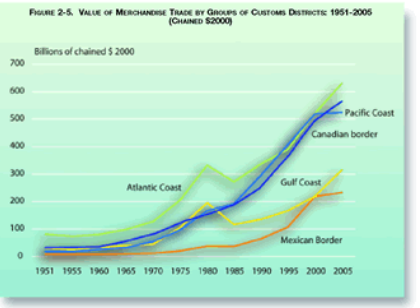
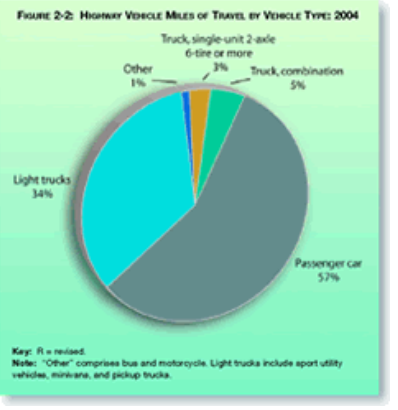
Measurement of All Freight Movement in the United States

Rolf R. Schmitt





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December 16, 2015

The Challenge

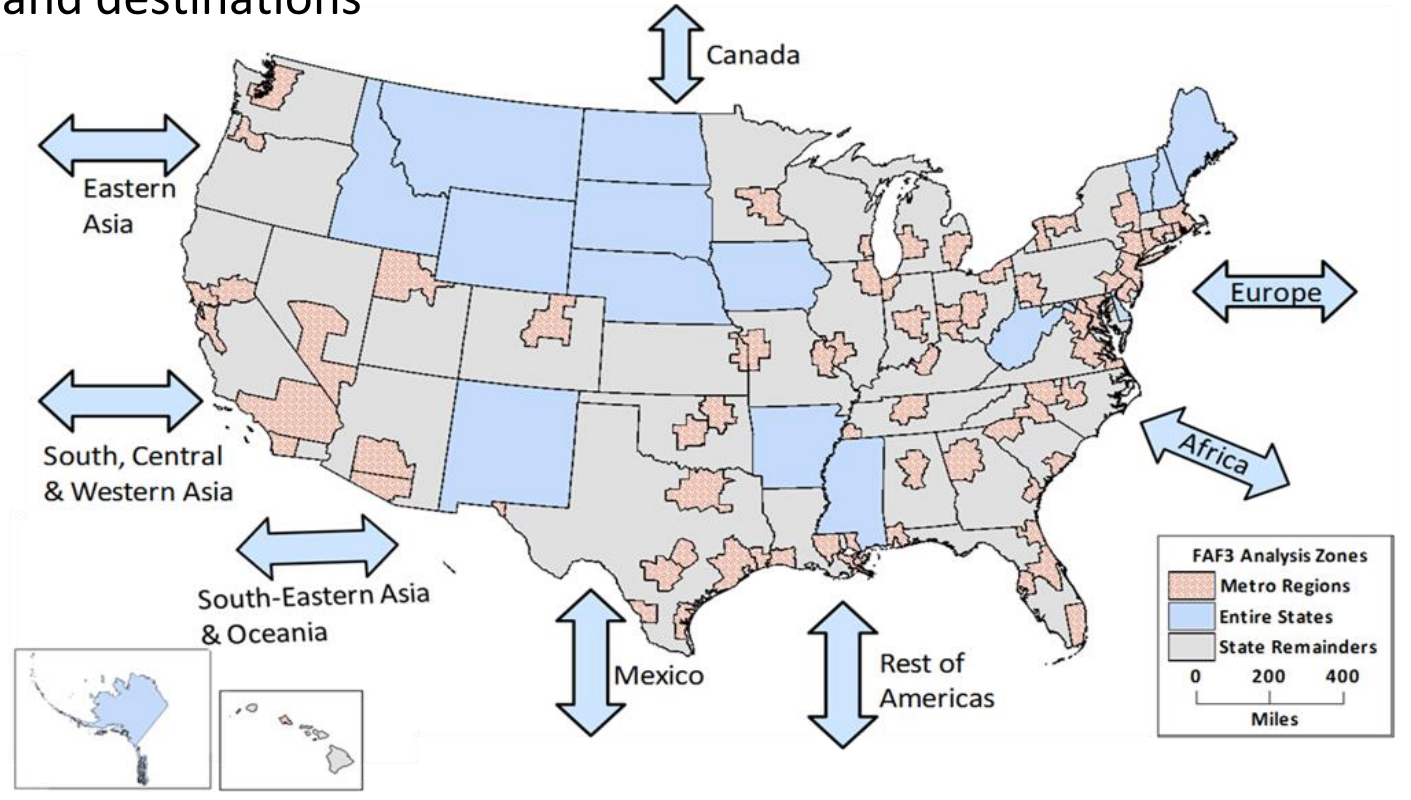
- **Intermodal Transportation Database (49 USC 6303)**
  - BTS is required to provide "information on the volumes and patterns of movement of goods, including local, interregional, and international movement, by all modes of transportation, intermodal combinations, and relevant classification"
- **BTS and Census survey 100,000 shippers every 5 years**
  - Commodity Flow Survey covers 2/3rds of the tonnage
  - How to estimate the missing pieces and provide more timely results?

