



Motor Carrier Safety Assistance Program (MCSAP) Formula Working Group Summary Meeting Minutes

June 1 to June 2, 2016

The Federal Motor Carrier Safety Administration's (FMCSA) Motor Carrier Safety Assistance Program (MCSAP) Formula Working Group held its second in-person meeting on June 1 and June 2, 2016, in Cambridge, MA at the U.S. Department of Transportation (DOT) Volpe Transportation Systems Center (Volpe Center). Thomas Liberatore, FMCSA Chief, State Programs Division and Designated Federal Officer (DFO), called the meeting to order at 9:00 AM EDT.

The following individuals attended the meeting:

MCSAP FORMULA WORKING GROUP MEMBERS

Nancy Baugher, FMCSA
Lt. Donald Bridge, Jr., Connecticut Department of Motor Vehicles
Caitlin Cullitan, FMCSA
Lt. Thomas Fitzgerald, Massachusetts State Police
Thomas Liberatore, Chief, State Programs Division and DFO, FMCSA
Michelle N. Lopez, Colorado State Patrol
Alan R. Martin, Ohio Public Utilities Commission
Dan Meyer, FMCSA Illinois Division Administrator
Lt. Stephen Brent Moore, Georgia Department of Public Safety
Stephen C. Owings, Road Safe America
Capt. Brian Preston, Arizona Department of Public Safety
John E. Smoot, Kentucky State Police
Courtney Stevenson, FMCSA Senior Policy Advisor
Col. Leroy Taylor, South Carolina Department of Public Safety
Adrienne Gildea, Commercial Vehicle Safety Alliance (CVSA)

FMCSA AND OTHER GOVERNMENTAL REPRESENTATIVES

Michael Chang, Volpe Center Program Analyst
T.F. Scott Darling, III, FMCSA Acting Administrator
Dianne Gunther, Volpe Center Program Analyst
Tom Keane, FMCSA Director, Office of Safety Programs
Nancy Kennedy, Volpe Center Chief of the Safety Measurement and Analysis Division
Jack Kostelnik, FMCSA Transportation Specialist
Dana Larkin, Volpe Center Program Analyst
Dave Madsen, Volpe Center Operations Research Analyst
Paul Melander, FMCSA Acting Chief, State Programs Division
Stephen Popkin, Volpe Center Director of Safety Management and Human Factors
Julianne Schwarzer, Volpe Center Community Planner
Jacob York, FMCSA Transportation Specialist
Walter Zak, Volpe Center Operations Research Analyst



OTHER ATTENDEES

Lt. James Portilla, FMCSA Detailee, California Highway Patrol

1. Welcome and Introductions

The MCSAP Working Group meeting commenced with the following opening remarks:

- Stephen Popkin, Director of the Safety Management and Human Factors Technical Center, welcomed everyone to the Volpe Center and provided a very brief history and overview of the Volpe Center.
- Julianne Schwarzer, DOT Volpe Center Community Planner provided a safety briefing.
- Acting Administrator, Scott Darling welcomed everyone, provided opening remarks and thanked everyone for their hard work.
- Tom Keane, FMCSA Director, Office of Safety Programs, informed the group that the purpose of the meeting is to drill down and get to a defined set of factors.
- Thomas Liberatore, FMCSA Chief, State Programs Division and DFO provided a “road map” of the overall formula review process

2. Recap and Updates

Discussion

Mr. Liberatore noted the following regarding the last in-person meeting in April 2016:

- Common themes from the April 2016 meeting included requests for an evolving, predictable, flexible/adaptable, and stable formula.
- He discussed the need for States to have some degree of stability and to know roughly what their funding will be year to year.
- At the last meeting, the Working Group discussed Working Group members’ role as points of communication for other States in their region. The State Partners and FMCSA representatives shared their findings.

Presentation

Next, Michael Chang, Volpe Center Program Analyst and Jacob York, FMCSA Transportation Specialist presented their research on the potential formula factors discussed at the April 2016 meeting. The presentation included an overview of potential factors, strengths and weakness of each factor, potential data sources, and strengths and weaknesses of the data sources. The Working Group was provided with a handout which displayed a choropleth map for each factor and the data for each State.



