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# Efficient Movement of Goods

*Tangible Result Driver – Dave DeWitt,  
Deputy Administrative Officer*

Missouri's location in the nation's center makes it a major cross-roads in the movement of goods. Transportation infrastructure must be up to the task so that as the flow of freight becomes more efficient, businesses and communities share the economic benefits.



## Efficient Movement of Goods

### *Freight tonnage by mode*

**Result Driver:** Dave DeWitt, Deputy Administrative Officer

**Measurement Driver:** Brian Weiler, Multimodal Operations Director

#### **Purpose of the Measure:**

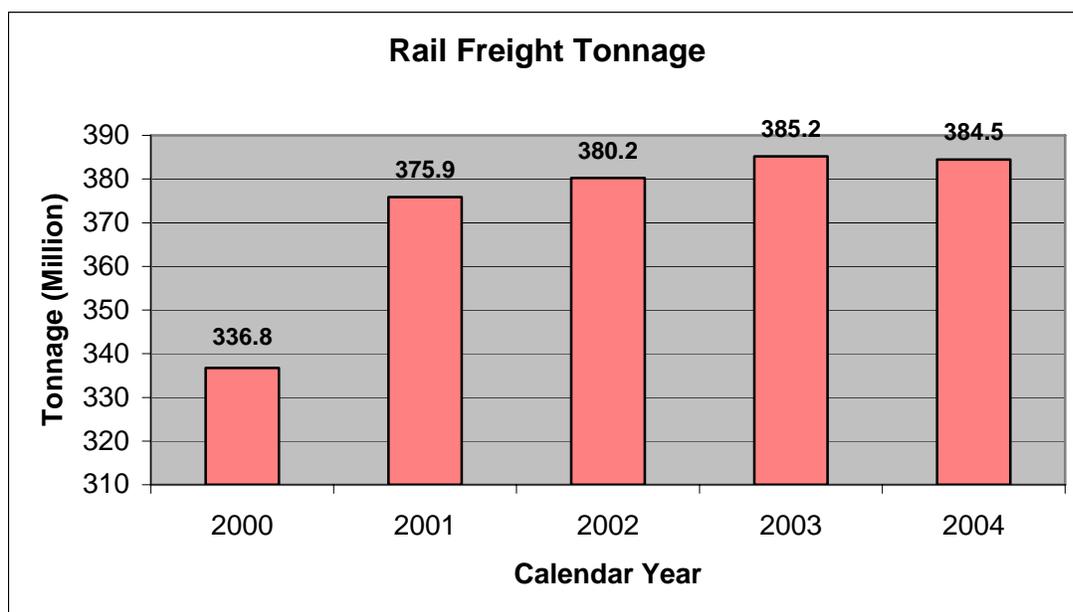
The measure tracks trends and indicates diversification of freight movement on Missouri's transportation system.

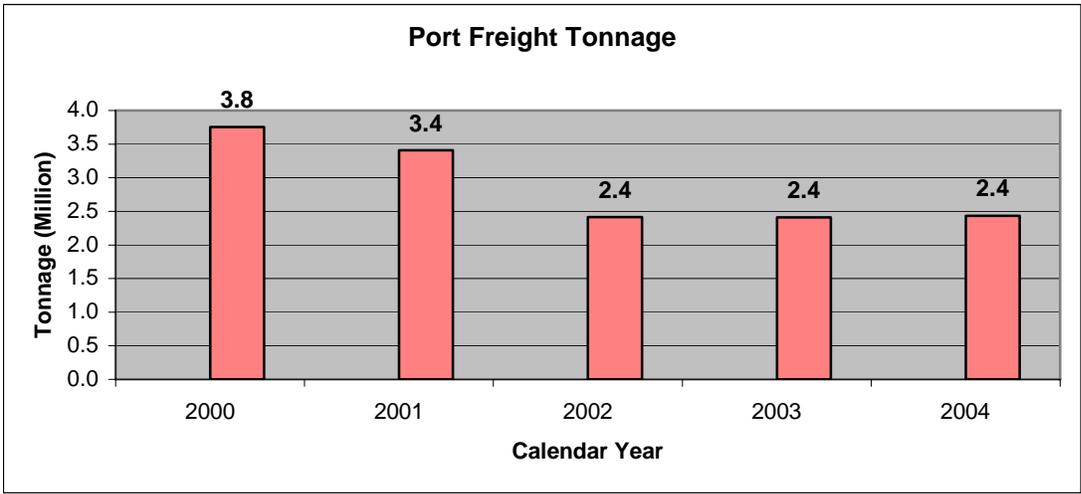
#### **Measurement and Data Collection:**

