

**NYSAMPO/NYS DOT - Modeling Working Group  
Meeting Notes  
December 15, 2014, 10:30 AM to 2:30 PM  
CDTC Offices, Albany, NY**

**ATTENDEES**

<b>Name</b>	<b>Organization</b>	<b>In-Person</b>	<b>Phone</b>
Chris O'Neill	CDTC	X	
Sreekumar Nampoothiri	CDTC	X	
Jerry Cresh	ECTC		X
Chris Tortora	GTC	X	
Matthew Grabau	GBNRTC		X
Ali Afshar	NYMTC		X
Munnesh Patel	NYMTC		X
Afolabi Aiyedun	NYMTC		X
Matt Ryan	OCTC		X
Emily Dozier	PDCTC	X	
Jason Deshaies	SMTC		X
David Staas	UCTC	X	
Michele Bager	NYS DOT	X	
Angel Canales	NYS DOT	X	
Jim Davis	NYS DOT	X	
Catherine Lawson	UAlbany	X	
Alex Muro	UAlbany	X	
Eric Krans	UAlbany	X	
Colin Smith	RSG (NYSAMPO Support)	X	

**MEETING NOTES**

**A. Introductions**

**B. NYSAMPO Integrated Planning Action Plan-development of shared data sources and analytical capabilities**

Chris O'Neill explained that the NPMRDS project (see item C) is one part of this. The freight working group is taking the lead on freight data. The other item that has been discussed is SE drivers, which might not a good example given then differences in approaches used by the different MPOs.

Angel confirmed that NYSDOT has an ongoing contract (through 2018) with IHS to obtain SE driver data and it is available to all MPOs. To obtain the data, MPO contacts NYSDOT and they purchase the data from IHS.

- C. Travel Data- NYSDOT's UTRC initiative— This initiative to provide an archive and access to the HERE data with UTRC assistance has been progressing and Jim Davis would like to use the Modeling Working Group as an advisory committee for this effort. Work has not yet begun so the MWG will have a chance to comment on the scope and product design.**

Jim Davis circulated the scope of the UTRC project, the first task of which will be performed by the University of Albany (UAlbany). The work is looking initially at the FHWA's National Performance Management Research Data Set (NPMRDS) to see how NYSDOT can gain value from large transportation datasets such as NPMRDS. UAlbany will host and analyze the data (and subsequently analysis of other datasets will be done through the UTRC project). The work will be shared to avoid others, such as the MPOs, having to repeat the work.

UAlbany are getting started in January. The Modeling Working Group (MWG) will act as a technical advisory group. An initial product from the project is a statewide bottleneck map, which will be integrated with other data such as HPMS data. The NPMRDS data will also be used in the freight plan which will be starting soon. The project will likely raise and attempt to answer additional questions about how we merge different datasets together and how we analyze them, e.g. using linear referencing, which visualization tools are needed, how to do performance reporting. This first project will be a useful case study in how to work with the UTRC to then analyze other datasets.

Alex Muro from UAlbany explained that the data system they will develop is made up of two parts:

1. An Application Program Interface (API) that is intended to make query access to the data easy. Other developers (e.g. MPO hired consultants) could use the API as a starting point for their own tools.
2. Visualization tools build on top of the API. The first tool will be the statewide bottleneck map This will be a browser based map, and users will also be able to download ERSI shapefiles.

Alex explained that developing the API is expected to take two months, and then developing the visualization tools will take four months. During the testing phase UAlbany will be gathering user feedback. The overall task contract is eight

months, and forms that first task under a five year agreement with the UTRC to develop data products.

Alex explained that UAlbany is also currently working on a project for several states to link NPMRDS to HPMS data. FHWA had contracted with Macrosys to connect HPMS to NPMRDS at a national scale and that is the starting point.

The MWG discussed the points at which they should provide inputs and other similar efforts. NYMTC is already working with the NPMRDS data and are developing a web application to view it. They have observed some problems with the data such as low samples when the data are sliced to specific days on lower volume roads, and the truck data has many gaps in it. There are also other efforts in Buffalo to work with the data. UAlbany will talk to NYMTC and learn from their experiences so far. The MWG discussed other similar tools that could be reviewed, such as the iPems tool the Berkeley developed, and PennDOT's INRIX based dashboard.

The MWG discussed compelling uses of the data to inform the public about performance of the highway system, such as reliability of travel times, tracking of recurring congestion locations, estimating point to point travel times, animating the data to look at the change over time dimension.

