Objective

- Objectives
  - To know the challenges MPOs face
  - To know how TDOT can better assist MPOs in developing their travel demand model

- About Survey
  - Survey Period: Mar. 29, 2018 – May 7, 2018
  - Requested to 11 MPOs
  - Responded by 10 MPOs
Survey Structure

• Consists of 5 parts
  – Part 1 – Background Information
    • To know more about MPOs
  – Part 2 – Data Usage
    • To know what datasets MPOs used and need to obtain
  – Part 3 – Model Development and Application Challenges
    • To know challenges MPOs face when they developed TDMs
  – Part 4 – TDOT’s Role in MPO Model Development and Application
    • To know how TDOT can assist MPOs in the development of the model
  – Part 5 – Moving Forward
    • To understand MPOs’ needs
Selected Topic

- Proprietary Data
- Training
- New Policy
## Proprietary Data

- **Most Used Proprietary Datasets**
  - Woods & Poole (W&P)
  - InfoGroup
  - Transearch

<table>
<thead>
<tr>
<th>Used</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>InfoGroup</td>
<td>8</td>
</tr>
<tr>
<td>Woods &amp; Poole</td>
<td>9</td>
</tr>
<tr>
<td>Transearch</td>
<td>3</td>
</tr>
<tr>
<td>AirSage</td>
<td>1</td>
</tr>
<tr>
<td>ATRI</td>
<td>3</td>
</tr>
<tr>
<td>INRIX</td>
<td>1</td>
</tr>
<tr>
<td>HERE</td>
<td>1</td>
</tr>
<tr>
<td>TeleAtlas</td>
<td>1</td>
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</table>
Proprietary Data

• Other data sets that MPOs are willing to purchase

<table>
<thead>
<tr>
<th>Used</th>
<th>Response</th>
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</thead>
<tbody>
<tr>
<td>InfoGroup</td>
<td>2</td>
</tr>
<tr>
<td>Woods &amp; Poole</td>
<td>1</td>
</tr>
<tr>
<td>Transearch</td>
<td>1</td>
</tr>
<tr>
<td>AirSage</td>
<td>1</td>
</tr>
<tr>
<td>Big Data</td>
<td>1</td>
</tr>
<tr>
<td>INRIX or HERE (Travel Time)</td>
<td>2</td>
</tr>
</tbody>
</table>

• Biggest Issue
  - Too expensive to purchase alone or other budget issue (80%)
### Proprietary Data

**Proprietary Datasets TDOT purchased**

<table>
<thead>
<tr>
<th>No.</th>
<th>Data</th>
<th>Base Year</th>
<th>Licensed Users</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Air Sage</td>
<td>2014</td>
<td>RPM, RSG, TDOT, 11 TN MPOs, Universities in TN where a valid L.A. exists</td>
</tr>
<tr>
<td>2</td>
<td>ATRI GPS data</td>
<td>2013</td>
<td>GPS Raw Data (RSG Only), O/D Matrix (TDOT)</td>
</tr>
<tr>
<td>3</td>
<td>HERE</td>
<td>2012 – 2017 April</td>
<td>TDOT Only</td>
</tr>
<tr>
<td>4</td>
<td>InfoGroup</td>
<td>2013, 2018</td>
<td>TDOT, 11 TN MPOs</td>
</tr>
<tr>
<td>5</td>
<td>Transearch</td>
<td>2012, 2016 (waiting)</td>
<td>RPM, RSG, TDOT, 11 TN MPOs, Universities in TN for TDOT research</td>
</tr>
<tr>
<td>6</td>
<td>W&amp;P</td>
<td>2015, 2016, 2017</td>
<td>TDOT, 11 TN MPOs for TDOT model update</td>
</tr>
</tbody>
</table>
Proprietary Data – Conclusion

- Consult TDOT Forecasting Office about available data
- CANNOT guarantee, but TDOT LRP will try to keep same license agreement with the current for following datasets
  - W&P
  - InfoGroup
  - Transearch
- Travel Time Data
  - INRIX + AASHTO PFS Option B
  - Costs (9 MPOs agree to cost sharing)
  - Need to have further discussion
- Data Acquisition Plan
Training

- MPOs need more practical training

<table>
<thead>
<tr>
<th>Training Needed</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to Travel Demand Modeling</td>
<td>5</td>
</tr>
<tr>
<td>General TransCAD Training</td>
<td>5</td>
</tr>
<tr>
<td>Model Inputs Development Training</td>
<td>4</td>
</tr>
<tr>
<td>Model Application/Alternatives Analysis Training</td>
<td>4</td>
</tr>
<tr>
<td>Network Development Assistance</td>
<td>3</td>
</tr>
<tr>
<td>Demographics Development Assistance/Training</td>
<td>6</td>
</tr>
<tr>
<td>Incorporating web-based communication</td>
<td>2</td>
</tr>
</tbody>
</table>

- Focus more on Input & Output
Training

• TNMUG Training
  – General TransCAD Training
    • Focus on useful TransCAD functions
    • Focus on development scenarios
      – Adjust demographics using TransCAD
      – Adjust and create network scenario using TransCAD

• Additional Training (Part of TNMUG Training, Tentative)
  – Provide TDOT experience
  – Focus on network update & development network scenarios
  – Focus on output analysis
Policy

• Current TDOT Model Approval Policy
  – Well developed policy
  – But became obsolete
    • No MPO and consultant submitted all required information mentioned on the policy
    • NOT possible to proceed the model review according to this policy
    • NOT deal with Agent/Activity Based Model
  – Appropriate updates are needed
  – Need to get consensus about the updated policy among TDOT and MPOs

• Minimum Travel Demand Model Calibration and Validation Guidelines for State of Tennessee Updated 2016 (TN Guideline)
Policy

• New Updates of the TN Guideline
  – TNMUG staff members will revisit and update the guideline
  – TDOT LRP and MPO modeling staffs will be involved
  – Will be discussed and consented through TNMUG Round Table

• New Updates of the Review Policy
  – TDOT Forecasting Office is working on the update
  – Draft will be reviewed and discussed through TNMUG Round Table
Suggestions

• To hold TDOT-MPOs round-table on a regular basis at TNMUG meeting

• Invite Forecasting Office in your model development process
  – Easy to know what datasets TDOT can provide
  – Assist in preparing your RFP pertaining to model updates
  – Assist in reviewing model development proposals

• Feel free to contact Forecasting Office if you have any questions
Contact Information

David Lee, PhD  
Assistant Director  
Long Range Planning Division  
David.Lee@tn.gov  
Office: (615) 253-4519  
Cell: (615) 906-4555

Jaehoon Kim, PhD  
Forecasting Office Supervisor  
Long Range Planning Division  
Jaehoon.Kim@tn.gov  
Office: (615) 837-5464  
Cell: (615) 587-1866