Freight Analysis Framework (FAF)

- A benchmark database of freight tons and value by 8 modes of transportation by over 40 classes of commodities by 130 origins by 130 destinations for each Economic Census year starting in 1997
- Annual provisional updates of the database
- 30-year forecasts of the database
- Assignment of tonnage moved by truck to individual highway routes

Regions

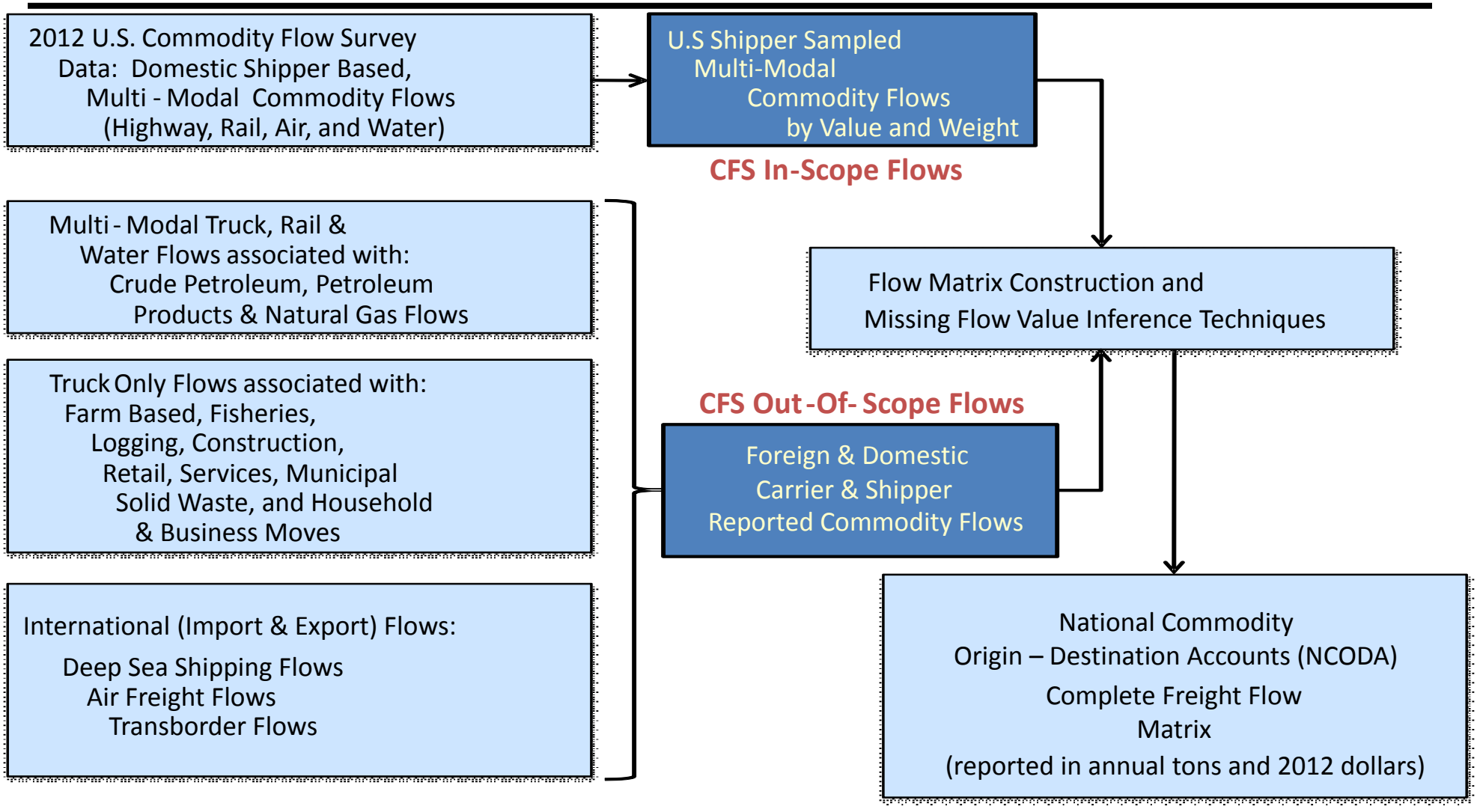
- **Domestic regions are from the Commodity Flow Survey**
  - State portions of major metropolitan areas as an origin, destination, or gateway
  - Balance of state as an origin, destination, or gateway
  - International origins and destinations



