

**Florida Model Task Force  
Transit Subcommittee Meeting Summary  
Orlando - April 17, 2002  
8:30 AM– 12:30 PM**

**Introduction and Welcome**

Shi-Chiang Li introduced Kevin Feldt, with the Jacksonville Transportation Authority as the new chair of the Transit Subcommittee.

**Overview and discussion on the Generalized Nested Logit Model**

Mike Doherty from URS, under contract with the FDOT Systems Planning Office, presented the Generalized Nested Logit model (GNL). The GNL model was developed to facilitate the conversion of multi-path multi-period mode choice model to the nested logit mode choice model. Mike demonstrated how to select a nesting structure and develop a supporting script file. The script file has to be created for all three trip purposes. Once the script is developed, the user identifies the file within the PROFILE.MAS file before executing the model, so that the correct script for the correct trip purpose is called up. The input files are identified with headers, which tell the users by column what is coded in the file.

The GNL user's guide and reference manual have been developed as part of the project. The software/script and documentation were distributed among the members. The test version will be distributed to the Transit Subcommittee members for comments. Surveys will need to be conducted in order to obtain target ridership numbers for the different modes. The calibration process keeps rerunning the program until it reaches the closure percentage, which is set at 1 percent as the default. The reference mode is Drive Alone, with a modal constant of 0. The GNL does not use captivity rates.

General consensus was reached by the Subcommittee to forward a recommendation to the Model Task Force to include the GNL in FSUTMS.

**FTA Rules for Calculating Users Benefits for New Starts**

Ike Ubaka from the FDOT Public Transit Office updated the members on the new FTA rule that requires transit new start projects to conduct specific users benefit and costs analyses. To conduct these analyses, some modifications will need to be made to the mode choice model to allow for the comparison of the logsum information for each mode. There was a general consensus to request the FDOT Systems Planning Office to incorporate the user benefit analysis capabilities into the GNL model to allow for the type of analyses the FTA requires. In addition, the Subcommittee has asked the FDOT Public Transit Office to monitor future development regarding this new FTA requirement and keep the Transit Subcommittee members informed through emails and teleconferences.

## **Transit Subcommittee Mission Statement**

The draft Transit Subcommittee mission statement and the goals and objectives were discussed. After some discussion it was decided that the members would review the draft version and provide comments to Huiwei Shen by Friday April 26, 2002.

## **Time-of-Day Model**

Tom Rossi from Cambridge Systematics, under a research contract with the Systems Planning Office, presented the progress made on the time-of-day model. Based on the availability of existing data sources, the recommended time-of-day model will be based on four time periods: am peak (7:00 a.m. to 9:00 a.m.); midday (9:00 a.m. to 3:00 p.m.); pm peak (3:00 p.m. to 6:00 p.m.), and off-peak (6:00 p.m. to 7:00 a.m.). Another critical decision was made to apply the time-of-day factors after the Distribution Step. This would result in consistent paths between mode choice and assignment and allow the mode choice to take into account the differences between peak and off-peak transit service and highway congestion. The next steps in the study are to complete the preparation of the Time-of-Day Modeling Procedures Guidebook for Florida and to refine model estimates using the Southeast Florida travel survey data set and to include level of service variables.

## **Activity Based Model**

Ram Pendyala from USF, under a research contract with the FDOT Public Transit Office, presented the progress made on the Activity-Based Model project. The scope of the project is to simulate activity-based travel patterns of households and persons. The model also simulates evolution of households and persons within households over time. The model will not simulate freight, visitor, taxi movements, or External to External travel. The components of the model were identified and briefly described. These were: HAGS: Household Attributes Generation System; Synthetic Population Generator (PopGen); Activity Agenda Generator (ActGen); PCATS: Prism-Constrained Activity Travel Simulator; DEBNetS: Dynamic Event-Based Network Simulator, and the PROG: Policy Response Option Generator. Currently the software is being migrated to the desktop windows-based PC platform, while the calibration and validation to 1996 SERPM model is being completed. Other areas of focus are the algorithms to reduce run times. The product release will take place sometime in late summer/early fall of 2002.

## **Miscellaneous Business**

A teleconference will be arranged in May to finalize the mission statement, goals and/or objectives and for the Public Transit Office to give the members an update on the latest developments concerning the FTA rule regarding transit new starts. The meeting was adjourned at 12:30 PM.