

Greetings from MoDOT

As the new director of MoDOT, I am excited to present the performance metrics that validate our commitment to the citizens of Missouri. MoDOT has a proud legacy of wisely managing our system and meeting challenges in order to delight our customers and promote a prosperous Missouri.

Whether managing floods, repairing roads and bridges or fighting snow, the men and women of MoDOT work tirelessly to keep our citizens and themselves safe as we maintain 34,000 miles of roads and 10,400 bridges. While this report highlights the measures used to monitor our commitment of a world-class transportation experience for Missourians, it is really a testament to the bold ingenuity of our employees to maintain our \$50 billion transportation assets.

Due to the funds made available, MoDOT has been diligent about maintaining our system in the best condition we can for as long as with can. However, citizens have asked for more transportation options, and I believe they deserve more. It is critical to build a 21st century

transportation system today in order to fuel our economy and retain our workforce.

Recently, the federal government passed a five-year bill, the FAST Act, which provides long-term stability in federal funding. Since these funds require a one-to-four match with state money, it makes additional funding from our state critical.

While some will say that our roads and bridges appear to be in good condition today, inspections beneath the surface tell a different story. For instance, of our 10,400 bridges, about 60 percent are older than their intended useful life of 50 years. And since many of our bridges were built between 1960 and 1969, a large number of bridges will need to be replaced at the same time.

With 641 critical-condition bridges and upwards of 1,300 weight-restricted bridges, the need is greater than available resources. We must address this and other issues head-on because bridges connect our communities and are vital to urban and rural economies.

The pages that follow will highlight many innovations and improvements. But there is more to be done. I ask that you join me in making the transportation system in our great state all that it can and needs to be.

With warm regards,

Patrick K. McKenna

Mission

Our mission is to provide a world-class transportation experience that delights our customers and promotes a prosperous Missouri.

TANGIBLE RESULTS

- Keep Customers and Ourselves Safe
- Keep Roads and Bridges in Good Condition
- Provide Outstanding Customer Service
- Deliver Transportation Solutions of Great Value
- Operate a Reliable and Convenient

Transportation System

- Use Resources Wisely
- Advance Economic Development

VALUE STATEMENTS

Live MoDOT Values -

- Be Safe,
- Be Accountable,
- Be Respectful,
- Be Inclusive,
- Be Bold,
- Be Better, and
- Be One Team

So we can be a great organization.

TABLE OF CONTENTS

Keep Customers and Ourselves Safe - Eile	leen Rackers	i	
Number and rate of fatalities and serious injuries	Quarterly	Bill Whitfield	1a
Number of vulnerable roadway user fatalities and serious injuries	October	Bill Whitfield	1b
Number of fatalities and serious injuries resulting from the most frequent crash			
causes	October	John Miller	1c
Number of fatalities and serious injuries in work zones	Quarterly	Julie Stotlemeyer	1d
Percent of seat belt/passenger vehicle restraint use	October	Scott Jones	1e
Number of commercial motor vehicle crashes resulting in fatalities and serious	Quarterly	Mark Piecomover	1f
injuries	Quarterry	Mark Biesemeyer	11
Number of lost workdays	Quarterly	Roberta Jacobson	1g
Total and rate of MoDOT recordable incidents	Quarterly	Jeff Padgett	1h
General liability claims and costs	Quarterly	Steve Patterson	1i
Keep Roads and Bridges in Good Condition - I	Dennis Heck	man	
Percent of major highways in good condition	April	Brian Reagan	2a
Percent of minor highways in good condition	April	Brian Reagan	2b
Condition of state bridges	April	David Koenig	2c
Percent of structurally deficient deck area on National Highway System	April	David Koenig	2d
Provide Outstanding Customer Service			
Percent of overall customer satisfaction	July	Tammy Wallace	3a
Percent of customers who view MoDOT as Missouri's transportation expert	July	Jennifer Williams	3b
Percent of customers who trust MoDOT to keep its commitments to the public	July	Melissa Black	3c
Percent of customers who feel MoDOT provides timely, accurate and			
understandable information	July	Jennifer Williams	3d
Percent of customers satisfied with MoDOT's customer service	Quarterly	Melissa Black	3e
Customer communication engagement	Quarterly	Patrick Wood	3f
Percent of customers who believe completed projects are the right		Nicolo Llocal	2 ~
transportation solutions	January	Nicole Hood	3g
Deliver Transportation Solutions of Great Value	e - David Sil	vester	
Percent of programmed project cost as compared to final project cost	Quarterly	Renate Wilkinson	4a
Percent of projects completed on time	Quarterly	Jay Bestgen	4b
Percent of change for finalized contracts	Quarterly	Jeremy Kampeter	4c
Innovative contracting methods	July	David Simmons	4d
	January/July	Llans Taylor	4e
Average highway lane-mile and bridge construction costs	January	Jason Vanderfeltz	4f
Operate a Reliable and Convenient Transportation	System - Pa	ula Gough	
Travel times and reliability on major routes	Quarterly	Jon Nelson	5a
Cost and impact of traffic congestion	April	Jeanne Olubogun	5b
Average time to clear traffic incident	Quarterly	Randy Johnson	5c
Traffic incident impacts on major interstate routes	Quarterly	Rick Bennett	5d
Work zone impacts to the traveling public	Quarterly	Jerica Holtsclaw	5e
Effectiveness of improving air quality	October	Mike Henderson	5f
	January/April	Tim Chojnacki	5g
Bike/pedestrian and ADA transition plan improvements	Quarterly	Ron Effland	5h
Use and connectivity of transportation modes	Quarterly	Amy Ludwig	5i
Use Resources Wisely - Brenda Me	Iorris		
Number of full-time equivalencies expended	Quarterly	Steve Meystrik	6a
Level of job satisfaction	October	Rudy Nickens	6b
Rate of employee turnover	Quarterly	Aaron Kincaid	6c
State and federal revenue projections	Quarterly	Todd Grosvenor	6d
Number of dollars generated through cost-sharing and partnering agreements	October	Frank Miller	6e
for transportation			
Percent of state funds invested in other modes of transportation	October	Dion Knipp	6f
Percent of local program funds committed to projects	Quarterly	Kenny Voss	6g
Percent of inactive projects	Quarterly	Sunny Wilde	6h
Amount of advance construction	January	Doug Hood	<u>6i</u>
Fleet usage and fuel efficiency	Quarterly	Kevin James	6j
Number of tons of recycled material	April	Jay Bestgen	6k
Number of environmental warnings and violations	Quarterly	Gayle Unruh Eric Kopinski	6l
Number of stormwater violations	Quarterly		6m

TABLE OF CONTENTS

Advance Economic Development - Machelle Watkins				
Economic return from transportation investment	October	Eva Voss	7a	
National ranking of transportation infrastructure	July	Ben Reeser	7b	
National ranking in revenue per mile	July	Tona Bowen	7c	
Goods movement competitiveness	January	Cheryl Ball	7d	
Freight tonnage by mode	April/October	Bryan Ross	7e	
Annual hours of truck delay	April	Aaron Hubbard	7f	
Truck reliability index	April	Chuck Gohring	7g	
Jobs created by projects funded through the economic development program	January	Doug Hood	7h	
Percent of minorities and females employed	Quarterly	Ida Mitchell	7i	
Percent of disadvantaged business enterprise participation on construction and engineering projects	Quarterly	Lester Woods	7j	
Expenditures made to certified minority, women and disadvantaged business enterprises	Quarterly	Rebecca Jackson	7k	

(This page is intentionally left blank for duplexing purposes)



KEEP CUSTOMERS AND OURSELVES SAFE Eileen Rackers, State Traffic and Highway Safety Engineer



MEASURES OF DEPARTMENTAL PERFORMANCE



Safety is a daily commitment for all MoDOT employees. From design and construction to operations and maintenance of the state transportation system, the safety of our customers, partners, and employees is our top priority. We work with our safety partners to promote safe behavior for all users and modes of transportation so everyone goes home safe every day.

Eileen Rackers State Traffic and Highway Safety Engineer

MEASUREMENT DRIVER:

Bill Whitfield Highway Safety Director

PURPOSE OF THE MEASURE:

The fatal and serious injury number measures track quarterly, annual and five-year average trends resulting from traffic crashes on all Missouri roadways.

MEASUREMENT AND DATA COLLECTION:

Missouri law enforcement agencies submit a vehicle accident report form to the Missouri State Highway Patrol to be entered into a statewide traffic crash database. The database automatically updates MoDOT's crash database system, which is part of the Transportation Management System. The rate of fatal and serious injury charts display annual and fiveyear average fatality and injury rates per 100 million vehicle miles traveled for these same crashes. In addition, the fatality rate chart includes the national average.

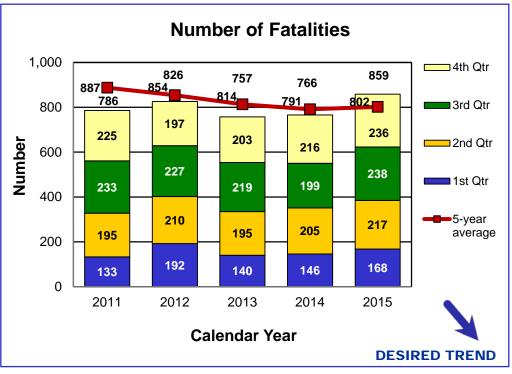
KEEP CUSTOMERS AND OURSELVES SAFE

Number and rate of fatalities and serious injuries – 1a

Traffic crash prevention is one of MoDOT's highest priorities. In 2015, Missouri experienced 859 fatalities, resulting in a 12 percent increase over 2014. Of those fatalities, 63 percent were unbuckled when the crash occurred. This unbuckled trend has fluctuated from a high of 71 percent in 2013 to current levels.

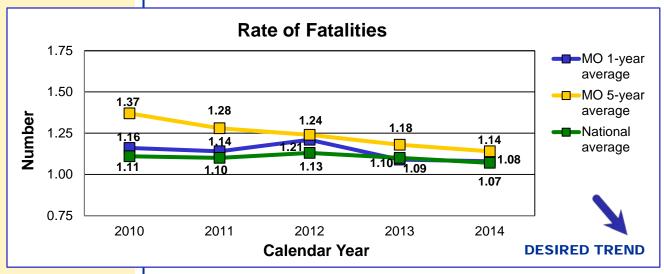
Crash data from 2010 to 2014 showed the leading contributing circumstances that can be attributed to driver behavior were substance impaired driving, driving too fast for conditions, exceeding the speed limit, distraction/inattention, following too closely and fatigue. Crash statistics also showed impaired drivers had an unbuckled fatality rate of 87 percent. This group of drivers makes two deadly decisions: to drive impaired and unbelted. Once 2015 MSHP crash files are closed, more extensive analysis will be completed.

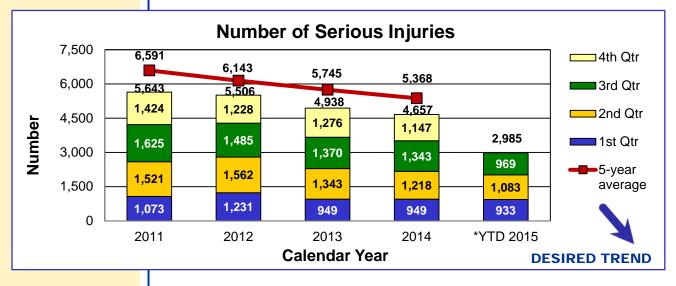
MoDOT has awarded 454 contracts for federal fiscal year 2016 in the areas of education, enforcement and engineering. The goal of these contracts is to prevent and reduce the number and severity of traffic crashes occurring on Missouri's roadways.

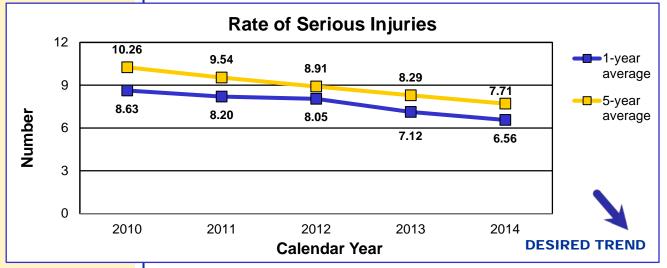




KEEP CUSTOMERS AND OURSELVES SAFE







*YTD 2015 – Due to a backlog of crash reports into STARS, the serious injury measure only includes data derived from TMS. Fourth quarter 2015 data is not available on the MSHP radio reports and is incomplete in TMS.

Eileen Rackers State Traffic and Highway Safety Engineer

MEASUREMENT DRIVER: Bill Whitfield

Highway Safety Director

PURPOSE OF THE MEASURE:

The vulnerable roadway user measure tracks annual trends in fatalities and serious injuries of motorcyclists, pedestrians and bicyclists. These roadway users are at risk for death or serious injury when involved in a motor-vehicle-relate crash.

MEASUREMENT AND DATA COLLECTION:

Missouri law enforcement agencies submit a vehicle accident report form to the Missouri State Highway Patrol to be entered into a statewide traffic crash database. The database automatically updates MoDOT's crash database system, which is part of the Transportation Management System.

KEEP CUSTOMERS AND OURSELVES SAFE

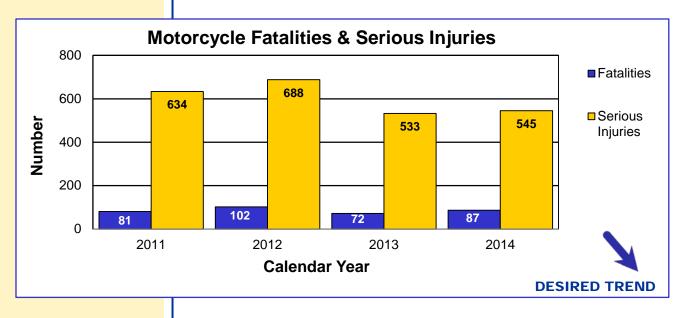
Number of vulnerable roadway user fatalities and serious injuries – 1b

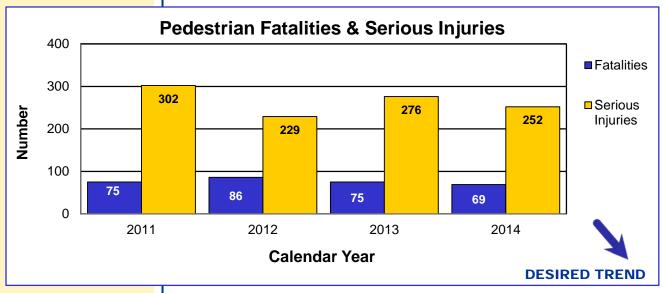
In 2014, vulnerable roadway users were 21 percent of the total number of fatalities. Pedestrian fatalities decreased in 2014 by 8 percent. Motorcycle fatalities increased by 21 percent and bicycle fatalities remained unchanged. Fatality data for 2015 are incomplete.

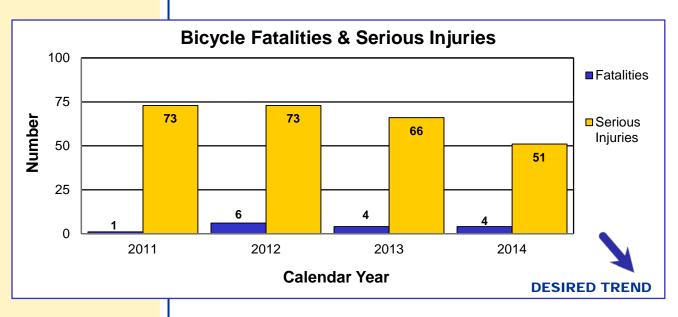
Motorcycle, pedestrian and bicycle serious injuries experienced a downward trend in 2014. Serious injury data for 2015 are incomplete.



KEEP CUSTOMERS AND OURSELVES SAFE







Missouri Department of Transportation 1b2

Eileen Rackers State Traffic and Highway Safety Engineer

MEASUREMENT DRIVER:

John Miller Traffic Liaison Engineer

PURPOSE OF THE MEASURE:

The measure tracks annual trends in motor-vehicle-related fatal and serious injuries resulting from the most common contributing factors or highway features. This data represents six of the top focus areas presented in Missouri's Blueprint to Save More Lives.

MEASUREMENT AND DATA COLLECTION:

Missouri law enforcement agencies submit a vehicle accident report form to the Missouri State Highway Patrol to be entered into a statewide traffic crash database. The database automatically updates MoDOT's crash database system, which is part of the Transportation Management System. MoDOT staff query and analyze this data to determine the number of unrestrained occupants in crashes, how often aggressive driving, alcohol and other drugs contribute to crashes, and whether or not the vehicles ran off the road or the crash occurred at an intersection or within a curve.

KEEP CUSTOMERS AND OURSELVES SAFE

Number of fatalities and serious injuries resulting from the most frequent crash causes – 1c

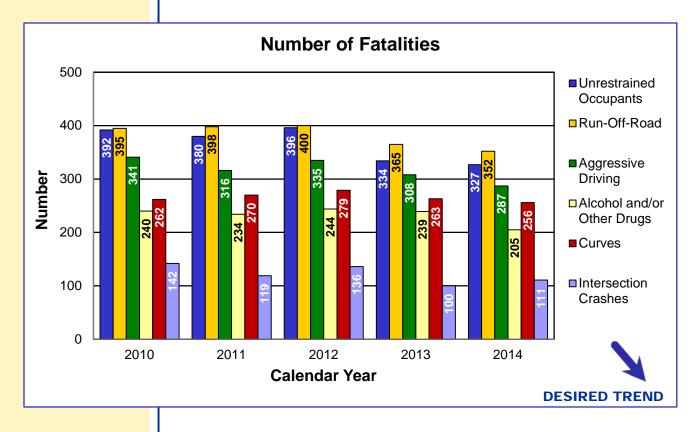
Recording and monitoring crash data is an important part of improving safety for Missouri drivers. But without looking at the causes of these incidents, the data is nothing but numbers. Looking for the reasons why an incident occurs is MoDOT's best approach to address the problem. With that approach, the department finds the most frequent causes continue to be a mix of engineering and behavioral issues.

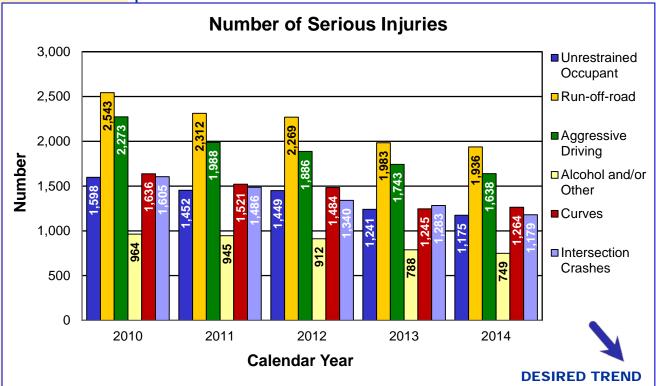
The general trend for both fatalities and serious injuries has declined for the last five years. Comparing the number of fatalities in 2013 to 2014 shows the following results: 2 percent reduction in unrestrained occupants, 4 percent reduction in run-off-road, 7 percent reduction in aggressive driving, 14 percent reduction in alcohol and/or other drugs, 3 percent reduction in curve related, and an 11 percent increase in intersection related. Comparing the number of serious injuries in 2013 to 2014 shows the following results: 5 percent reduction in unrestrained occupants, 2 percent reduction in run-off-road, 6 percent reduction in aggressive driving, 5 percent reduction in alcohol and/or other drugs, a 2 percent increase in curve related, and an 8 percent reduction in intersection related.

With a long-term insufficient funding challenge, it will be difficult to maintain the downward trends for each of these causes, because there will be less money available for significant system-wide safety improvements. The primary current initiatives include adding shoulders and rumble strips to minor roads and improving intersection safety. While driver behavior is difficult to correct, MoDOT continues to focus on using funds to target locations and behaviors based on crash data analysis.



KEEP CUSTOMERS AND OURSELVES SAFE





Eileen Rackers State Traffic and Highway Safety Engineer

MEASUREMENT DRIVER:

Julie Stotlemeyer Traffic Liaison Engineer

PURPOSE OF THE MEASURE:

This measure tracks the number of traffic-related and non-traffic-related fatalities, injuries and overall crashes occurring in work zones on state-owned roadways.

MEASUREMENT AND DATA COLLECTION:

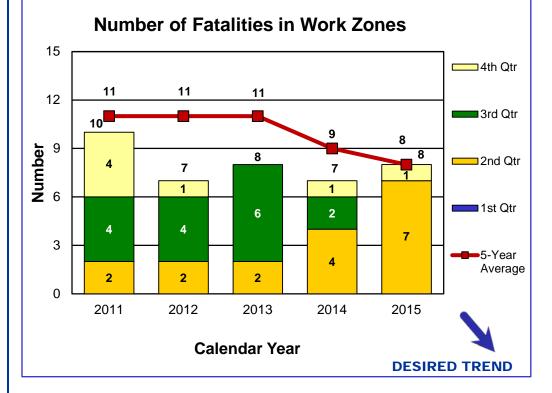
Missouri law enforcement agencies submit a vehicle accident report form to the Missouri State Highway Patrol to be entered into a statewide traffic crash database. The database automatically updates MoDOT's crash database system, which is part of the Transportation Management System. MoDOT staff query and analyze this data to identify work zone related crash statistics. MSHP prioritizes entry of the crash reports by fatality, serious injury and then property damage only.

KEEP CUSTOMERS AND OURSELVES SAFE

Number of fatalities and serious injuries in work zones – 1d

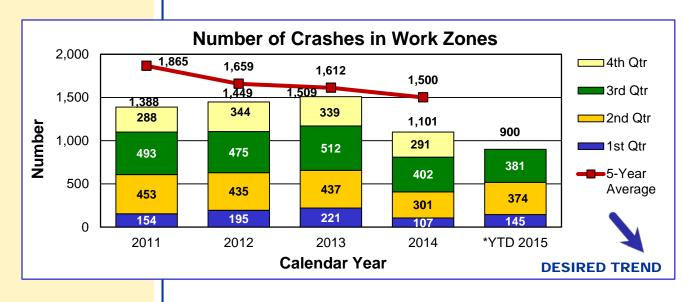
Work zone safety is at the center of MoDOT's safety culture. It is a driving force in all maintenance and construction work. Just as MoDOT expects its crews to be safe and visible, it also expects contractors and utility companies to provide safe work zones and visible workers. This is demonstrated by the partnership MoDOT has with contractors and utility companies using the same personal protection equipment it uses. Staying safe in work zones also is a partnership the department shares with the driving public. MoDOT wants everyone to get home safely. While MoDOT makes every effort to work safely, motorists need to pay attention, buckle up and drive without distractions.

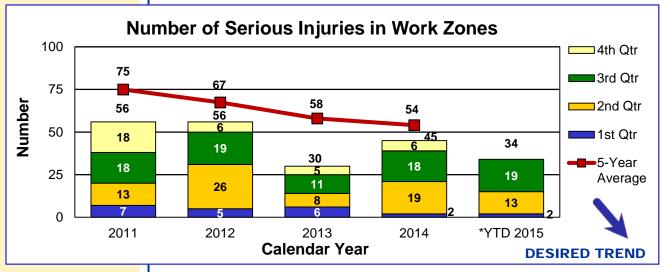
From information currently available for the fourth quarter of 2015, eight fatalities and 34 serious injuries have occurred in Missouri work zones. Of the fatalities that occurred in work zones, three were pedestrians, three involved motorcycles, four involved large trucks, four occurred on divided highways and six were on roadways with a speed limit of 55 mph or greater.

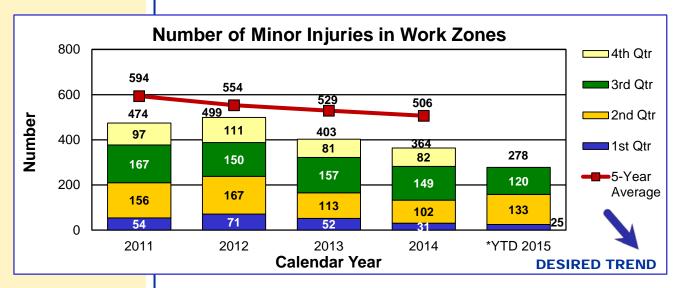


*YTD 2015 – Fatalities derived from TMS.

KEEP CUSTOMERS AND OURSELVES SAFE







*YTD 2015 – Due to a backlog of crash reports into STARS, these measures will only illustrate data derived from TMS. Fourth quarter 2015 data is unavailable through the MSHP radio reports and is incomplete in TMS.

Eileen Rackers State Traffic and Highway Safety Engineer

MEASUREMENT DRIVER:

Scott Jones Highway Safety Program Manager

PURPOSE OF THE MEASURE:

This measure tracks annual trends in seat belt use in passenger vehicles. This data drives the development and focus of the Missouri Highway Safety Plan and supports Missouri's Blueprint to Save More Lives.

MEASUREMENT AND DATA COLLECTION:

Each June, a statewide survey is conducted at 560 preselected locations in 28 counties. The data collected is calculated into a seat belt usage rate using a formula approved by the National Highway Traffic Safety Administration. Data collection locations represent 85 percent of the state's vehicle occupant fatalities. The data collection plan is the same each year for consistency and compliance with NHTSA guidelines.

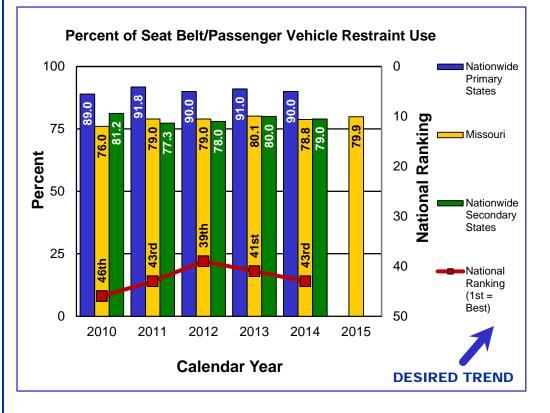
KEEP CUSTOMERS AND OURSELVES SAFE

Percent of seat belt/passenger vehicle restraint use – 1e

Seat belts save lives. But getting people to use them – even to protect their own lives – is a challenge. Public education is one way to keep the issue in front of motorists. Legislation is another. MoDOT supports both approaches, attacking the problem with focused marketing campaigns and reinforcing it with hard facts to back legislative efforts. Several municipalities across the state are taking matters into their own hands enacting primary ordinances within city limits. Missouri currently has 46 municipalities and two counties that have adopted primary seat belt ordinances, representing 23.3 percent of the state's population.

Seat belt use in Missouri for 2015 was 80 percent. The national average for seat belt use in 2014 was 87 percent. Missouri's national ranking is currently 43rd. Only seven states rank lower in seat belt use than Missouri.

Missouri's seat belt use has plateaued. States with a primary seat belt law rank highest on seat belt use nationwide. States that have a secondary law continue to rate lowest in national rankings.



Eileen Rackers State Traffic and Highway Safety Engineer

MEASUREMENT DRIVER:

Mark Biesemeyer Motor Carrier Services Program Manager

PURPOSE OF THE MEASURE:

This measure tracks the number of Commercial Motor Vehicles involved in fatal and serious injury crashes. MoDOT uses the information to target education, enforcement and improvement of safety features.

MEASUREMENT AND DATA COLLECTION:

Missouri law enforcement agencies submit a vehicle accident report form to the Missouri State Highway Patrol to be entered into a statewide traffic crash database. This measure reports the number of CMVs involved in crashes in which one or more people are seriously injured or die as a result of the crash. Preliminary results for the current year are reported quarterly.

