The Ohio Department of Transportation
Office of Research & Development
Executive Summary Report

Upper Midwest Freight Corridor Study

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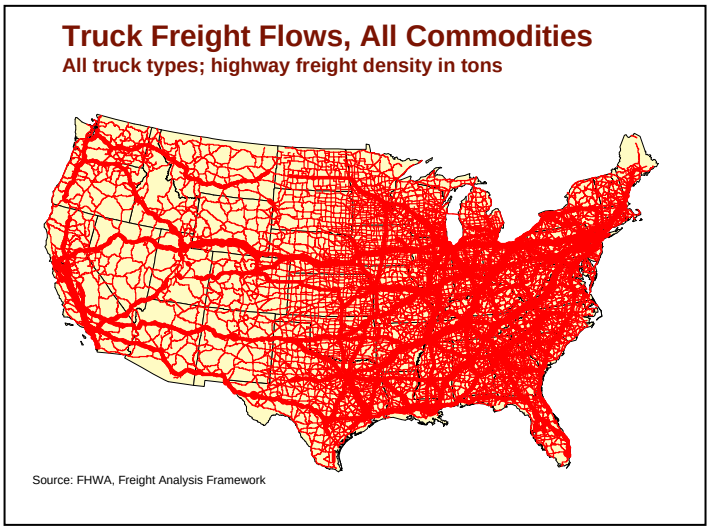
Problem

Freight movements showed tremendous growth over the past decade, and a steady growth is expected into the future. The seven state region that borders the western Great Lakes (MN, IA, WI, IL, IN, OH, MI) is a critical corridor, generating 30% of the nation's freight movements. Just as important as a high-value shipment going overseas is the movement of materials to a neighboring state. These intra-regional movements of freight are vital for economic development, job growth, and quality of life in the nation, the region, as well as within individual states.



How the public sector addresses the growing amount of freight shipments, now and in the future, will affect many areas of importance to this region: economic competitiveness, jobs, cost of goods, and

transportation system congestion and safety. While both the private and the public sectors agree that this important issue must be addressed quickly, neither sector is totally prepared to deal with the anticipated impacts of this projected increase. Current practices will no longer be sufficient to meet the increased demands on the infrastructure and/or increased costs associated with freight transport.

Without proper collaboration and communication between the two sectors, and between the states and planning agencies of the region, the impacts of projected freight growth could be unacceptable to the people of the Upper Midwest.

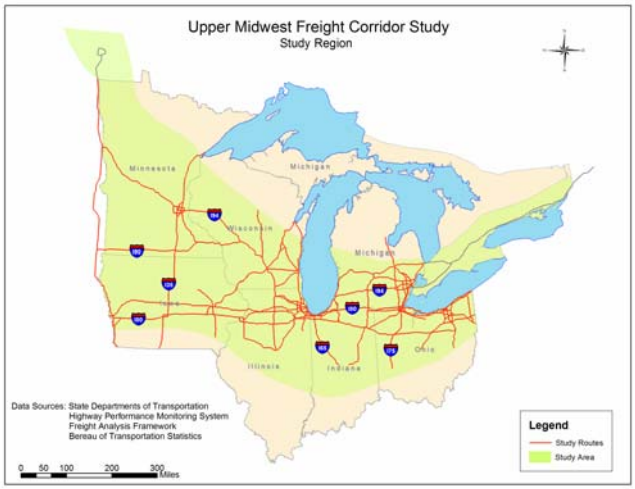
Objectives

The purpose of this corridor study is to establish a multi-jurisdictional committee to study freight transportation in the Upper Midwest. Specific objectives of this phase include:

- Compile and synthesize existing plans and efforts
- Create a setting for coalition building through regular communications and data sharing
- Identify and document the conditions and needs across all modes of freight transportation for the identified corridors in the region
- Analyze administrative processes for the motor carrier industry in the region.

Description

The I-80/90/94 corridor and those major routes that influence the travel on it defined the study boundaries.



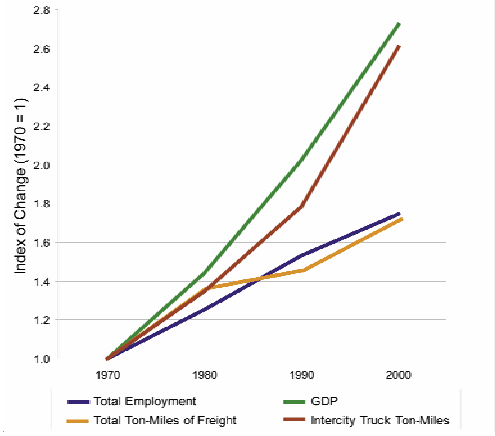
The study focused on inventorying and characterizing existing freight transportation in the Upper Midwest region including performance metrics, capacity, administrative issues and usage. The research was conducted through a series of workshops, interactions with the participants, interviews and surveys of freight stakeholders, a review and synthesis of the literature and available data, and data analysis and interpretation. The study also developed infrastructure in the form of websites, an information clearinghouse, data catalogues, databases, and mapping and data manipulation tools to support the research.
The study participants include researchers and representatives of the public and private sectors.