Freight volume is reported to MoDOT by ports. Air cargo data is collected via mail survey to commercial airports with known cargo activity. MoDOT calculates freight movement through MoDOT's Motor Carrier Division. Rail tonnage is obtained from the Association of American Railroads.

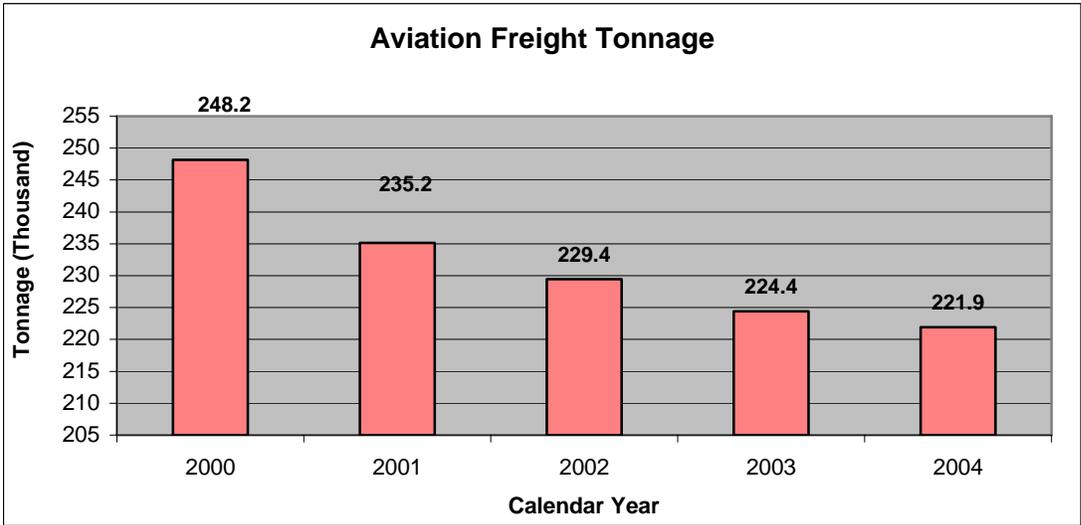
#### **Improvement Status:**

Total freight tonnage for all modes exceeds one billion tons, which reflects positive economic growth and development for the State of Missouri. Port tonnage continues to be impacted by low flows on the Missouri River, and airport tonnage is impacted from a down turn in the aviation industry after 9-11. Motor Carrier freight tonnage has remained near 775 million annual tons.

