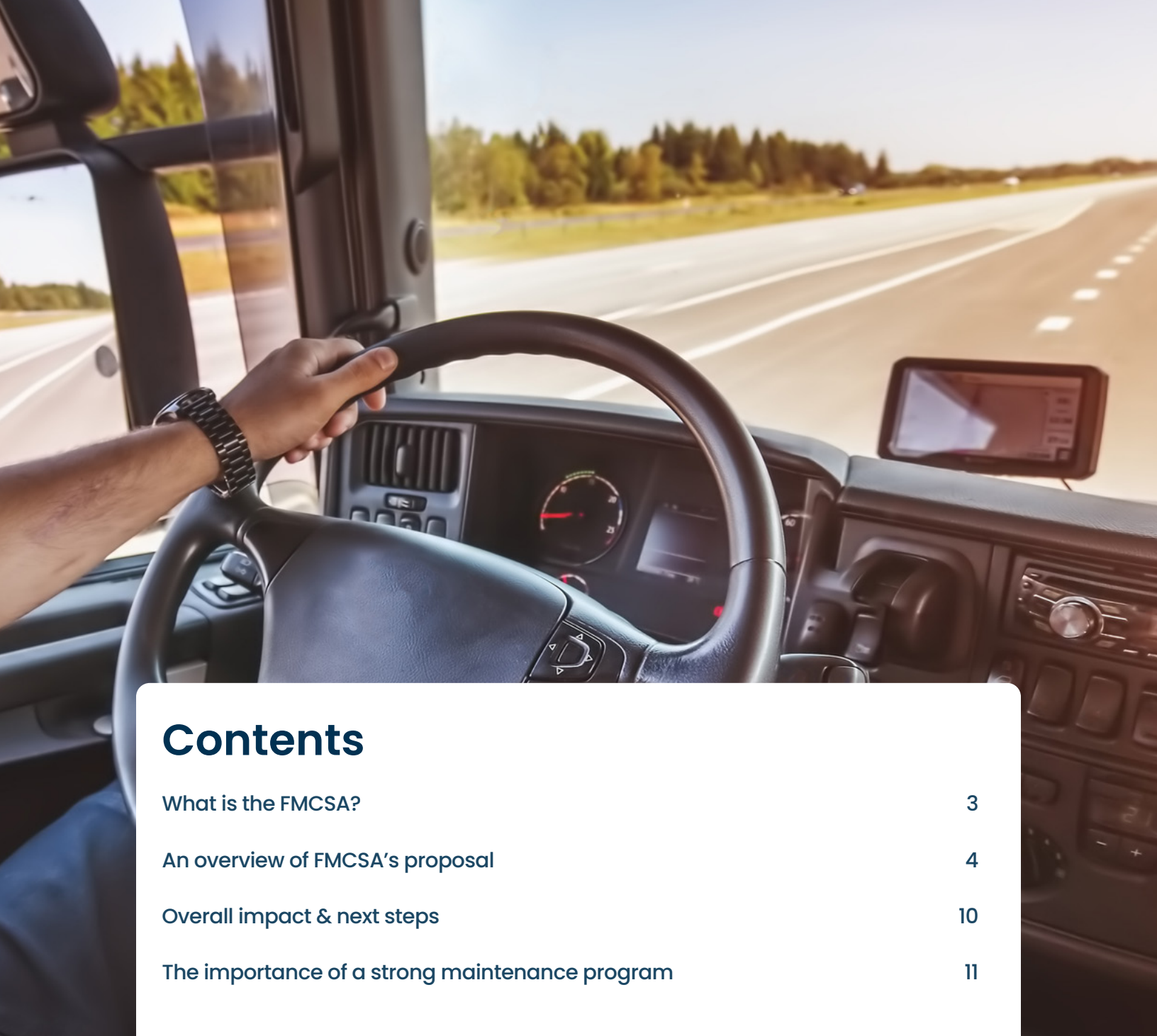




A guide to FMCSA's proposed CSA changes

Understanding proposed changes to the Compliance, Safety, Accountability (CSA) system and the impact for fleets



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About Whip Around

Whip Around is a fleet inspection and maintenance platform helping fleet managers, drivers, and mechanics keep their fleets running smoothly and safely. With Whip Around's DOT-compliant software, you can efficiently manage

vehicle and asset inspections, create and track work orders, automatically schedule preventive maintenance, and reference detailed fleet and asset data in real time.

Visit our website to learn more: whiparound.com



What is the FMCSA?

The **Federal Motor Carrier Safety Administration** (FMCSA), established in 2000 under the Motor Carrier Safety Improvement Act of 1999, is a vital agency within the Department of Transportation.

Its primary mission is to reduce commercial motor vehicle-related fatalities and injuries.

