Rural Freight Rail and Multimodal Transportation Improvements- The Upper Peninsula of Michigan

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Affordable freight transportation is a requirement for survival for many rural industries, and in many cases challenging to accomplish without the presence of freight rail systems. This study investigated the transportation system in the Upper Peninsula of Michigan (UP), concentrating on identifying challenges faced by rural freight rail service providers and shippers along light-density lines and on developing tools and methods that facilitate the current and future rail and multimodal transportation alternatives in the study area. Some of the key outcomes of the study included development of interactive rail map for the area, analysis of commodity movements and information on shipper preferences and challenges when it comes to rail. The study also provided highlights on core shipping industries in the region and on the potential to establish a joint transload facility.

Introduction

At the time of globalization, urbanization, congestion and fluctuating fuel prices, the growing importance of both freight and passenger transportation has been widely acknowledged. However, the importance of competitive transportation for rural America has received less attention. Rail is a key component of affordable freight transportation , but may rural industries are located along light-density rail lines where loss of a single shipper may negate the economic profitability of the line and lead to threat of abandonment. Without rail services, many industries would be required to consider moving their facilities to a location with better transportation alternatives.

With its 673 miles of active track, the Upper Peninsula of Michigan (UP) accounts for almost 20 percent of total track mileage in the State of Michigan. The UP is served by one Class 1 Railroad (CN) and three short-line railroads: Escanaba and Lake Superior Railroad(E&LS); Lake Superior and Ishpeming Railroad (LS&I) and Mineral Range Railroad. There is one international border connection to Canada at Sault Ste. Marie and it connects with the rail network in the State of Wisconsin, but there is no rail connection to the Lower Peninsula of Michigan

Study Tasks and Outcomes

The study consisted of six separate, but interrelated tasks. The first task consisted of the development of a proof-of-concept interactive map for the UP rail lines and facilities (Figure 1).

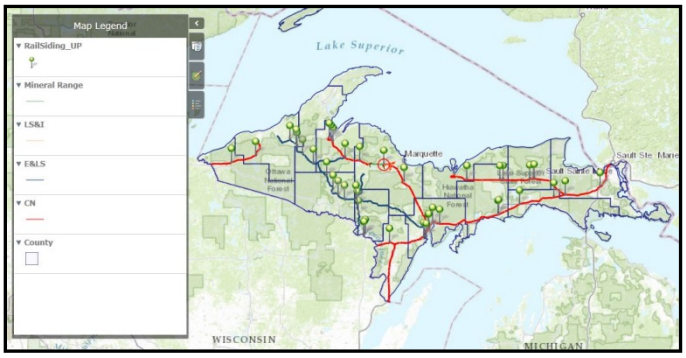

Figure 1. Upper Peninsula Freight Rail Interactive Map

The next task concentrated on analyzing the data on commodity movements in the UP. While the UP accounts for only 3-5% of the Michigan total truck tonnage, it is responsible for 20% of outbound rail tonnage, 4% of inbound rail tonnage and 94% of the intrastate rail tonnage. According to TRANSEARCH data, the annual tonnage (inbound, outbound and internal) moved by rail in the UP in 2009 exceeded the truck tonnage, 13.25 million versus 10.16 million tons,

respectively. In addition to volumes, transportation distance was also analyzed, especially for truck movements. Almost 1,000,000 tons were trucked for over 500 miles and close to 2,000,000 million tons for over 300 miles. These movements are the likely candidates for potential modal shifts.

The third task interviewed all four railroads operating in the study area, CN, E&LS, LS&I, and Mineral Range. The forecast for future traffic by railroads was generally positive, but there are significant challenges in justifying needed maintenance expenditures on certain light-density branch lines. Railroads also advised on several service and operations related improvements they are planning to implement in the UP.

Task four developed a survey instrument to obtain input from rail and non-rail shippers. Of 127 surveys, the largest representation came from the manufacturing industry, followed by logging and service sectors. 63% of survey respondents used only truck for their freight transportation while 28% businesses use both truck and rail. The overall outlook on rail volumes was positive, as a great majority of companies reported either steady or increasing rail usage over past three years and for the next three years. The greatest challenges for increased rail shipments were related to issues with rail service or access. Majority of shippers made their shipping decisions internally, but they also recognized possessing a limited understanding of the rail transportation (Figure 2.)

The fifth task concentrated on analyzing the concerns that railroads and shippers voiced over each other's performance. After reviewing the data, the research team noticed that most of the concerns by shippers and railroads alike circulated around same topics, but approached them from a slightly different angle. The topics were divided to nine categories;

- Equipment,
- Operations, loading/unloading,
- Infrastructure/utilization,
- Rates & quantities,
- Intermodal/trans-loads,
- Information and customer service/communication.

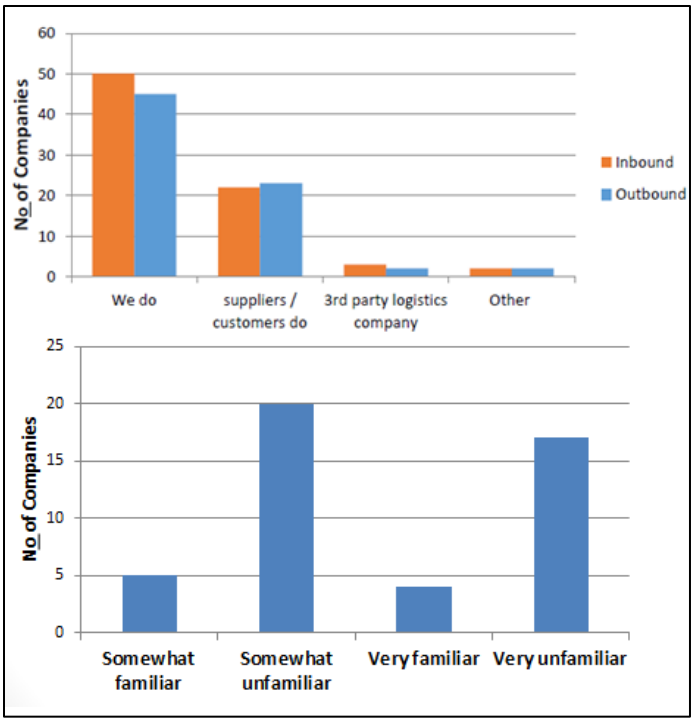

Figure 2. Shipping Decision Makers (top) and Familiarity with Rail (bottom)

The research team highlighted current activities and strategies that may improve the situation and are working with shippers and railroads to gain a deeper understanding on specific issues.

The final task concentrated on two types of case studies; current and developing businesses with potential for increased rail shipments, and potential future business areas/ventures for rail shipping. In addition, a separate study was completed to perform a three-way comparison for locating a potential transload facility. The studies revealed that mining offers highest potential for new large-scale demand. In addition, it seems plausible that sufficient volumes for a joined transload facility could be generated in the Central part of UP and even movements to adjoining states might receive cost benefits from multimodal transportation.

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