



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

December 5 and 13, 2016

The Federal Motor Carrier Safety Administration's (FMCSA) Motor Carrier Safety Assistance Program (MCSAP) Formula Working Group held two web-based conference calls on December 5 and 13, 2016.

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)
Michelle N. Lopez, Colorado State Patrol*
Thomas Liberatore, Chief, State Programs Division and DFO, FMCSA
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

*The indicated working group members were not in attendance for the December 5 meeting.

**Courtney Stevenson (FMCSA) was not in attendance for either meeting.

FMCSA AND OTHER GOVERNMENTAL REPRESENTATIVES

Karen Brooks, FMCSA
Michael Chang, U.S. DOT, Volpe Center
Dianne Gunther, U.S. DOT, Volpe Center
Tom Keane, Director, Office of Safety Programs, FMCSA
Jack Kostelnik, State Programs, FMCSA
Dana Larkin, U.S. DOT, Volpe Center*
Paul Melander, FMCSA
Brandon Poarch, FMCSA
Julianne Schwarzer, U.S. DOT, Volpe Center
Jacob York, FMCSA

* Dana Larkin (U.S. DOT, Volpe Center) was not in attendance for the December 5 meeting.

OTHER ATTENDEES

Lauren Beaven, DIGITALiBiz



1. Welcome, Objectives, and Road Map

Presentation

Julianne Schwarzer, of the U.S. DOT Volpe Center, welcomed the MCSAP Formula Working Group members and other attendees to the meeting. Tom Liberatore, Chief, FMCSA State Programs Division and DFO, reviewed the main objectives for the December 5 and December 13 webinars. The webinars would focus on resolving issues and making decisions regarding the following formula elements:

- Confirming the Basic factors, after seeing funding impacts.
- Deciding the amount of percent set-aside for the territories.
- Understanding a new border formula and deciding whether to use it and how to change it.
- Deciding the annual change limit.
- Deciding the minimum and maximum limits.

Schwarzer presented and commented on the project roadmap:

- **December:** The working group is meeting via webinar to decide on formula design.
- **January:** The final in-person meeting will take place in Charleston, SC. The working group will make final decisions on formula and review draft recommendations.
- **February:** The working group will continue to review recommendations.
- **March:** The working group will share recommendations with the FMCSA Administrator.
- **April:** The working group will submit final recommendations to the Secretary of Transportation.

2. Five Basic Factors

Presentation (December 5)

Dianne Gunther, of the U.S. DOT Volpe Center, presented formula simulations to demonstrate funding impacts for the five Basic factors, and show how individual changes affect the overall distribution of funding. Gunther reminded working group members to consider the following when looking at the formula simulations:

- Small States and large States will be bounded by the minimum and maximum when those are factored into the formula.
- Overall funding level changes are not as extreme as the individual factor changes. Multiple factors offset and stabilize each other.
- Border is not yet included in these first two formula simulations.
- Change is good. New factors were selected to improve the formula, therefore some change is expected.

Gunther noted that the first simulation (Simulation 1) kept the formula the same as the working group had previously seen but updated the data. Notable updates to Road Miles and other factors included the use of:

- 2014 Highway Miles, which was a new data source



- 2015 Population Estimate, which displayed updated data
- 2014 Total VMT
- 2014 Special Fuels Consumption

Gunther presented a bar graph that displayed the funding impacts of Simulation 1 compared to the FY16 hypothetical Basic funding. She then presented a summary of the funding changes for Simulation 1, and noted the following:

- These changes were a result of:
 - Changes in population data.
 - The switch from 1997 Road Miles to 2014 Road Miles.
 - The switch to using 2014 Highway Miles as the data source to calculate Road Miles.
- Population is an extremely stable factor, so it did not have as significant of an effect on the funding.
- The change from road miles to highway miles had a greater impact on the funding.
- The working group chose to use Highway Miles to calculate Road Miles because the data source is better correlated with crash risk.

Gunther presented the second formula simulation, which replicated Simulation 1 but added Carrier Registrations to reflect New Entrant funding. Gunther noted that the basic trend is very similar to Simulation 1. There is a very good correlation between Carrier Registrations and crashes, indicating that this factor is a good predictor of crashes.

Gunther outlined key takeaways for the first two formula simulations:

- Simulation 1
 - The biggest change was changing 1997 Road Miles to 2014 Highway Miles.
 - The factors reflected crash risk.
- Simulation 2
 - Changes result from turning the New Entrant discretionary grant into a formula.

