



The Missouri Statewide Freight Study

Executive Summary

October 2005



Making the Case for Freight Transportation Planning

Today national, regional and local economies rely on international trade to remain competitive in a global market place. In the current business environment, cost effective, time sensitive transportation services have become a strategy for competitive advantage in manufacturing and service based industries. Public transportation agencies today are being challenged to support modern product supply-chains through infrastructure investments and policy actions. To support economic prosperity in this environment, public planning agencies must understand and support new economy transportation needs.

In the ten years since the North American Free Trade Agreement (NAFTA) went into effect, trade using surface transportation between the United States and its partners, Canada and Mexico, has grown more than 80 percent and as of September 2004, was valued at \$54.9 billion. In 2000, Missouri's surface trade with Canada and Mexico totaled nearly \$7 billion.¹ Surface transportation consists of freight movements by truck, rail, and pipeline. About 90 percent of U.S. trade with Canada and Mexico moves by surface transportation.

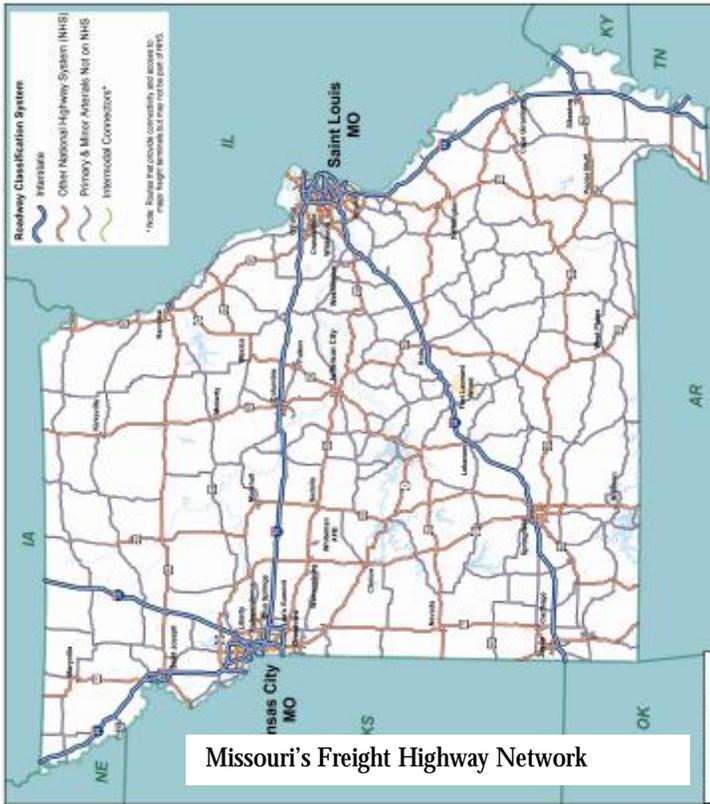
The Missouri Department of Transportation undertook the Missouri Statewide Freight Study as a precursor to an update of Missouri's Long Range Transportation Plan. Specifically, the primary objective of this study is:

"...to study the movement of freight through all modes of Missouri's transportation system in an effort to improve efficiency and safety throughout the system. This study will inventory the existing system, identify key components and needs, and identify current trends to forecast future needs. The study will serve as a starting point for developing a working model of Missouri's freight transportation system."²

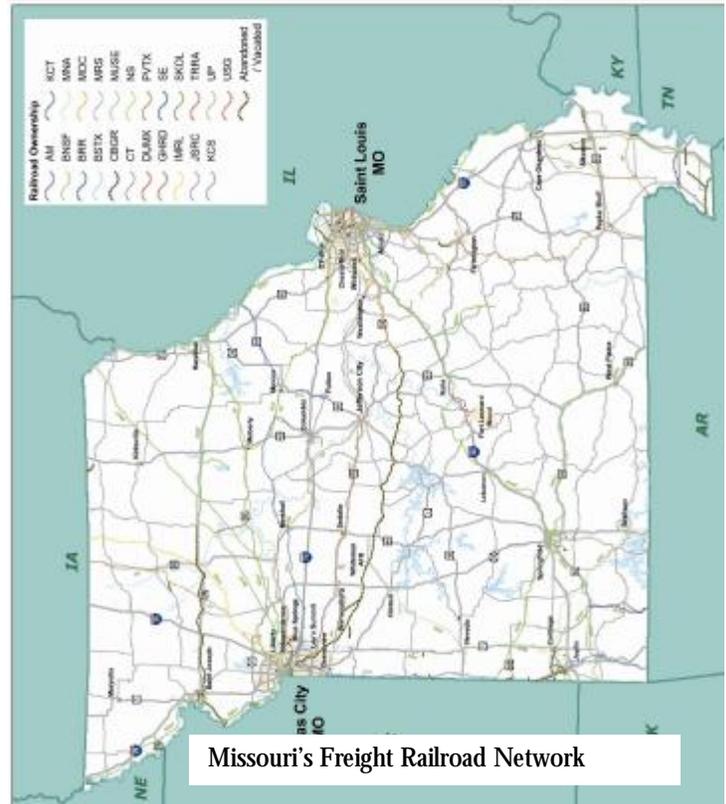
Kansas City and St. Louis provide key markets and intermodal connections for Missouri's highway transportation system. Highway constraints that limit mobility and/or access to these centers are especially important. Interstate 70 is a key route for freight travel in both St. Louis and Kansas City. The beltway surrounding St. Louis is also a major connection for freight in the city of St. Louis. Most of the major east-west thoroughfares crossing the St. Louis metropolitan area experience truck traffic volumes of 100,000 vehicles or more on a daily basis.

Missouri's Freight Networks

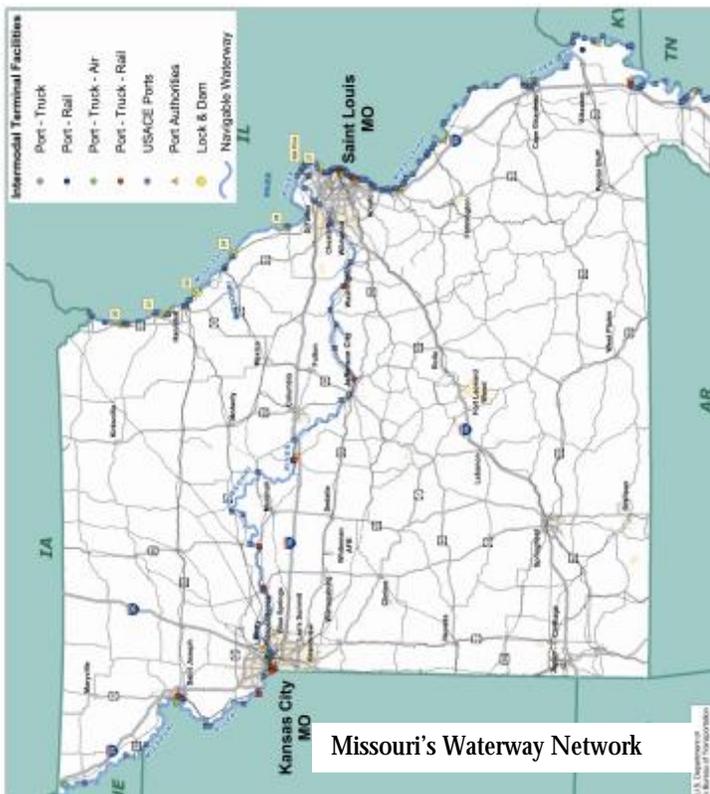
Missouri maintains 32,397 miles of state roadways.³ For the Missouri Statewide Freight Analysis a "freight highway network" consisting of just over 22,000 miles was defined early in the study. Missouri's railroad network consists of 4,168 main line miles of track, with the majority of the track owned and operated by Class I carriers. The two largest rail carriers in Missouri are the Burlington Northern and Santa Fe (BNSF) and the Union Pacific (UP). Other Class I carriers include the Kansas City Southern Railway Company, the Norfolk Southern Corporation and CSX Transportation. In addition to highway and rail modes, the U.S. Army Corps of Engineers (U.S.A.C.E) maintains 1,050 miles of navigable waterways in Missouri. The inland waterway system throughout the State of Missouri is divided into two river systems, the Missouri River and the Mississippi River. The largest nodes of water freight activity are located in Kansas City and St. Louis. There are 12 Missouri airports that support air cargo operations; seven conduct scheduled operations for integrated and all-cargo carriers, while five others support ad-hoc charter operations to varying degrees of volume and frequency.



