



2013 Legislative Report on the

# Freight Rail Economic Development Study

November 15, 2013



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## Legislative request

This report was prepared to comply with Minnesota Statutes, Section 174.03.

### Subd. 1d. Freight rail economic development study.

(a) The commissioner of transportation, in cooperation with the commissioner of the Department of Employment and Economic Development, shall conduct a freight rail economic development study. The study will assess the economic impact of freight railroads in the state and identify opportunities to expand business development and enhance economic competitiveness through improved utilization of freight rail options. Findings from the study shall be incorporated as an amendment to the statewide freight and passenger rail plan.

(b) The commissioner of transportation shall provide an interim progress report on the study by January 15, 2013, and a final report on November 15, 2013, to the chairs and ranking minority members of the legislative committees with jurisdiction over transportation policy and finance and over employment and economic development. The reports shall include any recommended legislative initiatives.

(c) The commissioner of transportation may expend up to \$216,000 in fiscal year 2013 under section 222.50, subdivision 7, to pay the costs of this study and report.

The cost of preparing the Freight Rail Economic study, including this report, is under \$215,000, consistent with the requirements of this section and Minn. Stat. 222.50, subd. 7, authorizing expenditures for rail planning studies.

## Summary

**Minnesota's industrial and agricultural base has been tied closely to the state's extensive railroad network for our entire history, and still is today. In the last three decades, railroads enjoyed a resurgence in productivity and profitability, with shippers increasingly turning to rail to capture benefits in costs, service and good connections to distant markets, a key factor in Minnesota's business future. Both businesses and railroads have expressed interest in enhancing the potential for business growth around this transportation mode. The Freight Rail Economic Development study lays out a range of options and tools in response to this desire.**

Effective and efficient transportation of commodities is critical to the success of Minnesota's economy. As the economy continues to outgrow the capacity of the transportation network, railroads offer a privately financed alternative to public infrastructure that is cost-effective, energy efficient and provides distinct environmental benefits.

For bulk commodities, landlocked shippers and a long list of products and commodities, this option can be the preferred method of transportation, especially over longer distances. Eighteen percent of all goods produced or consumed in the state travel by rail, and, by weight, 38 percent of all goods moving to, from, or through the state for other markets move on railroads. Rail is absolutely vital to several industrial sectors, including mining, forest products, agriculture and agricultural products ranging from corn and soybeans to beet sugar and ethanol, and logistics and distribution. Minnesota's strength in this mode is essential to the competitiveness of our diverse business sector and has fostered a growing interest among expanding businesses and commercial real estate developers to develop convenient rail access.

The interface between the private railroad industry, private corporations seeking rail transportation connections and commercial and public developers presents a unique challenge for the agencies. While railroads are privately owned, public sector support for economic development related to rail can take a variety of productive forms, including education and workforce development, public infrastructure investments, financing and tax incentives for private sector investment, marketing and technical assistance and creation of a regulatory climate that encourages business development.

This study investigated the history and current status of freight rail in the state. It convened a group of peer states with similar interests and programs, including neighboring states, and recorded their outcomes and best practices. Those activities laid a foundation for extensive outreach to railroads, rail shippers and economic developers. All

of this information was analyzed and used to develop findings and recommendations that would be appropriate for and effective in our state.

Key findings include:

- Freight rail is vital to Minnesota
- Class 1 and short line railroad partnerships are valuable
- Private rail infrastructure is under-recognized
- Public perception of freight and rail suffers from low visibility and poor understanding
- Multimodal transportation policy needs flexibility and enhancements

These findings led to a list of possible agency and legislative initiatives, which are discussed in detail in the FRED Study. Potential applications of these practices were derived from current state programs and peer state experience, and input from railroads, industries and communities. These components combine into a comprehensive approach to enhancing the state's position in the industrial marketplace.

These components comprise six areas of opportunity that could yield positive benefits.

- Education and Communications
  - Provide a rail and shipper's toolkit for new shippers, economic developers and local officials
  - Facilitate outreach and education to state agencies on freight rail issues
  - Promote public awareness of the benefits of freight rail and support and reference other freight and rail 'stories'
- Collaboration
  - Expand cooperation between economic developers, MnDOT, DEED and the railroads
  - Facilitate public-private partnerships across the state
  - Conduct regular freight rail business development forums and roundtables in districts and regions, as well as at the state level
  - Convene executive planning meetings between state agency commissioners and senior officers of individual Class 1 railroads, followed by regular communications between agency and corporate staff
- Enhancements to MnDOT programs
  - Raise the Minnesota Rail Service Improvement loan cap
  - Consider loan forgiveness options for MRSI loans
  - Create a grant component for MRSI
  - Allow planning loans and grants from general fund appropriations to local jurisdictions and development agencies for project development
- Enhancements to DEED programs
  - Expand real estate directories to identify railroad input of rail-owned or accessible property and provide for rail-accessibility searches
  - Promote consideration of freight rail related projects for infrastructure and business development funding programs

- Enhance education and communication with local economic developers on freight rail issues and opportunities
- Improve collaboration and coordination between the MnDOT Office of Freight and Commercial Vehicle Operations and Minnesota Business First Stop
- Integrate freight rail into the MnDOT/DEED Transportation Economic Development program
  - Criteria and guidance for the TED program could be expanded to promote public/private freight and rail collaborations with the applying public jurisdictions, in conjunction with other core requirements, such as local match and job creation measures and targets
  - Diversify funding for the TED program to include a mix of trunk highway funds, general obligation bonds and general fund appropriations; this would allow for the greatest diversity of projects and flexibility to respond to economic development opportunities regardless of mode
- Other funding strategies
  - Allow tax credits for railroad rehabilitation and maintenance for preservation purposes
  - Grant tax credits to shippers for installation and use of rail facilities under targeted criteria
  - Dedicate state rail property taxes to rail investment uses
  - Facilitate access to federal funding sources
- ‘Think big’ perspective and policies
  - Recognize the size and scope of rail preservation and expansion projects
  - Broaden the state multi-modal transportation perspective to recognize the freight transportation network as a complete logistics system
  - Improve strategic long-range planning
  - Coordinate efforts with neighboring states
  - Invoke a “big tent” approach in ongoing FRED efforts, routinely involving logistics, business and community stakeholders.

The Freight Rail Economic Development Study employs all of these forms of participation, based on a methodical analysis of data and available options. Applying recommendations of the study, whether in whole or in part, will improve the attractiveness of the state to businesses that are actively looking for rail as a market connection.

# Introduction

Effective and efficient transportation of commodities is critical to the success of Minnesota's economy. Rail is vital to several industrial sectors, including mining, forest products, agriculture and agricultural products and is a key component of Minnesota's economic competitiveness. As the state economy continues to outgrow the capacity of the transportation network, railroads offer a privately financed alternative to public infrastructure.

