

**FEDERAL MOTOR CARRIER SAFETY ADMINISTRATION
U.S. DEPARTMENT OF TRANSPORTATION
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**Proposed Changes to the
Safety Measurement System (SMS) Methodology**

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I. INTRODUCTION

American Trucking Associations, Inc., (ATA) submits these comments to the Federal Motor Carrier Safety Administration (FMCSA) in response to the June 29, 2015 request for public comment titled “Proposal for Future Enhancements to the Safety Measurement System (SMS).”¹ ATA is the national trade association representing the American trucking industry.² As a representative of commercial motor carriers, ATA is vitally interested in matters affecting the Compliance, Safety, Accountability (CSA) program and how data from the CSA SMS is displayed to the public.

II. ATA’S OVERARCHING POSITION

ATA appreciates FMCSA’s interest in making continuous improvements to the SMS methodology. This is especially appropriate in light of the Government Accountability Office’s finding that due to data and methodology issues, SMS scores of individual fleets are often unreliable indicators of future crash risk.³ However, meaningful changes to the SMS will require more than simply “tweaking” the system by modestly adjusting intervention thresholds, reclassifying out-of-service violations, and changing the mileage utilization factor. Instead, it will require a commitment on the part of FMCSA to focus on the

¹ Proposal for Future Enhancements to the Safety Measurement System (SMS), 80 Federal Register, No. 124, page 37037, June 29, 2015. (Hereinafter “the notice”).

² ATA is a united federation of motor carriers, state trucking associations, and national trucking conferences created to promote and protect the interests of the trucking industry. Directly and through its affiliated organizations, ATA encompasses over 34,000 motor carriers and suppliers of every type and class of operation in the United States, Canada, and Mexico.

³ *Modifying the Compliance, Safety, Accountability Program Would Improve the Ability to Identify High Risk Carriers*; United States Government Accountability Office Report to Congressional Committees, GAO-14-114, February 2014.

violations that have the strongest correlation to crash risk and on gathering data on the hundreds of thousands of fleets whose performance cannot be measured by the SMS.

Independent Review Team Recommendations

ATA is particularly discouraged that FMCSA did not take this opportunity to address the SMS limitations identified by an Independent Review Team (IRT) appointed by Transportation Secretary Foxx in their July 15, 2014 report.⁴ The agency has had a year to consider these limitations and address them, but appears to have simply chosen not to do so in a meaningful way. For example, the review team said FMCSA should “*expand its work with industry and stakeholders to develop SMS enhancements to better discern motor carrier management actions that lead to crashes.*” More specifically, the IRT made the following recommendation:

The system may be more effective if the data is re-organized to give the appropriate attention and importance to compliance with regulations that foster good overall safety management, and to behaviors most directly and immediately influencing safety. The “form and manner” compliance issues should not be mixed in with the crash risk-related violations in each BASIC.

To separate the form and manner violations from the violations that have a direct impact on crash risk, FMCSA could create a “grouping” of compliance-specific BASICs as “management controls,” and use it in conjunction with the current BASICs. Alternatively, it could consider creating an eighth BASIC with the same purpose. Either approach could help distinguish between carriers evidencing management issues that may lead to safety problems and those that demonstrate high-risk behaviors that are directly and immediately connected to crash risk.⁵

FMCSA has not proposed these changes despite having had almost a year to consider them. Their absence in this notice suggests that FMCSA has refused to accept them. Instead, FMCSA has paid “lip service” to these recommendations by slightly adjusting intervention thresholds. This is especially concerning given the impetus for the IRT report. The National Transportation Safety Board (NTSB), noting several instances of serious lapses in FMCSA’s enforcement program, called on the Secretary of Transportation to independently evaluate FMCSA’s enforcement programs. Specifically, NTSB found that the agency had failed to identify at risk fleets that were later involved in tragic crashes. Despite the involvement of the NTSB and the necessity of an Independent Review Team, FMCSA still stubbornly refuses to make meaningful changes to the SMS.