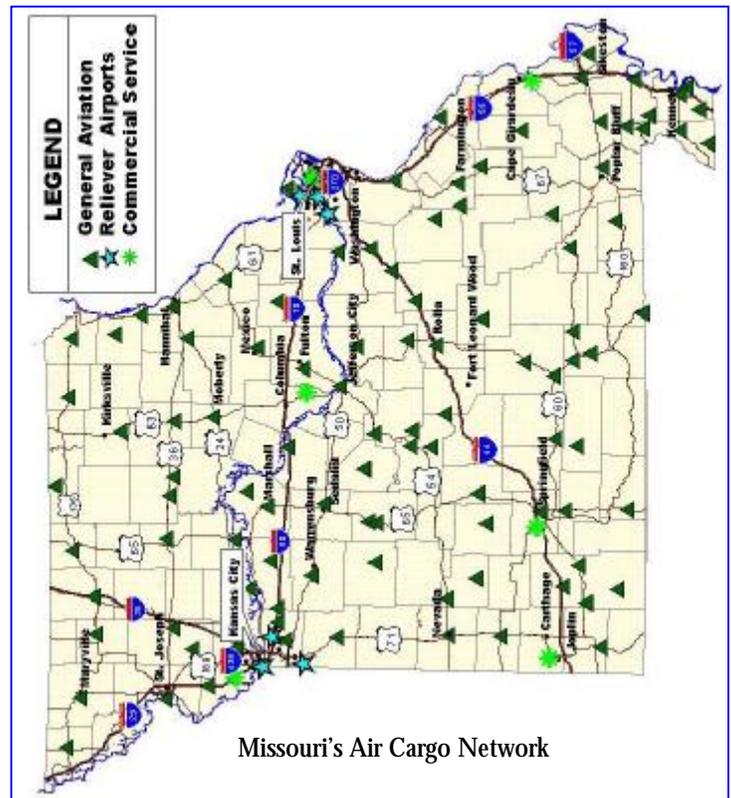
Missouri's Freight Highway Network



Missouri's Freight Railroad Network



Missouri's Waterway Network



Missouri's Air Cargo Network

Missouri's Freight Movement Profile

In 2001, Missouri's transportation system facilitated the movement of approximately 1.1 billion tons of freight with an estimated value exceeding \$1.3 trillion dollars.

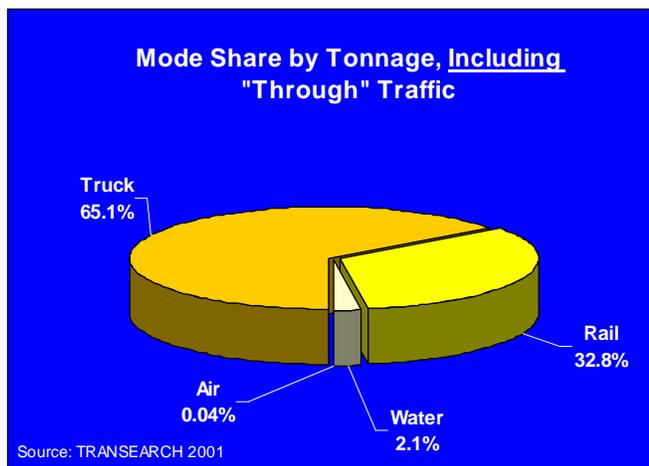
By weight approximately 65 percent of all freight moving in, out, within and through Missouri moves by truck; 33 percent by rail; 2 percent by water; and less than 1 percent by air. By value, the significance of the truck mode increases even further, to nearly 80 percent.

Of all freight on Missouri's transportation system, the majority [approximately 719 million tons (64 percent by value)] moves through Missouri from origins outside of the state to destinations also outside the state. The remainder is comprised of imports to and exports from Missouri, and shipments where both the origin and destination are within the state of Missouri.

Missouri is a bridge state for both truck and rail movements to other parts of the U.S., as 74 percent of rail traffic by tonnage and 55 percent of truck traffic by tonnage has neither an origin nor destination in Missouri.

Approximately 59.7 percent of the tons moved through Missouri are moved by truck. Of the approximately 409.6 million tons of freight that moves through Missouri by truck, the most common commodity types include Farm Products (17 percent), Food or Kindred Products (15 percent), Secondary Traffic (12 percent) and Nonmetallic Minerals (11 percent).

The Nature of Goods Movement in Missouri



Missouri Freight Movements by Mode: Tonnage and Value

Summary Statistics Including Through Traffic for Truck and Rail				
Mode	Tons	Tonnage Percent	Value	Value Percent
Truck	740,085,994	65.1%	\$1,297,895,492,510	78.8%
Rail	372,643,710	32.8%	\$340,387,354,245	20.7%
Water	24,092,707	2.1%	\$4,921,787,993	0.3%
Air	437,410	0.04%	\$3,838,112,826	0.2%
Total	1,137,259,820		\$1,647,042,747,573	
Summary Statistics Without Through Traffic for Truck and Rail				
Mode	Tons	Tonnage Percent	Value	Value Percent
Truck	330,460,671	73.3%	\$487,549,273,699	83.1%
Rail	96,135,653	21.3%	\$90,693,694,699	15.5%
Water	24,092,707	5.3%	\$4,921,787,993	0.8%
Air	437,410	0.10%	\$3,838,112,826	0.7%
Total	451,126,440		\$587,002,869,217	

Source: 2001 TRANSEARCH Data, mapped using the Commodity Information Management System

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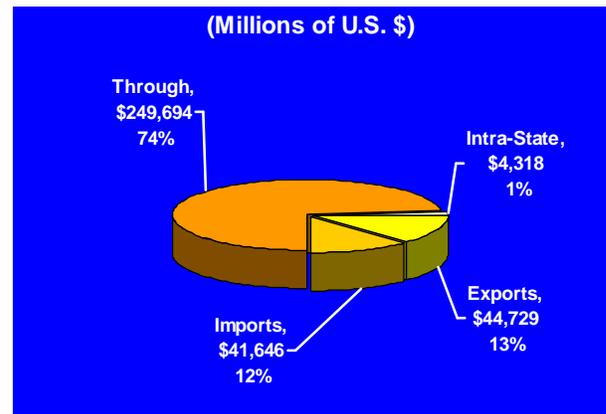
In 2001, over 370 Million tons of freight moved on Missouri's railway network, with an estimated value exceeding \$340 Billion.