The 2012 Legislature required that the Minnesota Department of Transportation and the Minnesota Department of Employment and Economic Development cooperatively assess the economic impact of freight railroads in the state and identify opportunities to expand business development and enhance economic competitiveness through improved use of freight rail. Highlights of the resulting Freight Rail Economic Development study is summarized in this report.

The FRED study investigated the history and status of freight rail in the state. To better understand Minnesota's options, a group of peer states with similar interests and programs was convened to discuss their outcomes and best practices. A wide range of approaches was revealed, including very robust involvement in short line investments and economic development by neighboring states. In addition, extensive outreach to railroads, rail shippers and economic developers was used to develop findings and recommendations that are appropriate for and effective in Minnesota.

The interface with the private railroad industry, private corporations seeking rail transportation connections, and both commercial and public developers presents a unique challenge for state agencies. Economic development is both a private and a public sector activity, with jobs and income created by the private sector, but government decisions on taxes, spending, investments, regulations and incentives affecting business investment and location decisions.<sup>1</sup> Thus, public sector participation in this area can take a variety of forms, including education and workforce development, public infrastructure investment, financing and tax incentives for private sector investment, marketing and technical assistance, and creation of a regulatory climate that encourages business development.

The FRED study addresses all of these forms of government participation. Applying the study's recommendations, whether in whole or in part, can improve the attractiveness of the state to businesses looking to use rail as a potentially more cost-effective, energy efficient and more environmentally-friendly market connection.

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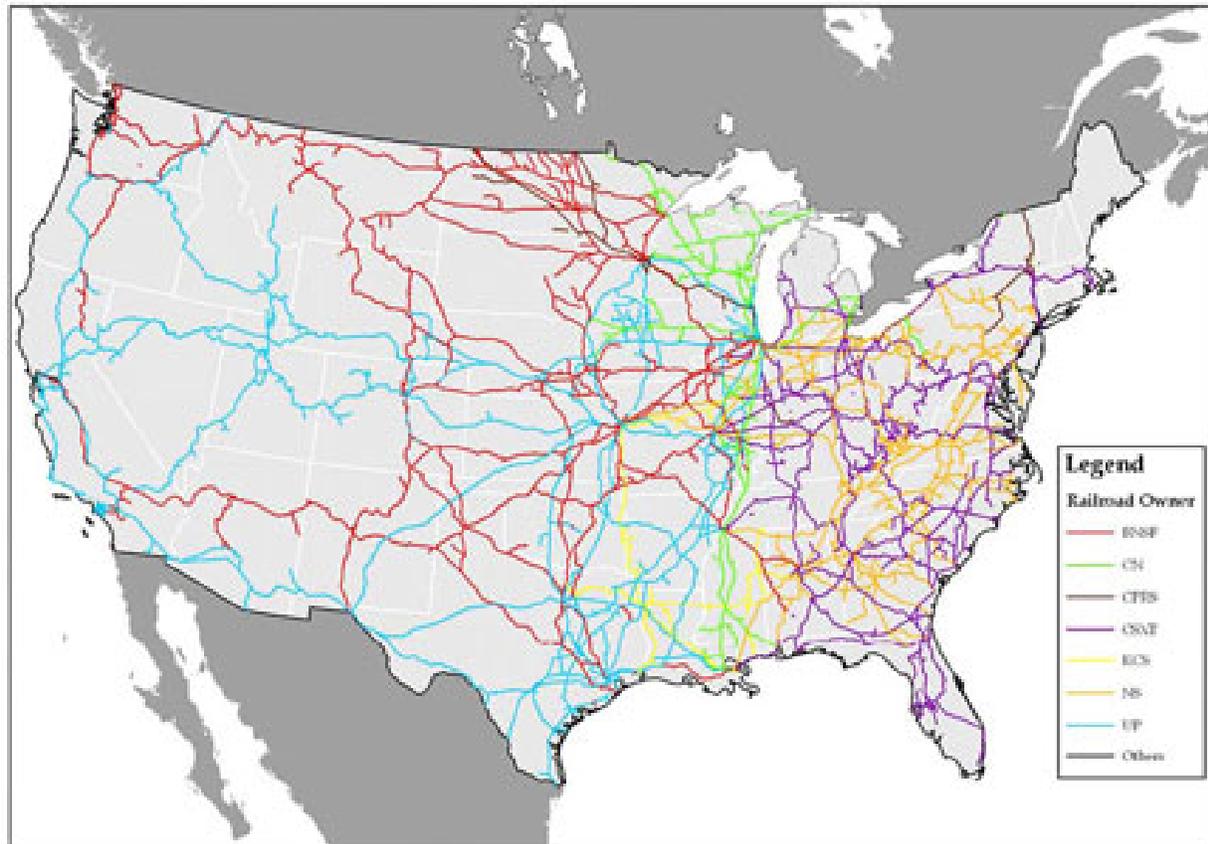
Humphrey Institute of Public Affairs, "Emerging Principles in State and Local Economic Development: A Benchmarking Tool", July, 1995

# The freight rail system

## The national context for freight rail

In 2011 there were 568 freight railroads operating in the United States, which collectively represented \$68.9 billion in freight revenues. The railroad industry has established three types of freight railroads, generally defined by revenue and geographic reach:

- Class 1 Railroads are defined as those having at least \$433.28 million in revenues in 2012. There are currently seven Class 1 Railroads in the U.S. Together they own more than 162,393 miles of track across North America. In 2011, they transported approximately 30 million carloads, earning operating revenues of more than \$67 billion dollars. Four Class 1 Railroads operate in Minnesota: Burlington Northern Santa Fe, Canadian National, Canadian Pacific and Union Pacific.
- Regional and local railroads are smaller and operate on a regional or local level. Often they work in coordination with Class 1 railroads to serve particular industries or areas.
  - A regional or Class 2 railroad includes any railroad with annual revenue greater than \$34.7 million, but less than \$433.28 million, that also owns more than 350 miles of track. Currently, there are no regional railroads in Minnesota.
  - A local or Class 3 railroad has annual revenues of less than \$34.7 million and owns less than 350 miles of track. There are 14 short line railroads in Minnesota.



*U.S. Railroad Network (2007 Revenue Commission)*

In 2013, U.S. railroads plan to spend an estimated \$24.5 billion of private capital to improve access, upgrade equipment and maintain track and right-of-way.<sup>2</sup> This will add new capacity to handle growing volumes of freight traffic, imports and exports, and will provide access to new markets. Unlike the U.S. highway system, which is dependent upon tax revenues and user fees such as tolls to fund infrastructure investment and maintenance, the U.S. freight railroad system is largely privately owned.

