Yongqiang Wu and Florida Model Task Force Chairs Danny Lamb, Shi-Chiang Li, and Dennis Hooker, coordinated a group discussion on three FSUTMS framework topics. Those in attendance, including voting members and other attendees, were asked to break into three groups to discuss the following topics that need to be considered during additional improvements to the FSUTMS framework.

- Travel Survey and Transit on-board Survey
- Transit Modeling in Public Transport
- Time-of-Day Modeling

Each group spent approximately 30 minutes discussing the assigned topics and making notes on how to address each issue in upcoming technical documents. A representative from each group presented the discussion points.

**Travel and Transit On-Board Surveys**

- Transit - oversample of travel
- Modeling needs vs. consumer information needs
- Sampling frames and weighting needed
- MOA
- Linked trip characteristics
- Transfers for transit
- Stated preference/market segment survey
- Landmarks vs. adds/corners etc.
- TOD
- O-D (Real O,D)
- CUTR Study
- All information linked to demographic data

- Roadside surveys [policy]
- Alternatives and Possibility of Reintroducing (Addressing safety and delay issues)
- NPTS Add-on benefits for statewide information (methodological equivalents)
- Continuing data collection (traffic count example) [policy]
- Cell phones – IMPAX and Pings
- Sharing data
- Trip diaries for “travel surveys”
- GPS-based (subset)
  - (AVI & APC on transit vehicles)
- Data Checking
- Instrument testing (pilots)
- Survey size: data needs vs. respondent fatigue vs. costs
- The usual:
  - Randomness
  - Biases
  - Sampling error

**Transit Modeling in Public Transport**

- Graphical visualization
  - Loadings
  - Especially at congested locations
- Transit validation standards
- Equilibrating supply and capacity
- Be able to validate ridership by transfer activity at transfer points/route
- Better ability to combine paths after loading (e.g., TADLOD)
- Ability to better compute transit access percentages
  - PCWALK/access consistency
- Coding sidewalk links/rail in highway network
- On-the-fly coordinating transit line files with highway network changes
- Network coding validation
- Multi-pathing
  - Parking costs and all attributes need to be skimmed
  - All access logic/programs need to be reviewed/overhauled
  - Think through impacts on user benefits
  - New standards
- Validation/Calibration adjustment techniques
- Single-path skims for existing mode choice models
- Better path reporting
- Network loading comparisons
- Screenlines \( \rightarrow \) validation reporting (tabular and visual)
- Better assignment reporting (i.e., LOS)
- Auto-transit speed relationships
  - Data and better model

**Time of Day (TOD) Modeling**

1. Types of TOD Models
2. Location of TOD in FSUTMS
3. Number of Periods required, 3.a. Define peak trips
4. Data Requirements
5. Available Technical Support
6. Validation

1. Types of TOD
   - Develop guidelines for adopting TOD
   - Factor approach
     - Household survey data
- Traffic counts (truck)
  - APC for transit if available
  - Don’t do a TOD choice model right away

2. Location of TOD in FSUTMS Chain
   - Before mode choice, trip generation, or distribution?

3. Number of Periods
   - Minimum 4
     - AM
     - Midday
     - PM
     - Night
   - Peak trip – midpoint of a trip

4. Data Requirements
   - Survey
     - Travel time resolution – 30 minutes
     - Borrow survey data
   - Traffic counts
     - Make sure all counts are by 30 minute
     - Classification counts

5. Technical Resources
   - Central Office support
   - Coordinator to call

6. Validation
   - Validate daily model first
   - Then validate TOD