



## MOTOR CARRIER SAFETY ADVISORY COMMITTEE

C/O: Federal Motor Carrier Safety Administration  
1200 New Jersey Avenue, SE  
Room W64-232  
Washington, DC 20590

July 3, 2013

The Honorable Anne S. Ferro  
Administrator  
Federal Motor Carrier Safety Administration  
1200 New Jersey Avenue, SE  
Washington, DC 20590

Dear Administrator Ferro:

As instructed by the Federal Motor Carrier Safety Administration (FMCSA), the Motor Carrier Safety Advisory Committee (MCSAC) created the Compliance, Safety, Accountability (CSA) subcommittee (subcommittee) and tasked it with providing feedback and suggestions on the CSA program and how it could be more effective as a tool for identifying unsafe motor carriers. FMCSA tasked the Committee with providing periodic letter reports to the Agency recommending prioritized actions, with supporting data, to improve the CSA program.

In public meetings on October 16-17, 2012, December 5, 2012, and February 5-6, 2013, the subcommittee identified, discussed, and recommended enhancements to the CSA program. The MCSAC met in a public meeting on April 9, 2013, to discuss the subcommittee's recommendations and is advancing them for consideration by the Agency. Attached are the subcommittee's initial highest priority recommendations relating to the following issues: 1) crash accountability; 2) CSA's public accessibility; and 3) data quality. The MCSAC believes that the positions presented in the subcommittee's recommendations are reflective of the differing views with respect to each issue. These initial recommendations are attached as the first in a series of recommendations for Task 12-03 by the CSA Subcommittee of the MCSAC with a summary of the related discussion to provide insight on the matters considered.

If FMCSA were to go forward with changes to the Crash BASIC, the Committee recommends that the Agency determine which criterion it will use and define the term for it very clearly. Once defined, we recommend that the term be used consistently.

On behalf of the MCSAC, I submit these initial recommendations to FMCSA for its consideration.

Sincerely,

//signed//

Stephen C. Owings  
Chairman, Motor Carrier Safety Advisory Committee

Enclosure

## **MCSAC Task 12-03: Evaluation of and Recommendations on the CSA Program CSA Subcommittee Recommendations**

### Introduction

In Task 12-03, FMCSA requested that the MCSAC form a subcommittee to provide feedback, suggestions, and recommendations for enhancements of the CSA program. The Agency also requested that the subcommittee prioritize recommended enhancements of CSA to enable FMCSA to direct its efforts to the most important or timely needs of the program. This report contains the initial highest priority recommendations developed by the subcommittee, which the MCSAC is advancing to the Agency for its consideration. In addition to the recommendations, which are highlighted in yellow, the report below includes background discussion and rationale to support each recommendation. The subcommittee's report has been annotated with some comments and redline-strikeout edits from the MCSAC (in red text).

Regarding the first issue addressed below ("Crash Accountability/Fault/Causation"), the MCSAC requests that FMCSA consider the differences between and provide specific definitions for the terms relating to this subject. In particular, the terms "fault," "preventability," "causation," and "accountability" each have different meanings and would result in different crash data being attributed to a carrier, depending on the term and definition used. For this reason, the Committee believes the Agency must carefully consider the meaning and use of each of these terms. The MCSAC also requests that the FMCSA inform the Committee of any Agency definitions of these terms (regulatory or otherwise) that are established by the Agency.

### **I. Crash Accountability/Fault/Causation**

- A. Currently, the Crash Indicator Behavior Analysis & Safety Improvement Category (BASIC) includes data on all reportable crashes, regardless of fault or preventability.
- B. Not all crashes are reported (only those that involve the towing of a vehicle). There is an underreporting factor.
- C. Many members expressed concern that crash preventability is an important part of data quality, stating that being involved in crashes is different than causing them. Starting from all reported crashes is inappropriate because many of them may not be related to carrier safety.
- D. Other members argued that because Crash Indicator is the BASIC that correlates best to risk of future crashes, there is value in looking at all crashes, regardless of fault.
- E. One member suggested the following solution: Continue to use all reportable crash data in the Crash Indicator BASIC, *but*:
  1. Fault should be weighted (no fault determination – 1 point, fault found – 2 points, not-at-fault – 0 points).
  2. If a determination of fault (e.g., primary contributing factor) is on the crash report, it should be used.
- F. Many police reports do not contain a fault determination.
- G. When it is reported, there is a lack of consistency in how preventability or fault is reported. When it is reported, there is a lack of due process to challenge a finding of fault or preventability.
- H. FMCSA: The Agency is in the midst of a study to examine whether the Crash Indicator BASIC score can be better correlated to future crashes by removing crash data where a preventability determination can be made.

