Organizational Results Research Report

September 2009
OR10.009

Impact of Public Policy on Rail Development in Missouri

Prepared by Cambridge Systematics and Missouri Department of Transportation

Final Report
RI07-035

Impacts of Public Policy on Rail Development in Missouri

prepared for
Missouri Department of Transportation
Organizational Results Division

by
Cambridge Systematics, Inc.
9015 Mountain Ridge Drive, Suite 210
Austin, Texas 78759

September 2009

TECHNICAL REPORT DOCUMENTATION PAGE

1. Report No. OR10-009	2. Government Accession No.	3. Recipient's Catalog No.
4. Title and Subtitle Impacts of Public Policy on Rail Development in Missouri		5. Report Date September 2009
		6. Performing Organization Code
7. Author(s) Cambridge Systematics, Inc.		8. Performing Organization Report No.
9. Performing Organization Name and Address Missouri Department of Transportation Research, Development and Technology P. O. Box 270-Jefferson City, MO 65102		10. Work Unit No. RI07-035
		11. Contract or Grant No.
12. Sponsoring Agency Name and Address Missouri Department of Transportation Research, Development and Technology P. O. Box 270-Jefferson City, MO 65102		13. Type of Report and Period Covered Final Report
		14. Sponsoring Agency Code
15. Supplementary Notes The investigation was conducted in cooperation with the U. S. Department of Transportation, Federal Highway Administration.		

16. Abstract

Identifying the State policies that most directly affect or advance railroad development begins with an understanding of how railroads make investment decisions. Railroads are a capital-intensive business, owning all physical assets, locomotives, and many rail cars, and are responsible for each train movement and for the systems that manage traffic on the entire rail network. State policies that enhance the financial return of maintenance or expansion projects can attract investments to a State. The State policies that most directly affect railroad decision-making are: taxation, particularly property taxes; highway-rail grade crossing programs; rail safety enforcement; and economic incentives for railroad investments.

17. Key Words Policy, Rail, Missouri	18. Distribution Statement No restrictions. This document is available to the public through National Technical Information Center, Springfield, Virginia 22161

19. Security Classification (of this report) Unclassified	20. Security Classification (of this page) Unclassified	21. No. of Pages 46	22. Price

Table of Contents

List of Tables

List of Figures

Executive Summary

In launching this study, the Missouri Department of Transportation (MoDOT) sought practical solutions to rail industry issues in order to provide the State a business and transportation regulatory climate that is favorable to rail development. This study was conducted to:

- Collect available information through interviews of railroads and state officials on state policies that affect railroads in Missouri and five peer states;
- Based on the information collected in the research, make a series of recommendations that would positively affect railroad operations in Missouri, and test those recommendations with railroads; and
- Produce a final report that presents the results of research and final recommendations.

Identifying the State policies that most directly affect or advance railroad development begins with an understanding of how railroads make investment decisions. This decision-making process is discussed in Section 2.1. Railroads are a capital-intensive business, owning all physical assets, locomotives, and many rail cars, and are responsible for each train movement and for the systems that manage traffic on the entire rail network. State policies that enhance the financial return of maintenance or expansion projects can attract investments to a State. The State policies that most directly affect railroad decision-making are:

- Taxation, particularly property taxes;
- Highway-rail grade crossing programs;
- Rail safety enforcement; and
- Economic incentives for railroad investments.

Section 2.2 and related appendices in this report summarize program information for Missouri and peer states of Arkansas, Kansas, Illinois, Iowa, and Nebraska. Findings from this peer state review show:

- Missouri state property tax policies are similar to peer states and do not adversely affect railroad projects;
- Other states have additional state resources applied to highway-rail grade crossings, stretching public and private resources; and
- Missouri has a strong state rail safety program.

Section 3.0 of the report outlines a series of various rail policy issues at the national level that can affect railroad development in Missouri. The issues discussed include:

- Logistics and Business Practices:
  - **Logistics –** How freight is moved by rail in Missouri, both now and in the future;
  - **Equipment –** Trends in rail car purchasing and replacement; and
  - **Environment –** Federal regulations that affect railroad operations at the national and local levels.
- Rail Policy:
  - **Infrastructure investment policy**: how Federal programs, current and proposed, will affect freight and passenger investments; and
  - **Rail regulations**, including rail safety, economic regulation, and rail security.

Based on the research, the study team makes the following recommendations for consideration by MoDOT:

- Recommend that the State Legislature make additional appropriations into the MoDOT State Transportation Assistance Revolving Fund (STAR Fund) for the purpose of railroad and other multimodal improvements, perhaps targeted at regional and short-line railroads;
- Recommend authorization of an investment tax credit for railroad investments that are related to economic development; and
- Recommend statutory exemption of all railroad equipment from state sales taxes.

1.0 Study Objective

1.1 BACKGROUND

The freight rail industry serves a prominent role in Missouri from a goods movement and supply perspective as well as providing a major source of employment for the State's residents. As of 2006, Missouri's freight rail system consists of 4,107 miles of railroad (excluding trackage rights) which transported more than 441 million tons of freight. There currently are 16 freight railroad operators within the State: 5 Class I's; 2 Regional; 2 Local; and 7 Switching and Terminal Operators.[1] By all measures, Missouri rail freight ranks highly among other U.S. states. Table 1.1 summarizes Missouri's relative rank among common metrics.

Table 1.1 Missouri Rail Statistics Summary

Category	Rank	Total
Total Rail Miles	10th	4,107 Miles
Total Rail Tons	4th	441,107,861 Tons
Rail Tons Terminated	7th	83,724,306 Tons
Rail Tons Originated	30th	16,058,789 Tons
Total Rail Carloads	3rd	8,693,928 Carloads
Rail Carloads Terminated	9th	961,246 Carloads
Rail Carloads Originated	22nd	428,633 Carloads
Freight Rail Employment	7th	7,286 Employees
Freight Rail Wages	5th	$506,363,000
Railroad Retirement Beneficiaries	8th	18,916 Beneficiaries
Railroad Retirement Payments	8th	$288,411,000

Source: AAR State Rankings 2006. Available at: http://www.aar.org/PubCommon/Documents/ AboutTheIndustry/ RRState_Rankings.pdf.

[1] *Railroad Service in Missouri*. Association of American Railroads, 2006. Available at: http://www.aar.org/PubCommon/Documents/AboutTheIndustry/RRState_MO.pdf.

1.2 OBJECTIVE

The objective of this study has been "to provide the Missouri Department of Transportation (MoDOT) with the rail industry perspective on legal, political, economic, and regulatory issues that have significant impact on their operations and market decisions" (as stated in the study RFP). In launching this study, MoDOT sought practical solutions to rail industry issues to provide the State a business and transportation regulatory climate that is favorable to rail development.

This study has been conducted in three phases:

- Literature review and interviews: rail policies of Missouri and neighboring states were collected from available sources, and railroad representatives and state agency officials were interviewed by phone or in person through the use of an interview guide.
- Based on information collected from other states and the interviews, a draft set of recommendations were generated to positively affect railroad operations in Missouri. These recommendations were shared with railroad representatives in a workshop, in which the recommendations were discussed to gauge possible effects. Based on feedback from railroads and MoDOT staff, a final set of recommendations was developed.
- This final report was prepared incorporating additional research and other applicable information.

2.0 Description of Current Rail-Related Policy in Missouri and Peer States

The study team employed two information collection methods: first, major railroads were contacted and interviewed to gain insight on how Missouri is seen as a state in which to operate; and second, a literature review was conducted to compare how Missouri's railroad policies compare to neighboring states.