The organization achieves this through robust enforcement of safety regulations, the targeting of high-risk carriers and drivers, enhancements in safety information systems and technology, and the reinforcement of equipment and operating standards for commercial motor vehicles. The FMCSA collaborates with various stakeholders, including federal, state, and local enforcement agencies, the motor carrier industry, and labor and safety groups.

Key activities of the FMCSA include:

- The development of standards for testing and licensing commercial motor vehicle drivers
- Data collection and analysis to improve safety
- Regulatory compliance enforcement to enhance safety performance
- Research and technology coordination
- Financial support for state-level safety programs
- Promotion of motor vehicle and motor carrier safety

The FMCSA plays an important role in establishing and enforcing unified motor carrier safety requirements across North America.

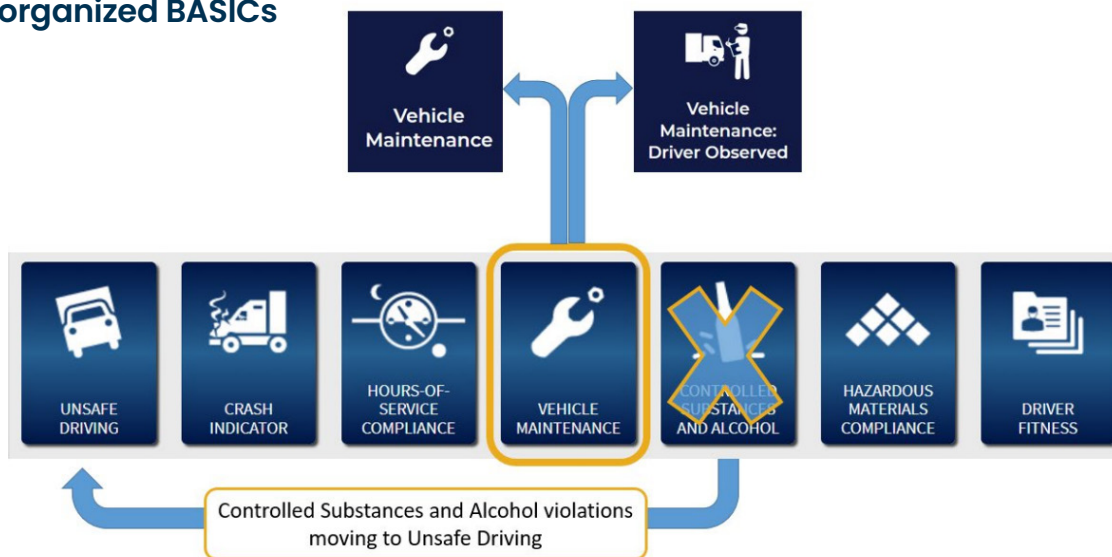
An overview of FMCSA's proposal

Earlier this year, the FMCSA [published a notice](#) requesting comments on proposed changes to the Compliance, Safety, Accountability (CSA) system. The notice comes in response to recommendations from the National Academy of Sciences' that FMCSA adopt the Item Response Theory (IRT) model to prioritize carriers for safety intervention.

Ultimately, FMCSA has concluded that it will not adopt IRT. Instead it is proposing modifying CSA's Safety Measurement System (SMS) to better calibrate motor carrier scores to more accurately assess carrier's compliance posture and crash risk.

Details of the proposal are outlined below.

Reorganized BASICS



Perhaps the most significant proposed change is the realignment of the BASICS, which they now refer to as "safety categories." While the overall number of safety categories would not change, their composition would.

Specifically, FMCSA is proposing eliminating the Controlled Substance and Alcohol BASIC and folding it into the Unsafe Driving safety category. Also included in this category would be all violations for jumping an out-of-service order, regardless of category in which the out-of-service violation occurred.

FMCSA is also proposing to bifurcate the Vehicle Maintenance BASIC into two distinct safety categories: Vehicle Maintenance and Vehicle Maintenance: Driver Observed. The distinction is that violations that could be observed during a pre-trip or a **Level II (walk-around)** roadside inspection would be added to the driver observed category, while those more commonly found during a **Level I (full)** roadside inspection would be applied to the vehicle maintenance category.

Consolidating Violations

Since the inception of CSA in 2010, the number of violations included in the SMS has grown from about 650 to 959. While FMCSA is not proposing eliminating any violations, they are suggesting that distilling these violations into 116 violation groups will simplify the system and improve its accuracy in identifying high risk carriers.

Under the proposal nothing will change for drivers and carriers on Roadside. Inspection reports will still list all violations discovered using the same violation codes used today. How these violations are used to calculate carriers' CSA scores, however, will change dramatically.

As proposed, if multiple violations from the same violation group are cited during a roadside inspection, they will be counted as one violation. For example, if a driver is stopped on the roadside and cited for an 11-hour violation and a 14-hour violation to the Hours-of-Service rules, it will only be counted as a single violation.