Of the freight tons on Missouri's railroad system, 48 percent is Coal. Farm Products, Chemical Products, and Food/ Kindred Products combine for an additional 34%. Seventy-four percent of rail tons pass through the state, 20.5 percent are imports, and 5.3 percent are exports

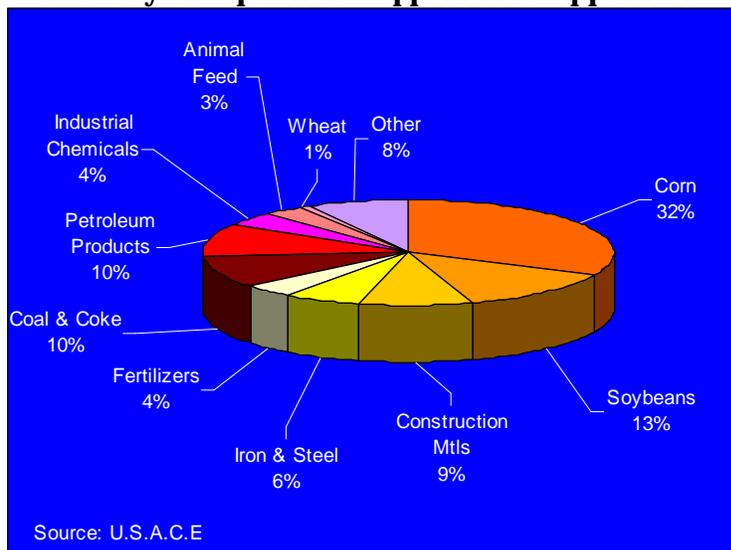
In 2001, over 190 Million tons of freight moved by water in Missouri, valued at nearly \$5 billion.

The Upper Mississippi River system continues to be a major mode of transportation for a variety of farm products, as well as other bulk materials such as chemicals and building materials.

Railway Freight Movements in Missouri



Commodity Groups on the Upper Mississippi River



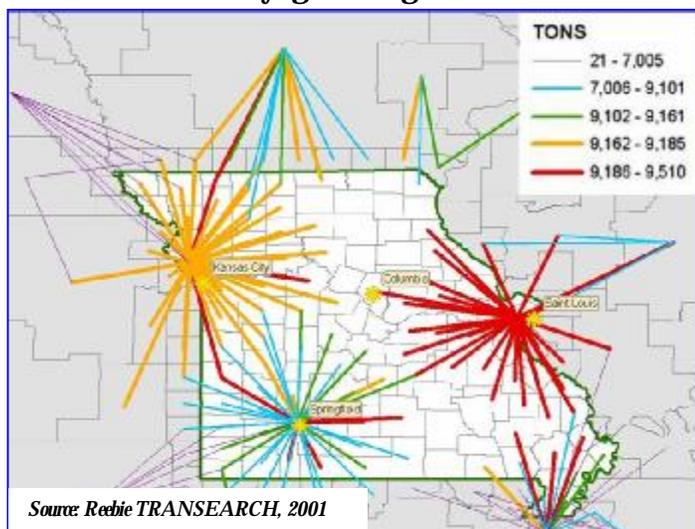
Historically, commodities transported by barge tow on the Missouri River include agricultural products, chemicals such as fertilizers and petroleum products, and manufactured goods such as building materials. However, in recent years fluctuating water levels on the Missouri River have significantly impacted barge traffic.

Kansas City International and St. Louis International represent the state's largest markets and highest respective air cargo volumes.

The combined draw or "catchment" area of these airports covers the majority of the State. Kansas City International Airport acts as a consolidation point for FedEx, UPS, Airborne, BAX Global, Emery and DHL feeder aircraft and trucks that serve western Missouri and eastern Kansas.

St. Louis-Lambert International Airport performs the same function for eastern Missouri and western Illinois.

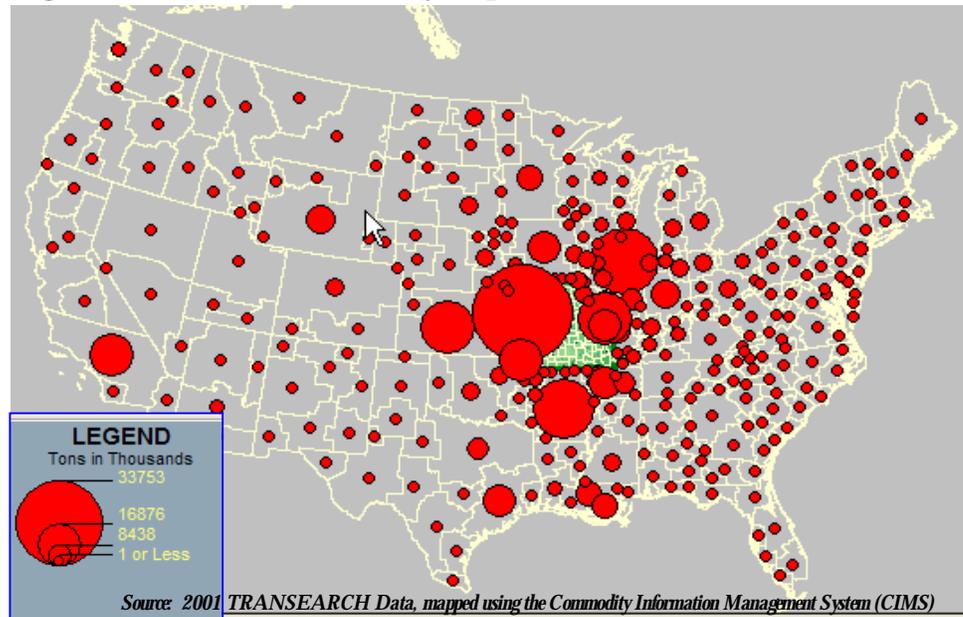
Missouri Air Drayage - Origin and Destination



Missouri: A Central Location to National and International Markets

Missouri occupies a key location in North America's trade network. A one-day drive by truck to significant U.S. population centers, Missouri also sits at the nexus of major rail and water routes. The red production icons on the commodity import map suggest that businesses in Missouri take ready advantage of neighboring industrial/commercial

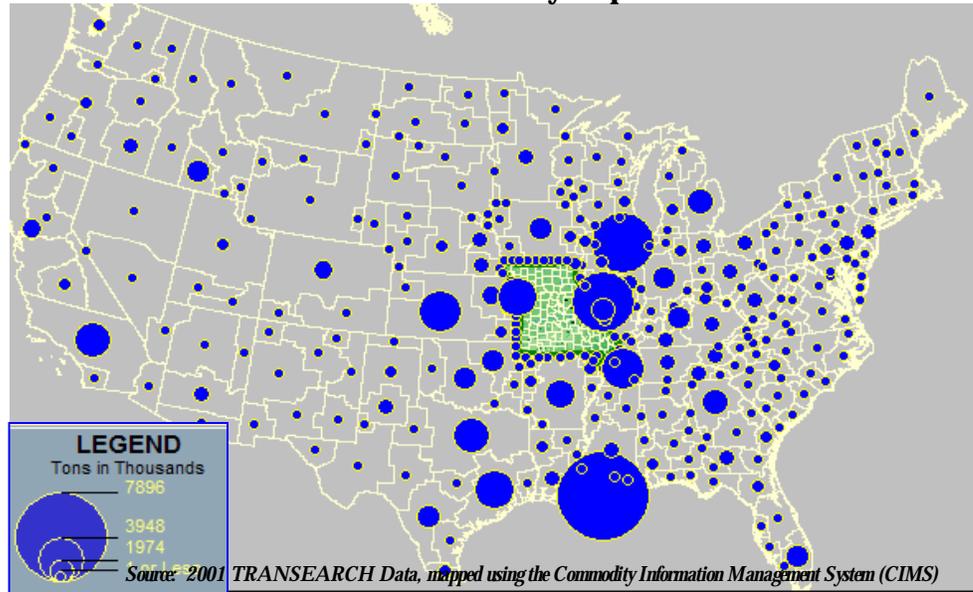
Origin Locations for Commodity Imports to Missouri (Excludes Coal)



centers in Kansas, Arkansas, and Illinois. Other major suppliers of Missouri's economy include Ohio, Minnesota, Colorado and states along the Gulf Coast. Rail links to Southern California also result in the Ports of Los Angeles and Long Beach being a significant portal for goods flowing into Missouri.

