



# Full Model Task Force Meeting

May 25-27, 2010  
Orlando, FL

## MEETING NOTES – May 26, 2010

### Time of Day Modeling

#### *Krishnan Viswanathan, Cambridge Systematics*

- All PowerPoint presentations are now available online at [www.fsutmsonline.net](http://www.fsutmsonline.net)
- Revisiting Model advancement committee membership. Since demand is higher than slots, inactive members will be dropped
- Dave Schmitt (AECOM) asked if a rigid definition was used for HBW. Tom Rossi (CS) and Krishnan Viswanathan (CS) mentioned that the NHTS definition is being used.
- Dave Schmitt (AECOM) asked why there was so much similarity between HBW and HBO patterns and Roberto Miquel (WSA) suggested that there might be trip chaining going on. Krishnan Viswanathan (CS) mentioned that the data offers the ability to break it down by trip purpose at the beginning and end of the trip.
- Tom Rossi (CS) mentioned that resort areas were considered because resort and non-resort might have different temporal distributions and income levels might result in different characteristics.
- Larry Foutz (Miami-Dade MPO) suggested separating out school trips and university trips.
- Roberto Miquel (WSA) asked how the team expected to capture tourist trip making in resort areas. Tom Rossi (CS) replied that the focus was more in the people servicing the resort areas and data is difficult to come by on tourists.
- Bill Davidson (PB) asked if the team considered the notion of trips in motion. Krishnan Viswanathan (CS) said no and Tom Rossi (CS) mentioned that it will be difficult in a four step context when trips cross periods.
- Dennis Hooker (Metroplan Orlando) asked if the surveys were conducted on land lines. Krishnan Viswanathan (CS) mentioned that it was mainly via land lines.
- Dave Schmitt (AECOM) mentioned that universities, military bases, and hospitals have different time of day characteristics and questioned if the data is robust enough to handle it. Tom Rossi (CS) mentioned that the NHTS sample size is not large enough to allow for these types of geographic distinctions.
- Wilson Fernandez (Miami-Dade MPO) talked about how to use this work effort for dynamic traffic assignment (DTA) and activity-based models (ABM) issues. Krishnan Viswanathan (CS) mentioned that there are tasks to look at smaller time slices to accommodate these needs.
- Regarding CONFACs, Tom Rossi (CS) mentioned that the numbers are only substitutes for lack of local data and currently there are no different time of day factors for different facility types. If the team concludes that there are no differences across facility types or time periods, it will collapse into smaller market segments.
- Roberto Miquel (WSA) suggested working with large models since they have significantly different travel behaviors than uniform models
- Dennis Hooker (Metroplan Orlando) suggested using CFRPM since it has both urban, rural, and resort areas

### Model Advancement Committee

#### *Wilson Fernandez, Miami-Dade MPO*

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## **National Experience regarding ABM**

### ***Joel Freedman, PB***

- All PowerPoint presentations are now available online at [www.fsutmsonline.net](http://www.fsutmsonline.net)
- Discussion items
  - Roberto Miquel (WSA) asked what is the smallest level of aggregation that is reasonable when considering ABMs. Joel Freedman (PB) mentioned that it depends upon policy questions that need to be answered and ABMs allow for degree of uncertainty
  - Roberto Miquel (WSA) asked if PB used the same random number seed or takes an average of multiple runs for New Starts analysis. Joel Freedman (PB) replied that they ran several different random number seeds to see if there is variability in the model

## **ABM Basics**

### ***Mark Bradley, MBC***

- All PowerPoint presentations are now available online at [www.fsutmsonline.net](http://www.fsutmsonline.net)
- Discussion items
  - Jack Klodzinski (Florida Turnpike) asked if you took the same area and start from scratch, which model will be easier to develop in terms of data, costs etc. Mark Bradley (MBC) mentioned that it is easier to start with something done for another region and re-parameterize to the region
  - Wade White (Whitehouse Group) commented that the reason for model structure convergence is because it is the same set of characters that do the work. A question regarding ABM's sensitivity to changes was asked.
  - Mark Bradley (MBC) mentioned that using parcel level data provides a better aggregate forecast
  - A lot of participants indicated that trip based methods also have issues and Danny Lamb (FDOT D7) suggested it will be worthwhile developing guidance for current practices.
  - Howard Slavin (Caliper) mentioned that in a trip based context, select link analysis is one of the most fragile and the magnitude of errors is huge.
  - Wilson Fernandez (Miami-Dade MPO) asked if any areas have used ABMs for LRTP. Mark Bradley (MBC) mentioned that NY, Columbus, Sacramento have used it in their LRTP process

## **Jacksonville SHRP2 C10**

### ***Steve Lawe, RSG***

- All PowerPoint presentations are now available online at [www.fsutmsonline.net](http://www.fsutmsonline.net)
- Discussion items
  - Wilson Fernandez (Miami-Dade MPO) asked if there is an opportunity to test transferability to other areas. He also said that the MTF needs to come up with a consensus for transferability of the work done in Jacksonville. Further, there is a need to look at large and small areas transferability and see that ABM benefits are available for all
  - Danny Lamb (FDOT D7) said that FDOT D7 started to seriously look at ABM and DTA when SHRP2 C10 projects came along. In order to avoid duplication of efforts, the project is currently on hold and it is important to monitor these efforts
  - Milton Locklear (FDOT D2) said that it is important to have good quality data to do