2.1 RAILROAD INTERVIEWS

Early in the study process, the study team contacted the major Class I railroads operating in Missouri regarding the study, submitted interview questions, and received feedback through completed questionnaires or through phone interviews. The study team also contacted officials with the Columbia Terminal Railroad, given their involvement in the Missouri Railroad Association. Later in the research process, more regional railroads were invited to participate in a workshop to discuss study recommendations (discussed in Section 4.0 of this report).

In order to understand how state governmental policy can affect railroads, it is first important to determine how railroads operate and how capital investment decisions are made. Knowing this, it will be more apparent how state policies could encourage or inhibit railroad development.

How Railroads Make Investment Decisions

Freight railroads are owned and operated by private companies that must build and maintain their networks through revenues paid by railroad shippers. This distinguishes railroads from other freight carriers. Motor carriers operate over a publicly owned and maintained road network and cargo air carriers land and take off at publicly owned and maintained airports controlled by a public air traffic control system. Being responsible for property and physical infrastructure, train control systems, power units, and rolling stock make railroads among the most capital-intensive industries in the national economy as measured by the ratio of the value of their assets to their revenues.

Railroad networks must be maintained to retain their functionality and fluidity, and a strict regimen of railroad operating rules and Federal safety regulations establishes the relationships between maintenance practices and asset performance standards. Railroads spend most of their capital dollars on

maintenance and replacement of existing structures and equipment – track, bridges, signal systems, locomotives and other rail-owned rolling stock, and maintenance of way. Railroads devote significant energy to identifying capital investments that offer the most positive returns, often focused on portions of the network that support higher traffic volumes or higher revenues. This investment analysis is concerned with overall market forces, and is influenced by competition with other railroads, competition with other modes, overall freight activity, and national economic trends.

The two western Class I railroads report that significant percentages of their capital budgets are devoted to maintenance of their current assets. Investments in capacity expansion or efficiency improvements (infrastructure and information technology) are at most 10 to 20 percent of capital spending.[2] These capacity improvements, because they represent a smaller percentage of overall capital spending, are subject to even more careful examination by railroads. Competing investments are examined not only for their relative financial returns, but also to control risks.

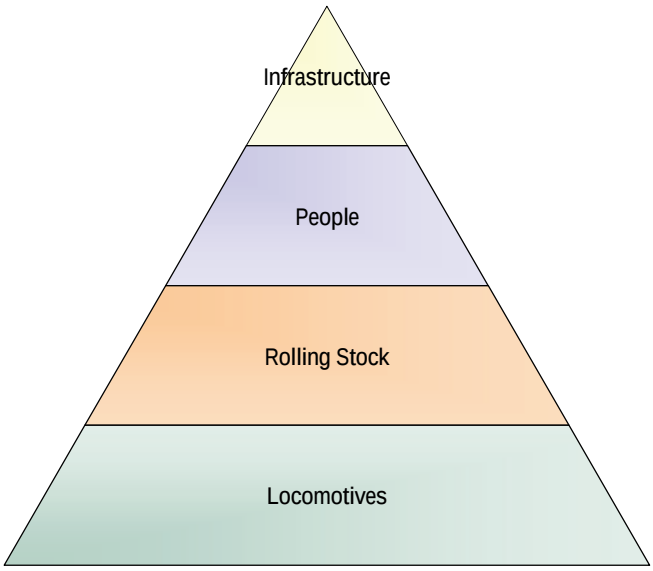
The illustration in Figure 2.1, taken from presentations by the Norfolk Southern Railroad, one of the Class I railroads operating in Missouri, represents how one railroad evaluates various capacity expansion alternatives.[3] Part of the decision-making process assesses the relative risks and opportunities associated with investments – how many different ways an asset could be deployed to meet market opportunities and how the asset could be redeployed if traffic volumes fail to meet expectations. The pyramid in Figure 2.1 represents how that railroad assesses the relative risks of various investments: in this collection of overlapping triangles with a common point, the area of each triangle is a relative measure of the opportunity and risk associated with each type of investment – the bigger the area, the more flexibility. Therefore, rising up the pyramid shows that overall risks increase. Investments in locomotives have relatively lower risks because they are easily relocated to portions of the railroad where they can add to revenues. Rolling stock is also portable, but the cars must be moved with motive power, and rail cars are typically tailored to certain commodities (trailers for intermodal containers, gondola cars for coal, tank cars for particular chemicals), so their flexibility is limited in the face of changing market conditions. Expanding locomotives and rail cars will require more railroad employees to transport and maintain them, and labor can be added to match

[2] Approximation taken from railroad presentations to investment analysts, found on railroad web sites: http://www.bnsf.com/investors/presentations/pdf/□2009jpmorgan.pdf, http://□www.up.com/investors/attachments/□presentations/□2009/jpmorgan_□09_□slides.pdf.

[3] Presentation at the Railway Supply Institute's "Selling to America's Railroads" symposium on May 7, 2009, Darrell Wilson, Assistant Vice President, Government Relations, Norfolk Southern Railroad.

changing market conditions. But railroad employees require extensive training, can be specialized by expertise and by trades covered by collective bargaining agreements, and are more difficult to move across a railroad network's broad geography. Investments in physical infrastructure carry the highest risk, in that they are stranded assets dependent on revenues from traffic carried over the asset, they must be maintained over time and cannot be relocated to other more profitable parts of the railroad's network.

Figure 2.1 Railroad Investment Risk Pyramid



Source: Norfolk Southern Railroad, 2009.

How State Policies Can Affect Railroads

Before examining how state public policy might help or hurt railroad operations, it would be helpful to establish the limits of state regulation over railroads. Railroads are engaged in Interstate commerce, and as such, are exempt from many kinds of state or local regulations that might affect other businesses in a state. States and local governments can set speed limits for trucks on public roads, but cannot set limits on railroad operating speeds. States might set state-specific practices for how alcoholic beverages or motor vehicles are distributed and sold, but economic regulation of railroads is reserved for the Federal government. So states are limited in affecting the business transactions between railroads and shippers. State laws may affect how injured workers are treated at a warehouse loading fruit onto refrigerated railcars, but the railroad employees controlling the train's movement are covered by Federal laws independent from state worker's compensation statutes.

With that in mind, railroads explained in interviews that they see four primary areas of state public policy that affect their operations:

- Taxation;
- Highway-rail grade crossings;
- Rail safety; and
- Economic incentives.

Each of these areas can affect the overall economic climate in which a railroad conducts its business, and therefore the cumulative effects of a state's policies can influence railroad investment decisions because the policies can affect the overall rate of return of investments made in the State.

Taxation. State income or franchise taxes do not affect railroads differently from other businesses in a state, but since railroads are significant owners of property, state property taxation matters to railroads. How a state assesses value and how it allocates that value to jurisdictions can make a difference to a railroad's assessment of the State's overall business climate and can affect its willingness to make improvements to its property that might create jobs in a state.

Highway-rail grade crossings. One of the primary ways in which the public comes in contact with railroads is at the physical intersection of a road with the railroad (a road that crosses a railroad at the same grade is referred to a highway-rail grade crossing, while a location where the road and railroad are separated by a bridge structure is referred to as a grade separation). States are required to spend a portion of their Federal highway safety program safety funds on grade crossing protection devices, which the railroads are obligated to maintain. States that augment Federal grade crossing funds with state resources can help reduce rail-vehicle crashes and maintain fluid railroad operations.

