NYSAMPO/NYSDOT - Modeling Working Group
Meeting Notes
April 26, 2013, 10:30 AM to 2:30 PM
SMTC Offices, Syracuse, NY

ATTENDEES

Name	Organization	In-Person	Phone
John Sterbentz	BMTS	X	
Chris O'Neill	CDTC	X	
Sreekumar Nampoothiri	CDTC	X	
Chris Tortora	GTC	X	
Matthew Grabau	GBNRTC	X	
Larisa Morozovskaya	NYMTC		X
Ali Afshar	NYMTC		X
Mike Chuime	NYMTC		X
Thusitha Chandra	NYMTC		X
Leokadia Glogowski	NYMTC		X
Abdus Salam	NYMTC		X
Sangeeta Bhowmick	NYMTC		X
Gerry Bogacz	NYMTC		X
Emily Dozier	PDCTC		X
Elizabeth Hassett	SMTC	X	
Jason Deshaies	SMTC	X	
Michele Bager	NYSDOT	X	
Angel Canales	NYSDOT	X	
Nathen Harp	NYSDOT		X
Colin Smith	RSG (NYSAMPO Support)	X	

MEETING NOTES

Note on order of agenda items: item A was followed by item D, and then the remaining items were taken in order.

A. **Introductions**

B. **Review of Data Needs for Integrated Planning Work Accomplished so far by MWG.**

   Chris O'Neill recapped the priorities for the Data Needs for Integrated Planning task identified by the modeling working group (MWG). The three leading priorities are: (1) Integrating data from Transportation Management Centers (TMCs), (2) EPA MOVES model input data development, and (3) Employment data.

C. NYSDOT Data Sets, based on memo from Lou Adams

The MWG discussed the various NYSDOT data efforts as outlined in a memo from Lou Adams (NYSDOT). The descriptions of the nine items in the memo are repeated below followed by the MWG's discussion of each item.

1. IHS Global Insight – Socioeconomic Forecasts

Contract C030640 with IHS Global Insight, which expires August 30, 2013, is available to procure off-the-shelf Global Insight forecasts and custom forecasting consulting services on behalf of NYSDOT and MPOs. IHS Global Insight work products that we ordered during 2012 will be distributed to MPOs and NYSDOT Regions via optical disks in coming weeks. These work products are classified as confidential, for internal use only by NYSDOT and MPO staff. They include May 2012 county-level forecasts to 2042 of 44 population, household and business demographic data items; a corresponding "all of USA" report to document the national economic outlook in synch with the New York county data; and a December 2012 update of the NYS Vehicle Miles of Travel model for 17 groupings of counties that are also used in the 2009 NHTS data sampling plan. I do not plan on sharing the highway and rail construction cost inflation quarterly work products, because the inflation guidance in the TIP guidance is all that is needed by MPOs and regions.

Angel Canales from NYSDOT's socio-demographics section explained that renewing the data subscriptions beyond August 30, 2013 is really dependent on customer needs. He expects to distribute new data in around a month (end of May). One consideration discussed by the MWG was the ability to differentiate data by region of New York State (as certain employment categories are more important and influential in different regions, for example Finance, Insurance, and Real Estate is very important in New York City and less important elsewhere in New York State.

2. Oak Ridge National Labs – National Household Travel Survey

Contract C030783 with Oak Ridge National Labs, which expires June 12, 2017, is available to procure consulting services on behalf of NYSDOT and MPOs with respect to Analyses of Survey-Based Data Products. The task presently underway is preparation public documents at the MPO level of detail based on the 2009 National Household Travel Survey.

Angel Canales explained that Oak Ridge National Labs (ORNL) is currently producing regional NHTS summaries for 20 different regional groupings (MPOs area and other geographical areas) across the state. ORNL will be producing reports containing tabulations but not providing any analysis of the tabulations. The reports will all be released by March 2014, with a release schedule of groups of reports between now and

then, with planned releases in May 2013, September 2013, and December 2013 for draft report and then finalized reports by March 2014.

3. IHS Global Insight – Transearch Commodity Flow Data

Contract C030995 with IHS Transearch, which expires March 31, 2016, is available to procure off-the-shelf data and custom consulting services on behalf of NYSDOT and MPOs with respect to Transearch Freight Flow Data. The most recent NYMTC procurement was a piggyback procurement using a Port Authority of New York and New Jersey contract, rather than this contract. Transearch data and work products are classified as confidential, for internal use only by NYSDOT and MPO staff.

