

**System Performance/ Freight Movement on the Interstate/CMAQ Program  
Performance Measures NPRM Overview Webinar**

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**Webinar Recording**

**Part 1:**

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**Jessica Baas:** Good afternoon everyone and welcome to the performance of the NHS Freight and CMAQ Performance NPRM Overview Webinar. My name is Jessica Baas, I'm with the U.S. DOT's Volpe Center in Cambridge, Massachusetts and I will be moderating today's webinar as well as facilitating our question and answer session and helping to troubleshoot any technical issues you may have. Before we begin, I would like to orient everyone to the Web room. On the top left side of your screen, you will find the audio call-in information, below that is a list of the attendees. Finally, on the bottom left is a chat box that you can use to submit questions to our presenters throughout the webinar. If you have any technical questions during today's webinar, please use the chat box to send a direct chat to me, Jessica Baas. Today's webinar is being recorded, a copy of the recording will be posted once it's available. The slides will be available for download at the end of the webinar. And with that, I'd like to turn the webinar over to our first presenter, Bob Arnold who will begin our presentation and discussion. Bob, please go ahead.

**Francine Shaw Whitson:** Good afternoon, this is Francine Shaw Whitson, I'm with the Office of Transportation Performance Management and I welcome you to today's overview presentation. Today's discussion is part of a series of webinars covering all the national performance management measures proposed rules. A full list of all the webinars in this series is available on the Office of Transportation Performance Management's website at [www.fhwa.dot.gov](http://www.fhwa.dot.gov) and at the end of this presentation, as Jessica said, we will have the full presentation available for download. For today's discussion, we provide an in depth review of proposed national performance management measures and then open up for questions. In the future we will be providing subject specific webinars for each of the three areas covered by this overview. We will cover the greenhouse gas proposal at the end of this webinar. As we are going through the presentation, please feel free to enter any questions into the chat pod, when you do so, please indicate the area or topic that you're addressing. As a reminder, while this webinar is being recorded, any comments on the NPRM must be submitted to the docket directly. The docket will be open tomorrow officially when the federal registered notice is posted. So let's get started. I am pleased that we have Bob Arnold with us, Director of the Office of Transportation Performance Management. I would like to give him a few minutes to provide some opening comments. Bob?

**Bob Arnold:** Thank you, Francine. It looks like we have a really good participation today so I'm pleased to have you join us in this important webinar. I'm very pleased to introduce the last round of proposed performance measures required by MAP-21, these cover system performance, freight movement and the CMAQ program. FHWA has been working on defining these proposed measures since MAP-21 was first enacted and we are happy to finally be presenting you with the results of a lot of hard work by a lot of people. Throughout this process we have sought the balance, the direction we received from Congress with implementation concerns and costs. We expect to hear feedback from stakeholders on whether we have been successful. These proposed measures will require state DOTs and MPOs to monitor the performance of their portions of the National Highway System which will provide a lot of information that they can use when applying the performance management approach to investment decisions. The measures for these areas all require the use of travel time data either from the National Performance Management Research data set which the office operations has been providing to state DOTs and MPOs or an equivalent source of data. We will continue to provide technical assistance on the use of this data throughout the rule making process. As a final note, this rule is rather large and complex, so we are

recording this webinar in case you miss some details and future webinars will provide even more detailed information on all of the measures and requirements in the proposed rule. Thank you, and back to you, Francine.

**Francine Shaw Whitson:** Thank you, Bob. Now let's go through the outline for today's proposal, it's going to be presented in five parts, part one, is going to be an overall introduction to Transportation Performance Management, part two is going to cover some key concepts and applicability, part three will cover our actual proposed parts E through H, part four is going to give an overview of the subpart A requirements that pertain to this NPRM and then finally we're going to wrap up the presentation with a discussion of next steps, there you'll also be able to answer questions. But we're going to open for questions after part two. All right? Let's get started. So a quick review, transportation performance provisions that was initiated by MAP-21 as well as our approach to our implementation. So performance management is basically relatively new to the field of transportation, it helps us maximize the return on investment of the public dollars entrusted to transportation agencies and planning organizations. The slide here shows you the schedule for each of the related performance measure rules initiated under MAP-21 and continued under the FAST Act. Please note that for this NPRM, the third one shows performance of the NHS, right, the CMAQ measures. As proposed, the performance management requirements are going to be codified in section of Chapter 23, the Code of Federal Regulations, it's going to be Part 490. When the final rule is completed it will be composed of subparts A through H. For today's presentation, we're going to review the proposed measures in subparts E through H and the proposed requirements in subpart A related to target establishment, reporting in NHPP and NHFP significant progress determination. The proposed measures in subparts E through H form the backbone of the NHS, Freight and CMAQ measures because they assess different areas of performance of the National Highway System and other highway systems and they also evaluate the impact of the CMAQ where applicable. We will review these measures on the presentation today. There will also be additional detailed presentations for each of these subparts, the subparts E through H, again, we will provide that information at the end of this webinar. For your reference, all proposed NPRMs as well as the associated fact sheets and presentations are or will be available on the TPM website. So let's quickly review what we've done so far. As you can see we have the final safety measures here, the five measures, number of fatalities, number of serious injuries, rate of fatalities per one million VMT, rate of serious injuries per one million VMT and the number of non motorized fatalities and non motorized serious injuries. Under our proposal for pavement and bridge condition, we proposed six performance measures. Under each of these are part of the National Highway Performance Program. So starting with this NPRM, we're going to talk about additional performance measures across four subparts of the proposed rules. The first sets of proposed measures shown on this slide would monitor performance of the NHS and its subpart E and freight movement on the interstate system which is described in subpart F. We'll provide more detail about how each of these measures as defined in the presentation and we will also be holding in depth discussions for each subpart and subsequent webinars. The first measure group is subpart E, it includes the two NHS travel time reliability measures which would apply to all interstate and non interstate NHS roads, they are the percent of interstate system providing for reliable travel times and the percent of the non interstate NHS providing for reliable travel times. Next measure group is also part of subpart E and would specifically apply to urbanized orders over one million in population. These are the peak hour travel time measures, they are the percent of the interstate system over one million in population where

peak hour travel times meet expectations and percent of the non interstate NHS in urbanized areas over one million in population where peak hour travel times meet expectations. So to carry out the National Highway Freight Program which is subpart F, FHWA is proposing two measures to monitor freight movement on the interstate system. The percent of the interstate system mileage provide for reliable truck travel times and percent of interstate mileage uncongested for freight vehicles specifically. Finally, FHWA proposes two measures to monitor performance related to the Congestion Mitigation and Air Quality Improvement Program or CMAQ, they are annual hours of excessive delays per capita which would measure traffic congestion as described in subpart G and the total emission reductions from CMAQ projects for each applicable criteria pollutant and precursors. This measure would capture the reduction in on-road mobile source emissions as described in subpart H. So this concludes part one of our presentation of FHWA's overall approach to implementing the performance provisions. So let's move on to part two. I'd like to introduce to your Rich Taylor. Rich?

**Rich Taylor:** Thank you, Francine and good morning and good afternoon to everyone on the webinar today. In this part of the webinar, we're going to cover the data sources, key concepts and applicability for the measures in subparts E through H. Some data requirements are actually presented in subpart A because they apply to more than one of the subsequent subparts including the subparts in the proposed rule on bridge and pavement condition. Additional proposed data requirements unique to each subpart are included and discussed later in the presentation. Before we review the measures in more depth, let's review a few key terms, the measures in subparts E, F and G are comprised of a metric, a threshold by which the metric is measured and the ultimate measure. Subpart H does not have a threshold but it does have a metric and measure definition. So what is a metric, a metric is a quantifiable indicator of performance or condition as defined by FHWA and is applied to each travel time segment. Using a freight movement example, a metric would be average truck speed. What is a threshold? A threshold is the level at which the performance of a reporting segment is included in a measure or not. In this example, a threshold of 50 miles per hour is applied to each road segment so that when average truck speed is above the threshold for a given segment of the interstate highway system, that segment is considered uncongested. FHWA is requesting comment on the thresholds used in each of these metric calculations in this proposed rule. So what is a measure? A measure is an expression based on a metric that is used to establish targets and to assess progress toward achieving the established targets. In this example, the measure would be the percent of the interstate system mileage uncongested. By dividing the total number of uncongested miles which is 2,510 in this example, by the 3,000 total miles in the interstate system, the measure is calculated as 83.7 percent miles uncongested. The metric and threshold are applied to each individual travel time segment while the measure applies to the entire applicable network.

**Jessica Baas:** We've heard that there have been some audio issues so we're just going to pause for a moment and give everybody a chance to dial into the phone number.