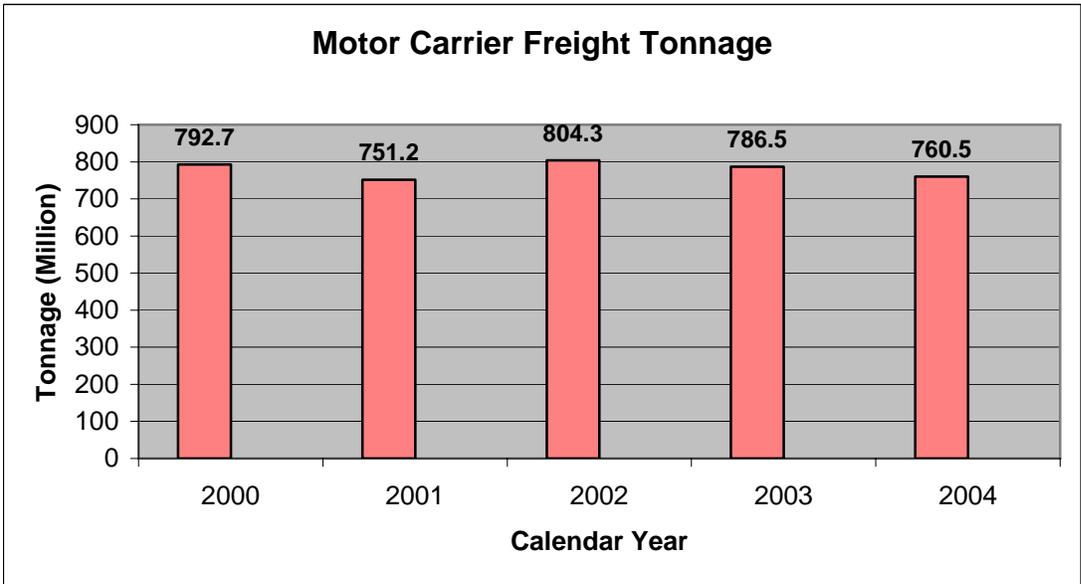




Desired  
Trend:  
↗



Desired  
Trend:  
↗



Desired  
Trend:  
↗

## Efficient Movement of Goods

### *Average travel times for trucks on selected roadway sections*

**Result Driver:** Dave DeWitt, Deputy Administrative Officer

**Measurement Driver:** Eileen Rackers, State Traffic Engineer

#### **Purpose of the Measure:**

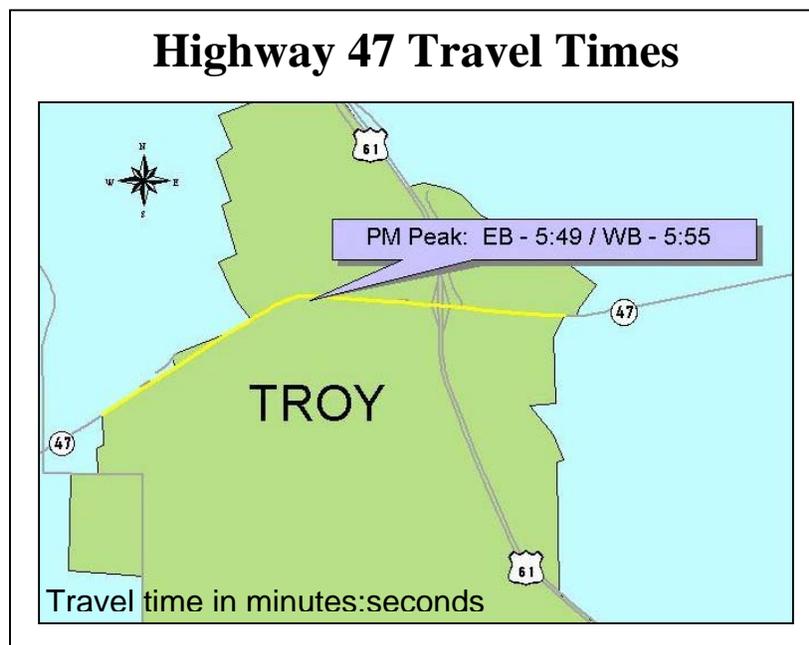
This measure tracks average truck travel times on various roadway sections. Travel time is a tool for improving transportation system performance.