3. Working Session: Factor Evaluation Exercise

Facilitated Exercise – Part I

Ms. Schwarzer facilitated a factor evaluation exercise. Two poster boards were placed at the front of the room, each with a list of the key factors as determined by Mr. Chang and Mr. York. The Working Group also wrote in a few more factors for consideration: Points of Entry, Ability to Spend, and Number of New Entrants.

Working Group Members were given a sheet of colored stickers and told that a red sticker means, “I want to discuss this factor further,” and a blue sticker means, “No need to discuss this factor further.” It was clarified that a red sticker does not necessarily mean that you think the factor should definitely be used in the formula, but rather that you think it merits further discussion before being eliminated from consideration.

Discussion: Initial Reflections from the Sticker Exercise Part I

The group shared their initial reactions to the sticker exercise, including:

- Discussion of whether factors were considered for the Basic vs. the Incentive formula
- Discussion of carrier registration data sources and accuracy
- A different Commercial Motor Vehicles (CDL) metric was proposed: The total number of citations to CDL holders and the violation codes to see how much work is being done by patrol officer across the country. This would measure the effectiveness of training for State and local police.
- Two new factors were proposed: environmental impact (e.g., mountainous terrain, extreme weather) and infrastructure quality (number of construction zones)
- Discussion of crash rates:
 - If you eliminate crashes then you run out of funding, which creates a perverse incentive for the States.
 - Crash rates may be better for the Incentive formula if not the Basic.
 - States should not be punished for improved crash reporting.

Facilitated Exercise – Part II

For the second part of the sticker exercise, the Working Group looked at the factors with the most disagreement and used those factors to build two new matrix poster boards. Each row represented one factor and each column represented a factor or data source evaluation criterion.

Ms. Schwarzer explained that the group is not eliminating the other factors not shown, but rather this exercise was intended to further evaluate and discuss the factors that the group did not fully agree on. In this sticker exercise, green meant that the evaluation criteria is good and yellow meant that it's poor.



Discussion: Initial Reflections from the Sticker Exercise Part II

The group then discussed the results of Part II of the exercise.

- Ability to Spend – This factor was added to the exercise by a Working Group member. The purpose is to ensure that money is being allocated to the States that can put the money to good use. There was some disagreement regarding this factor, since some Working Group members felt that if the formula is effective, States will not have any trouble spending the money.
- Border Enforcement Activities – There was a discussion of inputs and outputs. Border Enforcement Grant (BEG) Activities are an output. Inputs should be indicators of risk. There was also concern that Border Enforcement does not affect all States, and that the northern and southern borders are very different.
- “Incentive” was added as “Factor Evaluation” criteria.
- Cost of Living is a supplemental, mitigating factor (not a driving force).
- Commercial Vehicle Registrations – There was a discussion of the three different data sets available and whether or not the number of carriers domiciled inside a State has some validity. There was also a discussion of whether or not the number of Commercial Motor Vehicles (CMVs) was critical to the formula since the concern is carrier performance rather than sheer number of carriers. One Working Group member noted that adding the number of carriers as an Incentive would be an improvement to the current formula.
- MCSAP Activities – There was a request for data showing the correlation between Compliance Reviews and crash rate. There was also a discussion of whether or not the MCSAP allocation should continue to be determined via Electronic Commercial Vehicle Safety Plan (eCVSP) or if the funding for individual activities should be dictated by FMCSA.
- Border Enforcement Activities – Only a small portion of the group took an interest in Border Enforcement for the sticker exercise, so it is hard to know where the group as a whole stands. It was clarified that in the future Border Enforcement activities will be no different from other activities. The only difference will be that States may get more funding if they have a border.
- Reduction in Crashes or Crash Rate – The sticker exercise demonstrated relative agreement that it should be used as an Incentive.
- Safety Management System (SMS) Prioritization Status – The sticker colors were varied for this factor. The group acknowledged the importance of including a high risk classification, but expressed concerns regarding the use of SMS Prioritization since it can be a politically-charged measure.
- Road Miles – The dot exercise indicated that there was relative agreement that road miles relates to the purpose and is stable. There were concerns, however, regarding the



representativeness of the data set (i.e., there are a lot of roads that never see a commercial vehicle).