**Francine Shaw Whitson:** Okay, this is Francine, can everyone hear us now?

**Jessica Baas:** Yes, we can hear you, Francine.

**Francine Shaw Whitson:** Great. Okay, we're going to resume, go ahead Rich.

**Rich Taylor:** All right. I was just stating that state DOTs and MPOs would jointly establish targets for these measures for each applicable urbanized area. The freight movement measures in subpart F have individual metrics that would only apply to truck travel times on the interstate system. The metric and measures apply to all mainline segments of the interstate within all states and MPOs. The traffic congestion measure in subpart G uses the total excessive delay metric and applies only to urbanized areas with populations over one million that contain non attainment or maintenance areas for ozone, carbon monoxide or particulate matter under the CMAQ program. The proposed measure is annual hours of excessive daily per capita as measured on mainline segments of the NHS. Finally, the on-road mobile source emissions metric is annual tons of emission reductions by project for each applicable criteria pollutant and precursors, those are particulate matter 2.5 which we'll refer to as PM2.5, particulate matter 10 which we'll refer to as PM10, carbon monoxide which we'll refer to as CO, volatile organic compounds which we'll refer to as VOCs and nitrogen oxide which is NOx. The geographic applicability is based on designated non attainment and maintenance areas and the projects funded by the CMAQ program in those areas. All right, so it is proposed that the measures in subparts E, F and G be calculated using data from the National Performance Management Research data set or NPMRDS or an equivalent data set. The NPMRDS is a travel time data set that is provided by FHWA monthly to state DOTs and MPOs for use in their performance management activities. It includes travel times representative of all traffic using the highway system for each segment of the road. The highway network is broken into continuous travel time segments. The average travel times are derived from all vehicle probes traversing each travel time segment every five minutes throughout every day of the year. The five minute time period is referenced in the proposed rule as a five minute bin. In addition to recording travel times of all traffic which are combined freight and passenger vehicles, the NPMRDS also includes a breakdown of travel times for just freight vehicles. Now to provide a sense of scale, there are over 100,000 five minute bins for each road segment over the course of a year, that's a lot of data. So the sources of the vehicle probes could include mobile phones, vehicle transponders, portable navigation systems or other fleet devices in vehicles. When no probes are detected during a five minute bin, no data is included in the NPMRDS. We'll address that issue a little later in the presentation. The NPR-- the proposed rule allows for the use of an equivalent data source in place of the NPMRDS, state DOTs and applicable MPOs would need to agree to use the same equivalent data source for all applicable travel time segments for the calendar year. The state DOT would need to submit the data source they would like to use and request FHWA's approval by October 1st prior to the beginning of the calendar year in which the data source would be used to calculate metrics. State DOTs and MPOs would not be able to use the data source until FHWA approves it. For full details on the equivalent data source requirements please refer to the proposed rule. In general, the equivalency requirements follow those of the NPMRDS with a focus on the data being actual observed travel times and not travel times derived from imputed methods such as historical times or other methods. Now let's talk a little about these reporting segments we've been referring to. State DOTs in coordination with MPOs should define a single set of recording segments of the interstate system and non interstate NHS for use in determining each of the applicable methods within this proposed rule for subparts E, F and G specifically. Reporting segments should cover the full extent of the mainlines of the interstate system and non interstate NHS required for reporting a given measure. Mainline highways include only the through travel lanes of any highway and specifically

exclude ramps, shoulders, turn lanes, crossovers, rest areas and other pavement services that are not part of the roadway normally travelled by through traffic. Separate reporting segments are needed for each direction of travel. Travel time segment lengths as defined in the NPMRDS vary based on road features such as interchanges, intersections or other considerations, they can be shorter than one-tenth of a mile in urban areas and much, much longer in rural areas. As proposed in this rule, state DOTs and MPOs can aggregate travel time segments provided by the NPMRDS into reporting segments if desired. Reporting segments in urbanized areas would have a maximum length of one-half mile unless an individual travel time segment is longer. The maximum length in rural areas would be ten miles unless an individual travel time segment is longer. In the next slide we will go over an example of using NPMRDS travel times. So the state DOT would establish in coordination with the applicable MPOs, a single travel time data set, and again that's the NPMRDS or equivalent data set, that would be used to calculate the annual metric. The same data source should be used for each year of a performance period. The table on this slide demonstrates what values might look like, for an example segment of road. Keep in mind that these numbers are only for illustration and do not represent any data currently in the NPMRDS. So as shown in the column to the right, average travel times are recorded for an entire calendar year within the NPMRDS for each segment of the highway system. Travel times are reported in the NPMRDS for every five minute period of the day or the five minute bin as we've referred to it in the rule. State DOTs would be required to calculate the metrics for all applicable roadway segments for the required time periods and report them to FHWA annually. This concludes our review of the data requirements and applicability of the proposed measures. Next, we'll review the definitions of the proposed measures and short examples of each measure, metric and threshold. All right, moving on to part three, now that we've discussed the data requirements, key concepts and applicability of the proposed measures, we can define the proposed measures and quickly review the metrics, thresholds and targets that would apply to the NPRM.

**Rich Taylor:** We'll go ahead and pause for a moment and address some of the questions in the chat box that you all have put in there already. Jessica?

**Jessica Baas:** Okay, great. The first question we have is from Lauren LeJeune from FDOT and it says, "For clarification, an urbanized area with a population over one million that is neither not attainment nor maintenance is not subject to traffic congestion measures, correct? Assuming correct, that would mean there's no traffic congestion measure for the state or its MPO to report if all MPOs are neither non attainment nor non maintenance."

**Francine Shaw Whitson:** Yes, that is correct.

**Jessica Baas:** Okay, the next question we're going to answer is from Marilee, "Can you tell me how many probes are in the State of Wyoming on a typical 24 hour period?"

**Rich Taylor:** Hi, Marilee. No, I cannot tell you that, that's something we don't have readily available, we can certainly work with you to review what's in the NPMRDS in terms of travel times. Typically travel times are not reported as regularly during the overnight hours and when the roadway that you're looking

at is not being used very much. So it really does sort of related slightly to the volume on the roadways during those particular time periods.

**Jessica Baas:** Great, thank you. The next question we're going to answer is from Alex. "We don't see anything that references the National Transit Database or the U.S. Census American Community Survey, where are these in the rule?"

**Rich Taylor:** Jessica, we already had a reply, the two data sources are not required for calculating the measures we're proposing, so that's why they're not in the rule.

**Jessica Baas:** Okay, thanks.

**Jessica Baas:** I believe the next question is from RIDOT. If the data and the NPMRDS comes from FHWA, will FHWA consider calculating the measures for the state DOTs or build tools in the system to do so?

**Francine Shaw Whitson:** Yes, we will be calculating the performance measures and we are also looking at what tools we can make available for states to assist them in calculating the measures.

**Rich Taylor:** Just to add to that, the states are required to actually produce the metrics and report them annually and FHWA will be using those metrics to actually create the measures and to assess whether significant progress has been achieved for those measures where that's required. So we are definitely working with a number of both public and private sector folks to look at tools and we'll do this more or less automatically and there'll be probably more information on that throughout the comment period and into the future.

**Jessica Baas:** Okay, great. The next question is from TDOT, "How do we calculate the average without the sample size in the NPMRDS data?"

**Rich Taylor:** The travel time data that is in the NPMRDS is already average from all of the probes that are reported. We do not get a number of...

**Pete Stephanos:** Rich, I think the question might be also on the average-- one of the measures does require average travel time, a couple of them do and that average is the average of all the travel times that are in the NPMRDS, so it's not the actual probes they use to calculate an average but it's the average of all the travel times that are in the NPMRDS. You would have the information needed to calculate it.

**Francine Shaw Whitson:** So, thank you. We're going to pick up after the next part and continue with responding to questions. We thank you for those questions, keep them coming.

**Rich Taylor:** All right. So we're going to go ahead and quickly review the metrics, thresholds and targets that would apply under this proposed rule. All right. So in this proposed rule, Federal Highways is proposing to establish four performance measures under subpart E, these measures are designed to be used by state DOTs and MPOs to better understand the scope of reliability problems and the peak hour

performance on their highway systems and to aid in identifying and implementing strategies to improve performance. The two proposed travel time reliability measures which would apply to the full extent of the interstate and non interstate NHS are a percent of the interstate system providing for reliable travel times and percent of the non interstate NHS providing for reliable travel times. Travel time reliability is defined as consistency or dependability of travel times from day-to-day or across different times of day. There are also two measures for peak hour travel time which would apply to urbanized areas over one million in population only. They are percent of the interstate system in urbanized areas over one million in population where peak hour travel times meet expectations and percent of the non interstate NHS and urbanized areas over one million in population where peak hour travel times meet expectations. Now we'll review the two proposed travel time reliability measures in more detail. These are the first set of measures for assessing performance of the NHS under subpart E. Federal Highways is proposing that reliability be described as the comparison of longer than average travel times experienced by users compared to the normal travel times which are defined by the metric level of travel time reliability or LOTTR. The longer than average travel time is in the 80th percentile of all travel times over the course of a year while the normal travel time is described as the 50th percentile travel time over the course of a year. This metric would capture the variation in travel speeds for a specific segment of the road. A road segment would actually be defined as reliable if the 80th percentile travel times remain less than 50 percent higher than the normal travel times. This would mean the LOTTR is below the threshold ratio of 1.50 in each of four designated time periods, weekday morning peak, weekday midday, weekday afternoon peak and weekends. The example shown on the bottom of this slide shows the calculation of the metric and threshold for a single segment of the interstate system, then the measure as calculated for the entire applicable network. In the example, the 80th percentile travel time was 30 seconds while the 50th percentile travel time was 15 seconds which equates to the LOTTR metric of 2.00. The threshold for all segments under this measure would be an LOTTR of 1.50. So for the example segment, since 2.00 is greater than 1.50, the segment does not provide for reliable travel times. The overall measure would be the sum of segments that provide for reliable travel times on the interstate system in this example divided by the total system mileage. The example measure then was calculated as 8,125 miles, considered reliable, divided by 10,000 total miles providing for 81.3 percent of interstate miles providing for reliable travel times. So once the measure has been calculated for all applicable mileage within the state boundary or MPA, state DOTs and MPOs could compare that mileage to their target percentage of mileage providing for reliable travel times. State DOTs and MPOs would establish targets for both the interstate system and the non interstate NHS...

<break in recording>

**Rich Taylor:** So we're back to the slide on metrics, thresholds and measures for the travel time reliability measures. Again...

