NYSAMPO/NYSDOT - Modeling Working Group
Meeting Notes
June 27, 2014, 10:30 AM to 2:30 PM
CDTC Offices, Albany, NY

ATTENDEES

Name	Organization	In-Person	Phone
John Sterbentz	BMTS	X	
Chris O'Neill	CDTC	X	
Sreekumar Nampoothiri	CDTC	X	
Chris Bauer	CDTC	X	
Mike Franchini	CDTC	X	
Chris Tortora	GTC	X	
Jody Binnix	GTC		X
Matthew Grabau	GBNRTC		X
Ali Afshar	NYMTC		X
Larisa Morozovskaya	NYMTC		X
Ali Mohseni	NYMTC		X
Howie Mann	NYMTC		X
Ashley Long	OCTC		X
Emily Dozier	PDCTC	X	
Jason Deshaies	SMTC		X
Michael Alexander	SMTC		X
Mario Colone	SMTC		X
David Staas	UCTC	X	
Michele Bager	NYSDOT	X	
Angel Canales	NYSDOT	X	
Nathen Harp	NYSDOT	X	
Jim Davis	NYSDOT	X	
David Rosenberg	NYSDOT	X	
Jeff Wojtowicz	RPI	X	
Ivan Sanchez Diaz	RPI	X	
Colin Smith	RSG (NYSAMPO Support)	X	

MEETING NOTES

A. Introductions

Meeting attendees from the modeling working group and also from the freight working group, in attendance for the morning freight related agenda items, introduced themselves.

B. SHRP2 Implementation Assistance Program for Local Freight Data Improvement Study— Jeffrey Wojtowicz and Ivan Sanchez Diaz, RPI

Jeffrey Wojtokwicz (VREF Center of Excellence for Sustainable Urban Freight Systems, RPI) gave a presentation on SHRP 2 Implementation Assistance Program C20 project on local freight data. This project is a proof of concept to implement innovative local freight data to support CDTC freight plans, projects and programs, and is a collaboration between RPI and CDTC with funding from the Second Strategic Highway Research Program (SHRP 2).

The objective of the project, which is just starting, is to obtain timely freight data at the desired disaggregation levels and to develop computational processes that disaggregate freight data to zip code or TAZ level. This will be done by refining existing data sources, developing new data sources, integrating diverse data sources, and developing a dynamic freight database.

One aspect of the project that has not been decided yet is where the resulting database and GIS based interface will be hosted once the project is complete.

Ivan Sanchez Diaz (RPI) gave a presentation on freight demand modeling, focusing on freight generation (the economic manifestation of production and consumption) and freight trip generation (the generation of truck traffic related to that production and consumption).

Ivan described models based on commodity flow survey micro data that RPI has access to through a non-disclosure agreement with the Census Bureau, and models estimated using establishment data and reported in NCFRP report 19/NCHRP report 739 which report the work done under NCFRP project 25 (http://onlinepubs.trb.org/onlinepubs/ncfrp/ncfrp_rpt_019.pdf)

Ivan also described two other RPI freight modeling efforts:

- Behavioral Micro-Simulation (BMS) model. The objective of the BMS is to simulate the carriers' and receivers' joint decision process to evaluate Travel Demand Management (TDM) policies. The BMS has a behavioral foundation embedded in the decision making process followed by carriers and receivers.

Ivan presented an example application: the Off-Hour Delivery (OHD) Program in New York City

- A time-dependent freight tour synthesis model. This model, combined with the freight trip generation models, forms a complete tour based freight model. Ivan described the model and explained how this type of model incorporates several key features of freight movement such as tour-based distribution, the temporal aspect of truck movements, and captures different industry related patterns of freight movement.

C. Transearch Freight Flow Data - Nathen Harp: presentation on disaggregation techniques

Nathen described several freight data sources and approaches to disaggregation. The presentation covered the literature of data disaggregation, and discussed modeling issues such as coding and spatial effects. Nathen discussed software, such as the statistical program R, which provides the capability of estimating spatial effects models. Nathen explained that regional or national models are not always appropriate for application at the local level.

D. Planning Program Integration—Freight data – for model maintenance, long-range planning/CMP and conformity (focus on commodity flows, origins & destinations, truck and rail volumes)

Howie Mann explained that freight commodity flow data to understand freight origins and destinations by mode and commodity is one of the biggest needs to support MPO freight planning. He explained that simply procuring a database is not ideal and offered the example of work by NJTPA to collect local commodity flow data that reflects local conditions. Howie said the he could invite NJTPA staff to give a webinar on their efforts.

David Rosenberg said NYSDOT has statewide interests that overlap with this idea but not necessarily the interest in understanding micro level movements.