Discussion

The working group discussed the two formula simulations:

- Working group members inquired as to why the New Entrant funds were left out of the first formula simulation.
 - Gunther noted that the Volpe analysis team isolated the Basic funds in order to align that funding with the Basic factors.
 - The intent of separating the simulations was to show the variation potential, not to advocate for setting aside money for New Entrant.
 - Working group members noted that it was important to look at percentages rather than dollar figures. The change to focus on in these simulations is the move from allocating New Entrant funding to a competitive formula.
- Working group members noted that there would be substantial losses and gains for some States.



- There was an inquiry as to whether the funding allocation on a per-State basis aligned with the number of crashes and fatalities in each State.
 - Michael Chang, of the U.S. DOT Volpe Center, noted that the focus had been on each factor's overall correlation with crashes and that across all States, the factors are well-correlated.
 - The Volpe analysis team would gather data and rank States by number of crashes and fatalities, and then compare those numbers to the simulated funding allocation for the next meeting.
- The working group agreed to move onto the next topic, with the consensus that the Basic factors were agreed upon with caveats and additional action items to be pursued.

Presentation (December 13)

The working group viewed an Excel spreadsheet comparing crashes to funding changes that would occur under a simulated formula with additional adjustments made for minimum and maximum allocation limits and Border funding.

Discussion

The working group discussed the funding amounts compared to crashes:

- There may be reason to alter the formula considering that some States with the Nation's highest number of crashes would be seeing a decrease in funding. While number of crashes and funding shouldn't track exactly, it should be more closely correlated.
- If the formula was altered to allocate funding where the most crashes are occurring, this may be seen as a perverse incentive rewarding States for a high number of crashes.
- Working group members inquired as to what is causing funding decreases in individual States with a high number of crashes.
 - **Action Item:** The Volpe analysis team will look into what unique factors are causing funding decreases in individual States with a high number of crashes.
- Working group members would like to see the funding changes compared to crashes on a State-by-State basis after all formula elements are decided upon.
- **Action Item:** The Volpe analysis team will look at crash rate compared to total crashes, as well as the weighting of factors, and additional comparisons and verifications.
 - The working group will work to address any concerns with this additional information, and if the issues are not solved may reevaluate the formula.

3. Territories

Presentation (December 5)

Dianne Gunther shared a funding proposal for the Territories that had been developed based on the working group's previous decisions regarding the Territories.

Gunther noted that the Territories currently receive 0.89% of the MCSAP Basic funding — \$1.4 million out of the total \$158 million. The presented proposal included keeping the Territories' funding set-aside at 0.89%, which would allow the dollar amount to increase over time as total



funding increased. The 0.89% would be distributed to the Territories on a discretionary basis, with the Territories requesting the appropriate amount of funding and FMCSA distributing the funds based on need. Any unused funds would be re-allocated to the States. Puerto Rico would continue to be subject to funding allocation as a State.

Gunther noted that the working group had not yet discussed a minimum or maximum funding amount on a per-Territory basis. The current ceiling for total funding that any one Territory could receive would be the total \$2.67 million.

Discussion

Working group members agreed that this would be an acceptable process for calculating funding for the Territories. However, working group members did not agree on whether to maintain the exact percentage or change it.

The working group discussed the percent set-aside for Territories:

- Working group members noted that there should be some justification for the 0.89% set-aside, and there is still not sufficient information on the funding amounts needed to sustain the programs for the Territories.
 - There may not be one specific number that adequately represents the Territories' funding needs over time — it can vary from Territory to Territory and change from year to year. In addition, program requirements are changing for Territories, and this may impact funding needs.
 - Requiring the Territories to assess funding needs in CVSPs and request funding provides a way to adequately address need for each Territory and provides the flexibility the Territories need within limitations.
- Working group members noted that the 0.89% set-aside could possibly be reduced slightly.
 - This percentage would almost double the current amount of funding per Territory, and may not be justifiable given that some Territories are currently deobligating funds. 0.7% was suggested.
 - It was noted that a higher set-aside would not be detrimental to the States given that the process allows for the redistribution of deobligated funding. In addition, if the 0.89% were agreed upon, the Territories' funding use could be monitored over time and percent set aside could be changed later.
 - **Action Item:** State Programs and the Volpe analysis team will gather information to determine a percent set-aside for Territories that may better represent actual funding needs.