**Rich Taylor:** So I'm just going to start off here with FHWA-- we're going to talk about the example since you all heard me talking about this. The example shown on the bottom of the slide shows the calculation of the metric and threshold for a single segment of the interstate system. Then the measure is calculated for the entire applicable network. In this example, the 80<sup>th</sup> percentile travel time was 30 seconds, while the 50<sup>th</sup> percentile travel time or normal travel time was 15 seconds which equates to the LOTTR metric of



2.00. The threshold for all segments under this measure would be an LOTTR of 1.50. So for the example segment since 2.00 is greater than 1.50 the segment does not provide for reliable travel times. The overall measure would be the sum of segments that provide for reliable travel times on the interstate system in this example, divided by the total system mileage. The example measure was calculated as 8,125 miles that were considered reliable divided by 10,000 total miles providing for 81.3 percent of interstate miles providing for reliable travel times. So, again, once the measure has been calculated for all applicable mileage whether it's in the state boundary or MPA, state DOTs and MPOs could compare that mileage to their target percentage of mileage providing for reliable travel times. State DOTs and MPOs would establish targets for both the interstate system and on non-interstate NHS. So continuing on with our example 81.3 percent of interstate miles providing for reliable travel times was what the measure was. So let's assume that the state DOT had established a target of 80.0 percent of the interstate miles providing for reliable travel times for the entire calendar year. So in this example, the state DOT achieved its target for the interstate system. All right, now we're going to move on the proposed peak hour travel time measures under subpart E. They would be applicable to all segments of the mainline NHS within urbanized areas with a population greater than one million. The two proposed measures are percent of the interstate system where peak hour travel times meet expectations. And the percent of non-interstate NHS where peak hour travel times meet expectations. The calculation of these measures is very similar to the travel time reliability measures, but the metrics are calculated very differently. In this case, the peak hour travel time ratio or PHTTR metric is defined as the ratio of the longest peak hour travel time during the peak periods defined in the proposed rule, to the desired travel time during the same peak periods. The key here is that state DOTs and coordination with relevant MPOs would establish the desired travel times based on their operational policies. So the example on this slide walks through a single segment of the interstate system and calculates the measure for the entire applicable network. So in the example, the longest peak period travel times was 30 seconds and that happened during the 8:00 to 9:00 A.M. segment in the A.M. peak, while the desired peak period travel time was defined by the state DOTs in coordination with their MPOs as 25 seconds for that particular segment which equates to a PHTTR metric of 1.20. The threshold for all segments under this measure would be a PHTATR of one 1.50. Since 1.20 is less than 1.50 the segment in the example meets expectations. So the measure would then be the sum of segments that meet expectations based on the desired peak hour travel times. For the interstate system in the urbanized area in the example, the measure is calculated as 800 miles divided by 1,000 total system miles. The measured result is 80.0 percent of the interstate system miles that met expectations. So state DOTs and MPOs could compare the percentage of highway system miles calculated by the measure for both the interstate system and the non-interstate NHS to its target percentage of system mileage that met expectations. In the example we've been using, the measure is calculated as 80.0 percent of total interstate miles that met expectations. The state DOT and all applicable MPOs had established a target for the urbanized area of 80.0 percent of interstate miles uncongested for the calendar year. Thus, the state DOTs and MPOs achieve their target for the example calendar year shown. Note that unlike with thresholds, if the measure equals the target the state DOT or MPO is considered to have achieved its target. For targets related to the peak hour travel time measures it is important to note that all state DOTs and MPOs whose boundaries intersect an urbanized area would jointly establish a single target for the interstate system and a single target for the non-interstate NHS for that urbanized area. So each urbanized area should have two targets. And each would be jointly established by the state DOT and MPO. This concludes our overview of the measures to assess

performance of the NHS. And now, I'd like to turn it over to my colleague, Nicole Katsikides to talk about the freight movement measures. Nicole.

**Nicole Katsikides:** Thank you, Rich. Hi, everyone. I'll get started in just a second. Volpe will you please put up the notes slide? Sorry for the brief delay. We'll get started in just a second. Okay. Sorry, again, for the delay. I'm Nicole Katsikides with the Federal Highway Office of Freight Management And Operations. I manage the freight performance measure program and I'm going to talk to you today about the freight measures subpart F measures to assess freight movement on the interstate system. Federal Highway is proposing to establish two performance measures to assess the performance of freight movement on the interstate system. The measures would apply only to the mainline of the interstate. They are the first one percent of the interstate system mileage providing for reliable truck travel times. And the second one, percent of the interstate system mileage uncongested. The proposed truck travel time reliability measure is percent of the interstate system mileage providing for reliable truck travel times. This measure uses a metric similar to the metrics in the previous few measures comparing longer truck travel times to the normal truck travel time for the full extent of the interstate system. The metric calculated to compare these times would be the truck travel time reliability ratio, the TTTR. The efficient use of resources to move goods is particularly critical for freight operations on the interstate system. The reliability measure proposed in this subpart is designed to support freight trip planning where a high level of certainty is needed to assure time arrivals-- on time arrivals for trips occurring at all hours throughout the year. Shippers, carriers, and receivers desire on time or just-in-time delivery of goods. To do this, they consider the longest travel times of a route by looking at the 95<sup>th</sup> percentile travel time or higher. To be consistent with the industry measures of reliability the Federal Highway proposes to use the 95<sup>th</sup> percentile travel time in comparison to the 50<sup>th</sup> percentile travel time as the truck travel time ratio metric, TTTR. As a threshold Federal Highway proposes a reliability ratio below 1.5. This means that trips take no more than 50 percent longer than normal. Federal Highway recognizes that the freight industry does not find trips that takes significantly longer than expected acceptable. Therefore, for the purpose of this measure Federal Highway proposes that trips that are longer than 50 percent above normal travel time would be unacceptable to the trucking industry. The example walks through metric and measure calculation for a single segment and the whole interstate system. In this example, the 95<sup>th</sup> percentile truck travel time was 60 seconds while the 50<sup>th</sup> percentile was 42 seconds. This equates to a TTTR metric of 1.43. The threshold for all segments under this measure would be a TTTR of 1.5. Since 1.43 is less than 1.5 this segment in the example provides for reliable truck travel times. The measure then would be the sum of the segments that provide for reliable travel times for the interstate system in the example state the measure is calculated as 2,492 miles divided by 3000 total system miles. The measure then is 81.3 percent of interstate system miles that provide for reliable truck travel times. Once the state DOT or MPO has calculated the truck travel time reliability measure for all interstate mileage within its boundary it could compare that mileage to its target percentage of interstate mileage providing for reliable truck travel times. In the example from the previous slide the measure was calculated to be 81.3 percent of interstate system mileage providing for reliable truck travel times. As shown on the right, the example state DOT had established a target of 80 percent reliable miles for the calendar year. Therefore, the state DOT achieved its own target for the example calendar year shown. The proposed mileage on congested measure is the percent of the interstate system mileage uncongested for freight traffic. In general, the truck travel time reliability measure reflects any travel delays that can occur where the mileage on

congested measure considers differently the additional travel time caused by excessive delays as measured by the metric of average truck speed. As proposed excessive delays occur when travel speeds are below 50 miles per hour on a segment of the interstate system. So the measure is calculated as the percentage of all segments of the interstate where travel speeds are on average for a full year above the 50 mile per hour threshold for the freight vehicle which would be considered uncongested. So looking at the example segment and interstate system mileage within the state shown on the slide the average truck speed metric for a single segment of the interstate system for the full calendar year was calculated at 52.3 miles per hour. As previously mentioned, the threshold for all segments under this measure would be an average travel speed of 50 miles per hour or more. Since 52.3 is greater than 50 the segment in this example is considered uncongested. The measure would be the sum of all of the uncongested mileage divided by the total system mileage for the interstate system in this example 2,250 miles were considered uncongested, out of a total of 3,000 interstate system miles in the state. The measure, therefore, equals 75 percent of interstate system miles uncongested. Once again, the state DOT or MPO could compare the percentage of interstate miles calculated by the measure to its target percentage of interstate mileage uncongested. In the example, the measure was calculated to be 75 percent of total interstate miles uncongested. The state DOT had established a target of 75 percent miles uncongested for the calendar year. Therefore, the state DOT achieved its target for the example calendar year shown since the target and measures are equal. Note, that if the measure equals or exceeds the target, the state DOT is considered to have achieved its target. This concludes our review of the proposed measures to assess freight movement on the interstate system. I'd like to turn it back to now to Rich Taylor to proceed with the additional measures.

**Rich Taylor:** Thank you very much, Nicole. Now, we'd like to move on to subparts G and H. So FHWA proposes to establish performance measures for state DOTs and MPOs to use. The proposed measure is annual hours of excessive delay per capita to assess traffic congestion. To assess on-road mobile source emissions FHWA proposes in subpart H a measure for state DOTs and MPOs to use to estimate the reduction of the applicable criteria pollutants and applicable precursors under the CMAQ program. The measure is total emission reductions which is the two-year and four-year cumulative estimated mission reductions for all projects funded by CMAQ funds, for each criteria pollutant and applicable precursor PM 2.5, PM 10, CO, VOCs and NOCs [ph?], for which the area is designated non-attainment or maintenance. We'll go into this in a little more detail. The traffic congestion measure applies to urbanized areas of over 1 million that are in all or part designated as non-attainment or maintenance areas for the ozone, carbon monoxide or particulate matter, PM 2.5 and PM 10. The on-road mobile source measure emission applies to all attainment, non-attainment and maintenance areas for those same criteria pollutants and precursors. So the proposed traffic congestion measure in subpart G, again, is annual hours of excessive delay per capita. This proposed measure would be limited to segments of the mainline NHS and urbanized areas over 1 million in population. Because state DOTs and MPOs in these areas are seen as having more capability to develop the measure than agencies in smaller urban or rural areas. Many traffic congestion reduction projects that seek CMAQ funding also use a form of this measure, of the delay measure, to show the benefits of traffic reduction as well as emission reductions. This led FHWA to focus on a delay measure for the CMAQ traffic congestion measure so that existing and future projects would use similar measures for analysis, by establishing where and when the worst delay occurs on NHS facilities in large urbanized areas where air quality is a concern, state DOTs and MPOs can better plan

