

Recommended Approach to Improve Data and Modeling for Freight Project Decision Making

Developing tools for more informed freight planning

Efficient freight and commercial truck travel is essential to national, state, and local transportation infrastructure planning and our economic well-being. Incorporating freight movement considerations in the transportation planning process, however, may be difficult.

Current freight planning and forecasting tools, data, and techniques have limitations. For example, current tools and data are not precise enough to reflect the nature of supply chains or the increasingly complex logistics practices of the industry. Basic data on freight movements, particularly granular data at local or regional levels, may be difficult to determine. Adequate freight planning is further complicated because there is not a single clearing house for freight information. The freight data sets that are available are produced by different agencies, each with a unique format and update cycle. Moreover, much of the most important data are generated by private sources and are not readily available in the public domain.

Although government and industry officials agree that freight planning is important and that freight projects can create many benefits, new tools are needed to advance the state of the industry.

Freight Demand Modeling and Data Improvement Strategic Plan

The Solution

A new document developed through the second Strategic Highway Research Program (SHRP2) offers a road map that will lead to **improved freight data sets and freight modeling practices**. The *Freight Demand Modeling and Data Improvement Strategic Plan* outlines an organizational approach that will help identify freight modeling and data priority needs, spur innovative ideas, and result in breakthrough solutions for wide application. The Global Freight Research Consortium would be created as an ongoing international forum of key stakeholders to expand the dialogue on freight analysis and data innovation. The plan also includes recommendations to improve the knowledge base for planners, refine national freight-modeling practices, develop sound freight data sets and subsets, and create visualization tools for improved decision making.

A strategic road map for making better freight investments

FOCUS AREA: Capacity (C20)

Strategic plan with specific recommendations to expand and improve freight modeling practices, tools, and data.

Save Lives

- Improved decision making on project investments can hasten the development of freight projects, including safety projects.

Save Money

- Targeting limited investments to catalytic freight projects can increase a region's economic vitality and stretch limited resources.

Save Time

- Improved freight data sets and models can expedite decision making.

The Benefits

Freight planners and decision makers will benefit from having the tools and data available to consistently evaluate transportation projects that affect freight movement. Creating better data and models will allow state, regional, and local planners to better predict freight movement trends and make more informed project investment decisions.

The Next Steps

The *Freight Demand Modeling and Data Improvement Strategic Plan* has been completed and follow-up work has prioritized initial data collection needs. The major follow-up steps are:

- Develop a multi-agency group to spearhead implementation of the strategic plan;
- Explore how supply chain behavior can be incorporated into freight demand models at the national, regional, state, metropolitan, and local levels; and
- Explore how private sector supply chain data can be aggregated and used for public sector freight transportation planning purposes.

How can you learn more?

The strategic plan is online at www.trb.org/Main/Blurbs/167629.aspx and the research report, *Freight Demand Modeling and Data Improvement*, is available at www.trb.org/Main/Blurbs/167628.aspx. For more information, contact Ed Strocko at FHWA, Ed.Strocko@dot.gov; Matt Hardy at AASHTO, mhardy@aaashto.org; or Steve Andrie at TRB, Sandrie@nas.edu.



About SHRP2 Implementation

The second Strategic Highway Research Program is a national partnership of key transportation organizations: the Federal Highway Administration, the American Association of State Highway and Transportation Officials, and the Transportation Research Board. Together, these partners conduct research and deploy products that will help the transportation community enhance the productivity, boost the efficiency, increase the safety, and improve the reliability of the Nation's highway system.

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