Export trade with Latin America has burgeoned over the past decade, and at times exports have grown by as much as 10 percent per year.⁴ As a result, the Gulf Coast states have become major portals for Missouri exports. The blue circle destination icons located at the termination of the Mississippi River is the dominate feature

Destination Locations for All Commodity Exports from Missouri



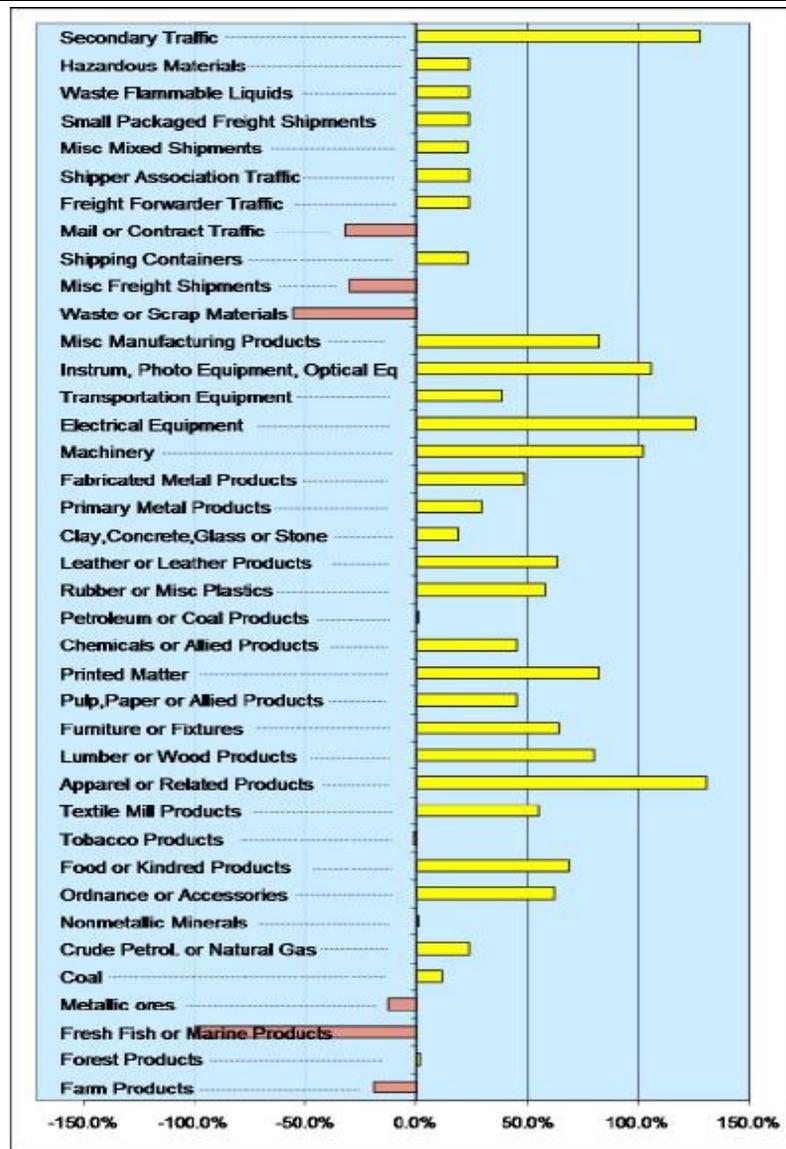
of the commodity export map. Chicago, with the nation's largest rail hub, is also a major recipient of commodities exported from the state.

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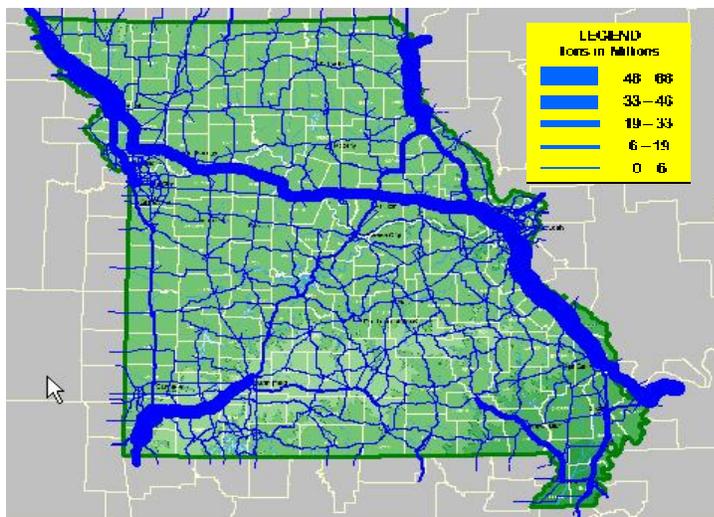
Freight Forecasts

The chart on this page shows the forecasted percentage change in commodity tonnages for Missouri between 2001 and 2020. The forecasts are presented by industry at the two-digit Standard Transportation Commodity Code (STCC). Over the 20 year period seven commodity groups are projected to decline. Several other commodity groups are projected to grow by more than 100% including Secondary Traffic (intermodal drayage and movements between warehouses); Instruments, Photo Equipment or Optical Equipment; Electrical Equipment; Machinery; and, Apparel.

Over 17% of the truck tonnage moving on Missouri highways is *through traffic*, i.e., originates outside of state and is destined to locations also outside the state. The origins, destinations, and nature of through truck traffic in Missouri were examined using the Commodity Information Management System (CIMS), a GIS planning application developed for the study.



Missouri's Forecasted Through Truck Traffic



The Missouri CIMS application can create reports and map forecasted commodity flows comparing current year and forecasted volumes. The map here shows the difference by tonnage between Year 2001 and 2020, as a result of through truck traffic. The analysis for current and year 2020 through truck traffic suggests that some routes such as I-29 and I-55 will see in excess of 50 million tons of additional commodity flows each year in the future.

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The Impact of Freight on Missouri's Economy

Freight activity on Missouri's transportation system supports \$56.0 billion in output throughout the United States.

The national impact of Missouri's freight infrastructure accounts for \$14.6 billion that is paid in wages to 455,600 employees. Of the jobs supported by Missouri's transportation system, 243,000 (53 percent) are located outside the state of Missouri.

Within Missouri, the transportation system supports \$24.3 billion of output in the state's economy of which \$6.4 billion is paid in earnings to 212,600 jobs.

