



Organizational Results Research Report  
October 2008

# The Economic Value of Investment in Freight Transportation: *Missouri Ports*



*Economic Impact Summary*

# Missouri Port Industry

Missouri is home to 14 public Port Authorities and over 200 private ports operating on over 1,000 miles of waterways along the Missouri and Mississippi rivers. The port industry currently employs 1,245 workers; 739 in inland water freight transportation positions and 506 in water transportation support activities. The port industry exceeds statewide average annual wages with inland water freight transportation positions earning \$60,500 annually and water transportation support positions earning more than \$47,000.<sup>1</sup>

The port industry employment impacts Missouri's economy; generating an estimated \$10.4 million annually in new net Missouri general revenues, \$165.4 million in personal income, nearly \$315.2 million in Gross State Product, and \$638.8 million in total economic output. The 1,245 direct workers generate an estimated 2,378 indirect and induced spin-off jobs annually in Missouri through purchases of industry intermediate inputs and employee consumer spending.<sup>2</sup>

<b>Annual Port Employment Impact</b>		
NET GENERAL REVENUE	\$10.355	million
PERSONAL INCOME	\$165.400	million
VALUE-ADDED / GSP	\$315.167	million
ECONOMIC OUTPUT	\$638.821	million

More than 30.7 million tons of freight is attributed to Missouri water cargo annually representing more than \$2 billion in value. Missouri exports approximately 16.6 million tons of commodities by barge with an estimated value of more than \$960 million. Top Missouri port exports by value include Food/Food Products, Unclassified Materials, Primary Non-Metals, and Scrap Metal. Top Missouri port exports by ton include Food/Food Products, Unclassified Materials, and Sand/Gravel/Salt. Imports account for 5.5 million tons of cargo with an estimated value of \$1.4 billion. Top Missouri port imports by dollars valued include Petroleum Products, Chemicals/Fertilizers, and Non-Ferrous Ore Scrap. Top Missouri port imports by tons include Unclassified Materials, Petroleum Products, and Chemicals/Fertilizers.<sup>3</sup>

Missouri industries that export by barge produce substantial value. In total, the \$960 million in exports annually generate \$123.8 million in net Missouri general revenue, \$2.1 billion in personal income, \$1.5 billion in Gross State Product, and \$2.5 billion in total economic output. Exports from these businesses supply over 75,750 direct, indirect, and induced jobs within the state paying an average wage of nearly \$23,195.<sup>4</sup>



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*Economic Impact Summary*

# Missouri STIP Investment in Ports

As part of the effort to increase efficiencies and expand capacities of the Missouri Port Authority system, the state of Missouri allocated over \$6.65 million in fiscal year 2009 towards port infrastructure improvements.

Port Authorities receiving the funds include New Bourbon, New Madrid, Pemiscot, SEMO, St. Joseph, Howard/Cooper County Regional, and St. Louis. Projects involve rail extensions, truck scales warehouse construction, dock and harbor improvements, street paving, and a staging area.<sup>1</sup> Due to the infrastructure improvements, companies near these ports will be able to add more than 160 jobs and increase port shipping capacity by more than 1,180,000 tons.<sup>2</sup>

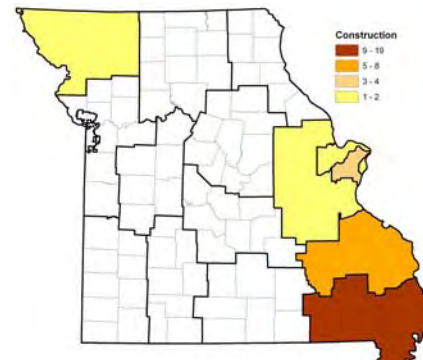
<b>20-YEAR ECONOMIC IMPACT</b>		
NET GENERAL REVENUE	\$33.290	million
PERSONAL INCOME	\$746.943	million
VALUE-ADDED / GSP	\$1,844.524	million
ECONOMIC OUTPUT	\$4,147.953	million

The additional tonnage capacity at the port authorities will enable businesses that typically ship by barge to save on shipping costs by offloading fewer products to trucks. Assuming the ports are operating at capacity, the estimated production cost savings to these industries is over \$152.692 million per year.<sup>3</sup>

Over twenty years, the construction of the port authority infrastructure along with the production cost savings to Missouri industries will return an estimated \$33.3 million in net general revenues. The projects will generate \$746.9 million in new personal income to Missourians; \$1.8 billion to the Gross State Product; and \$4.1 billion in total economic output. The projects will also generate an annual average of 947 jobs over the twenty year period at average wages of \$32,175.<sup>4</sup>