## Freight Railroads Boost Economic Competitiveness

In 2011 U.S. businesses spent \$1.28 trillion on logistics or approximately 8.5 percent of the nation's gross domestic product.<sup>3</sup> Of that total, \$629 billion was spent on motor carrier transportation, while only \$68 billion was spent on rail transportation, which is approximately 11 percent of the total spent on truck transport. Despite the lower amount spent on rail transport, railroads accounted for 1.58 trillion ton miles in 2009, 20 percent more than trucking.<sup>4</sup> As the nation faces transportation funding shortfalls to maintain roadways and bridges, states can benefit from understanding rail freight options and proactively developing their freight networks.

**Freight rail is cost effective.** Railroad carload service can provide considerable cost savings for shippers, although this is dependent on a variety of factors, including the length of haul, freight handling and cargo inventory. Where conditions are suitable, estimates suggest that rail can reduce shipping costs by 15 to 18 percent for intermodal shipments and by more in carload shipments.

**Freight rail is efficient.** Rail shipments account for a disproportionate amount of ton-miles in freight transport, a direct measure of transportation produced. While the minimum effective rail car length of haul can vary based on competitive factors, rail capacity, car utilization, concentrated demand and product characteristics, the Association of American Railroads reported in 2011 that the average number of tons per rail car is 62.9. They also report that the average length of haul for Class 1 railroads is 917 miles per car. This number excludes short lines and Canadian Class 1 railroads. The U.S. Bureau of Transportation Statistics reported that a similar heavy commercial truck had an average length of haul of less than 500 miles, with an average load under 9 tons.

**Freight rail is safe.** Railroads provide safe transportation alternatives, especially for chemicals and hazardous materials.<sup>5</sup>

**Freight rail can help reduce congestion.** One intermodal train can move the equivalent of 280 trucks at one time. Likewise, a unit train of bulk material, such as grain, ethanol or ore may replace 425 loaded trucks.

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<sup>2</sup> Association of American Railroads [press release](#), Feb. 6, 2013

<sup>3</sup> Council of Logistics Supply Chain Professionals, 23rd Annual State of Logistics Report: The Long and Winding Recovery

<sup>4</sup> U.S. Bureau of Transportation Statistics

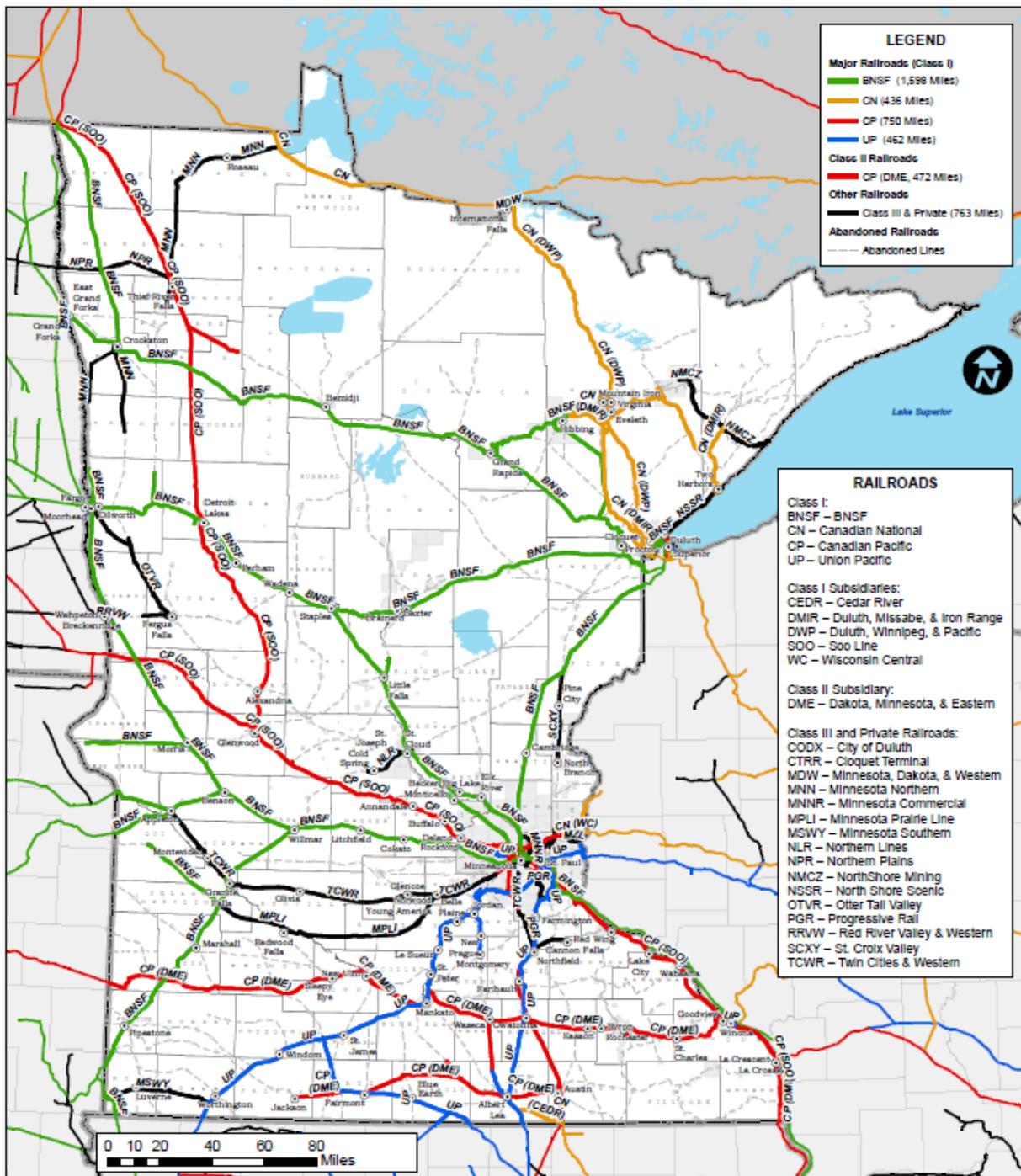
<sup>5</sup> Journal of Management and Marketing Research; "The case for rail transportation of hazardous materials" by H. Barry Spraggins, University of Nevada, Reno., Feb. 2009

**Freight rail is energy efficient.** The average freight train can move one ton of freight 484 miles on a single gallon of fuel; this is roughly four times as far as the same cargo could move by truck.

Minnesota ranked fifth in 2012 for state GDP growth, tied with California, with a rate of 3.5 percent. This outpaced the national average of 2.5 percent. Minnesota's growth was broad based, spanning sectors that included manufacturing, construction, mining, wholesale trade, finance, real estate development and agriculture. Several of these sectors are dependent on rail shipping to remain competitive in regional, national and world markets, including mining, agriculture, automobiles and parts, and both containerized export of manufactured goods and import of wholesale and retail commodities.

## Freight rail in Minnesota

Minnesota has more than 4,449 miles of private railroad track, making it the eighth largest rail network in the nation. Unlike many states, where rail serves only a portion of the state, almost every county in Minnesota has an operational railroad. Only four counties lack a railroad and they once had rail lines.