Rail Safety. Railroad safety regulation is reserved for the Federal government, through the Federal Railroad Administration. But states are authorized to participate in a program that allows state employees to augment Federal rail inspectors. These state inspectors are trained and certified by the FRA, and assist the FRA in special enforcement activities and in general rail safety work. Some states generate funds to offset the costs of these safety activities through a rail-related fee. Railroads believe that state rail safety inspection activities that are inconsistent with Federal safety enforcement practices can be a detriment to railroad operations.

Economic Incentives. States can offer incentives to encourage railroad network capacity expansion or new service to new industries. States can make direct investments in railroad projects to leverage private investments by the railroad and by shippers. States can encourage economic development that creates new jobs by supporting new businesses with rail service, through property or income tax reductions. State contributions that leverage railroad investments can reduce total costs to the railroad, which can make the project's financial rate of return more favorable. These kinds of state policies can attract railroad contributions to capital projects, and are among the most important elements of state policy to the railroads, as will be explained in Section 4.0.

Assessment of Missouri Business Climate

Railroads benefit from a state's overall business climate – the climate affects how a railroad succeeds financially from operations in the state. A favorable environment in which growing businesses increase rail shipments to and from the state also benefits railroads doing business in Missouri. Overall business tax levels, tort liability limits and practices, education policies, all can benefit railroads directly and indirectly. On the other hand, some state policies that affect the business climate for private businesses have less direct effect on railroads. Changes in worker's compensation laws that might reduce growth in the costs of treating injured workers can help many businesses, but most railroad workers are covered by Federal laws specific to the industry.

Overall, railroads interviewed in this study reported that the Missouri business climate was generally favorable.

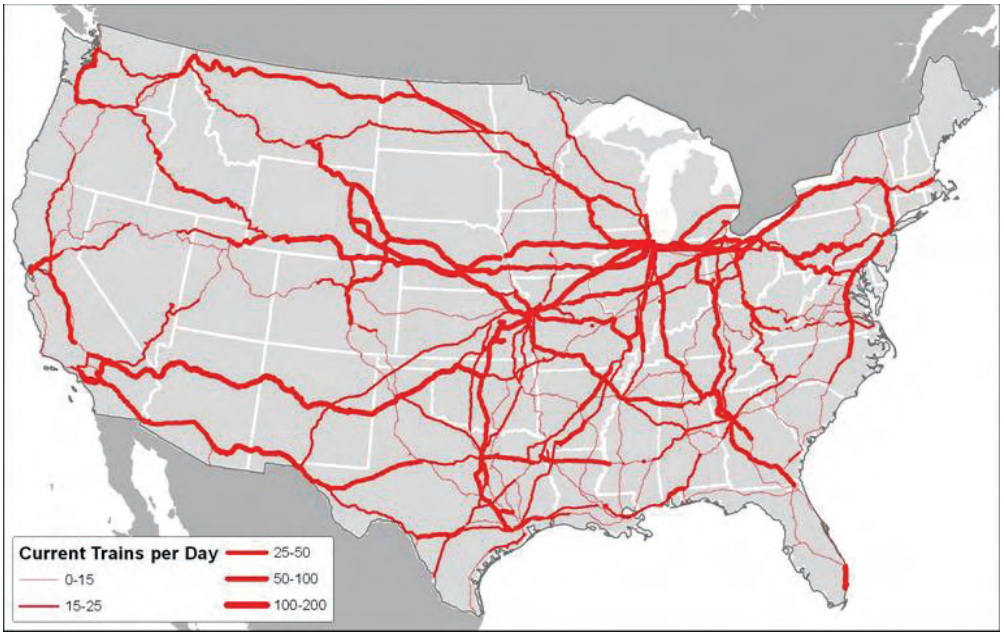
2.2 POLICY IN MISSOURI AND PEER STATES

The study team assessed Missouri public policy affecting railroads by meeting with Missouri DOT railroad staff at length. Other state officials responsible for state tax policy and state economic development also were interviewed. Information on railroad taxation, state highway-rail grade crossing programs (which were mentioned as a matter of particular importance in railroad interviews), and state rail safety programs were collected from available literature for states adjacent to Missouri – Arkansas, Kansas, Iowa, Illinois, and Nebraska.

These states were chosen as peers for the following reasons:

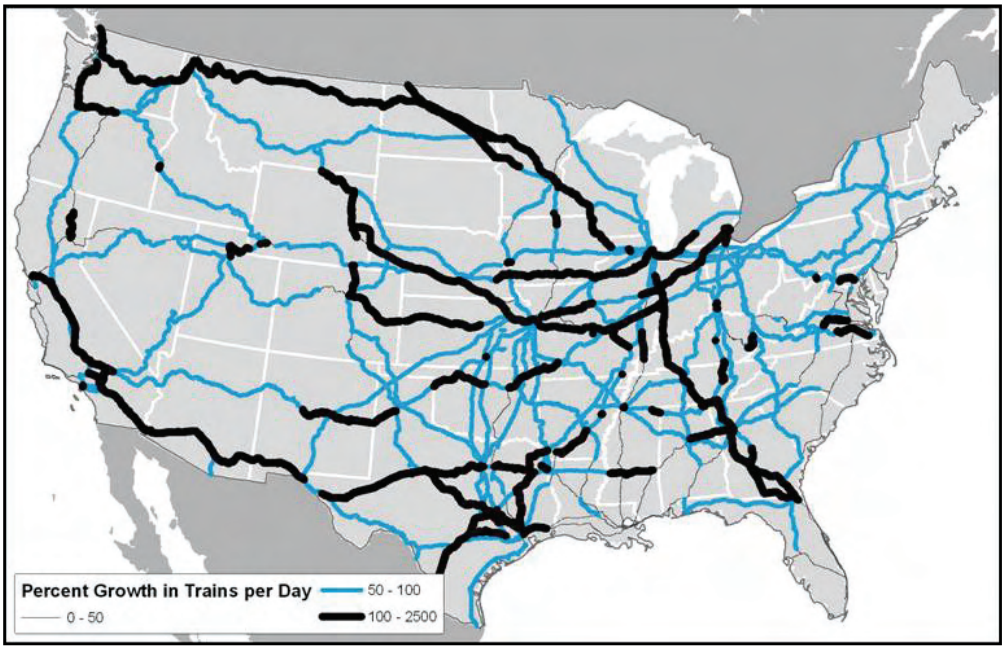
- **Geography –** All six Midwestern states have similar freight rail mileage, and have freight rail traffic that is primarily through traffic from another state to another state (with the exception of Chicago in Illinois, which is a transfer point from western to eastern railroads). Short-line railroads in each state also functions as a link from small, agricultural shippers to the main Class I railroads.
- **Proximity –** These neighboring five states offer the most competitive alternatives for railroad investments to those in Missouri, and are therefore competitors to Missouri for railroad spending and related job creation. If a nearby state offers more desirable investment incentives, then rail improvements may be sited in those states rather than Missouri.
- **Capacity –** All six states are facing similar futures of significant freight rail congestion and related community impacts. Cambridge Systematics prepared the National Rail Freight Infrastructure Capacity Study for the American Association of Railroads to examine the effects of increased freight volumes on existing rail capacity. Figure 2.2 shows current freight rail volumes on the nation's primary rail freight corridors. Missouri and peer states already have significant rail volumes of transcontinental movements. Figure 2.3 shows how expected volume increases will increase daily frequencies, with particular impacts on Missouri and peer states.