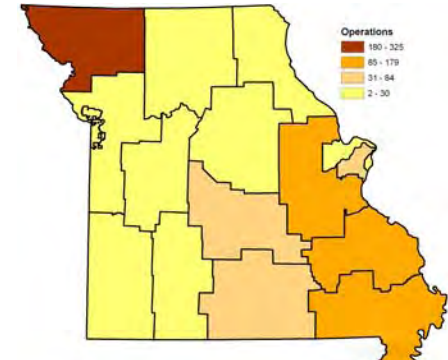
**CONSTRUCTION PHASE**

Average Annual Employment Impact



**OPERATION PHASE**

Average Annual Employment Impact

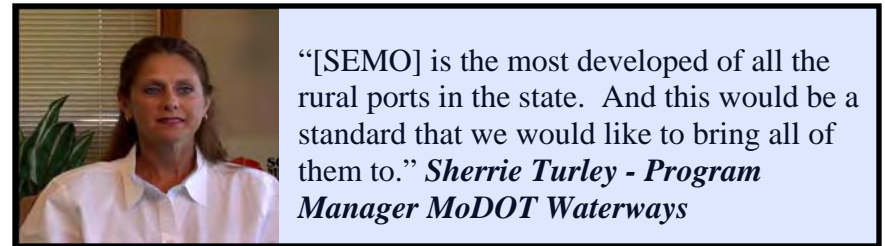


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*Case Study*

**Focus: SEMO Port Authority**

The Southeast Missouri Port Authority (SEMO) located on the Mississippi River is the largest port in southern Missouri, shipping over one million tons of freight annually. The port is equipped with an 1,800 foot-slack water harbor, truck scales, a switching railroad connecting BNSF and Union Pacific railroads, and paved access to nearby interstate I-55. Cape Girardeau airport and a petroleum pipeline are also located near the port.



Many private and public grants have helped fund capital improvements at the SEMO Port Authority over the years and in turn spurred economic growth in the area. The success of this funding has allowed SEMO Port to now reach the point of sustaining itself operationally with income from its various tenants.

Investment in port infrastructure directly attracts tenants and customers to the port. SEMO Port Authority provides tangible examples of how public and private entities from state, federal, and local levels have and continue to jointly invest in the economic development of the port and share in the benefits.



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## ***SEMO Capital Investments: PAST, PRESENT, AND FUTURE***

### **History**

The SEMO Port Authority was formed in 1975 as a collaborative venture by Scott and Cape Girardeau counties. During the first few years, land was acquired and a small dock was built. In the early 1980's, Route K was built by MoDOT to connect the port traffic indirectly to I-55 through Scott City. In 1987, joint funding between the Corps of Engineers and local tax dollars allowed for the construction of an 1,800 foot-slack water harbor. The completion of the harbor, along with the investments to rail and construction of a direct route to I-55 via Route AB in the 1990's, attracted business to the port. Tonnage flowing in and out of the port grew by thirty fold between 1989 - 2000, reaching nearly 900,000 tons. Since 2000, funding has been used for railroad scales, warehouse infrastructure, and for fill to create port sites. Consequently, the ton volume has increased by more than 16% from that time, now over 1,000,000 tons annually.

### **Current**

The capital improvement fund for fiscal year 2009 will focus on upgrading the rail line coming in to the port. Nearly \$300,000 has been allocated to replace twenty percent of timber trestles on a six-mile strip of the railroad. The previous rail line worked well for low volume ten mile an hour cars, however, the upgraded track will make way for heavier volumes, perhaps even unit trains. The railroad improvements will also serve as an economic development incentive for the local cement factory; which plans on increasing employment and boosting production to a level that will more than double the number of cars currently using the rail line. Additionally, the upgrade provides safer transport for the growing number of ethanol cars that the port handles.

### **What's Next**

A number of projects are awaiting funding to complete Phase I of SEMO's port construction plan. All of which would potentially attract more business to the port. These include barge stabilizing dolphins, a warehouse, and additional railroad track around the port. Phase II of SEMO's plan would utilize thirty undeveloped acres of land, adjacent to the current port, in order to replicate the current port structure and attract more tenants. Projects would include providing twenty feet of fill to areas along the river to bring the land above flood stage; and then supplying the area with streets, water, sewer, storm water drainage, and utilities.<sup>1</sup>