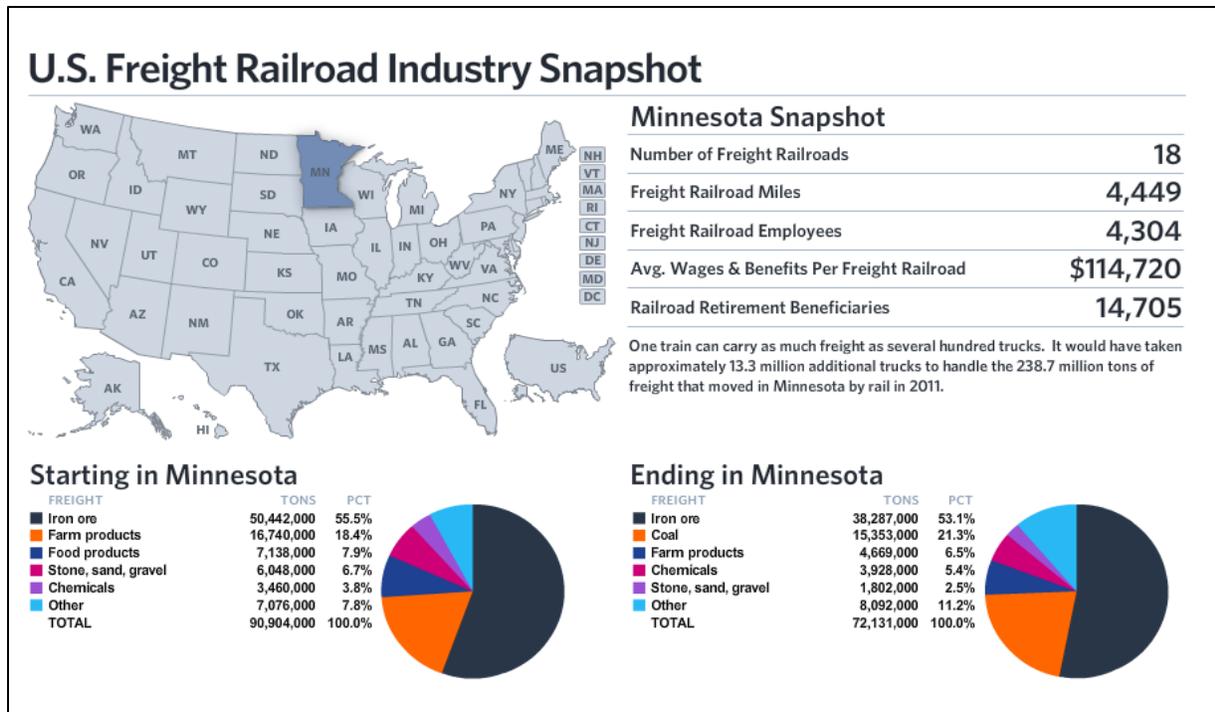


Minnesota's Railroad Service Map ([Interactive map](#) available on MnDOT's website)

Minnesota also relies on rail to a greater degree than many other states, with Minnesota's share of rail transportation exceeding the U.S. average by 40 percent.

In 2010, Minnesota ranked fourth nationally for rail tons originating within the state with 89.6 million tons. This is more than any neighboring states, including Iowa with 47 million tons and North Dakota with 35.6 million.

In the same year, Minnesota ranked sixth in the nation for rail tons terminating in the state, with 71.3 million tons. In the region, Wisconsin followed with 61.6 million tons and Iowa with 37.8 million.



Minnesota Freight Railroad Industry Snapshot (AAR.org)

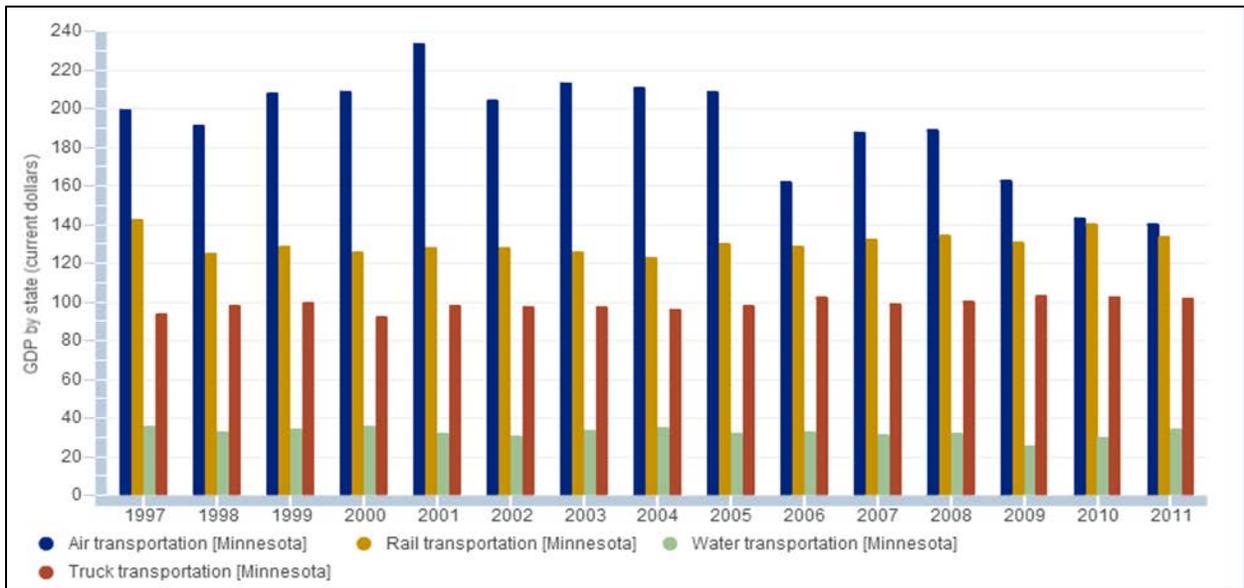
The value of Minnesota commodity shipments in, out and within the state in 2011 totaled \$504 billion, of which rail shipments and multi-modal shipments that include a rail component accounted for \$112 billion or 22 percent.

Indicative of the state's strategic position astride several major long-distance trade corridors, the total tonnage moved on Minnesota railroads totals more than one trillion tons per year.<sup>6</sup> For goods shipped into, out of or within the state, rail accounted for 116 million tons or 18 percent of the 639 million tons of commodity movements generated by Minnesota business in 2011. If multi-modal shipments are included, the rail-related share rose to 26 percent of total tonnage.

Consistent with the national "Rail Renaissance," that began with deregulation in 1980 and reached an all-time record volume in 2007, both the volume and the share of freight movement by railroads in Minnesota has steadily increased. Due to Minnesota's extensive rail network, good service levels

<sup>6</sup> 2010 Minnesota Comprehensive Statewide Freight and Passenger Rail Plan

and rail-oriented business mix, the state actually reached its own record high level of rail traffic in 2010.