Figure 2.2 Current Corridor Volumes by Primary Rail Freight Corridor
2005 Freight Trains and 2007 Passenger Trains per Day



Source: National Rail Freight Infrastructure Capacity and Investment Study, American Association of Railroads, July 2007. Volumes are for the 85th percentile day.

Figure 2.3 Percentage Growth in Trains per Day from 2005 to 2035 by Primary Rail Corridor



Source: National Rail Freight Infrastructure Capacity and Investment Study, American Association of Railroads, July 2007. Volumes are for the 85th percentile day.

The study team assembled information regarding rail policies from Missouri and these five peer states:

- Table 2.1 summarizes information regarding railroad property taxation. More detailed information is found in Appendix A. This information indicates that Missouri taxation policy is very similar to peer states. Interviews with railroads confirmed that Missouri property taxation is not significantly dissimilar to peer states, and therefore does not adversely affect rail investment in the State.
- Table 2.2 summarizes information regarding highway-rail grade crossing programs. More detailed information is found in Appendix B. Missouri and peer states all administer Federal grade crossing program funds. Other states provide additional state investments for grade crossing protection and grade separations. Some other states also assist in funding grade crossing road resurfacing, which railroads supported in interviews for this study, but Missouri does not.
- Table 2.3 summarizes information regarding state rail safety programs. Appendix C contains sources for this table. Missouri and Illinois have some of the more robust state safety programs in the nation, and the data provided shows that Missouri's staffing offers comparable coverage to Illinois in terms of rail traffic and rail miles.

Section 4.0 provides additional information about various investment programs and economic incentives offered by Missouri and peer states.

Table 2.1 Railroad Taxation Methods in Missouri and Peer States

	Arkansas	Kansas	Iowa	Illinois	Missouri	Nebraska
Responsible State Agency for Taxing Operating Property	Public Service Commission, Tax Division	State Department of Revenue, Director of Property Valuation	State Department of Revenue	Department of Revenue	State Tax Commission	Department of Revenue, Department of Property Assessment and Taxation
Assessment Criteria	Unit valuation; considers market value of stock, funded debt, and operating income	Unit valuation; capitalized income approach is most reliable	Market and income approaches are used for railroads	Market value, based on income, stock and debt, and cost approaches	Unit valuation, income approach is preferred	Unit valuation, considering all approaches, including income, stock and debt, cost, etc.
Tax Rates and Collections	All real and personal property, tangible and intangible, is taxed at market value	Railroads' assessment rate is 25 percent market value	All real property is taxed at market value, not personal property	Real property taxed at market values, personal property (all improvements) exempt	All real and personal property, tangible and intangible is taxed at market value	Tax based on real, franchise and net book value of tangible property
Apportionment to State	Proportion of lines within state to total lines, proportion of income within state to total income	Kansas original cost divided by the entire system original cost, with a five-factor formula of trackage and tonnage	Ratio of railroad property and activity within state to total property and activity, also includes gross operating revenue, track mileage, revenue traffic units, and rolling stock miles	Percentage of railroad company's track and turnouts in state, gross revenues from state activities, and replacement cost of operating property in state	Apportioned based on state to system ratios for operating mileage, locomotive/car miles, operating revenue, ton miles of freight, ton miles of freight originating and terminating, and undepreciated investments	Allocation not specified in state statute, instead a combination of property, income, and use factors
Apportionment to Local Jurisdictions	Rolling stock and personal property based on mileage operated, real estate, and tangible property allocated to taxing district where located	Combination of track mileage percentage and original cost	Apportioned by miles of track	Apportioned to jurisdictions based on track miles, while fixed facilities assigned to unit where located	Apportioned by miles of track	Five percent of taxable value apportioned to units where buildings are located, remainder apportioned by track miles and track density

Source: Survey of Railroad and Utility Taxation Practices among the States: 2005 Update, http://www.orps.state.ny.us/ref/pubs/railroadutility/.

Table 2.2 Highway-Rail Grade Crossing Programs in Missouri and Peer States

	Arkansas	Kansas	Iowa	Illinois	Missouri	Nebraska
Responsible State Agency	Arkansas Highway and Transportation Department	Kansas Department of Transportation	Iowa Department of Transportation	Illinois Commerce Commission	Missouri Department of Transportation	Nebraska Department of Roads
Division	Planning and Research Division	Bureau of Design, Coordinating Section	Office of Rail Transportation	Bureau of Transportation	Railroad Section, Multimodal Division	Rail Section, Rail and Public Transportation Division
State Resources Leveraging Federal Section 130 Funds	No additional state funds	$300,000 per year for grade crossings that are not eligible for Federal funds	$900,000 per year for grade crossing surface improvements, $700,000 for signal maintenance	Grade Crossing Protection Fund has $27 million (fuel tax set aside) annually for local roads and streets	$1.2 million in Grade Crossing Safety Account	$2.5 million (rail excise tax) in state matching funds
Other Related State Programs	Operation Lifesaver	Railroad Grade Separations, Railroad Crossing Surfacing (50-50), Rural Road Local Partnership Railroad Grade Crossing Program (80-20)	Grade Crossing Surface Repair Fund pays 60 percent of repair costs	Illinois Department of Transportation provides funds for state system grade crossings	State offers financial assistance for crossing closures, state also has program for grade separations and corridor-level safety improvements	State offers financial assistance for crossing closures, state also has program for grade separations and corridor-level safety improvements

Source: State agency web sites (Kansas, Iowa, Illinois, Nebraska), MoDOT staff interviews, State Rail Agencies throughout the U.S., Virginia Department of Rail and Public Transportation, Draft, October 2005.

Table 2.3 Railroad Safety Programs in Missouri and Peer States

	Arkansas	Kansas	Iowa	Illinois	Missouri	Nebraska
Program Information						
FRA State Safety Enforcement?	No	No	Yes	Yes	Yes	Yes
Responsible State Agency	N/A	N/A	Department of Transportation	Commerce Commission	Department of Transportation	Public Service Commission
Division	N/A	N/A	Office of Rail Transportation	Bureau of Transportation	Railroad Section, Multimodal Division	Railroad Division, Transportation Dept.
Contact	N/A	N/A	Ms. Tammy Nicholson, Director	Mr. Michael E. Stead, Railroad Safety Program Administrator	Mr. Rodney Massman, Administrator of Railroads	Mr. Tim Sandusky, Program Manager
Inspector Information						
Number of State Rail Safety Inspectors	N/A	N/A	2	9	6	2
Safety Disciplines	N/A	N/A	2 track	2 track, 2 hazmat, 3 signal/ train control, 2 operating practices	3 track, 2 signal/train control, 1 operating practices	1 motive power and equipment, 1 track
Other Information	N/A	N/A	Each inspector covers half the state		Compliance with laws/regulations, accident and complaint investigations	
Relative Coverage Measurements						
Number of Rail Carloads Carried by State	N/A	N/A	6,785,278	11,913,804	8,693,928	6,127,938
Rail Inspectors per Million Carloads	N/A	N/A	0.29	0.76	0.69	0.33
Number of Rail Miles in State	N/A	N/A	3,937	7,343	4,107	3,219
Rail Inspectors per Thousand Rail Miles	N/A	N/A	0.51	1.23	1.46	0.62

Source: State agency web sites, Federal Railroad Administration web site for Safety Programs, Association of American Railroads State Statistics.

3.0 Future Issues

This section describes future trends that Missouri should consider in developing public policies to encourage railroad development. While some of these suggestions are not as important to railroads as the recommendations in Section 4.0, suggestions for future policy development are highlighted by underlining.