1. The study is using preventability determinations in Police Accident Reports (PARs) from fatal accidents (those in the University of Michigan Transportation Research Institute (UMTRI) Trucks Involved in Fatal Accidents (TIFA) Survey).
2. Whoever coded the critical event in the large truck causation study is assigned that crash.
3. The study is examining the following questions:
  - a. Are the preventability determinations in the Fatality Analysis Reporting System (FARS) a better determination of crashes if only those crashes with fault are used?
  - b. If the Crash Indicator correlation to crashes is improved by using only preventable crashes, is the improvement so substantial that it is worth the cost/effort to pursue a preventability determination for each crash?

**I. Subcommittee Consensus Recommendations:**

1. The current FMCSA study should consider the following issues—
  - a. For each crash PAR in FARS, look to any additional crash investigations that were done (e.g., criminal report, results of civil lawsuit, accident reconstruction report, employer accident report, insurance report, compliance review, etc.).
    - i. When considering employer (carrier) reports, the Agency review should beware of subjectivity.
  - b. Examine and evaluate all existing State and academic studies on the accuracy of State crash reports.
  - c. The Agency should consider and price different alternatives for determination of preventability or fault. Consider costs for carriers and other areas of industry.

**J. Subcommittee Recommendations (Palmer, Petrancosta, Hamilton, Tucker, Spencer, Davison, Mulanix, Supina):**

1. Examining all information that the Agency has before it, FMCSA should exclude crash data for which there is a clear determination of not-at-fault or non-preventable crashes for purposes of a carrier's Crash Indicator BASIC score.
  - a. For example, if a determination of fault (e.g., primary contributing factor) is on the crash report, it should be used. Most law enforcement agencies get it right if they are required to find fault on a report.
  - b. Rationale:
    - i. Preventability determination in crashes is an important part of data quality. Being involved in crashes is different than causing them.
    - ii. Starting from all reported crashes is inappropriate because many of them may not be related to carrier safety.
    - iii. Determination of preventability for a particular crash is very fact-specific.

**K. Subcommittee Recommendations (Owings, Lannen):**

1. The Crash Indicator BASIC should continue to use all crash reports, regardless of fault or preventability determination.
2. Rationale:
  - a. Crash Indicator is the strongest BASIC (i.e., the BASIC that best correlates to future crashes). There is value in looking at all crashes regardless of fault.
  - b. Currently, all ~~reportable~~ reported ~~reportable~~ crashes are included, so all carriers are being treated the same. The lack of consideration of fault in crash data should affect all carriers the same way.
    - i. **MCSAC Comment: The Committee believes the word "reportable" should be changed to "reported" because not all reportable crashes are reported.**
  - c. Police reports are subjective and imperfect. Asking someone to determine fault by looking at the crash report information would be more subjective than using the fault determination on a police report.

- d. Determining preventability would be costly: variances in timing to investigate; training level of officers; differences in crash report forms; and differences in analysis of a crash report.
  - e. How would the second party be contacted that a crash is being appealed? What is the process of notification? What is the cost?
  - f. What are the legal consequences (for a civil or criminal suit) of the Federal government making a determination of fault or preventability of crashes?
3. Caveat: If preventability could be determined in a cost-effective way and it contributed to the correlation of the Crash Indicator BASIC score to future crashes (as evaluated in the currently ongoing FMCSA study), it should be used to separate data for purposes of the Crash Indicator BASIC.
  4. An unintended consequence of only including crashes for which a report indicates that a carrier was a primary contributing factor would be that in the case where the fault determination was wrong, that crash would be removed from the carrier's Crash Indicator BASIC score.
- L. Some members expressed concern that motorcoaches should be separated from trucks in the Crash Indicator BASIC relative rating because there are fewer motorcoach crashes, which are weighted heavily because of the involvement of passenger injuries, skewing passenger carriers' Crash Indicator BASIC score. These members argued that FMCSA should consider using absolute numbers (vs. relative).
1. FMCSA (Bill Quade) explained that the problem with separating them is that it creates very small peer groups by categorizing different passenger carriers. The resultant relative ratings within a peer group are divergent.