Rail Mode Share in Minnesota (U of M Presentation 9/20/13)

# Freight rail economic development

One of the goals of the Freight Rail Economic Development study was to identify opportunities for shippers, railroads and economic development and transportation agencies to work together more effectively in support of expanded local rail access, complementary business development and improved rail and intermodal service options.

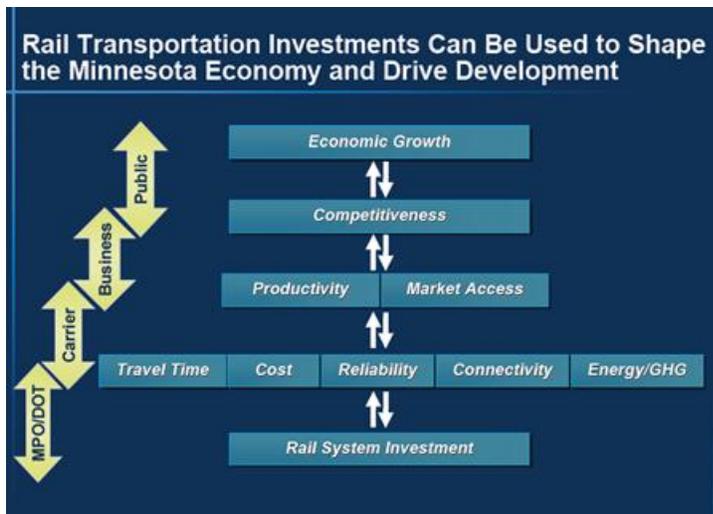
Minnesota is poised to improve rail economic business development:

- Minnesota has rail service in all but four counties. This provides exceptional rail access to local producers and manufactures. Few states enjoy such a broad network of rail service.
- Minnesota is well connected to rail networks that support international trade, with two Canadian railroads and direct rail access to Mexico via BNSF and Union Pacific and interchange access via the Kansas City Southern. Railroads have a more efficient border crossing process than trucks, with the ability to clear customs enroute. This allows full trains to cross the Mexican and Canadian borders with fewer delays than individual trucks.
- Minnesota's economy is diverse and moves large volumes of dense commodities long distances, which are attractive cargos for railroad carriers. Products suited to rail transportation include: aggregates; chemicals for manufacturing; agriculture-related products such as fertilizer, grain, beans and dried distiller's grain, logs, mining products and retail products.
- Minnesota is also a preferred distribution center for the upper Great Plains, with connections to Class 1 railroads that serve every Pacific Ocean port from British Columbia to the Mexican port of Lázaro Cárdenas. The port of Duluth-Superior is the top tonnage port on the Great Lakes and is well connected to four Class 1 networks. River ports in Minnesota are also connected to rail, which improves the economics of freight transportation for Minnesota shippers.

## Local economic development strategies

Economic development for rail-related businesses is usually most effective, responsive and motivated when conducted at the local level. This study relies heavily on strategies involving local government units, economic developers, short lines and local marketing contacts for Class 1 railroads with direct contact to interested businesses. Statewide programs and assistance should align with and support this focus.

The Minnesota State Rail Plan illustrates the relationship between railroad investment and economic development.



*The Relationship between Rail Investments and the Minnesota Economy. (Minnesota State Rail Plan)*

Local economic development strategies are more successful when leveraged by partnerships that include public and private sector interests. Approaches include:

- Ensuring the local investment climate is functional for local businesses
- Supporting small and medium sized enterprises
- Encouraging the formation of new enterprises
- Attracting external investment nationally and internationally
- Investing in physical infrastructure
- Investing in soft infrastructure such as educational and workforce development, institutional support systems and regulatory issues
- Supporting growth of particular clusters of businesses
- Targeting particular parts of the city for regeneration or growth (areas based initiatives)
- Supporting informal and newly emerging businesses
- Targeting certain disadvantaged groups

One cautionary note: From a state or regional perspective, the focus should be on net effects so a development policy does not encourage or result in gains in one locality at the expense of others.

### **Information and collaboration**

One of the most effective and immediately implementable strategies to promote freight rail is to support and educate economic development practitioners at the local level.

Local economic development is about helping communities improve their investment and business climate to enhance competitiveness, retain jobs and increase wages. It offers local governments, private and not-for-profit sectors and community members the opportunity to work together to foster sustainable growth and economic opportunity. It encompasses a range of disciplines, including physical planning, economics and marketing. It also incorporates many local government and private sector functions, including environmental planning, business development, infrastructure provision, real estate development and finance.

Minnesota has an effective group of public economic development professionals working throughout the state. They regularly interact with private companies to address local business needs and to promote business expansion and new business siting.

The study team conducted outreach across the state to assess the knowledge and awareness of economic developers about rail-oriented businesses and shippers. While some were well informed and involved in business development that included rail services, the majority lacked basic knowledge and desired more information about freight rail. Some of the study products, including the Rail Economic Development Directory and the Rail Toolkit, address this interest in additional information and increased collaboration at a local level. These products are part of an effort to improve awareness and enhance collaboration between railroad marketing personnel, economic development professionals, local officials, shippers and the public.

### **Freight Rail Oriented Development**

Freight generating land uses have the potential to bring great benefits to a region by providing jobs, tax dollars and access to transport networks that supply raw materials and finished goods. Rail oriented developments can help provide transportation for some users if proper planning and coordination with supply chain partners can be achieved. These developments help support a virtuous circle where inbound products can be procured/sold with lower transportation costs, which results in more competitive local industries and more competitive local industries create more jobs and economic expansion. Improved economic competitiveness within the region often results in lower costs for local consumers. More freight density leads to lower transportation costs and the cycle repeats itself.

The FRED study defines freight rail oriented development as development that promotes and supports economic growth that relies on freight rail transportation networks and facilities. It provides access to business clusters, creates workforce opportunities and supports environmental sustainability. It also supports the development of facilities and terminals to accommodate heavy, wide and tall cargo. Freight rail oriented developments add to and complement the freight rail network by improving and enhancing network access, network capacity and network efficiency. This helps lower transportation costs and improves transportation productivity, resulting in improved local competitiveness and lower costs for consumers while reducing freight congestion and bottlenecks.