3.1 LOGISTICS AND BUSINESS PRACTICES

In order to understand how state policies could affect railroad development, states should consider ongoing changes in logistics practices, rail car equipment, and environmental regulations. Each of these elements pose challenges and opportunities for states seeking to positively influence railroad operations within their jurisdictions.

Logistics

The 2005 Missouri Statewide Freight Study describes in detail the States' modal freight networks, current and projected commodity flows, and economic impacts of goods movement in and through the State. The study also describes how general trends in freight logistics affect the Missouri transportation system and, in turn, how that system affects Missouri businesses.

Data examined in the Statewide Freight Study indicated that most goods movement in Missouri on its Interstate highway and freight rail networks was through traffic coming from other states and going to other states. 2001 data showed that 74 percent of rail traffic by tonnage and 55 percent of truck traffic by tonnage has neither an origin nor a destination in Missouri. However, the report indicated that the economic impacts of state freight traffic to Missouri only was slightly less than the economic impacts to other states, so freight traffic is important to the State's economy. This dominance of through traffic may mean that Missouri shippers might have to work harder to attract the attention of major railroads to carry their goods. **State programs that offered financial incentives to railroads doing business with Missouri shippers could motivate those rail carriers to seek these shipments**.[4]

Missouri businesses tend to enjoy some competitive advantages from the State's central location and its multimodal freight transportation system. While some shippers may be captive to one mode or one carrier, due to the nature of their commodity or of their geography, many shippers in Missouri can take advantage

[4] Such financial incentives are described in the Recommendations in Section 4.0.

of lower cost access to international ports via barge shipments down the Mississippi river, or motor carrier competition fueled by extensive Interstate access. Modal or carrier competition can drive down the costs of transportation. As a result, many Missouri businesses and producers may be in a beneficial position.

The rise of global product sourcing for Missouri manufacturers and retailers, increasing ubiquity of international shipping containers, and motor carrier capacity constraints (driver shortages, fuel costs, insurance increases) have increased the volumes of intermodal shipments by rail. This intermodal rail resurgence also has given rise to property developments with rail access outside major urban areas with distribution warehousing or value added manufacturing. These properties are usually adjacent to rail main lines and Interstate highways, and have lower priced land with fewer development controls. These kinds of facilities can offer distribution access to cities within a 300-mile radius (single day truck access). A number of larger facilities have been developed outside of Chicago (Elwood, Crete, Rochelle, and others) which can offer access to St. Louis businesses. Two new facilities are under development south of Kansas City (one in Missouri on the KCS, one in Kansas on the BNSF) which also can offer intermodal truck shipments to much of Missouri. While development and location of the sites are a function of market-related forces, some states and local governments have offered partial funding of infrastructure (roads, utilities) to enhance the intermodal centers.

Equipment

There are a number of emerging trends in railroad equipment that may lead to increased expenditures on rail cars by car owners. For example, the Federal Railroad Administration is encouraging the adoption of electronically controlled pneumatic (ECP) braking systems on rail cars, particularly on high-mileage dedicated trains used for grain, coal, intermodal, nonmetallic minerals, and autos. Current braking systems work mechanically, with each car's air brakes operating in sequence, which poses train handling issues and lengthened stopping distances. The FRA has adopted rules regarding the operation and maintenance of the braking systems, as railroads and rail car owners consider the business benefits associated with these expensive new systems.[5]

Decades ago, when railroads owned most of the rail cars carried on their systems, consideration of equipment changes offering safety and operating benefits to railroad operations would be a matter of simply weighing costs and benefits. However, since 1999, a majority of rail cars in the North American freight car fleet are owned by private owners (companies leasing to shippers or

[5] Proposed Rule: Brake System Safety Standards for Freight and Other Non-Passenger Trains and Equipment, 49 CFR Part 232, Federal Register Volume 73, Number 201. October 2008, rule final January 2009.

shippers owning the cars). In 2008, 62.7 percent of the rail car fleet had private ownership marks, and still more cars were leased to railroads directly or operated by railroad-owned companies like TTX. This means that the ECP brake issue involves consideration of which parties benefit and which parties pay, and governmental policy has to balance the interests of owners and operators of rail equipment.

Another trend affecting rail car owners is the overall age of the active rail car fleet. Over 350,000 rail cars in the North American freight car fleet are 30-years old or older and 104,000 vehicles will exceed their 40th year in service within the next 5 years. This means that rail car owners will be considering car replacement within the next 5 to 10 years, which has implications for state policies related to equipment purchases.

State policy-makers should understand that rail equipment purchases, repair, and upgrades are not solely the province of railroads, but also involve shippers and other car owners. Thus, state tax treatment of railroad equipment purchases and purchases of maintenance-related supplies affects private parties other than just a few railroads. **State policies also could influence the location of rail car maintenance facilities or affect the competitiveness of state businesses with private rail car fleets.**[6]

Environment

The U.S. Environmental Protection Agency (EPA) issued regulations in 2008 requiring designation of areas not meeting new National Ambient Air Quality Standards, specifically new requirements for meeting a 0.075 ppm ozone standard with an eight-hour averaging time. The Missouri Air Conservation Commission established new boundaries for nonattainment areas in Missouri on March 11, 2009, and those new boundaries included counties in the Kansas City and St. Louis regions (as well as Ste. Genevieve and Perry Counties) as non attainment areas. Future regional air quality plans are likely to consider environmental implications of railroad operations in the regions.

Even as the two major urban areas in Missouri are addressing new air quality standards, the Federal government is promulgating regulations that will reduce greenhouse gas (GHG) emissions from railroad operations. The U.S. EPA adopted a comprehensive regulation on locomotive and marine diesel engine air quality in 2008.[7] These regulations call for new lower emission locomotives by the 2012 model year (Tier 3), ultralow-sulfur diesel fuel in 2012 (a separate

---

[6] Recommendations on state sales tax and tax incentives could influence rail car purchases and rail car maintenance in Missouri.

[7] Final Rule: Control of Emissions of Air Pollution from Locomotives and Marine Compression-Ignition Engines Less Than 30 Liters per Cylinder, 40 CFR Sections 9, 85, et al., June 2008, Environmental Protection Agency.

regulation), and Tier 4 engines in 2015. Tier 4 locomotives will reduce diesel particulate matter by 90 percent compared to 2007 Tier 2 locomotives and reduce nitrogen oxide by 80 percent. These reductions in locomotive emissions will take place over time after 2015, as the locomotive fleet turns over through engine replacement requirements or new locomotive purchases. However, this means that rail-related GHG emissions are likely to be reduced through the application of this new national regulation.

Two areas of potential environmental regulation could affect railroad operations in Kansas City and St. Louis: local ordinances affecting locomotive idling, and possible state/regional programs to accelerate the conversion of rail yard switching locomotives to new Tier 3 and Tier 4 standards.

Locomotive idling. The new locomotive air quality standards issued by the U.S. EPA in 2008 will require increased use of idling engine cut off technology to automatically power down the engine or adopt other mechanisms that reduce the amount of engine capacity in use. However, the EPA reports that idling reduction standards are a matter for state and local government regulation. St. Louis already has local ordinances regulating idling for motor vehicles (predominantly motor carriers and buses), but local ordinances might be enacted to control locomotive idling in rail yards in nonattainment areas.