Data Preview Period

ATA appreciates that FMCSA will permit fleets to preview how the methodology changes will impact their measures and percentile rankings, prior to making this revised information public. However, this preview will not be initiated until after the comment period is closed. Instead, FMCSA should allow fleets to preview their data under the revised methodology to better understand the impact, and then comment on the planned changes. Doing so would better inform the process. For instance, if exceptionally safe fleets were to notice that their scores under the revised methodology erroneously suggested they were unsafe, they could alert FMCSA of the need to revise the methodology before the

⁴ *Blueprint for Safety Leadership: Aligning Enforcement and Risk*, July 15, 2014 report of the Independent Review Team Appointed by Secretary of Transportation Anthony R. Foxx to Review the Federal Motor Carrier Safety Administration’s Safety Oversight of the Motor Carrier Industry.

⁵ *Ibid.* Page 19.

data and analysis is made publicly available. FMCSA took this approach with previous modifications but inexplicably took a different approach with these most recent changes.⁶

Additionally, the notice states that “FMCSA will provide a preview of the proposed enhancements allowing motor carriers to see their own data, enforcement to see the data, and an opportunity for all to comment prior to implementation.” This statement is puzzling. Does FMCSA plan to reopen the comment period during or after the preview period, but before full public display?

III. ATA’S COMMENTS ON SPECIFIC PROPOSED CHANGES

ATA offers the following comments on the specific planned SMS methodology changes outlined in the subject notice.

Adjusting Several SMS Intervention Thresholds

ATA supports FMCSA’s plan to adjust certain SMS intervention thresholds to better reflect the BASICS’ general correlation to crash risk. The goal of the entire CSA program is to implement more effective and efficient ways for FMCSA, its State Partners, and the trucking industry to prevent commercial motor vehicle (CMV) crashes, fatalities, and injuries.⁷ Certainly, adjusting thresholds to identify motor carriers more likely to have crashes is consistent with this goal.

However, FMCSA’s justification for this change in the subject notice raises interesting questions. The agency boasted that by making these adjustments the carriers prioritized for interventions will have a higher crash rate than the carriers currently prioritized for interventions.

The effectiveness testing, which uses historical data, showed under the current thresholds that 39,454 carriers at or above intervention thresholds had a crash rate of 5.12 crashes per 100 PUs and under the proposed thresholds 41,012 carriers at or above intervention threshold had a crash rate of 5.49 crashes per 100 PUs. This is a 7% increase in crash rate.⁸

It logically follows that further adjusting the thresholds will yield even better results. For instance, if the intervention thresholds identified as having a “low” correlation to crash risk in the SMS Effectiveness Test (e.g., Controlled Substances/Alcohol, Driver Fitness, HM Compliance) were raised to 95% and lowered in those identified as having a “high” correlation (e.g., Unsafe Driving and HOS Compliance), the result would be the identification of fleets with an even higher average crash rate. In other words, by not making such a change, FMCSA is missing the opportunity to intervene with a number of crash prone fleets in favor of those that have patterns of non-compliance with regulations that lack a strong correlation to crash risk. FMCSA contends that by making the planned changes the system will identify 2,431 new carriers for intervention. ATA wonders how many more carriers could be identified by further refining the methodology in this manner.

⁶ 77 Federal Register, No. 59, page 18298, March 27, 2012.

⁷ Carrier Safety Measurement System Methodology (CSMS) Version 3.0.3, September 2014, page 1-1.

⁸ The notice at 37038.

Planned Changes to the Hazardous Materials (HM) Compliance BASIC

1. Segmenting Cargo Tank (CT) and Non-CT Carriers

FMCSA's plan to segment the HM BASIC so as to compare CT carriers against CT carriers and non-CT carriers against other non-CT carriers seems logical. Under the current methodology, non-CT carriers often have higher scores not because they are less safe, but because they have greater potential for HM compliance violations than CT carriers. For instance, a less-than truckload carrier with many different commodities and shippers risks more shipping paper and placarding violations than a cargo tank carrier that hauls a limited number of commodities. The latter will often only deal with two or three varieties of shipping papers or types of placards.

However, this proposed change is a prime example of why FMCSA should re-open the docket for comments after beginning the preview period. Motor carriers need to be able to see the impact that this change will have on their scores, and on the identification of high risk fleets, in order to comment on it. Otherwise, support or opposition⁴ may only be based assumptions with respect to the impact.

It is ironic, though, that under the current methodology CT carriers often have better scores given their much higher potential for harm. A crash involving a CT carrier transporting 9,400 gallons of flammable liquid will intuitively have much more severe consequences than one involving a non-CT carrier hauling small packages of household hazardous materials (e.g., paint). Accordingly, relatively unsafe CT carriers - those that engage in risky behaviors - should not be assigned favorable scores in the HM Compliance BASIC merely because they are less prone to shipping paper and placarding violations due simply to the nature of their operations.