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- To the suggestion that Tallahassee be one of the areas for transferability, Dan Harris (FDOT CO) said that Tallahassee data quality needs to be considered since surrounding counties have poorer quality data
- Milton Locklear (FDOT D2) mentioned that there is good data from Gainesville and Rob Schiffer (CS) mentioned that it is one county model with major emphasis on transit
- Larry Foutz (Miami-Dade MPO) asked how transit is being handled in this specific model. Steve Lawe (RSG) mentioned that on the supply side transit is handled in the same way as now but on the demand side it is fully integrated.
- Wade White (Whitehouse Group) mentioned that Jacksonville, Tallahassee, and Gainesville are not exactly touristy and there is a need to consider tourist areas for transferability. Wilson Fernandez (Miami-Dade MPO) said that SW FL might be a good area and there was a need to have someone from SW FL (Sarasota, Bradenton). Committee to arrive at a decision
- Vidya Mysore (FDOT CO) mentioned that it is necessary to consider transferability to other areas around the United States and therefore move beyond tourist areas.
- Participants considered various areas and finally settled on Polk County.
- Polk County was recommended by committee to MTF and FDOT CO

## DTA Introduction

### *Mohammed Hadi, FIU and Vladimir Majano, FDOT*

- All PowerPoint presentations are now available online at [www.fsutmsonline.net](http://www.fsutmsonline.net)
- Discussion items
  - Wilson Fernandez (Miami-Dade MPO) said there is a new technical committee to provide oversight and Neelam Fatima (St. Lucie MPO) is the chair of the new technical committee
  - Derek Miura, Roberto Miquel, Sung-Ryon Han, Srinivas Varanasi, Chunyu Lu, and Krishnan Viswanathan volunteered to serve on the panel.
  - Vidya Mysore (FDOT CO) indicated that since all meetings will be web based, there are limitations to the number of people who can participate

## Transit Committee

### Florida HSR

#### *Vidya Mysore, FDOT*

- All PowerPoint presentations are now available online at [www.fsutmsonline.net](http://www.fsutmsonline.net)
- Discussion items
  - Vidya Mysore (FDOT CO) mentioned that there is a need to develop Intercity Passenger Forecasting scope along with a timeline and budget for execution of the work.
  - Larry Foutz (Miami-Dade MPO) mentioned that the Transit & Rail committee will develop a scope of work for data collection for intercity passenger

#### *Dave Powers, Wilbur Smith*

- All PowerPoint presentations are now available online at [www.fsutmsonline.net](http://www.fsutmsonline.net)
- Discussion items
  - Presentation on Tampa to Orlando High Speed Rail and Lessons learnt



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## **David Kurth, Cambridge Systematics**

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- Discussion items
  - Presentation on California High Speed Rail and Lessons learnt

## **Transit Speed Panel – Larry Foutz (Miami-Dade MPO), Jeannette Berk (API), Dave Powers (WSA), Dave Schmitt (AECOM), Jon Weiss (FDOT D5)**

- Discussion items
  - Jeanette Berk – Transit speed curves not really right so mentioned an idea from Dan Harris (FDOT CO) to use AVL data and suggested basing highway speeds on it
  - Dave Schmitt – Very difficult to calibrate transit travel times across different time periods for a region. Dwell time applied to every coded time on the bus. Speeds not really a component of the validation
  - Jon Weiss – Looked at posted speed and did data collection to convert posted speed to free flow speed. Used Bluetooth receivers to calculate OD locations.
  - Dave Powers mentioned a FIU study done in 2007. Variety of ways to go about the problem. Go to cell phone companies and process cell phone data. The data is easy to obtain but the question is what to do with it. Higher than posted speed. Speed flow relationship modified to come close to reality Does it translate into better mode choice
  - Shi-Chiang Li (FDOT D4) mentioned that NavTeq and other vendors willing to provide data
  - Mohammed Hadi (FIU) mentioned that for FDOT D6 FIU looked at cell phones, Bluetooth, and measuring signature of vehicles on sensors. ITS and planning people will come together to deploy.
  - Larry Foutz asked what the next steps are. Can we collect the data and if we so, can it be done easily
  - Jeannette Berk mentioned that the decision of where to implement BRT is driven by speed and suggested looking at AVL data.
  - Dave Schmitt suggested a need to come up with ways to collect data with Time of Day speeds, and make it part of the validation criteria and not make speed a calibration issue
  - Larry Foutz asked where SERPM stands in terms of speed validation. Moving from a daily to time of day model makes it necessary to have traffic data at finer temporal resolution to ensure accuracy of the model.
  - Ken Kaltenbach (The Corradino Group) suggested using systematic ways of gathering speed data and getting data from ITS installations. He mentioned that speed has not been used as a calibration parameter in a long time. Therefore, we should estimate speed using posted speed and have speed calculators.
  - Tom Rossi (CS) said there is a need to consider forecasting speeds as well.
  - Dan McMurphy (Traf-o-Data) mentioned that the issue is larger than just a transit issue
  - Lina Kulikowski (Broward MPO) suggested using bus timetables as a potential source and use FL RCI data for routes

Meeting Adjourned at 5:00 PM