



**Motor Carrier Safety Assistance Program (MCSAP) Formula Working Group**  
**Meeting Minutes**  
August 11 to August 12, 2016

The Federal Motor Carrier Safety Administration's (FMCSA) Motor Carrier Safety Assistance Program (MCSAP) Formula Working Group held a web-based conference call on August 11-12, 2016, in Indianapolis, Indiana. Thomas Liberatore, FMCSA Chief, State Programs Division and Designated Federal Officer (DFO), called the meeting to order at 8:30 a.m.

The following individuals attended the meeting:

**MCSAP FORMULA WORKING GROUP MEMBERS**

Nancy Anne Baugher, FMCSA  
Lt. Donald Bridge, Jr., Connecticut Department of Motor Vehicles  
Caitlin Cullitan, FMCSA  
Lt. Thomas Fitzgerald, Massachusetts State Police  
Adrienne Gildea, Commercial Vehicle Safety Alliance (CVSA)  
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  
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  
Col. Leroy Taylor, South Carolina Department of Public Safety

\* Stephen Owings attended the August 11 session only.

**FMCSA AND OTHER GOVERNMENTAL REPRESENTATIVES**

Karen Brooks, FMCSA  
Michael Chang, U.S. DOT, Volpe Center  
T.F. Scott Darling, III, FMCSA\*  
Dianne Gunther, U.S. DOT, Volpe Center  
Earl Hardy, FMCSA\*  
Tom Keane, Director, Office of Safety Programs, FMCSA  
Jack Kostelnik, State Programs, FMCSA  
Dana Larkin, U.S. DOT, Volpe Center  
Julie Nixon, U.S. DOT, Volpe Center  
Brandon Poarch, FMCSA  
Jack Van Steenburg, FMCSA\*

\* Scott Darling, Earl Hardy, and Jack Van Steenburg attended a portion of the August 11 session



only.

## **OTHER ATTENDEES**

Lauren Beaven, DIGITALiBiz

Collin Mooney, CVSA \*

James Portilla, California Highway Patrol (on temporary assignment to FMCSA)

\*Collin Mooney attended the August 12 session and a small portion of the August 11 session

### **1. Day 1 Welcome**

Tom Liberatore, Chief, FMCSA State Programs Division and DFO, welcomed the MCSAP Formula Working Group members and other attendees to the meeting. This would be the third in-person meeting for the group, and the fourth overall meeting for the group.

Liberatore indicated that most group members had participated in either of two subgroup calls prior to the in-person meeting. Established subgroups were:

1. Formula Structure Subgroup
2. Formula Factors Subgroup
3. Communications Subgroup

For the purpose of this in-person meeting, Communications Subgroup members would be participating in Structure Subgroup and Factors Subgroup conversations.

### **2. Recap and Updates**

Liberatore led a review of tasks accomplished to date, including key decisions that the group had made:

- The group had narrowed the field of proposed factors down to core areas of consideration. The Factors Subgroup would be looking at these during this meeting.
- The Structure Subgroup had reached some decisions during their initial meeting. One point of consideration for this meeting would be whether the subgroup would decide to move ahead with an inclusive or compartmented formula.
- Other areas to consider would include the cost of living, commercial motor vehicle (CMV) registrations, and the number of High Risk carriers.
- The group had assessed the number of border inspections and the number of border crossings.

Liberatore then outlined key tasks for the current meetings:

- Over the next two days, the group would be tasked with coming to a consensus on what factors and other information to use, and deciding how that would fit into the formula.
- The group should ensure that the resulting formula has a certain degree of consistency and reliability, using stable predictors that also allow necessary flexibility.



- Once the Factors Subgroup had discussed and recommended areas of consideration, the Structure Subgroup would begin looking at how the factors would work in that group's proposed format.
- It was important that the group issue a recommendation for this formula by April 2017.

### 3. Introductions and Ground Rules

#### Presentation

Julie Nixon, U.S. DOT Volpe Center, introduced herself as the meeting facilitator. Nixon worked to establish ground rules for the two-day, in-person meeting. She invited group members to share potential ground rules that they thought would help ensure that the group achieves its goals for the meeting.