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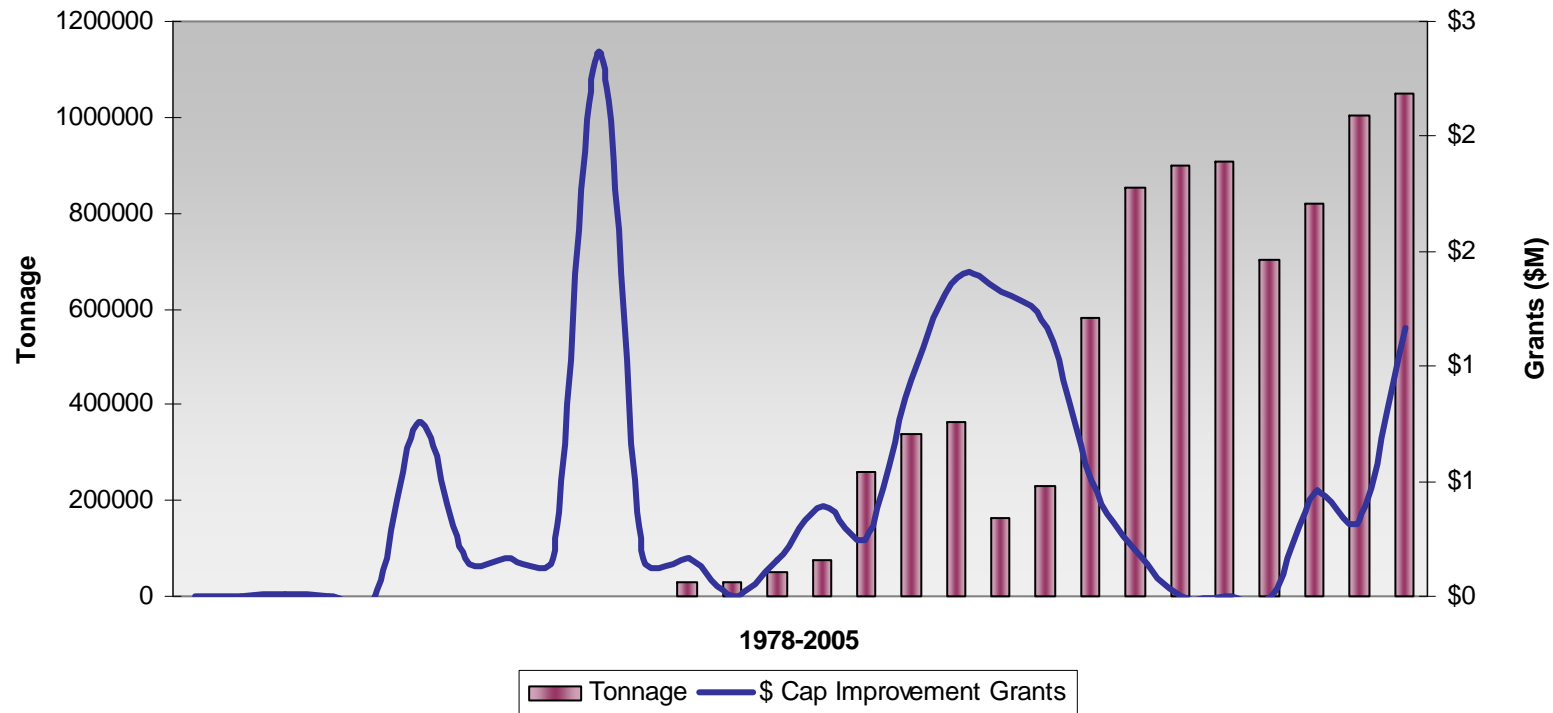
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## SEMO Private Investment

Since 1978, SEMO has received \$19 million in total public infrastructure funding resulting in over \$51 million in total private infrastructure and equipment at the site. Types of private investment include four warehouses, offices, truck scales, truck fleets, a garage, cranes, and front loaders. Tenants with capital infrastructure in place include a corn milling company, two grain elevators, a fertilizer distributor, a public dock terminal, and a wood chip mill. The port offers these companies and others that use the port a competitive global and domestic cost advantage on the more than one million tons shipped annually.

**Public Investment Leading to Private Industry Results <sup>2</sup>**  
 SEMO Capital Improvement Grants and Tonnage Increase



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## Private and Public Investment: A Collaborative Effort

SEMO Milling, a corn milling facility located operations at the port in 2007 with a \$30 million capital investment. The company manufactures food grade corn grits, corn meal, and corn flour which serve as ingredients for a variety of products including cereals, cake mixes, brewed products, and pet food. The mill purchases its corn locally from southeast Missouri farms. Over 400 tons of products are shipped daily to customers mainly in the domestic market and as far away as the Caribbean and Africa. SEMO Milling is responsible for employing over 50 employees in the state.