Conclusions & Recommendations

Freight volumes correlate very closely with other measures of economic activity. Because it tracks so closely with broader economic indicators, the

capacity to move freight efficiently is an important ingredient in economic health.

U.S. freight activity and economic indicators



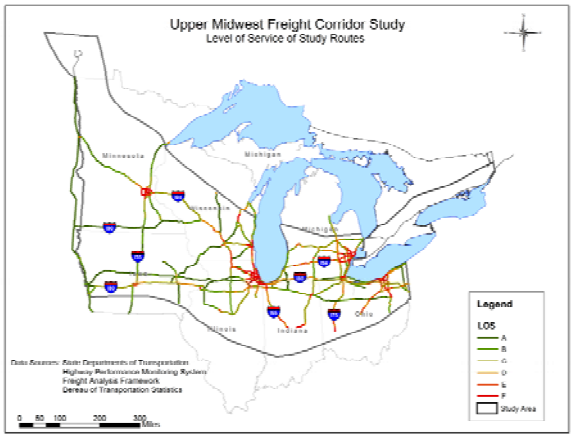
Based on more recent projections of these and other economic measures, it seems reasonable to modify the year 2000 to 2020 projections of freight growth to about 50%. This simply reflects the economic downturn of earlier in this decade. However, even this modest growth will provide a major challenge to public and private infrastructures.

Trade within the seven states and two provinces of the region is significant and the ability of the region to prosper depends upon the ability of the regional transportation system to accommodate the movement of goods.

The experience of other regions supports the fact that regional activity and cooperation is important in influencing federal policy and in securing federal funding.

While both freight and personal travel are projected to grow significantly in the near future, some of the region's critical freight transportation links are currently being used at levels that exceed their designed capacity.

Existing Highway Conditions



As in the graphic above, where orange and red indicates segments of highway at or near capacity, our freight rail network contains many links, both rural and urban, where track utilization is at capacity. Traffic on our waterways experiences delays of many hours at the antiquated system locks. Overall, air capacity remains available, but the focus of the air network on key hubs, like Chicago O'Hare, threaten even that vital carrier of high-value/low-weight cargo.

The market for each mode and for intermodal service tends to be well defined by economic and service factors. Low value/low service goods move by water or rail, while high value/high service goods tend to move by truck or air. Intermodal tends to serve a niche market defined by auto-related products and destinations in the West and Southwest. Intermodal (truck-rail) is a growing, but still minor part of the overall freight picture in the

region. Under current public and private policies and practices, it will likely not become a major component of regional freight movements.

Size and weight regulation of trucks moving through the region tends not to be a major issue. U.S. federal rules provide uniformity on designated federal routes and provincial rules are more lenient than any US rules. For those truckers making pick-ups or deliveries in some states of the region, lower state size and weight rules may penalize efficiency.

Inconsistent or differential speed limits in the region may also provide some cause for concern regarding efficiency and safety.

The application of intelligent transportation system (ITS) applications related to commercial vehicle operations holds the promise of greater efficiency for truckers in the region, but current implementation efforts may not be well coordinated and may yield a sub-optimal result.

Information on the operations of the transportation system relative to freight is lacking. Existing public data collection efforts tend to focus on the movement of vehicles, rather than on the contents or origin and destination of those vehicles. Obvious measures of system performance, such as reliability, travel time, safety or environmental impact, are currently very difficult to calculate. Moreover, agreement does not exist among the stakeholders of the freight community on which measures are valid or how they should be used.

This study is a first effort in regional cooperation in freight for the Upper Midwest. It follows the experience of many other regions in the country. Those other regional efforts have demonstrated the benefit of regionalism. Those benefits tend to be in the area of influencing federal policy, as discussed previously, and in developing a more systematic view of a transportation network as an integrated set of parts. Those previous efforts also reinforce the value experienced by this study of communication between public agencies and between the public and private sectors. A unique aspect of learning in this study dealt with the contribution of the academic sector. Participants felt strongly that academic researchers brought a valuable independence to the effort that may not have been provided by consultants, who have done most earlier freight work.

Implementation Potential

Continuing in a regional effort will bring benefits to the Upper Midwest. All of the participants, public and private agreed with this perspective. Specific areas of immediate benefit include:

- Developing a regional agenda for freight to best influence federal policy to reflect the unique needs of the Upper Midwest.
- Developing informational materials to help explain the story of freight for policy makers and the general public.
- Facilitating regional communication and cooperation on the planning and implementation of freight-related ITS systems.
- Continuing to refine, improve and expand the freight information systems that have been developed over the last two years.