Transearch data were discussed and their limitations were observed, in particular that they are modeled data and therefore not a true representation of reality. Also, IHS, the firm that sells the Transearch database, does not document in detail how it develops the data. NYSDOT currently has the option to buy an update of the Transearch data in support of the statewide freight plan; its current dataset is from 2007.

Howie suggested that a shared cost initiative be developed. This might engage interested MPOs in the development of local commodity flow data and be a joint effort between the freight and modeling working groups.

Jim Davis explained that the consultant proposals for the statewide freight plan are currently being reviewed and work on that project would likely converge with the idea for a shared cost initiative.

Other MPO staff described their interests in freight and potentially supporting this effort:

- ECTC is trying to grapple with freight at a local level and could do with better data to support planning
- GTC needs capacity at the MPO. Its small staff has limitations in working with the large quantity of data available; for example it is unable to use the HERE data.
- CDTC is currently doing a freight plan and has an interested in improving it freight data resources as part of that effort.

Chris O'Neill summarized:

- There was consensus support amongst meeting attendees for the development of a proposal for a shared cost initiative to collected local freight commodity flow data.
- Howie Mann will work with Jim Davis to develop a proposed scope.
- Howie Mann suggested a conference call in a month to discuss a draft scope.
- Howie Mann will invite NJTPA to give a webinar on their efforts.

E. 2009 National Household Travel Survey

Angel provided an updated on the analysis of the 2009 NHTS. Reports are now available for all of the MPOs from the Oak Ridge National Laboratory (ORNL) analysis of the data. These will be posted to the web in July and Angel will communicate their availability to the working group.

Angel is presenting at the Tools of the Trade conference in Burlington in July, and he and the ORNL staff will be available after the conference on July 24th to present their analysis in a webinar to the modelling working group.

F. New procurement for NHTS

Angel confirmed that NYSDOT is participating in the next NHTS (expected to be in 2015).

G. CTPP based on the 5 year ACS

This item was not discussed

H. ACS and Census Data Reliability Methods—Overview-- Nathen Harp

Nathen presented on the error inherent in sample survey data such as the ACS and the importance of recognizing that error and its effects on inferences made using the data.

He provided some examples of approaches to visualizing the margin of error in the data using new ArcGIS tools and presented a brief tutorial on how to use the tools.

I. Areal Interpolation of Data—Overview-- Nathen Harp

Nathen provided an introduction to areal interpolation and introduced tools available in ESRI's geostatistical analyst to apply three different algorithms.

J. HERE Data and TRANSCOM Data—Status Report and next steps—Planning Program Integration

Sree found that there are gaps in the HERE data's coverage. Jim explained that they were also struggling to work with the large data. Chris reminded the committee of NYMTC's work with the data and that GBNRTC is contracting with MS2 to help with using the data. NYSDOT might be able to integrate the data with iPeMs as that effort progresses, but that effort is still waiting to start. There are also confidentiality issues around providing public access to the data.

Jim explained that NYSDOT is planning to issue a task order through the UTRC program to provide an archive and access to the HERE data and would like to work with the MPOs to scope that effort out.

The working group discussed the need for a shared cost initiative to work towards providing better access and data analysis support to the MPOs. The consensus was to wait for NYSDOT's projects to proceed as they will potentially meet the needs of the MPOs. Chris said that he would report this back to the MPO Directors, and that he will continue to get updates from Jim on NYSDOT's efforts.

K. National SED Drivers—Planning Program Integration

NYSDOT has a contract with IHS to provide data on SED drivers, which has just been renewed and will run for five years. There are significant differences between upstate and New York City due to for example the finance industry. The working group discussed the potential need for a shared cost initiative, but concluded that a shared cost initiative was not appropriate at this time.

The consensus of the working group was that the MPOs should collectively or individually provide feedback to NYSDOT about what they need from SED driver data and where they consider that the forecasts are inaccurate for their region.

L. Implications of continuing decline of VMT per capita for modeling and forecasts

This item was not discussed. Chris O'Neill will circulate his presentation on the slowing of growth in VMT and its implications for modeling.

M. MOVES issues and needs; CMAQtraq update—Patrick Lentlie

Patrick Lentlie (unable to attend the meeting) is continuing to work on the CMAQtraq model.

N. Other Modeling Issues

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

O. Planning for the Next Modeling Working Group Meeting

Several future meetings are planned:

- Howie Mann will organize a follow up meeting in around a month to discuss the draft proposal for a shared cost initiative on local freight commodity flow data
- Howie Mann will invite NJTPA to present a webinar on their freight commodity flow data efforts.
- There will be a webinar on July 24th at 10am for a presentation by NYSDOT and ORNL on their analysis of the 2009 NHTS data.
- The next regular meeting of the modeling working group will be a conference call to be scheduled for September
- The next in person meeting of modeling working group will in early December.

Meeting notes prepared by Colin Smith (RSG)