investments that address excessive delays and thereby reduce emissions. So for the traffic congestion measure the examples on the slide here, the metric is a total excessive delay for each reporting segment on the NHS in vehicle hours. In this example, we can see that the state DOT calculated its total excessive delay for a single half mile segment of the interstate as 863.025 vehicle hours. The threshold for this measure is the excessive delay travel time at the threshold speed. The threshold speed proposed in the rule is 35 miles per hour for interstate highways and express ways and 15 miles per hour for principle arterials and all other roads that are part of the NHS. So for the example half mile segment of the interstate, the excessive delay travel time at the threshold speed is 51 seconds. This would be the travel time of a vehicle traveling 35 miles per hour across a half mile distance. And finally, the measure is annual hours of excessive delay per capita. The calculation of the measure would be the sum of all excessive delay for each segment of the NHS within the urbanized area boundary divided by the total population of the urbanized area. So in this example it is 4.3 hours per capita as calculated by dividing 4.46 million hours of excessive delay by the urbanized area population of 1.05 million. So once the measure has been calculated for all of the NHS mileage within the urbanized area boundaries state DOTs could compare the calculated measure against the associated target for the measure. Again, in our example, the measure was calculated as 4.3 vehicle hours of excessive delay per capita to the nearest tenth of an hour. The state DOT then established a target of less 5.0 hours of excessive delay for per capita annually. Thus, the state DOT achieved its target for the example. Remember, the state DOTs and MPOs would establish single targets for each urbanized area within their boundaries. State DOTs with multiple urbanized areas would have multiple targets for each of those urbanized areas. And, again, urbanized areas that cross state DOT or MPO boundaries would have single targets shared by each of the applicable state DOTs and MPOs. And now I'd like to turn it over to my colleague, Emily Biondi to discuss the measures in subpart H.

**Emily Biondi:** Thank you, Rich. The proposed measure for on-road mobile source emissions on part H is total emission reductions. The measure will be the two-year and four-year cumulative estimated emission reduction resulting from CMAQ projects for all applicable criteria pollutants and precursors for which the area is non-attainment or maintenance. Federal Highway elected to base the proposed measures on the estimated emission reductions reported in the CMAQ public access system. To establish a measure that would rely on the existing processes state DOTs are already using to manage, track and report projects as part of the CMAQ program. The metric to calculate this measure would be the conversion of emission reductions from kilograms per day as reported in the public access system to short tons per year for each applicable criteria pollutant precursor. In this example, the conversion of carbon monoxide reduction for a project in a single year calculates to 0.856 short tons per year. The measure is simply the sum total of cumulative emission reduction for each criteria, pollutant or precursor for two and four fiscal years. For example on the slide, let's assume there is another project that is estimated to reduce CO emissions by 0.946 short tons per year. This adds to a total 1.796 short tons of CO emissions over two fiscal years. As you recall, from the opening of this presentation there are no applicable thresholds for this measure. Continuing with our example from the previous slide, let's look at how the CO reductions compare to a state's target for two-years. The measure for total reductions in CO emissions over two fiscal years was calculated to be 1.796 short tons of CO emissions reduced. If the state DOT had established a target of 1.500 short tons in CO emission reduction, in the midyear performance report, the state DOT would have achieved its two-year target for CO emissions, since it

reduced emissions by more than 1,500 tons. The state DOT will report this target as well as all two-year targets for the other applicable pollutants and precursors. It will also report two-year targets for all applicable pollutants and precursors during this performance period. As a reminder, while this example only focuses on two-year reductions for CO the state DOT would also establish four-year targets for all of the other applicable pollutants and precursors. This completes our review of all the proposed measures in subparts E through H. We encourage you to review the office of PPM website for more information on the in depth presentations about each of the proposed measures. A detailed presentation on the performance of the NHS for part E, the freight movement on the interstate for part F and the CMAQ program subparts G and H measures. We'll discuss in more detail how to calculate the metrics and measures and review some further distinctions and reporting requirements and target establishment. More detail on how to register for these webinars are available on the TPM website. Now, let me turn this back over to Rich.

**Rich Taylor:** Thank you, Emily. And just to finish off part three of our webinar today I wanted to give you a brief of summary of data sources and requirements. So these are the data sources, the state DOTs and MPOs need to be able to calculate the metrics for each of the proposed measures and to establish targets. As proposed, the measures of today's presentation draw from the following sources. Again, we have mentioned the national performance management and research data set, which we used in subparts E, F and G, those measures and those subparts. The applicability of the CMAQ measures would be determined by ozone, FEO and PM non-attainment or maintenance areas for the applicable pollutants and precursors. This would be-- this is based on the effective data the U.S. Environmental Protection Agency or EPA designations at the time when the baseline performance period report is due to FHWA and we'll talk about that a little later on. Therefore, state DOTs and MPOs would use data from the CMAQ public access system which includes data on estimated emission reductions from projects funded under the CMAQ program to calculate the subpart H measures for on-road vehicle emissions. At the start of each four-year reporting period, state DOTs would be required to submit the population and boundaries of urbanized areas greater than one million in population based on the latest decennial census to the HPMS. These boundaries can be adjusted by the MPO and state DOT. Adjusted boundaries must be approved by FHWA before inclusion in the baseline report and in HPMS. These boundaries would apply to the performance of the NHS and CMAQ program traffic congestion measures. And finally, state DOTs would use data submitted to the CMAQ public access system by March 1 to calculate the on-road mobile source emissions metric. It is proposed that state DOTs report their metric data by specific dates as described in the proposed rule as you can see here on this chart here. For most HPMS data FHWA is proposing state DOTs would report annually by June 15 of the year following data collection, for example, data for calendar year 2018 would be reported no later than June 15, 2019. FHWA would use the data contained within HPMS on August 15 of each calendar year, to calculate the measures and make a determination of significant progress towards the achievement of the national highway performance program and national highway freight program targets as applicable. If the state DOT does not provide sufficient data and/or information then that state DOT would be considered to have not made significant progress. We will get into the details of the significant progress determination in future slides. State DOTs would report the methodology they used to develop hourly traffic volume estimates to Federal Highway no later than 60 days prior to the submittal of the first baseline performance period. So that ends part three and I'll turn back over to Francine, and do we want to go to some questions at this time?

**Francine Shaw Whitson:** Yes, we're going to open up for questions. Jessica, can you please open it up for questions?

**Jessica Baas:** Yeah. We'll go over some questions now. We're going to try to cover the questions that haven't already been answered first. So I believe we will begin with Walt Raith question. It says, I would like to see a distinction in each measure for MPOs, TMAs greater than 200,000 and MPOs greater than 1 million, talk about that and what it applies to.

**Pete Stephanos:** There is a quick response in there. It may have had the wrong on name there. But we do make a distinction as we've mentioned several times already with urbanized areas greater than a million. So those MPOs that are in those areas do have some unique requirements. But other than that we do not distinguish between MPO size in terms of different requirements so we encourage you to comment to the docket on any suggestions you might have on how that can be handled.

**Jessica Baas:** Great, thanks. The next question we'll take is from Benjamin Smith [ph?], prior to sending thresholds that FHWA use the national speed database to calculate the extent of the interstate system.

**Francine Shaw Whitson:** We're trying to find a comment to the question. Could you read it, again, Jessica, please?

**Jessica Baas:** Did FHWA use the national speed database to do a sensitivity analysis on the thresholds which are proposed? Such a sensitivity analysis would show the current percentage of the interstate system which not meet threshold levels.

**Pete Stephanos:** Yeah, we did do a sensitivity analysis with different threshold levels, using the travel time database. And I'm looking at my colleagues right now to make sure that we did post that on the docket, I believe.

**Francine Shaw Whitson:** It will be posted on the docket.

**Pete Stephanos:** Okay. So you will see like different thresholds that we had used for not the entire country but for a selection of states and urban areas around the country. And we felt that what we proposed was attainable.

**Jessica Baas:** Okay. Thank you. The next question we're going to take is from Alex and it says, the rule states as with delay metrics FHWA acknowledges that travel time indices do not capture system attributes in terms of shorter trips or better access to destinations and mode options, which may occur at the expense of greater delay. We both agree that this rule focuses on measuring delay. Can you speak to the work that U.S. DOT has done to incorporate other modes?

**Pete Stephanos:** Yeah, this one also, I know it's hard to track, but we did have a response to this one too. And just the response is that we do have some research underway. I think the question was asked, if we've done anything in this area. And Rich, actually, is leading a research project right now and looking at

a multimodal measure that would address more than just the highway. So for more information you can follow up with Rich Taylor on that.

**Jessica Baas:** Okay. The next question we'll take is from Thomas Chase [ph?]. Using the LOTTR is it possible to improve the median performance more than the 80<sup>th</sup> percentile leading to a capacity improvement possibly being identified as a negative impact on the LOTTR? Is this considered?

**Francine Shaw Whitson:** Just a moment. We're trying to figure out the question. Jessica, we're going to have to ask that question to be submitted to the docket because we're looking at it more as a comment on the NPRM and not a clarifying question.

**Jessica Baas:** Okay. So Thomas, if you could please submit that to the docket. The next question we'll take is from Susan from Michigan DOT. Are we using route miles or lean miles in these proposed measures?

**Pete Stephanos:** The measures are using direction-- it's the miles that are in the NPMRDS which are-- we have segments for each direction of road. So it ends up being directional miles. It's not lane miles. It's not center line miles either if that's what you meant by route miles. And Jessica, just for clarification where are we-- what name was that we just did so we can try to catch up to you here.