2. Releasing HM Compliance BASIC Percentile Rankings to the Public

ATA strenuously objects to making HM Compliance BASIC percentile rankings publicly available. No matter how they are presented, BASIC percentile rankings will be perceived as measures of safety (i.e. crash risk). However, scores in this category are a reflection of compliance with HM regulations, many of them relating to paperwork and placarding, not individual motor carrier crash risk. In other words, high scores in this category quite often do not point to carriers who are less safe.

FMCSA justifies making the percentile rankings publicly available by saying:

With these changes, FMCSA is confident that the data in the HM Compliance BASIC appropriately reflects the distinct operations of these carriers. As a result, FMCSA proposes to make the HM Compliance BASIC information available to the public.⁹

Noticeably absent is any claim that these changes will result in identifying carriers with higher crash rates. Of course, this is inconsistent with the justification for adjusting intervention thresholds, as discussed above. The justification for making HM compliance rankings public misses the reason why they are not currently posted on-line. In March of 2012, FMCSA created the HM BASIC and provided fleets with a preview of their scores before making them public (as was intended at the time). During

⁹ The notice at 37039.

this preview, many fleets with admirable safety performance noted that their scores in the HM BASIC erroneously suggested that they were unsafe.

ATA staff and several ATA member fleets met with FMCSA in June 2012 to express concerns about the disparity between their safety performance and scores in the HM BASIC preview. The carriers presented the data below - their respective BASIC percentiles and Crash Indicator scores - to illustrate the point. As a result, FMCSA ultimately elected to withhold HM BASIC scores from public view because it became clear that the scores in this BASIC did reflect individual motor carrier safety.

	Unsafe Driving	Fatigued Driving	Driver Fitness	Controlled Substances/ Alcohol	Vehicle Maintenance	Hazardous Materials	Crash Indicator
Carrier A	6.9	39.5	24.7	N/A	58.4	78.2	25.6
Carrier B	33.1	39.2	41.5	0.4	51.7	91	21.9
Carrier C	21.5	12.1	40.4	2	62.8	91.7	29.8
Carrier D	3.4	22.8	26.5	0.1	24.1	86.9	29.3

While segmenting the HM BASIC (CT and non-CT carriers) may help lessen this problem, there is no guarantee it will solve it. Moreover, it is quite possible that a non-CT fleet with an exceptional safety program will have high scores in the HM compliance BASIC. Of course, affected fleets will not know this until the preview period - which won't begin after the comment period closes. Therefore, given these concerns and FMCSA's acknowledgement that the correlation between HM Compliance percentile rankings and crashes is "low," ATA urges FMCSA to continue masking these scores from public view.

3. Placing all violations for operating while out-of-service (OOS) in the Unsafe Driving BASIC

ATA understands and agrees with FMCSA's rationale for placing all violations for violating (i.e., jumping) out-of-service orders in the Unsafe Driving BASIC. For instance, a driver's decision to jump an out-of-service order for a vehicle defect should not reflect on the company's maintenance program. The underlying OOS violation already does that. Instead, it should reflect on the driver's behavior and the motor carrier's inability to control such behavior.

Though supportive of this change, ATA offers caution in making similar future changes without more careful analysis. As FMCSA pointed out in the notice, adding these violations to the Unsafe Driving BASIC did not change the average crash rate of carriers above the intervention threshold. In other words, it did not improve the BASIC's ability to identify unsafe carriers. This finding leads ATA to the conclusion that a driver's decision to jump an out-of-service order, though seemingly a very serious violation, does not appear to have a strong correlation to future crash risk. Hence, before making assumptions that may seem intuitive (e.g., serious violations correlate to higher crash risk), FMCSA should undertake careful analysis. In this case, FMCSA should reconsider whether it is appropriate for the agency's "red

flag” violation list to include jumping an OOS order for a vehicle defect and whether the other violations on the list have a high correlation to crash risk.

