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Sponsor

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Project Title

Evaluating Export Container
Pooling Options in Minnesota,
Wisconsin and Michigan's
Upper Peninsula

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Project Summary

Technology Transfer Outreach Publication

Evaluating Export Container Pooling Options in Minnesota, Wisconsin and Michigan's Upper Peninsula

Exporting is good for American business, good for workers and good for jobs. In 2008, U.S. exports represented record levels of GDP and the greatest share of employment on record. However, western Class I railroads have a business model that places intermodal terminals as far apart as possible to maximize rail line hauls and serve major metropolitan regions. This practice forces less developed regions to re-route containers to their facilities at increased cost or sell into less lucrative markets. Operating a rail/highway intermodal system for export requires that suitable ISO containers be available for exporters to load cargo. Without export containers, the cargo must be trucked to a container freight station where the truck will be unloaded and the cargo will be transferred into an export container. This cargo will incur the expense of double handling and possible damage. The additional costs create an economic disadvantage in marketing exports from rural regions.

Research

This research effort will identify the barriers for communication and collaboration which preclude ISO containers from markets where export shippers need them to participate in the new economy. The proposed research will focus on issues that limit export container availability in northern Minnesota and northern Wisconsin by conducting literature reviews and cataloging existing best practices in comparable regions. Additionally, the potential adoption and corresponding gain to exporters in the Twin Cities, Fox River Valley, Warsaw metropolitan area and the Twin ports will be assessed. Case studies of efficient equipment assignment and pooling strategies, as well as mathematical calculations of trip fuel and mileage optimization scenarios may be used to reduce competitive disadvantage of areas unable to obtain containers at a reasonable cost for their export.



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Methodology

This project is divided into four tasks:

- **Task I**— Research best practices, such as container pooling and load matching systems in other regions and catalog the successful systems for applicability to the study region
- **Task II**— Interview shippers, intermediaries and carriers in the study region about the issues in export container availability, estimate demand.
- **Task III**— Will develop recommendations for adopting best practices to increase the availability of export containers in the study region.
- **Task IV**— Schedule outreach events to promote industry dialogue. The study results (both positive and negative) will be presented to the Intermodal Association of North America, Intermodal Association of Chicago, the Twin Cities Transportation Club, TRB and other industry association meetings, and other interested industry gatherings.

Anticipated Research Findings

- Case studies of efficient equipment assignment and pooling strategies
- Mathematical calculations of trip fuel and mileage savings based on various optimization scenarios
- Maps to illustrate the potential optimization approaches
- Summary of preferred trade corridors and user barriers to export opportunities
- Identification of carrier operations and equipment allocation procedures
- Survey summary of potential export volumes

Benefits

Containerized Intermodal exports can accomplish several important objectives as well as reduce highway congestion issues in the face of ever-increasing demands on our transportation system. The strategic use of intermodal rail transport along corridors where freight shipment on highways have become congested can take pressure off the highway system. Environmental benefits can accrue by diminishing the need to expand the highway system through better-utilizing existing transportation infrastructure. Reduced cost may also be obtained due to greater economies of scale for intermodal rail shipments.

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University Facts

Total Enrollment	6,550
Graduate Enrollment	916
Number of Faculty	417
Placement Rate	95%

Michigan Tech is located in Houghton, MI on the south shore of Lake Superior. This rural area is known for natural beauty, pleasant summers, abundant snowfall, and numerous all-season outdoor activities. In addition, the University maintains its own downhill and cross-country ski facilities and golf course. There are numerous cultural activities and opportunities on campus and in the community. Michigan Tech has also been rated as one of the safest college campuses in the United States, and the local community provides excellent resources conducive to an outstanding quality of life.

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