- Special Fuels – There was agreement that special fuels is a good indicator of exposure, but the group expressed concerns about the accuracy of the data. For example, farmers and pickup trucks using diesel could skew the data in rural States. There was also a concern that the gas tax and fuel cost may cause drivers to avoid fueling up in States where gas is more expensive. Special also fuels does not account for smaller vehicles in dense urban areas, which led to a discussion of whether the formula should target dense urban areas with high crash rates or larger vehicles in less densely populated, high-speed areas.

The Working Group then introduced and discussed some new factors for consideration:

- The ratio of CMV fatal crashes to CMV total crashes as a measure of the severity of crashes, since the total number of crashes and the number of fatal crashes are not always similar in a State.
- There was a discussion of whether or not the number of crashes should be used in the Basic or Incentive formula, and whether the goal should be to reduce crashes or focus on the severe crashes. The concern with using fatal crashes was that this is not a stable data source, and can vary from year to year. A weighting system was proposed (ex. A fatal crash is 9, minor property damage is 1). This creates a factor that is a larger number which is less susceptible to swings.
- There was a discussion regarding reportable crashes not regulated by FMCSA (ex. school buses).
- Mr. Liberatore clarified that the group should discuss what “Incentives” meant previously, and what the group wants it to mean now.

4. Day 1 Wrap Up

- Mr. Liberatore thanked everyone for a good discussion around the factors.
- He informed the group that tomorrow they would talk about:
 - The current formula and how Incentives were calculated;
 - Where and when the August 2016 meeting will be held;
 - Setting a date for the July 2016 conference call; and
 - What categories the factors fit into: Basic or Incentive.

5. Day 1 Summary/Objectives Day 2

Welcoming remarks by Mr. Liberatore kicked off Day 2, and he told the group that they would continue the discussion about potential factors. He informed the group that more information would be distributed after today’s meeting, including additional research and background information



Mr. Chang then clarified the difference between the number of crashes and crash risk. He drew a diagram and illustrated that the gap between the number of crashes and the crash risk represents the State's safety program. If money is distributed to States based on their number of crashes, we could be penalizing States for a good safety program.

6. Factors in the Formula(s) Discussion

- **Population vs. Population Density (Urban vs. Rural)** – There was a discussion of the pros and cons of utilizing population density instead of population. For example, NJ is a densely populated State with a lot of crashes, but few road miles and a lower population. The Working Group requested further analysis for population density.
- **Action Item:**
 - Volpe will provide data analysis for population density
- **Presence of Intermodal Facilities** – There was a suggestion to include a formula adjustment to account for the existence of major ports and intermodal freight facilities in a State on the basis that CMV activity increases in the presence of these facilities.
- **Number of Crashes** – The group discussed which types of crashes should be included in the “Number of Crashes” factor. There were two frames of thought:
 - Include All Crashes - There was a concern that fender benders are still crashes, still have potential to kill someone, and still involve vehicles doing what they should not be doing.
 - Filter Out Some Crashes
 - Based on Severity – There was a suggestion to only consider off-peak crashes, since those crashes tend to be the high-speed, high severity crashes that the Working Group is trying to prevent. There was another suggestion to use the Motor Carrier Management Information System (MCMIS) definition of “crash” to filter out some of the low-severity, “fender-bender” crashes. The severity weighting system was re-introduced.
 - Based on FMCSA Responsibility – States do not all have the same reporting requirements, and some States include buses and municipal vehicles that are not regulated by FMCSA. Although driver behaviors are covered, the MCSAP grant will not fund a large number of activities.
 - There was a discussion of whether the question of which crashes to target was a macro-level formula question, an eCVSP question, or both?
- **Action Items:**
 - FMCSA will look into the data quality and data integrity for crash reporting data.
 - FMCSA will distribute the document that demonstrates how the current funding is calculated.
- **Discussion of Incentive vs. Withholding Money**
 - It is difficult for the government to withhold funding, so instead they offer the Incentive.
 - There was a suggestion to eliminate the Incentive and allow States to keep leftover money.



