



# Commercial Vehicle Safety Alliance

Improving commercial motor vehicle safety and enforcement

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Dockets Operations  
U.S. Department of Transportation  
1200 New Jersey Avenue, SE  
West Building, Ground Floor  
Room W12-140  
Washington, DC 20590-0001

**RE: Docket Number: FMCSA-2022-0066**  
***Revised Carrier Safety Measurement System Notice; Request for Comments***

The Commercial Vehicle Safety Alliance (CVSA) respectfully submits the following comments in response to the Federal Motor Carrier Safety Administration's (FMCSA) request for comments on proposed changes to the agency's Safety Measurement System (SMS).

CVSA is a nonprofit organization comprised of local, state, provincial, territorial and federal commercial motor vehicle safety officials and industry representatives. The Alliance aims to prevent commercial motor vehicle crashes, injuries and fatalities and believes that collaboration between government and industry improves road safety and saves lives. Our mission is to improve commercial motor vehicle safety and enforcement by providing guidance, education and advocacy for enforcement and industry across North America.

## **General Comments**

CVSA supports FMCSA's efforts to improve the SMS. As noted throughout the "Federal Register" notice, the SMS was designed as a tool to help the commercial motor vehicle inspector community identify and prioritize motor carriers for safety interventions. A motor carrier's SMS rating/score is based upon inspection data, traffic enforcement, investigations and crash data. It is appropriate to review the SMS methodology on a regular basis to ensure the system works effectively and meets its goal of identifying high risk motor carriers for intervention. The SMS serves as a valuable tool for enforcement and CVSA welcomes this opportunity to comment on the proposed changes to the SMS.

Overall, CVSA understands and supports many of the changes and decisions proposed by FMCSA. However, CVSA has concerns about the overall impact of narrowing the focus of the SMS on the jurisdictions' ability to identify and interact with motor carriers with poor safety performance. The following comments outline CVSA's support for certain provisions, as well as the Alliance's concerns.

### **Item Response Theory Modeling**

As stated in the “Federal Register” notice, FMCSA was directed to explore implementing an Item Response Theory (IRT) approach based on recommendations from the National Academy of Sciences. After evaluating the IRT model, FMCSA has decided not to implement such an approach within the SMS due to a number of factors. The approach is complicated and difficult to explain and replicate for non-statisticians. Further, the approach is biased towards smaller carriers, therefore skewing a motor carrier’s SMS score. Finally, and most notably, FMCSA found that the IRT model “does not perform well for the agency’s use in identifying motor carriers for safety interventions.”

The methodology by which motor carriers are evaluated and prioritized for intervention must be clear. The IRT model is a time-consuming system that is difficult for drivers, safety managers and inspectors to replicate and understand. Further, this approach is biased against smaller motor carriers and does not produce a more accurate correlation to unsafe motor carriers than FMCSA’s current approach. Based on these conclusions from FMCSA, CVSA agrees with the agency’s decision not to implement the IRT model.

### **Proposed Changes to SMS**

As noted above, generally CVSA understands FMCSA’s reasoning behind the changes proposed to SMS, to include:

- reorganizing and updating the BASICs into ‘safety categories’
- consolidating violations
- simplifying severity weights
- moving to proportionate percentiles instead of safety event groups
- adjusting intervention thresholds
- focusing on more recent violations
- updating the Utilization Factor

In particular, CVSA supports the proposed change to include violation data up to 12 months old, rather than 24 months. CVSA agrees that doing so will provide a more accurate assessment of the motor carrier’s current safety performance. In addition, CVSA supports moving to a more simplistic system for severity weighting.

However, while CVSA understands the individual rationale behind each proposed change, the Alliance is concerned that the proposed changes, when combined, may have unintended consequences. For example, CVSA is concerned that the combination of violation grouping and the 1- or 2-point system may not accurately reflect a motor carrier’s safety performance. Under the proposed changes, a motor carrier whose driver is found to have multiple out-of-service conditions during an inspection could appear the same as a motor carrier whose driver is found with only one out-of-service condition, depending on which safety category the out-of-service condition belongs in. Under another scenario, a driver with five out-of-service conditions under the Unsafe Driving Safety Category and three out-of-service conditions under the Vehicle Maintenance Safety Category would appear equivalent to a similar motor carrier with only one out-of-service condition in each of those safety categories.

In addition, the combination of violation grouping and the 1- or 2-point system will also equate minor violations that are not out of service to those more serious violations that do not meet the strict imminent hazard threshold

of an out-of-service condition. While the current 1-10 rating approach is too broad, the revised severity rating may be too simplistic. CVSA recommends that FMCSA explore a point system that more accurately accounts for out-of-service conditions and violation severity and frequency, to better reflect a motor carrier's safety performance (i.e., count all of the related violations and/or out-of-service conditions in a specific safety category).

Furthermore, the Alliance is concerned that the proposed changes, when combined, may inadvertently restrict the states' ability to identify motor carriers in need of intervention. Throughout the document, FMCSA asserts that the individual changes help the agency focus more directly on motor carriers with the *highest* crash risk. This is because the end result of the proposed changes is a reduction in the number of motor carriers identified for intervention, with the remaining pool of carriers having a higher crash risk.

Focusing on crash risk is critical. However, it is a relative concept, with each level of crash risk being one step below the next. Currently, jurisdictions are able to identify and prioritize motor carriers with a wide range of crash risk (think red and orange motor carriers). Under the new proposal, the range is limited to a smaller subset of the most concerning motor carriers (only the red motor carriers), which should help jurisdictions with limited resources prioritize the highest risk carriers. However, the change will prevent jurisdictions with more resources, or fewer of the highest risk carriers in their system, from being able to evaluate and potentially identify those motor carriers (the orange ones) who are no longer flagged for intervention due to the narrower focus. CVSA recommends the agency explore options that would allow for the varying levels of intervention recommendations in SMS. States could then make intervention decisions based on the resources available. States with more resources will be able to interact with more motor carriers (red and orange, not just red), improving the overall level of safety on our roadways and preventing some high risk carriers from transitioning to highest risk due to a lack of intervention.

CVSA works to closely monitor, evaluate and identify potentially unsafe transportation processes and procedures as well as to help facilitate and implement best practices for enhancing safety on our highways. Commercial motor vehicle safety continues to be a challenge and we need the involvement of all affected parties to help us better understand these issues and put into place practical solutions. We appreciate the opportunity to comment on this proposal and the agency's commitment to safety and stakeholder involvement.

If you have further questions or comments, please do not hesitate to contact me at 202-998-1008 or [collin.mooney@cvsa.org](mailto:collin.mooney@cvsa.org).

Respectfully,



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