KEEP CUSTOMERS AND OURSELVES SAFE

Number of commercial motor vehicle crashes resulting in fatalities and serious injuries – 1f

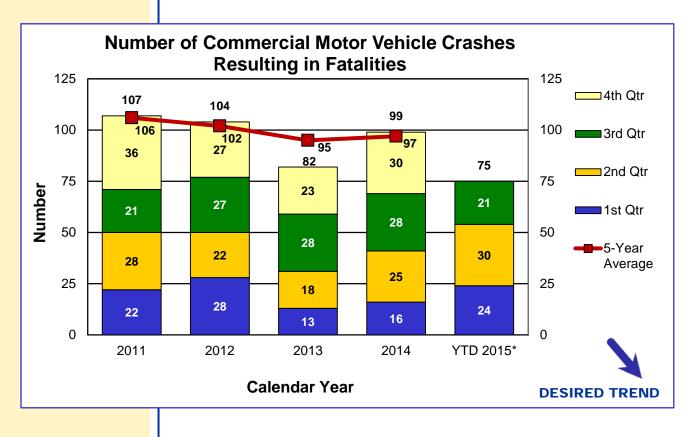
Commercial motor vehicles are the lifeblood of Missouri's economy. They transport the goods and materials that keep the nation moving. Partnering with the Missouri State Highway Patrol and St. Louis and Kansas City police departments, MoDOT does everything in its power to keep CMV drivers safe and their vehicles on the road. By tracking the number of CMV crashes resulting in fatalities and serious injuries, MoDOT can target educational and enforcement efforts, and also improve safety features such as highway signs, reflective pavement markings, guard cables, rumble strips and incident management alert signs.

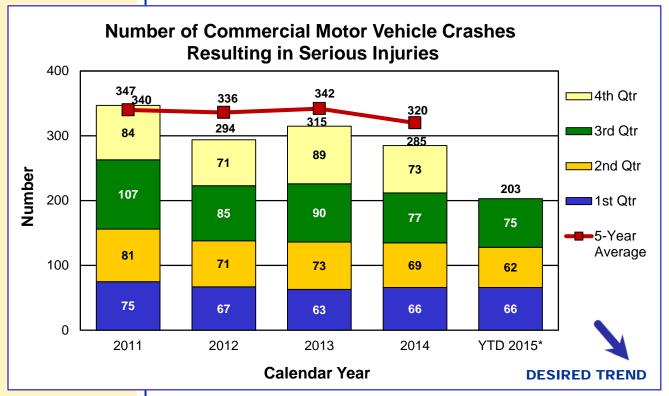
These efforts are making a difference in the number of fatality and serious injury crashes. Between 2011 and 2014, fatal crashes involving a CMV decreased by 7.5 percent. However, in 2014 the 99 fatality crashes Missouri experienced was 2 percent higher than what Missouri averaged over the most recent five years. The number of fatal crashes reported through the third quarter of 2015 is 75, which is six more than the same period in 2014. This is an increase of 8.7 percent.

Between 2011 and 2014, CMV serious injury crashes decreased by 17.9 percent and the 285 serious injury crashes Missouri experienced in 2014 was 10.9 percent lower than the most recent five-year average. The number of serious injury crashes reported through the third quarter of 2015 is 203, which is nine fewer than the same period in 2014. This is a decrease of 4.2 percent.



KEEP CUSTOMERS AND OURSELVES SAFE





*YTD 2015 – Due to a backlog of crash reports into STARS, these measures will only illustrate data derived from TMS.

Eileen Rackers State Traffic and Highway Safety Engineer

MEASUREMENT DRIVER:

Roberta Jacobson Claims Administration Manager

PURPOSE OF THE MEASURE:

This measure tracks the actual number of days employees cannot work due to workrelated injuries.

MEASUREMENT AND DATA COLLECTION:

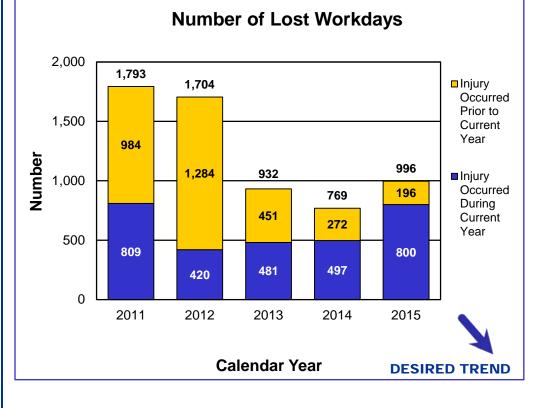
The data for this measure is collected from Riskmaster, the department's risk management claims administration software.

KEEP CUSTOMERS AND OURSELVES SAFE

Number of lost workdays - 1g

The impact of work-related injuries cannot be underestimated. Employees injured at work not only affect the department, but can disrupt the personal lives of MoDOT employees and their families. Measuring lost workdays shows more than a number on a chart. These are people whose lives can be changed by a split second of inattention or poor preparation.

For 2015, the total number of lost workdays increased 30 percent from 2014. There were four incidents in which employees were lifting MoDOT equipment or materials, accounting for 38 percent of the lost workdays. Another 13 percent of the lost workdays were attributable to three incidents involving weed or brush cutting activities. Three motor vehicle injuries involving another party accounted for 10 percent of the lost workdays while one incident involving snow removal accounted for 8 percent of the lost workdays.



Eileen Rackers State Traffic and Highway Safety Engineer

MEASUREMENT DRIVER:

Jeff Padgett Risk and Benefits Management Director

PURPOSE OF THE MEASURE:

This measure tracks the number of recordable injuries, in total and as a rate of injuries per 100 workers.

MEASUREMENT AND DATA COLLECTION:

The calculation for incidence rate is the number of recordables times 200,000 divided by the number of hours worked. The 200,000 used in the calculation is the base for 100 full-time workers (working 40 hours per week, 50 weeks per year). MoDOT defines a recordable incident as a workrelated injury or illness that results in death, days away from work or medical treatment resulting in cost to the department. The injury data is collected from Riskmaster, the department's risk management claims administration software. The number of hours worked is taken from MoDOT's payroll data.

KEEP CUSTOMERS AND OURSELVES SAFE

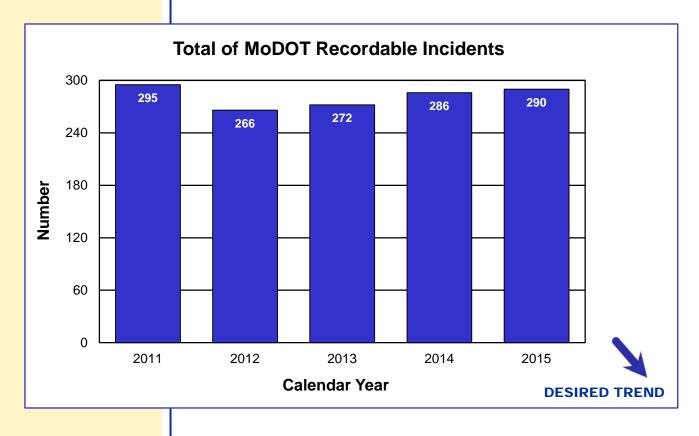
Total and rate of MoDOT recordable incidents – 1h

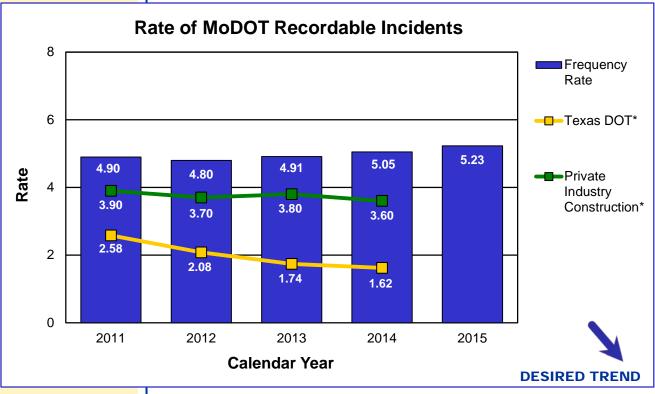
MoDOT is dedicated to employee safety. Getting home safely is a responsibility every employee shares. To reinforce this value, the "Safety Begins with Me" program reminds all employees that safety is a personal responsibility.

The number of recordable incidents and the rate of recordable incidents have increased for 2015 compared to 2014. Leading causes of incidents during this reporting period were: slips, trips and falls at 18 percent; strains or injuries at 14 percent; struck or injured by at 13 percent and cuts/punctures at 12 percent. When looking at the work activity the employee was doing at the time of the incident, 27 percent of these injuries were equipment related. Another 16 percent were related to mowing/brush cutting, and roadway maintenance activities had 11 percent.



KEEP CUSTOMERS AND OURSELVES SAFE





*OSHA private industry and Texas DOT data is not yet available for 2015.

Eileen Rackers State Traffic and Highway Safety Engineer

MEASUREMENT DRIVER:

Steve Patterson Safety and Claims Manager

PURPOSE OF THE MEASURE:

This measure tracks the number of general liability claims and the amount paid.

MEASUREMENT AND DATA COLLECTION:

General liability claims arise from allegations of injuries/damages caused by the dangerous condition on MoDOT property and the injury/damage that directly resulted from the dangerous condition. In addition, an employee must be negligent and create the dangerous condition or MoDOT must have actual or constructive notice of the dangerous condition in sufficient time prior to the injury/damage to have taken measures to protect the public against the dangerous condition. Claims data is collected from Riskmaster, the department's risk management claims administration software.

KEEP CUSTOMERS AND OURSELVES SAFE

General liability claims and costs – 1i

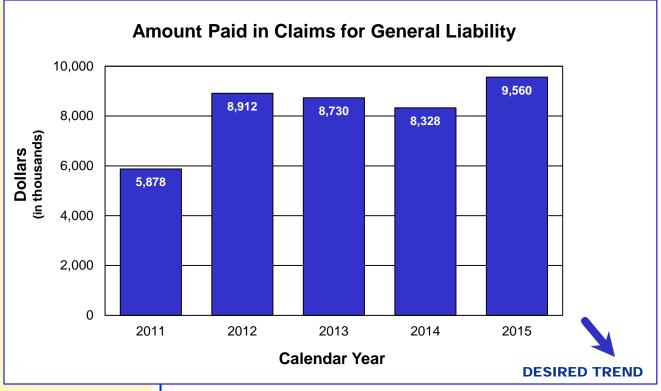
Keeping ourselves and the public safe is MoDOT's top priority. Controlling damage to vehicles and reducing personal injury in work zones, on right of way and other areas under department control helps MoDOT accomplish this goal. Compared to 2014, there was an increase of 21 percent in the number of claims. The majority of claims for 2015 were attributed to pavement defects. During the same timeframe, there was a 15 percent increase in the amount paid. This quarter, payment was made on 125 claims against the department totaling more than \$1.9 million.

Three claims accounted for 60 percent of this quarter's payments. The department received an unfavorable arbitration on a claim occurring in 2011 based on poor sight distance at an intersection. The incident occurred when a vehicle turned into on-coming traffic and caused a collision. The award on this claim was \$409,123. Another claim occurring in 2012 was settled based on a dangerous condition where a patch unraveled creating loose debris. This caused a vehicle to run off the road and overturn, resulting in severe injuries. This claim was settled for \$358,000. In the third claim, a judgment was entered against the department for \$409,123. The department was found to have created a dangerous condition based on inadequate and improper signing. This 2013 incident caused two vehicles to collide resulting in a fatality.



KEEP CUSTOMERS AND OURSELVES SAFE







KEEP ROADS AND BRIDGES IN GOOD CONDITION

Dennis Heckman, State Bridge Engineer



MEASURES OF DEPARTMENTAL PERFORMANCE



Missourians have said they want MoDOT to keep roads and bridges in good condition. Customers are looking for smooth pavements and bridges that can safely handle growing traffic demands. With 33,891 miles of highway and 10,376 bridges on the state system, the challenges are great; however, we are focused on using our limited resources to keep Missouri's roads and bridges in good condition.

Dennis Heckman, State Bridge Engineer

MEASUREMENT DRIVER:

Brian Reagan Transportation System Analysis Engineer

PURPOSE OF THE MEASURE:

This measure tracks the condition of Missouri's major highways.

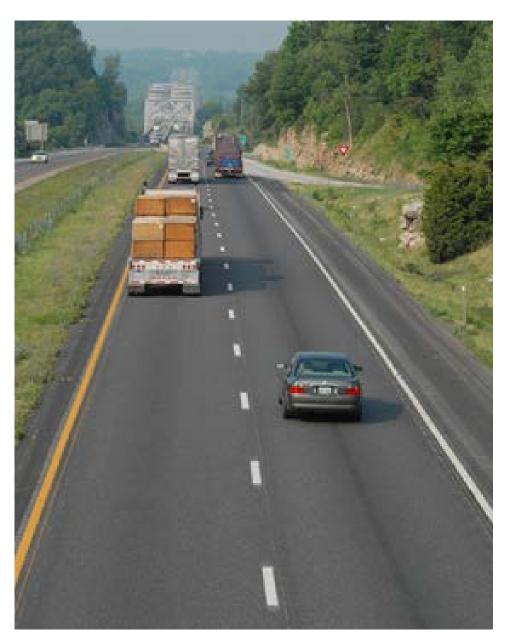
MEASUREMENT AND DATA COLLECTION:

Missouri's major highway system contains the state's busiest highways, including interstates and most U.S. routes. It also includes busy routes in urban areas, particularly where vehicles travel between business districts and residential areas. There are 5,530 total miles on the major highway system, and the condition of these roadways is determined using a variety of measures. While it can be difficult to compare one state's roadways to another's, MoDOT uses Georgia as a comparable system because it has a similar amount of major highways and also bases its evaluation on the smoothness of the roadways. Missouri measures the condition of its roadways using smoothness as one factor, but also considers physical distresses such as cracking.

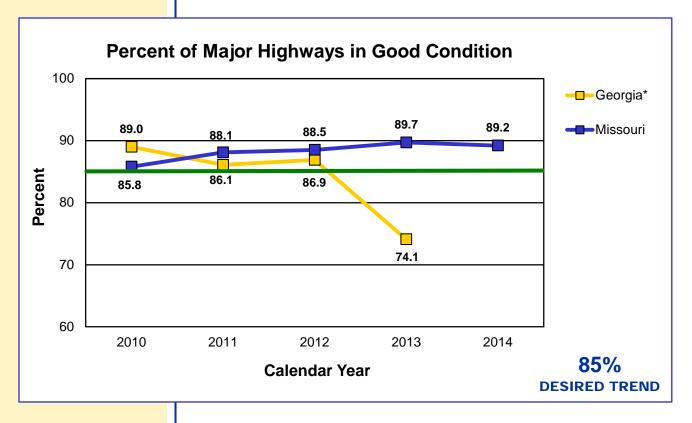
KEEP ROADS AND BRIDGES IN GOOD CONDITION

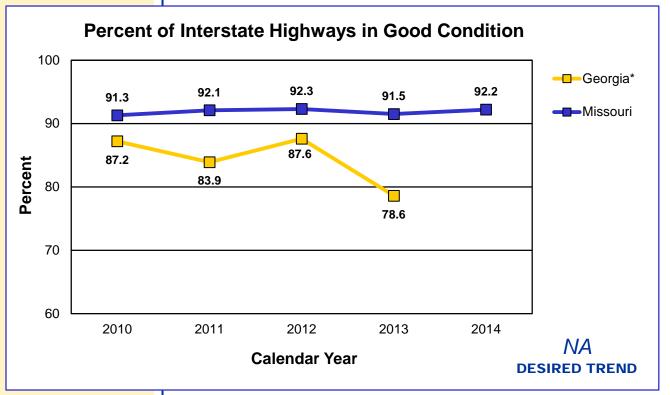
Percent of major highways in good condition – 2a

Missourians have repeatedly told MoDOT keeping roads smooth is a top priority. Over the years, MoDOT has been able to fund pavement improvement programs greatly improving pavement conditions on the thousands of miles of state highways. Currently, more than 89 percent of major highways are rated in good condition.



KEEP ROADS AND BRIDGES IN GOOD CONDITION





*Source data for Georgia comes from FHWA highway statistics. Full data sets are collected every two years. The data set for 2013 is not a full data set. Georgia data is based only on pavement smoothness (IRI) submitted as part of the Highway Performance Monitoring System.

Dennis Heckman State Bridge Engineer

MEASUREMENT DRIVER:

Brian Reagan Transportation System Analysis Engineer

PURPOSE OF THE MEASURE:

This measure tracks the condition of Missouri's minor highways.

MEASUREMENT AND DATA COLLECTION:

Missouri's minor highway system consists of its lesstraveled state highways, including those routes that mainly serve local transportation needs. The minor highway system includes most lettered routes. There are 28,361 miles of minor highways in Missouri. The condition of these routes is determined using a variety of measures.

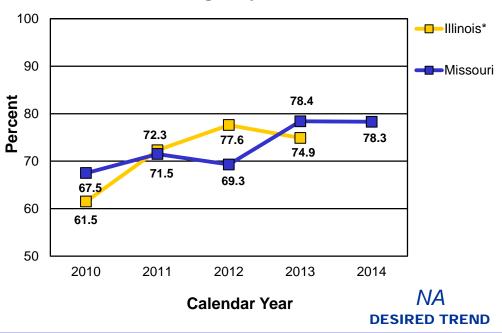
While it can be difficult to compare one state's roadways to another's, MoDOT uses Illinois as a comparable system because it has a similar number of minor highways and has the highest percentage of routes in good condition. Missouri measures the condition of its roadways using smoothness as one factor, but also considers physical distresses such as cracking.

KEEP ROADS AND BRIDGES IN GOOD CONDITION

Percent of minor highways in good condition – 2b

Although minor roads are less traveled, Missourians still say keeping them in good condition is a priority. During the early 2000s, MoDOT's focus was on improving major highways. This resulted in less work being done on minor roads and lower condition ratings. Over the past few years, success on major highways has allowed the department to focus more time and funding on improving minor highways.

Currently, 78 percent of Missouri's minor roads are in good condition, which is level from 2013.



*Source data for Illinois comes from FHWA highway statistics. Data for 2014 is not available at the time of publication. Data is based on a combination of pavement condition and smoothness as submitted as part of the Highway Perfomance Monitoring System.

Percent of Minor Highways in Good Condition

Dennis Heckman State Bridge Engineer

MEASUREMENT DRIVER:

David Koenig Bridge Management Engineer

PURPOSE OF THE MEASURE:

This measure tracks progress toward improving the condition of Missouri's bridges.

MEASUREMENT AND DATA COLLECTION:

This measure is updated in April based on MoDOT inspections conducted the prior year. Data is presented for all state bridges and major bridges. Major bridges are typically those that cross large rivers and lakes and are longer than 1,000 feet. Of the 10,376 bridges on state highways, 209 are major. Bridges are categorized as being in good, fair or poor condition. Good means no significant conditionrelated problems exist. Fair indicates moderate problems that may require minor rehabilitation or maintenance to return the structure to good condition. Poor indicates a structure that is deficient, requiring either replacement or a major rehabilitation.

KEEP ROADS AND BRIDGES IN GOOD CONDITION

Condition of state bridges – 2c

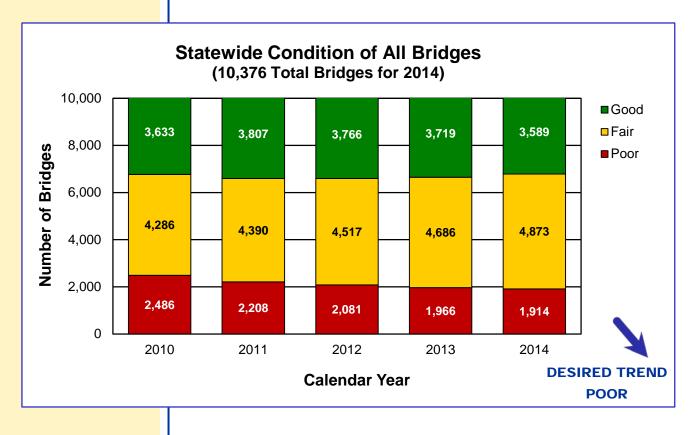
The public has indicated the condition of Missouri's existing roadway system should be one of the state's highest priorities. Currently, 1,914 (48 major) structures are in poor condition, 4,873 (99 major) structures are in fair condition and 3,589 (62 major) structures are in good condition.

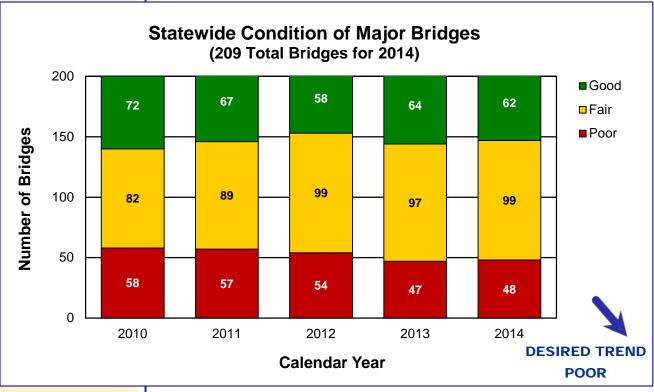
Statewide, the number of structures in poor condition has dramatically decreased over the last five years, but the rate of decline is slowing down. The number of structures in good condition moderately improved through 2011 but has started to decline over the last two years. Improvements in these numbers were heavily impacted by the Safe & Sound Bridge Improvement Program that was completed in 2012 and by the increased construction program that resulted from the passage of Amendment 3 in 2004. The recent decline in good bridges can be attributed to MoDOT's reduced construction program as the result of funding constraints. It should be noted that while the number of poor-condition bridges dropped by 572 over this five-year period, the number in good condition has also decreased by 44. The number in fair condition has significantly increased by 587 over this period which is reflective of MoDOT's aging bridge population with many structures at the point where they need minor maintenance or rehabilitation.

For major bridges, the number of structures in the poor category has generally been dropping over the last five years because of an aggressive focus on these structures in the STIP, but despite a significant investment in major bridges, the number of structures in good condition generally dropped over the five-year period while the number in fair condition significantly increased. Work on major bridges is expensive with rehabilitations costing \$10 to \$20 million and replacements ranging from \$20 million to \$200 million.



KEEP ROADS AND BRIDGES IN GOOD CONDITION





Dennis Heckman, State Bridge Engineer

MEASUREMENT DRIVER:

David Koenig Bridge Management Engineer

PURPOSE OF THE MEASURE:

This measure tracks the percent of structurally deficient deck area for bridges on the National Highway System.

MEASUREMENT AND DATA COLLECTION:

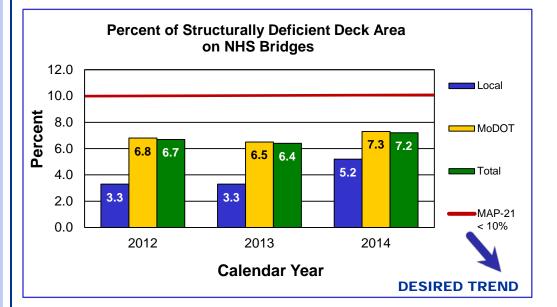
The NHS is defined by federal law and consists of all roadways functionally classified as principal arterials as well as some routes that serve as major connections to multimodal freight-type facilities and some locally owned roadways. Historically, structurally deficient consists of bridges that are in bad condition or have insufficient load capacity when compared to modern design standards. With MAP-21, there are some proposed adjustments in how structurally deficiency is determined and this measure has been created based on these proposed adjustments. Moving Ahead for Progress in the 21st Century, the federal Surface Transportation Act, requires states to track the structurally deficient deck area with a national performance goal of less than 10 percent.

KEEP ROADS AND BRIDGES IN GOOD CONDITION

Percent of structurally deficient deck area on National Highway System – 2d

The public has indicated keeping Missouri's existing roads and bridges in good condition should be one of the state's highest priorities. MAP-21 set a national performance goal to have the structurally deficient deck areas of National Highway System bridges be less than 10 percent. The local system has 84 NHS structures (two SD) and the MoDOT system has 3,600 NHS structures (145 SD). Missouri currently meets the national performance goal with the total at 7.2 percent, which is attributable to aggressive efforts undertaken with construction on major bridges over the last 10 years, as well as other accelerated construction from MoDOT's bonding program.

This measure is also heavily influenced by major bridges because one structure has the ability to impact this measure +/-0.5 percent. The majority of the change from 2013 to 2014 is attributable to the addition of two major bridges and the removal of one major bridge from the SD category. Additionally, on the local system there was a significant reduction in the number of NHS structures as the result of functional class changes on roadways across the state. The majority of these changes happened in the Kansas City area. Both of the local system structures that are currently SD are in St. Louis, with a replacement project for one of them scheduled to start in 2015.





PROVIDE OUTSTANDING CUSTOMER SERVICE

Dan Niec, District Engineer



MEASURES OF DEPARTMENTAL PERFORMANCE



Every MoDOT employee is responsible for delivering outstanding customer service. We strive to be respectful, responsive, and clear in all our communication. We want to build strong relationships with our transportation partners, our customers and each other.

RESULT DRIVER: Dan Niec District Engineer

MEASUREMENT DRIVER:

Tammy Wallace Senior Communications Specialist

PURPOSE OF THE MEASURE:

This measure tracks MoDOT's progress toward the mission of delighting its customers.

MEASUREMENT AND DATA COLLECTION:

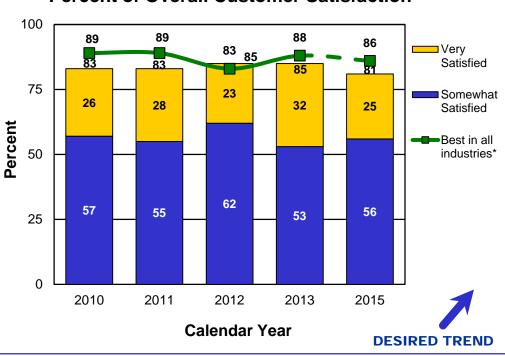
Data is collected through a telephone survey of approximately 3,500 randomly selected Missourians. Benchmarking data is provided by the American Customer Service Index.

PROVIDE OUTSTANDING CUSTOMER SERVICE

Percent of overall customer satisfaction – 3a

Over the past few years, customer satisfaction has remained high. In 2015, 81 percent of Missourians surveyed said they were satisfied with the job MoDOT is doing, which is a 4 percent decline from 2013. There also was a 7 percent decline in very satisfied customers. Data compiled by the American Customer Satisfaction Index in 2015 shows Chick-fil-A having the highest customer satisfaction rate – 86 percent – out of the hundreds of companies and government agencies the ACSI scores.

The condition of our roads and bridges and customer satisfaction are closely tied together. In the 2015 Report Card from Missourians, customers told MoDOT the condition of roads and bridges were the most important transportation service to them. However, even with present system conditions remaining good, the department's message of declining system conditions and limited funds to maintain it in the next few years potentially impacted customer perceptions and satisfaction scores.



Percent of Overall Customer Satisfaction

*2010-2011 – Lincoln Mercury, 2012 – Apple, Inc., 2013 – Mercedes Benz, 2015 – Chick-fil-A

RESULT DRIVER: Dan Niec District Engineer

MEASUREMENT DRIVER:

Jennifer Williams Communications Manager

PURPOSE OF THE MEASURE:

This measure tracks the percent of customers who view MoDOT as a leader and expert in transportation issues. The measure shows how effectively MoDOT conveys its expertise to the traveling public.

MEASUREMENT AND DATA COLLECTION:

Data is collected through a telephone survey of approximately 3,500 randomly selected Missourians.