- **I-95 Corridor Coalition Vehicle Probe Project (VPP)**

Jim explained that the I-95 Corridor Coalition purchased INRIX data. NYSDOT's contract with I-95 Corridor Coalition allows them to piggyback on that purchase and add INRIX data for areas in NY outside the I-95 corridor. NYSDOT is considering that but not pursuing it at this time. They will reevaluate once they see what information can be obtained from the NPMRDS data.

#### **D. Freight Data- follow-up to our joint meeting with the Freight Working Group**

Howie Mann from the freight working group is looking at FAF data and planning to invite NJTPA to present on the work that they have done.

Jim confirmed that NYSDOT has just completed purchasing new Transearch data, which will be available to all MPOs. That includes 2012 base year data and 2025 forecasts, and it includes the confidential Waybill data. It will be used in the NYS Freight Plan, work on which is starting in January and will take 12 months.

#### **E. National Household Travel Survey**

Angel explained that Oak Ridge National Laboratory (ORNL) is looking at the add on data for 2009. They have completed 19 region specific reports and are now working on a comparison with earlier NHTS data; that is now available for review.

They have also produced reports analyzing origin to destination movements with Binghamton and Syracuse. Another area of work is comparing transit use according to the NHTS with GTFS schedule data, which includes investigation of what proportion of the population has transit access. Angel will be presenting that work at the TRB Annual Meeting in January. This work is focused on local transit service and has not looked at intercity buses.

For the 2015 add on survey, Angel confirmed that NYSDOT is participating and has bought a sample of 17,300 households (including the 1,500 from the national sample that are in New York) at a cost of \$3.8 million. NYSDOT will be looking for input on the six additional questions that they can ask. Angel circulated the sampling plan that was developed with input from the MWG and described it as MPO focused.

**F. New trends in declining VMT or moderation of VMT growth: implications for MPO modeling and forecasting**

Chris O'Neill presented on CDTC's approach to modeling VMT decline. He explained that VMT per capita peaked in 2004 nationally. There is a startling difference between FHWA forecasts and observed trends since then, which undermine decision making (e.g. investment in transportation system expansion) based on assumptions of continued growth in VMT and VMT per capita. The NYSAMPO Directors are interested in the MWG making this issue a priority.

Albany and New York as a whole are showing similar trends to nationally. In their last LRTP, CDTC assumed some reductions in VMT per household, and attributed some of those reductions to smart growth, transit, bike and ped improvements, and demand management. But are there other factors driving this reduction or that will again alter the direction of the trend, such as demographic effects (aging population, automated vehicles, travel choices of millenials, etc., long term decline in transportation costs)?

The MWG discussed how, once we can understand the drivers of VMT per capita changes over time, can they be captured in our transportation models? For example, can trip generation be related to these effects, and can scenario modeling be used to capture a range of likely outcomes if there is uncertainty around some of the factors? NCHRP 20-83: Effects of Socio-Demographics on Travel Demand is one recently published study that researched this issue (published as NCHRP report 750, <http://www.trb.org/Publications/Blurbs/171200.aspx>)

The MWG discussed procedural issues such as how modeling for conformity can be done when there is uncertainty in forecasts of future VMT, and how scenario planning might be inconsistent with conformity.

The MWG thought that a scan of the research in this area would be helpful.

#### **G. Automated Vehicles: implications for MPO modeling and forecasting**

The MWG briefly discussed another issue for long term planning: the transition of the vehicle fleet to automated vehicles, which will probably have significant impacts on travel behavior and on road system capacity.

#### **H. MOVES Model**

- 1. Updates**
- 2. Training Needs**

The MWG came to a consensus that there is interest in practical training in the MOVES model. The MWG is also interested in understanding which model inputs NYSDOT will be providing.

#### **I. Develop and approve a Modeling Working Group work plan for 2015.**

The MWG discussed the work plan for 2015. The MWG agreed to include monitoring the UAlbany data project and considered that should take place during the MWG's regular meetings where possible.

#### **J. Other Modeling Issues**

No other modeling issues were discussed by the modeling working group at this meeting.

#### **K. Planning for the Next Modeling Working Group Meeting**

NYSDOT might request a short webinar early in 2015 for the MWG to provide input to UAlbany once their project on the NPMRDS data has started.

The MWG discussed other possibly agenda items for future meetings:

- Use of NHTS data to update models, including transferability across the state.
- NYSDOT's work on VMT trends (done by Nate Harp and Patrick Lentlie)
- Update on traffic count processing and availability in digital formats other than PDF

Chris O'Neill asked that MWG members share ideas for future agenda items with him.