



# Transit Committee Notes

November 9, 2009  
10:00 AM – 12:00 PM  
Orlando, FL

## MEETING NOTES

### Attendees List:

| Name                 | Agency/Firm                       |
|----------------------|-----------------------------------|
| Ashutosh Kumar       | AECOM                             |
| David Schmitt        | AECOM                             |
| Jeanette Berk        | API                               |
| Quan Yuan            | BCC Engineering                   |
| Lina Kulikowski      | Broward County MPO                |
| Daniel Beagan        | Cambridge Systematics             |
| Kimon Proussaloglou  | Cambridge Systematics             |
| Derek Miura          | FDOT District 4                   |
| Betty Mckee          | FDOT District 5                   |
| Andrew Tyrell        | FDOT District 7                   |
| Diane Quigley        | FDOT Public Transportation Office |
| Heather Sobush       | FDOT Systems Planning Office      |
| Carl Mikyska         | FHWA                              |
| Kapil Arya           | Gannett Fleming                   |
| Eric Heinz           | Gannett Fleming                   |
| Cashi Jean           | Gannett Fleming                   |
| Jennifer Ramchandani | Gannett Fleming                   |
| Sri Charan Rani      | Gannett Fleming                   |
| Mary Ross            | Gannett Fleming                   |
| Chrissie Sherman     | Gannett Fleming                   |
| Rafey Subhani        | Gannett Fleming                   |
| Myung-Hak Sung       | Gannett Fleming                   |
| Yongquiang Wu        | Gannett Fleming                   |
| Mary Stallings       | Grimail Crawford                  |

| Name                | Agency/Firm                      |
|---------------------|----------------------------------|
| Li Jin              | Kittelson & Associates           |
| Elaine Martino      | Martino Planning                 |
| Larry Foutz         | Miami-Dade County MPO            |
| John Voges          | Ocala/Marion TPO                 |
| Nellie D. Fernandez | Palm Beach MPO                   |
| Vinod Sandanasamy   | Palm Beach MPO                   |
| Charles Hart        | Parsons Brinkerhoff              |
| Amar Sarvepalle     | Parsons Brinkerhoff              |
| Whit Blanton        | Renaissance Planning Group       |
| Stephen Lane        | Resource Systems Group           |
| Fang Mei            | RS&H                             |
| Neelam Fatima       | St. Lucie MPO                    |
| Dan Macmurphy       | Traf-O-Data                      |
| Abdul Pinjari       | University of South Florida      |
| Xuehao Chu          | University of South Florida CUTR |
| Sara Hendricks      | University of South Florida CUTR |
| Zhong-Ren Peng      | University of Florida            |
| Hemant Saloche      | University of Florida            |
| Liyuan Zhao         | University of Florida            |
| Daniel Funk         | Wake-Tek                         |
| Gary Kramer         | WFRPC                            |
| Wade White          | Whitehouse Group                 |

### Introductions

Larry Foutz, Transit Committee Chair, went through formal introductions with the group. He then gave a briefing on the transit surveys panel discussion from earlier in the morning. He mentioned speed curves used for transit and the importance of getting good supporting speed data on the arterial and highway links particularly for transit. Mr. Foutz also commented on the poor suitability of auto ownership as a surrogate for income, particularly as it relates to transit. Non-auto households are not accounted for in many transit mode share programs which causes an issue given that non-auto households are transit dependent and thus some transit trips are lost models.

Three presentations were given during the committee meeting as follows.

### *Transit Survey White Paper*

#### *Dave Schmitt, AECOM*

- All PowerPoint presentations are now available online at [www.fsutmsonline.net](http://www.fsutmsonline.net).
- Dave Schmitt gave a presentation on his findings regarding various survey techniques and methodologies. He mentioned problems in the traditional survey process such as response bias, incomplete data, and unreasonable survey data and the implications regarding transit modeling errors. Consideration of system characteristics, such as common languages spoken in the area, type of transit service, etc. is critical. He also stated that it is important to double-check survey results for reasonableness before using for model calibration purposes.
- Dave concluded by stressing the importance of assigning the survey trip data to identify problem areas given the number of Florida transit models that are blind to actual geography.



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- He then mentioned that the white paper has been submitted to staff at FDOT Central Office and awaits comments, the final date for receipt being the 20<sup>th</sup> of November.
- Discussion Items:
  - Larry asked Dave about having trip length as one of the bias issues to which Mr. Schmitt responded that it was not. Dave stated that planning before hand for the expected trip length can mitigate the issue somewhat and stated FTA guidelines for dealing with the situation.
  - Larry then asked what was the minimum standard for data completion that is acceptable to which Dave responded that the answer depended on the particular transit market and requirements.
  - There was then discussion about development of a survey workbook that would highlight issues, lessons learned, etc. to which other practitioners can refer.
  - Dan MacMurphy asked Dave whether there was any distinction in the results by survey method, such as interview versus handout surveys. Dave responded that every survey has different circumstances. In general, the empirical data suggested that handouts were better. There was extensive disagreement over this finding.
  - Myong-Hak Sung asked how often surveys should be done. Discussion ensued regarding continuous surveys versus specific purpose surveys but the consensus was that surveys should best be done when there is a compelling reason.