### 4. Formula Research Update

#### Presentation

Michael Chang, U.S. DOT Volpe Center, gave a formula research update. Chang noted that:

- The analysts supporting the project gathered data and worked to make it understandable and accessible for group members.
- The spreadsheet of data, including correlation data, is available in SharePoint.
- Data sources were located in the top portion of the spreadsheet.

Chang encouraged group members to let the team know if there was a different format for this data presentation that they would prefer.

**Action Item:** Volpe analysis team will post budgets from State eCVSPs to the SharePoint site.

Group members remarked that numbers supplied in some data sets are self-reported by states, and are best estimates which may not reflect actual costs. Chang noted that this would be an appropriate discussion for the Factors Subgroup.

Chang continued with a presentation of a hypothetical framework for fitting the factors into a formula. He noted that factors such as population, vehicle miles traveled (VMT), weather patterns, and infrastructure quality are all indicators of safety risk in each State. These would be separate from reduction in crash rate or New Entrant inventory, which are more focused on programs or behaviors.

In this hypothetical structure, crash risk exposure would be broken into roadway risk, domiciled carrier risk, and border risk. Behavior-driven aspects would be broken into crash rate reduction incentive, New Entrant audits, data quality incentive, and PRISM/CVISN.

#### Discussion

Group members reacted to the hypothetical formula and presented materials. The following considerations were expressed by some group members:

- Emphasis on risk and the allocation of needs assessment was good.



- There was concern that the factors could not drive the structure. The structure should be determined before the factors instead of the other way around.
- To better justify the end result to Congress, the group should begin with a consideration of where to address perceived shortfalls across the country.
- The group should recognize that some States are using the money differently than others, and that the formula would have to achieve a level of data sustainability and contractual support.
  - MCSAP funding as outlined in the CVSPs is perceived differently by different States depending on other levels of funding.
- The presence of shipping ports should be an indicator as it implies a significant presence of CMVs.

The working group and team divided into the Formula Factors Subgroup and the Formula Structure Subgroup. The subgroups were asked to decide on proposed factors and a proposed formula and then share their thoughts with the complete group.

## 5. Formula Factors Subgroup Presentation

### Presentation

The Factors Subgroup presented their proposed decisions. The Factors Subgroup stated that the group should:

- Keep the four Basic formula factors, with some updates or reworking.
  - Keep Population
  - Keep but update Road Miles.
  - Keep Special Fuels and look at International Fuel Tax Agreement to see if there is any correlation. There may be a reason to make modifications.
  - Keep VMT. It would be preferable here to use CMV VMT, but there is not enough data available nationwide.
- Add Carrier Registrations.
  - Allows for tracking of population movement, and there is a significant correlation to New Entrant inventory.
- Use an equalization factor for cost of living. The subgroup noted that they don't feel this has to be included as a factor in the Basic funding formula, but needs to be addressed.

The subgroup decided that the following factors should not be used:

- Crash Rate and the Safety Measurement System (SMS) are not stable enough.
- HMS and High Risk are not stable factors.
  - Group members noted that the number of High Risk carriers is unreliable.



- Incentives and/or stipends<sup>1</sup> should be eliminated in favor of a solid, stable Basic formula that ensures that every State has what it needs.

### Discussion

Group members reacted to the subgroup's presentation and noted:

- Decisions would have to be made on how to incorporate the border. There would need to be more data analysis to decide how it might work in the base formula.
- There should be a stipend for PRISM or CVISN going forward since some States don't have the opportunity to bid for money.
- Carrier population would be a more stable and representative number in the base formula, but that this shifts when intermodal facilities are factored in.
  - Looking at the correlation between New Entrant may be a way to recognize the Compliance Review (CR) program.
- Stability is key to the formula. Crash rate and High Risk carriers are not stable factors.
  - Carrier registration is a more stable way of determining risk because it allows us to look at the New Entrant and CR workload.
- When looking at carrier registration, there should be requirements for border and New Entrant.

There was discussion as to whether an incentive element in the formula could house flexible items while a stipend could house items such as operations and maintenance (O&M) or other more specific funding.

**Action Item:** The Volpe analysis team will gather State CVSPs and provide the relevant data on proposed factors.

## **6. Formula Structure Subgroup Presentation**

### Presentation

The Structure Subgroup presented their proposed decisions. The Structure Subgroup stated that the group should:

- Have a Basic portion with a set of factors weighed by a percentage.
- Have a separate Variable and/or Incentive (V/I) portion.
  - These factors are important but more volatile, and should not be included in the Basic portion.
  - This funding is valuable as leverage.
  - This would be reevaluated every three to five years.
- Establish a funding amount floor and ceiling.

