

Chapter 7 - Freight Policies, Strategies, and Institutions

KEY POINTS

- MoDOT has established a reputation for working with public and private freight stakeholders to support its multimodal freight system. Maintaining and developing these mature relationships will be critical to Missouri’s economic future.
- Selecting freight projects that are important both regionally and statewide will become increasingly difficult in the future as freight tonnage increases and transportation revenues decline. One of the most principle products of this Freight Plan is to provide a robust methodology for evaluating and prioritizing potential freight investments.
- The lack of flexibility in using State and Federal funds limits Missouri’s ability to use innovation or multimodalism to address freight challenges.

Introduction

To develop implementable strategies that will support Missouri’s freight transportation system for years to come, it is important to understand the policy environment in which the freight system functions. Funding programs, freight-related institutions, freight roles and responsibilities, private infrastructure owners, statutory and constitutional constraints, and regional freight planning activities all create the framework for implementation.

Context for Policy Making

Missouri’s economic future relies on the ability of the multimodal transportation system to support an increasingly complex supply chain. Recognizing this, the Missouri Department of Transportation (MoDOT) is focused on improving the freight transportation system. The Missouri State Freight Plan is designed to support this effort to build a freight network that will support Missouri’s future success.

To accomplish this, the Freight Plan must be an actionable and implementable document. A critical step in building an implementable plan is to understand the overall framework of and relationships among MoDOT’s partners in the freight transportation system. Providing context for the current policy

Chapter 7 – Freight Policies, Strategies, and Institutions

environment will lay the groundwork for identifying strategic steps MoDOT can take to achieve its goals and objectives.

Long Range Transportation Plan Goals

In 2014, Missouri's Long Range Transportation Plan established a vision for Missouri's transportation future. This vision was molded from over 12,000 public and stakeholder ideas. The vision is expressed in four goals and their corresponding implementation strategies. While each goal has individual qualities, all are related and interconnected. The goals are:

- **Maintenance** – Take care of the transportation system and services we enjoy today
- **Safety** – Keep all travelers safe, no matter the mode of transportation
- **Economic Development** – Invest in projects that spur economic growth and create jobs
- **Connections and Choices** – Give Missourians better transportation choices

National Freight Policy Goals

When the *Moving Ahead for Progress in the 21st Century Act* (MAP-21) was passed in 2012, it transformed legacy surface transportation programs into a unified program that focuses on performance and outcomes. States are encouraged to invest in projects that support national goals. Among these goals is "to improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development." To support this goal, MAP-21 requires the U.S. Department of Transportation (U.S. DOT) to develop a National Freight Policy that supported the following seven National Freight Policy Goals.

- Economic competitiveness
- Safety, security, and resiliency
- State of good repair
- Advanced technology
- Performance and accountability
- Economic efficiency
- Environmental

The *Fixing America's Surface Transportation (FAST) Act* requires states develop freight plans that support the National Freight Policy Goals. This Missouri State Freight Plan has been developed to meet the FAST Act Statewide Freight Plan requirements and in close collaboration with public and private sector partners. It identifies a multimodal freight network in which Missouri can make strategic investments to support the State and national freight goals. Chapter 1 discusses how the Missouri State Freight Plan goals and objectives will help achieve the national goals.

Performance Measures

Performance measures are an important way to monitor progress towards achieving the goals of the Missouri State Freight Plan. Likewise, performance measures can be an effective means of communicating future freight needs to decision-makers and stakeholders. Currently MoDOT uses a

Chapter 7 – Freight Policies, Strategies, and Institutions

quarterly publication, Tracker, to report the performance of the State’s transportation system. Many of the existing Tracker metrics can be easily translated to measure the established State Freight Plan goals. Chapter 4 provides additional freight-specific measures that could be used to provide a more comprehensive view of multimodal freight system performance.