**Jessica Baas:** That was Susan Gorksin from the Michigan DOT. And then next I have Rebecca Hernandez.

**Pete Stephanos:** Thank you.

**Jessica Baas:** Okay. So Rebecca's question is, is there any consideration for BMT or urbanized versus non-urbanized areas in the calculations?

**Francine Shaw Whitson:** Again, that is one of the ones that can be submitted to the docket for consideration. That is not a clarifying question so we cannot respond to that particular question during this webinar.

**Jessica Baas:** So next question, we have is Mike Brass. The presenter mentioned that MPOs would calculate the measures on the MPA, metropolitan planning area, instead of the FHWA approved urbanized area. Is this correct?

**Pete Stephanos:** Yes, that's correct. Well, it depends on the measure. For most of the measures, they are for the metropolitan planning area. The only measures that apply to urbanized areas are the ones that there's unified targets peak hour travel time and congestion or delay.

**Jessica Baas:** Okay. Thank you. The next question we'll take is from Tom Batts [ph?]. Is this for each five-minute period? A roadway could be less than 1.5 for one-time period and greater than 1.5 for another.

**Pete Stephanos:** Yeah. So the 1.5 is for each not five-minute period but it's going to be the for annual number that we're calculating which we're calling a metric. So, for example, if the average speed for the trucks-- that's a bad example because that is 1.5. But if the metric value is an average value for the year, or a percentile value for the year as a ratio that's what we're comparing for 1.5, not the 5-minute, each 5 minutes.

**Jessica Baas:** Great. Thank you. The next question is from NJTPA. It says, the NPRM expects that for the peak hour travel time and congestions performance measures a single target will be established for an entire urbanized area with population over 1 million, even if that urbanized area crosses into several states and is covered by several MPOs. And then in parenthesis it says the example given in the NPRM is the Philadelphia urbanized area which involves four states and four, by my count, MPOs. I have two questions related to this. One, will all of the involved states and MPOs have to agree on how the expected peak hour travel times are determined across the urbanized areas? And two, will the determination of significant progress be done at the urbanized area level? What if one of the states involved is moving the target within its boundary?

**Pete Stephanos:** Yeah, again, this is another one where if you look down further there will be some reply, but I'll verbally express it. For the first question, each roadway segment will have its own we call it desired travel time and that is submitted by the state. So there is not a requirement that the multiple states in that area all have to come to agreement on that desired travel time. However, that same segment of road, the MPO that also has that road, there has to be an agreement. The state reports it but the state and the MPO have to be in agreement for that desired travel time. So that's the answer to the first question. The second question about significant progress, that determination will be made on the entire area regardless of progress made by any one entity at any state or MPO or state in this case because the significant progress applies to the state. We'll be talking about that more in a minute. But it's the entire area.

**Jessica Baas:** Great, thank you. The next question is from Wally Blane. So the desired travel time could be based on the congested conditions. In other words, it would be expected that congestion exists during peak periods.

**Rich Taylor:** Again, the desired travel time will be determined by the state DOTs and associates on each roadway segment on the NHS and the urbanized area. And there are no limits to or controls over what those times can be.

**Jessica Baas:** Okay. The next question...

**Francine Shaw Whitson:** Thank you, Jessica. We appreciate the comments. Guys, please keep in mind as you submit your question in the chat pod that we can only respond to clarifying questions. Any comments would need to be submitted to the docket when it's open tomorrow. And so please make sure that your question is a clarifying question. Thank you. So we're going to go ahead with our webinar. We're going to start with part four and talk about target establishment, reporting, and significant progress determination. So in part four, we're going to focus on subpart A of the NPRM which covers, as I said



before, target establishment, reporting, significant progress determination for both the national highway performance program and the national highway freight program. Subpart A of the NPRM actually builds off the proposal that we introduced in the safety performance measure rule and the payment and bridge NPRM. So we continue to build on this part and so you can see and also you'll be able to see some of the FAST Act changes that are being incorporated here. So let's get started. Before we get into the details of this presentation, we thought it would be good to provide a very high level overview of the different aspects of the proposal that we'll be discussing today. As with the payment and bridge NPRM FHWA is proposing to use the four-year performance period in which state DOTs and MPOs would establish, report, and assess performance. Both state DOTs and MPOs would establish targets for each measure that's applicable to the geographic area or network, two-year targets would represent the anticipated performance at the midpoint of each four-year performance period. And four-year targets are going to represent the anticipated performance at the end of the performance period. For each performance period, and this is the four-years we're talking about, state DOTs will be required to establish both two-year and four-year targets. These targets will be reported to FHWA at the beginning of the performance period and adjusted, if needed, at the midpoint of the performance period. State DOTs will also report to FHWA on the progress they've achieved at both the midpoints and the end of the period when FHWA will assess their progress. MPOs would only establish four-year targets with the exception in some circumstances of MPOs with larger urbanized areas which will be discussed later in this presentation. MPOs will report their performance targets to their respective state DOTs at the beginning of the performance period and will report on the progress they have achieved in the system performance period in the metropolitan transportation plan. Now, let's get into a little bit more details on the proposal. State DOT and MPO coordination. State DOTs would coordinate with relevant MPOs on a selection of targets to ensure consistency for all of the measure areas. So for state targets, under the NPRM all state DOTs would establish two-year and four-year targets as applicable. State DOT targets would be established within one year of the effective date of the final rule. They would be able to adjust the four-year target at the midpoint of the performance period and that would be two-years by way of their mid performance period progress report. State DOTs are only required to establish targets for the measures specified in the proposed rule. However, state DOTs have the option to establish any number of additional urbanized area targets and/or non-urbanized area targets. If a state DOT chooses to establish additional targets it will increase the number of performance targets that it would need to report. For MPOs, MPOs would have to establish targets not later than 180 days after their respective state DOT establishes their targets. For those targets that don't require the MPO and state DOT to agree on, the MPOs would establish their targets by either agreeing to plan a program target so they contribute towards the achievement of the relevant state DOT target. Or the NPO could commit to a unique quantifiable target for their own metropolitan planning area. Now, if the state DOT decides to adjust its target the MPO would be able to-- the MPO can decide, again, whether or not to agree to plan and program those projects so they contribute to the adjusted state target or commit to a new quantifiable target. They would have, again, 180 days to make that decision. If an MPO establishes its four-year target by committing to a quantifiable target, then the MPO may adjust its target in a manner that is redefined by the state DOT. So let's talk about targets for both travel time reliability and peak hour travel time. These are the ones that are in subpart E. Keep in mind that both of these targets-- all of these measures in subpart E are subject to significant progress determination under the national highway performance program. For the travel time reliability measures state DOTs would establish two-year and four-year targets for the interstate and non-

interstate NHS within their boundaries. MPOs would establish only four-year targets for these measures. For the non-interstate NHS travel time reliability measure, and only this measure, FHWA is proposing a phased in approach. The phased in approach would provide two-years for state DOTs and MPOs to become more proficient and managing performance and for data coverage on non-interstate NHS roadways to be more complete before targets would need to be established. We'll review this in depth, shortly. For the interstate and non-interstate NHS peak hour travel time measures and urbanized areas with population over one million, state DOTs and MPOs will coordinate to establish a single two-year and single four-year targets that represents the entire network in that urbanized area. So for the peak hour travel time measures each urbanized area would have a single interstate and a single non-interstate NHS target. And a state DOT could have multiple targets, one for each applicable urbanized area within its boundaries. For the freight measures in subpart F are all applicable to the interstate system mileage. State DOTs would establish two-year and four-year targets while MPOs would establish four-year targets only. The measures under subpart F would be subject to significant progress determination. And that was a requirement that came out of the FAST Act. For the subpart G traffic congestion measure state DOTs and MPOs that contain applicable urbanized areas would be required to establish single unified two-year and four-year targets for each of these areas. A phased in approach would apply to this measure as well. So for the first baseline performance period only state DOTs and MPOs would be required to establish four-year targets and that's it. Finally, for the subpart H on-road mobile source emissions measures state DOTs that include areas designated as non-attainment or maintenance for ozone, carbon monoxide, particulate matter and MPOs whose metropolitan planning areas overlap the boundary of an applicable urbanized area with a population of more than one million would be required to establish both two-year and four-year targets. MPOs whose metropolitan planning areas overlap the boundary of an area designated as non-attainment or maintenance for ozone, carbon monoxide, particulate matter but which is not within the boundary of an urbanized area of a population of more than one million would only be required to establish four-year targets for this measure. Note that on an on-road mobile source emissions measure that it has an earlier start date for its performance period than the other measures. It's October 1, 2017. This measure follows the performance period that aligns with the federal fiscal year. So to help clarify target establishment, we wanted to illustrate the various geographic areas where proposed measures would apply. The MAP on this slide and the one on the following slides are for illustrative purposes only. So there are four primary geographic areas when establishing targets, state boundaries, MPO metropolitan planning area, urbanized areas with populations over one million and non-attainment or maintenance areas for certain criteria pollutants. FHWA proposed the state DOTs and MPOs establish targets that represent performance outcomes of the entire transportation network or the area required for proposed measures regardless of ownership, including NHS bridges that cross a state border. This map shows Illinois in green and two MPOs in Illinois in blue. Illinois has additional MPOs but the examples in this and the following slides focus only on these two MPOs. The MPO in the northeast which is in the Chicago region is completely within the state. And the MPO in the south which is in the St. Louis region is a two state MPO that crosses over into Missouri. The interstate system is highlighted in dark blue and the remaining NHS in gray. As you'll recall, measures focus on a roadway network either consider the entire NHS applicable boundaries, divide the NHS into interstate system and non-interstate within applicable boundaries. Or they consider just the interstate system. For our review of the measures, you have an idea of which measures apply to which geographic areas. In the following slides, we're going to zoom in on Illinois to see how state DOTs and MPOs establish targets in the Chicago and St. Louis areas based on