## ***Passenger Rail Surveys in Florida***

### ***Mary Ross, Gannett Fleming***

- Mary proceeded to give a presentation on passenger rail surveys undertaken in southeast Florida. The surveys were done on the Tri-Rail Commuter Rail system and the Miami-Dade Transit Metrorail system. Mary described the characteristics of each system, the survey methodology, the participants used to do the survey, the unique surveying difficulties encountered, and the efforts used to address those difficulties.
- She also gave an overview of why the surveys were necessary given complete absence of similar data in previous years. The main theme surrounded the differences and resulting difficulties that stemmed from the on-board survey approach for Tri-Rail versus the turnstile-based approach for Metrorail and the differing amounts of time available to respondents for completion which impacted results. Mary then discussed techniques utilized to minimize non-response bias, which was more serious for the time constrained Metrorail approach.
- Discussion Items:
  - Continuing the discussion from Dave's presentation, Mary mentioned that she thought interview surveys worked better, particularly for Metrorail.
  - Larry then commented on a particular Federal Transit Administration (FTA) mandated question regarding the exact order of linked trips taken which was apparently difficult to understand for riders and caused frustration and confusion.
  - There was then discussion surrounding the linked trip response rate issue and the usefulness of the resulting data. The issue of interview surveys was again brought up as a potential means to avoid some of the confusion amongst respondents.
  - Ashutosh Kumar asked what defined a complete survey to which Mary responded whatever data was obtained but at a minimum origin and destination data. Myung Sung commented on the difficulty of properly answering that question. Larry interjected that the manner in which the survey was designed provided at a minimum origin and destination information and any extra information was really a bonus. Ashu then further commented on the difficulty of using survey data with the Southeast Regional Planning Model (SERPM) given its detailed data demands.



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- There was then discussion on the definition of complete data as it pertains to Tri Rail versus the Metrorail surveys.
- Dave then commented on the good job done in the surveys on pre-vehicle preparation which he stated made carrying out the actual surveys much simpler.
- Mention was made of a simultaneous passenger count program that was undertaken while the survey was being done and how it assisted greatly with validating the survey data.
- A question was then asked regarding the stated difference in collected survey percentages on Tri-Rail versus Metrorail to which Mary and Myung alluded to resource allocations and constraints. There was also a question asked on the determination of a 2:45 pm cut-off time for the surveys. Myung started to respond by commenting on the difference between commuter rail and urban rail, the relative lack of usefulness of data at the fringe time periods for urban rail and the compromises that may be acceptable. Larry then added that the cut-off time involved compromising with the FTA on acceptable survey periods.
- Larry gave an overview of the survey and FTA requirements from the MPO's point of view. He described the scope of the survey and mentioned the difficulty of logistics with the MPO planning process to modify the scope to reflect FTA requirements.
- There was then discussion on a new Metrorail farecard system and its likely applicability for survey comparison purposes.
- There was then a question from the audience on the likelihood of an expansion in the sample data. Larry responded that it was likely.

## ***FSUTMS and TBEST Applications in the FTA New Starts Process***

### ***Diane Quigley, FDOT Public Transportation Office***

- Diane Quigley gave a presentation on the development of a handbook for the FTA Small Starts and how tools such as TBEST may be used to assist in the process. She proceeded to describe the difference between New Starts, Small Starts, and Very Small Starts projects according to FTA criteria. Diane followed with a description of TBEST (Transit Boarding, Estimation and Simulation Tool), its uses, and capabilities.
- She referred to potential opportunities for using and modifying TBEST and current FSUTMS models to assist in the FTA transit planning process.
- Upon concluding her discussion, she mentioned a nine month project schedule and that the office was looking to set up a technical advisory group. Crucially, she stated that public agency and transit agency representatives in particular were being sought after. She also gave a timetable for meetings around the state to share ideas on the process.
- Discussion Items:
  - Larry asked if the TBEST tool can be used for ridership forecasts for each boarding to which Diane responded that it can if future land use and socioeconomic data is available.
  - Larry then asked if a teleconference could be set up to discuss issues like how best can TBEST be used to supplement the current models. There was discussion surrounding the TBEST tool functionality, its usability and its compatibility with current FSUTMS models.
  - Larry commented on the increasing community experience with Cube transit models and asked for discussion on issues that have been noted.
  - There was a question from Derek Miura on whether anyone was aware of New Starts projects using the Cube Public Transit (PT) module to which Dave responded that he was aware of SERPM and the Tampa Bay Regional Planning Model (TBRPM).
  - There was then a comment on how poorly some of the District 1 models are coded for transit and some of the workarounds used to deal with the issue. Discussion then ensued regarding techniques for dealing with transit coding issues, such as agreement on zone



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splits, etc. Alternative assignment techniques were suggested. However, the consensus was that zone splits are the appropriate way to handle the issue.

- A question that was raised concerned the run times if the number of zones is increased to better deal with transit issues. There was some discussion surrounding the trade off of output result quality with run speeds.
- Another issue that came up was the amount of reasonable effort to expend on network detail, transit coding, etc. in small MPOs or other entities, considering the availability of the TBEST tool which may be sufficient for such purposes.