash and roadway are the only files integrated in West Virginia. Until electronic citations are implemented within the State and issues gaining access to driver and vehicle files, the State will need to find other ways to gain access to that specific data to perform more detailed analysis. The public has access to limited reports for analysis. They do not have access to raw data to perform their own analysis of the data-sets available.

Although West Virginia has every component for an integrated traffic records data-set, there is very little integration between the files. There are hurdles within the State that needs to be addressed in order to fully integrate the data. Once a data policy is being used by all agencies, there is a higher chance the agencies will begin to allow data to be integrated for specific purposes. Until data integration is performed with all the traffic records systems, it will be difficult for the State to perform detailed, data-driven analysis with the big picture in mind. Crash and

roadway data is valuable, but there is a large portion of data missing that needs to be addressed.

Question 379:

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

Standard of Evidence:

Identify the data source(s), (crash, roadway, driver, vehicle, citation adjudication, injury surveillance), discuss and provide examples of program specific analysis (e.g., reports, fact sheets, web pages, ad hoc analyses.

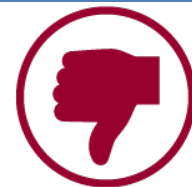**Question Rank:**
Very Important

Assessor conclusions:

Two attached documents are from two regions where the funding allocation is explained but does not describe the statistics and evidence used to support where the funding has been allocated. The other attached documents have raw DUI and fatality numbers. The reports do not explain what the numbers mean or how they are used to identify problem locations throughout the State. The narrative to support this ideal explains program managers receive information, but there is no specific analysis to detail how the data is used.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 380:

Does the State have a data governance process?

Standard of Evidence:

Provide a narrative detailing the State's data governance process, identifying the personnel involved and describing how it supports traffic safety data integration and formal data quality management.

Question Rank:
Somewhat Important

Assessor conclusions:

The data governance process must be attached and not referenced within a web address. Although links contained policies supporting data classification and backups, these alone do not constitute data governance.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 381:

Does the State have a formal traffic records system inventory that identifies linkages useful to the State and data access policies?

Standard of Evidence:

Provide a copy of the system inventory specifying all traffic records data sources, system custodians, data elements and attributes, linkage variables, linkages useful to the State, and data access policies.

Question Rank:
Very Important

Assessor conclusions:

The State does not have an inventory of the traffic records systems.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 382:

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

Standard of Evidence:

Identify, with appropriate citations, the TRCC strategic plan sections that demonstrate the promotion of data integration.

Question Rank:
Somewhat Important

Assessor conclusions:

Although there is an update to the TRCC, they are not directly involved, as a whole, with the data governance, access and security policy decisions for the system identified. The project described is funded by the State and is an ongoing project that has not been implemented. Individuals responsible for this project are within the Division of Highways as the sole agency involved. The system described appears to assist the Division of Highways with data under their control. Although planned, injury, crash or adjudication data are not within the system.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 383:

Is driver data integrated with crash data for specific analytical purposes?

Standard of Evidence:

Document an integrative crash-driver link, the linkage variables, and example analysis, and the frequency of linkage. Example analyses could include an assessment of graduated drivers' license (GDL) law effectiveness or of crash risk associated with motorcycle rider training, licensing, and behavior.

Question Rank:
Very Important

Assessor conclusions:

Although attempts have been made to gain access to the driver data, there is no integrated dataset between driver and crash.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 384:

Is vehicle data integrated with crash data for specific analytical purposes?

Standard of Evidence:

Document an integrative crash-vehicle link, the linkage variables, and example analysis, and the frequency of linkage. Example analyses could include crash trends among vehicle types or vehicle weight restriction by road classification.

Question Rank:
Very Important

Assessor conclusions:

Although there have been attempts to gain access to vehicle data, there is no integrated file with vehicle and crash data.

Respondents assigned	2	Responses received	2	Response rate	100%

Question 385:

Is roadway data integrated with crash data for specific analytical purposes?

Standard of Evidence:

Document an integrative crash-roadway link, the linkage variables, and example analysis, and the frequency of linkage. Example analyses could include the identification of high crash locations and locations with similar roadway attributes or an assessment of engineering countermeasures' effectiveness.

Question Rank:
Very Important

Assessor conclusions:

Crash data is integrated with roadway data. Hotspot crash areas and roadway characteristics is an example given using the integrated files.