Locating the corn mill at SEMO required a creative funding solution for an integral infrastructure need. Without the necessary street investment and rail extension, the company would not have located at the port and may have had to operate outside the state.

## Economic Development and Port Infrastructure Funding: A Creative Solution



**Dan Overbey-**  
**Executive Director,**  
**SEMO Port Authority**

“We had worked with MoDOT on plans for a warehouse. Where the corn mill needed to locate required about 1,500 - 1,600 feet of railroad track and probably close to half a mile of paved streets. They needed to be paved because they are a food grade facility. MoDOT worked very well with us. DED worked with us on a community development block grant. And then Ameren helped out. So with all those working together we were able to shift gears, delay the warehouse until further back in our plan; and instead take that funding and build the necessary streets and build the railroad track to locate to the corn mill which today is employing over 50 people and represents about a 30 million dollar investment.”



**Dan Fetherston-**  
**Vice President of Sales and**  
**Procurement, SEMO Milling**

“Well, I think it was pretty much a key component. When we came into the port we looked at what the port itself had to offer in terms of potential, in terms of what we thought was important in placing our plant in a correct location. We had everything here. We just didn’t quite have it to the site that we wanted to build on. And so we needed some infrastructure improvement in terms of rail into our site and increased roads, we needed a better road coming into the site. Those were things that were ‘must have’ things for us to be able to build here. And thankfully with the help of the ports and the Missouri Department of Transportation, we were able to get those infrastructure needs into our site. Once that was arrived at, it kind of made our decision really easy in terms of where we wanted to put our plant.”



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## *Methodology*

# **The Economic Value of Investment in Freight Transportation: Missouri Ports**

## **Missouri STIP Investment in Ports**

<sup>1</sup> Statewide Transportation Improvement Program FY 2009-2013, Waterway Program, MoDOT 2008.

<sup>2</sup> Information based on a survey of Missouri Port Authority Directors, MoDOT 2008.

<sup>3</sup> Production costs savings are in the form of shipping savings; increased port capacity is assumed to be filled by typical barge shipping customers transferring shipping from truck to barge due to cost savings by the waterway mode. This approach is used in the Guide to Quantifying the Economic Impacts of Federal Investment in Large-Scale Freight Transportation Projects, U.S. Department of Transportation, October 2006. The term “typical barge shipping customers” includes those industries shipping by barge through Missouri according to the Freight Analysis Framework V2.2, U.S. Department of Transportation, 2006. Shipping cost savings were determined after reviewing the following sources: Mid-Atlantic Rail Operations Study *Interim Benefits Assessment*, I-95 Corridor Coalition, February 2004; Freight Cost per Ton-Mile tables, U.S. Department of Transportation, 2006; and Quick Quote Review, FreightCenter.com, 2008. Much of the data was based on information prior to 2005 and did not include projections that reflected current fuel pricing increases. Through research of current published rates of shipping by barge and trucking, mode cost differences of 25.88 cents were assumed for heavier load commodities typically shipped by barge. Shipping costs were applied by respective industry tonnage.

<sup>4</sup> Impacts were estimated using the Regional Economic Models Incorporated (REMI) Policy Insight Module, Version 9.





### *Methodology*

# **The Economic Value of Investment in Freight Transportation: Missouri Ports**

## **Missouri Port Industry**

<sup>1</sup> Missouri Public Port Authorities: Assessment of Importance and Needs– General Information, Missouri Department of Transportation, 2008; and Quarterly Census of Employment and Wages (QCEW) 2007 annual, Bureau of Labor Statistics, 2008.

<sup>2</sup> Employment impacts were estimated using the Regional Economic Models Incorporated (REMI) Policy Insight Module, Version 9.

<sup>3</sup> Freight Analysis Framework V2.2, U.S. Department of Transportation, 2006.

<sup>4</sup> Barge mode export industry impacts were estimated using the Regional Economic Models Incorporated (REMI) Policy Insight Module, Version 9.



*Methodology*

# **The Economic Value of Investment in Freight Transportation: Missouri Ports**

**Focus: SEMO Port Authority**

<sup>1</sup> Information for the case study was obtained from Missouri Economy Today, SEMO Port Interview transcripts, 2008.

<sup>2</sup> Data for the chart and additional case study information was obtained from Southeast Missouri Regional Port Authority: The Making of a Mississippi River Port, 1975-2005, Briggs and Smith, [www.semoport.com](http://www.semoport.com).