The greatest impacts Missouri enjoys from its transportation system result from the internal connectivity of the system for freight movements within the state. Over 60 percent of Missouri's jobs supported by freight transportation system are attributable to commodity flows for which both the origin and destination are within the state.

Freight movement through Missouri, as well as Missouri's imports and exports generate significant jobs, output, and earnings outside of Missouri.

Economic Impacts of Missouri's Freight Transportation System

Impact Region and Direction of Flow	Type of Impact			
	Direct Exp. (\$Million)	Output (\$Million)	Earnings (\$Million)	Jobs
In-State Impacts (Missouri-only)				
Internal (Internal to Internal)	\$6,616	\$13,441	\$3,895	128,600
Export (Internal to External)	2,410	4,948	1,205	41,700
Import (External to Internal)	2,853	5,840	1,322	42,300
Total In-State	\$11,879	\$24,229	\$6,422	212,600
Out-of-State Impacts (US Only)				
Through (External to External)	5,828	16,801	4,289	127,700
Export (Internal to External)	\$2,410	\$6,664	\$1,730	52,800
Import (External to Internal)	2,853	8,303	2,151	62,500
Total Out-of-State	\$11,091	\$31,768	\$8,170	243,000
Total Impacts				
Internal (Internal to Internal)	\$6,616	\$13,441	\$3,895	128,600
Through (External to External)	5,828	16,801	4,289	127,700
Export (Internal to External)	4,820	11,612	2,935	94,500
Import (External to Internal)	5,706	14,143	3,473	104,800
Total of All Economic Impacts	\$22,970	\$55,997	\$14,592	455,600

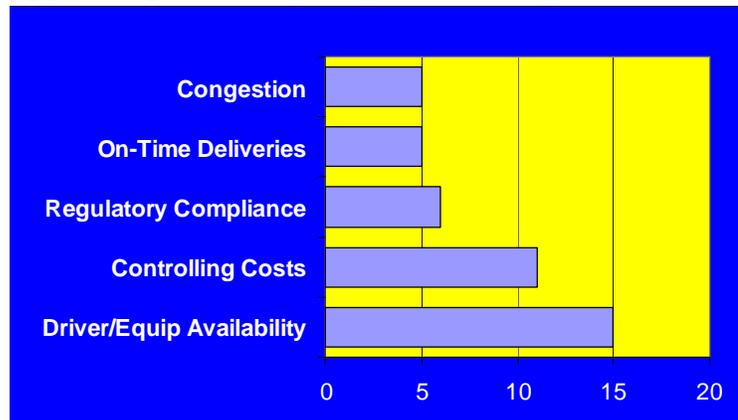
Freight Transportation Challenges Facing Missouri

As part of the freight study process, shippers in the state were asked about challenges they face in moving goods in, out, within and through Missouri. The interviews gathered responses on shipping decisions such as mode choices, time of day operations and access to a range of transportation services. The responses to the question gravitated toward five key areas: 1) driver and equipment availability, 2) maintaining costs, 3) compliance with regulations, 4) on-time deliveries and 5) traffic congestion. The chart below shows the overall frequency of shipper’s responses.

Shipper Response Frequency to “Challenges” Question

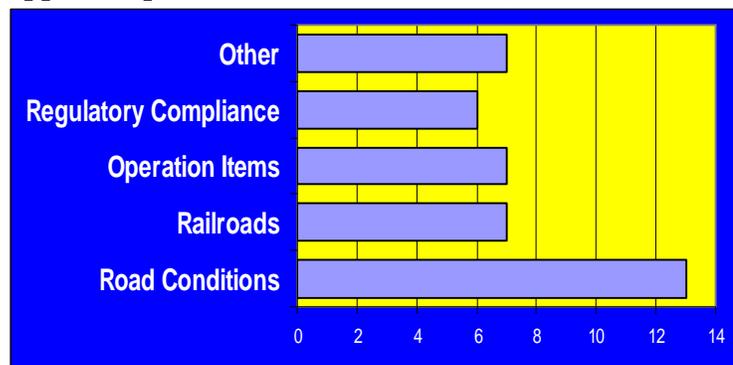
The congestion challenge was most notable in the St. Louis area as specific locations were mentioned. Traffic back-ups at weigh stations were also cited as a concern. Specific congested locations identified included:

- I-70 near Lambert and I-55
- Bottleneck at St. Louis bridges
- Near Earth City
- I-64/US 40



Shipper Response to “Weakest Link” Question

When asked what they viewed as the weakest link in Missouri’s transportation system, shippers as previously mentioned, noted a generally high level of satisfaction with the access to services and transportation choices available to them. However, when presented with the question, shippers indicated the “weakest links” were road conditions, railroad services, a variety of operational issues (maintenance, etc.), regulations, and a handful of other items. The results of this question are summarized in the chart above. The road condition comments varied from general sweeping statements such as “*need a better connection to Arkansas*” to comments about specific roadways such as I-70, I-44, US-71, US-60 and US-36. Comments related to the railroad also varied widely in terms of the issues identified.



Comments about operating issues facing shippers/carriers included the lack of carriers, lack of drivers, retaining quality employees, and back hauling concerns. The vast majority of the comments regarding regulations were concerning the new hours of service regulation for drivers. A number of respondents indicated they were very satisfied with the transportation system, while other commented that the State should be more business friendly.

*Executive Summary***Road Conditions - A Closer Look at Key Highway Infrastructure**

Total domestic freight flows are expected to grow an average of 3.4% from 1998-2010, and 2.4% from 2010-2020.⁵

While the extensive multi-modal network found in Missouri has played an important role in the State's economic growth and prosperity. Many elements of the freight movement system are now showing signs of fatigue. Missouri's extensive surface transportation systems for moving freight are a key asset underlying Missouri's diverse economy, maintaining these assets presents a continuing challenge. In the analysis performed for this study, segments of Missouri's Freight Highway Network were analyzed and mapped to examine the following condition attributes:

- Pavement Condition
- Percent Truck Traffic
- Level of Service
- Bridge Condition Ratings
- Safety Index

The table below displays the top ranking highways in terms of deficient route miles when highways in the freight network are sorted by Level of Service (LOS), safety index and percent of truck traffic. Many of the same highways appearing in this table, are the same routes cited by shippers and carriers as deficient facilities.

Route Mileage for Various Service and Safety Related Attributes

Route	Level of Service E or F	40-50% Truck Traffic	Safety Index - Poor	Safety Index - Very Poor	Pavement Condition Poor	Pavement Condition Very Poor
MO 5	134.1		1.2		45.9	18.5
US 71	86.4	7.1	5.2		32.5	0.4
I-70	82.1	166.2	35.8	5.8	62.4	
MO 13	79.4		6.0		34.0	18.9
US 60	72.6		4.2		3.9	
US 40	54.8		29.8	3.6	39.0	20.2
I-44	52.8	12.1	27.3		61.2	
I-64	48.7		2.9		1.1	
US 63	45.9		4.0		28.7	9.1
MO 46	44.0				4.2	
MO 7	40.0		3.1		10.7	

It should also be noted that MoDOT has in recent years undertaken an aggressive program to rehabilitate many roadways, and that pavement condition and other information about traffic flows and congestion may change as resurfacing projects are completed or as pavement surface continues to deteriorate over time. The information provided is a snap shot of pavement, traffic, and safety conditions as of the year 2002.