Angel Canales explained that Transearch commodity flow data are available to MPOs and that to access the data MPO staff just need to request access. The Port Authority of New York and New Jersey have been using the Transearch data to support Port freight planning. NYMTC has been using their data to support develop their freight plan.

Chris O'Neill suggested setting up a subcommittee to look at freight data need. Sree Nampoothiri and Matthew Grabau with help from Colin Smith will do a scan of freight data sources including public sources such as Freight Analysis Framework data, Public User Waybill Sample data and T-100 data as well as other commercial data such as PIERS.

Angel Canales mentioned that NYSDOT Transportation Trends, Surveys and Statistics page on the NYSDOT website contain information on datasets available from NYSDOT and other sources (https://www.dot.ny.gov/divisions/policy-and-strategy/darb/dai-unit/ttss)

4. InfoGroup – Employment Data

Office of General Services contract PS65677 for commodity group 79100 with Infogroup is available to procure off-the-shelf data on behalf of NYSDOT and MPOs with respect to geocoded business establishment data. In coming weeks, Nathen Harp will be making a point file of more than 170,000 businesses in New York State and counties in states and provinces that abut New York State that have 10 or more employees. The Infogroup licensed confidential February 2013 data in the point file will be distributed to at regions, metropolitan planning organizations, and main office program areas for internal use only. The Business Location Analysis Tool (BLAT) is no longer supported because it does not work with ESRI products newer than version 9.2. At this time we envision a webinar and job instruction to demonstrate proper use of the new business point file directly in ESRI products without the need for the BLAT extension. If MPO and NYSDOT staff have a compelling need for a new BLAT tool, a new Information Technology project will need to be authorized and resourced.

Nathen Harp explained that BLAT data is based on InfoGroup data and that NYSDOT just purchased 2013 business location data. Nathen asked if the lack of data on businesses with fewer than 10 employees is important. Jason Deshaies suggested that omitting small businesses with fewer than 10 employees would miss a lot.

The MWG discussed how they use employment data. John Sterbentz said that BMTS used the BLAT data as a check against the Census Transportation Planning Package Journey to Work (CTPP JTW) data, and thinks that this will become more important given the lower sample sizes for CTPP JTW data derived from the American Community Survey (ACS). Chris Tortora said that GTC used employment data from the New York State Department of Labor. There was consensus that it would be valuable for the MPOs to understand the various employment data sources that are available.

A Transportation Research Board report, NCHRP 08-36 Task 98: Improving Employment Data for Transportation Planning (http://onlinepubs.trb.org/onlinepubs/nchrp/docs/NCHRP08-36(98)_FR.pdf) provides a helpful synopsis of employment data sources.

Nathen Harp stated that he is looking for input from MWG members on what type of spatial tools would be most useful for the MPOs.

5. TRAPHIC – Truck Weight Station data

The TRAPHIC tool developed by SUNY Albany and posted on the NYSDOT.gov web site will have the broken links fixed. This technology sharing project is posted "as-is" and we have no plans to develop or support it further. At this time, we have no means to engage SUNY Albany as a business partner, without doing a competitive procurement.

Nathen Harp introduced the TRAPHIC tool as a spatial analysis tool for charting of weigh in motion data that was designed to identify areas to locate truck weight stations. The tool is available on the NYSDOT website (https://www.dot.ny.gov/divisions/policy-and-strategy/darb/dai-unit/ttss/Traphictool/Downloads). It is an extension to ArcGIS written in Python. Nathen has been using it do spatial analysis to identify where the overweight trucks are in terms of time of day and location. Chris O'Neill said that he would be interested in a tool that gave truck traffic by facility and time of day. Nathen explained that Kate Lawson at SUNY Albany is working on a web-based tool to report traffic by class. In addition the MWG noted that GPS data from the American Transportation Research Institute is a potential useful source of information on truck traffic.

6. 2009 National Household Travel Survey - New York Add On Sample

The confidential data records resulting from the 2009 National Household Travel Survey and associated New York Add On Sample are available to staff at NYSDOT and MPOs

upon completion of a confidentiality agreement that acknowledges that disclosure of the data is a federal criminal offense.

Angel Canales provided update on how MPO staff can obtain NHTS New York State add-on data by contacting NYSDOT and signing a confidentiality agreement.

7. 2010 Census Summary File 1 – Framework Portable

Data from 2010 Census Summary File 1 (already in hand) will be deployed in Framework Portable. Data from 2010 Census Summary File 2 is scheduled for release by Census Bureau in June 2013.

Nathen Harp provided an update on obtaining 2010 Census data and explained that it will be included in Framework Portable.