#### **Measurement and Data Collection:**

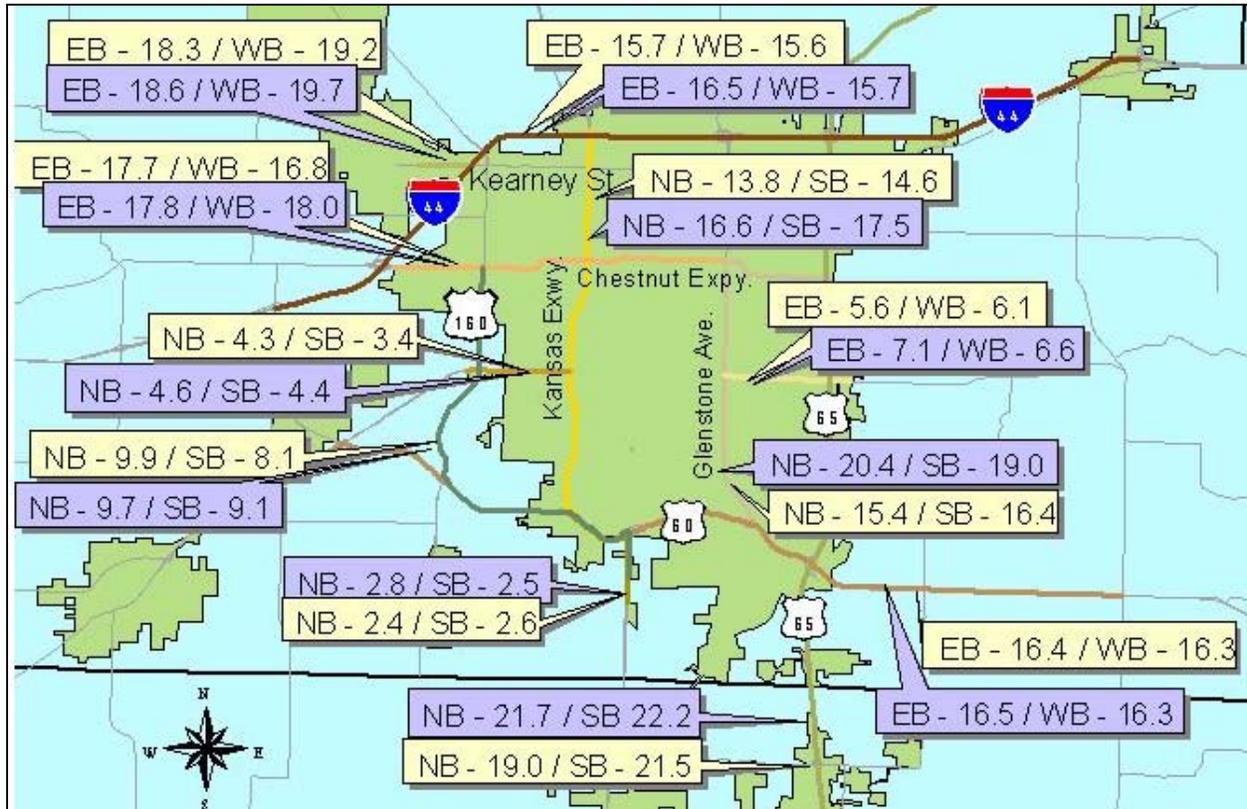
Various methods of data collection are currently used, including travel time software installed in official vehicles and manual travel time collection. Proposals are currently being solicited for traffic data and traveler information services. These services could provide traffic data, such as travel time, on up to 5,400 roadway miles. Additional data collection procedures are also being explored for the future, such as collecting travel time data through our partnership with Mobility Technologies, Inc. in the St. Louis area and determining travel times through Advanced Transportation Management System software at the Transportation Management Centers in the St. Louis, Kansas City and Springfield areas.

#### **Improvement Status:**

Currently, travel times are only available for a limited number of roadway segments. This existing data does not differentiate between trucks and other vehicles. Future availability of additional travel time data will allow a more comprehensive approach to reducing average travel times. Efforts will be focused on roadways with excessive or increasing travel times. The desired trend is a reduction in average travel times.