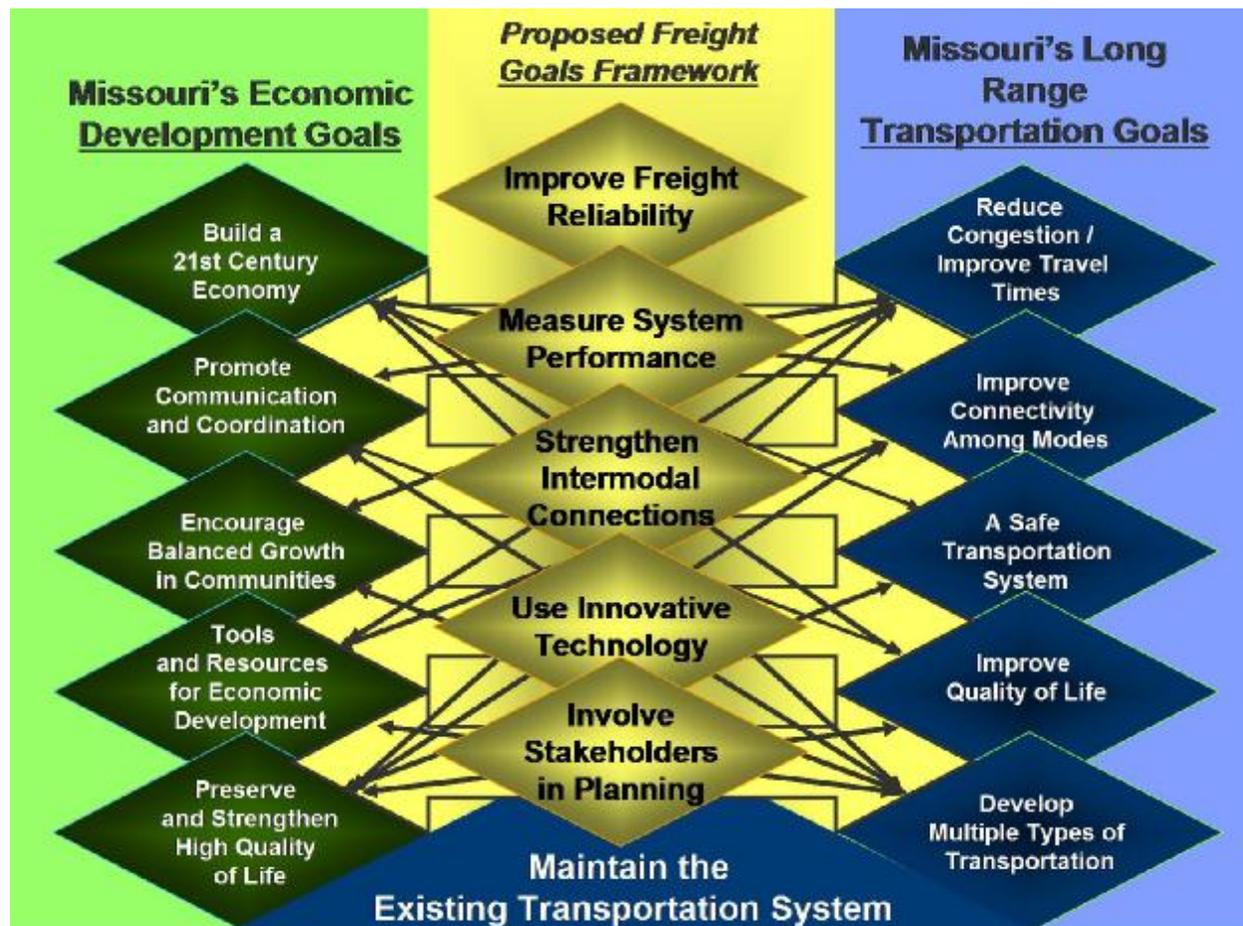
Defining a Framework for Freight Planning in Missouri

Missouri’s modal freight networks are necessary foundations of a prosperous economy. Future investments in these critical assets should be in accordance with the key economic development needs and long range direction of Missouri’s economy. Previous studies conducted for the State of Missouri acknowledges the link between transportation investment and economic development, and the increased business dependence on reliable transportation systems to support the evolving global trade economy.

Historically, freight has not received the same level of attention in transportation planning as passenger transport initiatives. Yet, commercial transport is vital to the businesses generating and receiving freight and all facets of society benefit from efficient freight transport as end users of goods and services. Missouri’s recognition of the important role of freight in the state’s economy will help ensure the quality of life for future generations.

In developing a freight policy framework to address the challenges facing Missouri from increases in freight traffic, an effort was made to explicitly construct a bridge between the state’s transportation goals and the state’s economic development goals, while “Maintain the Existing Transportation System” acts as the foundation for future investments.

Proposed Freight Planning Strategies Framework



Executive Summary**Recommendation #1: Improve Freight System Reliability**

The level of freight mobility across Missouri, and especially in metropolitan areas should be a key consideration in future planning efforts. Highway congestion affects the cost and efficiency of truck transport, and subsequently the reliability required for just-in-time delivery. The general evolution from push to pull logistics and subsequent demands for just-in-time delivery, combined with growth in distribution centers will likely heighten regional business sensitivity to disruptions caused by traffic congestion.

**Focus on Key Truck Corridors**

Missouri has a well developed network of highways with specific routes playing specific roles in freight distribution networks. From a freight movement standpoint, network roles should be recognized and acknowledged in planning efforts. At least three network roles on the state highway system should be explicitly recognized and planned for how they will accommodate freight traffic:

- Through routes
- Regional arterial stem routes
- Local connectors to freight activity centers

Through Routes – The commodity flow analysis using the CIMS/TRANSPLAN interface suggests that four of the five major Interstate Highways that traverse Missouri carry much of the through truck traffic in the state: I-70, I-44, I-29, and I-55. U.S. highway 61 is also heavily used for pass-through truck traffic. Continued investment in these key through routes is important to sustaining Missouri's Highway Freight Network.

Bypasses - A complete highway bypass system, integrated with growth plans and managed for freight accommodation should be considered a requisite part of the response to through truck traffic moving through metropolitan areas. Related to bypasses are methods of encouraging their use. Simple steps like route designation and signage can be effective, or traveler information channels can be applied to advertise the advantage of preferred routes to unfamiliar drivers. Distance, time, and their cost implications are the principle criteria for motor carrier route selection. Since most bypass routes are likely to be longer, having variable message signs with the time implications of route choices may be one way to encourage their use under heavily congested conditions.

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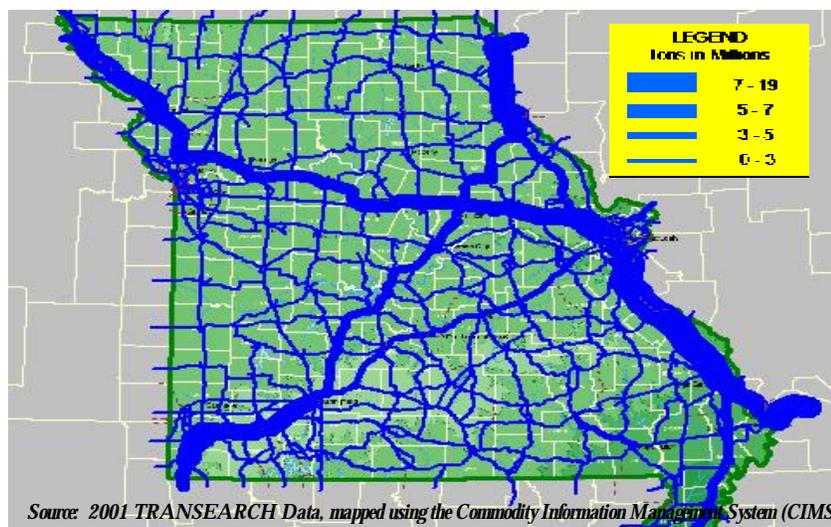
Tolling- Toll roads currently are under investigation around the nation as a means of generating partial financing of infrastructure and influencing travel behavior. Federal flexibility on tolling is becoming greater than in the past, and although policy is not fixed, the option is justified for consideration. The trucking industry is generally opposed to tolls on existing facilities, but has expressed willingness to considering tolls on new capacity expansions.