This could be a significant improvement for carriers whose scores are suddenly elevated because of a one bad inspection listing several related violations.

Safety Category	Violations in SMS	Violation Groups in Proposed Methodology
New Unsafe Driving	59*	32
HOS Compliance	73	9
New Vehicle Maintenance	406	15
New Vehicle Maintenance: Driver Observed	N/A	35
Controlled Substances/Alcohol	11	N/A
HM Compliance	369	14
Driver Fitness	55	11
Total	973	116

New designates safety categories for the proposed methodology. The new Unsafe Driving category includes Controlled Substances/Alcohol violations.

*Number includes 14 additional violations for operating while under an OOS Order that are not used in the current SMS methodology.

Updated Severity Weights

In addition to consolidating violations into groups, FMCSA is also proposing a simplified severity weighting regime. Currently, each violation is assigned a severity weight between one and ten. Under the proposed system violations will be assigned a severity weight of either one or two.

Any violation that results in an out-of-service order or is considered disqualifying under [49 CFR §383.51](#) will be given a weight of two. All others will be weighted one.

Proportionate Percentiles

One of the biggest frustrations of motor carriers related to CSA has been the impact of moving between safety event (peer) groups. Carriers often experience big jumps, sometimes of more than 20 percentile points, simply by adding or dropping an inspection and being moved to another peer group.

The predominant criticism of this approach is that a change to a carrier's underlying score should have the greatest influence on its percentile rankings, not its peer grouping. It's the "measure to percentile" relationship FMCSA is seeking to preserve in the proposal.

Number of Instances where Carrier Measures Decreased and Percentiles Increased (SMS SEGs vs Proportionate Percentiles)

Safety Category	Number of Instances with Increase of Greater than 1 Percentile: SEGs	Number of Instances with Increase of Greater than 1 Percentile: Proportionate Percentiles	Number of Instances with Increase of Greater than 10 Percentiles: SEGs	Number of Instances with Increase of Greater than 10 Percentiles: Proportionate Percentiles
New Unsafe Driving - Straight	9	7	0	0
New Unsafe Driving - Combination	26	12	5	0
Crash Indicator - Straight	4	4	0	0
Crash Indicator - Combination	17	21	9	0
HOS Compliance	419	91	203	0
New Vehicle Maintenance	195	26	14	0
New Vehicle Maintenance: Driver Observed	306	49	20	0
HM Compliance - Cargo Tank	8	1	1	0



To accomplish this, FMCSA is proposing a schema that generates a weighted average of a carrier's percentile scores in each of the two closest safety event groups. This is the carrier's new percentile score. This is by far the most complex portion of the proposal. Additional information can be found on page 12 of FMCSA's [Foundational Document](#).

FMCSA's assessment of this provision indicates that while there may still be some variation in carrier percentiles based on the performance of other carriers, its impact is less substantial. In its analysis they found that while some carriers did experience an unexpected percentile increase of greater than one, none saw a swing of more than 10 percentiles in any category.

Safety Category Segmentation

In its proposal, FMCSA acknowledges inequities in the current system. Specifically, that the compliance burden in some safety categories can vary by operational and vehicle type. To address this disparity, FMCSA is proposing segmenting two safety categories based on the type of equipment the carrier operates.

- **Driver Fitness:** Straight truck carriers—those in which more than 30% of their fleet's power units are straight trucks—frequently experience higher violation rates in the driver fitness category due to a greater variation in licensing and medical qualification requirements. To accommodate this, FMCSA is proposing separating straight truck fleets from combination vehicle fleets in this safety category.

- Hazardous Materials:** A criticism of the Hazardous Materials BASIC is that it is biased toward cargo tank carriers. Non-cargo tank carriers typically face a heavier compliance burden because they carry a wider variety of commodities, all with different cargo securement, documentation and placarding requirements. To address this, FMCSA is proposing segmenting cargo tank carriers (those with 50% or more of its total placarded HM inspections as cargo tank inspections) from non-cargo tank carriers.

Intervention Thresholds

In its effectiveness testing, FMCSA found other proposed changes in the higher crash-correlated safety categories (Unsafe Driving, Crash Indicator, and HOS Compliance) will result in more carriers being prioritized for intervention.

Because of this, FMCSA feels increasing the intervention thresholds in lower crash-correlated safety categories will complement the other proposed changes and better identify carriers with higher crash rates.

As a result, FMCSA is proposing to increase the Driver Fitness intervention threshold by 10 percentile points in all categories.

FMCSA is proposing increasing the intervention threshold for all carriers scored in the Hazardous Materials safety category from the 80th to the 90th percentile.

Time Weighting

There are only two ways a carrier can improve its CSA scores: violation-free inspections or waiting for violations to age off its CSA profile. To speed the process, FMCSA is proposing that any carrier that does not have a violation in a safety category in the previous 12 months will not be scored in that category.