Freight rail oriented development can be used to promote:

- Business attraction where low cost transportation access and land use regulations favor freight handling and development opportunities
- Transportation efficiency and potential cost savings for the movement of freight into and out of the state via improved rail access
- Infrastructure investments to accommodate heavy and high-wide freight
- Freight density to support balanced freight movements, thereby improving carrier operations or service and equipment supply.
- An economic activity magnet to lower transportation costs for the network users due to network density and service activity
- An employment cluster of skilled workers with technological skills to support logistic jobs
- Improved access to the freight rail network and mode conversion to reduce inbound and outbound transportation costs and improve economic competitiveness
- Environmentally sustainable transportation facilities built to reduce greenhouse gases and be neighborhood friendly

- Regulations which support efficient multi-modal access options and land use policies that reduce congestion and heavy truck travel on rural highways

The primary goals of promoting increased freight transportation efficiency and economic activity are job growth, increased wages and the creation of new business opportunities. Secondary goals include reductions in truck traffic, greenhouse gas emissions and highway maintenance.

## **Strategies for public - private partnerships**

Public private partnerships offer Minnesota opportunities for rail freight economic development implementation and funding. These partnerships will vary based on what each party brings to the relationship, and may include agreements for joint planning, coordinated development efforts, shared permitting and construction work and shared or matching financial investments.

Quantifying the public benefit is often the first step in building these financial partnerships. For the private sector to invest, private sector productivity and network benefits must be identified. The study identifies several areas critical to business development where the public sector has a significant role in structuring investments and activities to support private rail-oriented business expansion. Some of the key areas where public expertise and influence may be applied to good effect include:

- Assistance with public outreach and education
- Infrastructure connections and improvements to roads and utilities
- Environmental clearances and planning
- Economic development resource identification
- Applications for federal and state project funding tied to economic development, freight and infrastructure enhancements
- Direct financial aid for short line expansion and the installation of rail infrastructure in emerging business parks via program loans and grants

### **Expressed need for improved rail access**

In July and August 2013, all Minnesota EDAs, MPOs and RDCs were asked to provide information on rail improvements being implemented within their region. In coordination with the railroads, local shippers and agencies, they responded with projects aimed at supporting traffic growth and improved access. The list includes freight rail and safety projects, with the safety projects supporting local development through improvement of connectors and traffic flow.

The projects programmed for 2013 total \$43.4 million and include significant public financial investments in several locales, including Montevideo, Wadena, St. Paul and Moorhead. This total is a partial subset of the \$120 million that Class 1 railroads spent on their own infrastructure in the state for calendar year 2013.

<b>Inventory of MN Rail Improvements August 2013</b>		
<b>Rail Project Description</b>	<b>Rail Project Location</b>	<b>Estimated Cost</b>
<b>Short Discription</b>	<b>Location</b>	<b>If Known?</b>
Bridge Replacement	St, James,, MN	\$2,000,000
Rail siding, 350' track	BNSF Granite Falls	\$176,000
Track replacement in rail yard	Montevideo	\$250,000
Industrial Access	City of Arlington	\$800,000
Mars Pet Food facility rail access	City of Le Sueur	\$500,000
UP second track Mankato to Le Sueur	Le Sueur County	\$250,000
2 110 car unit train tracks 9,000 ' each	Southwest RDC	\$6,500,000
Rail Spur for Wadena	Wadena, MN	\$2,200,000
2 rail spurs - under NDA can not discuss	St Paul, MN	\$500,000
<b>Subtotal Freight Rail Improvements</b>		<b>\$13,176,000</b>
Installation of lights and gates at the crossing of CSAH 5 in Springfield		\$275,000
Safety crossing enhancements	Morrison Co, Cass Lake, Various	\$1,858,333
Grade Sep	City of Moorhead	\$22,000,000
Signalization improvements	City of Moorhead	\$6,100,000
<b>Subtotal safety improvements</b>		<b>\$30,233,333</b>
<b>Grand total Freight and Safety Improvement</b>		<b>\$43,409,333</b>

This list does not include future rail-related economic development proposals currently being discussed by the railroads, local governments and economic developers. Nor does it include up to \$200 million in investments the Class 1 railroads plan to make in Minnesota in 2014.

# Findings and recommendations

The FRED study used peer review findings, industry and railroad interviews and surveys, and professional input from commercial developers, economic developers and local development representatives. This yielded a range of strategies and implementable actions.

## Key findings

### **Freight rail is vital to Minnesota**

Although trucking is the prevalent mode of freight transportation in Minnesota and nationally, rail is critical to several industries and trade corridors. Agriculture, energy, building products and mining are examples of industries that would be uncompetitive in the absence of railroads. Retail goods and manufacturing components would also be impacted if carload and containerized rail shipments were to decline. In all, 52 percent of the state's GSP is produced by industry segments involved in commodity movements.

### **Class 1 and short line railroad partnerships are valuable**

Minnesota hosts four Class 1 railroads and 17 short lines. These short lines provide a needed low-cost option over lower density branches in Greater Minnesota and a connection to the long distance routes of the Class 1 railroads. However, short hauls and lower volumes create a financial challenge to ongoing upgrades and expansions.

### **Private rail infrastructure is under-recognized**

Despite its importance to key industries, the nature of the private network of rail lines is generally ignored by many business interests and policy makers. Railroads independently sustain and maintain their own infrastructure, while providing property and other tax income to local jurisdictions.

### **Public perception of freight and rail suffers from low visibility and poor understanding**

This poor perception extends to economic development specialists, planners and the public at large. The resulting demands on land use, both industrial and rail-owned, may be a drain on both private and public resources, as well as a source of poor public relations. Public safety is also hindered by these perceptions.

### **Multimodal transportation policy requires flexibility and enhancements**

While Class 1 railroads are generally profitable and self-sufficient, regional and short lines with limited financial capacity and new or emerging businesses may have a need for public infrastructure investment to maintain vulnerable transportation links to key employers and industrial sites. Local community interests are a major concern and could be aided with planning and technical assistance. Existing rail programs can be built upon

to provide new resources for business initiatives similar to neighboring and peer states. In a like manner, more flexible and inclusive economic development program eligibility would benefit these stakeholders.

## Recommendations

These findings led to a list of possible agency and legislative initiatives. Potential applications of these practices were derived from current state programs, peer state experience, and input from railroads, industries and communities. The intent in each case is to enhance Minnesota's position in the industrial marketplace.

These components are categorized into six areas of opportunity:

- Education and Communications
  - Provide a rail and shipper's toolkit for new shippers, economic developers and local officials to provide information on common questions and customary practices.
  - Facilitate outreach and education to state agencies on freight rail issues.
  - Promote public awareness of the benefits of freight rail and support and reference other freight and rail 'stories.'
- Collaboration
  - Expand cooperation among economic developers, MnDOT, DEED and the railroads in marketing real estate and service options. This can be facilitated in part by the FRED study's Rail Freight Economic Development Directory.
  - Facilitate public-private partnerships across the state, especially those centered on local economic development efforts. State resources can be successfully applied to support and foster these efforts.
  - Conduct regular freight rail business development forums and roundtables in districts and regions, as well as at the state level. Professional outreach may be coordinated through conferences such as the annual Regional Railroad Association Conference, the EDAM conference and MAPCED gatherings.
  - Convene executive planning meetings between state agency commissioners and senior officers of individual Class 1 railroads, followed by regular communications between agency and corporate staff. Such cooperation could set the stage for consideration of CREATE-style regional transportation improvements.
- Enhancements to MnDOT programs
  - Raise the Minnesota Rail Service Improvement loan cap for the program's core activity of providing private industry rail and shipper loans. The existing cap is too low, given the nature and cost of rail infrastructure projects.
  - Consider loan forgiveness options for MRSI loans based on performance metrics, economic development results, or other productivity measures.