## II. Public Accessibility of CSA

- A. Some members argued that, regardless of the intention, the public, businesses, and brokers are using CSA to make business decisions based on BASIC scores, i.e., potential customers are using the Safety Measurement System (SMS) as a carrier selection tool. These members argue using SMS as a carrier selection tool is inappropriate because certain scores are inversely correlated (i.e., not correlated) to crash risk.
1. For example, if the potential customer makes a decision not to work with a carrier based on one negative rating in one BASIC (which they can see) but that carrier has a low crash rate (which the public cannot see), the customer may have made a different decision had it possessed complete information about the carrier.
  2. Alternatively, the consumer may select a carrier that is not rated because that carrier is operating "under the radar."
- B. The Agency has sufficient data to score only 40% of carriers in some BASICs, so the relative score is not relative to the entire universe of existing carriers because FMCSA does not have enough data to score 60% of carriers.
- C. Subcommittee Recommendations:
1. If removal of CSA scores from public view is not possible, FMCSA should remove, at a minimum, the Controlled Substance/Alcohol and Driver Fitness BASICs. (Dissent: Lannen, Hamilton, Mulanix, and Owings)
  2. FMCSA should remove from public view the three BASIC scores that do not correlate strongly to crash risk (HM, Driver Fitness, Controlled Substance/Alcohol). Keep the Crash Indicator BASIC removed from public view. For the remaining three BASICs (Unsafe Driving, Vehicle Maintenance, Hours of Service), keep those in public view. Then give carriers an absolute score and a relative score and place both scores in context (by using a

- disclaimer). Absolute scores should be featured more prominently on the website than they are currently. (Dissent: Lannen, Hamilton, Mulanix, and Owings)
3. While the Agency should explain what the data is (and what it is not), FMCSA should not provide guidance or encouragement on how to use SMS data for carrier selection (e.g., by shippers, brokers, insurance companies, etc.). Direction to users should be explicit. (Dissent: Lannen, Owings; Abstain: Hamilton, Mulanix)
  4. Explanation of the CSA system should include a statement that SMS scores are compliance scores and should not be considered a safety determination for use by entities hiring carriers. (Dissent: Lannen, Owings, and Hamilton)
  5. Disclaimer regarding the “Use of SMS Data/Information” should be at the front end of the score information (as a header). SMS should use a pop-up screen to require acknowledgement of the disclaimer containing this information before the user can access the scores.
  6. Caveat: FMCSA should work to improve data quality, data gathering, and lack of data for many carriers.
- D. FMCSA (Bill Quade): Absolute scores are problematic because small carriers have a lot of variability in scores because they have less inspection snapshots. Showing absolute scores (vs. relative scores) will generally make large carriers have higher scores than smaller carriers.
1. FMCSA does not feel it has enough accurate mileage data to provide scores in terms of “per 100,000 miles.” Mileage data is provided by carriers and is not reliable.
- E. Subcommittee Recommendations (Lannen, Hamilton, Mulanix, and Owings): FMCSA should keep all scores public and explain the difference between a compliance score and a safety score. The Agency should provide more education on how the public should interpret the scores.
1. The two BASICS that do not correlate well to crash risk should be referred to as “compliance” scores (Controlled Substance/Alcohol, Driver Fitness), and the BASICS that do correlate well to crash risk should be referred to as “safety” scores.
  2. Rationale:
    - a. This is taxpayer data; the public should be able to see it.
    - b. The rating will still exist, even if it is removed from the website. Hiding the data will just result in diverting FMCSA resources to Freedom of Information Act (FOIA) requests (unintended consequence).