Major Data Sources

- Commodity Flow Survey (CFS)
- Transborder Freight Data
- U.S. Merchandise Trade Statistics
- T-100 air traffic data
- Waterborne Commerce Statistics
- Census of Agriculture
- Energy Information Administration
- National Transportation Atlas Database

Creating the Benchmark



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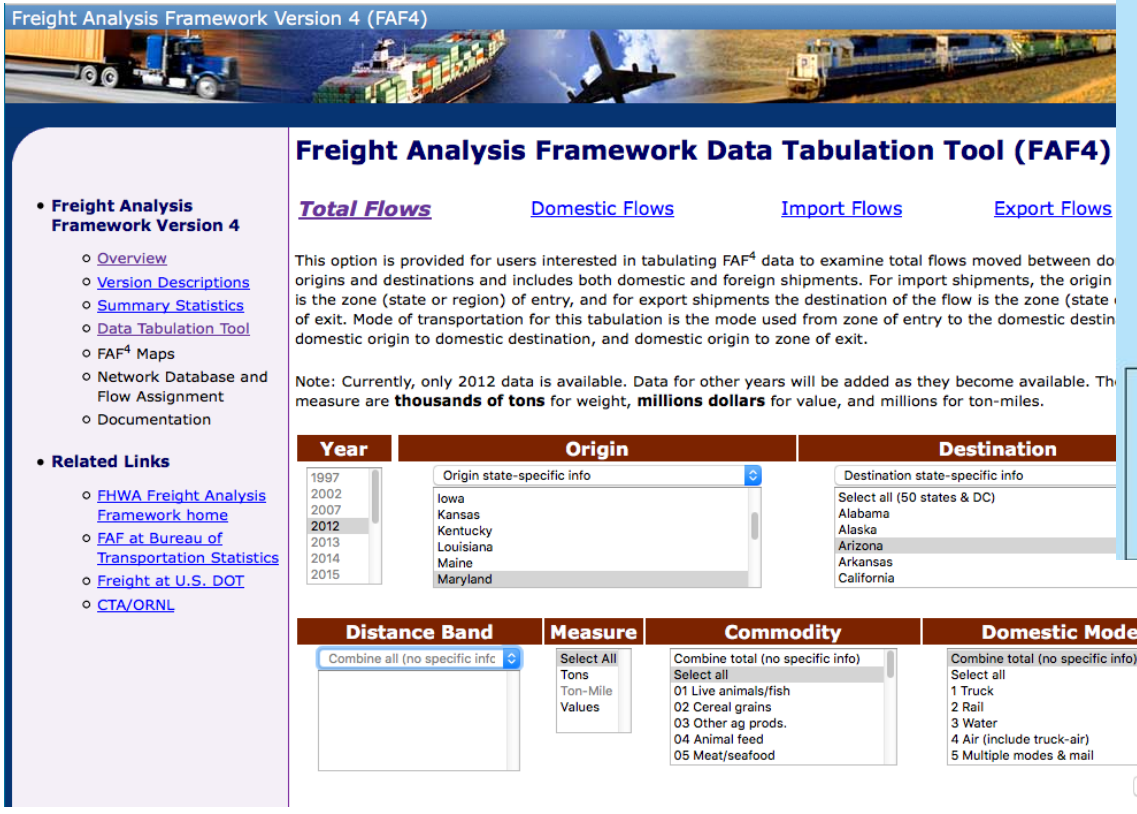
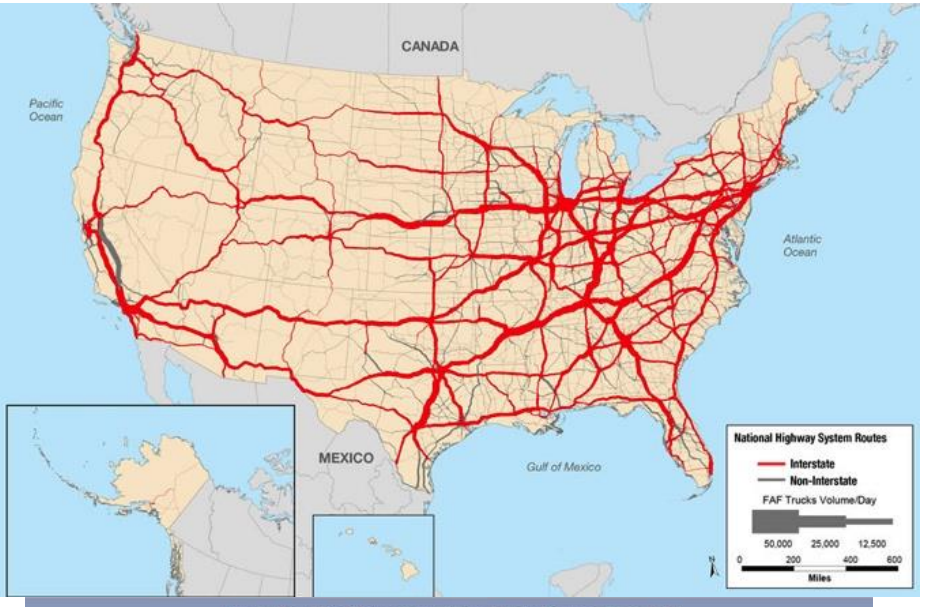
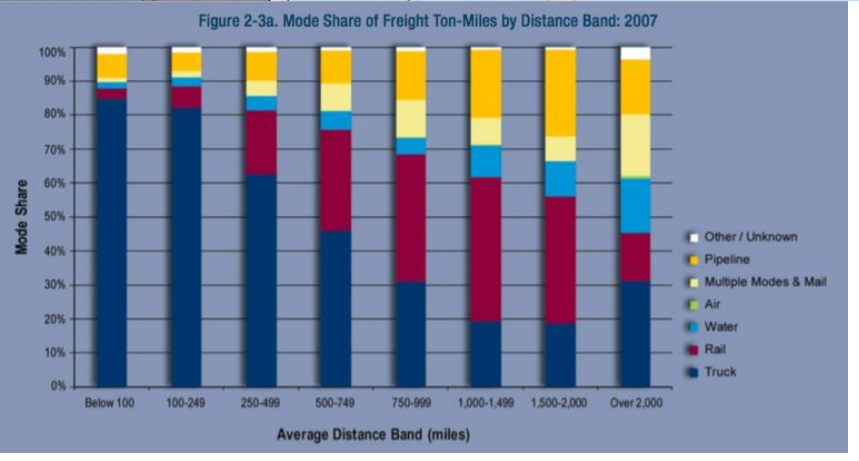
Products







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Issues

- Demand for greater geographic detail
- How to determine quality
- Commodity classification versus product classification
- Administrative records and other alternative data for improved quality, especially for annual updates
- Alternative strategies for improved timeliness
  - Benchmark with expanded updates
  - Continuous measurement
  - Other?

Thank You

For additional information on BTS programs and products visit:
www.bts.gov

For additional information on USDOT freight data programs and products visit: **freight.dot.gov**

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