- Create a grant component for MRSI. This could be particularly helpful for rehabilitation or emergency situations. Grant provisions should align with State Rail Plan policy and require the applicant to show evidence of need and demonstrate performance.
- Allow planning loans and grants from general fund appropriations to local jurisdictions and development agencies for use in developing projects, including engineering and environmental work to qualify a project for funding from various private, local, state and federal sources.
- Enhancements to DEED programs
  - Expand the MnPropsector commercial real estate directory to allow railroad input of rail-owned or accessible property and provide for rail-accessibility searches. Coordinate to provide the same information in the Minnesota Commercial Association of Realtors directory as well.
  - Promote consideration of freight rail related projects for infrastructure and business development funding programs.
  - Enhance education and communication with EDAs on freight rail issues and opportunities, including coordination of contacts with the railroads and MnDOT. For example, DEED has recently designated one business development representative as the lead on all business projects with a major logistics component.
  - Improve collaboration and coordination between the MnDOT Office of Freight and Commercial Vehicle Operations and Minnesota Business First Stop, an interagency team for business prospecting that involves key staff from MnDOT, the Minnesota Pollution Control Agency and the Minnesota departments of Agriculture, Commerce and Natural Resources.
- Integrate freight rail into the MnDOT/DEED Transportation Economic Development program
  - Criteria and guidance for the TED program could be expanded to promote public/private freight and rail collaborations with the applying public jurisdictions, in conjunction with other core requirements, such as local match and job creation measures and targets.
  - Diversify funding for the TED program to include a mix of trunk highway funds, general obligation bonds and general fund appropriations. This would allow for the greatest diversity of projects and flexibility to respond to economic development opportunities regardless of mode.
- Other funding strategies
  - Allow tax credits for railroad rehabilitation and maintenance for preservation purposes, mirroring federal tax credits.
  - Grant tax credits to shippers for installation and use of rail facilities under targeted criteria for environmental, energy, congestion relief, resilience, cost-effective transport and other policy-aligned improvements.
  - Dedicate state rail property taxes to rail investment uses, per the Itasca Project and industry recommendations.

- Facilitate access to federal funding sources, including FRA, RRIF and TIGER programs.
- ‘Think big’ perspective and policies
  - Provide program administrators and policy makers with realistic information about the current size and scope of investments needed for rail preservation and expansion projects, comparable to similar infrastructure projects for other modes.
  - Broaden the state multi-modal transportation perspective to recognize the freight transportation network as a complete logistics system that supports all Minnesota commerce and quality of life.
  - Improve strategic long-range planning to provide for future growth and alternatives to congested modes.
  - Coordinate efforts with neighboring states, as in the “Great Northern Corridor” and other inter-regional initiatives.
  - Invoke a “big tent” approach in ongoing FRED efforts, routinely involving logistics, business and community stakeholders.

Aside from program expansion and funding to provide more options for the public sector in regards to rail freight and economic development, the agencies are tasked with moving ahead with ongoing collaboration, communications and education, and the “think big” perspective. This study succeeded in engaging previously disconnected parties in a discussion of freight and industrial growth for the state. The visibility of rail freight has been improved, but this represents only a first step. A series of freight conversations from the Humphrey Institute’s “The Value of Freight Economy in Minnesota” to partnerships such as “Export MSP” all can use the information provided by this study, and can benefit in turn from these stories, partnerships and initiatives.

In ending the recommendations with the concept of “think big”, the study recognizes first that looking at opportunities for rail freight expansion requires an understanding of the significant up-front costs of any transportation infrastructure. Whether it is railroad, roadway, waterway or airport, the size of the investment reflects the long life and durable design that insures low cost, reliable operations. Rail, to a greater extent than any other mode, is self-sufficient and positively contributes to both corporate profits and tax revenues. On the other hand, the most customer-responsive and far-reaching branches of the system include short lines and industrial spurs that are often the least able to support major capital investment. “Think big” suggests that public involvement can be cost-effective and productive and that the only responsible way to think of the system is as a connected, interdependent multi-modal network. Such a diverse network is flexible, durable, and can efficiently absorb the needs of industrial and economic growth, congestion, environmental and energy issues, and communities without strain. Seeing the big picture in the transportation and business arena is a prerequisite to continued economic growth in the state.

# Integration into the State Rail Plan

This study supports the Minnesota State Rail Plan's vision that Minnesota develop a balanced multimodal freight system that can respond to increased regional and international economic competition, constrained highway capacity, environmental challenges, a diverse customer base and rising energy costs.

Actions identified in the 2010 plan are still relevant and include:

- Continue improvements in the condition and capacity of Minnesota's primary rail arterials to accommodate existing and future demand
- Address critical network bottlenecks
- Upgrade main line track for Class I, II and III railroads to 25 mph minimum speed as warranted
- Improve the network of all Class I, II and III railroads to support the use of 286,000 pound railcars
- Implement state-of-the-art traffic control and safety systems
- Expand intermodal service access options throughout the state
- Maintain and ensure broad access to competitive freight rail services for shippers throughout the state
- Better integrate rail into the public planning process
- Build upon the existing Minnesota Rail Service Improvement program, including an increase in the maximum loan amount in excess of the current \$200,000 ceiling
- Expand the Rail/Highway Grade Crossing program
- Actively manage preserved rail corridors held in the State Rail Bank and evaluate for possible future transportation uses

As required in the legislation, findings from the FRED Study will be amended to the current Minnesota Statewide Comprehensive Freight and Passenger Rail Plan. The State Rail Plan is a dynamic document and has been amended to include follow-up studies and data since its adoption in February 2010. This study will be posted on the MnDOT State Rail Plan website, complete with all addendums and tools. The State Rail Plan is required by federal law to be formally updated and re-adopted every five years and the FRED study will be fully integrated into the body of the State Rail Plan when it is updated in 2015.

# Study Products

The Freight Rail Economic Development study contains a detailed discussion of rail and freight characteristics, transportation economics and logistics. It discusses freight-related economic development, public benefits, barriers and potential program enhancements. Mapping, freight flow information and supplemental data are also included.

The study also resulted in the following products and tools for use by the public, prospective rail shippers, economic development specialists, railroads and government representatives.