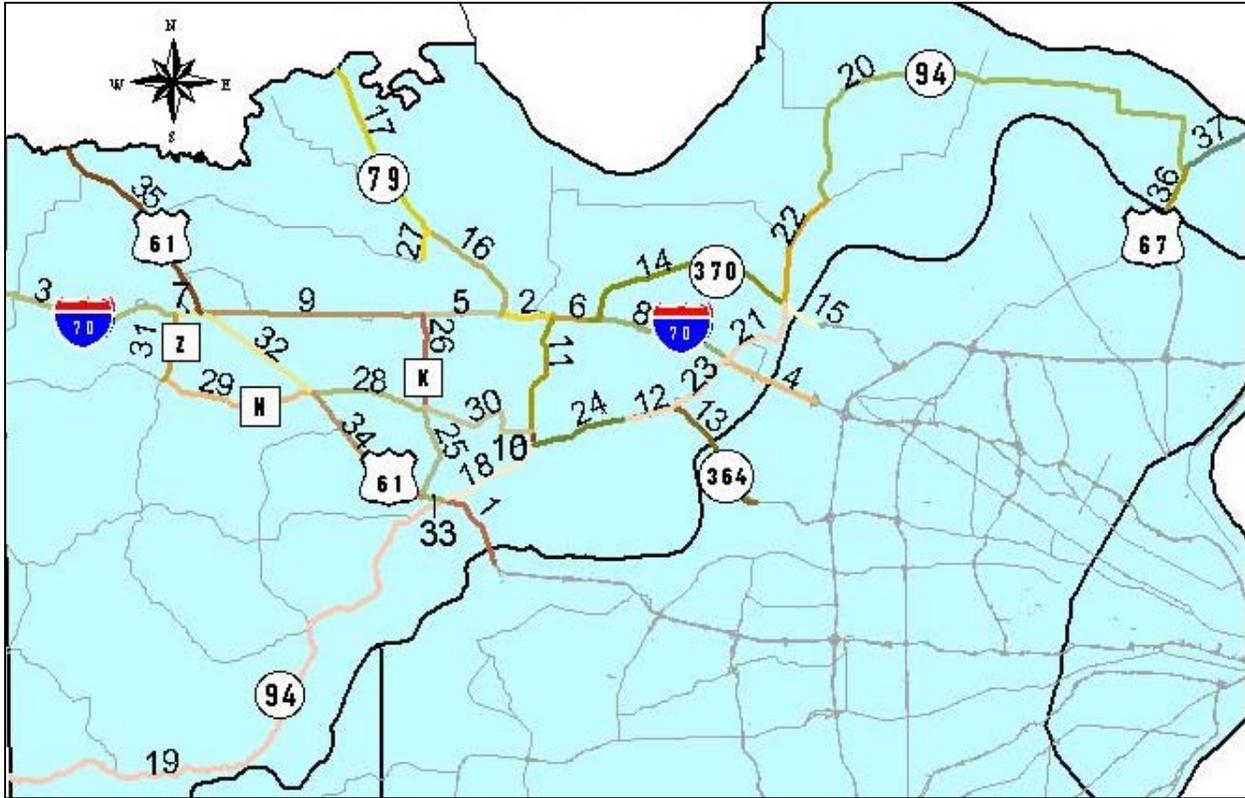
## Springfield Area Travel Times



**Peak travel time in minutes.**



# St. Charles Area Travel Times



## Segment Details for St. Charles Area

Segment	Length (miles)	Direction	AM Peak (min:sec)	PM Peak (min:sec)	Off Peak (min:sec)
1	3.286	EB	3:13	3:02	3:00
		WB	3:15	3:36	3:14
2	1.716	EB	3:07	1:34	1:34
		WB	1:26	2:46	1:28
3	6.05	EB	5:03	4:45	5:02
		WB	5:04	5:32	5:05
4	3.225	EB	3:30	3:00	2:47
		WB	3:18	3:13	3:11
5	2.627	EB	7:26	2:13	2:14
		WB	2:18	2:51	2:22
6	1.535	EB	1:22	1:21	1:17
		WB	1:19	2:19	1:18
7	1.027	EB	0:49	0:45	0:47
		WB	0:48	0:52	0:49
8	4.657	EB	4:15	4:14	4:10
		WB	4:01	4:37	4:08
9	7.338	EB	11:09	6:30	6:40
		WB	6:31	6:55	6:42
10	0.456	NB	1:01	0:52	1:09
		SB	0:35	0:40	1:10
11	4.04	NB	9:48	8:54	8:34
		SB	10:00	9:19	8:25
12	1.658	EB	2:04	1:45	1:45
		WB	1:52	3:20	2:02
13	4.521	EB	4:04	4:07	4:12
		WB	4:09	4:12	4:12
14	7.894	EB	6:42	6:49	7:07
		WB	6:34	6:39	7:01
15	1.244	EB	1:22	1:00	1:34
		WB	1:16	1:22	1:25
16	4.032	NB	4:57	5:48	4:07
		SB	6:47	4:49	4:19
17	6.385	NB	5:32	5:46	5:32
		SB	5:48	5:40	5:20
18	3.749	EB	6:16	5:34	5:12
		WB	5:37	6:42	6:16
19	21.43	EB	28:07	28:04	27:58
		WB	29:13	26:37	28:37
20	18.36	EB	22:07	21:23	23:04
		WB	21:34	21:37	22:31
21	3.556	EB	9:04	9:33	10:52
		WB	8:22	10:34	10:54
22	3.944	EB	5:44	6:36	5:39
		WB	6:37	6:36	6:38
23	7.805	EB	5:12	5:33	5:17
		WB	5:34	5:12	4:12
24	3.172	EB	11:19	9:24	7:39
		WB	7:39	11:55	7:17
25	3.232	NB	4:30	7:10	4:38
		SB	5:37	5:09	5:15
26	3.172	NB	5:18	8:27	6:54
		SB	6:28	7:39	6:25
27	1.003	NB	5:36	6:39	4:59
		SB	6:07	9:21	6:47
28	3.946	EB	7:16	8:15	7:44
		WB	7:45	10:24	7:15
29	5.382	EB	7:02	6:54	6:57
		WB	7:12	6:52	6:42
30	4.472	EB	7:16	10:31	7:41
		WB	8:04	6:25	7:04
31	2.519	NB	3:07	3:11	3:08
		SB	3:02	3:09	3:30
32	4.808	EB	6:18	5:58	6:26
		WB	5:13	6:32	5:45
33	0.765	EB	0:34	0:33	0:32
		WB	0:40	0:37	0:37
34	5.152	EB	5:25	5:02	4:55
		WB	5:09	7:09	5:47
35	7.377	NB	6:35	6:52	7:12
		SB	6:31	7:02	6:42
36	3.633	NB	3:04	3:10	3:02
		SB	3:04	3:07	3:25
37	2.102	NB	3:41	3:16	3:30
		SB	3:59	3:32	3:42