Truck Separation – Separating freight and passenger/commuter traffic is a relatively new traffic management strategy that is increasingly being examined in areas of high traffic density, where few alternatives exist. The most fundamental form of separation is to design roadways with sufficient lane widths, providing traffic sufficient maneuverability. Another form of separation is to restrict specific types of traffic along specific corridors.

Regional Truck Routes - Through truck traffic in Missouri has been described as a significant portion of overall truck volumes. However, while through traffic is large, it does not overshadow the need to understand and plan for regional traffic development, which is the segment to likely have the most effect on the state's economy. Operationally, regional routes should be managed for freight, for instance traffic signals can be timed for truck movements from known freight generators and receivers. Relief routes can be pre-defined, so that incidents can be handled with diversion as well as intervention.

The ability to move freight efficiently between Missouri's key trade centers is critical to bringing new industry to the area. High-value commodity producing industrial groups in Missouri are likely to be important in terms of economic impact and jobs, and these industries are likely to be service sensitive with regard to freight transportation. This means their inventories are low and their time

commitments to customers are fast. Their business processes require a high degree of reliability in transportation performance. The automotive industry has refined their inventory systems to the point where delays in the arrival of a shipment can cause an expensive production line to be shut down. The cost of this occurrence is monumental. Therefore, the speed and the reliability of the transportation network are critical. The map above shows the CIMS modeled output of key highway routes used in transporting high-value commodities from the Electrical Equipment, Chemical and Transportation Equipment Industries.

High-Value Commodity Movements in Missouri

Recommendation #2: Develop Freight Data and Measure Performance

Given the investments MoDOT has made in the TRANSEARCH database, and the tools developed during the course of this project, Missouri has an excellent foundation for building a comprehensive freight data program. Next steps for building on these tools could include integrating the CIMS application with data available from the Missouri Economic Research and Information Center, and integrating CIMS data with MoDOT's Transportation Management System

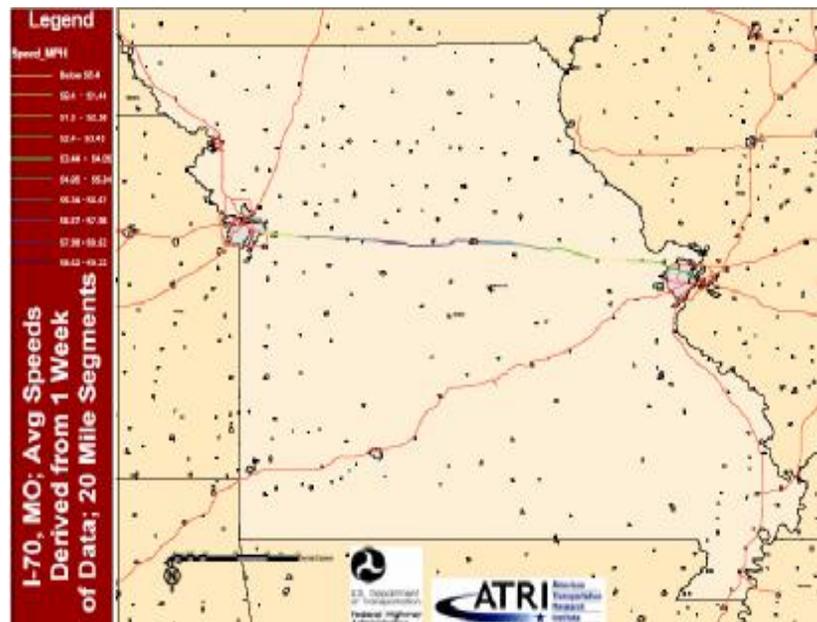


Build On MoDOT's "Tracker"

Tracker is a performance measurement tool to assess how well MoDOT is delivering its products and services. *Average speed* on selected roadway segments is one measure intended to provide indications of congestion on key roadways. Data from Traffic Management Centers (TMC) in urban areas that collect traffic data from roadside detectors will be used for Interstate facilities. Signal timing surveillance will be used to evaluate average speeds on non-interstate arterials.

Average Truck Speeds from GPS data for I-70

Recently the FHWA and American Transportation Research Institute (ATRI) entered into a "partnership to explore methods and approaches for measuring freight performance on the nation's highways."⁶ The Phase I study evaluated methods for collecting real-time travel speeds on high volume freight corridors. Five methods for real time data collection were evaluated, including data from trucking company GPS transponders. I-70 between St. Louis and Kansas City was one of the corridors for which data was collected. Such partnerships should be explored to further enhance MoDOT's Tracker performance measures for freight.



(Graphic provided by ATRI)

Executive Summary**Recommendation #3: Strengthen Intermodal Connectors**

Intermodal connectors impact the movement of freight in Missouri and elsewhere by affecting access to modes and often reducing overall transportation efficiency. The accessibility to the National Highway System (NHS) and other important transportation gateways is a significant factor which influences new business start-ups, new warehouse locations, and new freight terminals and facilities. Additional costs as a result of poor accessibility are often realized as lost driver time, equipment damage, and transit delays. Local congestion is often increased when trucks have to navigate inadequate turning lanes and narrow roadways to pick up or deliver freight off the NHS.



A significant effort was made for this study to expand and document terminal and intermodal facilities that generate significant levels of truck traffic (50+ truck trips per day) in Missouri. The inventory of freight facilities developed during this study can assist MoDOT planners in identifying and prioritizing connector routes needed in Missouri. Some connector route needs have already been identified by MPOs in Missouri, for instance Kansas City undertook the Intermodal Freight Strategies Study that provided recommendations to improve access to several key industrial areas in the Kansas City region with large concentrations of freight terminals (Missouri River valley, the Blue River valley and at the junctions of major freeways). St. Louis in its long range transportation plan Legacy 2020, identified terminal access issues related to the highway system, and also identified a Priority Goods Movement Network that encompasses highway, rail, water and air facilities considered to be essential to the efficient movement of freight in the region. Through interviews and surveys undertaken with carriers and shippers in Missouri, other needs related to terminal access were also identified.