## **Rail Freight Economic Development Directory**

This directory includes transportation and economic development professionals who are interested in future collaboration. EDAM, MAPCED, and Minnesota's railroads all provided a current contact list. This listing facilitates coordination within a given geographic area. Similar information is also included in the Rail Toolkit.

## **Rail Toolkit**

The Minnesota Rail Toolkit provides a hands-on tutorial for considering and implementing rail service. It is designed for traffic and transportation personnel at industrial firms and economic developers who want to better understand the mechanics of site selection and preparation, along with the economics of rail transportation. It is also designed for local officials looking for a background source of rail freight information and rail professionals who may provide it to prospective customers.

## **Cost Benefit Calculator**

A common question focuses on how to measure the cost effectiveness of public investments in freight rail transportation. A literature search and peer discussions identified this as a common program evaluation goal, but one that is very difficult to quantify. The Ohio Railroad Commission's Cost Benefit Calculator was identified as one of the simplest and best researched tools available and a template was made available.

## **Freight Rail Videos**

During the peer review and through follow-up interviews, the consultants recorded the responses of participants to produce two short video clips. The videos tell the story of freight rail and its importance to the economy, along with a general discussion of programs and initiatives.

## **Peer State Review Products**

A 10-state peer review was convened in April 2013. Members of the local railroad and business community, as well as key DEED and MnDOT staff, were present. The face-to-face conversation provided an opportunity to share experiences that could inform implementation in Minnesota.

# Definitions

3PL (Third Party Logistics): A third party logistics company provides purchased logistics services for an organization. These services can include transportation, warehousing, value added services, customer service or inventory management.

AAR (Association of American Railroads): A member-based organization which represents the freight railroads of the United States, Canada and Mexico, as well as Amtrak and several regional and commuter railroads. The AAR associate program includes smaller freight railroads, railway suppliers and other companies with a stake in the transportation industry. The AAR works to make railroads safer, more efficient and more productive through public policy, establishing standards for equipment and operations, and promotes a seamless exchange of information among railroads, customers and suppliers.

BNSF (Burlington Northern Santa Fe Railroad)

CN (Canadian National Railroad)

CP (Canadian Pacific Railroad)

Car load shipment: A freight shipment which moves in a rail car in rail service.

Class I Railroad: The Surface Transportation Board defines a Class I railroad in the United States as a carrier with annual operating revenues of \$250 million or more after adjusting for inflation using a Railroad Freight Price Index developed by the Bureau of Labor Statistics. According to the Association of American Railroads, Class I railroads had a minimum carrier operating revenue of \$378.8 million in 2009. Four Class 1 Railroads operate in Minnesota: BNSF, CN, CP and UP.

Class II Railroads: As of 2006, a railroad with revenues greater than \$20.5 million but less than \$277.7 million for at least three consecutive years. Switching and terminal railroads are excluded from Class II status. These railroads are often called regional railroads.

Class III Railroad: A Class III railroad, or a short line railroad, is a rail company with annual operating revenue of less than \$20 million (1991 dollars). Many short line railroads were once part of larger railroads and were spun off or abandoned.

Containers on flat car: A term which is used to describe intermodal rail shipments. A container of freight moves on a railcar in railroad intermodal freight service.

CREATE: A rail project in Chicago; Chicago Regional Environment and Transportation Efficiency is a project of national significance where a public private partnership of Metra, Amtrak and Class 1 railroads; U.S. DOT, the City of Chicago and the State of Illinois have partnered to improve freight and passenger rail service, reduce freight rail

congestion, reduce motorist delay at grade crossings, enhance public safety, promote economic development, create and retain jobs and improve air quality and reduce train noise from idling or slow-moving trains.

Double stack: An intermodal rail freight service term used to describe two containers stacked one on top of the other, which moves on the railroad.

EDAM (Economic Development Association of Minnesota): A professional association of individuals and organizations throughout the state of Minnesota who provide development professionals a forum for exchanging information and staying abreast of current economic development strategies and practices and by providing economic developers with valuable networking and educational opportunities. EDAM members are leading economic developers in the state of Minnesota. EDAM consults with the state on public policy issues related to economic development and helps continually define and improve the profession.

FRA (Federal Railroad Administration): Created by the Department of Transportation Act of 1966, it is one of 10 agencies within the U.S. Department of Transportation concerned with intermodal transportation.

Intermodal: The movement of freight in a container or trailer, by more than one mode of transportation. The movement can be made from rail to truck to ship in any order.

Intermodal train: An intermodal train is a train load of trailers or containers, often double stacked.

Intermodal shipment: A container or trailer of freight which is moved by railroad. This truck-like rail product allows shippers to load containers or trailers with cargo.

Itasca Project: An employer-led civic alliance to address Minneapolis/St. Paul regional issues that impact economic competitiveness and quality of life. Its 50-plus participants are primarily private-sector CEOs.

Logistics: Logistics is defined as a business planning framework for the management of material, service, information and capital flows. It includes the increasingly complex information, communication and control systems required in today's business environment.

MRRA (Minnesota Regional Railroads Association): Formed in 1987 in response to the perceived need to better inform the public about Minnesota's railroads, the MRRA exchanges information among members, the general public and elected officials on Minnesota's transportation needs, provides technical assistance and training for its membership and carries out legislative.

MAPCED (Minnesota Association of Professional County Economic Developers): An organization for professional economic developers representing counties across the state of Minnesota.

MRSI (Minnesota Rail Service Improvement): A funding program sponsored by the Minnesota Department of Transportation to support rail service improvement. The program provides funding for rail users and carriers to rehabilitate deteriorating rail lines, improve rail-shipping opportunities, and preserve and maintain abandoned rail corridors for future transportation use. Recently, funds have been used for improving, extending and moving rail sidings, construction of grain storage bins, fertilizer storage, building warehouses along the rail siding and improving the speed of loading into rail cars.

Minnesota Business First Stop: Minnesota Business First Stop streamlines the development process for complex business startups, expansions or relocations that involve financing, licensing, permitting and regulatory issues that overlap multiple state agencies.

Operation Lifesaver: A rail program aimed at improving railroad grade crossing safety.

Railroad carload service: Freight moves in a railcar in rail freight train service between shipper and receiver.

Trailer on flat car: A term used to describe intermodal rail shipments. A truck trailer of freight moves on a railcar in railroad intermodal freight service.

Transload: The process of transferring a cargo from one mode of transport to another. It is most commonly used when one mode cannot be used for the entire trip. Shippers who do not have rail access often use trucks for the first or last portion of a freight movement and transfer cargo between modes at a transload facility.

Transload facility: These offers users that are not served by rail an access option. They can be public transload operations or offered by a third party provider. They load or unload rail cars at site locations with freight that originates elsewhere.

UP (Union Pacific Railroad)

Virtuous circle: A term which describes a cycle of increasing benefits.

Unit train: A unit train is a trainload of one product, often coal or grain. Unit train lengths can vary from 100-120 railcars per train.