“Model advancement committee” Goals Survey Results

Dr. Xiao Cui
Vladimir Majano
Makarand Gawade
Outline

- Background
- Outcomes of Survey – Demographics
- Outcomes of Survey – Topmost Priority Goals
- Outcomes of Survey – Proposing other Potential Goals
- Conclusions
The first Florida Model Advancement Committee meeting was conducted on July 2\textsuperscript{nd} at 2 pm using “Go To Meeting” capabilities.

The minutes of meeting are uploaded on FSUTMS website.

The objective of this survey was to gain responses from the members and friends about their opinions and suggestions for the goals of this committee.

The survey link was open from July 17\textsuperscript{th}, 2015 to July 31\textsuperscript{st}, 2015.
Outcomes of Survey - Demographics

Number of Respondents

<table>
<thead>
<tr>
<th>Type of Work Organizations</th>
<th>Number of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consultants</td>
<td>13</td>
</tr>
<tr>
<td>FDOT Employees</td>
<td>3</td>
</tr>
<tr>
<td>MPO Employees</td>
<td>2</td>
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<tr>
<td>University Staff / Professors</td>
<td>2</td>
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Outcomes of Survey – Topmost Priority Goals

Top Most Priority Goals (Number of Responses = 23)

- Integration of Activity Based Modeling (ABM) output into Dynamic Traffic Assignment (DTA)
- Development of ELToD and applications of Express Toll Lanes
- Representation of Automated / Connected vehicles in Modeling
- Guidelines for effective modeling techniques (avoiding over-specification errors, model interpretation and other techniques)
- Improving the estimation of the volume delay function with GPS probe data and other new sources of data
- Improving route choice modeling
- Time of Day

Percent of All Respondents

- Integration of Activity Based Modeling (ABM) output into Dynamic Traffic Assignment (DTA): 3
- Development of ELToD and applications of Express Toll Lanes: 4
- Guidelines for effective modeling techniques: 2
“DTA can replicate the traffic patterns in a more realistic simulation approach, and the toll modeling would be significantly important nowadays to analyze the tolling system because the toll roads are popular with various toll facilities in Florida.”

“Please note that ELTOD is useful for areas where satisfactory managed lanes toll choice models are absent. So, for the larger urban areas, this should not be an issue, where they have activity based and toll choice models developed or under development. For certain, for the other urban areas, ELTOD is useful, but its application is limited. Rather than that, implement toll choice procedures for all the urban area models of decent size.”

“The three I picked are broader, longer-term, and transformative efforts. ELToD and GPS based modeling are more focused and can be pursued as short term efforts.”
“Express toll lane modeling is a priority for the State and should be our primary goal. Travel times are an issue and need to be refined, the sensitivity of travel time goes hand in hand with express lane modeling. Improving route choice modeling, I am assuming is closely related with DTA, path choice, travel times, etc. Dynamic Traffic assignment would be my fourth!”

1. Express Toll lanes are here and will be. We need to have a good procedure for dealing with them from a modeling standpoint and ELToD has been proven to work well. 2. Time of Day goes hand in hand with the express lanes. 3. Route choice modeling is needed to more accurately replicate real work route choice.”

“Need to know much more about the POLICIES for Automated/Connected vehicles before we can model them.”

“Florida's traffic assignment methods are substandard. It should be a goal to promote reasonable methods”
Summary of Comments

Comments can be summarized as follows:

- Modeling in Automated Vehicles needs thorough understanding of the concept and policies associated with it.
- Modeling advancements should incorporate rural areas too.
- Better techniques for traffic assignment and integration of different concepts is important.
- Respondents were more or less satisfied with the provided list of potential goals.
Outcomes of Survey – Proposing Other Potential Goals

“Develop a highway network utility tool in order to calculate speed and capacity as well as writes valid turn penalties and junction data, which are based on network and junction facilities.”

“Implementation of ELTOD or the toll choice principles into the regional models, rather than keeping them as standalone application”

“Big Data -- focus on sources, data quality, potential uses, data mining methods, fusing multiple data sources”

“New Data -- Long distance (IE, EI and EE) travel, visitor travel, data on ride sharing, walking and biking, weekend travel, freight, urban goods movement”

“Computational Issues -- how to make (advanced) models run within reasonable amounts of time, what are efficient ways of storing and accessing large volumes of data”

“Visualization -- how to make sense of all the data and model outputs and best ways of communicating model results to various decision makers”
<table>
<thead>
<tr>
<th><strong>Outcomes of Survey – Proposing Other Potential Goals</strong></th>
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</thead>
<tbody>
<tr>
<td>“Developing a model that runs in a reasonable amount of time, can be adjusted to reflect local conditions/policies and should be acceptable to reviewing agencies like FHWA.”</td>
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<td>“Evaluating model platforms.”</td>
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<td>“Advance the 4-step process through new procedures and inputs”</td>
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<td>“Modeling to account for smaller areas”</td>
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<td>“Freight Modeling: Key to understand as roads become more congested.”</td>
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<td>“Land Use Modeling: This is the key driver of most model outputs and needs to be carefully analyzed and understood.”</td>
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<td>“Development of a recommended ABM model framework or frameworks, perhaps &quot;robust&quot; and &quot;lite&quot;”</td>
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Summary of Other Potential Goals

- Development of advanced highway network utility tool
- Implementation of ELToD at regional level
- Focus on topics like big data, new data, computational issues and visualization
- Freight Modeling and Land Use Modeling
- Make advancements and create frameworks for 4-step models and ABM models.
Conclusions

- Strong participation of the members and friends was observed in the survey.
- Topmost priority goals were consolidated from the survey.
- Important qualitative comments and other potential goals were proposed by members and friends through this survey.
- Survey findings will help to conclude the final goals for this committee.