4. Border

Presentation (December 5)

Michael Chang shared a funding proposal for Border that State Programs and the Volpe analysis team had worked to develop based on the working group's feedback at the last in-person meeting in San Antonio.



Chang reviewed border formula requirements developed based on the working group's feedback from San Antonio and noted that 1) the FAST Act requires the use of crossing volume and fixed facilities to calculate border funding, 2) the working group does not want to erode the border programs, and 3) the formula should use data to allocate funds based on need.

Chang outlined the new border formula proposal:

- Border essentially becomes a sixth factor with its own weight. The determined percent would represent national border need, or the number of staff needed for border enforcement.
- The formula calculates the staff needed at each port of entry, then an aggregate by State.
 - Each port needs a minimum level of staff, regardless of commercial motor vehicle (CMV) crossings.
 - One full time employee (FTE) can handle a certain number of CMV crossings.
 - More CMV crossings requires more staff to oversee that amount of traffic.
- Chang noted that this same general framework was used in the 1999 OIG report to recommend the number of Federal border inspectors.
- Differences between ports on the Northern and Southern borders would be quantified by the amount of traffic per port. There are also programmatic differences between the Southern and Northern borders.

Chang described how the parameter values would be calculated:

- When representing minimum FTE per port, the formula takes into account that:
 - In the South, there are staffing requirements at fixed facilities.
 - In the North, there are strike forces that cover all ports.
 - This model does not count ports with under 1,000 CMV crossings per year.
- When representing CMV crossings per FTE (or the number of crossings that an FTE can handle), the formula refers to FY17 CVSPs for FTEs and Customs and Border Patrol (CBP) for CMV crossings for data.
- The minimum limit would be set at 0.05%, or about \$20,000. This would only apply to New Hampshire, as they have no ports or crossings.
- The maximum limit would be set at 50% to keep one State from dominating border funding. This primarily affects Texas.
- Two sets of data would be required, inputs and parameters.
 - Data inputs would be updated annually. These include ports of entry and CMV crossings in the previous year, per port.
 - Formula parameters, such as CMV crossings per FTE and the maximum and minimum limits, would be stable. The working group would decide them as part of the decision-making process and those decisions would remain going forward.

Discussion

The working group discussed this proposal for calculating border funding:



- Working group members inquired as to why the maximum funding amount was being reduced from 53% to 50%.
 - Chang noted that 50% was not chosen for a particular reason, and that this percent could be adjusted.
- The Northern and Southern borders have similar traffic volume, though there are more ports of entry in the North.
- Some working group members were not comfortable with the rationale behind not counting ports with less than 1,000 CMV crossings per year.
 - This is perceived as a safety concern and may not sit well with the new administration.
- It is important to consider that there are still workload and administrative needs at each port that must be funded.
 - Working group members noted that border funding is not necessarily intended to cover 100% of border needs. States have flexibility within the grant to cover smaller border ports as needs arise.

Presentation (December 5)

Chang presented the funding impacts of the proposed border formula that the working group had just reviewed. Chang noted that the overall weight of the Border component in this simulation is 14%, which is the same proportion as the previous Border Enforcement Grant (was \$32 million) and would account for State match. The working group would evaluate the whole formula by comparing the FY16 Interim Formula and Simulation 3 (which consists of Simulation 2 plus the Border factor with weight of 14%). The majority of significant State by State changes in funding presented are due to the formula elements adjusted earlier, not due to the border component of the formula.

In summary, the proposed Border formula:

- Uses border crossing volume and fixed facilities to calculate funding. If these shift, the funding will adapt.
- Is built to describe the needs of the current Northern and Southern border enforcement programs. It is based on a model framework used by OIG in 1999.
- Results in relatively small funding impacts. This formula is more conceptually sound than what the working group had been looking at in previous meetings.

Discussion

The working group discussed the funding impacts of the proposed Border formula:

- The minimum allocations take care of the ports with under 1,000 crossings. The States have the flexibility within the grant to address these ports.
 - There is some concern that if the formula were to expressly account for these smaller ports, it may draw funding away from the Basic portion of the formula.