Locomotive replacement acceleration. The State of Missouri recently received a grant from the U.S. EPA for on-road and off-road diesel engine emissions control equipment, idling reduction equipment and other emissions reduction technologies. These grants were further delegated to the metropolitan planning organizations (MPO) in Kansas City and St. Louis.[8] **Future state funding for clean diesel programs may wish to consider targeting regionally based locomotives used in rail yard operations for possible replacement with Tier 3 or Tier 4 compliant locomotives.** Such programs would not only reduce rail-related GHG emissions, but also allow the urban areas to include the locomotive replacement programs in their regional air quality improvement programs.

3.2 RAIL POLICY

National rail policy trends in infrastructure investment or rail regulation could influence how railroads invest in their systems, and therefore should be of interest to a state seeking to understand how to encourage rail development. National policy in both these areas may be changing dramatically in the future, and therefore states would be wise to aim their own policy initiatives in ways

[8] The clean diesel program grants were also sent to the Springfield, Missouri MPO, although the Springfield region is expected to be designated as an attainment area by the Missouri Air Conservation Commission.

that are complementary to these movements. This section will discuss these two policy subjects in more detail.

Infrastructure Investment Policy

The physical rail infrastructure over which freight rail traffic and intercity passenger rail operates in Missouri is, for the most part, owned and operated by the freight railroad companies themselves, large and small. Most public investment in these private assets has been targeted for capacity for additional passenger rail (intercity and commuter) frequencies and higher speeds. In the past two decades, a small number of public investments have been made for freight-related purposes only, a chief example of which is the $74 million Sheffield Junction Flyover Bridge in Kansas City, a joint effort of freight railroads and the Missouri Department of Transportation. Public investment in passenger and freight rail is likely to increase in the coming years.

As the authorization for Federal surface transportation programs expires in 2009, a number of proposals are being advanced to increase the flexibility of public funds to be invested in projects to improve freight movement, including freight rail projects. The American Road Builders and Transportation Association is advancing an intermodal program for intercity freight movement called the Critical Commerce Corridor program, for which rail projects would be eligible.[9] The reauthorization proposal advocated by the previous administration of the U.S. Department of Transportation also recommended freight rail projects be eligible for Federal surface transportation programs.

At the same time, the U.S. Congress is considering legislation to create investment tax credits for private freight rail investment, with the support of the American Association of Railroads. The AAR released a report titled, "The National Rail Freight Infrastructure Capacity and Investment Study" (conducted at the request of National Surface Transportation Policy and Revenue Study Commission) in September 2007. This study was the first to provide a comprehensive evaluation of the long-term capacity needs along major freight rail corridors. By assigning projected freight volumes (increasing by approximately 88 percent by 2035 according to the U.S. DOT) to more than 50,000 miles of rail segments and assessing capacity throughout the U.S., the research team concluded that by 2035 an infrastructure investment of $148 billion will be necessary in the intervening years, with $135 billion of the total for Class I railroads and $13 billion needed for short-line and regional freight railroads. Legislation to enact investment tax credits for 25 percent of the value of capacity improvements (infrastructure and locomotives) was introduced in the 111th Congress (H. 272, the Freight Rail Infrastructure Capacity Expansion Act of 2009)

[9] For more information, see http://www.artba.org/pdf/SAFETEA-LU_Recommendations_□1107.pdf.

and in the 110th Congress (H. 2116 and S. 1125, the Freight Rail Infrastructure Capacity Expansion Act of 2007).

The U.S. Congress also has taken action to expand the possibilities for Federal investment in passenger rail infrastructure in the Passenger Rail Investment and Improvement Act of 2008 (PRIIA) enacted by H. 2095 in October 2008. This bill authorizes (subject to future appropriations) over a five-year period:

- $5.3 billion for the National Rail Passenger Corporation (Amtrak) capital grants and $2.9 billion for operating grants;
- $1.9 billion for intercity passenger rail corridor improvements, through an 80-20 grant program administered by the U.S. Department of Transportation; and
- $1.5 billion for high-speed rail corridor development, also through a U.S. DOT 80-20 grant program.

This expanded corridor development program would complement MoDOT initiatives to enhance intercity passenger service, particularly between Kansas City and St. Louis, the State's major economic centers. MoDOT is part of a multistate alliance, the Midwest Regional Rail Initiative (MWRRI), including Illinois, Indiana, Iowa, Michigan, Minnesota, Ohio, and Wisconsin, that has actively been planning for high-speed rail service (between 79 and 110 mph) along 3,000 miles of routes through these states. MoDOT also received $3.3 million in Federal funding in September 2008 for expanding sidings along the Union Pacific Railroad between Kansas City and St. Louis, matching $5 million in funding allocated for that purpose by the Missouri Legislature. These improvements should improve on-time performance for state-supported Amtrak service (and provide benefits for freight traffic), and were part of a series of steps identified in an extensive study performed by the University of Missouri.[10] Even more funding for intercity passenger rail projects was enacted in the American Recovery and Reinvestment Act of 2009 (popularly referred to as the "economic stimulus bill," passed in February 2009): up to $8 billion is appropriated for high-speed rail, intercity corridors, and congestion relief projects.

To date, MoDOT has shown a balanced approach in advancing passenger rail service and expanding freight rail capacity. **New Federal programs for freight and passenger rail expansion should provide MoDOT additional**

[10] James Noble and Charles Nemmers, *Missouri Freight and Passenger Rail Capacity Analysis*, Missouri Department of Transportation, Research, Development and Technology, July 2007, published at http://www.modot.mo.gov/□newsandinfo/□documents/□MORailFinalReportJul07.pdf.

opportunities for enhancing railroad infrastructure capacity, and MoDOT is actively pursuing grants under these programs for still more projects.[11]

Rail Regulation

Changes are underway in how the Federal government approaches the regulation of railroad safety, economics, and security. These changes may affect how the Missouri state government interacts with the railroads, how Missouri companies do business with railroads, and how railroads will be investing in their systems.

Rail Safety

Given the interests of Interstate commerce, Federal law vests primary rail safety enforcement authority with the Federal government, in particular with the Federal Railroad Administration, part of the U.S. Department of Transportation. The FRA is led by an appointee of the President confirmed by the Senate. Safety enforcement is carried out by the FRA Office of Safety, headed by an Associate Administrator, and enforced through safety inspectors across the country, organized into eight regional offices, including one in Kansas City, Missouri.

In October 2008, as part of the same congressional legislation that enacted the passenger rail funding, the Rail Safety Improvement Act of 2008 also enacted major rail safety policies that will affect Missouri. First, the law requires active positive train control technology in railroad locomotives on certain routes by 2015. Positive train control (PTC) systems refer to a variety of systems that seek to avoid train-to-train collisions, over speed derailments, and injuries to railway workers working within their limits of authority. Specifically, the legislation requires implementation of PTC by 2015 on all Class I railroad main lines:

- Over which intercity passenger rail train service or commuter rail passenger train service is regularly provided; or
- Over which poison- or toxic-by-inhalation hazardous materials are transported.

This mandate will require implementation of PTC on the UPRR line between Kansas City and St. Louis, and on other rail lines over which certain hazardous materials are carried. This means that freight and passenger railroads will be under significant pressure to meet this 2015 deadline, which will require substantial resources that may reduce capital available for capacity expansion. **To the extent that Missouri continues to be interested in passenger rail-related investments, alternative funding may be considered for PTC implementation.**

[11] Recommended state rail funding programs could leverage federal passenger and freight rail funding in the future, making Missouri applications more attractive.