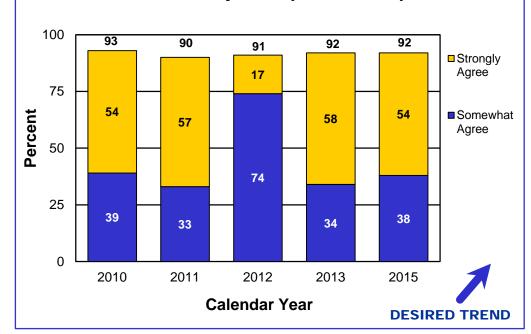
PROVIDE OUTSTANDING CUSTOMER SERVICE

Percent of customers who view MoDOT as Missouri's transportation expert – 3b

As the agency responsible for transportation in Missouri, MoDOT must hold its lead as an expert in the field. The department should serve as the frontrunner – representing the best transportation options for Missouri and partnering with state and national organizations and others to deliver a strong transportation system.

The 2015 survey shows an overwhelming majority of customers perceive the department as Missouri's transportation expert. Ninetytwo percent of those surveyed agreed MoDOT serves this role, a percentage the department has consistently maintained since 2009. Of the 92 percent, 54 percent of respondents "strongly agreed" and 38 percent "somewhat agreed" MoDOT serves as the state's primary transportation expert.

The department continues to work on improving partnerships with all Missourians, including local government, legislators and other elected officials, and transportation-related groups and organizations. The suspension of the cost-share program coupled with Missouri's insufficient transportation funding issues means these relationships will likely face further challenges.



Percent of Customers Who View MoDOT as Missouri's Primary Transportation Expert

Missouri Department of Transportation 3b

RESULT DRIVER: Dan Niec District Engineer

MEASUREMENT DRIVER:

Melissa Black Communications Manager

PURPOSE OF THE MEASURE:

This measure tracks the percent of customers who trust MoDOT to keep its commitments. Public trust is an important component in building support for transportation issues.

MEASUREMENT AND DATA COLLECTION:

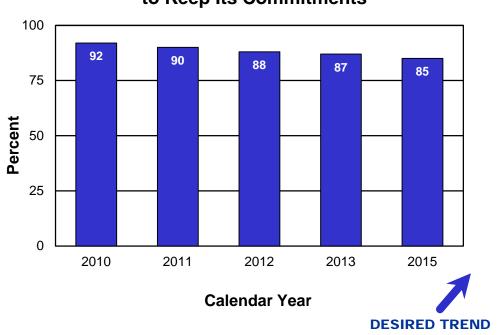
Data is collected through a telephone survey of approximately 3,500 randomly selected Missourians.

PROVIDE OUTSTANDING CUSTOMER SERVICE

Percent of customers who trust MoDOT to keep its commitments to the public – 3c

Gaining and keeping the public's trust is key to MoDOT's overall success. The best way MoDOT can accomplish this is to deliver on the commitments it makes. The department's annual construction program has steadily decreased in recent years, making it difficult to maintain and care for its system due to insufficient funding. Missourians tell MoDOT they want more from their transportation system, but the reality is they are going to get less – and what they have will get worse. MoDOT has spent years educating the public, legislators and media on the reality of transportation funding and what insufficient funding means to Missouri's system.

The 2015 report card indicated 85 percent of the residents trust MoDOT to keep its commitments to the public compared to 87 percent in the previous survey. Although this is only a two percent decrease, it is the lowest score ever recorded on this measure. Furthermore, there is a continued five-year downward trend from 92 percent in 2010 that is statistically significant.



Percent of Customers Who Trust MoDOT to Keep Its Commitments

RESULT DRIVER: Dan Niec District Engineer

MEASUREMENT DRIVER:

Jennifer Williams Communications Manager

PURPOSE OF THE MEASURE:

This measure tracks whether customers feel MoDOT provides timely, accurate and understandable information about road projects, highway conditions and work zones.

MEASUREMENT AND DATA COLLECTION:

Data is collected through a telephone survey of approximately 3,500 randomly selected Missourians.

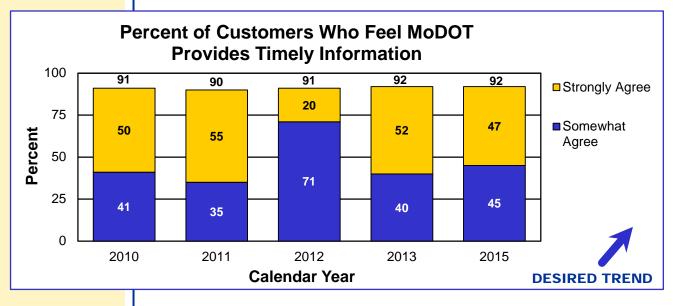
PROVIDE OUTSTANDING CUSTOMER SERVICE

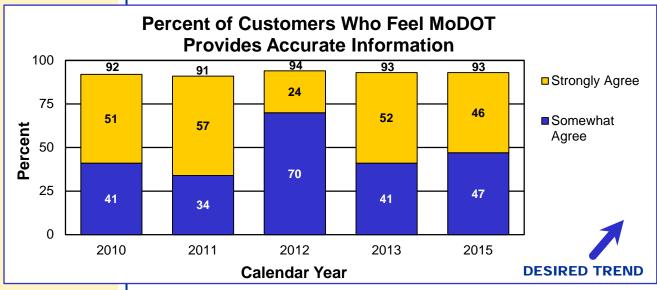
Percent of customers who feel MoDOT provides timely, accurate and understandable information – 3d

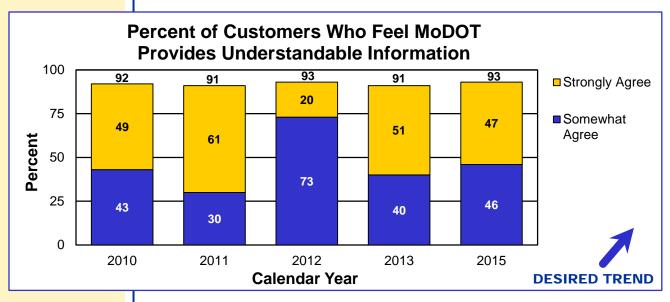
Just like well-maintained roads and bridges, MoDOT delivers information. The citizens of Missouri expect timely, accurate and understandable information from their department of transportation. Whether it's a press release, e-update, text alert or a notice of a public meeting, MoDOT makes every effort to get the word out as quickly and as clearly as possible. The results of this effort are public trust and respect. With numbers consistently above 90 percent agreement for the past five years, this measure shows that the department meets our customers' high expectations.



PROVIDE OUTSTANDING CUSTOMER SERVICE







Missouri Department of Transportation 3d2

RESULT DRIVER: Dan Niec, District Engineer

MEASUREMENT DRIVER:

Melissa Black Communications Manager

PURPOSE OF THE MEASURE:

This measure shows how satisfied customers who contact MoDOT are with the politeness, clarity and responsiveness they receive.

MEASUREMENT AND DATA COLLECTION:

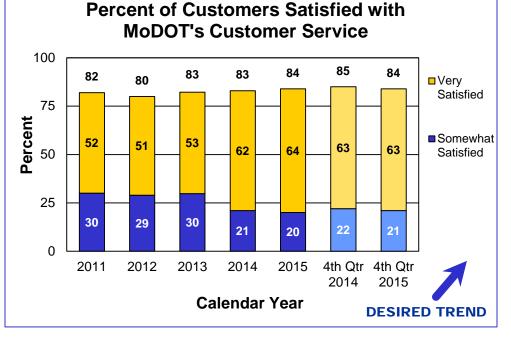
Data for this measure comes from a monthly telephone and e-mail survey of 200 customers who contacted a MoDOT customer service center in the previous month. The customer contacts come from call reports logged into the customer service database. Survey participants are asked to respond on an agreement scale regarding three qualities of their experiences. A fourth question is asked regarding their overall satisfaction. This measure also includes the time to complete requests logged into the customer service database. Requests requiring more than 30 days to complete are removed to prevent skewing of the overall results.

PROVIDE OUTSTANDING CUSTOMER SERVICE

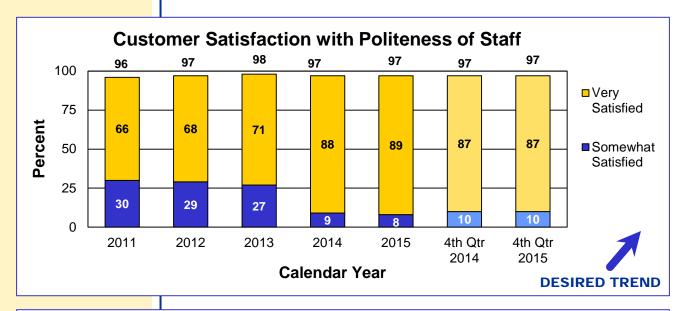
Percent of customers satisfied with MoDOT's customer service – 3e

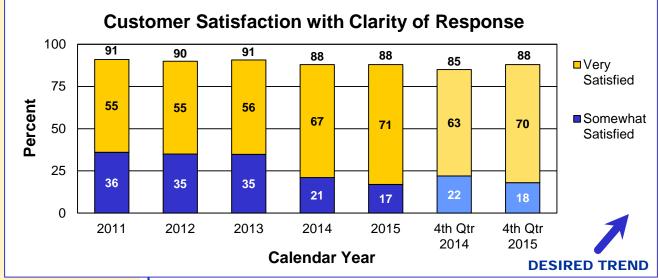
MoDOT actively seeks feedback from the people it serves. In 2012, MoDOT created a statewide call system and enhanced its online call report system that enables customer service representatives to work across seven district boundaries in a one-team approach. Since implementation, customer perceptions of MoDOT's politeness, responsiveness and clarity increased, resulting in improved customer satisfaction.

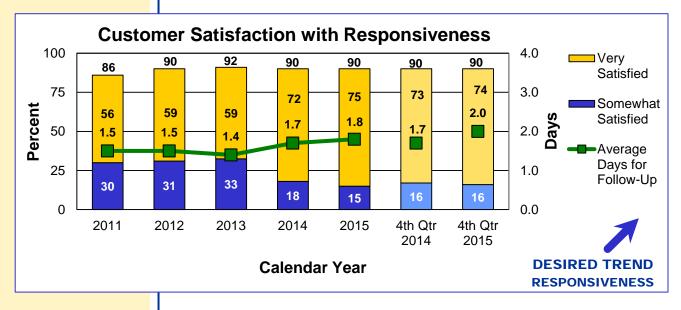
Overall, when comparing the fourth quarter of 2015 to 2014, most of MoDOT's customer service results remain relatively consistent. Customers surveyed indicated 84 percent satisfaction with MoDOT's customer service as compared to 85 percent in the same quarter of 2014. Customers who were satisfied with politeness of responses stayed the same at 97 percent. Clarity of responses increased from 85 percent to 88 percent. Satisfaction with responsiveness stayed the same at 90 percent. The average time to complete customer requests during this quarter increased from 1.7 to 2.0 days. When comparing annual information from 2014 to 2015, overall satisfaction increased one percent to 84 percent, while politeness, clarity and responsiveness all stayed the same at 97, 88 and 90 percent, respectively.



PROVIDE OUTSTANDING CUSTOMER SERVICE







Missouri Department of Transportation 3e2

RESULT DRIVER: Dan Niec District Engineer

MEASUREMENT DRIVER:

Patrick Wood Communications Specialist

PURPOSE OF THE MEASURE:

This measure tracks the number of MoDOT customers hitting the department's social media and website information.

MEASUREMENT AND DATA COLLECTION:

MoDOT gathers information for his measure from a variety of sources including Google Analytics. Website traffic and YouTube information are cumulative totals based on visits. Facebook and Twitter information is based on account followers.

PROVIDE OUTSTANDING CUSTOMER SERVICE

Customer communication engagement – 3f

Good organizations share information with the people they serve. The best, most-trusted organizations engage customers in conversation. MoDOT often interacts with its customers through Internet-based social media networking websites and applications.

MoDOT's social media accounts continued to attract followers. When comparing the second quarters of fiscal years 2015 and 2016, there was a growth of 64,722 followers on Facebook statewide and 26,711 additional followers to Twitter statewide. During the second quarter, the most popular post was a DMS message reaching 861,054 people with 41,454 separate engagements to the post including likes, comments and shares. Other popular posts this quarter included flood-related content. From December 26-30 the combined reach of flood messaging on Facebook was about two million. Twitter flood-related messaging reached one million impressions during the same timeframe.

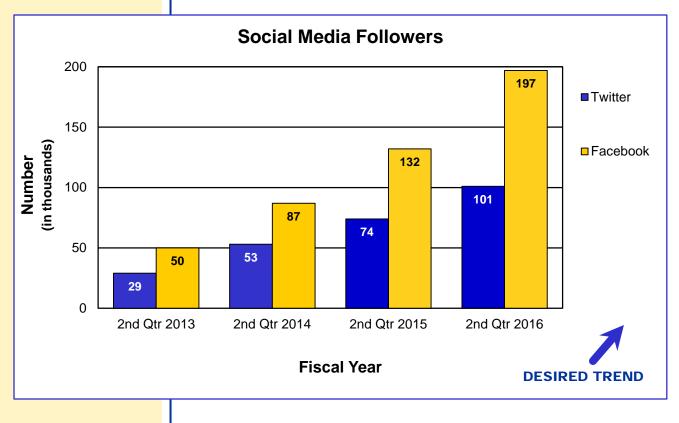
MoDOT's websites had 2.6 million sessions in second quarter 2016. In the last quarter, the top five pages on MoDOT's website were:

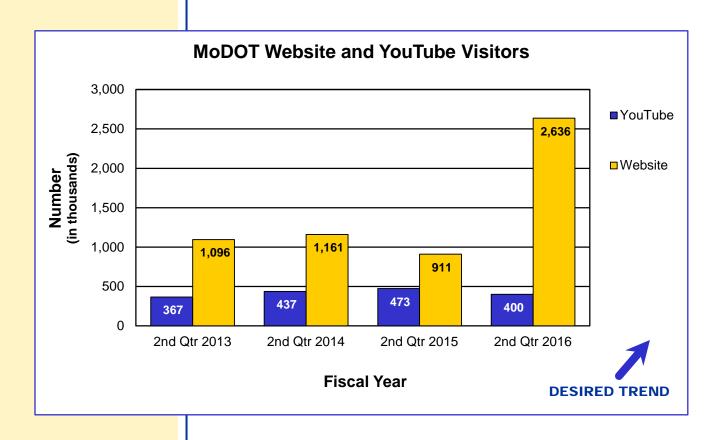
- Traveler Information Map
- MoDOT Homepage
- Flood Information
- Job Listings
- St. Louis District Homepage

MoDOT videos on YouTube were viewed 399,662 times in the second quarter of 2016. The top five videos viewed in the last quarter were:

- Tow Plow Action Missouri
- MoDOT Tow Plow in Action
- All About a Roundabout
- Traveler Information Map
- MoDOT Snow Blower

PROVIDE OUTSTANDING CUSTOMER SERVICE





RESULT DRIVER: Dan Niec District Engineer

MEASUREMENT DRIVER:

Nicole Hood Assistant State Design Engineer

PURPOSE OF THE MEASURE:

This measure provides information regarding the public's perception of MoDOT's performance in providing the right transportation solutions.

MEASUREMENT AND DATA COLLECTION:

Data for this measure is collected through an annual survey sent to users of projects completed and opened to traffic within the previous year. The districts identify 21 projects – three per district – in three categories: large, medium and small. Large projects are defined as those involving a major route or one that is funded through major project dollars. Medium projects are of district-wide importance. Small projects have only local significance. A sample of residents is drawn from zip code areas adjoining the recently completed project. The samples include 600 addresses per project area.

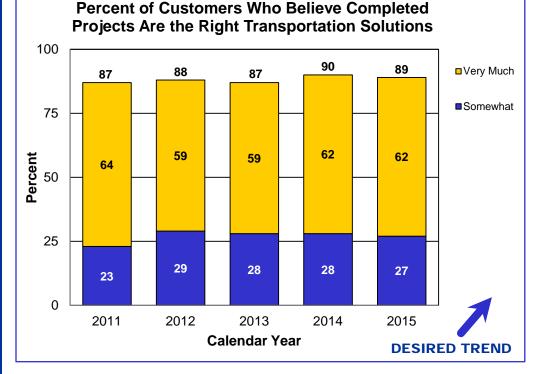
PROVIDE OUTSTANDING CUSTOMER SERVICE

Percent of customers who believe completed projects are the right transportation solutions – 3g

One of the most prominent products MoDOT delivers to its customers is a highway construction project. While the department tries to involve local residents in planning and designing local projects, the real impact of the project isn't known until people actually use the results of the project. The 2015 survey results continue to show most Missourians are very satisfied with local projects and believe that MoDOT provides the right transportation solutions.

The majority of respondents thought the project made the roadway: safer (90.7 percent), more convenient (83.7 percent), less congested (72.7 percent), easier to travel (86.7 percent), better marked (87.1 percent), and considered the project the right transportation solution (89.3 percent).

As part of the questionnaire, each respondent has the opportunity to provide comments about why the local project was – or was not – the right transportation solution. Each comment is shared with the local district for evaluation and to guide future projects.



Missouri Department of Transportation 3g



David Silvester, District Engineer



MEASURES OF DEPARTMENTAL PERFORMANCE



MoDOT customers expect transportation solutions delivered on time and within budget. We manage our projects to get them completed quickly and at the best possible value. We work with our transportation partners to leverage innovation in improving our products and how we work. We pledge to honor our commitments and deliver the best, most cost-effective solutions.

RESULT DRIVER: David Silvester District Engineer

MEASUREMENT DRIVER:

Renate Wilkinson Planning and Programming Engineer

PURPOSE OF THE MEASURE:

The measure determines how close total project costs are to the programmed costs. The programmed cost is considered the project budget.

MEASUREMENT AND DATA COLLECTION:

Completed project costs are reported during the fiscal year in which a project is completed. Road and bridge project costs include design, right-of-way purchases, utilities, construction, inspection and other miscellaneous costs. The programmed cost is based on the amount included in the most recently approved Statewide Transportation Improvement Program. Completed costs include actual expenditures. Multimodal and local public agency project costs typically reflect state and/or federal funds, but not local funding contributed toward such projects.

DELIVER TRANSPORTATION SOLUTIONS OF GREAT VALUE

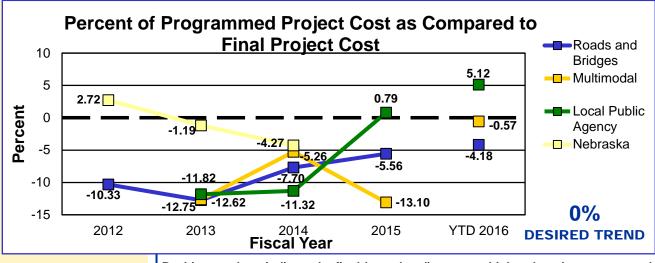
Percent of programmed project cost as compared to final project cost – 4a

The focus on accurate program cost estimates has become increasingly important due to limited transportation funding and increasing costs. As of December 31, 2015, 288 road and bridge projects were completed in fiscal year 2016 at a cost of \$626 million. This represents a deviation of 4.18 percent (or \$27 million) less than the programmed cost of \$653 million. Of the 288 road and bridge projects completed, 53 percent were completed within or below budget. In comparison, 64 percent of projects were completed within or below budget as of the same date a year ago. The largest component of project savings comes from awards at \$26 million. Miscellaneous savings (right-of-way purchases, utilities and other costs) were \$9 million. Engineering savings were \$1 million. Construction-phase overruns were \$8 million.

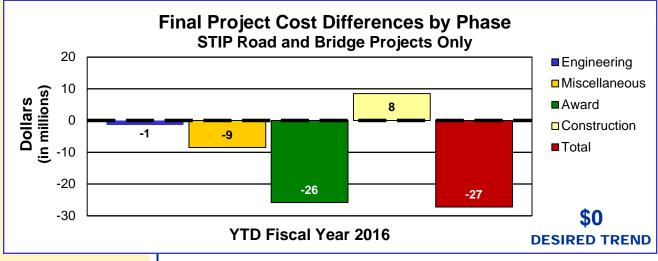
In addition, 27 multimodal projects were completed at a cost of \$11.649 million, 0.57 percent or \$67,000 less than the programmed cost of \$11.716 million. A total of 107 local public agency projects were completed at a cost of \$61.212 million, 5.12 percent or \$2.983 million more than the programmed cost of \$58.229 million.

MoDOT uses this historical data as a guide for programming future projects. Projects awarded in FY 2014 and 2015 were 1 percent higher and 2 percent lower, respectively, than programmed values. Consequently, the 2015-2019 and 2016-2020 STIPs were developed assuming no significant award savings. Projects awarded in FY 2016 through December were 18 percent less than programmed values.

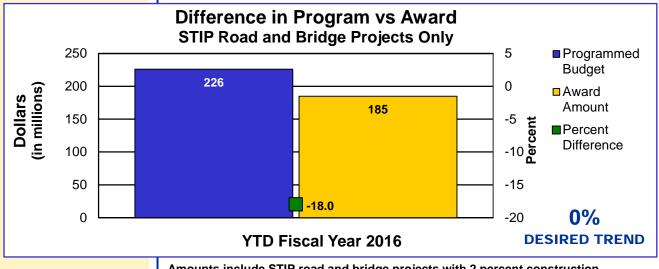




Positive numbers indicate the final (completed) cost was higher than the programmed cost. Comparative data is from Nebraska Department of Roads, one-year schedule of highway improvement projects. 2015 data is not yet available.



Negative numbers indicate savings. Miscellaneous includes right-of-way purchases, utilities and other costs.



Amounts include STIP road and bridge projects with 2 percent construction contingency applied.

RESULT DRIVER:

David Silvester District Engineer

MEASUREMENT DRIVER:

Jay Bestgen Assistant Construction and Materials Engineer

PURPOSE OF THE MEASURE:

This measure tracks the percentage of projects completed by the commitment date established in the contract. This includes road, bridge, local public agency and multimodal projects – rail, aviation, waterway and transit.

MEASUREMENT AND DATA COLLECTION:

For road and bridge projects, the project manager collaborates with the project team to establish the project completion date, and the resident engineer uses the SiteManager system to track and document the work. Local public agencies and multimodal agencies use staff or consultant resources to set contract completion dates and track performance.

DELIVER TRANSPORTATION SOLUTIONS OF GREAT VALUE

Percent of projects completed on time – 4b

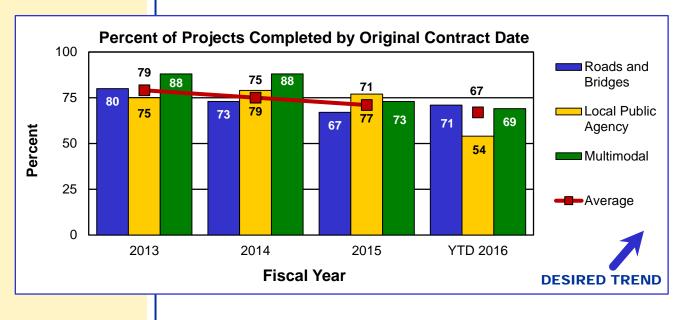
MoDOT's customers expect transportation improvements to be completed quickly with minimal impact to their lives. Delivering projects by the contract completion date is the target for all projects and is considered a commitment to Missourians and users. Completing projects on time helps maintain credibility which is of utmost importance to maintaining Missourians' longterm support for times when more resources are needed to adequately maintain the transportation system. Completing projects on time minimizes user exposure to work zones and provides facilities in good condition that improve safety and reduce vehicle maintenance costs.

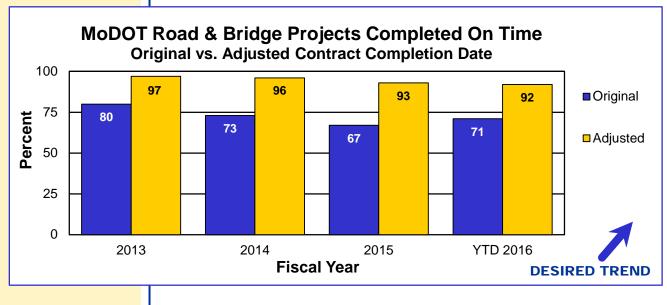
Sometimes, unusual weather or additional contract work necessitates an extension of the completion date. There also are times when a contractor misses the project completion date and the contract may have damages assessed. To date in fiscal year 2016, 67 percent of the closed out projects were completed on or ahead of schedule.

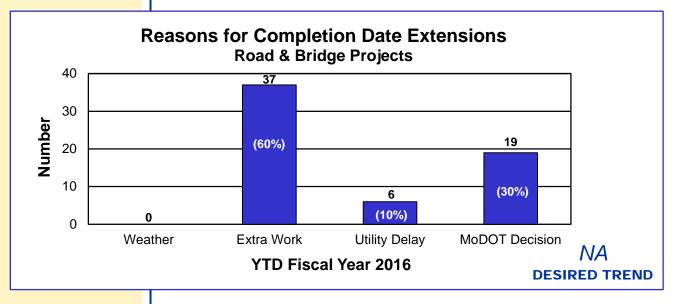
MoDOT works to meet the original completion date by preparing accurate plans and quantities, setting aggressive but reasonable completion dates and setting liquidated damages to reinforce completion dates without undue bid risks. Staff also works with the contracting industry to set potential completion times before letting and with project contractors to maintain schedules.

Of the road and bridge projects completed in the first two quarters of fiscal year 2016 with approved time extensions, 60 percent were for extra work, 10 percent experienced utility delays and 30 percent were extended due to a decision by MoDOT.

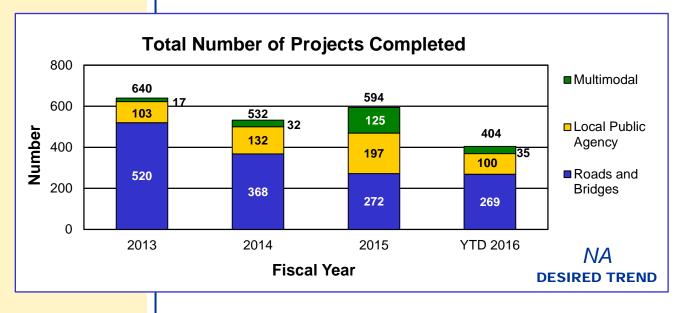


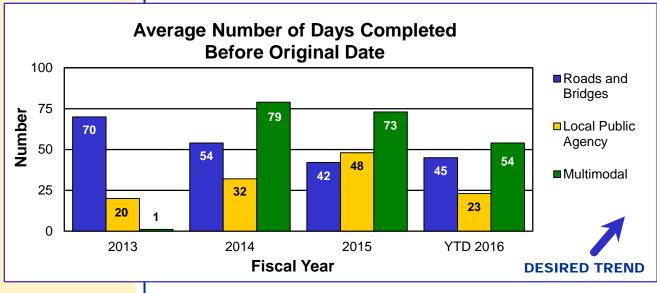


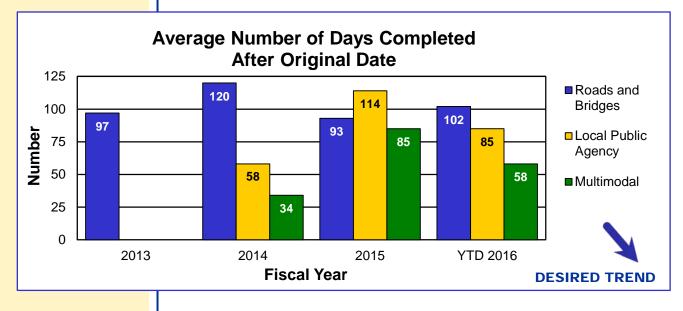




Missouri Department of Transportation 4b2







Missouri Department of Transportation 4b3

RESULT DRIVER:

David Silvester District Engineer

MEASUREMENT DRIVER:

Jeremy Kampeter Construction Management System Administrator

PURPOSE OF THE MEASURE:

This measure tracks the percentage difference of total construction payouts to the original contract award amounts. This indicates how many changes are made on projects after they are awarded to the contractor for road, bridge, local public agency and multimodal projects – rail, aviation, waterway and transit.