Critical Partnerships for Success

MoDOT’s future success as a national freight leader will be due largely to its history using partnerships to drive the development of the State’s overall transportation system. Missouri was among the first states to create regional planning commissions to help drive transportation decision-making. Today, this has resulted in a robust, grassroots-driven transportation program that is unrivaled among its peer states. Similarly, MoDOT established a reputation for working with public and private freight stakeholders to support its multimodal freight system. Maintaining and developing these mature relationships will be critical to Missouri’s economic future.

Modal Partners

MoDOT’s modal partners manage airports, freight railroads, pipelines, water ports, and inland waterways. Transportation professionals, who specialize in particular freight modes, are best suited to lead and manage their respective freight modal specialties. These key partners understand customer needs, the unique cost model of their respective mode, and how to best balance these key factors.

Airports

The Missouri aviation system includes 99 public use general aviation and 12 commercial airports.¹ These commercial airports include Kansas City International, Lambert – St. Louis International, and Springfield-Branson National. Each airport authority is a vital stakeholder and partner in the development of air cargo facilities and the infrastructure required to support this underutilized freight mode. Improvements to freight significant airports are largely funded through the Aviation Trust fund and from landing fees at the individual airports.

¹ 2012 Missouri Statewide Airports Economic Impact Study

Chapter 7 – Freight Policies, Strategies, and Institutions

Freight Railroads

Missouri serves as a major rail junction point between the east and west coast Class I railroads. Missouri has the second (Kansas City) and third (St. Louis) largest rail hubs in the nation. Together these two hubs serve as major interchange points for the two west-based and the two east-based Class I railroads as well as interchange points for rail freight moving on North-South rail corridors to/from Canada and Mexico.

In total, six Class I railroads cross Missouri. Additionally, local and switching/terminal railroads provide critical connections to local industries that might not receive service from the larger Class I railroads. Missouri's railroads serve an important role in the State's ability to be responsive to future freight growth. However, the Class I railroads are privately owned and, while MoDOT has regulatory authority concerning grade crossings and safety, they are not regulated by a Missouri State agency.² Instead they are heavily regulated by multiple federal agencies.

All major railroads that transverse Missouri are private companies. As such, the majority of capital investment made in terms of new, upgraded and properly maintained infrastructure is funding by the railroads themselves. However, it is important to note that there has been increasing public investment in Missouri and across the nation to alleviate major chokepoints and develop corridors for intermodal container transport.

Pipelines

Much like railroads, pipelines are privately owned and not regulated by MoDOT. Pipelines are a critical piece of the Missouri freight system and are regulated primarily at the federal level by the Pipeline and Hazardous Materials Safety Administration (PHMSA). Approximately 10,700 miles of pipelines move natural gas, crude oil, and petroleum products throughout Missouri. At the State level, the Missouri Public Service Commission regulates the safety of the State's six investor-owned natural gas companies' operations.³ Pipelines are privately held infrastructure, but because of importance to the national economy there are opportunities to receive federal assistance for the construction of new pipelines (Example: Loan guarantees from U.S. Department of Energy)

Water Ports

Missouri's port authorities are important connection points to the underutilized inland waterway system. As freight volumes continue to increase and traditional freight transportation modes begin to exceed capacity, the ports' importance will only grow. Many ports are preparing for this influx of freight volumes by laying the groundwork for container-on-vessel (COV) activities and by adding infrastructure to handle multiple commodity types.

MoDOT's waterways unit assists cities and counties in forming port authorities, promoting the use of navigable waterways in the State, assisting in capital and administrative funding, providing information related to ports and waterways, providing technical assistance, and representing the interests of the 14

² Short lines and other intrastate railroads are regulated by the State of Missouri.

³ http://primis.phmsa.dot.gov/comm/reports/safety/MO_detail1.html?nocache=9244

<http://psc.mo.gov/CMSInternetData/ConsumerInformation/A%20Snapshot%20of%20What%20We%20Do.pdf>

Chapter 7 – Freight Policies, Strategies, and Institutions

public ports in Missouri. In past years, the State has funded capital improvements at the state’s port facilities. However, inconsistency in appropriated funding levels makes it difficult for ports and MoDOT to plan or leverage available funding.