the extent of the interstate system the non-interstate NHS, urbanized areas over one million, and non-attainment and maintenance areas. For all measures except the peak hour travel time and the CMAQ traffic congestion measures MPOs would establish applicable targets for their entire metropolitan planning area regardless of state boundaries, while individual state DOTs would establish targets for only the area within their state boundaries. Areas with multiple state MPOs like the St. Louis area shown here would require additional coordination between the multiple state DOTs and the MPO in establishing targets that are consistent and reasonable for each entity. The MPO target will cover the entire metropolitan planning area regardless of state boundaries, while each state DOT would adopt targets for the area within its state bounds. FHWA recognizes the challenges in coordinating targets between state DOTs especially in cases where urbanized and metropolitan planning areas cross multiple state boundaries. We intend for state DOTs and MPOs to collectively consider boundary differences when establishing both state DOT and MPO targets. State DOTs and MPOs would be required to coordinate on a selection of targets to ensure consistency to the maximum extent possible. Now, for the peak hour travel time measure in subpart E and the traffic congestion measure in subpart G state DOTs and MPOs would establish a single unified target for each applicable urbanized area that has a population over one million or applicable urbanized areas will vary between the measures. The yellow portions on this map illustrate the full extent of the urbanized areas in St. Louis in Chicago and display how large urbanized areas cross state boundaries. FHWA recognizes that for these large urbanized areas, performance is not constrained by political boundaries. And that performance should be addressed regionally rather than within political boundaries. For these measures, strategies taken in one political jurisdiction can have a direct and also indirect impact for measured performance in another nearby political jurisdiction. FHWA felt that this approach would increase the potential for coordination across jurisdictions to manage the overall performance of the region. FHWA chose to limit these measures to urbanized areas with populations over one million as agencies in these large urbanized areas typically have lower capability and experience. So to illustrate coordination required for these large urbanized areas let's look at the Chicago urbanized area shown here in yellow, or maybe on your slide orange. This map shows how the Chicago urbanized area crosses into the state of Indiana and the MPO in northwest Indiana. Well, peak hour travel time measures Illinois and Indiana DOTs and the two Chicago area MPOs which is CMAQ and the northwest Indiana regional planning commission would establish single unified targets one for the full extent of the interstate system and two for the full extent of the non-interstate NHS within the boundaries of the Chicago urbanized area. The proposed traffic congestion measure in subpart G is going to add an additional layer of applicability to proposed peak hour travel time measure applicability. The traffic congestion measure which will be applicable to those portions of the NHS in urbanized areas with populations over one million that are all or in part designated as non-attainment or maintenance areas for ozone, carbon monoxide, particulate matter 2.5 or 10, areas designated as non-attainment or maintenance for one or more of the applicable pollutants and precursors are shown on the map as the dotted overlay. In an urbanized area over one million in population is, again, shown in yellow. In this example, Illinois, Indiana and the two Chicago area MPOs would all need to coordinate and agree on a single unified target for the traffic congestion measure for the full extent of the NHS within the Chicago urbanized area. State DOTs and MPOs would report on each applicable urbanized area. MPOs in these areas are expected to be the same MPOs that will be required to report on this measure as part of their CMAQ performance plan requirements. Of course, some urbanized areas with population over one million do not intersect with non-attainment or maintenance areas for criteria pollutants. State DOTs and

MPOs will not be required to establish targets but traffic congestion measures with these urbanized areas. Finally, let's look at the on-road mobile source emissions in subpart H as is applicable to all projects that's funded through the CMAQ program within the non-attainment or maintenance areas for ozone, carbon monoxide and particulate matter. As proposed under this NPRM state DOTs would establish statewide targets for the on-road mobile source emissions for all non-attainment and maintenance areas which each of the applicable criteria pollutants and precursors. This map shows those states with potentially applicable areas highlighted in green based on current designations for carbon monoxide, particulate matter 2.5 and particulate matter 10. State DOTs would ultimately use the non-attainment and maintenance area designations from the EPA at the time when the baseline report is due to FHWA. MPOs should also establish targets for each of the applicable criteria pollutants and precursors for which they are in non-attainment or maintenance within their metropolitan planning area boundaries. But they are not shown on this slide. This concludes our review of the geographic areas used by proposed measures. Keep these geographic boundaries in mind as we review target establishment in the slides that follow. After which, we're going to review reporting and significant progress. So now that we have geographic areas all nice and clear let's move on to significant progress determination. Okay. So I say significant progress but we're actually going to go over reporting. To meet the statutory deadlines of MAP-21 for the first state DOT performance report, FHWA proposed a state DOT prepare an initial state performance report. The October 1, 2016 is the date that is established by law and we can't change it. So if this rule is final after the September 1, 2016 then FHWA will issue guidance on how state DOTs can comply with this reporting requirement. This NPM also proposes the state DOT submit three types of our annual performance reports across the four-year performance period. The baseline report is to establish and document based on performance and the targets the state DOT expects to achieve. The mid and full reports provide an opportunity to discuss progress made. The content of each of these reports is shown on this slide and is also detailed in the NPRM. So let's review NPR reporting. MPOs will report based on performance and progress towards the achievement of their targets in the system performance report in the metropolitan transportation plan and that's in accordance with 23CFR part 450 which is the planning rule. CMAQ performance plans will be developed by the MPOs serving the TMAs with a population over one million and in non-attainment and maintenance areas. They would be submitted by the state DOT as a separate section attached to the state biannual performance reports. MPOs will report their established targets to their respective state DOT in a manner that is documented and mutually agreed upon by both parties. State DOTs would then submit MPO targets to FHWA upon request. So the timeline you show here shows the expected timelines for state DOT biannual reporting for the first two performance periods. The four-year performance period for the majority of the measures is based on the calendar year as far as January 1, 2018 and would end on December 31, 2021. The performance period for on-road mobile source emission measure in subpart H is tied to the federal fiscal year thus it starts on October 1 and concludes on September 30. So the first performance period for that measure would begin on October 1, 2017 not January 1, 2018. Although the performance period differs from the rest of the measures included in this NPRM reporting for the on-road mobile source emissions measure will follow the same schedule as all of the other measures. As shown biannual reports will be submitted every two-years on October 1 starting in year one of each performance period. The full period report will be submitted by the same deadline as the baseline report in the next performance period. FHWA will assess significant progress after the mid and full period reports are submitted and that's at the two-year and four-year points. So here's an example of how a target establishment, target adjustment and reporting all come

together. At the beginning of each performance period state DOTs and MPOs will establish baseline performance targets with two-year and four-year targets for each measure. The established baseline performance as well as the two-year and four-year targets are reported in the baseline reports. At the midpoint in each performance period state DOTs and MPOs reevaluate established targets by comparing against-- either by comparing against the actual performance at the midpoint for each measure. This midpoint performance reported in the mid period report for NHPP measures, so that's that one in subpart E and NHSP measures and that's the freight measure in subpart F, FHWA will make a significant progress determination based on the submitted mid period report and data that's already submitted in HPMS. In the mid period report state DOTs may submit adjusted four-year targets to replace established four-year targets. Please note that the example on the slide shows an adjusted four-year target that is higher than the established four-year target. Adjustments can also be made to lower the four-year target. At the end of each performance period, state DOTs and MPOs will evaluate established four-year targets in the full report and they will be doing this by comparing against the actual performance, again, for the four-year period. As you can see, this period in performance is reported in a full period report by the following October 1. For NHPP and NHSP measures FHWA will make a significant progress determination based on submitted full period report. So the rulemaking process for the performance period measure has been long, way long. Each of the related measure rules are being finalized on individual schedules to allow state DOTs and MPOs to begin implementing the individual rules as soon as they are finalized. This ensures timely reporting of targets and it also allows FHWA to begin to develop a national story around targets sooner. Due to these varying schedules, the state DOTs will be establishing and reporting targets for each related performance management NPRM and final rule at different times. However, as you can see on this slide that biannual reporting cycles will be aligned. As required under MAP-21 and the FAST Act FHWA will be making a determination of the significant progress towards the achievement of the state's national highway performance program and national highway freight program targets after the state DOT submits the mid period report for progress toward two-year targets and then, again, after the state submits the full period report for progress towards their four-year target. This slide lists the proposed measures that are within this rule that would be applicable for the assessment of significant progress. As proposed, FHWA will assess each to the state DOT targets separately for NHPP and for NHSC measures to determine significant progress. As shown in this table, each proposed measure will be part of a measured group. If FHWA were to determine that a state DOT did not make significant progress towards one of the measures in a measured group, that state DOT would need to provide a description of the actions the state DOT would undertake to achieve all of the targets in the group in which significant progress was not achieved. FHWA is phasing in the travel time reliability measure in subpart E that applies to the non-interstate NHS. Therefore, we will not be making a significant progress determination towards the achievement of a two-year target in the first performance period. State DOTs and MPOs would need to establish targets for subpart G and H measures as previously prescribed. However, FHWA would not make a determination of significant progress for these targets. The state DOT will report their targets in the metric data. FHWA will use the metric data to calculate the measures for the proposed-- for the purpose of significant progress determination. If a state DOT does not provide sufficient data, or information necessary for FHWA to make a significant progress determination for each target, FHWA would determine that the state DOT has not made significant progress towards the achievement of the applicable target. For extenuating circumstances, we would consider any extenuating circumstances documented by the state DOT in the assessment of progress