MEASUREMENT AND DATA COLLECTION:

For road and bridge projects, contractor payments are generated through MoDOT's SiteManager database and processed in the financial management system for payment. Change orders document the underrun/overrun of the original contract cost. Local public agencies and multimodal agencies use staff or consultant resources to set contract completion dates and track performance.

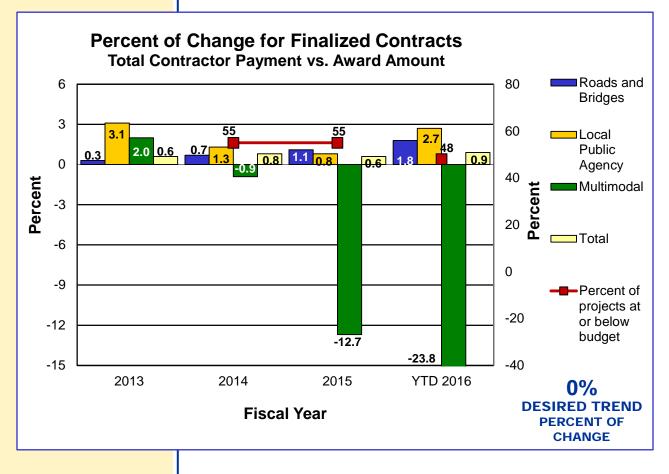
DELIVER TRANSPORTATION SOLUTIONS OF GREAT VALUE

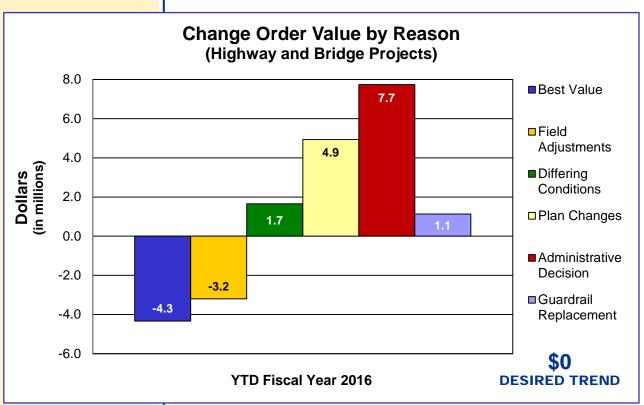
Percent of change for finalized contracts – 4c

By limiting overruns on contracts, MoDOT can continue to keep its maintenance and construction commitments. This emphasis combined with the use of practical design and value engineering has contributed to limiting overruns on contracts. MoDOT's performance in fiscal year 2016 was 0.9 percent. (\$561 million worth of projects completed \$5.0 million over the award amount.)

Many factors can affect the ability to complete a project within 2 percent of the award amount. These factors can include design changes, differing conditions, additional work items and administrative decisions. For MoDOT road and bridge projects completed in the second quarter of fiscal year 2016, an additional \$1.1 million of contract costs on 36 projects were incurred due to a decision to replace guardrail end treatments on the state highway system. Another project with a \$10.7 million bid amount had an overrun of \$2.5 million to add sound walls. These change orders amount to \$3.6 million of the total \$5.0 million in cost overruns, which is 72 percent of the total.







Missouri Department of Transportation 4c2

RESULT DRIVER:

David Silvester District Engineer

MEASUREMENT DRIVER:

David Simmons Transportation Project Manager

PURPOSE OF THE MEASURE:

This measure tracks the use of innovative contracting methods on MoDOT projects including: A + B contracts, alternate technical concept contracts, and design-build contracts.

MEASUREMENT AND DATA COLLECTION:

MoDOT projects utilizing innovative contracting methods are reported during the fiscal year in which they are awarded. Contract award values are collected through MoDOT's bid opening summaries and project records.

DELIVER TRANSPORTATION SOLUTIONS OF GREAT VALUE

Innovative contracting methods - 4d

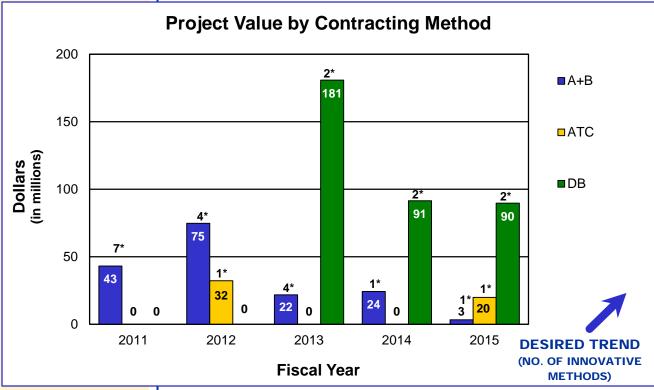
With the forecast of limited transportation funding and increasing costs, MoDOT looks to implement non-traditional methods and practices in contract procurements to improve efficiency, increase flexibility, and maximize value for its customers. By executing innovative contracting tools, MoDOT is better able to mitigate limited resources, meet each project's unique challenges and maximize collaboration with the public and private sectors. MoDOT uses innovative contracting to ensure the public receives maximum value for every tax dollar invested in Missouri's transportation system. MoDOT continues to capitalize the use of Design-Build by shifting its focus to smaller projects.

When selecting a project delivery method and innovative contracting options, MoDOT takes into account project characteristics (risks) such as project size (cost), type (preservation, rehabilitation or reconstruction) and complexity (urban or rural, significant traffic impact, number of project elements). Innovative contracts promote accelerated project completion or facilitate achievement of other performance objectives. MoDOT's A+B, ATC, and Design-Build contracting methods change how projects are procured and delivered. The advantages of MoDOT's innovative contracting methods are as follows:

- Cost-plus-time bidding (A + B) aims to expedite project completion through competitive bidding on construction time (days).
- Alternate Technical Concepts (ATCs) give the contractor the opportunity to provide more cost-effective alternative design prior to the bid. ATC discussions are held in a confidential environment which maximizes competitive bidding. The low bid is awarded the contract.
- Design-Build (DB) contracts include design and construction under one contract, which is procured using a two-phased, contractor-selection process. MoDOT scores proposals using a best-value or "build-to-budget" scoring scenario. Nationally, Design-Build projects are completed 33 percent faster and 6 percent cheaper than conventional Design-Bid-Build projects.

In fiscal year 2015, MoDOT delivered four out of 279 projects using innovative contracting methods, with two delivered as Design-Build, one delivered as A + B, and one delivered using the ATC process. The four projects accounted for \$113.2 million of the \$767.77 million program.





*Reflects total number of projects for each innovative contract method.

Missouri Department of Transportation 4d2

RESULT DRIVER:

David Silvester District Engineer

MEASUREMENT DRIVER:

Llans Taylor Innovations Engineer

PURPOSE OF THE MEASURE:

This measure tracks the use of value engineering during design and construction on traditional MoDOT projects including: value analysis during the design phase, construction value engineering proposals, and implementation of best practice into standards and policies.

MEASUREMENT AND DATA COLLECTION:

Information on value analysis during design is gathered from MoDOT's Statewide Transportation Improvement Program information management system. Construction value engineering change proposal information is gathered from MoDOT's Value Engineering Change Proposals database. Implementation of best practice progress is tracked by MoDOT staff.

DELIVER TRANSPORTATION SOLUTIONS OF GREAT VALUE

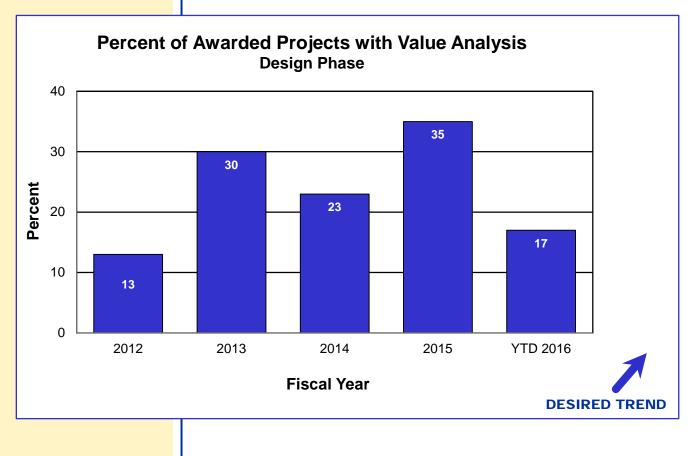
Value Engineering – 4e

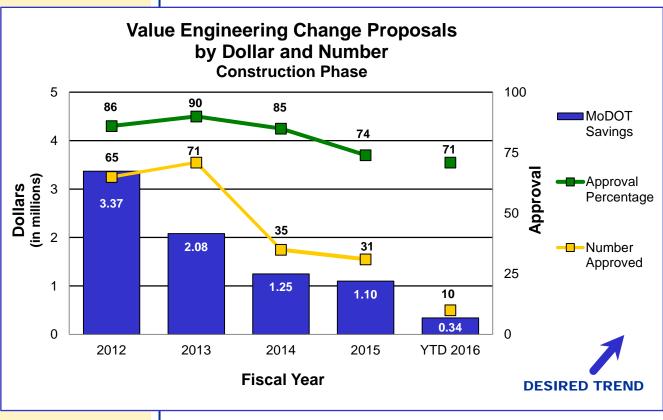
The goal of value engineering is to build the right project at the right time, meeting the project need with appropriate project scope. MoDOT uses the VE program to ensure the public receives great value for every tax dollar invested in Missouri's transportation system. Due to limited funding, MoDOT is increasingly focused on smaller, maintenance-type projects that are not traditionally targeted by the VE program. Still, MoDOT must be innovative in utilizing the VE process to search for solutions to reduce project costs and provide additional value.

MoDOT uses design-phase value analysis to remove unnecessary scope, reduce project costs and improve project flexibility. So far for fiscal year 2016, 17 percent of projects underwent some form of value analysis during design. Programmatic value analysis studies associated with the level-course and chip-seal programs accounted for the largest portion of this percentage. Outreach continues in an effort to improve in this area and to find innovative approaches to grow this program.

MoDOT partners with industry to find more cost-effective solutions during the construction phase. Value Engineering Change Proposals engage contractor ideas to deliver improved projects. So far for fiscal year 2016, 10 VE proposals were approved resulting in MoDOT savings of \$337,000. This represents a 71 percent approval rate. Outreach continues in an effort to improve in this area and to find innovative approaches to grow this program.

A successful VECP program incorporates approved VECPs into future projects, in order for MoDOT to realize all of the affiliated savings. To date, 212 approved VECPs have been reviewed by a multidisciplinary team resulting in five revisions to policy and 17 potential items still being investigated. The team continues to review approved VECPs for potential implementation and looks for opportunities to implement improved policies.





RESULT DRIVER:

David Silvester District Engineer

MEASUREMENT DRIVER:

Jason Vanderfeltz Bidding and Contract Services Engineer

PURPOSE OF THE MEASURE:

This measure tracks the costs to construct a variety of common highway and bridge construction projects including the costs for equipment, labor and fringe benefits and materials to construct a project.

MEASUREMENT AND DATA COLLECTION:

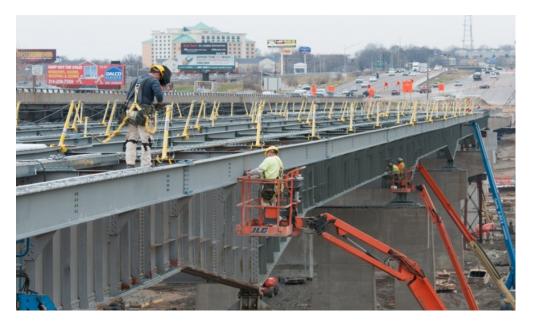
Data is collected from MoDOT bid opening prices. Construction costs for 1992 are used for comparison because that was the year Missouri's fuel tax was increased to the current rate of 17 cents per gallon. Costs for chip seal and minor road oneinch asphalt resurfacing include the pavement, traffic control and temporary pavement marking. Costs for major highway and interstate asphalt resurfacing include the pavement, traffic control, permanent pavement marking, rumble strips, pavement repair, guardrail and signing. New two- and four-lane construction costs include grading, drainage, pavement, bridge and all incidental costs. The average cost per square-foot of bridge is tabulated and applied to the area of the average bridge on the state system to simplify comparison.

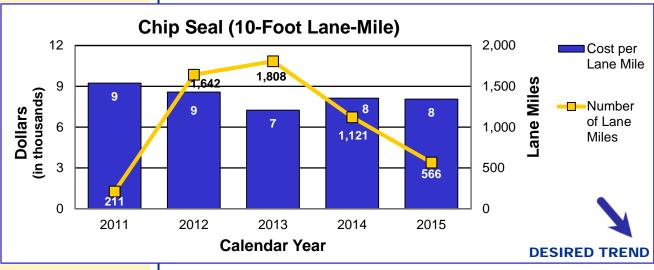
DELIVER TRANSPORTATION SOLUTIONS OF GREAT VALUE

Average highway lane-mile and bridge construction costs – 4f

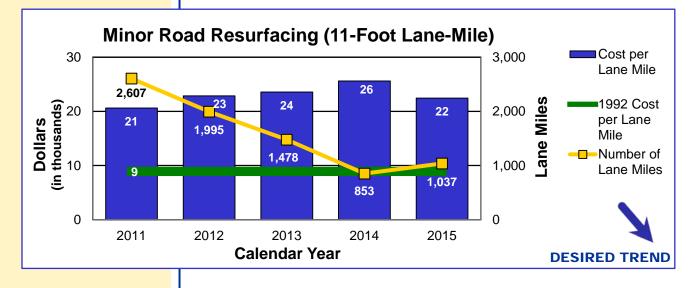
A great many factors affect the cost of road and bridge projects, some can be managed by MoDOT, and others are affected by the economy. For example, Missouri's highway system has long depended on fuel taxes, but consumers are turning to smaller, more fuel-efficient vehicles, and when fuel prices are high, they look for ways to decrease their personal transportation costs by driving less. Many of these smaller vehicles cost less, meaning that sales taxes are lower and consequently so are transportation revenues. Meanwhile, inflation has increased the cost of projects, resulting in reduced purchasing power for MoDOT. Minor road asphalt resurfacing costs have increased in recent years due to a combination of fluctuating fuel and oil prices and increased material costs. Overall, the prices of asphalt, concrete and steel are double or triple what they were 20 years ago.

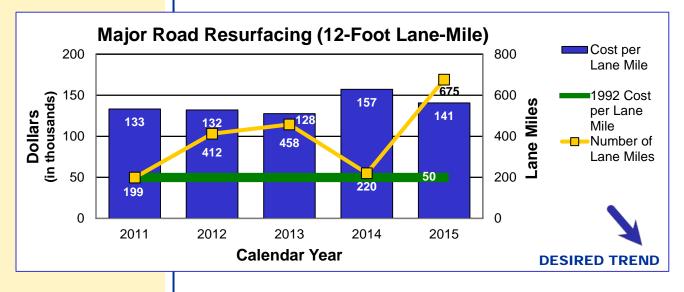
With MoDOT's construction program having dropped from \$1.3 billion in 2009 to \$596 million in fiscal year 2016, few complex two- and four-lane projects have been available for contractors to bid. For the larger, more robust projects, MoDOT continues to partner with industry to allow flexibility and encourage innovation while strategically scheduling bid openings to spread out the amount of work and financial obligation for the bidders. With decreasing revenue and increasing costs, MoDOT is challenged to make improvements to the existing system. MoDOT is being challenged just to maintain the system of roads and bridges Missourians enjoy today.

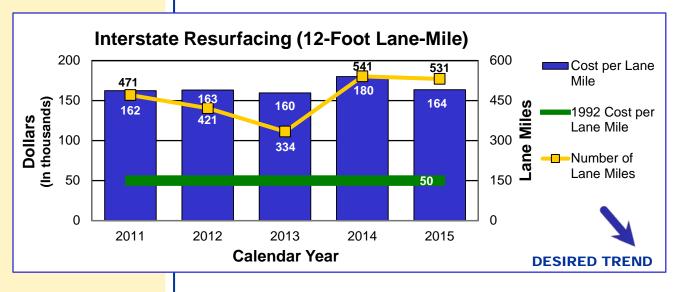


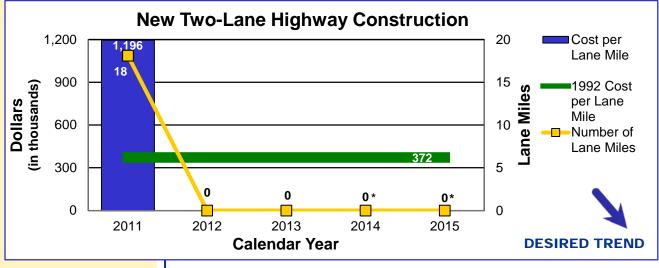


Note: There were no contract chip seal projects in 1992.

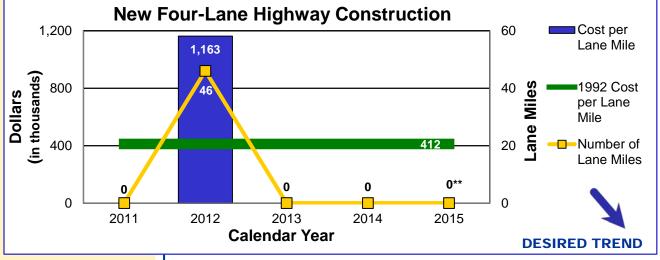




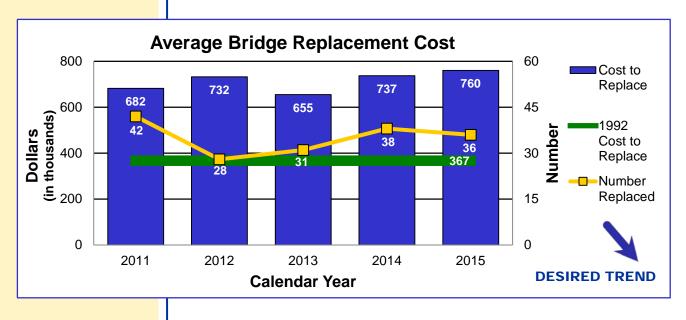


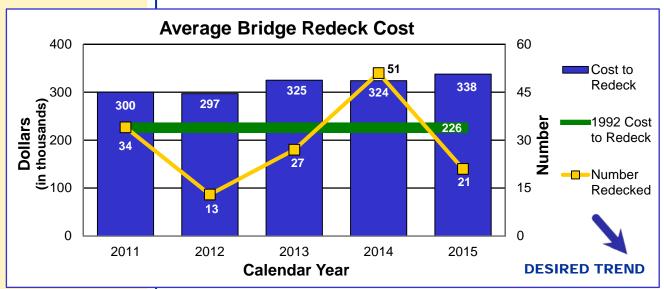


* There were no two-lane projects bid in 2012, 2013, 2014 and 2015.



**There were no four-lane projects bid in 2011, 2013, 2014 and 2015.





(This page is intentionally left blank for duplexing purposes)



Paula Gough, District Engineer



MEASURES OF DEPARTMENTAL PERFORMANCE



Missourians expect to get to their destinations on time, without delay regardless of their choice of travel mode. We coordinate and collaborate with our transportation partners throughout the state to keep people and goods moving freely and efficiently. We also maintain and operate the transportation system in a manner to minimize the impact to our customers and partners.

RESULT DRIVER: Paula Gough

District Engineer

MEASUREMENT DRIVER:

Jon Nelson Traffic Safety Engineer

PURPOSE OF THE MEASURE:

This measure tracks the mobility of significant state routes in St. Louis, Kansas City, Springfield and Columbia.

MEASUREMENT AND DATA COLLECTION:

Travel time data is collected continuously via wireless technology. To assess mobility, MoDOT compares travel times during rush hour to free-flow conditions where vehicles can travel at the posted speed limit. This measure also assesses reliability, an indicator of how variable those travel times are on a daily basis. The charts in this measure show the average travel time and the 95th percentile travel time, which is the time motorists should plan in order to reach their destinations on time 95 percent of the time. The maps display the mobility of specific sections of roadways during rush hour.

OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

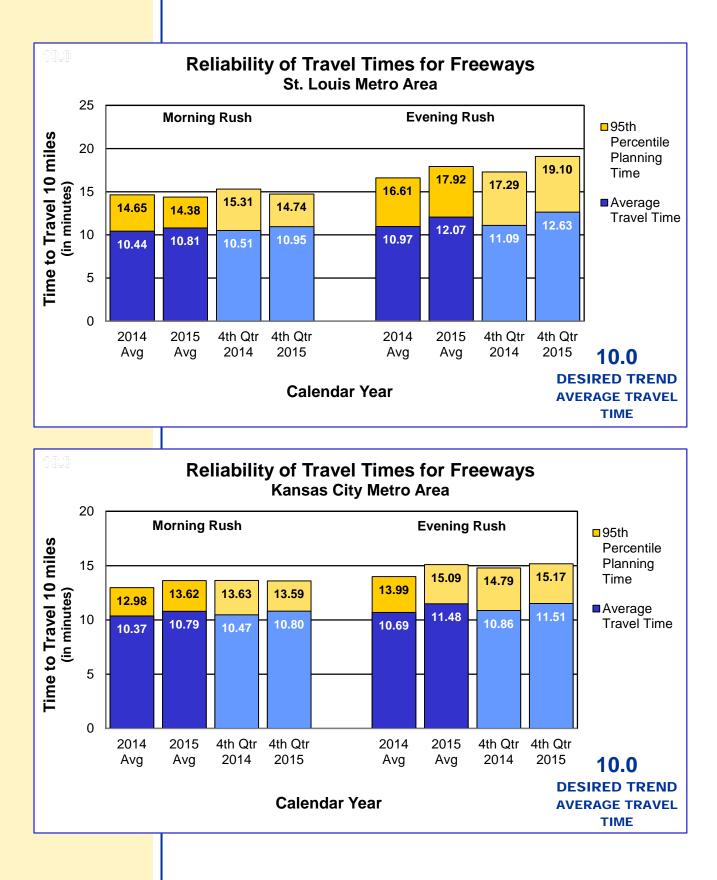
Travel times and reliability on major routes – 5a

Overall from October to December 2015, travel times in St. Louis and Kansas City continued to exhibit an increasing trend. Average travel times for the entire year increased in each region during both the morning and evening peaks when compared to 2014 averages. For fourth quarter 2015, the average 10-mile travel time in St. Louis was 10.95 minutes during the morning and 12.63 minutes during the evening. For Kansas City, the average travel time was 10.80 minutes during the morning and 11.51 minutes during the evening. Kansas City did see a slight decrease in average travel times from third quarter to fourth quarter. Overall, average speeds ranged between 48 and 55 mph.

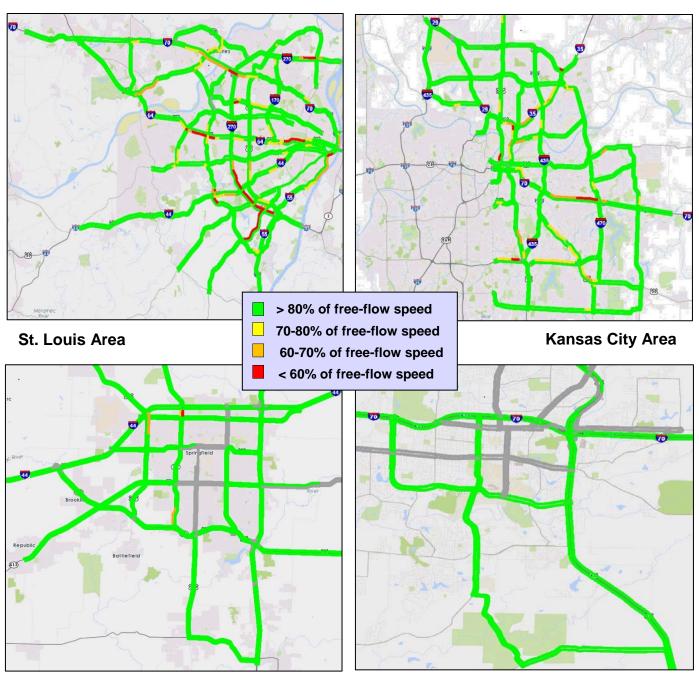
The planning times account for unexpected delays and indicate how long customers needed to plan in order to arrive on time 95 percent of the time. In St. Louis, the average 10-mile planning times were 14.74 minutes during the morning and 19.10 minutes during the evening. Customers in the St. Louis evening rush needed to plan almost twice as much time as they would need in free-flow conditions. In Kansas City, the average planning times were 13.59 minutes during the morning and 15.17 minutes during the evening. The planning times in St. Louis and Kansas City represent average rush-hour speeds between 31 and 44 mph.

Individual freeway segments within the regions experienced longer travel times than the regional averages as depicted in the maps. The maps also depict rush-hour conditions on arterial routes compared to normal traffic flow during non-peak traffic conditions.





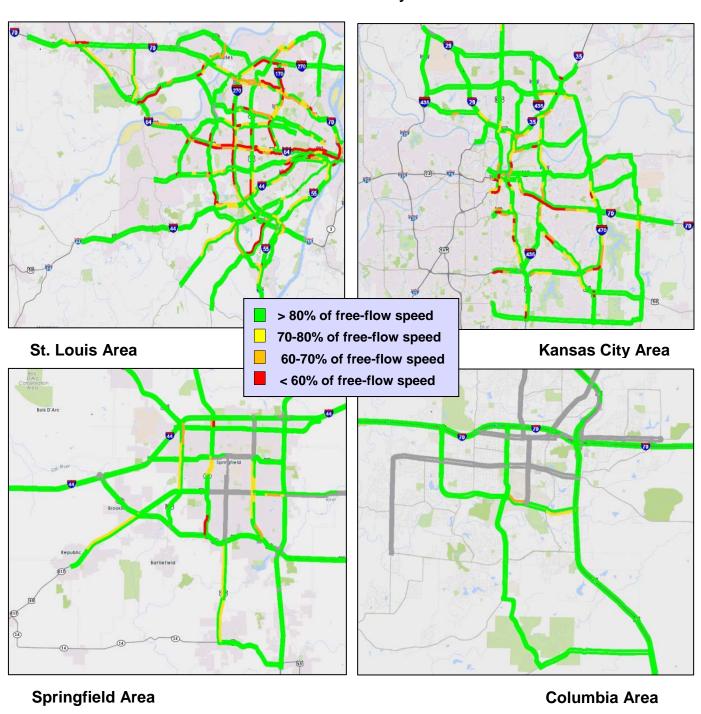
A.M. Mobility



Springfield Area

Columbia Area

P.M. Mobility



RESULT DRIVER: Paula Gough

District Engineer

MEASUREMENT DRIVER:

Jeanne Olubogun District Traffic Engineer

PURPOSE OF THE MEASURE:

This measure tracks the annual cost and impact of traffic congestion to motorists for motorist delay, travel time, excess fuel consumed per auto commuter and congestion cost per auto commuter.

MEASUREMENT AND DATA COLLECTION:

A reporting tool available in the **Regional Integrated Transportation Information** System looks at user delay costs. This data, in combination with industry standard costs for passenger cars and trucks. reflects the overall costs of congestion. **RITIS** also includes historic data so trend lines can be tracked and evaluated. The unit cost per passenger car is \$16.79 per hour and is obtained from the Texas A&M Transportation Institute. The unit cost per truck is \$65.29 obtained from the American **Transportation Research** Institute, which specializes in tracking freight mobility and provides the best source of data related to freight costs. For previous reporting, the department used data provided by the TTI, which annually produces the Urban Mobility Report.