- It is important to note that, when the working group considers the differences between the Northern and Southern borders, there is a vast difference in the carriers coming across the two different borders.
 - When the borders are considered only in quantitative measures, this does not take into account the reality of the carriers in Mexico versus Canada.
 - There is also some concern that if volume increases on the Northern border that funding will shift toward the Northern border. This could decrease funding for the Southern border, while the safety risk will not decrease.
- There are some reservations regarding the exact percent allocated for border that the working group will continue to discuss moving forward.
 - Other States are having to absorb cost for the match of previous 100% money so increasing the border money solely on the basis of helping the absorb match could be seen as showing preferential treatment.
 - If the initial BEG was \$32 million, then changing it to 14% from the \$32 million pulls money from other States that could apply that money to areas that have shown a need for crash reduction.

Presentation (December 13)

Chang explained the team's proposal to exclude small ports (less than 1,000 crossings) from the minimum FTE calculation, noting that enforcement efforts focused on small ports, which account for a minimal amount of border traffic, would have a small safety impact.

Chang also noted that enforcement adapts to density. At larger, busier ports, enforcement efforts have a port-level focus and it makes sense to have a minimum requirement. However, for smaller ports, there is more of a corridor-level focus. Northern ports tend to be sparser and have lower traffic volume, while Southern ports tend to be denser and have higher traffic volume.

Discussion

The working group discussed the proposal to exclude small ports from the minimum FTE, but still count the CMV crossings of those ports toward FTE need:

- Working group members agreed with the filtering approach.
- Working group members inquired as to the actual impact of filtering out those small ports.
 - Chang noted that there would be a significant impact if the working group were to include the small ports. The percent FTE is the percent of relative FTE that is lost because of filtering. The impact of excluding the ports would be moderate to significant, but is justified.
 - Working group members noted the need to highlight these impacts in the written formula recommendation.



5. Minimum and Maximum Allocation Limits

Presentation (December 13)

Dianne Gunther, of the U.S. DOT Volpe Center, presented information on minimum and maximum allocation limits (min/max). A minimum was originally included because some States have low crash risk or are small States, but still need minimum amounts of funding to be able to run their program. Similarly, if some States were allocated a majority of funding, others would not be able to meet their minimum funding needs.

Gunther presented formula simulations with and without min/max to compare the funding allocations. Without min/max, Texas and California would receive about 20% of the funding. Other States would receive less funding as a result.

Gunther outlined the history of min/max calculations:

- In 1992, a Federal Highway Administration (FHWA) proposed rule suggested a minimum of 0.5% of total allocation or \$250,000 whichever was greater.
 - The final rule stated that the min/max was administratively established at \$225,000 (min) and \$2.5 million (max)—a dollar amount.
- In 1999, the MCSAP Formula Working Group agreed to keep the current min/max at 0.44% and 4.944%—a percent amount.
 - There is no indication of when the decision was made to move from a dollar amount to a percent amount. This decision predates the last formula working group.

Current proposal and considerations for min/max:

- Apply a min/max to the sum of the five Basic factors.
- Apply a separate min/max for the Border factor.
 - Border funding will be included in the MCSAP formula, so it now makes sense to consider a separate min/max for border funding.
- The working group could subtract the Border portion of the funding (for example, 11%), and apply a min/max to the remaining amount (for example, 89%). Border States would be subject to a different min/max level (for example, no less than \$20,000 and no more than 50% of Border funding).
 - This can be considered as the same min/max applied to a portion of funding, or a lower min/max applied to the whole formula.

Discussion

The working group discussed this proposal for calculating min/max:

- Working group members understood the approach and the majority agreed that this approach (not necessarily the example numbers) may be effective.
 - **Action Item:** Caitlin Cullitan, FMCSA, will research policy surrounding the use of border funds for border-specific activities.



- Working group members noted that allowing a single State a maximum of 50% of Border funding seemed high. It was noted that this is based on current allocations.

Working group members would like more information regarding the legal bind that this could create for border States. If this does not create a legal bind, the majority of the working group is comfortable with the concept and numbers presented.

6. Annual Change Limit

Presentation (December 13)

Dianne Gunther introduced the annual change limit topic. The working group would look at fluctuations in past funding year to year to see the amount of change States have been tolerating, as well as the stability of the new factors to estimate the amount of change States could anticipate with the new formula. Gunther noted that this particular change limit would apply starting after the first year of the implementation of the new formula.

