

Project to improve the COG/TPB travel demand forecasting model

Background: Where we've been, FY 15-17

Mark Moran, Manager, Models Development, COG/TPB staff

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Consultant-assisted project to improve TPB travel demand model

- Began in 2005 (FY 06) under direction of Jim Hogan, Ron Milone, and Ron Kirby
- Motivation: To ensure that the TPB travel demand model is within the state of the practice
- Early years:
 - Consultant: Scans of the modeling practice
 - TPB staff: Conduct model updates
- More recent years:
 - Consultant and TPB staff: Conduct model updates



Consultant-assisted project to improve TPB travel demand model

- FY 06-08: Vanasse Hangen Brustlin, Inc. (VHB)
- FY 09-11: Cambridge Systematics, Inc. and Gallop Corp.
- FY 12-14: AECOM
- FY 15-17: Cambridge Systematics, Inc. and Gallop Corp.
 - Contract ends June 30 and must be re-bid



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FY 15

- TPB staff developed proposed plan for strategic plan for models development (Nov. 2014)
- Survey to solicit stakeholder input from users of the COG/TPB model (Feb. – Mar. 2015)
- Survey of peer MPOs to assess the state of modeling practice (Mar. 2015)
- Consultant produced a series of draft reports, which were finalized in the next FY (next slide)



FY 16: Consultant reports

- *Review of Consultant Recommendations from FY 2012-2014 of the COG/TPB Travel Demand Modeling Consultant-Assistance Project, Task Order 15.1.* Oct. 2015.
- *Identifying Potential Opportunities for Model Improvement, Task Order 15.2, **Report 1 of 3.*** Oct. 2015.
- *Status of Activity-Based Models and Dynamic Traffic Assignment at Peer MPOs, Task Order 15.2, **Report 2 of 3.*** Oct. 2015.
- ***Strategic Plan for Model Development,** Task Order 15.2, **Report 3 of 3.*** Oct. 2015.
- *Review of Transit Modeling with Respect to FTA Guidance, Task Order 15.3.* Oct. 2015.
- *Task Order 15.4, Modeling with Public Transport.* Oct. 2015.



Model improvement strategic plan

- Three phases over seven years

	Description	Fiscal Years
1	Updates to the existing trip-based, four-step model (FSM)	2016-2017
2	Development of an activity-based model (ABM) with existing data	2018-2020
3	Development of an ABM with new data *	2021-2022

* New household travel survey to be conducted in FY 17; ready for use in FY 20



FY 17: Short term improvements to trip-based model

- TPB staff provided a series of datasets to consultant
 - Household travel surveys
 - 2007/2008 Household Travel Survey
 - 2011 Geographically Focused HTS
 - 2012 Geographically Focused HTS
 - Transit on-board surveys
 - 2008 Metrorail Passenger Survey
 - 2008 Regional Bus Survey
 - 2007-2008 On-Board Survey of Maryland Transit Administration (MTA) Riders
 - 2005 Virginia Railway Express (VRE) Passenger Survey



FY 17: Short term improvements to trip-based model (continued)

- TPB staff provided a series of datasets to consultant
 - Other data, including
 - TAZ-level “floating” density and land use mix measures: Simpson’s Diversity Index and Entropy
 - Census-block level land use (population, employment), land use mix measures, and infrastructure measures (highway intersections by type and transit stops)



Up next

- Jay Evans & Feng Liu: Status on current model improvements
- Ron Milone: Where do we go from here?

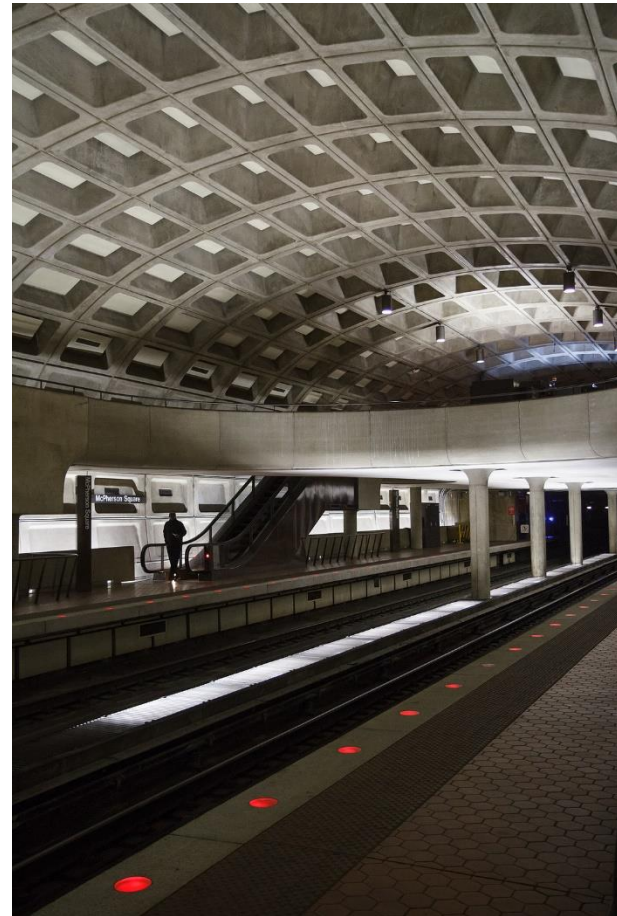


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Mark S. Moran

TPB Principal Transportation Engineer

(202) 962-3392

mmoran@mwkog.org

mwkog.org/TPB

Metropolitan Washington Council of Governments

777 North Capitol Street NE, Suite 300

Washington, DC 20002