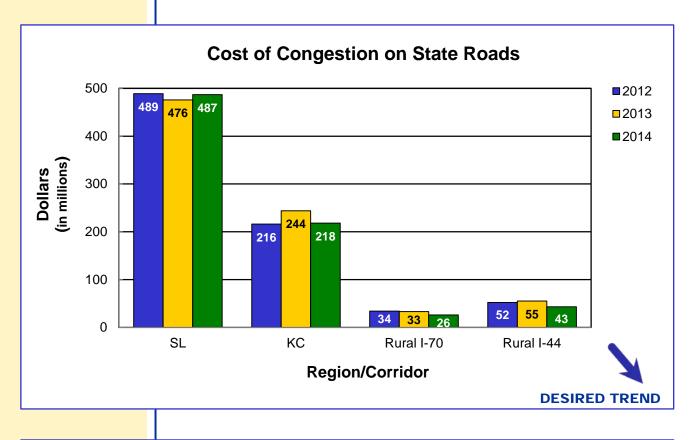
OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

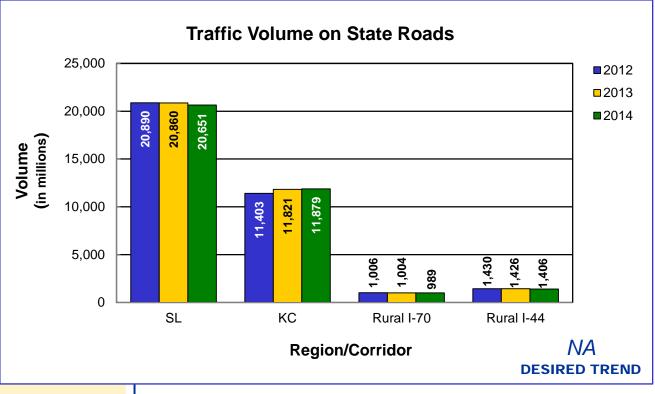
Cost and impact of traffic congestion – 5b

Recurring congestion occurs at regular times, although the traffic jams are not necessarily consistent day-to-day. Nonrecurring congestion is an unexpected traffic crash or natural disaster that affects traffic flow. When either occurs, the time required for a given trip becomes unpredictable. This unreliability is costly for commuters and truck drivers moving goods, which results in higher prices to consumers.

While the desired trend for both costs is downward, challenges exist in Missouri's metropolitan regions to continue toward this desired outcome. A comprehensive look at congestion is needed, looking beyond typical solutions of adding capacity. As the department adapts to limited revenue streams, the capacity for adding projects will be scarce. Using smarter technology to help guide motorists is a must. Still, the desired outcome is lower congestion costs and an indication that traffic is moving more efficiently.







RESULT DRIVER: Paula Gough District Engineer

MEASUREMENT DRIVER:

Randy Johnson Traffic Center Manager

PURPOSE OF THE MEASURE:

This measure is used to determine the trends in incident clearance on the state highway system.

MEASUREMENT AND DATA COLLECTION:

Advanced transportation management systems are used by the Kansas City and St. Louis traffic management centers to record incident start time and the time when all lanes are declared cleared. Traffic incidents can be divided into three general classes of duration set forth by the Manual on Uniform Traffic Control Devices that include minor, intermediate and major. Each class has unique traffic control characteristics and needs.

OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

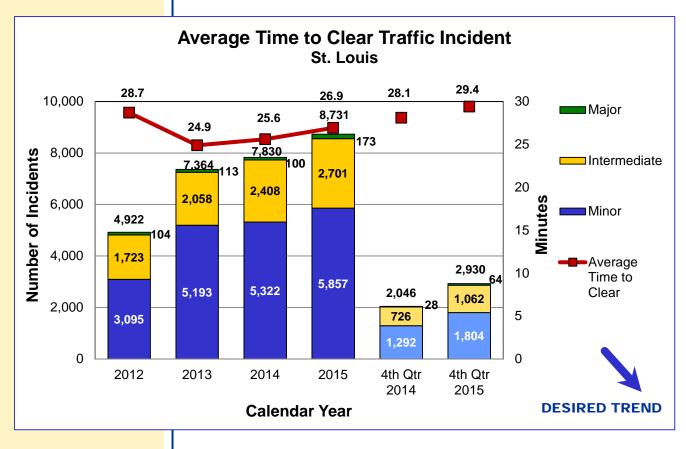
Average time to clear traffic incident – 5c

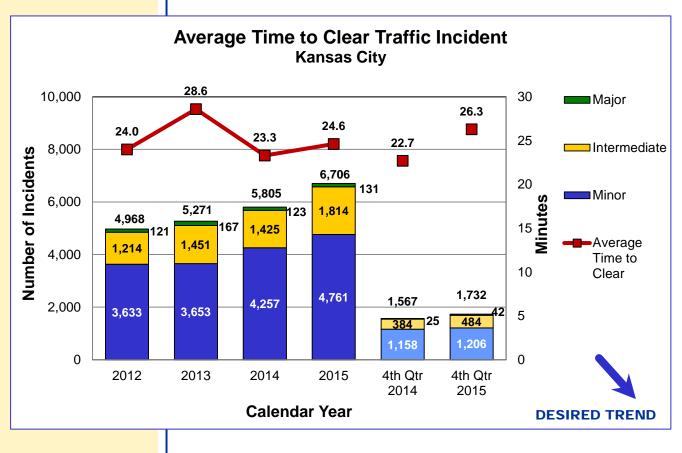
A traffic incident is an unplanned event that blocks travel lanes and temporarily reduces the number of vehicles that can travel on the road. The speed of incident clearance is essential to the highway system returning back to normal conditions. Responding to and quickly addressing the incident (crashes, flat tires and stalled vehicles) improves system performance.

St. Louis recorded 1,002 incidents in October, 1,039 in November and 889 in December. The average time to clear traffic incidents was 29.4 minutes, an increase of 5 percent compared to the fourth quarter of 2014.

Kansas City recorded 521 incidents in October, 611 in November and 600 in December. The average time to clear traffic incidents was 26.3 minutes, an increase of 16 percent from the fourth quarter of 2014.







Missouri Department of Transportation 5c2

RESULT DRIVER: Paula Gough

District Engineer

MEASUREMENT DRIVER:

Rick Bennett Traffic Liaison Engineer

PURPOSE OF THE MEASURE:

This measure tracks the traffic incident impacts on Interstate 70 and Interstate 44 due to highway incidents.

MEASUREMENT AND DATA COLLECTION:

Interstate route closures having an actual or expected duration of 30 minutes or more are entered into MoDOT's Transportation Management System for display on the Traveler Information Map. By using the incident locations identified from the Traveler Information Map data along with the Regional Integrated Transportation Information System, real-time durations and delays for these incidents can be identified. The impact duration is the total amount of time that there was a noticeable impact on traffic speeds as a result of the incident regardless of how long the actual incident closure lasted. The maximum delay is the longest delay that an individual traveler would have experienced as a result of the incident. What is important about these measurements is that they represent the impacts that are "felt" by our customers resulting from incident closures.

OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

Traffic incident impacts on major interstate routes – 5d

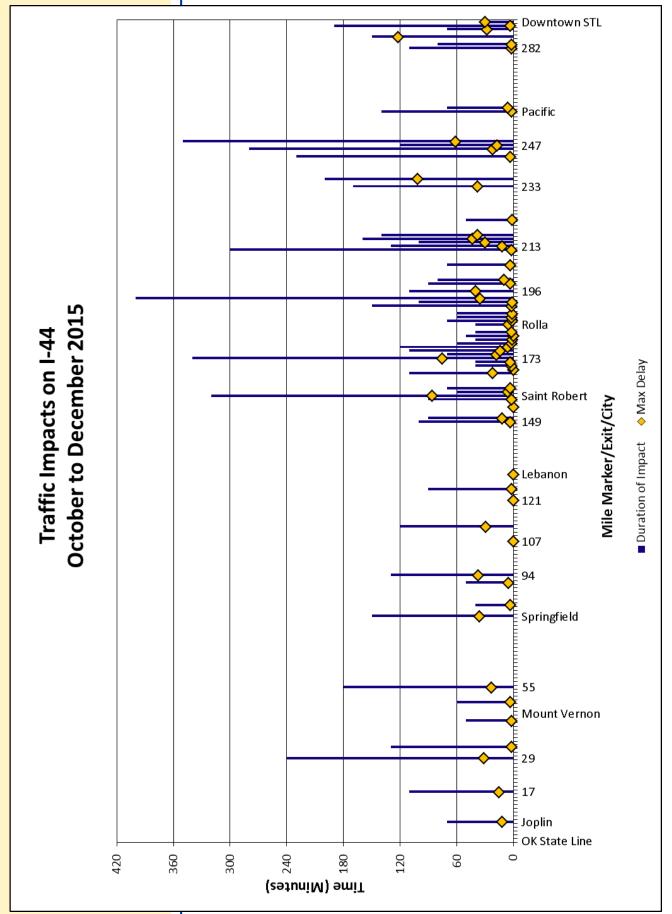
Interstates are the arteries that connect our nation and keep people and commerce flowing. When they shut down in Missouri, the country is cut in half. Keeping interstates free-flowing is a top priority for MoDOT, but sometimes vehicle crashes affect the department's ability to keep the interstates moving.

The I-70 and I-44 charts give a comparison of the duration of the incidents and the actual delay experienced by the travelers as provided by the RITIS tool. An incident with a long duration may not create a long delay. This can occur when at least one lane remains open or if there is a good detour route around the incident. The time of day and traffic volumes on the corridor also can be a factor. The final map provides a picture of where the incidents are occurring over a full year to see the areas with higher concentrations of incidents.

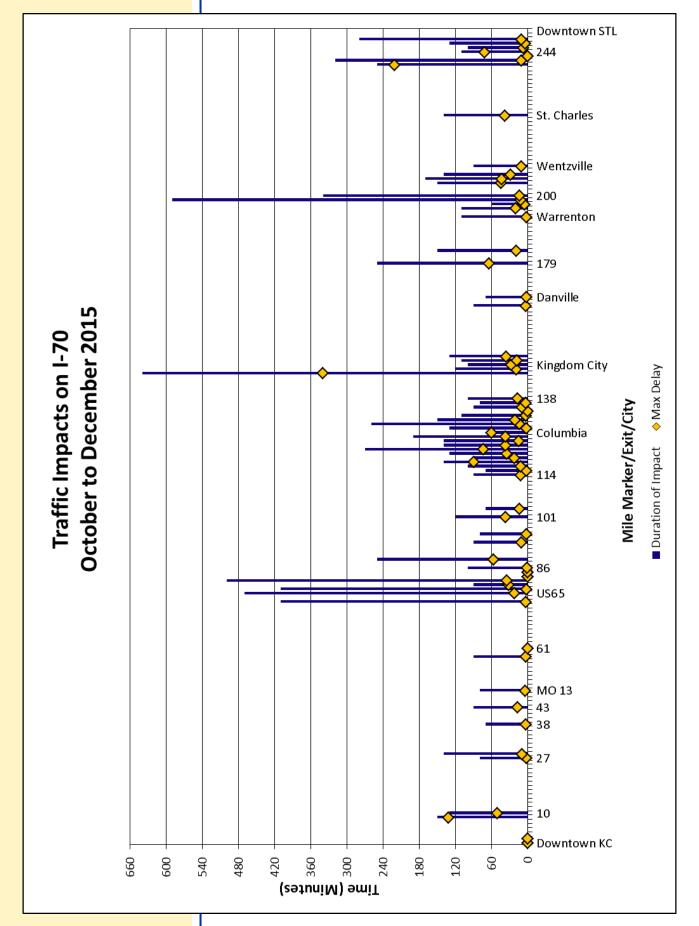
MoDOT continues to work with emergency responder partners to minimize the delay caused by closures on the interstate system. This Tracker measure provides more information so staff can focus on the incidents with higher "real" impact to travelers. This information is used to develop and implement strategies and best practices to reduce the impacts to travelers.

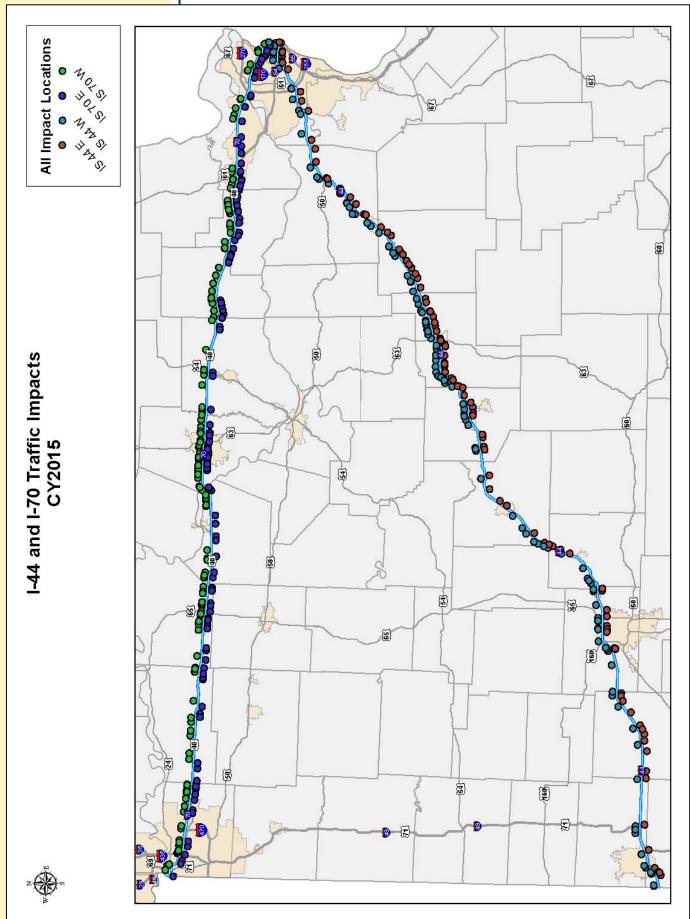
Top 10 Incidents by Delay October - December 2015

Route	County	Dir	Mile Marker	Date	Impact Duration (hrs:min)	Max Delay (hrs:min)
I-70	CALLAWAY	E	148	10/27/2015	10:40	5:40
I-70	ST. LOUIS	Е	241	12/25/2015	4:10	3:41
I-70	JACKSON	E	8	11/23/2015	2:30	2:12
1-44	ST. LOUIS CITY	W	286	12/30/2015	2:30	2:02
1-44	FRANKLIN	W	235	10/23/2015	3:20	1:41
I-70	BOONE	W	121	10/26/2015	2:20	1:30
1-44	PULASKI	W	160	10/31/2015	5:20	1:26
1-44	PHELPS	E	173	12/13/2015	5:40	1:15
I-70	BOONE	E	123	12/3/2015	4:30	1:14
I-70	ST. LOUIS CITY	W	245	11/7/2015	1:50	1:12



Missouri Department of Transportation 5d2





RESULT DRIVER: Paula Gough

District Engineer

MEASUREMENT DRIVER:

Jerica Holtsclaw Design Liaison Engineer

PURPOSE OF THE MEASURE:

Work zones are designed to allow the public to travel through safely and with minimal disruptions. This measure indicates how well significant work zones perform.

MEASUREMENT AND DATA COLLECTION:

Work zone impacts are collected by conducting visual observations or using automated data collection. Recent updates to traffic data collection methods allow for more work zones to be evaluated. An impact is defined as the additional time a work zone adds to normal travel. They are categorized into three levels: a minor impact that lasts less than 10 minutes; a moderate impact that lasts 10 to 14 minutes; and a major impact that lasts 15 minutes or more.

OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

Work zone impacts to the traveling public – 5e

Motorists want to get through work zones with as little inconvenience as possible. MoDOT tries to minimize the travel impacts by shifting work to nighttime hours or during times when there are fewer impacts to the traveling public. To get a wider range of data and a better understanding of the impact work zones have on motorists, the department has increased the number of work zones it monitors each quarter.

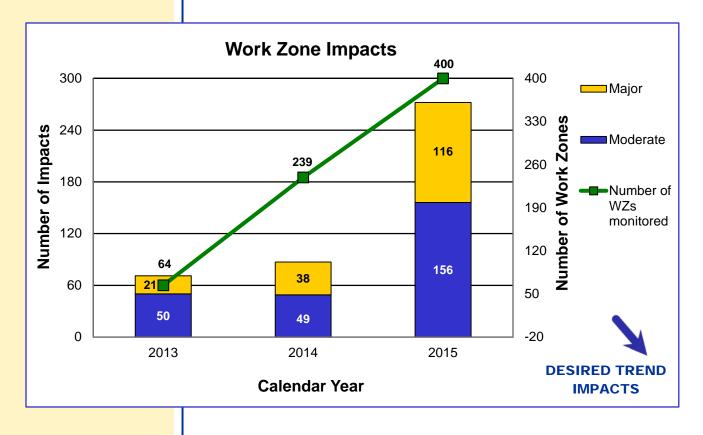
MoDOT monitored 81 significant work zones this quarter, with 12 major impacts and 16 moderate impacts. This brings the 2015 totals to 116 major and 156 moderate impacts, with a total of 400 work zones analyzed. The significant projects this quarter that accounted for the most impacts were the Design Build Project on I-70 in Central District and the Welcome Center on I-35 in the Northwest District. These work zones accounted for eight major and 13 moderate impacts, nearly 61percent of all the impacts this quarter. The Kansas City District had two major impacts on I-35 southbound interchange improvements project, both were due to stalled vehicles in the area of the work zone.

Overall for the calendar, year the most delays were realized on two projects in the Kansas City District (Blackwater and Sni A Bar Bridge projects on I-70). These two projects alone accounted for approximately 70 percent of all the impacts for the entire year displayed in the charts.

Based on work zone surveys received through this year, 41 percent of motorists are satisfied with timeliness when traveling in a work zone.



Missouri Department of Transportation 5e





Missouri Department of Transportation 5e2

RESULT DRIVER: Paula Gough

District Engineer

MEASUREMENT DRIVER:

Mike Henderson Transportation Planning Specialist

PURPOSE OF THE MEASURE:

This measure tracks concentrations of pollutants in on-road mobile source emissions. In other words, the department is tracking pollution caused by vehicles on the roads.

MEASUREMENT AND DATA COLLECTION:

MoDOT is still determining what pollutants to track and what concentration levels will align with the U.S. **Environmental Protection** Agency's air quality standards. At this time, the department collects data on oxides of nitrogen, volatile organic compounds, fine particulate matter and carbon monoxide. Because this measure is part of the latest federal surface transportation act's performance requirements, guidance for measurement and data collection will be established in 2015.

OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

Effectiveness of improving air quality – 5f

MoDOT is committed to improving air quality through modifying its daily operations, incorporating employee actions and education, providing information to the public, leading air quality improvements, managing congestion to reduce emissions, providing alternative choices for commuters and promoting the use of environmentally friendly fuels and vehicles.

Effectiveness of Improving Air Quality



RESULT DRIVER:

Paula Gough District Engineer

MEASUREMENT DRIVER:

Tim Chojnacki Maintenance Liaison Engineer

PURPOSE OF THE MEASURE:

This measure tracks the amount of time needed to perform MoDOT's snow and ice removal efforts.

MEASUREMENT AND DATA COLLECTION:

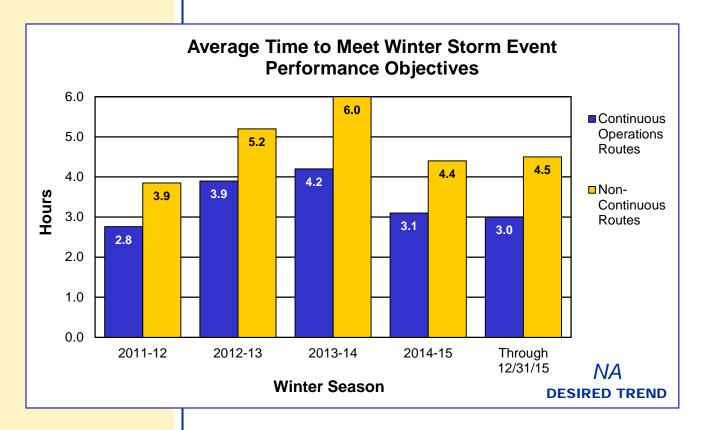
For major highways and regionally significant routes, the objective is to restore them to a mostly clear condition as soon as possible after the storm has ended. MoDOT calls these "continuous operations" routes. State routes with lower traffic volumes should be opened to two-way traffic and treated with salt or abrasives at critical areas such as intersections, hills and curves. These are called "noncontinuous operations" routes. After each winter event, maintenance personnel submit reports indicating how much time it took to meet the objectives for both route classifications.

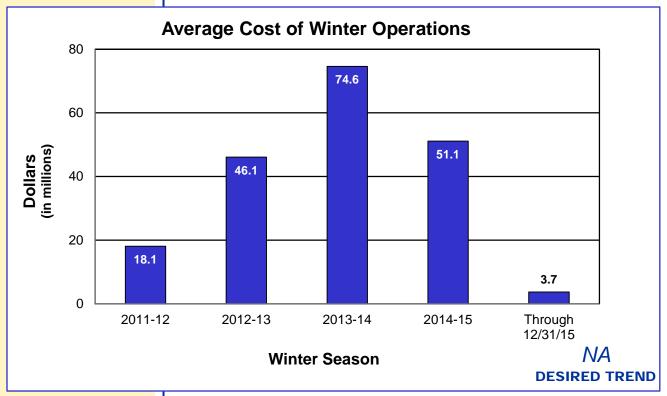
OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

Time to meet winter storm event performance objectives – 5g

Knowing the time it takes to clear roads after a winter storm can help the department better analyze the costs associated with that work. MoDOT's response rate to winter events provides good customer service for the traveling public while keeping costs as low as possible. The beginning of the 2015-2016 winter was light with only a few minor events affecting portions of the state. It took an average of three hours to meet MoDOT's objective for continuous operations routes, and an average of 4.5 hours for non-continuous routes. These numbers compare favorably with the type of storms received and our historical performance. Winter operations, on average, cost about \$46.8 million dollars per year. As of December 31, 2015, MoDOT has expended \$3.7 million dollars responding to events this winter. The money and time spent on clearing the roads of snow and ice means funds are not available to maintain the roadways in the spring, such as surface improvements, sign repair, brush cutting and drainage work.







RESULT DRIVER: Paula Gough

District Engineer

MEASUREMENT DRIVER:

Ron Effland Non-motorized Transportation Engineer

PURPOSE OF THE MEASURE:

This measure tracks MoDOT's investment in pedestrian facilities and progress toward removing barriers. Accessibility needs occur both within the right of way, such as sidewalks and traffic signals, and within department buildings, parking lots and restrooms. Removal of the barriers listed in MoDOT's 2010 Transition Plan is required as part of the department's compliance with the Americans with Disabilities Act.

MEASUREMENT AND DATA COLLECTION:

Tracking of MoDOT's investment in pedestrian facilities is done by collecting awarded contract amounts for the 20 most common construction elements used on pedestrian projects each year. Transition Plan progress is based upon completed work that has corrected defective items reported in the August 2010 Transition Plan inventory. The dollar amounts are based on unadjusted estimates from 2008 and will not reflect actual expenditures. This avoids impacts from inflation or changing field conditions.

OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

Bike/pedestrian and ADA transition plan improvements – 5h

MoDOT continues to be responsive to public requests for improved accessibility and has been proactive in many areas to make systematic improvements when opportunities arise and limited funding allows.

MoDOT has improved more than \$16.0 million of deficient ADA facilities in the right of way since 2008. Additional work totaling more than \$135.3 million is still necessary to complete the 2010 ADA Transition Plan inventory.

Unfortunately, limited revenue for construction projects at both state and federal levels makes it difficult to even maintain existing facilities. Additional funding sources will need to be developed before significant progress can be made in developing the improved pedestrian facilities that Missourians desire.

MoDOT's annual investment in pedestrian facilities for 2015 totals \$6.82 million. In 2014, the annual investment was an all time high of \$11.76 million. Since 2008, MoDOT has invested over \$54.8 million in pedestrian facilities statewide.

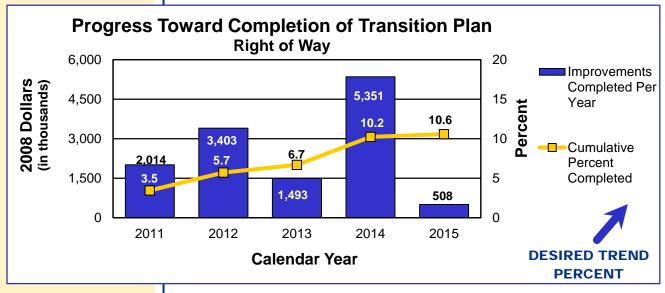
MoDOT has committed to complete ADA improvements, including cross slope corrections, as work is being done on the adjacent roadway section.

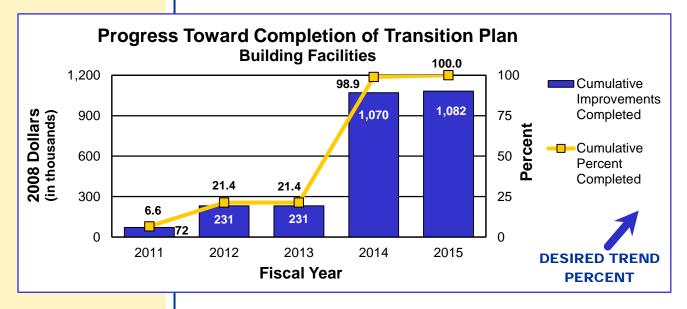












Missouri Department of Transportation 5h2

RESULT DRIVER: Paula Gough

District Engineer

MEASUREMENT DRIVER:

Amy Ludwig Administrator of Aviation

PURPOSE OF THE MEASURE:

This measure tracks passenger use of modes other than highways in Missouri.

MEASUREMENT AND DATA COLLECTION:

Airline passenger counts are obtained from the Federal Aviation Administration. The state of Washington is the benchmark due to its comparable population. Ferry passenger data is compiled from the New Bourbon and Mississippi County ferryboats, services owned and operated by Missouri public port authorities. Amtrak supplies Missouri River Runner passenger counts. Urban and rural transit services provide transit passenger data, with Wisconsin as the benchmark. Aviation and transit data is updated annually in October while ferryboat and rail data is updated quarterly.

OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

Use and connectivity of transportation modes – 5i

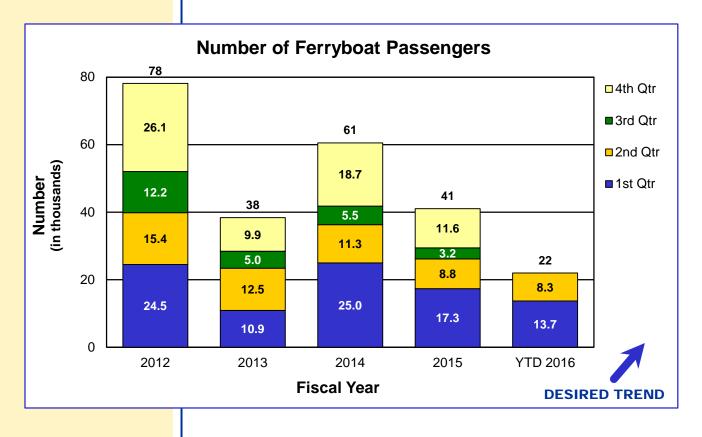
Planes, trains, ferries and transit are vital means of transport for Missourians. Alternative modes of transportation connect Missourians to work, healthcare and other necessary activities. They also are used to grow Missouri's economy and create jobs. Missouri's current transportation funding for these modes is inadequate and unreliable. The state is unable to meet even the existing needs for these important transportation system components.