# Efficient Movement of Goods

## Percent of trucks using advanced technology at Missouri weigh stations

**Result Driver:** Dave Dewitt, Deputy Administrative Officer  
**Measurement Driver:** Barbara Hague, Special Project Coordinator

**Purpose of the Measure:**

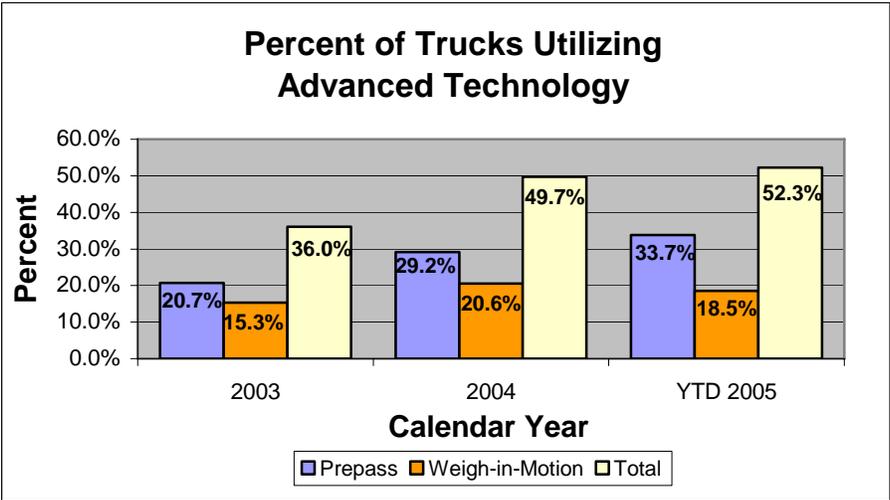
This measure indicates motor carriers' acceptance of tools designed to improve the flow of freight traffic on Missouri highways.

**Measurement and Data Collection:**

Data is collected by the PrePass system computers and by the Missouri State Highway Patrol. Trucks that use PrePass are scanned as they approach 19 Missouri weigh stations. Sensors check the vehicle's weight as computers scan MoDOT's records to determine the carrier's compliance with safety, insurance and state and federal regulations. Drivers are notified to stop or are allowed to continue without delay. Carriers that comply with state and federal regulations save time and money. The Missouri State Highway Patrol provides an annual measure of the number of trucks that use Missouri's weigh-in-motion scales located at Mayview and Foristell. These scales measure weight as trucks pass over them at 40 m.p.h. Using them rather than scales that require a full stop saves both time and money.