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<sup>1</sup> There was discussion of an addition to the basic formula allocation, which could either be an "incentive" to incentivize certain behaviors, a "stipend" or fixed amount to cover some fixed program costs, or a "variable" portion which varies year to year but is not intended to incentivize any particular behaviors.



- Establish a maximum percentage for funding increases and decreases year to year to eliminate sudden excessive gains or losses for each State.
  - The subgroup recommended a 3 percent cap.
  - This will allow States to create more reliable long-term funding plans and will give them a transitional period if funding happens to be steadily increasing or decreasing.
- Apply a financial adjustment to the Basic factors that represents the true cost of labor.
- Look at States' dependencies on MCSAP funding.

### Discussion

Group members reacted to the subgroup's presentation:

- The group should not build a three-to-five-year reassessment into the formula because that decreases stability.
- A more fixed-amount 'stipend' may be better than a variable 'incentive.' Allocation of a stipend would be good because:
  - It helps explain why the money is going where it's going.
  - It forces people to justify why the funds are needed.
  - It certifies how much money will be needed under the formula.
- Including a V/I portion backtracks on the goal of moving toward one inclusive grant with built-in flexibility for all States' needs.
- High Priority should be separate from PRISM. Not all States apply for High Priority.
- States need to be able to opt out of subgranting money. This was an agreed-upon point under grant negotiation.
- The group should explore the roles of lead agencies vs. non-lead agencies to see how this could affect access to funding.
- The group should determine how to account for O&M.

**Action Item:** The Volpe analysis team will supply information and data that are required for the group to make a decision regarding O&M.

## **7. Formula Structure Discussion – Variable/Incentive Component**

The group continued the discussion regarding the formula structure.

- The Factors Subgroup held that all aspects of the formula should apply to the funding as a whole. There should be no separate pots.
- The Structure Subgroup held that the formula should be split into a larger (about 95 percent) Basic portion and a much smaller V/I portion (about 5 percent).
  - The larger portion would have cost adjustments.

Group members made the following statements regarding the combination vs. division of the formula structure:

- Some items that may be recommended for V/I should not be incentivized because they are technically requirements.



- Simply calling this portion ‘incentive’ limits the use of the funding and appears to ‘incentivize’ activities that should be requirements for grant recipients.
- There is value for some States in having some money that doesn’t impact the program as a whole that the State can use for the benefit of areas that are key to the program but won’t affect FTEs.
- The V/I portion could be a place to house more variable elements that require rapid responses such as High Risk.

Group members voted on whether or not to move forward with a formula that consisted of a primary core with a variable component, with weighting and specifics determined later. There was disagreement, but the group agreed to continue exploring the option of a V/I component. Liberatore reminded group members that they could begin analysis on the factors with this model, but that it would still be open for alteration and further discussion.

## 8. Border Discussion

The group discussed how the formula might address the Northern and Southern borders. The group determined they would need more data to move forward in determining how this constitutes risk, including:

- Number of CMV crossings, not only general traffic.
- Number of available ports.
- Corridors in border zones.
  - It was speculated that there is increased traffic on these corridors due to border crossings.

**Action Item:** The group requested data on CMV crossings, CMV crossing facilities, and averaged levels of recent funding for Border Enforcement in order to make an educated decision.

## 9. Day 1 Wrap Up

Liberatore informed the group that the next day they would discuss:

- Formula structure.
- Border information.
- Cost adjustment.

## 10. Day 2 Welcome and Agenda

### Presentation

Julie Nixon welcomed the MCSAP Formula Working Group members and other attendees to the meeting, and shared the day two agenda. She then led a recap on what the subgroups had achieved and with what they hoped to move forward.



## Formula Subgroup

The group would continue to investigate the idea of Basic and V/I, and discuss what to call the variable element. The group had agreed on having a funding floor and ceiling, but still needed to discuss the specifics. The group also agreed on a smoothing factor preventing sharp spikes or drops in funding to each State year-to-year.

## Factors Subgroup

The group had agreed on using the following factors: population, road miles, VMT, special fuels, and CMV registration. Some factors would need to be updated with data that are more recent and other considerations.