Inland Waterways: U.S. Army Corps of Engineers/Maritime Administration

The U.S. Army Corps of Engineers (USACE) is responsible for maintaining the navigability, channel, and lock and dam system along the Mississippi and Missouri Rivers. The USACE Northwestern and Mississippi Valley divisions lead improvements in and maintenance of the locks and dams as well as perform dredging and other solutions to sedimentation problems in order to maintain the channel and harbors at public ports. While the Inland Waterway system is maintained by the US Army Corps of Engineers (USACE), the level of funding to adequately maintain and improve this system is somewhat limited by congressional appropriations and the lack of flexibility from other forms of federal aid.

While USACE is the federal agency responsible for the physical inland waterway system, USDOT’s Maritime Administration (MARAD) administers the marine highway system. This national maritime freight network includes marine highways on the Missouri River (M-70 and M-29) and Mississippi River (M-55 and M-35). MARAD funds state and locally driven projects to offer water-based modal alternatives to freight normally transported by trucks on the nation’s interstate system.

Organizational Partners

MoDOT’s organizational partners include planning organizations, economic development organizations, and State agencies.

Regional Planning Commissions/Metropolitan Planning Organizations

MoDOT has a long history of working with regional planning organizations to plan transportation improvements. The State is divided into 19 Regional Planning Commissions (RPCs). The formal responsibility of each RPC is as varied as the region it represents. However, every RPC is an actively engaged partner in the transportation planning process.

Missouri has nine Metropolitan Planning Organizations (MPOs). Federal law requires the creation of MPOs to carry out transportation planning, programming, and project coordination in urbanized areas that have a population greater than 50,000. It is important to note that portions of the State that are included within MPOs are still considered inside their respective RPC areas. Some MPOs, like the Mid-America Regional Council (MARC) and East-West Gateway Council of Governments function as both an MPO and an RPC.

MPOs that serve regional populations greater than 200,000 are also considered Transportation Management Areas (TMAs). TMAs receive federal funds for projects selected by the MPO. Missouri has four TMAs:

- Mid-America Regional Council (Kansas City area)
- East-West Gateway Council of Governments (St. Louis area)
- Ozarks Transportation Organization (Springfield area)
- Northwest Arkansas Regional Planning Commission (McDonald County area)

Chapter 7 – Freight Policies, Strategies, and Institutions

While all of Missouri’s MPOs and RPCs consider the impact and importance of freight to their regions, the Kansas City and St. Louis MPOs have the most mature freight planning programs. Each has completed regional freight plans. As freight volumes continue to increase dramatically, partnerships among MPOs, RPCs, and MoDOT will be increasingly critical to the freight system.

Economic Development Organizations

The Missouri Department of Economic Development (DED) works as the State facilitator assisting private companies in identifying locations and financial incentive structures to attract, retain, and expand targeted industries in Missouri. The DED has identified eight targeted industries in which to focus its business retention and expansion efforts:

- Transportation and logistics
- Automotive suppliers
- Biosciences
- Information technology
- Energy solutions
- Advanced manufacturing
- Health sciences and services
- Financial and professional services

The transportation and logistics industry was identified as one of the eight targeted industries; however, the other seven targeted industries rely on the transportation and logistics industry (and the multimodal freight system) to support continued growth. For this reason, the DED has stated that Missouri’s extensive transportation infrastructure is critical to the continued success of the State.

In addition to the DED, several other economic development organizations work to improve the State’s economy and grow the workforce.

In 2007, the Missouri Partnership, a non-profit public/private economic development organization was formed to work with State, regional, and local economic development agencies to support economic development in the State. The Partnership also identified transportation and logistics as a key industry.

A similar organization, the private Missouri Chamber of Commerce, represents more than 4,000 employers who supply over 425,000 Missouri jobs. The Chamber provides representation before the Missouri General Assembly and offers tools to help businesses grow.

