Item #6

#### Suggested procedures for making data requests from COG/TPB staff and recent changes to the travel demand model

Presentation to the Travel Forecasting Subcommittee July 18, 2014

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National Capital Region Transportation Planning Board (NCRTPB/TPB) Metropolitan Washington Council of Governments (MWCOG/COG)



#### What is considered a data request?

- A request for the COG/TPB regional travel demand model
- A request for data that is input to or output from the regional travel demand model, such as transportation networks, land use data, modeling reports/summaries, and traffic volumes
- A request for any other technical data, documents, or reports
- A question regarding any of the above items



# What is NOT considered a data request?

Files found on the COG website, such as reports and presentations, are not considered data requests since they can be obtained without staff assistance



### Who makes data requests?

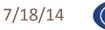
- Government agencies (local, regional, state, federal)
- Consultants working for government agencies or private clients
- Researchers (mostly universities)
- General public

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#### How often are data requests made?

 We get over 60 data requests a year, so data requests can consume a sizable fraction of COG/TPB staff time



# Where can I find info. about COG procedures related to data requests?

#### □ Go to the COG/TPB "Data Requests" webpage

#### http://www.mwcog.org/transportation/activities/models/datarequests.asp

Metropolitan Washington Council of Governments		
Transportation	Transportation	
Environment		
Housing & Planning	Home > Transportation > Planning Activities > Models & Forecasts > Modeling Data and Resources	Models & Forecasts
Health & Human Services		
Homeland Security		Purpose of Modeling
& Public Safety	Data Requests	Travel Demand
Cooperative Purchasing	To a second s	Modeling Process
nformation & Publications	To request a copy of the regional <u>travel demand model</u> , various data sets, and/or documentation not found on the MWCOG website, please submit <u>either</u> an e-mail <u>or</u>	Inputs and Outputs to
Events Calendar	a signed letter to:	the Models
Committee Business	Ronald Milone	Four-Step Travel Model
News Room	Travel Forecasting Program Director Metropolitan Washington Council of Governments	Current Travel Model
	777 North Capitol Street, NE Suite 300	Model Documentation
	Washington, DC 20002	Data Requests
	The e-mail/letter should be as specific as possible regarding what model version, data, and/or documentation is requested. The e-mail/letter should also indicate how	Data and Resources







### What are the procedures?

- To make a data request, please submit either an e-mail or a signed letter to Ronald Milone, Travel Forecasting Program Director, COG Dept. of Transp. Planning
- Ron will review the request and direct it to the appropriate staff person
- The request should
  - Be as specific as possible regarding what model version, data, and/or documentation is requested
  - Indicate how you intend to use the data/model, naming the specific study or research project, if applicable. This will help ensure that we give you the most appropriate model or data.

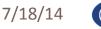


### What are the procedures?

- COG/TPB staff will respond to your request detailing what can be provided, on what timeline and at what cost.
- Items that are deemed "off-the-shelf" will be sent at a minimal charge to cover shipping and handling.
- Custom requests will be priced according to staff time needed for preparation of the data or model.



- Running the travel demand model requires the use a proprietary software package that is produced, licensed, and marketed by Citilabs (i.e., Cube Voyager and Cube Base). COG/TPB staff cannot provide this software.
- We do not have the resources to staff a "help desk" for the regional travel model, so it is expected that requesters of the travel model will have the knowledge and skills to use the model with minimal assistance from the TPB staff.



- It is the TPB staff policy to transmit only adopted travel models and adopted land activity forecasts, i.e., which have been used in a regional Air Quality Conformity Determination that has been approved by the TPB.
  - Thus, we do not generally transmit developmental travel models or land activity forecasts.

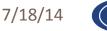


- The latest travel model that is available for release to the public is Build 52 of the TPB Version 2.3 Travel Model (i.e., Ver. 2.3.52)
  - The latest model inputs that are available for release to the public are
    - The Round 8.2 Cooperative Forecasts and
    - Transportation networks from the 2013 CLRP and FY 2013-2018 TIP for the following years: 2010, 2015, 2017, 2020, 2025, 2030 and 2040.
  - See the transmittal memo for more details (Milone, Seifu, and Moran. "Transmittal of COG/TPB Version 2.3.52 Travel Model and associated files." Memorandum, December 10, 2013).

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- If you would like to obtain zonal land activity forecast data, please let us know whether it is for use with the regional travel model or some other use, since that will determine the type of land use file you are sent.
  - Zonal land use data for the regional travel model must undergo what is known as the CTPP-based employment adjustment, which ensures that a consistent employment definition is used by all counties and jurisdictions in the modeled area.



#### Future plans

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- The COG website is about to undergo a major update
- As part of this update, we hope to do the following:
  - Add a form to the "Data Requests" page that can be used by requesters to submit data requests.
  - Use the form to populate a database, which will be used to track data requests, which COG staff fulfill them, and when they are fulfilled.



## Parting thoughts

- We have a new director of the Department of Transportation Planning (DTP) beginning work on August 6: Kanathur (Kanti) Srikanth
- At some point, he may choose to make changes to the COG policy regarding data requests
- If any changes are made, they will be detailed on the "Data Requests" webpage
- Keep in mind that we have a revised version of the model (2.3.57) that is being used for AQC, so that revised version of the model is likely to be available for data requests in fall 2014
  - Next five slides provide detail about the six updates & their effect on modeled results

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- □ Update to new version of Cube Voyager (6.0.2 => 6.1 SP1)
  - To take advantage of bug fixes done by Citilabs and also to allow the next change
- With the help of AECOM, we incorporated a new, automated way to calculate transit walksheds and zonal percent walk-to-transit values
  - These values are an input to mode choice.
  - Previously, we used an off-line, semi-automated Visual Basic script that required the user to have ArcGIS, but this script can no longer be supported.
  - Now, the model uses an automated process, which has been incorporated into the first part of the model run.
  - User need not have ArcGIS Only needs Cube and Python.



- Updates were made to the script (parker.s) used to generate walk transfer links between PNR lots and rail stations.
  - Variable names and in-program comments were updated, but no change was made to the program's algorithm.
- Two new summary scripts are now included for comparing mode choice model results



- Changes were made to both the four transit pathbuilding/skimming scripts and the four "assemble skims" scripts
  - Output matrix files are now in Cube Voyager format (previously they were in MINUTP format)
  - Table names in the binary matrix files have been cleaned up (previously some names were mixed up or omitted)
  - The first of these changes had the side benefit of removing a series of misleading error statements about "meaningless values."



- A coding error was found in one of the modeling scripts, walkacc.s, which is used to develop zonal walk-access links to transit.
  - The error caused the program to create an incorrect output file in cases where there is a gap in zone numbering.
    - Specifically, this problem affected only TAZs 2555-3675 (Prince William County and other outer counties).





Effect of these six updates on modeled results

- First five updates: No substantial difference in model results. For example, the estimated total regional vehicle miles of travel (VMT) changed by no more than one hundredth of a percent
- Last update (walkacc.s):
  - Like the previous five model updates, the bug did not have a major effect at the regional level
  - But, at the zonal level, for the affected counties, the bug does result in incorrect estimates of transit trips, since the walk percentages for some TAZs were switched.





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