

South Carolina Department of Transportation
Planning Office Process Directive

Number: 7

Date: February 2018

Subject: Regional Travel Demand Model Updates/Coordination

Purpose: Procedure for updating internal MPO/COG Models
Procedure for coordinating external MPO/COG Models

A regional travel demand model is the single best planning tool for estimating traffic impacts, both positive and negative, of land use and transportation projects. As land use and transportation projects grow in scope and scale of impact, a regional planning tool is imperative for proper estimation and validation of traffic and transportation plans. As technology has improved, so have modeling techniques and data availability. Models for both Metropolitan Planning Organizations (MPOs) and Councils of Government (COGs) are vital to developing comprehensive long range transportation plans. Therefore, the SCDOT is dedicated to developing, maintaining, and operating models for all such organizations within the state of SC. If an MPO or COG determines it is in their best interest to obtain professional consultant services to develop their model, the SCDOT is committed to providing any data, technical support, and review of the model to assist the organization to obtain the best possible product for the cost.

In an effort to assist in coordination of effort, the Planning Office will provide the following data to an MPO/COG for review and use upon request:

- Base Year AADT count data (if available)
- Latest classification counts
- Roadway Functional Classification information
- NPRMRD Speed Data
- National Household Travel Survey (NHTS) Data
- Assistance with Census related data

These data sets are produced both inside and outside of the SCDOT, therefore it is recommended that the local entity closely review all data provided to them since in most cases local staff is a lot more familiar with the area and has a better feel for both current and future land use and growth patterns.

Also, in an effort to improve the model efficiency overall, the Planning Office is willing to run a sub-area analysis using the SC Statewide Model (SCSWM) to develop an internal-external and external-external trip table for use with the locally developed model. This is assuming the zone structure for both models are comparable.

In return for providing the data sets listed and the additional technical support, the SCDOT requests that MPOs and COGs provide base year and future data to the SCDOT for use in

developing SCSWM updates. Also, the SCDOT requests that a fully operational and up-to-date model be provided to the SCDOT for use in developing traffic projections for use by offices within the SCDOT for either roadway and/or pavement design.

Update Cycle:

A full update should occur approximately every 5 years for MPO models, in conjunction with the LRTP update. COG models should be updated every 5-7 years but at a minimum every 10 years. This type of update would include but not be limited to:

- New Base Year (BY) and associated socio-economic data (base years will be either 0 or 5, for example, 2010, 2015, 2020, etc.)
- New Future Year and associated socio-economic data (future year will always be BY+30)
- All projects completed between previous BY and new BY will be incorporated into the BY Network as existing roadway attributes
- All Traffic Counts will be updated to the new BY
- All classification counts completed between the previous BY and the new BY will be incorporated into the model
- Project list will be updated to remove completed/inactive projects and add new committed projects

Also, as part of a major update, SCDOT or MPO/COG staff will determine if new modeling features need to be added that could improve model efficiency and productivity. Also, during full updates, it will be determined if the model shall move to the latest version of TransCAD or other another modeling software that the SCDOT may be using at the time.

Submitted by:

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Approved by:

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