towards the achievement of targets in the relevant state biannual performance report. So what happens with ground performance achievement and consequences. FHWA will notify state DOTs of the outcomes as a determination of the state's ability to make significant progress towards the achievement of its targets. If FHWA determines that a state DOT has not made significant progress towards the achievement of individual targets the state DOT would have six months to amend or adopt a biannual report that includes a description of the actions they would undertake to achieve all targets in the same group. For significant progress determination for each two-year and four-year target, we will be looking at whether or not the target is achieved, which means that the actual performance is equal to or better than the established target or the actual performance is better than the baseline performance. So if a target is a declining target, which means the target is equal to or worse than the baseline performance, the target must be achieved to achieve significant progress. If a target is set to be an improvement over baseline performance then significant progress is made if performance is better than the baseline even if the target is not met. The FHWA proposed that any improvement over baseline which represents a 0.1 percent improvement should be viewed as significant progress determination. This concludes our discussion on target establishment, reporting and significant target determination. Next, we're going to talk about some of the findings from our regulatory impact analysis. So we're going to review the regulatory impact analysis of the notice of proposed rulemaking. FHWA determined that this rule constitute a significant regulatory action within the meaning of executive order 12866 and within the meaning of DOT regulatory policies and procedures. It is significant because of the widespread public interest in the transformation of the Federal Highway program to be a performance based program although it is not economically significant within the meaning of the executive order. So in response we prepared a regulatory impact analysis or RIA for this NPRM. That document is found on the docket when it opens tomorrow. So to estimate the cost for the proposed rules, we assessed the level of added effort expressed in labor hours and in the labor category and the additional capital needed to comply with each component of the proposed rule. We estimated the cost of proposals according to two scenarios. The first scenario would be that FHWA would continue to provide state DOTs and MPOs with the required data from the NPMRDS data set. The second scenario assumes state DOTs and MPOs would use equivalent data sets or data sources of their own. Assuming FHWA provides the data the cost in terms of level of effort and labor hours of this proposed rule would include data requirement costs, reporting requirement costs, metric calculation costs, measured calculation costs and all of these undiscounted costs that would total up to \$165.27 million. The NPRM contains a summary of these analysis of cost and the level of change needed to justify implementing their proposed requirements. The performance management proposed rules can have a potential positive impact such as increased reliability of travel time on the national highway system, reduced time spent in congestion for commuters and freight providers, reduce negative air quality impacts from traffic congestion and reduced emissions for CMAQ funded projects. So one last thought. We also wanted to note that FHWA is considering a greenhouse gas emissions measure. Stakeholder listening sessions, various letters and other federal agencies including the Environmental Protection Agency and the Center for Environmental Quality suggested that a greenhouse gas emission measure should be included. We believe that greenhouse gas emissions would be best measured as the total annual sum tons of carbon dioxide from all on-road global sources. FHWA is requesting comments on whether to establish such a matter in the final rule. Please submit your comments to the docket. We cannot respond to comments in the chat pod. So that concludes our section.

And we will begin to review some of the questions that have been submitted to the chat pod. I'm going to turn this back over to Jessica. Jessica.

**Jessica Baas:** Thank you. So we're going to pick up the questions back up with Robbie's question and it reads, are these TTR annual measures? If not, what is the timeframe?

**Pete Stephanos:** Can you repeat the question? Sorry, we missed it.

**Jessica Baas:** The question reads, are these TTR annual measures? If not, what is the timeframe?

**Pete Stephanos:** Yes, the metrics are to be reported annually so that does equate to an annual measure.

**Jessica Baas:** The next question we're going to take is from Christina and it reads, what is the definition of a segment? Is a TMC considered the statement for which the calculation is done?

**Rich Taylor:** So the travel time segment as defined in the rule is equivalent to what in the national performance management research data set is a TMC segment or a traffic message channel. That's what that stands for. So there is a definitive length of roadway in a certain direction that is considered a travel time segment. So that's sort of the base. And then we, again, offer the state DOTs and NPOs the option of combining some of those travel time segments to create reporting segments if they feel that is a useful endeavor, if they choose to do that.

**Jessica Baas:** Great. Thank you. The next question is from SPC. And it reads are segments of the interstate system having a posted speed limit of less than 45 miles per hour for all vehicles and/or for trucks only to be exempted from the assessment?

**Pete Stephanos:** There are a number of questions that are in the chat pod that have to do with circumstances such as you just mentioned, lower travel posted travel speed-- sorry. And also construction work zones, truck climbing lanes, sort of a lot of different scenarios that may have a speed less than fifteen miles per hour. Our proposal does not exempt them. It does not treat them any differently. The measure is as it is from the data that's in the travel time data set throughout the entire year. If you have any suggestions on how those can be handled, we certainly encourage you to submit those to the docket.

**Rich Taylor:** But the idea is we are trying to measure actual performance of the system, so that's all of those scenarios.

**Pete Stephanos:** All of those scenarios.

**Jessica Baas:** Okay. In that case, we're going to skip down to the question from Jim Hatastelllos. And that question reads, the current CMAQ draft guidance allows the use of CMAQ funding in former non-attainment maintenance areas. Do the subpart G and H CMAQ requirements apply to these areas?

**Emily Biondi:** The way the NPRM is written it only applies to currently-- your designation is based on the effective day of EPA's designation at the time that the baseline report is due to Federal Highway. So while you may get CMAQ funds in a former area you are not a designated area anymore so that would not apply to you. The same goes for states that-- every state receives CMAQ money. There are states that do not actually have a non-attainment or maintenance areas so the measure would not apply for them.

**Jessica Baas:** Great, thank you. The next question is from the Atlanta Regional Commission. How do the CMAQ performance requirements and measures relate to non-road projects that is bus purchase, diesel retrofits, et cetera. Having difficulty relating CMAQ funding eligibility to road based measures.

**Rich Taylor:** Well, I think we identified in the description of the CMAQ traffic congestion measure that we were looking at obviously it's required to be measured-- excuse me. The traffic congestion measure is a delay measure and it's supposed to relate to any CMAQ project that actually does influence delay.

**Pete Stephanos:** Any project.

**Rich Taylor:** Or any project. Yes, any project, excuse me, including CMAQ measures that use that as a way of getting funding.

**Pete Stephanos:** But the emissions measure...

**Emily Biondi:** Yeah, the emissions measures actually while it is called an on-road mobile source measure because that's what the statute said we're actually looking at all CMAQ funded projects within the non-attainment or maintenance areas. So that would include non-rural projects.

**Jessica Baas:** Great, thank you. The next question is from FDOT, how should states measure performance for segments with managed lanes?

**Rich Taylor:** Yes, the issue there is that currently the national performance management research data set does not differentiate between non-grade separated highway facilities. So if a managed lane is just another lane next to general purpose lanes, then there will not be separate data provided for that. So that answers your question that that facility for that segment no matter whether the general purpose lanes or managed lanes would all be considered-- all of the average travel times for all of those lanes would be averaged into that five-minute bin for that particular travel segment. So that right now, there is no separation of performance of a managed lane versus general purpose lanes.

**Jessica Baas:** Great, thank you. The next question is also from FDOT and it reads, what is the timeframe for development of the multimodal measure?

**Rich Taylor:** There's no timeframe in the development. It's just a research project based on what we-- I think it's written up in our notice of proposed rulemaking asking for input on potential future measure which would be more person based and would expand the CMAQ traffic congestion measure towards more being multimodal. So we are doing research on that and it's a three-year research project that will



be finished in 2018, I believe. So if you need more information on that you can contact Rich Taylor. That's [Rich.Taylor@dot.gov](mailto:Rich.Taylor@dot.gov).

**Jessica Baas:** Great, thanks, Rich. The next question is from NJTPA and it reads, it seemed that one measure excluded holidays where another didn't. Was this intentional?

**Pete Stephanos:** Yes. I mean the peak hour travel time is only for week days that are not holiday weekdays. It was intentional. The reliability does include weekends and holidays within there.

**Jessica Baas:** Great. Thank you. The next question is from Guest 11, what is the definition of truck, big rigs, two axle box and drays?

**Nicole Katsikides:** So in the rule the definition of truck isn't specifically defined, per se. The NPMRDS, the trucks that are included in the NPMRDS data, actually come from the American Transportation Research Institute probe data that Federal Highway has been working to develop with them since 2002 and those trucks are primarily class six, seven and eight trucks. With that said, we continue to work with them to grow the probes and grow the types of trucks and look at how we can capture all of the trucks but primarily especially since this role is for the interstate the trucks that are in the NPMRDS do come from ATRI and they are primarily class six, seven and eight trucks.

**Jessica Baas:** Great, thank you. The next question is from Simon at the New Jersey DOT, if an MPO is in two states that different measures and targets how will the MPO determine its measure or target?

**Pete Stephanos:** We're asking for comment in that particular area. So if there's MPO that crosses over in two different states or multiple states we'd like you to provide comment on how you think that could be handled. We don't specifically call out that unique situation in this particular proposed rulemaking.

**Jessica Baas:** Okay. Thank you. The next question is from Deb Lacombe [ph?] and it reads, the non-motorized or public transportation measures don't necessarily have the same relationship to the road segment as paved solutions. I don't think you answered how does this measure and threshold related to the CMAQ funding support non-pavement solutions.

**Francine Shaw Whitson:** That actually sounds like a comment that should be submitted to the docket. So if you could submit that we would consider it during our final rulemaking.

**Jessica Baas:** Great, thank you. The next question we're going to take from Marie Dennis [ph?] and it reads how does lack of significant progress affect allocations of funds?

**Francine Shaw Whitson:** It does not. If you're not making significant progress the state DOT just must document in its next report how it plans to achieve its target. It does not affect allocation of funds for those particular NPRM.

**Jessica Baas:** Okay. The next question we're going to take is from Lauren, was the date for slide 55 with the date of 2016 correct?

**Francine Shaw Whitson:** Yes.

**Jessica Baas:** Okay. The next question we'll take is from David Heller [ph?]. We are about to issue our NTP in May. While we have system performance section will the final rule as described here and then following up from above, will the final requirements apply for those?

