SFTA Origin-Destination Freight Data
Preliminary Comparisons:

Presentation to
SFTA Advisory Committee Meeting
Walla Walla, Washington

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O-D Survey Sites
Daily Truck Trips, I-5

Daily Truck Trips on I-5 by Direction, Empty/Loaded Status and Year

<table>
<thead>
<tr>
<th>Year</th>
<th>Loaded Northbound</th>
<th>Empty Northbound</th>
<th>Total Northbound</th>
<th>Loaded Southbound</th>
<th>Empty Southbound</th>
<th>Total Southbound</th>
<th>Total Both Directions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1993/1994</td>
<td>2,676</td>
<td>1,375</td>
<td>4,051</td>
<td>2,546</td>
<td>1,312</td>
<td>3,858</td>
<td>15,314</td>
</tr>
<tr>
<td>2002</td>
<td>2,868</td>
<td>7,605</td>
<td>10,453</td>
<td>2,757</td>
<td>7,909</td>
<td>10,666</td>
<td>15,314</td>
</tr>
</tbody>
</table>

Loaded/Empty Trucks, I-5

Percentage of Empty/Loaded Trucks on I-5 by Direction and Year

<table>
<thead>
<tr>
<th>Year</th>
<th>Loaded Northbound</th>
<th>Empty Northbound</th>
<th>Loaded Southbound</th>
<th>Empty Southbound</th>
<th>Loaded Both Directions</th>
<th>Empty Both Directions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1993/1994</td>
<td>34%</td>
<td>66%</td>
<td>34%</td>
<td>66%</td>
<td>34%</td>
<td>66%</td>
</tr>
<tr>
<td>2002</td>
<td>20%</td>
<td>80%</td>
<td>20%</td>
<td>80%</td>
<td>20%</td>
<td>80%</td>
</tr>
</tbody>
</table>
Truck Configuration (#), I-5

Truck Configuration Profiles on I-5 by Year

Truck Configuration (%), I-5

Truck Configuration Profile for I-5 in Percentages by Season
Origin/Destination (%), I-5

Percentage of Truck Trips by Origin/Destination on I-5 by Year

Daily Truck Trips, I-90

Daily Truck Trips on I-90 by Direction, Empty/Loaded Status and Year
**Loaded/Empty Trucks, I-90**

Percentage of Empty/Loaded Trucks on I-90 by Direction and Year

- **1993/1994**
  - Loaded: 67% (Eastbound), 75% (Westbound), 71% (Both Directions)
  - Empty: 33% (Eastbound), 25% (Westbound), 29% (Both Directions)

- **2002**
  - Loaded: 41% (Eastbound), 22% (Westbound), 23% (Both Directions)
  - Empty: 59% (Eastbound), 78% (Westbound), 77% (Both Directions)

**Truck Configuration (#), I-90**

Truck Configuration Profiles on I-90 by Year

- **1993/1994**
  - Unknown: 32, Straight Truck: 224, Straight Truck with Trailer: 578, Tractor Only: 38, Tractor and Trailer: 1,208, Tractor with Two Trailers: 711, Other: 330

- **2002**
  - Unknown: 7, Straight Truck: 568, Straight Truck with Trailer: 535, Tractor Only: 61, Tractor and Trailer: 1,713, Tractor with Two Trailers: 5, Other: 5
### Truck Configuration (%), I-90

**Truck Configuration Profile for I-90 in Percentages by Season**

- **Unknown:** 1.0%
- **Straight Truck:** 7.4%
- **Straight Truck with Trailer:** 18.2%
- **Tractor Only:** 1.2%
- **Tractor and Trailer:** 54.5%
- **Tractor with Two Trailers:** 17.1%
- **Other:** 0.2%

### Origin/Destination (%), I-90

**Percentage of Truck Trips on I-90 by Origin/Destination and Year**

- **In-State/In-State:** 31% (1993/1994), 30% (2002)
- **In-State/Out-of-State:** 30% (1993/1994), 29% (2002)
Daily Truck Trips, Hwy-395

Daily Truck Trips on Southbound US-395, by Empty/Loaded Status and Year

<table>
<thead>
<tr>
<th>Year</th>
<th>Loaded</th>
<th>Empty</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1993/94</td>
<td>536</td>
<td>271</td>
<td>807</td>
</tr>
<tr>
<td>2002</td>
<td>2,383</td>
<td>3,283</td>
<td>5,666</td>
</tr>
</tbody>
</table>

Loaded Empty Trucks, Hwy-395

Percentage of Empty/Loaded Trucks on Southbound US-395 by Year

<table>
<thead>
<tr>
<th>Year</th>
<th>Loaded</th>
<th>Empty</th>
</tr>
</thead>
<tbody>
<tr>
<td>1993/94</td>
<td>78%</td>
<td>22%</td>
</tr>
<tr>
<td>2002</td>
<td>73%</td>
<td>27%</td>
</tr>
</tbody>
</table>
I-5 Summary Findings

- Freight truck traffic increased 94% between 1994 - 2002.
- Northbound traffic slightly heavier.
- Proportion of loaded trucks roughly the same, slightly less.
- Tractor and trailer configuration represents the largest truck type, and the configuration with the largest increase, followed by truck and trailer.
- Out-of-State to In-State shipments represented the largest % in 1994, In-State to In-State shipments have the largest share in 2002.
I-90 Summary Findings

- Freight truck traffic increased 72% between 1994 - 2002.
- Eastbound traffic slightly heavier than westbound.
- Proportion of loaded trucks greater for westbound traffic.
- Tractor and trailer configuration represents the largest truck type, and the configuration with the largest increase, followed by truck and trailer.
- Big increase in In-State to In-State, and Out-of-State to In-State shipments; decrease in In-State to Out-of-State and Out-of-State to Out-of-State shipments.

US 395 Summary Findings

- Freight truck traffic increased 172% between 1994 - 2002.
- Proportion of loaded trucks roughly the same, slightly less.
- Tractor and trailer configuration represents the largest truck type, and the configuration with the largest increase, followed by truck and trailer.
- In-State to In-State shipments represent the largest relative increase, but In-State to Out-of-State shipments still represents the largest share.
Questions?

Geo-Coding O-D Surveys

• What does it mean?

• Assigning a collection of road and highway segments to each individual truck shipment (survey). Every survey record will be linked to the collection of arcs that comprise that unique route.
Geo-Coded Routes

• What analytical capabilities does it bring?
  • Associates all information captured from survey with specific geographical attributes (roads and highways).
    • Commodity (Industry)
    • Truck Configuration
    • Weight
    • Origin/Destination
    • Time of Day
    • Facility Type