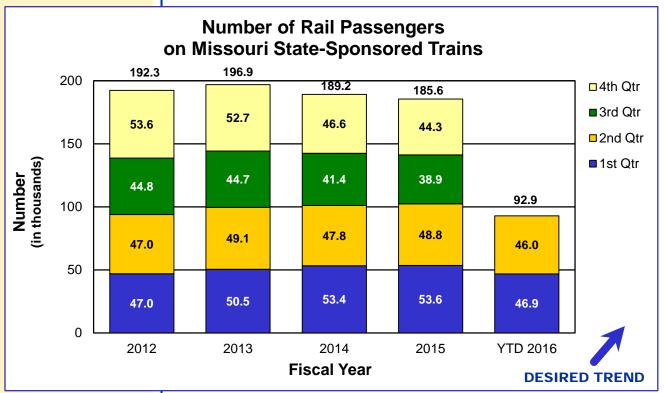
The number of ferryboat passengers in the second quarter of FY 2016 totaled 8,260, a decrease from the 8,820 passengers in the second quarter of FY 2015. The Mississippi County ferry was closed for two weeks in October for dredging operations, while the New Bourbon ferry was closed for two weeks in December due to flooding and high water levels on the Mississippi River.

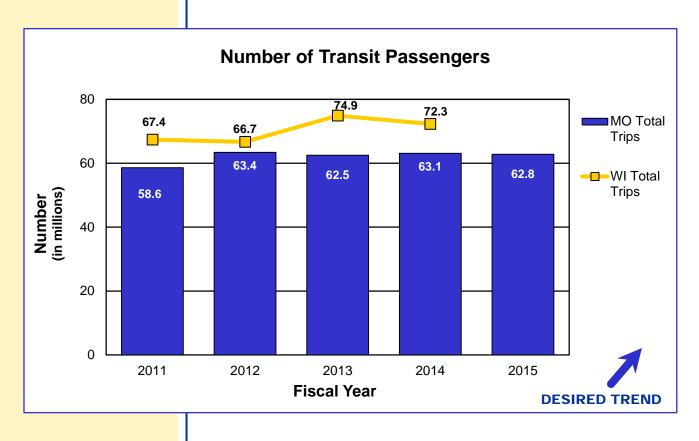
Ridership continues to decline on Missouri River Runner trains, falling nearly two percent in the second quarter of FY 2016. There were 46,043 passengers in the second quarter of FY 2016, compared to 48,818 in the same period of FY 2015. Low gas prices and recurrent bus bridges due to construction on the high-speed rail corridor between St. Louis and Chicago continue to impact ridership.

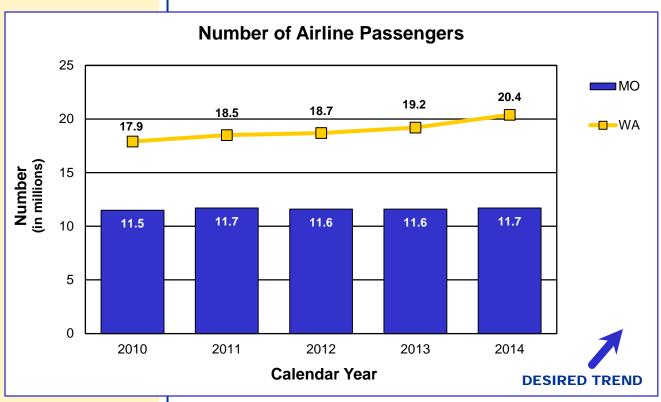
Transit ridership (passenger boardings) showed a slight decrease from 63.1 million trips in FY 2014 to 62.8 million trips in FY 2015. Urban ridership, which accounts for over 95 percent of the ridership totals for the state, decreased 0.5 percent in FY 2015, while non-urban ridership increased 2 percent in FY 2015. The overall decrease in ridership in FY 2015 can be attributed to low gas prices.

The number of airline passengers has remained fairly steady from 2010 to 2014, with a slight increase in passenger enplanements (boardings) for 2014. Due to increasing state Aviation Trust Fund revenues, in March 2015 MoDOT issued grants to commercial service airports for the air service program. These grants can be used for air service promotion and marketing and to study potential new routes.









Missouri Department of Transportation 5i3



USE RESOURCES WISELY Brenda Morris, Financial Services Director



MEASURES OF DEPARTMENTAL PERFORMANCE



MoDOT has access to many resources including people, funding, supplies and equipment. Taxpayers trust MoDOT is a good steward of these limited resources while limiting the impact on our environment. We are accountable for everything we do.

MEASUREMENT DRIVER:

Steve Meystrik Special Projects Coordinator

PURPOSE OF THE MEASURE:

This measure tracks the change in the number of fulltime equivalencies (a calculation of hours) expended within the department and compares it to the number of FTEs in the legislative budget.

MEASUREMENT AND DATA COLLECTION:

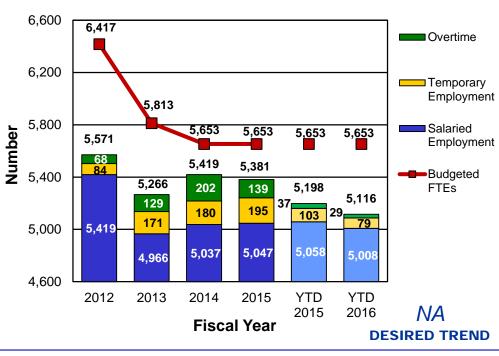
This measure converts the regular hours worked or on paid leave of temporary and salaried employees, as well as overtime worked (minus any hours that are flexed during the workweek), to FTEs. In order to calculate FTEs, the total number of hours worked or on paid leave is divided by 2,080. For comparison purposes, data for salaried employment is annualized, whereas temporary employment and overtime data represent actual vear-to-date calculations. Salaried headcount is different than FTEs and is not included in the chart.

USE RESOURCES WISELY

Number of full-time equivalencies expended – 6a

Having the right number of employees to provide outstanding customer service and respond to the state's transportation needs, especially during emergency situations, is an important part of MoDOT's effort to use resources wisely.

During the first two quarters of fiscal year 2016, the FTE levels for salaried and temporary employment, as well as FTEs expended for overtime, have decreased compared to the same time last fiscal year. Through the first two quarters of FY 2016, the department has worked over 15,000 overtime hours (equivalent to over seven FTEs) due to flooding and snow/ice removal despite the relatively mild weather experienced during this period.



Number of Full-Time Equivalencies Expended

MEASUREMENT DRIVER:

Rudy Nickens Equal Opportunity and Diversity Director

PURPOSE OF THE MEASURE:

This measure tracks the level of employee satisfaction throughout the department at specific points in time.

MEASUREMENT AND DATA COLLECTION:

Employee satisfaction is measured with an annual employee survey. Employees rate items related to their satisfaction with MoDOT using a five-point scale, with one indicating low satisfaction and five indicating high satisfaction. Society for Human Resources Management best practice data was gathered from an SHRM report of an annual job satisfaction survey of 55 Fortune 500 companies.

USE RESOURCES WISELY

Level of job satisfaction - 6b

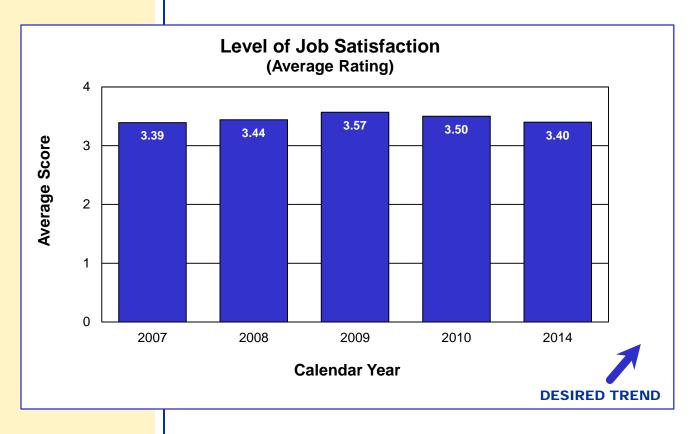
MoDOT wants employees to be satisfied with their work and workplace and feel like they are a good fit for their jobs. Employee satisfaction can be a driver of overall organizational performance. The more satisfied and engaged employees are with the workplace, the more discretionary effort they are willing to put forth on the job.

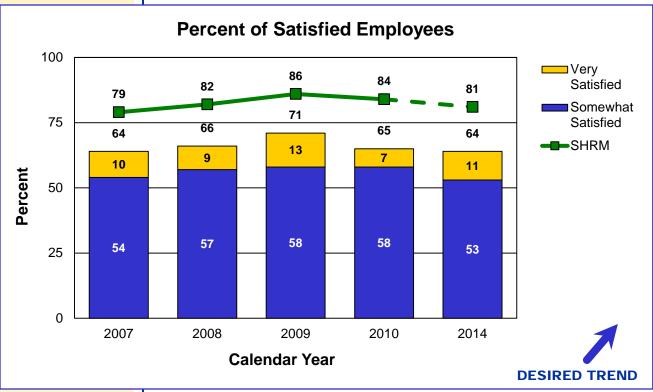
Between 2005 and 2010, the average employee satisfaction ratings and percent of satisfied employees both showed upward trends with peaks in 2009. Following a four-year break, the employee survey was conducted this past spring. Overall job satisfaction has dipped slightly from 3.5 in 2010 to 3.4 in 2014. The percentage of satisfied employees also experienced a slight decline from 65 percent in 2010 to 64 percent in 2014. However, the percentage of very satisfied employees increased from 7 percent in 2010 to 11 percent in 2014.

Areas of low satisfaction center on not seeking out employee suggestions, making employees feel valued and having opportunities to advance at MoDOT. The lack of salary increases was scored low on most surveys and dominated the written comments. Areas of high satisfaction revolve around being treated with respect by coworkers, having supervisors support needs to balance work and family, knowing how daily work relates to MoDOT goals and priorities and having cooperation within work units.

Following the last survey, five employee-led teams worked to develop a series of recommendations in response to the concerns employees raised in the survey. The recommendations were presented to senior management and are in various stages of implementation.







MEASUREMENT DRIVER:

Aaron Kincaid Employment Manager

PURPOSE OF THE MEASURE:

This measure tracks the percentage of employees who leave MoDOT. Turnover rates as shown in this measure include voluntary and involuntary separations.

MEASUREMENT AND DATA COLLECTION:

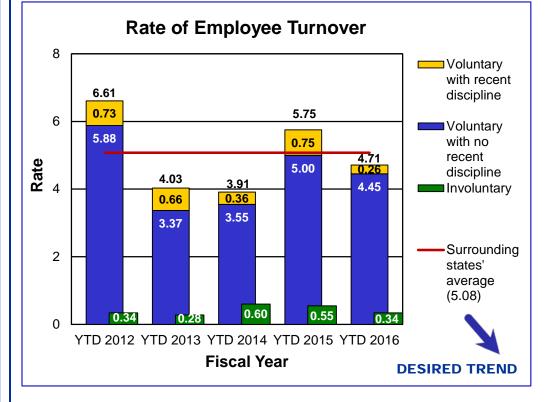
The data is collected statewide from SAM II Advantage HR system and includes only salaried employees. Voluntary turnover includes resignations and retirements. Involuntary turnover reflects dismissals. Data is reported quarterly, with current year-to-date data included. For benchmarked data, the turnover is averaged for surrounding state departments of transportation (Arkansas, Iowa, Kansas and Oklahoma). The turnover rate is based on 2014 data and was provided through a survey of respective departments of transportation.

USE RESOURCES WISELY

Rate of employee turnover - 6c

When employees leave MoDOT, the department loses a large investment in recruiting, hiring and training its workforce. Historically, MoDOT has a relatively low employee turnover rate, which relates to the high percentage of employees who stay until retirement. While some turnover is desired, such as releasing poor performers, MoDOT needs to retain a great workforce that has the knowledge and specialized skills to deliver the department's commitments and provide outstanding customer service.

During the first two quarter of fiscal year 2016, voluntary turnover rates (72 retirements and 164 resignations) are showing a slight downward trend. First-year and maintenance turnover remains high and is the focus for the department's employee retention efforts through the onboarding program and the cost-neutral salary adjustments that took effect July 1, 2015. Involuntary turnover rates have decreased from the first two quarters of FY 2015 (28 involuntary separations), with 17 involuntary separations (dismissals) in the first two quarters of FY 2016.



MEASUREMENT DRIVER:

Todd Grosvenor Special Projects Coordinator

PURPOSE OF THE MEASURE:

This measure shows the precision of state and federal revenue projections.

MEASUREMENT AND DATA COLLECTION:

State revenue for roads and bridges include motor fuel taxes, motor vehicle and driver licensing fees, and motor vehicle sales taxes paid by highway users, interest earnings and miscellaneous revenues. State revenue for other modes includes motor vehicle sales taxes, aviation fuel taxes, jet fuel sales taxes, motor vehicle licensing fees, railroad assessments. appropriations from General Revenue and interest earnings. The measure provides the cumulative, yearto-date percent variance of actual state revenue versus projected state revenue by state fiscal year. Federal revenue for roads and bridges is the amount available to commit in a federal fiscal year of federal funds. Federal funds are distributed to states via federal law. Federal revenue for other modes is the amount reimbursed to MoDOT for expenses incurred in a state fiscal year.

USE RESOURCES WISELY

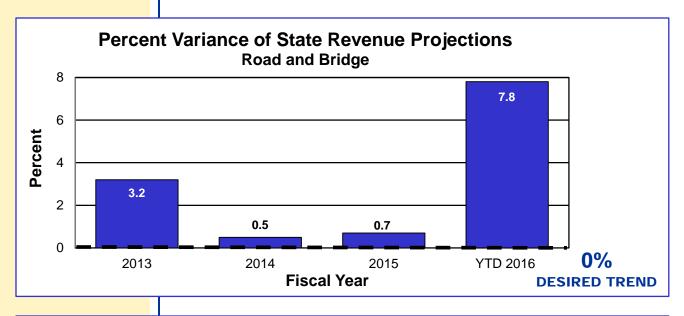
State and federal revenue projections – 6d

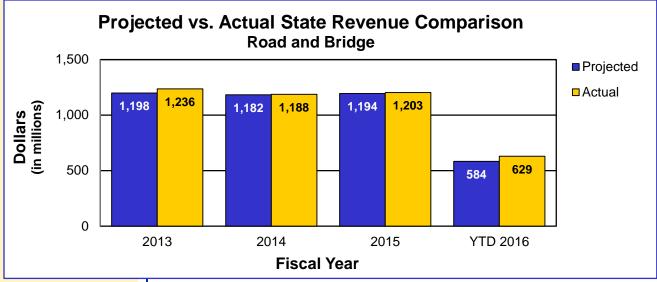
State and federal revenue projections help MoDOT staff do a better job of budgeting limited funds for its operations and capital program. The desired trend is for actual revenue to match projections with no variance.

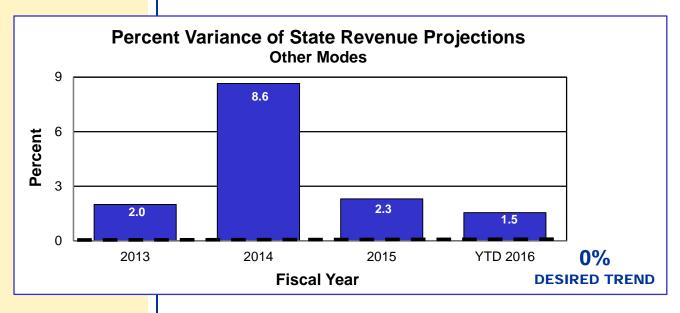
The actual year-to-date state revenue is higher than projected for the second quarter of fiscal year 2016. The actual state revenue for road and bridge from motor fuel taxes, motor vehicle sales taxes, motor vehicle and driver licensing fees, and miscellaneous is more than projected. The positive variance of 1.5 percent for other modes is mostly attributable to the jet fuel and motor vehicle sales taxes.

The largest source of transportation revenue is from the federal government. Funding is received through various federal transportation agencies including Federal Highway, Transit, Aviation and Railroad administrations. In December 2015, Congress passed a five-year federal transportation reauthorization act entitled Fixing America's Surface Transportation (FAST) Act. The FAST Act increases the amount of road and bridge funding for all state DOTs. Federal revenue for other modes is reliant on the timing of project expenditures.

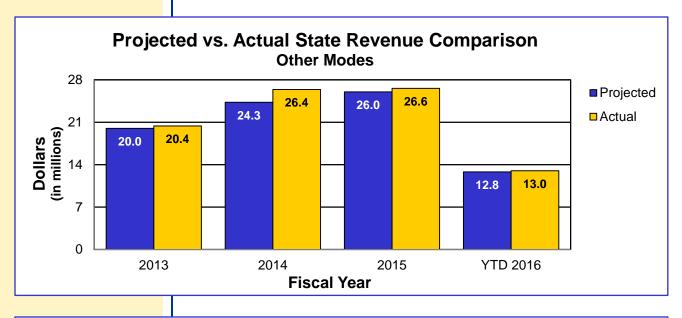
The primary source of federal and state revenue is motor fuel tax. The motor fuel tax rates have not changed in more than 20 years, while the costs for materials and labor have doubled, and even tripled for some materials, in the same timeframe.

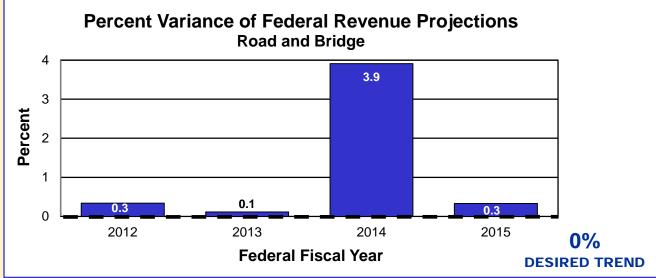


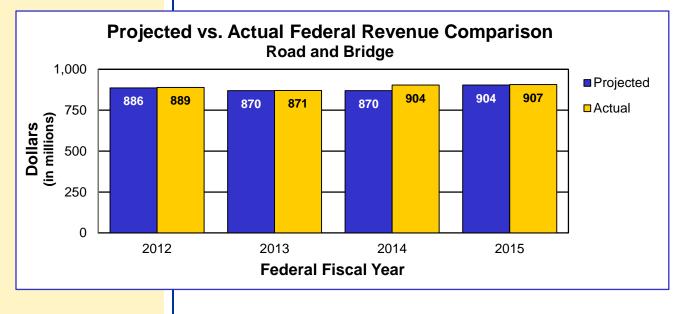




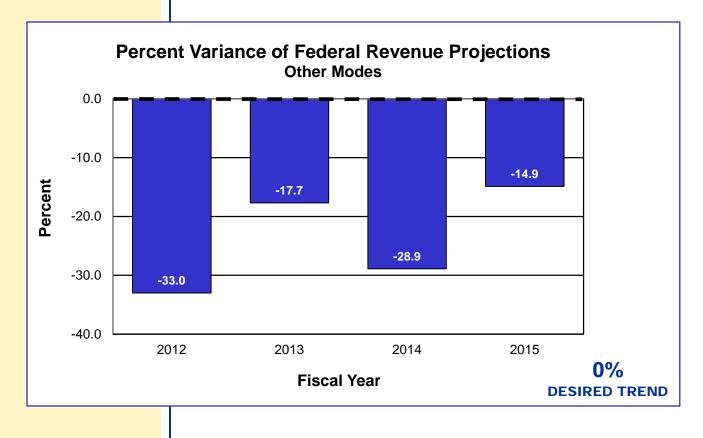
Missouri Department of Transportation 6d2

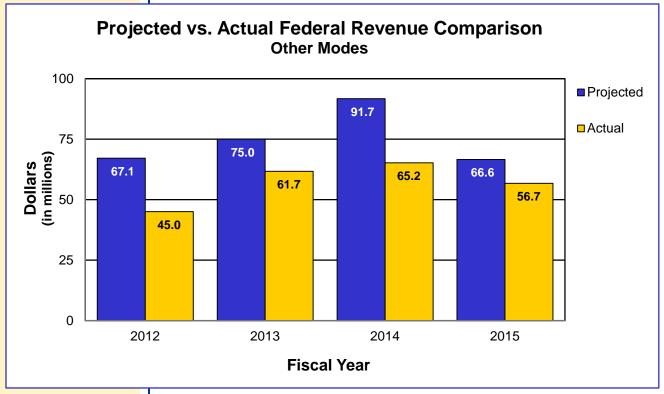






Missouri Department of Transportation 6d3





Missouri Department of Transportation 6d4

MEASUREMENT DRIVER:

Frank Miller District Planning Manager

PURPOSE OF THE MEASURE:

This measurement monitors the effectiveness of MoDOT's cost-sharing and partnering programs.

MEASUREMENT AND DATA COLLECTION:

MoDOT collects this data from the Statewide Transportation Improvement Program and the permits database. The dollars are shown in the fiscal year in which construction contracts are awarded and permit jobs are issued. The percent is the number of cost-sharing projects divided by the total number of projects per year in the STIP.

USE RESOURCES WISELY

Number of dollars generated through cost-sharing and partnering agreements for transportation – 6e

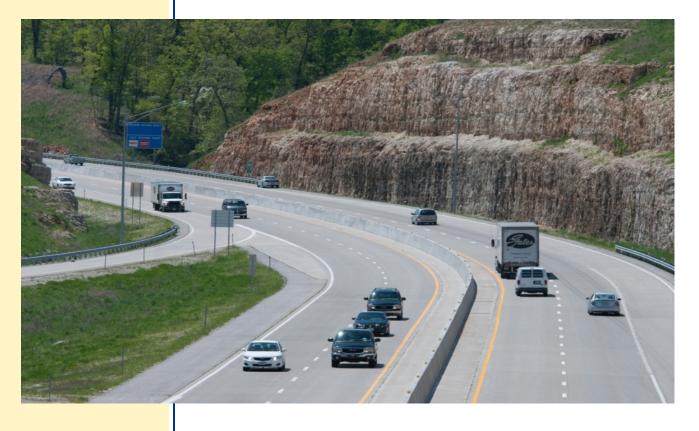
MoDOT works with public agencies to leverage its limited resources to implement projects that might not otherwise be built. Cost-share projects are transportation improvements in which costs are shared by MoDOT and other public agencies such as cities and counties. For the Cost Share Program, MoDOT allocated \$30.0 million for fiscal year 2011, \$37.5 million for FY 2012, \$47.5 million for FY 2013, \$45.7 million for FY 2014 and \$45.4 million for FY 2015 partnership projects. The Missouri Highways and Transportation Commission suspended the Cost Share Program at its January 2014 meeting. MoDOT also may receive funding from cities and counties for projects not part of the formal Cost Share program, from other states for projects of mutual interest such as border bridges and from federal agencies through competitive discretionary programs. In addition, MoDOT also partners with developers and other private entities to make improvements to the state transportation system through the permitting process.

The amount of partnership funding is up significantly in 2015. There has been a slight increase in funding from permit projects - projects where a third party makes an improvement to the state transportation system – from \$9.4 million in 2014 to \$11.2 million in 2015. There has been a much larger increase in partnership funding on MoDOT projects from \$66.7 million in 2014 to \$131.8 million in 2015. One 2015 project stands out – the Kansas Department of Transportation contributed \$36.7 million for the Fairfax Bridge connecting Kansas and Missouri.

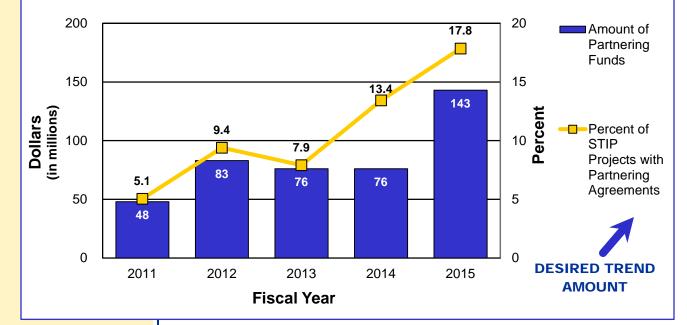
The percent of projects in the Statewide Transportation Improvement Program with partnership funding also has increased in the past year, from 13.4 percent in 2014 to 17.8 percent in 2015. However, the overall number of projects has decreased, and the actual number of projects with partnership contributions is down. In 2014, there were 101 projects with funds from partnership agencies, but in 2015, that number decreased to 82.

Total partnership funding is up because of larger funding contributions from partnering agencies in 2015. In 2014, the average partner contribution to MoDOT projects was \$660,000. In 2015, that average increased to \$1.6 million.

As a greater share of MoDOT funds are focused on taking care of the system, partner contributions to MoDOT projects are expected to decline. The value of permit projects may increase if the economy continues to improve and public and private entities fund expansion projects to address emerging needs that MoDOT cannot address with its limited project funds.



Number of Dollars Generated Through Cost-sharing and Partnering Agreements for Highway and Bridge Projects



MEASUREMENT DRIVER: Dion Knipp

Administrator of Transit

PURPOSE OF THE MEASURE:

This measurement provides the percent of state funds invested in other modes of transportation. Modes include aviation, rail, transit, waterways and freight.

MEASUREMENT AND DATA COLLECTION:

Investments in other modes of transportation represent the state and federal dollars spent on aviation, rail, transit, waterways and freight. Federal investments represent the amount spent on MoDOTadministered programs only. Investments are limited to the amounts appropriated by the state legislature each year.

USE RESOURCES WISELY

Percent of state funds invested in other modes of transportation – 6f

During the long-range planning process, "On the Move," Missourians chose more transportation choices as a top priority. MoDOT works closely with its multimodal partners to provide more choices within the available funding amounts. In fiscal year 2015, state and federal expenditures for multimodal programs increased \$4.6 million and \$300,000, respectively.

Aviation – State expenditures increased by \$2.4 million to \$6.5 million, but federal expenditures decreased by \$4.8 million to \$21 million. In FY 2015, state funds were 23 percent of total funds invested. Local funds in FY 2015 totaled \$3.1 million. Federal Aviation Administration and State Aviation Trust funds require a minimum local match of 10 percent.

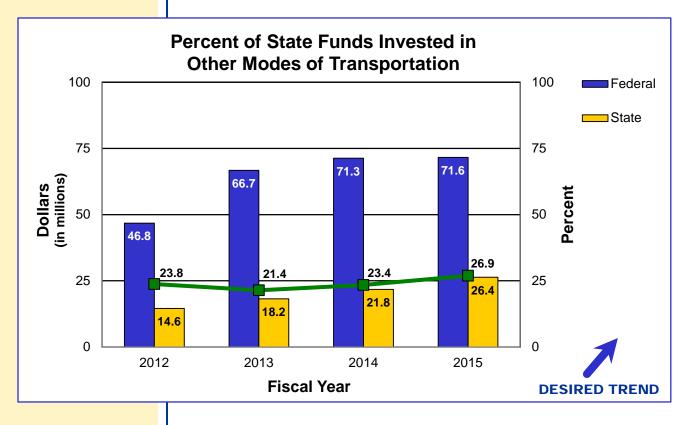
Rail – State expenditures increased by \$1.6 million to \$11.7 million, and federal expenditures decreased by \$1.5 million to \$17.9 million. In FY 2015, state funds were 60 percent of total funds invested. Non-federal and non-state expenditures accounted for at least 20 percent of rail programs in FY 2015.

Transit – State expenditures increased by \$600,000 to \$4.0 million, and federal expenditures increased by \$6.6 million to \$32.6 million. In FY 2015, state funds were 11 percent of total funds invested. FTA funds require a local match of varying percentages depending on the program.