KC Smart Port is a non-profit economic development organization covering the 18-county, bi-state Kansas City region. The organization’s focus is to drive economic development in the region’s transportation and logistics industry. The organization also strives to improve supply chain data and cargo security in the region through the Trade Data Exchange (TDE) initiative. In addition, KC Smart Port works to provide additional business services focused on aiding businesses in moving goods to the area.

Chapter 7 – Freight Policies, Strategies, and Institutions

Other State Agencies

The Missouri Department of Public Safety State Emergency Management Agency (SEMA) is responsible for planning and training related to hazardous material emergencies—including those related to transportation-related incidents—through its Missouri Emergency Response Commission (MERC) and Local Emergency Planning Commissions (LEPCs).

The Commercial Vehicle Enforcement (CVE) Division of the Missouri State Highway Patrol is responsible for enforcement of laws and regulations related to commercial vehicles in the State. There are currently 24 fixed-scale sites and 25 portable scales in the State. In addition, Missouri uses weigh-in-motion technology called PrePass. The CVE also has 32 CVE Troopers who are certified to perform safety inspections.

Professional Organizations

Transportation-related professional organizations in Missouri, including those specifically related to freight transportation such as the Missouri Railroad Association, the Missouri Trucking Association, Missouri Port Authorities, and the Pipeline Association of Missouri, provide important professional training, information, and assistance to the freight transportation industry in the State. The members of these organizations can provide important insight into the state of freight transportation in Missouri.

The Council of Supply Chain Management Professionals (CSCMP) is a national professional organization with strong local presence in the St. Louis and Kansas City regions. The organization offers educational sessions and networking to members and non-members interested in supply chain issues.

Multijurisdictional Partnerships

Missouri is a connector state, which means the majority of freight moving across the State's transportation networks is pass-through traffic. As such, MoDOT participates in many multijurisdictional partnerships to support Missouri's multimodal freight system. For example, with the growing truck volume along I-70, MoDOT partnered with the Indiana, Illinois, and Ohio DOTs to evaluate the feasibility of dedicated truck lanes along the I-70 corridor from Kansas City to the Ohio/West Virginia border.

The Mid-America Freight Coalition (MAFC) is a 10-state coalition in the Midwest with a mission to support the economy of the region by working to ensure that freight can move reliably, safely, and efficiently within and through the region. Similarly, the Institute for Trade and Transportation Studies (ITTS) in the southeast is a nine-state partnership that assists members in improving freight mobility and international trade. This group evolved from the Latin American Trade and Transportation Studies, which worked to improve trade and freight movement between the Midwest and Southeast regions. Missouri is a member of both the MAFC and ITTS.

Missouri is a member of the Mid-America Intermodal Authority Port (also known as the Mid-America Port Commission) which serves as a port commission for the northeast portion of Missouri and

Chapter 7 – Freight Policies, Strategies, and Institutions

bordering areas in Illinois and Iowa. The group is charged with developing ports, supporting facilities, and overall economic development within a 13,000-square-mile area.⁴

The St. Louis Port Working Group includes freight partners from Illinois and Missouri who are focused on improving freight movement, activities, and efficiencies within the Port Authority of the City of St. Louis. While the City administers the port, the working group focuses on improving freight in the larger metropolitan areas (including Illinois and Jefferson County).

Project Selection and Funding

Each of MoDOT's seven District offices is responsible for maintaining the State and interstate roadway mileage within its jurisdiction. In collaboration with the RPCs and MPOs, the districts are also responsible for most of the project selection and delivery within each region. This leads to a decentralized system in which freight projects are primarily selected by regional needs. This process has been effective.

However, selecting freight projects that are important both regionally and statewide will become increasingly difficult in the future. By 2030, total freight tonnage in Missouri is expected to increase by more than 37 percent. To account for this growth and to maintain the system, over \$65 million worth of project needs are identified in this Missouri State Freight Plan (see Chapter 9). However, transportation funds continue to decline. Missouri's Long Range Transportation Plan only identified \$14.4 billion available to fund projects for the *entire* Missouri transportation system. This Freight Plan is prepared, in part, to support transportation investment decision-makers as they face the tough decisions that will be required in the future.