- The Incentive is an equality measure to make sure that States are still providing data.
- Now with the Fixing America's Surface Transportation (FAST) Act they can withhold a small percentage of funding (previously it was all or nothing).
- Incentive vs. withholding comes down to who has the burden. Is the burden is on the State to prove they are doing what they are supposed to or is it FMCSA's burden to demonstrate that States are not performing.
- There was a suggestion to include DataQs and traffic enforcement in the Incentive portion, and then there was a discussion of the definition of traffic enforcement and which types of traffic enforcement should be included in the formula.
- **Action Items:**
 - FMCSA will provide clarification on traffic enforcement specifications.
- **Incentive vs. Basic Formula Weight**
 - \$10 million was set aside for the Incentive portion out of a total of \$168.275 M (6%).
 - Discussion of how New Entrant and Border Enforcement will fit into the formula(s).
 - Performance and Registration Information Systems Management (PRISM) is a crash indicator. There was a suggestion to reward States for achieving and maintaining a PRISM program. Keane said that he can present the PRISM analysis to work group.
- There was a request to see all of the factors mapped in one chart to see what the correlation is for each factor.
- There was a request for the formula output using current data but with the National Highway System roads instead of the current data set to see how the current MCSAP allocation would change.
- The Basic and Incentive formulas capture different items:
 - Basic: risk, need, economic factors;
 - Incentive is focused more on outputs: data quality, PRISM participations, activity driven (traffic enforcement). The Incentive portion will likely increase to 10-15%.
- The group appears to be leaning towards utilizing the Basic Formula to allocate money towards crash risk.
- Border Inspections and New Entrant Inspections would need to be averaged over three years to improve stability.
- There was a question as to whether FMCSA could reimburse the predictable, "cookie cutter" expenses instead of providing the money in advance. However, the funds legally cannot be distributed in that way.
- **Action Items:**
 - Provide data for PRISM and correlate with crash risk.
 - Volpe to provide an analysis of the correlation to crash risk for each factor.
 - Volpe to provide this analysis for one simulation using current data but with the National Highway Systems roads instead of the current data set to see how the current MCSAP allocation would change.



7. Next Steps/Moving Forward

- Schedule July 2016 Webinar meeting
- August In-Person Meeting
 - The group concurred that the next in-person meeting should take place Thursday and Friday, August 11 and August 12. The meeting will be held in Indianapolis, IN at the North American Inspectors Championship (NAIC). The group concurred that the meeting should be two full days.
- In-Person October Meeting
 - Location: Probably Austin, Texas
- Roadmap Goals presented by Mr. Liberatore
 - The goal for August 2016 is to be getting much closer to the formula, to put all of the discussion of factors into context, and to start talking about weights and special features.
 - In November and December of this year, we will draft our recommendations. There has to be an official report including analysis and discussion.
 - By the end of 2016, the Working Group wants to have a good draft in place, and a final draft in January 2017.
 - In January 2017, the reviews, written feedback, discussion of feedback, and final changes will take place.
 - In February and March 2017, the final document will be shared and reviewed at FMCSA.
- **Action Items:**
 - Volpe will send out a Doodle poll to schedule the July webinar meeting.
 - Volpe will send out a Doodle Poll to schedule the in-person October 2016 meeting.

8. Meeting Conclusion

- Mr. Liberatore thanked everyone for attending.
- Mr. Keane reminded the group that they are trying to focus the analysts' time in the short run, and that they may have monthly check-ins to make sure the group has the data they need.
- Acting Administrator Darling reiterated his opening remarks, thanked everyone for their hard work, and reminded the group of the importance of the formula.

	Presenter(s)	Presentation
1	Michael Chang, USDOT Volpe Center Jacob York, FMCSA	Formula Factors Research Update Formula Factors Research Handout

ADJOURNMENT: The meeting was adjourned at 12:00 PM EDT.