In looking at fluctuations in past funding, Gunther noted:

- The average percent changes in Basic and Incentive funding for FY12 to FY16 are minimal year to year.
- The average percent changes in Border funding for FY12 to FY16 are higher and vary more year to year. This is due to this portion of funding being a discretionary grant. Border funding has typically seen more change than other areas.
- Like Border, the average percent changes in New Entrant funding for FY12 to FY15 vary more year to year. This is also a discretionary grant, and the changes can be explained by overfunding, underfunding, or the quality of the application.

In looking at the five new Basic formula factors, Gunther noted:

- The team looked at each State and the changes that occurred year to year for a period of years between 2010 and 2015.
- The five factors are stable. The majority of changes for all factors fall between -5% and 5%.
- Population is extremely stable. For that factor, 100% of changes fell between -5% and 5%, and 92% of changes were within -1% and 1%.
- Highway miles is interesting because if you include 2011, it seems less stable. There was a definition change in 2012 due to MAP-21, so there was a significant change from 2011 to 2012, but the factor has been stable every year since then.

Gunther demonstrated an example of how long it might take a State to reach a certain amount of funding if different percent change limits (ranging from 3% to 10%) were implemented. She noted that including a change limit would make it easier for States to predict how much funding they would receive year to year, but might also cause delays in funding changes that result from changes in the risk factors.



Discussion

The working group discussed implementing a change limit, and what the percent amount that a change limit might be:

- Working group members noted that CVSA had discussed change limits as part of a grant consolidation package. That team had noted that a smoothing factor or change limit might increase stability, but that it would take longer for the money to move where it needs to be. Stability ended up being the deciding factor in the decision to implement a change limit. Quick shifts year to year were damaging to States' programs.
 - A change limit in this formula may be well-received by stakeholders.
- Working group members are most comfortable with either a 3% or 5% change limit.
 - Any more than 5% would allow for swings in funding that may be too significant. States will be able to better prepare if they know that the maximum possible loss in funding is 5%.
 - There is some concern that if a State gains 5% in funding, the increased funding may be difficult to spend and would end up being redistributed.
 - There is some concern that a 3% change limit would inhibit justified change.

7. First Year Change Limit

Presentation (December 13)

Gunther introduced the first year change limit topic. She noted that since this formula is new, and would also be grouping two discretionary funds, there will inevitably be changes in funding. It is the intent of Congress to develop a new formula, and States have tolerated moderate swings in MCSAP funding and wide swings in Border and New Entrant funding in the past.

Discussion

The working group discussed the inclusion of a first year change limit:

- Some working group members noted that there should be a first year change limit, and that this should mirror the annual change limit.
- Working group members would like to see first year changes for the proposed formula based on historic funding, not FY17 funding.
 - There was an infusion of dollars in FY17 that was not meant to be sustained.
 - The working group should also consider that many States did not have New Entrant that will be required to now.

8. Wrap Up and Next Steps

Julianne Schwarzer and Tom Liberatore outlined the upcoming process for the working group.

The next working group meeting would take place in person in Charleston, SC in January 2017. The working group should aim to make final decisions on the various outstanding formula characteristics.



In the interim, State Programs and the Volpe analysis team will work to distribute additional details regarding the topics covered in these meetings. Schwarzer encouraged working group members to reach out to the team if there are any concerns or specific things they would like to look into.

Liberatore thanked the working group for their participation and adjourned the meeting.

ACTION ITEMS

Topic	Action Item	Assignment
Territories	Gather information to determine a percent set-aside for Territories that may better represent actual funding needs.	State Programs and Volpe analysis team
Border	Research policy surrounding the use of border funds for border-specific activities.	Caitlin Cullitan and State Programs
Basic Factors	Determine what unique factors are causing funding decreases in individual States with a high number of crashes.	Volpe analysis team
Basic Factors	Research crash rate compared to total crashes, as well as the weighting of factors, and additional comparisons and verifications.	Volpe analysis team

PRESENTATIONS

	Presenter(s)	Presentation
1	Michael Chang, Dianne Gunther, Thomas Liberatore	MCSAP Formula Working Group Webinar, December 5 and 13, 2016

SUMMARY OF KEY DECISIONS MADE

1. The working group is comfortable with the methodology behind the current minimum and maximum allocation limit proposal, but did not decide on the exact numbers to use for this calculation.
2. Working group members understand the concept behind the proposal to eliminate low volume ports from the minimum FTE calculation for Border, but have not determined whether to use this approach.
3. The working group is comfortable with the proposal to set aside a portion of the funding for Territories to be distributed on a discretionary basis. However, the amount of the set-aside has not yet been determined.