The group needed more information and data to consider the border portion, and planned to look at cost of living.

## 11. Cost of Living/Financial Adjustment

### *Discussion*

In their last call, the Factors Subgroup had discussed what data or measure to use to calculate the disparity between the cost of living in different areas and States. The full group continued this discussion.

The following statements were made regarding cost of living:

- Data for the actual total cost of labor is in States' CVSPs.
- Total cost of labor includes more than just salaries.
- The group has not yet decided how the cost of living adjustment will apply in the formula.
- Some group members were concerned about High Priority funds.
- Cost of living should not be a factor—it should be an adjustment to all of the factors.

The following statements were made regarding deobligation of funds and burn rate:

- Some group members were strongly against including an element for deobligated funds in the formula.
  - Undelivered orders (UDOs), which are unspent grant funds, indicate that there is an issue elsewhere. UDOs should be addressed as part of the grant process, not as part of the formula.
- In order to look at the deobligation of funds, it would have to be an average of multiple years. A one-year outlier may indicate an individual occurrence.
- It shouldn't matter how fast or slow a State uses funding—billing averages aren't always equally spread out through the year.

The following statements were made regarding the financial adjustment as a whole:





- The nationwide wage rate would be 0; there are upward and downward adjustments from there.
- The team can pull labor data from CVSPs.

**Action Item:** The Volpe analysis team will look at data for wage rates and supply this analysis to the subgroups.

## 12. Introduction of New Data Analyses

The Volpe analysis team presented data analysis that they had produced based on the previous day's discussion. This included:

- Border Analysis
  - Chang noted that 15 border States show CMV crossings and points of entry, and explained the proffered data analysis. He concluded that solely based on the number of crossings this analysis ended up taking money from the Southern border and giving it to the Northern border.
  - Group members speculated on the difference in number of domestic carriers crossing that are American vs. Canadian, and the distances that those carriers travel.
- Crash Rate Analysis
  - The number of points of entry doesn't correlate with the amount of traffic. Chang presented crash rate data pulled from incentive funding from 2013 for a random sampling of States. The data displayed fatal crashes to give group members a sense of the magnitude.
  - Group members noted that this did not take into account the size of the State. The Structure Subgroup remained wary of perverse incentives.
- New Entrant Inventory and Carrier Registration Analysis
  - Chang presented data correlation for New Entrant Inventory vs. Interstate Carrier Population. The analysis used the number of New Entrant carriers at a given point in time and the number of interstate registrations at a given point in time. He noted that this correlation holds true with year averages.
- Territories Analysis
- Dianne Gunther presented data for the Territories. The group had previously discussed the possibility of allocating the money slightly differently for the Territories due to the impact of new military bases in Guam. Funding Analysis
  - Chang asked group members to look at the numbers to give them a sense of stability, and to compare and validate them with their own experiences and historical funding amounts.
- Floor/Ceiling and Smoothing Factor Analysis
  - Chang presented analysis that demonstrated the potential effect of a limit on the percent increase or decrease in a State's funding year to year. Chang made calculations based on 1 percent, 3 percent, 5 percent, and 7 percent limits.



The Structure and Factors Subgroups resumed to continue their discussions based on the analysis the team had provided. The Factors Subgroup would look further into the border data. The Structure Subgroup would continue the conversation on the Territories, weighting, and stability percentage.

### **13. Formula Structure Subgroup Presentation**

#### Presentation

The Structure Subgroup agreed upon several approaches for the following:

#### **Floor and Ceiling**

- The subgroup agreed to the five Basic factors proposed by the Factors Subgroup the day before. The subgroup recommended that the Volpe analysis team run the model using those factors and the group would then look at what comes out as a minimum to determine how they would establish the floor and ceiling.
- The subgroup decided on an absolute rather than flexible amount for the floor and ceiling.

#### **Basic Portion of Funding**

- The subgroup recommended using a regression analysis to see if the group should weigh the percentages.

#### **Territories**

- After the Volpe analysis team runs the five Basic factors with the financial adjustment, the subgroup would like to use the minimum to consider pooling that together for the Territories and distributing it based on need.
  - For example, there may be more activity taking place on Guam compared to other Territories.
- Puerto Rico will continue to be treated as a State.

