Following in Lee Schipper's Footsteps in Pursuit of Good Travel and Fuel Economy Data

Comments by
Rolf R. Schmitt

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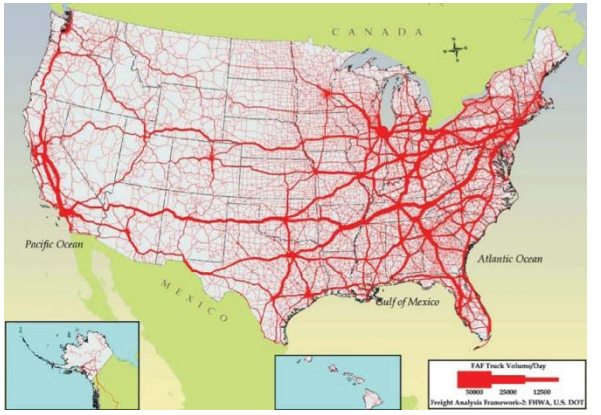

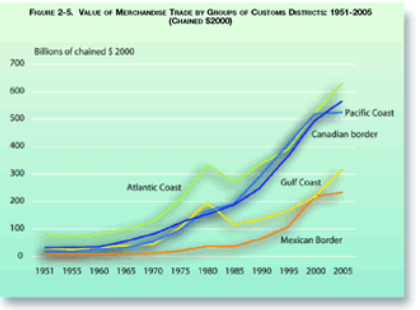

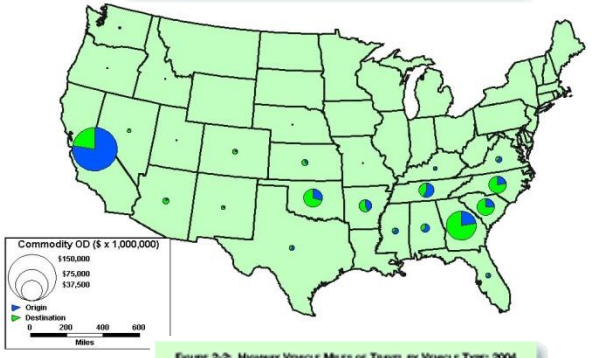

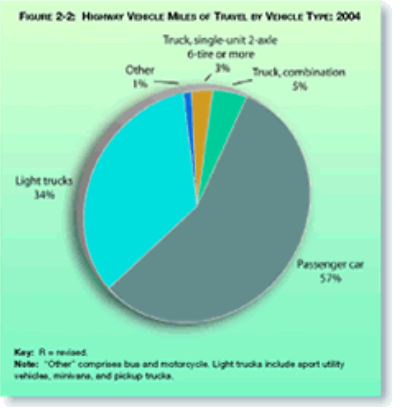

Good analysts always answer questions from decision makers, but often with old or very sparse data.

Rolf R. Schmitt. Member Emeritus
Committee on Freight Transportatiom Data

Vehicle Inventory and Use Survey (VIUS)

- The VIUS was our workhorse for understanding passenger and freight vehicle use, but was discontinued in 2002 after 4-decade run.
  - Efforts to synthesize the VIUS in 2007 through time series and correlation to current variables were disappointing.
  - Can the VIUS rise again? One version of budget shows promise, another dismisses hope, and Congressional action is anyone's guess in these resource-constrained times.
  - Even if we bring back the VIUS, it is subject to respondent error (especially rounding) and needs to be supplemented by other sources: other surveys, technology-based data, administrative records, and models.

Technology-based data

- On-board sensors and other technology-based data are important, but are not a panacea:
  - Subject to error (such as high fuel economy reported for heavy vehicles operating at high speeds on flat ground-which turned out to be coasting at the bottom of hills).
  - Provides excellent spotlights when floodlights are needed.
  - Places premium on data integration to combine the spotlights and illuminate the subject we want to see.

Data integration

- Experience with the Freight Analysis Framework shows that integration is about models and attention to content rather than simple mining. Mining is useful, but only if you know what the ore looks like.
- To make integration work, we need to face the grunt work of data dictionaries and the challenge of quality:
  - How good is good enough and are we there?
  - Can we come up with the range of error from non-survey data to know if what we measure is real and accurate enough to avoid misguiding decision-makers?

Lee Schipper pushed us to understand how our numbers are produced and used.

We don't know all the answers to Lee's questions, but we can improve both the data and the decisions informed by data through persistent experimentation: try, learn, and try again.

Rolf R. Schmitt. Member Emeritus
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