**Improvement Status:**

The number of trucks using the PrePass system continues to increase, hitting a new high in March of approximately 240,000 vehicles checked electronically at highway speeds. The weigh in motion equipment at Foristell (both east and west) has been down for three months during first two quarters of this year. The down time and loss of data led to a decrease in weigh in motion totals for this year. The number of vehicles being weighed by the PrePass system and high-speed weigh in motion continues to increase in respect to the total number of vehicles weighed.



**Desired Trend:**  
↗

## Efficient Movement of Goods

### *IFTA miles traveled in Missouri*

**Result Driver:** Dave DeWitt, Deputy Administrative Officer

**Measurement Driver:** Joy Prenger, Accounting Services Supervisor

**Purpose of the Measure:**

This measure will help determine if motor carrier freight travel in Missouri is increasing or decreasing during specific quarters of the year. Data could also indicate fluctuations of freight movement in Missouri. Information received will provide direction on how to strengthen and increase the program to facilitate freight movement by monitoring the quarterly fuel tax rate(s) and voluntary compliance.

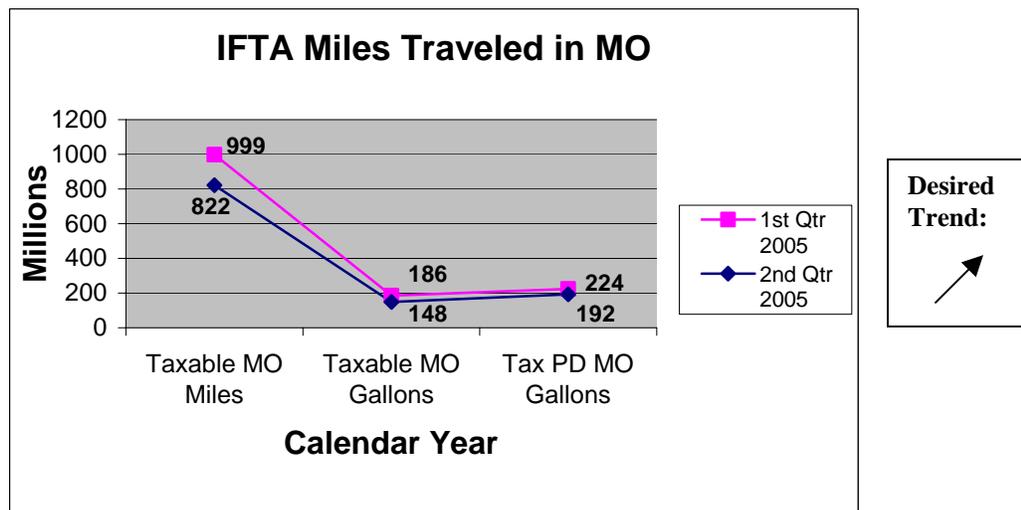
**Measurement and Data Collection:**

Collection of data began January 1, 2005. Total taxable miles traveled in Missouri by Missouri-based carriers and carriers based in IFTA (International Fuel Tax Agreement) member jurisdictions will be tracked utilizing IFTA tax returns and member jurisdiction monthly transmittals. This information will be used to reflect freight movement, support revenues and usage from the motor fuel tax refund appropriation.

**Improvement Status:**

Since this is the second quarter this information has been available, more information and comparison will follow in future quarterly Tracker reports.

Fuel taxes in Missouri have not been raised to account for inflation and increased vehicle fuel efficiency, which results in declining revenue per vehicle mile. Fuel taxes are paid on fuel consumed rather than fuel purchased within a state. Missouri, a low rate fuel tax state (\$.17 per gallon) loses revenue due to purchases made in border states (rates per gallon in: Illinois, \$.215; Kansas, \$.25; and Iowa, \$.225) while fuel is consumed in Missouri. In 2002, our national rank in revenue per mile was 44<sup>th</sup>.