### III. Data Quality Issues

- A. FMCSA: The Agency has efforts ongoing to improve State’s quality of data (including but not limited to the list below). FMCSA has seen crash reporting improve significantly in the past decade.
1. The Agency has developed a DataQs guide so that all States have a standard document for those determinations.
  2. FMCSA is about to release a new version of the DataQs process to make it more user-friendly, collect better information, and improve reporting capabilities (e.g., what violations are being challenged).
  3. The Agency is contemplating moving to a system that does not permit a carrier to submit a DataQ unless it has submitted its MCS-150 update per the biennial update requirement.
- B. **Under-reporting by States.** States under-report crashes.
1. Solving this problem might solve some of the methodology problems in the SMS scoring.
  2. Even with additional funding, States can give forms and training to local municipality enforcement agencies but they cannot force the local jurisdictions to accurately upload information relating to a non-fatal crash.

3. **Subcommittee Consensus Recommendations:** FMCSA should evaluate the possibility of changing the definition of a reportable Department of Transportation (DOT) crash for purposes of CSA (e.g., to include only fatal crash data or fatal and injury crash data).
    - a. The Agency should consider any definition of crashes that shows a better correlation to future crashes.
    - b. The danger of not including all crashes (e.g., only fatal crash data) is that doing so might miss crashes that could have been a fatal or serious injury crash, but for the specific luck/situational facts of that situation.
- C. **Standardization in the data.** There are no standard crash report forms.
1. **Subcommittee Consensus Recommendation:** FMCSA should reach out to the Commercial Vehicle Safety Alliance (CVSA), the International Association of Chiefs of Police (IACP), and/or the National Highway Traffic Safety Administration (NHTSA) to work towards standardization. These entities could provide valuable input on this problem.
  2. IACP could provide good input on all the local crash reporting data.
- D. **Geographical disparities** create biases for certain carriers depending on where they operate.
1. The number of inspections conducted is higher in certain States. Certain types of violations are more likely to be cited in certain areas.
    - a. **Subcommittee Consensus Recommendation:** If the violations do not correlate to crash risk, FMCSA should evaluate weighing violations from those States differently for purposes of SMS scores.
    - b. **Some MCSAC members expressed the view that there is some value in BASIC ratings that do not necessarily correlate directly to crash risk because they may still indirectly have a relation to safety.**
  2. Out-of-service rates are higher in certain States.
  3. In certain speed zones, non-violation inspections are conducted under the pretenses of speeding. Points are given for speeding, although no other violations are found.
  4. FMCSA encourages States to focus on issues that result in crashes in their States. There may be reasons for certain disparities.
  5. The opportunity to obtain accurate inspections is just as likely in these different types of areas.
  6. **Subcommittee Consensus Recommendation:** FMCSA should evaluate the normalization of outlier violation data from heavily reporting States (e.g., out-of-service rates outside of the average, highly reported violations outside of the average across States), and determine whether such normalization would produce scores that better correlate to future crashes.
  7. **MCSAC Comment:** Many States do not have enough officers to perform the ideal quantity of inspections.
- E. **Lack of data for certain carriers.**
1. Approximately 325,000 carriers do not have enough data to be scored in the system (but account for only 8 percent of crashes).
  2. Currently, FMCSA places 10% of carriers with insufficient data as a 99% score in the Inspection Selection System (ISS) every month to gather additional data through inspections. Most of these are small carriers.
  3. **Subcommittee Consensus Recommendation:** FMCSA should evaluate the usefulness and cost of collecting data from Federal annual inspections of vehicles. The Agency should focus on States that have a manual inspection program.
- F. **Unique motorcoach issues:** There are only a few States (approximately 6) that have State-level inspection programs. Not many motorcoaches are inspected outside of those States, which creates an uneven playing field for passenger carriers. A State-level inspection program should be tied to Motor Carrier Safety Assistance Program (MCSAP) grants.

- G. California officers that provide traffic citations to drivers process those violations (e.g., speeding, improper lane change) through the Department of Motor Vehicles (DMV) because officers without certification cannot complete the motor carrier violation. Convictions for moving violations are not uploaded into SMS data.
1. FMCSA is aware of the problem and would like to obtain that type of data. It is working with the States and the American Association of Motor Vehicle Agencies (AAMVA) to obtain access to citation reports of commercial driver's license (CDL) drivers.