8. New York State Data Center – Moving to the Department of Labor

The State Data Center is being relocated from the Economic Development Authority to the Department of Labor. Angel Canales will continue to be the point of contact for MPOs and NYSDOT staff who need services from the State Data Center and the U.S. Bureau of the Census, as per the contract between NYSDOT and the State Data Center. Technical assistance with the American Community Survey is in scope as per the Census Data Affiliates Agreement.

Nathen Harp explained that the New York state data center is moving, but that Angel, with support from Nathen, will continue to be the point of contact from the state data center for NYSDOT and MPO staff. Nathen and Angel receive data products from the state data center and then distribute to the rest of NYSDOT and the MPOs. For Census Bureau data, similar data are available in the raw form from the Census Bureau's website. Nathen noted that his role is to add value to the raw data by, for example, developing tools to make the data easier to work with. Nathen noted that there is a listserv for the state data center.

The MWG discussed the availability of CTPP JTW tabulations based on ACS 5 year data. According to the latest status report from FHWA (http://www.fhwa.dot.gov/planning/census_issues/ctpp/status_report/sr050113.cfm) the tabulations will be available in August 2013.

NYMTC asked about the ability of NYSDOT to provide data for the portions of Connecticut and New Jersey that NYMTC need for their planning work. Nathen stated that NYSDOT can cover areas bordering New York State and will do this.

9. Citilabs statewide travel demand forecasting model – GIS data

The GIS shape files of the Citilabs statewide travel demand forecasting model that were used in the Tier 1 High Speed Rail EIS are available upon request. (Angel Canales is the point of contact who will get the files from David Chan, who managed that modeling effort).

Angel Canales explained that network data from the statewide model work done in supports of the Tier 1 High Speed Rail EIS are available on request. Nathen Harp explained that he and Lou Adams from NYSDOT have been discussing developing a statewide model focusing on other aspects that this model (which was aimed at modeling high speed rail) did not.

D. Presentation on the PDCTC Model Update, presented by Colin Smith
(this item followed item A)

Colin Smith provided an overview of the travel demand model update that RSG is completing for PDCTC, and then explained two particular aspects of the work that are of interest to the MWG: (1) the user of an ESRI geodatabase to manage and build the model's transportation networks and land use data layers, and (2) using the 2009 NHTS data to develop model assumptions including a walk/bike model.

(1) Colin explained the two development and management approaches for transferring GIS data into TransCAD were a manual/"one time only" approach and an automated and maintainable approach. This latter approach was used in the work with PDCTC by storing data in an ESRI geodatabase, recording processing steps using ArcGIS ModelBuilder, writing the completed data from a geodatabase to a shapefile, and using TransCAD GISDK scripts to import fully processed shapefiles and build the network and TAZ geographic databases. The principles of this approach are to use an existing data management system (ArcGIS) for data management and processing so that the link to the data source is maintained, process the data using repeatable (scripted) steps for traceability and to avoid errors, and then use the travel demand model software to run the model.

(2) Colin described the use of the New York State 2009 NHTS add-on data to support assumption development and validation of Household trip rates, non-motorized percentages, trip length frequencies, auto occupancy factors, and diurnal distributions. The work was carried out using R, an open source statistics platform and programming language (available from http://cran.us.r-project.org/). Colin explained that analysis of the NHTS data showed that non-motorized trip percentages for households with cars vary by the density of the neighborhood that households reside in and by trip purpose, and that this finding was used to include sensitivity to residential density in the travel demand model.

The MWG discussed different approaches to managing network data. NYSDOT is looking at ESRI Roads and Highways, which might be a useful product to help with managing

network data. NYMTC is updating their network by conflating with map data and NYSDOT RIS data and developing an automated program to transfer counts to the highway network.

E. Other Modeling Issues

No other modeling issues were discussed by the MWG

F. Planning for the Next Modeling Working Group Meeting

The MWG discussed several potential topics for discussion at future meetings:

- Congestion management process:
  - Integrating INRIX data (GTC and NYMTC have experience with this data source) and TMC data
- MOVES model
  - Climate change WG raised the idea of collaborating with the MWG to develop MPO estimates of GHG estimates.
  - The MWG discussed the possibility of hiring a consultant to develop emissions rates.
  - Chris O'Neill will work with Chris Tortora to understand GTC's MOVES implementation and this could be a topic at a future meeting.

The next working group meeting will take place via conference call during July, with a date and location to be fixed following a doodle poll to be conducted by Colin Smith.

The next in person working group meeting will take place in September in Albany at CDTC, with a date to be fixed following a doodle poll to be conducted by Colin Smith.

Meeting notes prepared by Colin Smith (RSG)