# Efficient Movement of Goods

## *Percent of satisfied motor carriers*

**Results Driver:** Dave DeWitt, Deputy Administrative Officer

**Measurement Driver:** Mary Jo Pointer, Motor Carrier Manager

### **Purpose of the Measure:**

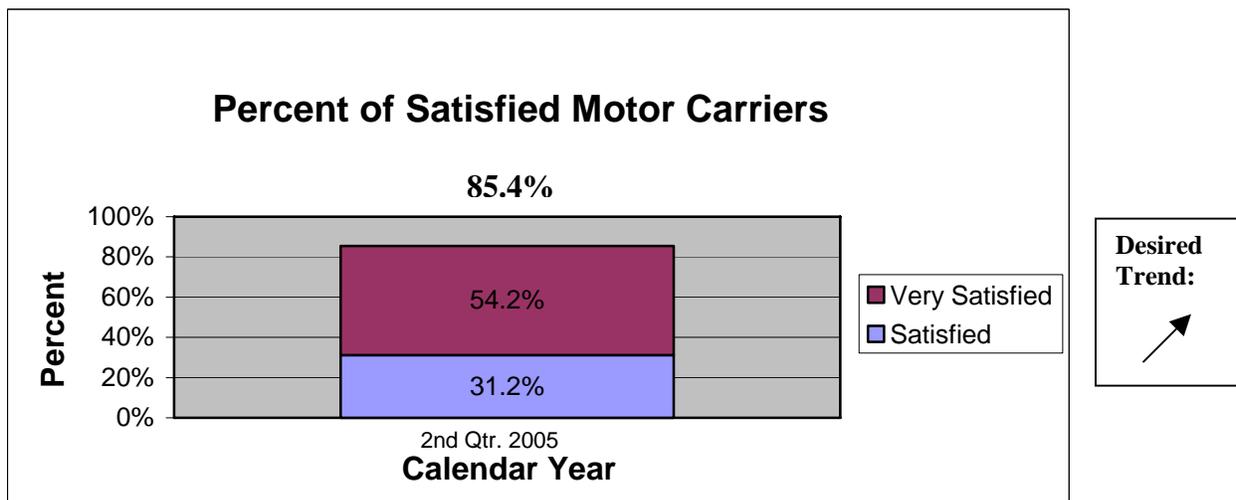
This measure tracks MoDOT’s progress toward the goal of expeditiously meeting the needs of the motor carrier industry and facilitating freight movement. MoDOT’s Motor Carrier Services team uses the data to identify opportunities to improve customer satisfaction.

### **Measurement and Data Collection:**

MCS personnel, working with the Missouri Transportation Institute, developed a survey to collect customer satisfaction data. A single survey addressed all four MCS program divisions, International Registration Plan/International Fuel Tax Agreement, Over-dimension/Overweight Permitting, Safety and Compliance and Operating Authority. Approximately 400 customers were randomly selected from each program resulting in 1,560 mailed surveys. Survey respondents identified the service(s) they use when doing business with MCS, then indicated their level of satisfaction with 12 customer service factors like “Timely response”, “Friendly”, “Respectful”, and “Outcome”. They also gave an “Overall satisfaction” score. Customers used a four-point scale ranging from 4=Very Satisfied to 1=Very Dissatisfied. An online survey is planned for the near future.

### **Improvement Status:**

Although satisfaction levels vary among the four service areas, overall MCS customer satisfaction is high, with 85.4 percent of respondents reporting that they were "Satisfied" or "Very Satisfied". “Timely response” received the lowest ratings and OD/OW customers expressed consistently lower levels of satisfaction across the board. However, ratings for interpersonal manner of MoDOT personnel (“Friendly”, “Respectful”) were quite high.



## Efficient Movement of Goods

*Average wait time spent by customers obtaining over dimension / over weight permits*

**Result Driver:** Dave DeWitt, Deputy Administrative Officer

**Measurement Driver:** Mary Jo Pointer, Motor Carrier Manager

**Purpose of the Measure:**

This measure will track MoDOT's success in minimizing the time it takes motor carriers to obtain permits that allow them to haul loads that are taller, wider or heavier than those regularly permissible on Missouri highways.

**Measurement and Data Collection:**

Data Collection will be gathered upon implementation of the web-based system in September 2005. Data to be reported in the January 2006 Tracker.

**Improvement Status:**

**Measure is Under  
Development**