This new rail safety law also makes changes in hours of service regulations, congressionally established rules that govern how often and for how long railroad employees can work. The new rules are expected to reduce rail incidents caused by employee fatigue. Changing the working conditions for railroad employees may create a situation in which more railroad workers are needed to handle current railroad traffic. Since Missouri already has a larger than average railroad employee base (both in absolute and per-capita numbers), safety rules that increase rail employment could be a benefit for the Missouri economy.

The new law also authorizes an expansion of the FRA rail safety inspector workforce by a total of 200 positions over the next five years. This will likely expand the frequency of safety inspections in Missouri and surrounding states, which will further leverage Missouri's investment in state rail safety inspectors.

Rail Economics

As the 2007 National Rail Freight Infrastructure Capacity and Investment Study reported, logistics costs as a percent of total gross domestic product rose to 9.9 percent in 2006, after steady rates of decline since the 1970s. As shippers are faced with the pressures of rising logistics costs across all modes, they are less likely to continue to accept the idiosyncratic pricing practices of railroads or pay increased surcharges for fuel costs of infrastructure congestion. For this reason, coalitions of agricultural, coal and chemical shippers are joining together to seek improvements in pricing practices that would expand the competitive options available for captive shippers.

Missouri shippers, with the notable exception of certain captive shippers of rail-specific commodities such as coal, have relatively accessible competition from other railroads, truck service over east-west and north-south Interstates, and access to water transportation on the Mississippi river. These competitive options for many shippers work to keep rail rates low relative to shippers in regions or industry locations with fewer competitive options.

Two major studies have been published at the national level describing some of the competitive issues raised as rail rates have grown (beyond marginal costs, in some instances). In 2006, the Government Accountability Office (GAO) published a report detailing the level of competition in the rail industry, which offers a very extensive but easily understandable description of some of the competitive relief measures being sought by shipper groups.[12] A more exhaustive study of rail competition was recently undertaken for the Surface Transportation Board (STB), the Federal entity responsible for rail economic

[12] *Freight Railroads: Industry Health Has Improved, but Concerns about Competition and Capacity Should Be Addressed*, Government Accountability Office Report GAO-07-94, October 2006, pages 44-51.

regulation.[13] Both these reports cover in detail the current dimensions of rail competition and pricing and the possible effects of different mechanisms to address the problems.

Shipper groups are advocating legislation to offer some competitive remedies to change some railroad business practices and expand the authority of the Surface Transportation Board. One approach is to limit antitrust exemptions currently applicable to railroads, particularly those affecting rate-setting practices, or mergers, acquisitions and combinations. This legislation was introduced in the 111th Congress (the Railroad Antitrust Enforcement Act of 2009, S. 146/H.R. 233) and the 110th Congress (the Railroad Antitrust Enforcement Act of 2007, S. 772/H.R. 1650). Another approach is to more broadly change STB regulations and rate setting authority and otherwise affect certain business practices, through legislation that was introduced in the 110th Congress (the Railroad Competition and Service Improvement Act of 2007, S.953/H.R. 2125). Railroads oppose both proposals.

Advocating for or defending against these efforts is beyond the scope of this report, and the proposals are not described to debate their merits, but rather to imagine their potential effects. If freight railroads are circumscribed in their ability to price their services, they may lose some of their attractiveness in equity markets and lose some of their ability to devote revenues to infrastructure improvements (not just maintenance) and to productivity-enhancing technology. Reductions in revenues also may limit the ability of freight railroads to contribute to publicly funded rail improvements, shrinking the leveraging possible from public sector dollars. **As Missouri state officials consider what kind of position the State should take on competition-related legislation, they may want to weigh the rate relief for some shippers against the opportunity costs for other shippers and businesses from rail capacity investments that might not be able to be funded. Furthermore, if pricing controls reduce revenues available for railroad capital expenditures, railroads may be more open to public funding for infrastructure expansion or favorable tax treatment of railroad investments. States with such incentives may attract more railroad development than those states without the incentives.**

Rail Security

The regulatory environment that enhances rail safety and economic policy – openness, disclosure of information, accessible statistics – reflects the basic interactions by which safety and economics are advanced. Railroad operations at some level involve collaborative, voluntary, mutual actions by various parties, and success in reaching financial or safety goals depends on those interactive relationships. In the realm of rail security, the primary objective is to prevent

[13] *A Study of Competition in the U.S. Freight Railroad Industry and Analysis of Proposals that Might Enhance Competition*, L.R. Christensen Associates, November 2008.

certain parties from gaining information about and access to railroad operations so that those operations are not disrupted. In this environment, transparency about infrastructure vulnerability, details of movement of high-risk, high-consequence commodities or lists of risk countermeasures will serve to diminish rail security.

Rail security is primarily a Federal matter, led by the Department of Homeland Security through the Transportation Security Administration, in cooperation with the Department of Transportation through the Federal Railroad Administration and the Pipeline and Hazardous Materials Safety Administration. Prior to the increased national attention to security after 9/11, rail security was primarily a concern of the railroads themselves and among the community of first responders responsible for addressing rail incidents involving hazardous materials (hazmat). Railroads responded quickly after 9/11 to develop more robust security plans, and as the Transportation Security Administration (TSA) was created, the industry worked together with the Federal agencies and other industries. These efforts were formalized through the enactment of the Implementing the 9/11 Commission Recommendations Act of 2007, which established requirements for rail security planning, information sharing, and hazmat routing.

Final rules for rail security, published in November 2008, establish the requirements for protecting security sensitive information, identifying rail security coordinators at railroads, and other hazardous materials shippers and receivers, reporting security incidents, and authorizing inspections of rail network facilities by TSA personnel.[14] Another rulemaking for implementing the rail hazmat routing requirements of the 9/11 Commission Act was finalized in November 2008 as well.[15] That rule establishes guidelines for railroads to use in studying hazmat shipping patterns, assessing alternative routing that minimizes risks, and establishing a procedure for reviewing routing decisions. Both these rules have certain elements in which Missouri state government is affected. The Missouri Information and Analysis Center (MIAC), the State's intelligence fusion center, is responsible for receiving information from TSA and railroads about security incidents, and will be given information regarding railroad contacts responsible for routing decisions. **Given its closer working relationship with the railroads, MoDOT may want to facilitate additional communication between railroads and MIAC, to foster relationships that offer mutual help on rail security matters.** Proactive engagement could smooth information flow in the event of rail security incidents or threats.

---

[14] 73 FR 72130, 49 CFR Parts 1520 and 1580, Final Rule, Transportation Security Administration, November 26, 2008.

[15] 73 FR 72182, 49 CFR Parts 172, 174, and 209, Final Rule, Pipeline and Hazardous Materials Safety Administration and Federal Railroad Administration, November 26, 2008.

4.0 Recommendations

This section summarizes the recommendations of the Cambridge Systematics study team to advance rail development in Missouri based on interviews with railroad representatives, research on peer state rail programs and regulations, and an understanding of national railroad industry economic and regulatory trends. These recommendations presented reflect input from railroads at a workshop to discuss these and other possible recommendations and are, of course, subject to future decisions by the Missouri Department of Transportation on how and when to act on or defer these recommendations.

4.1 RECOMMENDATION: STATE RAIL FUNDING PROGRAM

The study team recommends Missouri consider additional appropriations into the MoDOT State Transportation Assistance Revolving Fund (STAR Fund) for the purpose of railroad improvements, perhaps targeted at regional and short-line railroads.