**Francine Shaw Whitson:** Can you repeat that, Jessica? I'm not sure we quite got that.

**Jessica Baas:** Sure. So it says, we are about to issue our next MTP in May. While we have a system performance section will the final requirements-- I think it means will the final requirements apply for this MTP?

**Pete Stephanos:** I'm assuming you're talking about a long range plan for an MPO. That's covered under the planning rule which is going to be final fairly soon and sort of how-- when the timing will kick in as to what needs to be included in that system performance report as it relates to this proposal and the previous proposals we've had. So we refer to that final rule when it gets out. We'll have webinars on that.

**Jessica Baas:** Okay. Thank you. The next question is from Kip Billings [ph?]. What happens if you don't meet your targets?

**Francine Shaw Whitson:** As we just went over, if you do not meet your targets, then it's used in part of the significant progress determination. And if you do not make significant progress determination then you have to write up why you didn't make it and report that in your next report and what you plan to do to achieve your targets.

**Jessica Baas:** Thank you. The next question is from Michael Escalante [ph?] from the Gainesville MPO. With travel mode choice and BMT affected by local, regional and national economic conditions, is there an allowance or criteria for resetting baseline conditions?

**Pete Stephanos:** As Francine had mentioned, for states at the midpoint of a performance period which is two-years within the four-year period a state can adjust their four-year target for some of the reasons that are there in the question. But the baseline is what it is in terms of significant progress. The baseline, the beginning of the performance period it will stay as it is in terms of assessing progress at two-years and four-years.

**Jessica Baas:** Okay. The next question is from Kit Billings [ph?], what is the cost for an MPO to comply? Is this one more additional FTEs?

**Francine Shaw Whitson:** I can't give you specific numbers but, as I said, the regulatory impact analysis, the detailed analysis will be on the docket tomorrow. And you can find that information for the cost of the

MPOs. However, keep in mind when we estimated the cost, we looked at total cost, but we did break it out so you could see it there.

**Jessica Baas:** Great. Thank you. The next question is from Dan and it says, and it's referring to slide 55. Could you please confirm the due date of October 1, 2016? Could you please clarify expectations of the four reporting areas? Who and where do we submit to the report to? Are there any penalties for late reporting/failure to submit the initial report?

**Francine Shaw Whitson:** Thank you. This actual report we are already aware that you will not be able to make the final rule by September 30 of this year. So FHWA will be issuing guidance on how to submit this initial state report and that guidance will be out this summer.

**Jessica Baas:** Thank you. The next question is from Chris Upchurch [ph?]. These measures cover the NHS and are based on NPMRDS data. In our area of the current NPRMDS network is not consistent with what was as an MPO would consider the NHS based on our functional classification. Will there be any FHWA effort to ensure that the NPMRDS network truly matches the NHS?

**Rich Taylor:** Yes. We currently already have that process underway with the NPMRDS as state DOTs and MPOs have been using it in the past since July 2013 they have noted that the updated version of the NHS as states make their changes there is delay and lag in that process. And we are trying to make sure that it matches up more closely with the requirements under this rulemaking. So, again, there's an official process for submitting changes for the NHS and whenever Federal Highway makes those changes that's what's considered the NHS, the official NHS at that time period. So the NPMRDS will continue to add or subtract or add, I should say, new NHS segments when they're added to the NHS officially.

**Jessica Baas:** Great, thanks. The next question is from the state of Connecticut. Would you please explain how comments submitted to the federal docket will be reviewed, considered, and weighed by FHWA?

**Francine Shaw Whitson:** Just a moment. Repeat the question.

**Jessica Baas:** Sorry, did you say repeat the question?

**Francine Shaw Whitson:** Please.

**Jessica Baas:** Would you please explain how comments submitted to the federal docket will be reviewed, considered and weighted by FHWA?

**Jennifer:** Yeah, FHWA looks at every comment submitted to the docket. We read them all. We discuss them all internally. And use all of them in moving forward towards the development of our final rules.

**Francine Shaw Whitson:** That was Jennifer our chief counsel.

**Jessica Baas:** All right, this question is sort of along the same lines. Will there be follow up after the webinar regarding responses to unanswered questions?

**Francine Shaw Whitson:** We will attempt to respond to all questions and this chat pod will be extracted and added to the docket.

**Jessica Baas:** Great, thanks. The next question is from NJTPA. For the reliability measures did you consider the percent of users or BMC or PMT on the system experiencing reliable travel times or expected travel times rather than the percent of roadway miles?

**Francine Shaw Whitson:** I think that's another type question that should be submitted to the docket for consideration.

**Pete Stephanos:** The reliability measure is based on the length of the system and the percentage. We do have some discussion. It's actually on page 117 of the PDF version that we posted on considering how traffic volumes could be used in the calculation of the measure and why we didn't do that. As Francine said, if you have suggestion on how that could be done. If you think it would be effective, please submit that to the docket.

**Jessica Baas:** Great, thank you. The next question is from the Oregon DOT. And it says the Portland, Vancouver MSA includes two MPOs in addition to two DOTs. Please describe how this effects each measure if the population is greater than one million.

**Francine Shaw Whitson:** Give us a moment. We'll get back to you.

**Pete Stephanos:** Yeah, we do have-- on the docket we do have two documents that actually based on current census designations and EPA determinations for non-attainment and maintenance, we have two documents that identify the states and MPOs that will be applicable to the-- both the peak hour travel time and the congestion measure as well as the emissions measures. So I would refer to that. We can't get into each specific scenario, but we do have that listing there. It's pretty comprehensive and we'll refer you to that.

**Jessica Baas:** Great, thank you. It looks like we're getting towards the end of the questions, so if you have any more questions please do submit them now.

**Francine Shaw Whitson:** Okay. So Jessica, at this point I'm going to go ahead and go over the final portions of the presentation. So if you can switch back, please. Thank you. We appreciate all of the comments and clarifying questions that you submitted to us. As I said before, please remember that you will need to submit comments on the NPRM to the docket. And I'm going to go over that process quite shortly. So just to conclude real quick, we have some rulemaking resources here. You see our website. We also have some in depth webinars that's coming up to give you more detailed information on how to calculate the particular measures and applicability. So on Monday, we will have the freight movement on the interstate webinar. On Tuesday, we will have the performance of the national highway system and

that's subpart E. And then on May 3, we will have the CMAQ traffic congestion on on-road mobile source emission presentation. And then we will also have a freight movement on the interstate system subpart F an industry perspective webinar. So look forward to registering for that date. We will also be posting fact sheets, the published NPRMs and webinar registration information on the website shown here. So how do you submit comments? There you are. You submit your comments to regulations.gov. When you go into regulations.gov you will type in FHWA-2013-0054. Once you do that it will take you to the NPRM and you will be able to submit your comments to that particular docket. Please note that the docket is not yet open. It will not open until tomorrow. And you can begin to submit your comments to the docket. If you have clarifying questions, please feel free to submit them to me Francine Shaw Whitson at the email address that's below. So at this time, I'd like to thank everyone for your attention this afternoon. We appreciate it. It's been a long time coming but we have it here. We are posting the presentation here in the webroom for you. And Jessica, I'm going to turn this back over to you.

**Jessica Baas:** Okay. Thank you. The presentation is posted on the left side now. And it looks like do you want to take on additional question?

**Francine Shaw Whitson:** Yeah, it just shows one more?

**Jessica Baas:** It looks like we have a couple more. The first one is from Lauren and it says how will MPO submit the metrics to HPMS?

**Pete Stephanos:** Actually the states submit the metrics of the HPMS. The MPOs need to be in agreement with them.

**Jessica Baas:** Okay. And the next question is from Keith, can you please review the actions expected from state DOTs and MPOs relative to the October 1, 2016 deadline.

**Francine Shaw Whitson:** Sure. MAP-21 requires that state DOT submit a report. We call it the 150E report but it's under MAP-21 that state DOTs within four-years submit an initial report that lists in the-- Jessica, if you can go back to slide 55, that would be helpful. But MAP-21 requires this report by law. And since we know that the rules will not be final, all of the rules will not be final by October 1, we wanted to still allow states to comply with this requirement. And MAP-21 requires that we report the performance data that's available, the effectiveness of the asset management investment strategy for NHS, any progress towards targets that is already set, as well as the activity to reduce freight bottleneck. That's a requirement of MAP-21. Because we know we will not be making the final rule date and have it ready for you, we'll be issuing guidance of what to include in this report this summer. It will be issued as a technical advisory to state DOTs.

**Jessica Baas:** Great, thanks. We have another question from RPM Transportation. Are NHS intermodal connections to be included in the analysis?

**Francine Shaw Whitson:** Which analysis?

**Rich Taylor:** Repeat, the question, again, I'm sorry.

**Jessica Baas:** Are NHS intermodal connections to be included in the analysis?

**Rich Taylor:** The entire NHS is included in the analysis including connectors. But it would be good to add that again as a comment because we may not have been very clear on that, so we can make sure we can address that.

**Francine Shaw Whitson:** Okay. Thank you. And one last question, Jessica.

**Jessica Baas:** Yeah, one last question from MDT, are the states responsible for the report or is the secretary?

**Francine Shaw Whitson:** If you're talking about the October 1 report, the state DOTs are responsible for that report. The report that you're thinking about, the report the secretary has to do is not due until 2017. And the Office of Planning will be handling that report. Thank you very much for all of those wonderful questions. Jessica.

**Jessica Baas:** Okay. At this point, if there are no other questions, we can conclude the webinar. Do you have any concluding comments?

**Francine Shaw Whitson:** Yeah, we just want to remind everybody that this webinar has been recorded. So it along with the chat pod questions and responses will be added to the docket. If you registered for the webinar, you will receive a copy of the presentation as well as a link to the recording for today's webinar. So, again, we appreciate everyone's participation today and we look forward to all of those comment you have for us. Thank you and have a great afternoon.