Waterways – State expenditures remained steady at \$3.5 million in FY 2015. Prior years did not include \$200,000 of State Ferry Boat Assistance. Federal expenditures remained at zero dollars. Local funds in FY 2015 totaled \$600,000. The waterways capital improvement program requires a minimum local match of 20 percent.

Freight – State expenditures decreased by \$200,000 to \$650,000 and federal expenditures were zero dollars. Local funds in FY 2015 totaled \$130,000. The freight enhancement program requires a minimum local match of 20 percent.





MEASUREMENT DRIVER:

Kenny Voss Local Program Administrator

PURPOSE OF THE MEASURE:

This measure tracks the percent of available Local Program funds committed to projects.

MEASUREMENT AND DATA COLLECTION:

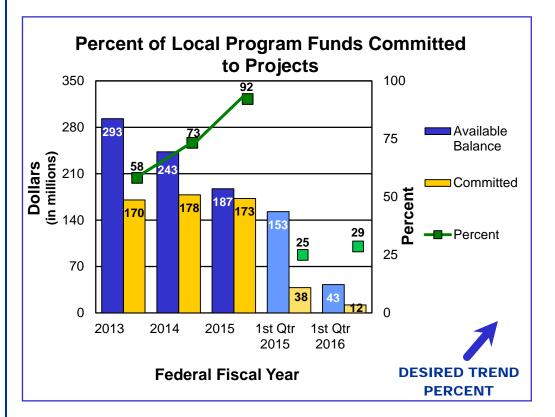
The data is obtained from Federal Highway Administration's Fiscal Management Information System and based on the federal fiscal year from Oct. 1 through Sept. 30. The committed amounts represent what FHWA will reimburse for the project. The available amounts represent the federal program funds distributed to local sponsors. The goal of this measure is to commit all federal funds available to local public projects.

USE RESOURCES WISELY

Percent of local program funds committed to projects – 6g

Some of the federal funds MoDOT receives are required to be passed through to local entities, such as cities and counties. Available funds for local entities include those that are allocated this year and those that have not been committed in prior years. When local entities use federal funds, they provide the matching funds. Matching funds provided by local entities help MoDOT use all the transportation federal funding available to Missouri.

For federal fiscal year 2016, 29 percent (\$12 million) of the \$43 million in available funds has been committed to local projects. All federal funds for federal fiscal 2016 are not yet available. This represents a \$26 million decrease in commitments compared to the same period in FFY 2015. Since FFY 2013, the percent of local program funds committed to projects has increased from 58 percent to 92 percent. MoDOT has set a goal of committing 100 percent of local program funds to projects for FFY 2016.



MEASUREMENT DRIVER:

Sunny Wilde Resource Management Specialist

PURPOSE OF THE MEASURE:

This measure tracks the percent of inactive federal projects.

MEASUREMENT AND DATA COLLECTION:

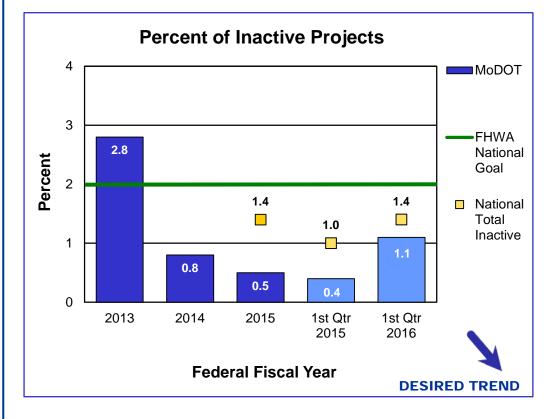
The data is obtained from Federal Highway Administration's quarterly inactive projects report and is based on the federal fiscal year from October 1 through September 30. The inactive report includes projects with no expenditure activity for more than one year. MoDOT uses a tracking database to assist in the analysis and reporting of inactive projects.

USE RESOURCES WISELY

Percent of inactive projects - 6h

Project funds must be spent for taxpayers to benefit from their transportation investments. As resources continue to dwindle, ensuring available resources are committed to active projects is essential to maintaining the existing transportation system. Due to project schedule delays or lags in receiving project invoices, funds sometimes do not get spent in a timely manner. When this happens, MoDOT analyzes projects to determine why there has been no activity and what steps need to be taken to move the project forward. Discussions with local project sponsors often are used to ensure invoices are submitted on a timely basis.

MoDOT's continued efforts have led to a decrease in the inactive projects since federal fiscal year 2013 when the inactive percent was 2.8 percent. For the first quarter of FFY 2016, inactive projects were 1.1 percent (\$10.5 million). Although this was an increase from the inactive projects from the fourth quarter of FFY 2015, Missouri's inactive projects were below FHWA's national goal of 2 percent and below the national total inactive percentage of 1.4 percent. MoDOT's continued efforts to identify projects that will potentially become inactive in the coming months and taking any necessary actions on those projects has ensured the funds committed to projects are valid.



MEASUREMENT DRIVER:

Doug Hood Financial Services Administrator

PURPOSE OF THE MEASURE:

This measure tracks the amount of advance construction funds.

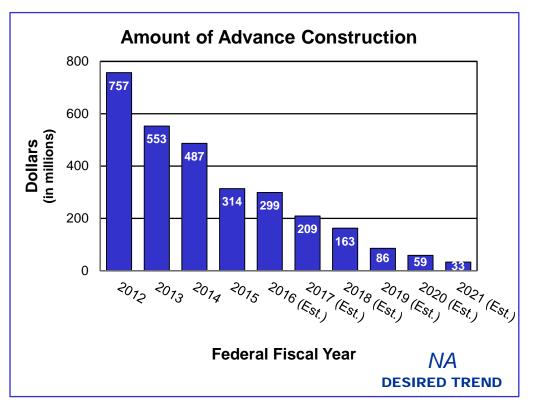
MEASUREMENT AND DATA COLLECTION:

MoDOT collects this data from Federal Highway Administration's Fiscal Management Information System. The federal fiscal year is from October 1 to September 30. Estimated Advance Construction balance for fiscal years 2016-2021 are estimates from the 2017-2021 financial forecast. The amount of advance construction is based on the total estimated project costs.

USE RESOURCES WISELY

Amount of advance construction – 6i

Advance construction is an innovative finance tool MoDOT uses to more efficiently manage its limited resources. Advance construction provides states the ability to move forward with projects utilizing state resources, while preserving the ability to apply and receive federal reimbursement at a later date. Advance construction helps provide the 20 percent match required for federal funds. Without advance construction, MoDOT would have had difficulty matching federal funds in the last several years.



MEASUREMENT DRIVER:

Kevin James Assistant District Engineer

PURPOSE OF THE MEASURE:

This measure tracks progress of fleet usage compared to department thresholds based on annual mileage over the life of the equipment. The measure also tracks fuel efficiency for five vehicle classes: cars, pickups, lightduty trucks, heavy duty trucks and extra-heavy duty trucks. These classes represent the majority of fleet expenditures and miles driven.

MEASUREMENT AND DATA COLLECTION:

Data reflects performance for the vehicle based on its age. Ideal fleet usage falls within 75 to 125 percent of the vehicle's threshold. For example, a passenger car has a threshold of 15,000 miles per year. If a car is three years old, the mileage should be between 33,750 to 56,250 miles. The fleet threshold analysis graphs are updated in January and July. This measure also reports MoDOT's total fuel consumed and shows how fleet choices can affect fuel economy. The fuel data is collected in the statewide financial system. Mileage data is obtained from MoDOT's fleet management system, FASTER.

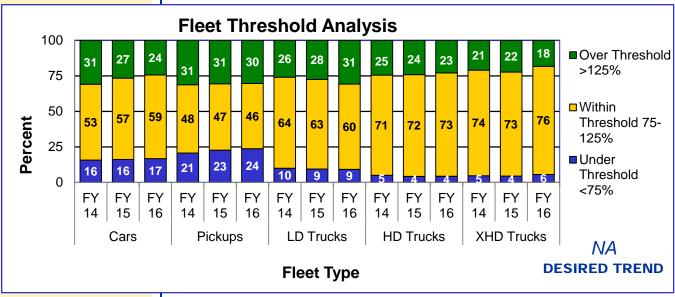
USE RESOURCES WISELY

Fleet usage and fuel efficiency – 6j

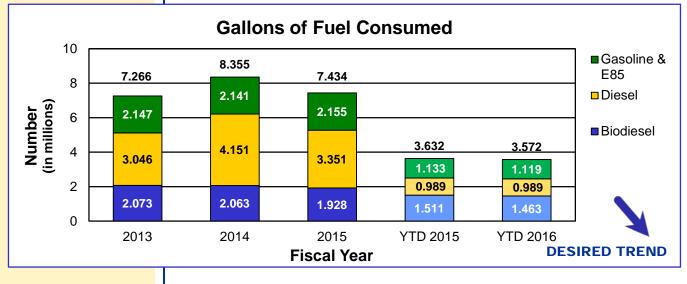
The fleet threshold measure for YTD 2016 shows 59 percent for cars, 46 percent for pickups, 60 percent for LD trucks, 73 percent for HD trucks, and 76 percent for XHD trucks being within threshold. An increase in threshold equipment will result in equipment requiring replacement before its expected life.

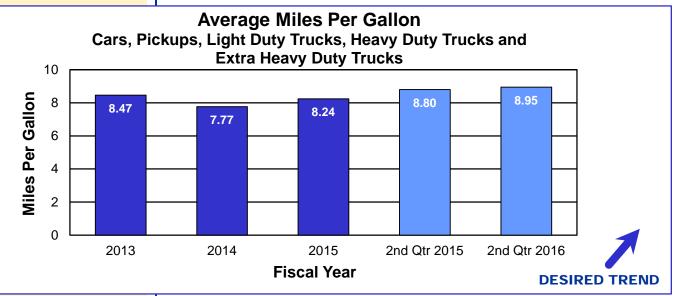
The fuel consumption and fuel-efficiency measures show fairly consistent results for the first two quarters of FY 2015 and FY 2016. Fuel consumption so far in FY 2016 has decreased by 22,844 gallons compared to FY 2015. Mileage recorded for these five vehicle classes in FY 2016 has reduced 585,676 miles compared to FY 2015. During the second quarter of FY 2016, more gallons were used for flood response, while fewer gallons were used to perform snow and ice removal. Changes in fuel use by activity resulted in an increase in fuel efficiency of 0.15 miles per gallon compared to the same period last year.





*Annual miles and/or hours threshold. Fleet threshold analysis based on life of vehicle.





Missouri Department of Transportation 6j2

MEASUREMENT DRIVER:

Jay Bestgen Assistant State Construction and Materials Engineer

PURPOSE OF THE MEASURE:

This measure tracks MoDOT's recycling efforts in construction projects and internal operations.

MEASUREMENT AND DATA COLLECTION:

The recycled material used in construction projects is measured through MoDOT's SiteManager database, which tracks material incorporated into projects. Data is collected on an annual basis due to the seasonal nature of construction. Recycled material from internal MoDOT operations, are captured from the annual Missouri State Recycling Program report and from other internal records.

USE RESOURCES WISELY

Number of tons of recycled material – 6k

In 2004, MoDOT started incorporating recycled asphalt pavements and roof shingles into new asphalt pavements to help offset increasing costs. While the cost of rock, sand, liquid asphalt, labor, fuel and equipment have increased since 2004, recycling efforts have helped offset the cost increases. In 2014, 31 percent of the 2.9 million tons of new asphalt pavement constructed came from recycled components. This saved MoDOT and taxpayers about \$9 per ton, or \$23.8 million overall. The \$23.8 million savings would be equivalent to improving over 500 miles of a two-lane roadway with a thin overlay.

MoDOT also engages in internal recycling efforts. The amount of recycled materials has decreased steadily since 2011, resulting from the consolidation of facilities and reduction of stockpiled materials. The majority of the recycled products come from aluminum, cardboard, office paper, scrap rubber/tires, scrap metal, motor oil and wood pallets. In fiscal year 2014, 1,700 tons of scrap metal made up the majority of the recycling, followed by 360 tons of rubber/tires (equivalent to about 32,000 passenger car tires) and 330 tons of motor oil (equivalent to over 84,000 gallons). In FY 2014, it cost more than \$240,000 to recycle some items, such as scrap rubber/tires and to shred documents. However, other recycling efforts returned more than \$850,000 in revenue. The result was slightly more than \$610,000 in net revenue.

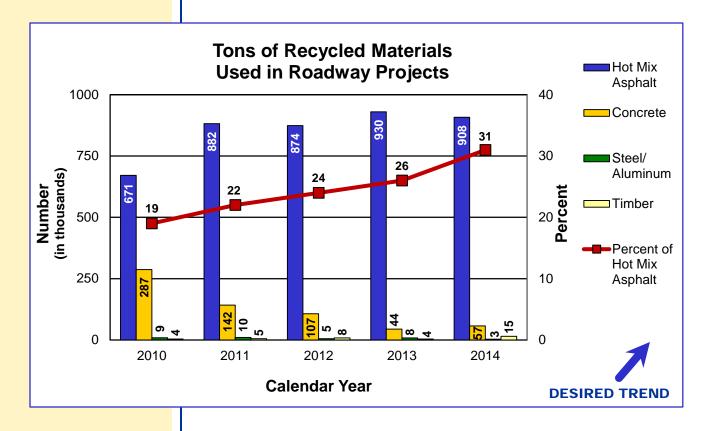
Recycling is good for the environment and helps stretch limited funding. With costs continuing to increase, fuel tax revenues declining and federal funding being uncertain, it is important to focus on increasing recycling efforts.

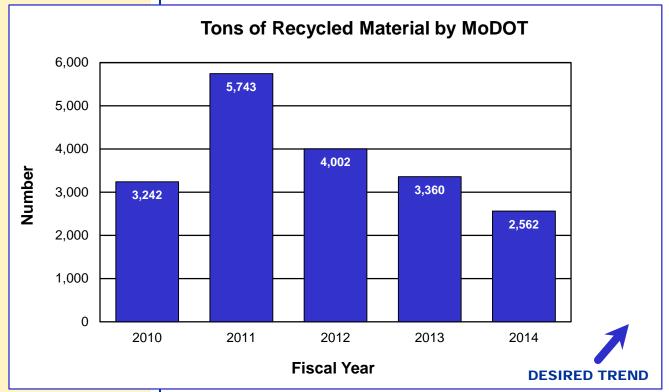




Roofs to Roads

MoDOT is among the first state agencies in the nation to recycle shingles to resurface or rebuild highways.





Missouri Department of Transportation 6k2

MEASUREMENT DRIVER:

Gayle Unruh Environmental and Historic Preservation Manager

PURPOSE OF THE MEASURE:

This measure tracks the annual trend of compliance with environmental laws and regulations, which includes obtaining and abiding by specific requirements contained in various permits.

MEASUREMENT AND DATA COLLECTION:

Notices of Violation are similar to a traffic ticket as they are written to indicate you are operating outside of legal limits. A Letter of Warning indicates that there are problems and if not corrected could lead to an NOV. Issued by environmental regulatory agencies, NOVs, LOWs and letters of satisfactory inspections are collected and tracked by location and/or project. The measure reports by calendar year the number of NOVs, LOWs and satisfactory inspections received by the department for any activity.

USE RESOURCES WISELY

Number of environmental warnings and violations – 61

MoDOT seeks to reduce its impact on Missouri natural resources by complying with environmental laws and regulations. The department is serious about protecting human health, air, water, wildlife and ecosystems. Compliance with environmental laws and regulations helps to prevent and counteract possible damage from MoDOT activities. Under current funding constraints, it is also important to avoid violations. Violations with fines assessed against MoDOT result in less funding for transportation projects.

MoDOT has a zero-tolerance policy toward any NOV from regulating agencies, such as the Missouri Department of Natural Resources or the Environmental Protection Agency. Department employees study the situations that lead to NOVs and LOWs and then take action to prevent future occurrences.

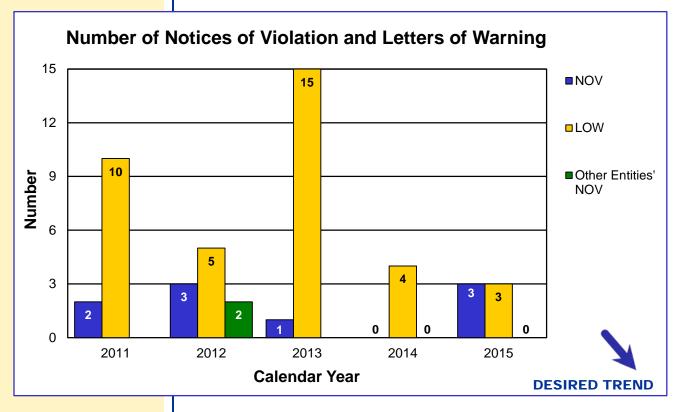
This calendar year MoDOT received three NOVs all at the same welcome center. The first NOV was received in the second quarter for exceedance of ammonia and biological oxygen demand regulatory limits in the septic system. Early October results from septic system sampling are within regulatory limitations. The second NOV was issued in the third quarter for drinking water coliform exceedance at this location. A subsequent NOV, the third for the year, was given in the fourth quarter for failure to provide public notification of the drinking water violation. Investigation found that the public notification was posted as required. However, DNR was not sent certification of that public notification. Certification to DNR of the public notification has since been provided. The original violation was resolved and drinking water was restored within 11 days of the violation date.

Regarding LOWs, MoDOT received three from DNR. The first was for a sewer overflow in a location where it is reasonably certain to cause water pollution. The second was for exceeding effluent limitations at a welcome center. The third LOW occurred for placing an erosion control structure into the state waters without meeting Missouri Department of Natural Resources' 401 Water Quality Certification requirements. LOWs have ranged from three to 15 in the past five years. They have been significantly down the last two years from a high in 2013.

The department received one letter of satisfactory inspection from DNR for compliance with land disturbance requirements on a construction project.

MoDOT continues to work with facility supervisors and construction inspectors through training, inspections and dialog to help with permit compliance.





Note: There is no benchmark for this measure because MoDOT has a zerotolerance policy toward NOVs. So regardless of what other states are doing, MoDOT's desired results are zero NOVs.

RESULT DRIVER: Brenda Morris Financial Services Director

MEASUREMENT DRIVER:

Eric Kopinski Stormwater Compliance Coordinator

PURPOSE OF THE MEASURE:

This measure is to help MoDOT track compliance with its stormwater permit and court ordered consent decree, which resulted from stormwater violations in 2010 and 2011. The consent decree establishes requirements for MoDOT projects where greater than one acre of land is disturbed.

MEASUREMENT AND DATA COLLECTION:

A stormwater compliance database will be used to record the compliance of MoDOT and construction contractors with the following requirements:

- to maintain personnel in stormwater oversight positions,
- to obtain the required stormwater training,
- to ensure timely stormwater inspections,
- and to ensure the resulting stormwater control repairs are completed within the require time.

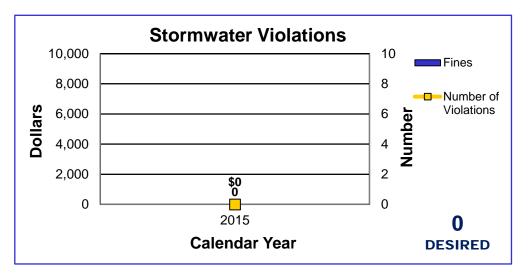
The database also tracks the fines that result from not meeting the requirements of the decree. The data reported in this measure will be both the number of failures to meet the requirements and the dollar amount of the stipulated penalties that result during each quarter of the calendar year for the next three years.

USE RESOURCES WISELY

Number of stormwater violations – 6m

MoDOT is devoted to ensuring all land disturbance projects are in compliance with environmental laws through the use of adequate erosion and sediment control practices.

Statewide, a total of 43 total projects were mandated to follow the requirements of the consent decree this quarter. For these projects, zero violations occurred resulting in no stipulated penalties. Contributing factors to the success of MoDOT's land disturbance consent decree compliance included significant reduction in the total projects greater than one acre, limiting the amount of disturbance at any given time on each project and extensive training efforts for both department staff and construction partners.



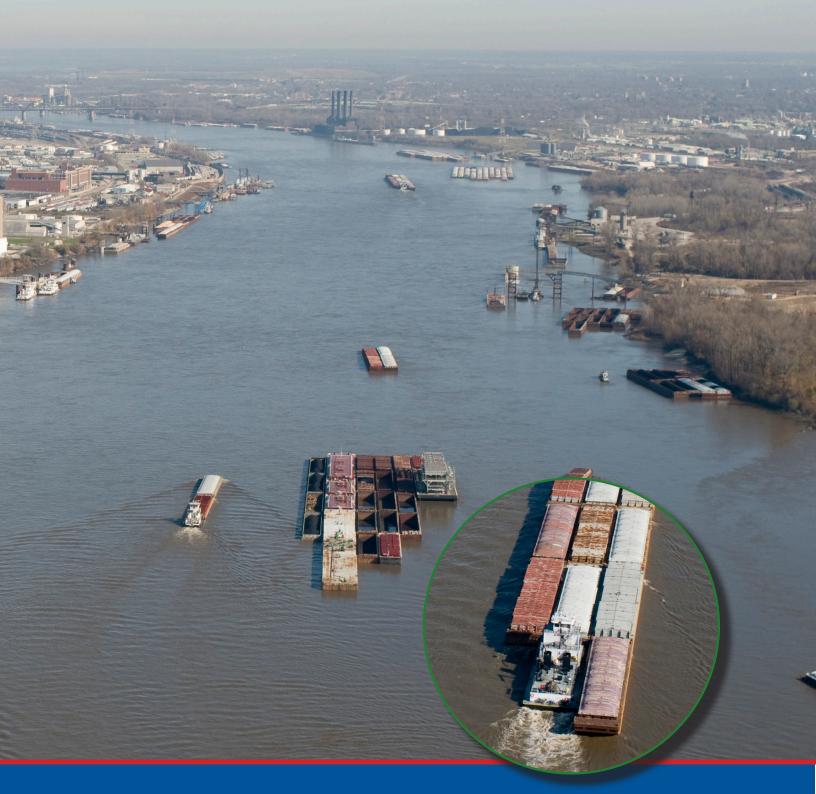
Note: There is no benchmark data presented with this measure. MoDOT has a zero-tolerance policy toward stormwater violations. Therefore, regardless of what other states are doing, MoDOT's desired results are zero violations and zero penalties.



ADVANCE ECONOMIC DEVELOPMENT Machelle Watkins, Transportation Planning Director



MEASURES OF DEPARTMENTAL PERFORMANCE



Missouri's transportation system has a direct impact on the state's economy. Missouri businesses depend on our roadways, rail, waterways and airports to move their products and services both nationally and globally. An efficient, well-connected transportation system helps attract new businesses to our communities and helps existing businesses maintain a competitive edge with easy customer access, minimal shipping costs and strong links to a diverse workforce. We believe investments in transportation should create jobs and provide opportunities for advancement to all Missouri citizens. An investment in transportation should provide a positive economic impact on both the citizens we serve and the communities in which they live.

Machelle Watkins Transportation Planning Director

MEASUREMENT DRIVER:

Eva Voss Senior Transportation Planner

PURPOSE OF THE MEASURE:

This measure tracks the economic impact resulting from the state's transportation investments.

MEASUREMENT AND DATA COLLECTION:

MoDOT works with the Economic Development Research Group to perform economic impact analyses for the state's transportation investments. The analyses are performed using a model called the Transportation Economic Development Impact System. The TREDIS model results demonstrate a strong link between transportation investment and economic development.

ADVANCE ECONOMIC DEVELOPMENT

Economic return from transportation investment – 7a

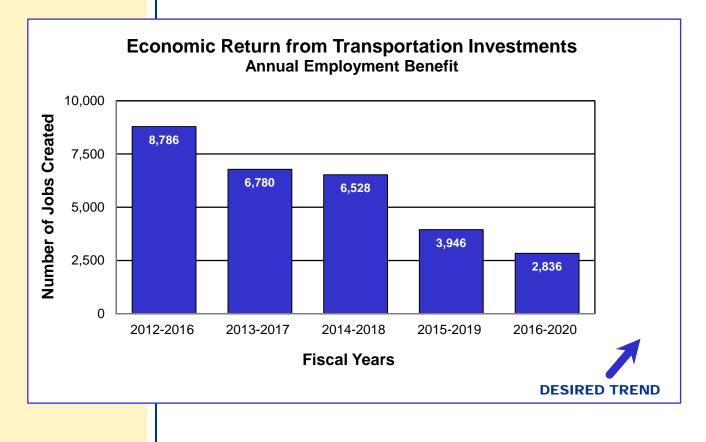
Investment in transportation improvements have long been held as a major economic engine that drives growth in job creation, personal income and new value added to Missouri's economy. However, diminishing transportation funding and rising costs have caused the levels of economic return to decrease.

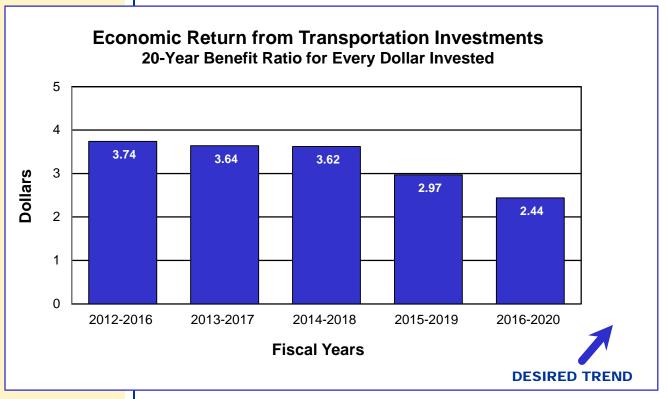
Based on MoDOT's 2016-2020 Statewide Transportation Improvement Program investment of \$3 billion, the program is estimated to create 2,836 jobs. Transportation investments are expected to contribute \$7.2 billion of economic output during the next 20 years, resulting in a \$2.44 return on every \$1 invested in transportation.

The economic return decreased compared to the previous analysis because of decreasing construction investments for highway and bridge improvements and updating the transit methodology. The figures tell a powerful story of economic success, but are also a sign of missed opportunity. When compared to the previous year's STIP (2015-2019), the number of estimated jobs created decreased 28 percent.

The levels of economic return continue to decline as transportation funding gradually drops and costs increase.







Missouri Department of Transportation 7a2

Machelle Watkins Transportation Planning Director

MEASUREMENT DRIVER:

Ben Reeser Long-Range Transportation Planning Coordinator

PURPOSE OF THE MEASURE:

This measure analyzes the strength of Missouri's transportation infrastructure for conducting business.

MEASUREMENT AND DATA COLLECTION:

Data for this measure is obtained from an annual study conducted by the Consumer News and Business Channel. The study scores all 50 states on more than 60 measures of competitiveness developed collaboratively with business groups including the National Association of Manufacturers and the Council on Competitiveness, as well as the states themselves. Metrics are separated into 10 weighted categories, including infrastructure. The infrastructure category receives the second highest weight and measures the following for each state:

- Value of goods shipped by air, waterways, roads and rail (2013 based on quantity of goods shipped, not value)
- Availability of air travel
- Quality of roads and bridges
- Time it takes to commute to work (added in 2012)
- Supply of safe drinking water (added in 2013).