Issue. MoDOT administers state and Federal transportation funding programs that expand general aviation facilities, public transportation services in urban and rural communities, and supports a highway network that provides connectivity for employees, retail customers, manufacturing, agriculture, and the motor carrier industry. Local governments also administer funding programs for commercial airports and major public transportation services. These public investments benefit thousands of private businesses – those involved in surface transportation and aviation, and those that depend on transportation to conduct their business. Expanding a program to benefit railroad investment would not only improve the business climate for railroads in Missouri, but would expand the State's commitment to multimodal transportation investments.

Peer States. Illinois and Nebraska continue to administer revolving loan proceeds originally created during the Federal Local Freight Rail Assistance program (originally created as the Local Rail Service Assistance program), which received Federal appropriations from 1976 through 1995. These programs are aimed primarily at regional or short-line railroads and are used for the main purposes of the LRFA program: rehabilitation, new construction, and acquisition. Iowa reconstituted their revolving loans and grant program into the Rail Revolving Loan and Grant program which leverages loan repayments with state appropriations ($2 million in 2007). Kansas also leverages its loan repayments with other state funding – up to $3 million per year from the 2001 10-year state transportation program.

Railroads pointed to the funding programs in Iowa and in Oregon (the Connect Oregon program) as models that offer stakeholder involvement, fact-based grant awards, and balance between Class I and short-line railroads.

Implications. Given the current instability in the credit markets, regional and short-line railroads in Missouri might welcome a source of capital for track improvements, fuel efficient locomotives, or other projects. The State could fund direct investments in railroad infrastructure, and these funds could also leverage other Federal funding for freight and passenger projects. The State also could provide funding for railroad costs (investigation fees and credit risk premiums) to leverage Federal loans from the Railroad Rehabilitation and Improvement Financing (RRIF).

Implementation. Missouri already has a revolving loan program for railroad improvements and other multimodal operations, the State Transportation Assistance Revolving Fund (STAR Fund); therefore, the State would not need to create a new program. However, the Fund has little financial capacity for additional loans. Recapitalizing the STAR Fund though additional direct appropriations and expanding the number of loans also would increase annual loan repayments as a sustainable revenue source for the fund. The larger the appropriation from the State Legislature, the more railroads can be assisted.

4.2 RECOMMENDATION: INVESTMENT TAX CREDITS

The study team recommends that Missouri authorize an investment tax credit for railroad investments that are related to economic development.

Issue. MoDOT has a Cost Share/Economic Development Program for highway investments connected to economic development projects creating new jobs. The program is administered with the cooperation of the Department of Economic Development, approved by the Missouri Highways and Transportation Commission and is a disciplined approach to allocate state resources for economic development purposes. A similarly targeted program, using investment tax credits, would enhance railroad investments for economic development.

Peer States. Kansas provides railroads a corporate income tax credit for the property taxes they pay on machinery and equipment for economic development projects. Nebraska provides a 10 percent investment tax credit for railroads or other businesses that invest $3 million in a project and create more than 30 jobs; this tax credit taken on investments in depreciable assets can be applied to state income taxes or to get refunds of state sales and use taxes, for seven years after the investment is made.

Implications. While expanding the State rail network to new businesses may have modest effects on total railroad revenues (larger impacts for smaller properties), the main objective would be to expand economic development for new or existing businesses in the State, by encouraging capital projects to offer

rail service to new businesses. A railroad investment tax credit would augment other Missouri state and local economic development incentives, and enhance the overall business climate in the State.

Implementation: New legislation would be required to authorize this program, which could be administered by MoDOT, in cooperation with the Department of Revenue and the Department of Economic Development, agencies which already cooperate on administration of the Cost Share program. Since the legislation would affect prospective investment, the fiscal implications to the state of the tax credit would be minimal (it would not redirect or eliminate current state revenues).[16] We recommend that Missouri target investment tax credits for railroad investments that expand or extend service to a new or existing Missouri business if that rail service will enable job creation and plant investment.

4.3 RECOMMENDATION: STATE SALES TAX EXEMPTION FOR RAILROAD EQUIPMENT

The study team recommends that Missouri exempt all railroad equipment from state sales taxes.

Issue. Missouri exempts railroad rolling stock purchases from state sales taxes, and also allows a sales tax exemption for certain equipment, materials, and parts used in repair and maintenance of railroad rolling stock. However, Missouri does not exempt other railroad equipment, particularly supplies used in capital and maintenance projects, such as rail, ties, and ballast.

Peer States. Most peer states allow railroad equipment purchases to be exempt from state sales taxes. Nebraska, Iowa, Kansas, and Illinois exempt such equipment, whether it is rolling stock, welded rail, wheels, or railroad ties. Arkansas only exempts rolling stock purchases from sales tax, more restrictive than Missouri's laws.

Implications. One railroad told the study team that when they buy railroad ties for track maintenance from a Missouri manufacturer, they pay sales taxes only on the ties used in Missouri. This regulatory practice not only affects railroads operating in Missouri, but also affect rail equipment manufacturers based in Missouri. Expanding the sales tax exemption would put Missouri on a more equivalent competitive footing with peer states in attracting railroad maintenance and capital investments. Rail lines with substantial traffic will continue to attract investment to maintain track condition and operating speeds.

[16] The study team is not expert in how such prospective legislation to create tax incentive funding for railroad development would be evaluated by the Oversight Division of the Joint Committee on Legislative Research. However, the reduction in future state taxes for economic development projects, even if the projects would not happen absent the incentives, may be represented as a reduction in state general funds.

Other lower traffic rail lines in Missouri may be less competitive compared to similarly situated lines in peer states, which may result in more slow orders, less competitive service to trucks, and higher risks of derailments for portions of the Missouri railroad network.

Implementation. Expanding the sales tax exemption would require legislative action, and would require the Department of Revenue to estimate the possible revenue loss to the State general revenue and education funds (and minor impacts to the conservation and parks/soils funds.[17]

[17] The study team cannot estimate how such prospective legislation to create this sales tax exemption would be evaluated by the Oversight Division of the Joint Committee on Legislative Research. Such an evaluation would require an estimate on the total annual purchases of railroad equipment and supplies in Missouri, and the related estimate of current rail-related sales tax revenues.

A. Detailed Railroad Taxation Information

More detailed information on railroad taxation practices of Missouri and peer states was found in Survey of Railroad and Utility Taxation Practices Among the States: 2005 Update, published by the New York State Office of Real Property Services.[18] This section contains the information from that site that was used to generate Table 2.1, Railroad Taxation Methods in Missouri and Peer States.

A.1 ARKANSAS

Responsible State Agency. Operating property. Tax Division, Arkansas Public Service Commission. Nonoperating property – county assessors.

Assessment Criteria. The property of each company is valued as a unit. If the company's stock is traded, the Tax Division will base its valuation on factors such as original cost less depreciation, market value of outstanding capital stock and funded debt (excluding current and deferred liabilities), and operating income. If a company's stock is not traded, the original cost approach is used.

Tax Rates and Collections. Market value. Taxable: all real and personal property (tangible and intangible).

Apportionment. Apportionment to the State. Proportion of lines within state to total lines; proportion of operating receipts or income within state to total operating receipts of income; or another recognized method at the judgment of the Tax Division.

Apportionment to the taxing jurisdictions. Fixed site real estate and tangible property assigned to tax district where located; other property apportioned in proportion to value of tangible property; value of rolling stock is apportioned to local tax district by the mileage operated in the district; value of personal property is apportioned based on mileage operated.

Law Source. Arkansas Code of 1987, Annotated.

[18] Found at http://www.orps.state.ny.us/ref/pubs/railroadutility/.