4. Adjustments to the Utilization Factor (UF)

ATA strongly supports FMCSA’s proposed change to the mileage utilization factor for calculating carrier exposure in the Unsafe Driving BASIC and Crash Indicator. This change is long overdue. Several member carriers identified the need for this change and met with the agency over three and a half years ago to express their concerns. When FMCSA established the utilization factor to account for carrier mileage in measuring exposure, the agency anticipated that no fleet could reasonably average more than 200,000 miles per power unit annually. However, ATA conducted analysis demonstrating that fleets with exceptional asset utilization had team operations averaging approximately 230 to 240 thousand miles per power unit annually.

This change is logical as it accounts for fleet’s exposure to risk (mileage) in calculating their measures in the Unsafe Driving BASIC and Crash Indicator. However, motor carriers that operate more than 160,000 miles per power unit do not get full “credit” for these miles. Here’s why:

For fleets with average mileage between 80,000 and 160,000 per power unit, the utilization factor gradually increases as miles per power unit increases. Arbitrarily, this gradual increase stops at 160,000 miles and all fleets averaging between 160,000 miles per power unit and 200,000 miles per power unit are assigned a utilization factor of 1.6. Because the utilization factor is designed to account for additional risk exposure fleets experience as a result of traveling more miles and interacting with more hazards, it must continue to rise as a fleet’s mileage per power unit does. Applying the same factor to all high utilization fleets (i.e., capping it at 1.6) penalizes those who drive more miles.

<i>Utilization Factors</i>			
Straight Fleets		Combination Fleets	
VMT per Average PU	Utilization Factor	VMT per Average PU	Utilization Factor
< 20,000	1	< 80,000	1
20,000 – 60,000	$VMT\ per\ PU / 20,000$	80,000 – 160,000	$1 + .6(VMT\ per\ PU - 80,000)/80,000$
60,000 – 200,000	3	160,000 – 200,000	1.6
> 200,000	1	> 200,000	1
No Recent VMT Info	1	No Recent VMT Info	1

It is hard to understand why FMCSA would apply one formula for calculating the utilization factor to a fleet with average mileage per power unit of 150,000 miles, but a different formula to a fleet with 170,000 miles per power unit. ATA urges the agency to explain the basis for this disparate treatment,

how it is equitable, and how it helps FMCSA identify fleets that are prone to having higher crash rates per million miles.

FMCSA has proposed increasing this factor for fleets operating more than 200,000 miles per power unit, but has not provided the necessary details to fully understand this proposed change. The notice does not explain the new proposed utilization factor methodology, making it impossible to understand its ramifications and whether or not it appropriately accounts for fleet exposure. For instance, it is not clear if the factor of 1.6 will apply to fleets with average mileage per power unit above 200,000 – and what the ultimate mileage cap will be (e.g., 250,000). In developing this methodology change, ATA suggests applying the utilization factor formula currently used for fleets averaging between 80,000 and 160,000 miles per power unit to all fleets averaging between 80,000 and 250,000. Finally, in the interest of transparency, FMCSA must publish the specific methodological changes, including any formulas, prior to making the changes.

IV. SUMMARY

ATA supports almost all of the proposed changes to the SMS methodology. Adjusting intervention thresholds to identify carriers with higher crash rates is consistent with the goal of CSA; however, further adjustments would yield even better results. Creating CT and non-CT comparison categories in the HM BASIC to better indicate whether or not carriers' scores are simply a reflection of the nature of their operations (e.g., non-bulk less than truckload) seems logical. Moving violations for jumping OOS orders to the Unsafe Driving BASIC makes sense too. Finally, the suggested change to the mileage utilization factor is one that ATA has long supported, though further details should be shared prior to implementation.

ATA strongly opposes making percentile rankings in the HM Compliance BASIC publicly available. No matter how they are presented, these scores will be erroneously perceived as a reflection of a carrier's safety performance – not their compliance record or the mere nature of their operation. Without the opportunity to preview the impact of these changes before the close of the comment period, ATA is unable to determine if safe, laudable carriers will be wrongly depicted in the changed BASIC score. For this reason, and to respond to the impact of other proposed changes, ATA encourages FMCSA to reopen the comment period during the preview period.

Finally, ATA is very disappointed that FMCSA appears to have rejected the recommendation of the IRT to separate compliance violations from those that cause crash risk. These violations are core to the goal of CSA - to implement more effective and efficient ways for FMCSA, its State Partners, and the trucking industry to prevent commercial motor vehicle (CMV) crashes, fatalities, and injuries. Until FMCSA embraces this recommendation, the agency will be hampered in its ability to use the SMS to its fullest potential in reducing crashes.