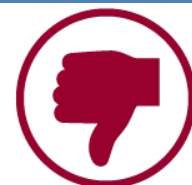| Respondents assigned	3	Responses received	2	Response rate	66.7%

Question 386:

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

Standard of Evidence:

Document an integrative crash-citation or adjudication link, the linkage variables, and example analysis, and the frequency of linkage. Example analyses could include an assessment of the relationship between illegal actions and crashes for specific driver subpopulations (e.g., older drivers) or of crash-involved DUI offenders' adjudications.

Question Rank:
Very Important

Assessor conclusions:

Although the State is working on integrating crash and citation data, it is not integrated for analytic purposes.

Respondents assigned	2	Responses received	1	Response rate	50%

Question 387:

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

Standard of Evidence:

Document an integrative crash-injury surveillance link, the linkage variables, and example analysis, and the frequency of linkage. Example analyses could include injury outcomes by specific crash type or injuries associated with occupant protection.

Question Rank:
Very Important

Assessor conclusions:

There is no injury surveillance and crash data integration.

Respondents assigned	3	Responses received	3	Response rate	100%

Question 388:

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

Standard of Evidence:

Document an integrative link among crash and multiple data systems, the linkage variables, and example analysis, and the frequency of linkage. Example analyses could include an assessment of the safety impact of differential speed limits for different vehicle types.

Question Rank:
Somewhat Important

Assessor conclusions:

The State is not integrating multiple data sets with crash data. No description or documentation was given describing an integrative link, linkage variables or any examples of this linkage.

Respondents assigned	2	Responses received	1	Response rate	50%

Question 389:

Is data from traffic records component systems—excluding crash—integrated for specific analytical purposes?

Standard of Evidence:

Document an integrative link using at least two traffic record component systems excluding the crash system. Include the systems, their linkage variables, example analysis, and the frequency of linkage. Example analyses could include an assessment of recidivism among specific driver populations.

Question Rank:
Somewhat Important

Assessor conclusions:

The State's traffic record component systems are not integrated for analytic purposes. There is a plan in place for integration of these files.

Respondents assigned	1	Responses received	1	Response rate	100%

Question 390:

Do decision-makers have access to resources—skilled personnel and user-friendly access tools—for the use and analysis of integrated datasets?

Standard of Evidence:

Identify the analytical resources available: personnel, software, or online resources. Specify the decision-makers who have access to these resources.

Question Rank:
Somewhat Important

Assessor conclusions:

The State allows access to certain files for analysis. Citation data is not available until electronic citations are deployed. The system lacks vehicle and driver datasets required to support integrated analysis.

Respondents assigned	3	Responses received	3	Response rate	100%

Question 391:

Does the public have access to resources—skilled personnel and user-friendly access tools—for the use and analysis of integrated datasets?

Standard of Evidence:

Identify the analytical resources available to the public: personnel, software, or online resources. Specify how the public has access to these resources.

Question Rank:
Somewhat Important

Assessor conclusions:

Although some information is available to the public, it is through reports that are already generated. Other data is only available through specific requests for the data with no user friendly tools. There is no information that multiple data-sets are integrated and available to the public for their own analysis.

Respondents assigned	17	Responses received	14	Response rate	82.4%

Appendix A

Assessment Participants

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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 B

National Acronyms and Abbreviations

AADT	Average Annual Daily Traffic
AAMVA	American Association of Motor Vehicle Administrators
AASHTO	American Association of State Highway and Transportation Officials
ACS	American College of Surgeons
AIS	Abbreviated Injury Score
ANSI	American National Standards Institute
ATSIP	Association of Transportation Safety Information Professionals
BAC	Blood Alcohol Concentration
CDC	Center for Disease Control
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
NEMSIS	National Emergency Medical Service Information System
NGA	National Governor's Association
NHTSA	National Highway Traffic Safety Administration
NIBRS	National Incident-Based Reporting System
NIEM	National Information Exchange Model
NLETS	National Law Enforcement Telecommunication System
NMVTIS	National Motor Vehicle Title Information System
NTDS	National Trauma Data Standard
PAR	Police Accident Report
PDPS	Problem Driver Pointer System
PDO	Property Damage Only
PII	Personally Identifiable Information
RA	Regional Administrator (NHTSA)
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

DQR	Data Quality Reports
EMSPIC	EMS Performance Improvement Center
ERP	Enterprise Resource Planning System
GHSP	Governor's Highway Safety Program Office
LRS	Location Referencing System
OEMS	Public Health Office of Emergency Medical Services
PHIN	Public Health Information Network
WEAPON	West Virginia Automated Police Network
WV OASIS	West Virginia Our Advanced Solution with Integrated Systems
WVDOH	West Virginia Division of Highways