FMCSA’s analysis showed this would result in 1,081 carriers no longer having a safety category at or above the Intervention Threshold and those carriers had a crash rate 13 percent lower than the national average.

Carrier Type	Current Threshold	Proposed Threshold
General	80%	90%
Passenger	65%	75%
HazMat	75%	85%

Utilization Factor

Currently, CSA provides a mathematical benefit in the Unsafe Driving and Crash Indicator BASICs to higher utilization carriers as measured by average vehicle miles traveled per power unit because they drive more miles and therefore face greater exposure to violations and crashes.

Currently, that benefit, known as the utilization factor, is capped at 200,000 miles per power unit. Carriers with greater utilization see no benefit. FMCSA is proposing to increase this cap to 250,000 miles per power unit to reflect the experience of higher utilization fleets.

Overall Effectiveness: SMS Compared to Proposed Methodology

Safety Category	Number of Prioritized Carriers		Crash Rate*	
	Current Methodology	Proposed Methodology	Current Methodology	Proposed Methodology
Unsafe Driving	12,786	13,353	10.32	10.63
Crash Indicator	8,822	8,926	9.77	9.83
HOS Compliance	23,493	24,207	8.54	8.81
SMS Vehicle Maintenance	18,764	N/A	8.06	N/A
New Vehicle Maintenance	N/A	11,019	N/A	7.55
New Vehicle Maintenance: Driver Observed	N/A	17,167	N/A	7.44
HM Compliance	490	253	6.55	4.91
SMS Controlled Substances/Alcohol	805	N/A	5.51	N/A
Driver Fitness	2,313	1,747	3.75	3.56
Any Safety Category Prioritized	50,002	51,311	7.08	7.77
Percent Difference from Current Methodology	N/A	3%	N/A	10%

Source: MCMIS September 2018 data snapshot used for model calculations. MCIS December 2020 data snapshot (October 2018 to September 2020) used for 24 month crash rate over the same period is 5.00 crashes per 100 PUs.

Overall impact and next steps

FMCSA states that the proposed changes will allow them to better target the least safe motor carriers in the industry.

To demonstrate the effectiveness of the proposal, FMCSA applied the suggested changes to CSA data from September 2018 and compared the future crash rates of carriers identified for intervention under current CSA methodology to those the proposed system prioritized. The results show that more carriers were identified for intervention and those that were had a higher average crash rate.

After 12 years of experience, analysis and criticism, FMCSA is proposing its most sweeping changes to CSA. In doing so, FMCSA is demonstrating that it has been listening to its critics and investigating and responding to their concerns.

The proposal looks to create a system that is more responsive to the operational diversity of the motor carrier commercial vehicle industry and one that more closely aligns a carrier's percentile score to their recent performance, rather than the performance of its peers.

Sadly, FMCSA stopped short of directly addressing one of CSA's biggest shortcomings, geographic enforcement disparity. After all, carriers should be scored on how they operate, not where they operate.

While these changes may not solve all of CSA's shortcomings, it appears to be a great start. All motor carriers should assess the impacts these

changes could have on their CSA scores and consider submitting comments to FMCSA in response to its proposal.

To assist, FMCSA has developed a [helpful website](#) offering a detailed overview of the changes.



The importance of a strong maintenance program

Not only is fleet preventive maintenance good business — it's a DOT requirement. Fleet managers are responsible for keeping fleet vehicles in good working order and ensuring they're safe to operate.

According to the FMCSA, fleet owners and carriers are required to systematically inspect, repair, and maintain all motor vehicles and intermodal equipment subject to its control. Carriers are also required to accurately document their maintenance efforts and to ensure that the records are made available within two days if requested.

Failure to keep up with this record can not only lead to substantial fines, it may leave you legally liable for expenses incurred in an accident, even if you cannot find clear evidence that mechanical failure caused the accident. You must track when you perform any kind of maintenance or evaluation of your fleet vehicles and clearly document your efforts.

Fleet maintenance software like Whip Around can make it easier to keep up with individual reports for each vehicle.

The key to successful maintenance programs

Not only is maintenance legally mandated, it can offer a number of advantages to your fleet as a whole, including helping to protect your finances and your business. And preventive maintenance software is key to making it happen. For fleets of all sizes, especially mid- and large-sized fleets, it turns maintenance from an organizational nightmare into a straightforward process.

With Whip Around, you can:

- Customize digital inspection forms with mandatory photos
- Quickly and easily view equipment maintenance history
- Schedule automatic maintenance reminders
- Manage work orders and sign-offs
- And much more

Streamline your inspections & preventative maintenance

If you're interested in how Whip Around can give you a leg up in these four critical areas so you don't have to worry about out-of-service violations, schedule a [free demo](#) or [contact us](#) today.

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