TDOT Traffic Count Program Review

Preston Elliott, KCI & KB Aboagye, TDOT
Project Scope

- Review of Current Count Program
- Internal and External Outreach
- Review of Surrounding and Peer State Practices
- Needs and Recommendations
231 Total Respondents

- 145 - Municipal Government
- 14 - MPO/TPO Staff
- 6 - RPO/Development District
- 6 - Research Partners
- 40 - Private Consultants
- 20 - Other

Municipal Government 63%
Private Consultant 17%
University Research Partner 3%
RPO or Development District 3%
MPO/TPO 6%
Other 9%
Municipal Government

- 145 Participants
- 52% familiarity with data
- Most traffic data only collected on an as-needed basis
- Majority of entities collecting data are willing and happy to share data, but would likely look to TDOT to create some sort of statewide data clearinghouse
- Average 3.8-star rating for accessing data

### Types of Data Collected/Maintained

<table>
<thead>
<tr>
<th>Traffic Volumes</th>
<th>Traffic Speed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turning Movement Counts</td>
<td>Vehicle Classification</td>
</tr>
<tr>
<td>Other</td>
<td>Vehicle Occupancy</td>
</tr>
</tbody>
</table>

### Types of Technology Used

- Pneumatic Tubes
- Radar Counters
- Other
- Video Collection Units
- Handheld Manual Counters
- Embedded Loops
**Types of TDOT Data Used**

<table>
<thead>
<tr>
<th>Type</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traffic/AADT</td>
<td>11</td>
</tr>
<tr>
<td>Crash Data</td>
<td>7</td>
</tr>
<tr>
<td>Roadway Inventory</td>
<td>7</td>
</tr>
<tr>
<td>Vehicle Classification</td>
<td>6</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
</tr>
</tbody>
</table>

**Uses of TDOT Data**

- Travel Demand Model Development: 7
- Project Planning: 7
- Multimodal Planning Efforts: 6
- Development Requests: 7
- Other: 4

**MPO/TPO**

- 14 Participants
- 70% familiarity with data
- Average 4.1-star rating for accessing data
RPO

► 6 Participants
► 67% familiarity with data
► Requests for traffic data mainly for economic development purposes
► Not a lot of opportunity for sharing data

Participants Include:
► Rogersville/Hawkins County Chamber of Commerce
► Mid-Cumberland Human Resource Agency
► Upper Cumberland Development District
► Southeast TN Development District
► RPO member/ Hawkins Co Industrial Board
Research Partners

► 6 Participants
► 71% familiarity with data
► Want more counts on local roads
► Believe passive data collection could be useful

Types of TDOT Data Used

- Traffic/AADT: 4
- Crash Data: 1
- Roadway Inventory: 1
- Vehicle Classification: 1
40 Participants
76% familiarity with data
New technologies to explore – Bluetooth travel time, grid smart, intersection video detection for TMCs, radar for classification
15 municipalities that they know are collecting data
Average 4-star rating for accessing data
Other

- 20 Participants
- 53% familiarity with data
- Average 3.8-star rating for accessing data

### Types of TDOT Data Used

<table>
<thead>
<tr>
<th>Type</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traffic/AADT</td>
<td>15</td>
</tr>
<tr>
<td>Crash Data</td>
<td>7</td>
</tr>
<tr>
<td>Roadway Inventory</td>
<td>8</td>
</tr>
<tr>
<td>Vehicle Classification</td>
<td>3</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
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</tbody>
</table>

### Uses of TDOT Data

<table>
<thead>
<tr>
<th>Use</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Travel Demand Model Development</td>
<td>5</td>
</tr>
<tr>
<td>Project Planning</td>
<td>11</td>
</tr>
<tr>
<td>Multimodal Planning Efforts</td>
<td>8</td>
</tr>
<tr>
<td>Development Requests</td>
<td>7</td>
</tr>
<tr>
<td>Other</td>
<td>5</td>
</tr>
</tbody>
</table>
To date, 20 states have participated in an online survey meant to collect details on their traffic count programs.
Review of Surrounding and Peer State Practices

Questions asked:

- Number of continuous and coverage count stations by functional class
- Types of data collected at continuous and coverage count locations and which technology is used
- Frequency and duration of coverage counts
- How frequently count locations are evaluated
- Staffing levels associated with count programs
Review of Surrounding and Peer State Practices

Types of Traffic Data Collected

- Traffic Volumes/AADT: 100%
- Crash Data: 71%
- Roadway Inventory: 75%
- Vehicle Classification: 100%
- Travel Time: 47%
- Speed: 82%
- Turning Movement Counts: 77%
- Multimodal Data: 41%
- Vehicle Occupancy: 29%
- Vehicle Weight: 82%
- Other (please specify): 18%
Types of Data Made Publicly Available

Review of Surrounding and Peer State Practices

- Traffic Volumes: 100%
- Crash Data: 55%
- Road Invent.: 55%
- Vehicle Class: 64%
- Travel Time: 18%
- Speed: 55%
- TMCs: 18%
- Multimodal: 18%
- Vehicle Weight: 18%
### Count Station Statistics

<table>
<thead>
<tr>
<th>State</th>
<th>Interstates</th>
<th>Arterials</th>
<th>Collectors</th>
<th>Locals</th>
<th>Coverage Counts</th>
<th>Total Stations</th>
<th>Total FC Miles</th>
<th>Miles per Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>MS</td>
<td>36</td>
<td>50</td>
<td>19</td>
<td>0</td>
<td>14,875</td>
<td>14,980</td>
<td>24,271</td>
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<td>13</td>
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<td>3,035</td>
<td>3,165</td>
<td>5,934</td>
<td>1.9</td>
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<tr>
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<td>72</td>
<td>8</td>
<td>0</td>
<td>20,000</td>
<td>20,131</td>
<td>39,249</td>
<td>1.9</td>
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<td>33</td>
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<td>12,327</td>
<td>12,393</td>
<td>28,806</td>
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<tr>
<td>TX</td>
<td>140</td>
<td>254</td>
<td>47</td>
<td>4</td>
<td>43,500</td>
<td>43,945</td>
<td>104,850</td>
<td>2.4</td>
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<tr>
<td>MT</td>
<td>21</td>
<td>66</td>
<td>17</td>
<td>1</td>
<td>7,016</td>
<td>7,121</td>
<td>23,520</td>
<td>3.3</td>
</tr>
<tr>
<td>VT</td>
<td>19</td>
<td>46</td>
<td>15</td>
<td>0</td>
<td>795</td>
<td>875</td>
<td>4,754</td>
<td>5.4</td>
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<tr>
<td>UT</td>
<td>36</td>
<td>71</td>
<td>6</td>
<td>0</td>
<td>2,000</td>
<td>2,113</td>
<td>13,121</td>
<td>6.2</td>
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<td>58</td>
<td>9</td>
<td>0</td>
<td>5,403</td>
<td>5,496</td>
<td>35,261</td>
<td>6.4</td>
</tr>
</tbody>
</table>
Review of Surrounding and Peer State Practices

Other Findings

- Pooled Research underway on use of passive data to obtain volume and classification data
- One State is partnering with a MPO to fund and install 25 Continuous Count Stations