#### **Incentive/Variable Funding**

- Several items should be included in this area, including:
  - Delivering quarterly reports and PPRs on time
  - Timeliness in response to DataQs requests
  - High Risk
  - O&M

### **14. Formula Factors Subgroup Presentation**

#### Presentation

The Structure Subgroup agreed upon several approaches for the following:



## Basic Portion of Funding

- The subgroup reevaluated the vote from the day before and stated that all of the money should go toward one comprehensive portion with the caveat that there will need to be some adjustment for O&M.
- Border Enforcement should be included in this comprehensive area of funding.
  - If some States opt out of border funding, this should be reallocated across the board, not just to the remaining States that are eligible for border funding.
- The subgroup would still like to look at:
  - International commerce vehicles of non-domiciled carriers.
  - Ports of Entry and general entries.
- The subgroup would like to do a cost of living adjustment to the entire grant, based on the MCSAP Agency's experience.

### Discussion

The group resumed the conversation regarding whether the formula should consist of a primary core with a variable component, or whether it should act as a whole. The following statements were made during this discussion:

- The items in the Basic portion would be more risk-based, and the items in the variable portion would be more performance-based.
- The variable portion would be a very small percent of the total funding, but would make a significant difference for some.
- Group members reiterated their concern with creating perverse incentives, especially for crash rate, inspection timeliness uploads, and fatal crashes.

## 15. Day 2 Wrap Up and Next Steps

The group has additional data needs in order to move forward in the following areas:

- O&M
- Border
- Salary/Cost of living

The group continues to consider two possible formula structures:

- A 95 percent/5 percent split.
- A 100 percent lump sum where adjustments are calculated on the entirety of the funding.

Moving forward, the group will continue to discuss High Risk and where it will fit into the formula. The Structure Subgroup should be including High Risk in subsequent conversations. The Volpe analysis team will simultaneously run related data.

There will be additional calls for subgroups, and an additional call with the full group. The next in-person meeting is scheduled for October; dates and location are still to be determined. The group is aiming to have final recommendations submitted by April 2017.



**Action Item:** The team will poll group members for feedback on the best dates and times for future meetings.

Discussion

There had been a number of questions from group members as to what kind of information they can share about what the group does. Caitlin Cullitan stated the following:

- FMCSA cannot instruct group members to solicit feedback from various stakeholders.
- These meetings are officially public and general solicits are allowed. FMCSA can post public questions that are Agency approved.
- Individual group members can solicit specific feedback independently from FMCSA.

Tom Keane and Tom Liberatore thanked the working group for their discussion and participation in the two days of meetings and adjourned the meeting.

**ACTION ITEMS**

Topic	Action Item	Assigned to
eCVSP Information	Post budgets from submitted State eCVSPs to the SharePoint site.	Volpe Analysis Team
eCVSP Information	Gather State CVSPs and provide the relevant data on proposed factors.	Volpe Analysis Team
O&M	Supply information and data that are required for the group to make a decision regarding O&M.	Volpe Analysis Team
Border Information	Provide data on CMV crossings, CMV crossing facilities, and averaged levels of recent funding for Border Enforcement in order for WG members to make an educated decision.	Volpe Analysis Team
Wage Rates	Research and analyze data for wage rates and supply this analysis to the subgroups.	Volpe Analysis Team
Future Meeting Dates	Send out a poll to group members for feedback on the best dates and times for future meetings.	Tom Liberatore or designee

**PRESENTATIONS**

	Presenter(s)	Presentation
1	Thomas Liberatore	Formula Working Group August 11, 2016
2	Michael Chang, Dianne Gunther	Formula Research Update: August 11, 2016
3	Dan Meyer, representing Formula Factors Subgroup	Formula Factors Subgroup Recommendations
4	Adrienne Gildea, representing Formula Structure Subgroup	Formula Structure Subgroup Recommendations
5	Michael Chang, Dianne Gunther	Formula Research Update: August 12, 2016



## SUMMARY OF KEY DECISIONS MADE

1. The current four Basic formula factors will remain:
  - a. Population,
  - b. Road Miles,
  - c. VMT, and
  - d. Special Fuels.

However, the data sources for each factor will be re-evaluated.

2. Carrier Registrations will be added to the formula.
3. No consensus was reached on whether or not to include a V/I portion of the formula, but the group agreed to continue exploring it as an option.