To aggravate these challenges even further, the limited funding is subdivided into several small funds. Most of the funds are either constitutionally or statutorily limited to certain eligible project types. The lack of flexibility among these funds potentially limits the ability to use innovation or multimodalism to find the best and most cost-effective solutions to address Missouri's freight challenges.

State Road Fund

Missouri created the State Road fund to receive the first Federal-Aid Road funds in 1917. Today, this account is funded by Federal Highway Administration (FHWA) reimbursements, licenses, permits, and fees for motor vehicles and drivers; State sales tax on motor vehicles; cost reimbursements; and other miscellaneous fees. Expenditures from this fund are constitutionally limited to State highway projects (and supporting activity).

State Highways and Transportation Department Fund

The State Highways and Transportation Department Fund (commonly referred to as the highway fund) is funded by the motor fuel tax and licenses, permits, and fees for motor vehicles and drivers. The current State motor fuel tax (gasoline, gasohol, and diesel) is 17 cents per gallon. The last increase in

⁴ <http://www.midamericaport.com/history/>

Chapter 7 – Freight Policies, Strategies, and Institutions

the State motor fuel tax was in 1996. Similar to the road fund, the highway fund can be used only for costs associated with State highway projects and the enforcement of motor vehicle laws and traffic laws.

State Transportation Fund

The State Transportation Fund is funded by one percent of the overall 4.225 percent State sales tax on motor vehicles. Unlike the highway and road funds, the State transportation fund is limited to non-highway investment. It can be used to invest in air cargo, railroads, ports, and waterway projects. Most recently, this fund has been used to create the Freight Enhancement Program and provide funds for the administration, planning, and development of local port authorities. The Freight Enhancement Program funds freight projects that improve the efficiency of freight between two modes, excluding highways.

Port Capital Improvement Program

The Port Capital Improvement Program was established to fund transportation-related capital projects at Missouri's local public port authorities. The program is funded by annual General Revenue allocations. However, funding has been very sporadic. While \$3 million was available in 2014, funding was unavailable between 2010 and 2013. It was recently announced by the Governor's office that 2015 funds will be restricted due to revenue shortfalls. The inconsistency in funding makes it difficult to plan and/or leverage these funds.

Aviation Trust Fund

The Aviation Trust Fund is 100 percent user-funded through a fee on aviation fuel and a portion of the State sales tax collected on jet fuel. The fund is used to match the Federal Aviation Administration's Airport Improvement Program (AIP). The program provides funding to public use airports across the State. In particular, commercial airports receive funds based on the number of annual passenger boardings and on the landed weight of air cargo. Expenditures from this fund are limited to maintenance of AIP-eligible runways, taxiways, and aprons and for emergency repairs on safety-related items.

Grade Crossing Safety Fund

MoDOT has a long-standing partnership with the railroads to improve grade crossings across the State. The State's 3,800 public grade crossings are evaluated and ranked by a hazard exposure index. Annually, MoDOT uses this index to select 30 to 35 grade crossings to be improved using federal safety funds and Missouri's Grade Crossing Safety Account. The account receives funding from a State motor vehicle licensing fee. Since 1996, the program has resulted in an estimated 81 percent decrease in crashes.⁵

⁵ http://www.modot.org/plansandprojects/construction_program/STIP2012-2016/documents/Seco7_MultimodalOperations.pdf section 7-12

Chapter 7 – Freight Policies, Strategies, and Institutions

Railroad Expense Fund

The Railroad Expense Fund is funded by assessments collected from intrastate railroads for the expenses of regulation. The fund is devoted to the payment of expenditures incurred by state agencies for the regulation of railroads.

