



# MPO Model Development Survey

# 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

Used	Response
InfoGroup	8
Woods & Poole	9
Transearch	3
AirSage	1
ATRI	3
INRIX	1
HERE	1
TeleAtlas	1

# Proprietary Data

- Other data sets that MPOs are willing to purchase

Used	Response
InfoGroup	2
Woods & Poole	1
Transearch	1
AirSage	1
Big Data	1
INRIX or HERE (Travel Time)	2

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

# Proprietary Data

- Proprietary Datasets TDOT purchased

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

# 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**

Training Needed	Reponse
Introduction to Travel Demand Modeling	5
General TransCAD Training	5
Model Inputs Development Training	4
Model Application/Alternatives Analysis Training	4
Network Development Assistance	3
Demographics Development Assistance/Training	6
Incorporating web-based communication	2

- **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](mailto: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](mailto:Jaehoon.Kim@tn.gov)**

**Office: (615) 837-5464**

**Cell: (615) 587-1866**