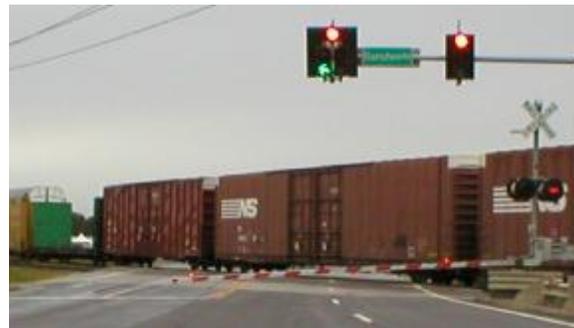
Terminal Access Needs Identified by Rail Carriers:

- Terminal infrastructure: Kansas City and Chicago threaten the ongoing vitality of the St. Louis gateway as a major connection point between the eastern and western rail networks.
- The St. Louis metro region should be seen in a bi-state context. Much of the developable land for rail-served clients is on the Illinois side of the river. Lack of adequate bridge capacity is hampering abilities to improve the overall level of rail service.
- Highway improvement projects should be considered and designed in the context of an overall regional infrastructure plan that includes rail and transit modes. The needs of rail carriers and users appear to be treated as an afterthought by sections of the Illinois and Missouri DOT's.

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Air Cargo Terminal Access Needs Identified by Airports and Air Carriers:

- St. Louis Lambert International: Frequent trains and an at-grade rail crossing to the north of the airport at James S. McDonnell Blvd., the primary access road to STL air cargo facility, causes truck delays.
- Columbia Regional Airport: Access to air cargo facilities is via Airport Rd., same passenger traffic (no dedicated freight access). The south entry road, Angel Lane, provides a more direct route to the cargo facility for freight arriving and departing to the south. However, truck traffic is prohibited on the road forcing all freight traffic to Airport Road.



Recommendation #4: Use Technology to Enhance Freight Operations

One of the key differences between commercial truck and passenger travel is the tendency for long distance, multi-jurisdictional trips required for freight movements. While the majority of passenger vehicle movements are made for home to work, or shopping trips within a single metropolitan region, the typical for-hire commercial truck travels long distances often across multiple local and state jurisdictions. According to the 2002 Vehicle Inventory and Use Survey, the typical “for-hire” truck in Missouri averages nearly 72,000 miles per year.⁷



A prominent goal of ITS integration strategies over the next 10 to 20 years is to significantly increase the efficiency of freight operations by making available accurate real time information to carriers and commercial vehicle drivers across heavily traveled corridors. The integration of public and private information systems along significant corridors such as I-70, I-44 and I-55 can also provide motor carrier enforcement agencies the opportunity to streamline safety and security assurance procedures. Public / private data exchange is also likely to become a hallmark of efficient intermodal operations. Electronic transactions supporting intermodal interchanges among trucks, railroads, ships, and air-freight lines can reduce wait times at terminals and staging areas.

*Executive Summary***Recommendation #5: Involve Freight Stakeholders in the Process**

Recently MoDOT completed the **Planning Framework** that emphasizes the importance of having a transparent planning process that merges public involvement with decision making.

The general public generally views freight, and the vehicles used to transport goods, as obstacles to their personal travel needs: i.e. large intimidating trucks or long annoying trains. However, the logistics revolution is changing the

nature of business competition. The ability of state and local economies to compete and supply quality jobs is becoming increasingly dependent on the accommodation of business transportation needs. Transportation affects many facets of the private sector – but often they are affected differently than stakeholders using the transportation system for commuting, shopping or personal auto trips. When planning transportation systems, public agencies must also think about whom the system is serving, and there can be significant differences between facilities designed exclusively for passenger travel, versus a facility designed to move freight. For instance, while passengers are interested in smooth pavements and the ability to maintain speed, shippers and trucking companies will be more interested in whether the pavement or bridge is weight restricted.

While commercial transport is important to the business and industrial sectors generating and receiving freight, all facets of society benefit from efficient freight transport as end users of goods and services. Historically transportation planning agencies have fostered arms length relationships with modal representatives from trucking, rail and waterway carriers. Shippers and receivers, the real stakeholders in economic development and job creation, have typically not been involved in the transportation planning process at all. This public sector attitude toward freight can be attributed to many factors, including the lack of communication between the public and private sectors, the attitude that investments in freight infrastructure is a public subsidy benefiting private business, fierce competitive between the freight modes, and the historical focus of public funds aimed towards passenger transport.

To engage private sector freight stakeholders requires different approaches, but remains simply another form of public involvement. Defining a successful program for engaging the private-sector might be modeled after the definitions for successful public involvement. Ultimately stakeholders affected by the process or project should be informed and to feel that they have had an opportunity for input. Virtually every guide to public involvement also emphasizes the need for a variety of approaches or techniques for getting the message out and for gathering stakeholder feedback.

Creating a formal freight advisory group has become a common first step for many public transportation agencies wanting routine, meaningful dialogue between planners and freight interests.



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While shippers, carriers and planners sometimes work together, more often than not the shippers and their customers (who are also key stakeholders) are not typically engaged in the transportation planning process, even though it may directly affect their business operations. Planners, carriers and shippers should all be included in meaningful, routine dialogues for creative problem-solving that is required of this unique type of transportation planning.

More recently state governments have also looked to the private sector to assist in project prioritization, and to assist their efforts to move freight projects forward.

Using freight advisory groups to provide policy guidance, and even provide direct input into the program prioritization is becoming a more common practice among state and MPO planning agencies.

The federal transportation reauthorization package for instance further emphasizes freight in the planning process. For example, among the provisions in The Safe, Accountable, Flexible and Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) reauthorization package:

- A requirement that freight transportation needs and projects be incorporated in statewide and urban plans and project development processes;
- Expansion of STP eligibility to include intermodal transfer facilities access to them;
- Expansion of TIFIA eligibility to include public or private freight rail projects.
- The creation of authority to issue private activity bonds to finance intermodal facilities and freight rail projects.
- The inclusion of a freight emphasis in a planning capacity building program

Philosophical approaches to planning in the public and private sectors are usually quite divergent. Often public transportation planners are looking for input to assist in formulating long range, 20 year plans. In the private sector, long-range may be seen as a matter of months or a few years. To create momentum early in the formation of an advisory group, it is often helpful to identify a number of “quick start” projects. Quick start projects can provide the sorts of tangible outcomes business interests expect and allow public agencies to educate freight stakeholders about the intricate and challenging transportation planning process.

It is often most effective to work with state or regional Chambers of Commerce and local Council of Logistics Management Area Roundtables to help get an advisory group up and running. Universities with a strong logistics or supply chain management program can also be great resources for identifying key industry players. A freight advisory group can assist MoDOT in identifying and prioritizing transportation projects that can have a positive impact on freight mobility.

Support Local / Regional Efforts to Engage Freight Stakeholders

During the literature review of freight related efforts that have been undertaken by urban and regional governments in Missouri, several examples of freight stakeholder outreach were discovered. MoDOT should encourage the inclusion of freight stakeholders in the MPO and district planning processes. It is also important to be aware of local activities to prevent the same stakeholders being called upon repeatedly for the same information.



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- ¹ Bureau of Transportation Statistics (BTS) Transborder Database & press release at: <http://www.bts.gov>
- ² Missouri Department of Transportation, *REQUEST FOR PROPOSAL: Freight Movements on Missouri's Transportation System*, March 6, 2003. pp.1.
- ³ U.S. DOT, Bureau of Transportation Statistics; *State Transportation Statistics 2004*
- ⁴ WilburSmith Associates, Latin American Trade and Transportation Study; Executive Summary March 2001.
- ⁵ Ibid. FHWA
- ⁶ *Methods of Travel Time Management in Freight Significant Corridors*, FHWA and ATRI, Paper Submission to the 2005 TRB Annual Meeting. January 2005. pp. 1
- ⁷ U.S. Census Bureau, 2002 Vehicle Inventory and Use Survey: Missouri. Table 2a, page 12.