State Transportation Assistance Revolving (STAR) Fund

The STAR Fund was established to provide loans to political subdivisions (local governments) of Missouri and not-for-profit organizations to develop non-highway related transportation projects. Each loan has been generally limited to \$1 million. While the program funds waterway, railroad, and mass transit projects, the majority of the loans have been used to support small general use airports, where they have been used to build hangars and other small projects not eligible for funding through the Aviation Trust Fund.

Federal Funding Limitations

Federal funding has clear limitations. While USDOT has embraced multimodalism on the whole, funding programs are still administered by mode. Furthermore, many programs are very specific on their applicability and present the same lack of flexibility as state funding.

For example, USACE is charged with maintaining the Missouri and Mississippi Rivers’ locks and dams, channel depth, and navigability. However, USACE is not enabled to make necessary changes because Congressional priorities are on traditional surface transportation projects. Likewise, funding from other modal administrations that serve the same general purpose cannot be used to invest in maritime improvements. This is particularly challenging for the aging lock and dam system that can shut down all movement on a river if the system fails.



Chapter 7 – Freight Policies, Strategies, and Institutions

Complexity in Freight Planning

Freight planning is among the most complex activities that MoDOT undertakes. MoDOT is tasked with supporting and expanding a multimodal freight system that, in some cases, is outside MoDOT's jurisdiction or MoDOT is statutorily limited in its ability to fund. All while overall transportation funds continue to dramatically decline. MoDOT has succeeded in navigating these complexities in the past. This is particularly crucial because a freight strategy will not work without the coordination and support of all aspects of MoDOT and its freight partners.

MoDOT is charged with several freight-related tasks:

- Build, maintain and operate over 33,000 miles of roads and over 10,000 bridges
- Permit, regulate, and enforce commercial vehicle laws (including commercial vehicle weight) and development state enforcement plan
- Regulate railroad safety and intrastate railroad companies
- Administer airport funding
- Administer State funding for public port authority administrative and capital budgets

Because of the long history of partnerships throughout the State to accomplish these tasks and to support and enable public and private partners, MoDOT is the natural leader to champion the future of the Missouri multimodal freight system. With this in mind, the Missouri State Freight Plan establishes a series of strategic recommendations and tactics for MoDOT to guide its future work.

Strategic Recommendations

It is critical to the State's economic future that the Missouri State Freight Plan be an actionable and implementable plan. To accomplish this, 14 strategic recommendations were developed to support the freight plan's goals, listed in **Table 7-1**. The recommendations include broad-based policies and programs, as well as projects and studies that will help MoDOT overcome challenges documented in the plan and capture future economic opportunities. Each of the strategic recommendations are supported by a series of implementation tactics (see Chapter 9) that can serve as a potential "to-do" list for MoDOT officials as they work day-to-day to execute the plan. While some of the tactics are long-term projects, several are immediately actionable.

Chapter 7 – Freight Policies, Strategies, and Institutions

Table 7-1: Potential Strategies to Achieve Goals and Objectives

Strategic Policy Recommendations	Missouri State Freight Plan Goals and Objectives			
	Maintenance	Safety	Economy	Mobility and Connectivity
Work with MoDOT internal and external partners to improve multimodal connectivity			✓	✓
Focus on maintaining a state of good repair of the multimodal system	✓		✓	
Cultivate a long-term focus to develop comprehensive freight corridors	✓	✓	✓	✓
Take a pragmatic approach to highway system capacity expansion, given financial constraints	✓		✓	✓
Improve the availability of truck parking		✓		
Enhance the resiliency and maintain flexibility of the multimodal freight system to adapt to quickly changing needs		✓	✓	✓
Improve multimodal safety		✓	✓	✓
Improve the health, safety, and welfare of truck drivers		✓	✓	✓
Capitalize on the momentum created by <i>Freight on the Move</i>	✓	✓	✓	✓
Invest in freight infrastructure and operational improvements to drive long-term job creation			✓	
Enhance Missouri’s ability to export goods			✓	✓
Expand interagency collaboration and coordination	✓	✓	✓	✓
Use technology to improve freight movement	✓	✓	✓	✓
Develop opportunities for maritime and air cargo			✓	✓

