Visualization of Freight Data (vFreight©): An Applied Approach to Disaggregation and Dynamic Display of Commodity Flow Based On County-to-County Trade Data and National Level Freight Data

Rich county to county/country freight data provides a picture of economic activity not seen before. Visualization can be achieved to easily communicate trends based on specific partners, commodities, and modes of transportation to get the insight you are looking for.

Available Commodity Detail |
<table>
<thead>
<tr>
<th>Domestic</th>
<th>NAFTA</th>
<th>Foreign</th>
</tr>
</thead>
<tbody>
<tr>
<td>Truck</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Rail</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Air</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Water</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>MM &amp; M</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Pipeline</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Other</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

Properties of vFreight©:
- Consistent with the US Department of Transportation’s Freight Analysis Framework (FAF3)
- Provides county-level detail not available in FAF3
- Identifies trade between US Counties, 18 countries and 22 country groups, including port of entry/exit
- NAFTA database includes detailed information about commodity flow by domestic mode between US counties and 76 Mexican cities plus 29 “Rest of State” zones, and 33 Canadian cities plus 13 “Rest of Province” zones
- Fully integrates with TREDIS® Freight analysis system
- Interactive visualization tools generate maps, tables and spreadsheets for reports and presentations through vFreight© Visualization and Information Generator

Applications for vFreight©:
- Demonstrate national and international linkages for domestic freight movements
- Identify key ports of entry/exit for traded commodities
- Support MAF-21 analysis at levels of geographic detail consistent with statewide and regional planning
- Provide effective ways of graphically sharing complex trade and commodity flow data with policymakers and the public

Data Availability & Comparison

Comparing commodity movement by mode:
- Assess major market locations for each of 43 commodity types;
- Track volume (tons) and value (US 2010$);
- Visualize diversion potential

Graphs by Derek Cutler using vFreight© proprietary data in development by Economic Development Research Group, Inc. and Adaptive Economics, Inc.