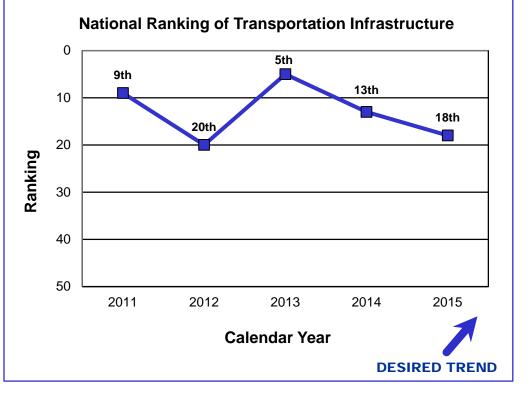
ADVANCE ECONOMIC DEVELOPMENT

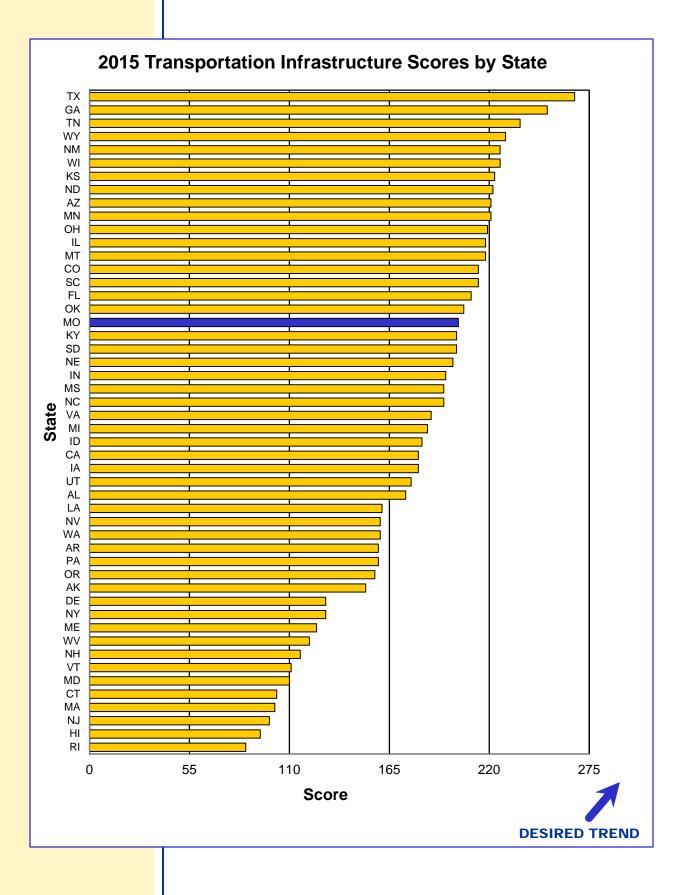
National ranking of transportation infrastructure - 7b

Transportation infrastructure leads to the attraction of new businesses and of employers looking to expand. These actions lead to new jobs, new opportunities and new revenue for states. A robust transportation infrastructure allows manufacturers to distribute their products quickly and inexpensively and allows citizens to get to work and to conduct business efficiently.

Prior to 2012, Missouri's national rank in transportation infrastructure was in the top nine. In 2012, Missouri decreased to 20th in the national rankings as the measure added time it takes to commute to work. The ranking improved in 2013 as the measure changed to quantity of goods shipped instead of value. Missouri's ranking declined beginning in 2014 as the measure changed back to value of goods shipped instead of quantity.

Missouri's current national ranking has declined to 18th and will be challenging to maintain as the state's annual transportation infrastructure funding decreased from \$1.2 billion to \$700 million beginning in 2011.





Machelle Watkins Transportation Planning Director

MEASUREMENT DRIVER:

Tona Bowen Financial Services Administrator

PURPOSE OF THE MEASURE:

This measure reports how Missouri's state highway system funding situation compares to that of other states.

MEASUREMENT AND DATA COLLECTION:

The state revenue and highway mileage counts used in this measure are gathered from Federal Highway Administration annual reports. The information is updated as the data becomes available from FHWA. The bridge count information was received from Better Roads magazine.

ADVANCE ECONOMIC DEVELOPMENT

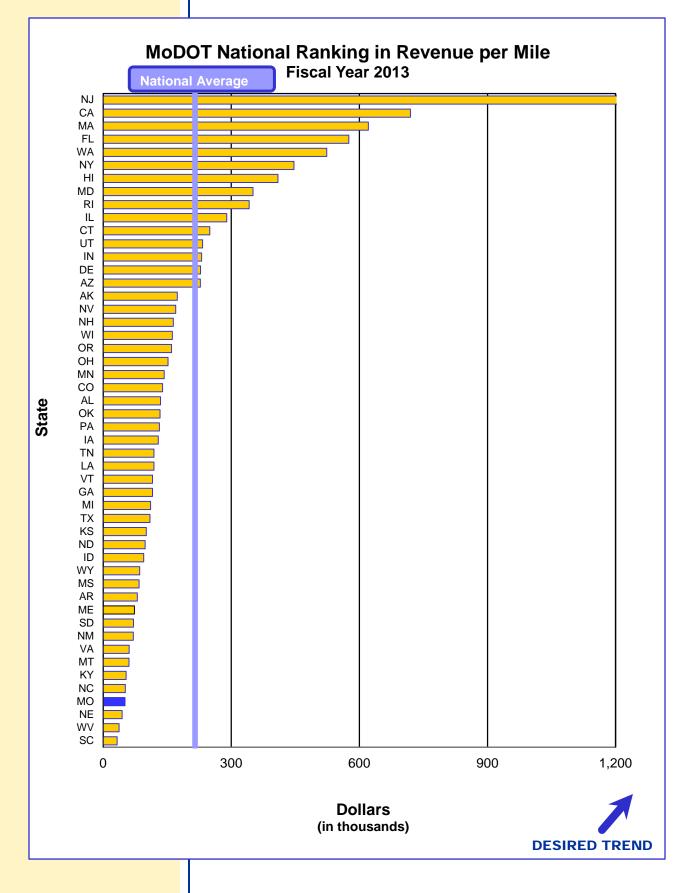
National ranking in revenue per mile – 7c

MoDOT stretches transportation revenue as far as it can in order to put as much as possible into roads and bridges. The cost to build and maintain roads and bridges increased sharply during the past 10 years due to inflation. In contrast, revenues from fuel taxes decreased as vehicles became more fuel efficient and people drove less while fuel prices were high.

In fiscal year 2013, the national average for revenue per mile was \$215,107. Missouri's revenue per mile of \$51,203 currently ranks 47th in the nation. Missouri's ranking has continually declined since fiscal year 2011 when Missouri was ranked 40th.

Missouri's state highway system, consisting of 33,891 miles, is the seventh largest system in the nation. In addition, Missouri ranks sixth nationally in number of bridges with 10,376 bridges. New Jersey's revenue per mile of \$1,677,141 ranks first. However, its state highway system includes only 2,341 miles and 2,426 bridges.





Machelle Watkins Transportation Planning Director

MEASUREMENT DRIVER:

Cheryl Ball Administrator of Freight and Waterways

PURPOSE OF THE MEASURE:

This measure tracks the estimated cost of transporting representative Missouri products from key economic industries (chemical manufacturing, transportation equipment and agriculture) to top destinations as compared to shipping the same products from competitor states. The relative costs for these illustrative products serve as a proxy for Missouri's competitiveness on transport costs as a whole.

MEASUREMENT AND DATA COLLECTION:

Transearch 2011 freight data was used to identify products representative of Missouri's economic drivers, as well as the top origins, destinations and modes of transport. Estimates of the transport costs are calculated using different external sources for the modes: (1) The 2014 American Transportation Research Institute report, An Analysis of the Operational Costs of Trucking, (2) AAA's diesel on-highway price data, (3) the Bureau of Labor Statistics wage data, (4) the Surface Transportation Board's Uniform Railroad Costing System, and (5) the USDA's Average Weekly River Barge Rates.

ADVANCE ECONOMIC DEVELOPMENT

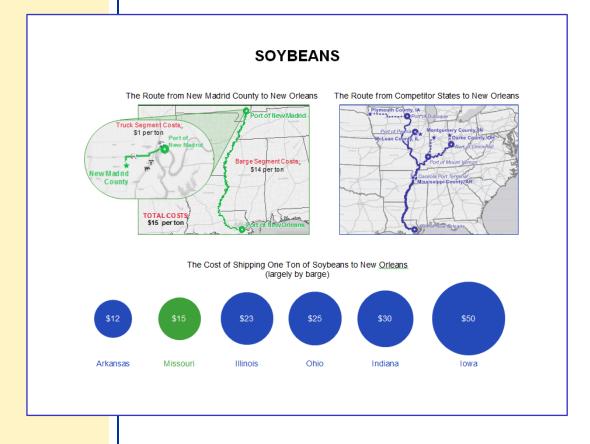
Goods movement competitiveness - 7d

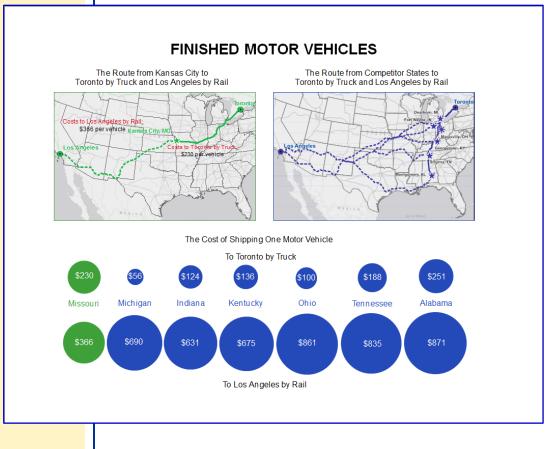
Product transportation costs vary depending on the efficiency, reliability, safety and modal options in a state's transportation system. Accumulation of the cost to transport in each step in the supply chain starting at product origination, travel to the production facility, and finally to market directly impacts the final cost and how competitive the product is in the global market. Transportation costs account for 9 - 14 percent of a product's market price. Therefore, maintaining low transportation costs is critical to retain and expand current businesses in Missouri and attracting new businesses to create new employment.

The three key Missouri products (soybeans, finished motor vehicles and chemical manufacturing) analyzed on the accompanying graphs combined account for more than \$8 billion in revenue annually while employing more than 300,000 Missouri workers. Missouri producers of these products compete with other states and other countries for customers. The graphs compare Missouri transportation costs to those of the closest domestic competitors. At this time, Missouri's transportation cost is among the lowest of these competitors. Maintaining low transportation costs is critical for Missouri's continued success in all markets.

Deterioration of any of the factors influencing transportation cost not only impacts the competitiveness of Missouri products in external markets, it also influences the cost to bring products into Missouri, which controls the prices at local stores.

MoDOT plays an active role in keeping costs low by working with existing businesses to identify transportation barriers that reduce their competitiveness regardless of transportation mode. These barriers can include bridges with load postings, closed bridges, rough pavement, at-grade rail crossings, congestion, and inability to access a port or airport. MoDOT continually aims to find solutions for these barriers, but Missouri's transportation funding limits the agency's ability to fully respond to those needs.





Missouri Department of Transportation 7d2

CROP PROTECTION PRODUCTS (CHEMICALS)





Mide

Machelle Watkins Transportation Planning Director

MEASUREMENT DRIVER:

Bryan Ross Senior Multimodal Operations Specialist

PURPOSE OF THE MEASURE:

This measure tracks the amount of freight moved by Missouri's largest transportation modes.

MEASUREMENT AND DATA COLLECTION:

Twice a year, a freight tonnage estimator is used to calculate the amount of freight moved by railroads and highways. The estimator provides timely information for Missouri's primary freight movers. Freight data for aviation and waterways is a combination of direct surveys and trend analysis. This measure's data is estimated yet provides an indication of current trends and movements.

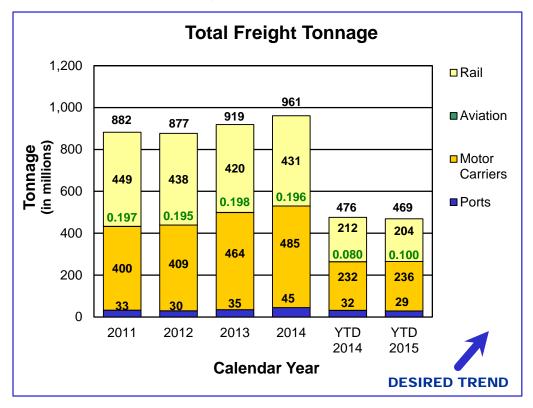
ADVANCE ECONOMIC DEVELOPMENT

Freight tonnage by mode – 7e

Everything comes from somewhere. How it gets from place to place depends on a number of factors. These modes experience volume shifts from year to year, often based on the health of the national economy and shifts in consumer preferences. A key element to a healthy economy is a robust transportation system.

Unfortunately, transportation funding is decreasing, making it difficult to maintain highways and bridges in their current condition. State funding cannot address transportation needs other than highways and bridges. Moving 961 million tons of freight a year requires thoughtful improvements of transportation facilities such as ports, railroads and airports, yet many of these needs remain underfunded.

During the first half of 2015, Missouri experienced a slight decrease in movements as compared to the same period last year. Railroad tonnage was down slightly due to lower shipments in crude oil and intermodal shipments. Motor carriers hauled the most tonnage, which can be attributed to continued increases in durable good shipments. Durable goods, such as appliances and furniture, tend to move by truck. Aviation maintained tonnage similar to previous levels. Public ports experienced decreased tonnage, which is attributed to fewer crude oil shipments.



Missouri Department of Transportation 7e

Machelle Watkins Transportation Planning Director

MEASUREMENT DRIVER:

Aaron Hubbard Motor Carrier Services Project Manager

PURPOSE OF THE MEASURE:

This measure is proposed to be used as a Moving Ahead for Progress in the 21st Century Act national freight performance measure.

MEASUREMENT AND DATA COLLECTION:

Annual hours of truck delay quantifies the extra time spent by commercial motor vehicles on an interstate corridor based upon a state-determined threshold. Missouri's threshold is set at 55 mph in St. Louis and Kansas City. All other rural areas have a threshold of 65 mph. Speeds below that rate indicate congestion and/or other delay factors for trucks. Missouri chose this threshold because many commercial trucks are governed at 65 mph even though the posted speed limit for most interstate highways is 70 mph. Commercial vehicle delay on the interstate system may be caused by congestion due to factors such as traffic, severe weather, safety inspections or roadway geometrics. AHTD is composed of vehicle miles traveled by trucks, speed of travel and the desired speed of travel.

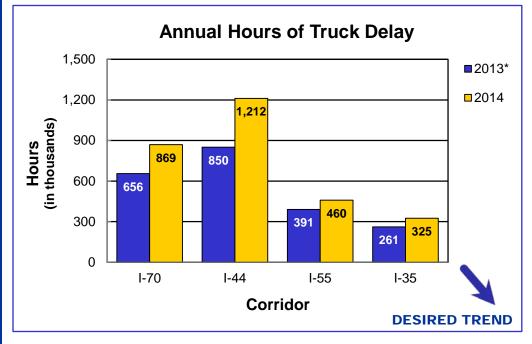
ADVANCE ECONOMIC DEVELOPMENT

Annual hours of truck delay – 7f

Time is money. Delay impacts the cost of goods and reduces an organization's ability to compete on a global basis. American businesses require more operators and equipment to deliver goods when delays lengthen shipping time. Businesses must hold more inventory in more distribution centers to deliver products quickly when lengthier trips are unreliable and slow. Slow traffic also affects the local economy by reducing the number of workers and job sites within easy reach of a location.

Growth in freight volumes is a major contributor to congestion in urban areas and on intercity routes. Long-distance freight movements are often a significant contributor to local congestion, and local congestion typically impedes freight to the detriment of local and distant economic activity. Unfortunately, Missouri's construction budget is falling to a point that will make it very difficult for MoDOT to address congestion factors in the future. In fiscal year 2017, MoDOT's construction budget will be its lowest since 1997, making it difficult just to maintain the transportation system in today's condition.

On average, those shipping by truck can expect a delay of 25.7 minutes per trip on I-70, 21.5 minutes on I-44, 11.9 minutes on I-55 and 8.9 minutes on I-35. The annual cost of delay for the trucking industry on I-70 is \$56.7 million, \$79.1 million on I-44, \$30.0 million on I-55, and \$21.2 million on I-35.



*2013 data only contains July through December.

Machelle Watkins Transportation Planning Director

MEASUREMENT DRIVER:

Chuck Gohring Motor Carrier Services Assistant Director

PURPOSE OF THE MEASURE:

This reliability measure is proposed to be used as a Moving Ahead for Progress in the 21st Century national freight performance measure. By annually comparing the reliability index number for each corridor, MoDOT can determine if the corridor has become less or more reliable. A lower index for a succeeding year means reliability has improved.

MEASUREMENT AND DATA COLLECTION:

This measure uses the Truck Reliability Index, a ratio of the total truck travel time needed to ensure on-time arrival four out of five times to the agencydetermined threshold speed of 55 mph in St. Louis and Kansas City, and 65 mph in all other rural areas. The ratio is used to gauge consistency in truck freight travel times. Further guidance about data requirements and measure methodology will be forthcoming from the Federal Highway Administration.

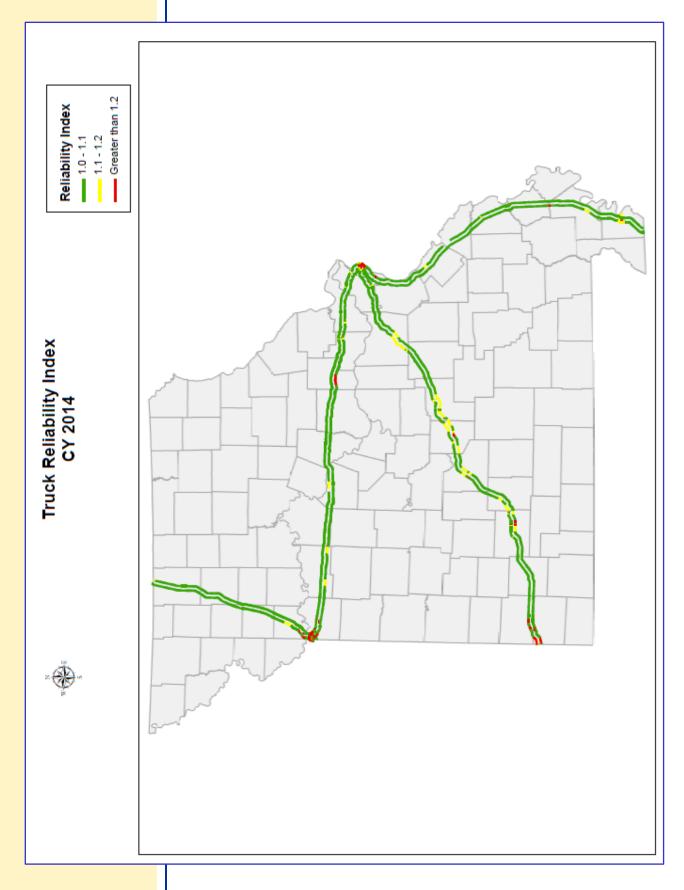
ADVANCE ECONOMIC DEVELOPMENT

Truck reliability index – 7g

The reliable movement of goods by truck is critical to Missouri's economy. Travel time reliability is the variation of travel time for the same trip from day to day. When the variability is large, the travel time is unreliable; and, vice versa, when there is little to no variability, the travel time is reliable. Variable or unpredictable travel times make it more difficult for motor carriers and shippers to plan their travel, often forcing them to add extra time to protect themselves against the uncertainty of arrival times. This uncertainty can lead to unproductive travel decisions that waste time and money. The map includes four freight-significant corridors: I-70, I-44, I-55 and I-35. The color green indicates the most reliable travel times; yellow slightly less reliable; and red the least reliable of travel times.

MoDOT continually seeks ways to deliver the infrastructure to support reliable trips for drivers and to help keep costs down. Many new strategies and technologies for operating highway systems are emerging that can help improve travel-time reliability.





Machelle Watkins Transportation Planning Director

MEASUREMENT DRIVER:

Doug Hood Financial Services Administrator

PURPOSE OF THE MEASURE:

This measure tracks the number of jobs created through MoDOT's economic development program.

MEASUREMENT AND DATA COLLECTION:

Data for this measure is collected from a partnership development database. This measure is based on the state fiscal year – July 1 to June 30.

ADVANCE ECONOMIC DEVELOPMENT

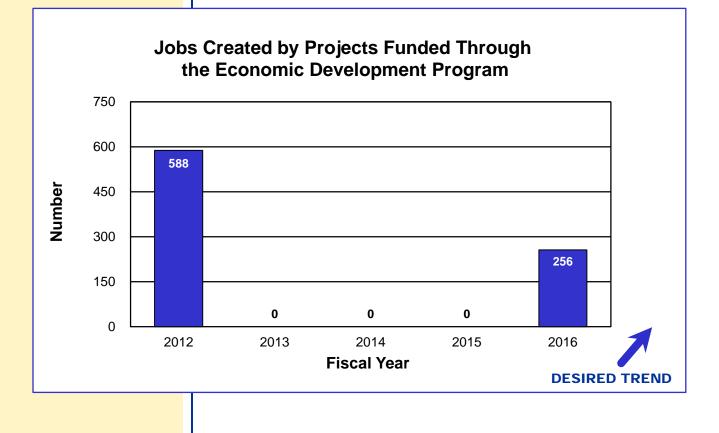
Jobs created by projects funded through the economic development program – 7h

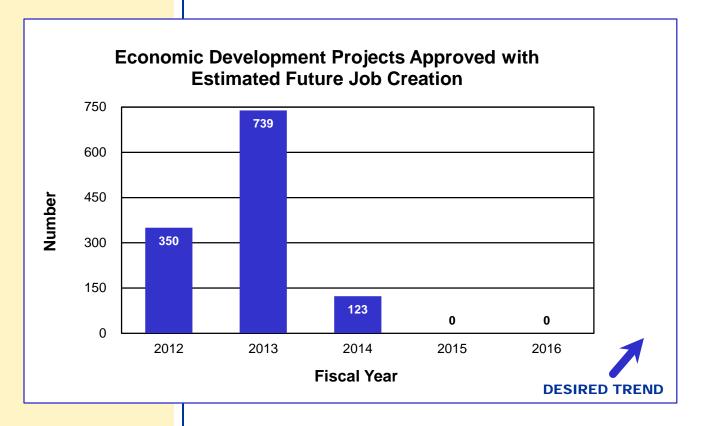
The Cost Share/Economic Development Program builds partnerships with local entities to pool efforts and limited resources in order to deliver state highway and bridge projects. In the past, MoDOT allocated \$45 million of Cost Share/Economic Development funds annually based on the funding distribution formula set by the Missouri Highways and Transportation Commission. Each year, a minimum of \$5 million were set aside for projects that demonstrated economic development through job creation. MoDOT contributed up to 100 percent of the total cost for projects on the state highway system if the Missouri Department of Economic Development verified that the project created jobs. Retail development projects were not eligible.

In light of a plummeting 2016-2020 construction program, the Missouri Highways and Transportation Commission suspended the Cost Share/Economic Development Program on Jan. 8, 2014. Projects already reviewed and approved by the cost share committee are eligible to move forward. However, no additional projects will be considered for funding.

In fiscal year 2016, Ford Motor Company created 256 verified new jobs in conjunction with interchange improvements at Interstate 35 and U.S. Route 69 in Clay County.







Machelle Watkins Transportation Planning Director

MEASUREMENT DRIVER:

Ida Mitchell Senior Human Resources Specialist

PURPOSE OF THE MEASURE:

This measure tracks minority and female employment in MoDOT's workforce and compares it with availability data from the Missouri 2010 Census report.

MEASUREMENT AND DATA COLLECTION:

The SAM II database is used to collect data. The Missouri 2010 Census data is used as the benchmark for this measurement. This measure is based on the state fiscal year – July 1 to June 30.

ADVANCE ECONOMIC DEVELOPMENT

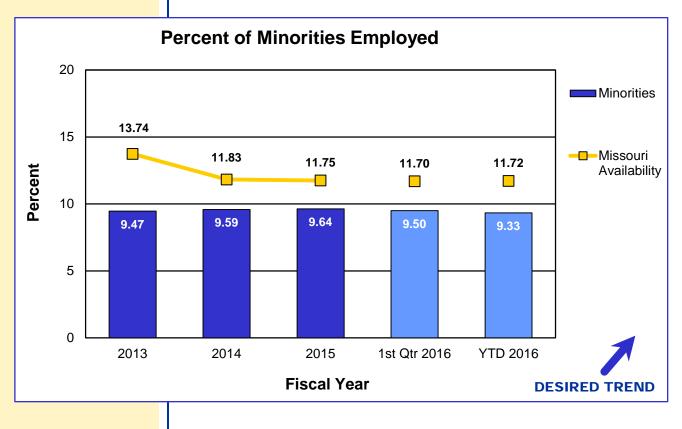
Percent of minorities and females employed – 7i

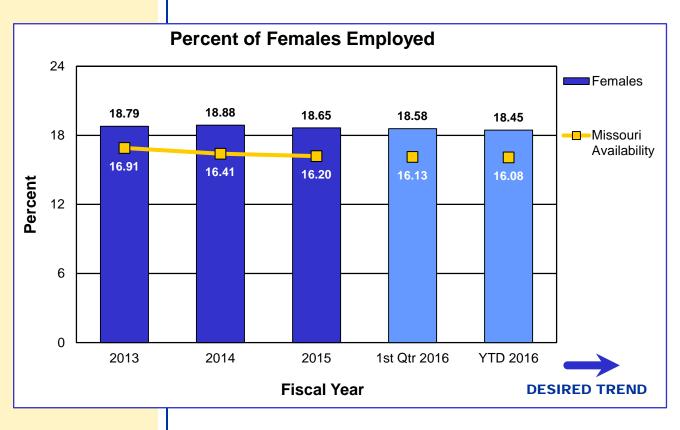
By placing the right people in the right position, MoDOT can better serve its customers and help fulfill its responsibilities to taxpayers.

The number of minority employees decreased by 1.9 percent (475 to 466) from the first quarter of fiscal year 2016 to the second quarter of FY 2016. The number of female employees increased by 4.7 percent from first quarter of FY 2016 to second quarter of FY 2016 (881 to 922). When compared to overall employment, the percent of females decreased (18.58 to 18.45) but is still above Missouri availability of 16.08 percent. The percent of minorities also decreased (9.50 to 9.33) but is below Missouri availability of 11.72 percent. Total full-time employment during this quarter decreased from 5,000 to 4,997.

During the second quarter of FY 2016, MoDOT has been developing new relationships with organization and universities that are geared toward minorities and females. MoDOT has been working with Lincoln University to expand a partnership to include employment preparedness training opportunities. These good faith efforts will aid in increasing an applicant pool of qualified minorities and females.







Machelle Watkins Transportation Planning Director

MEASUREMENT DRIVER:

Lester Woods, Jr. External Civil Rights Director

PURPOSE OF THE MEASURE:

This measure tracks the percent of Disadvantaged Business Enterprise use on construction and engineering projects.

MEASUREMENT AND DATA COLLECTION:

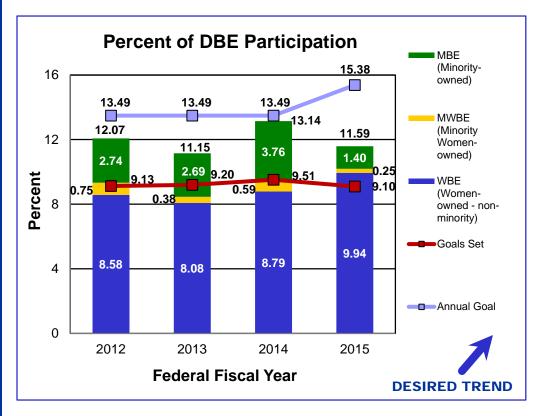
Data is collected through Site Manager for each construction project. The overall DBE goal is a yearly target established by MoDOT and the Federal Highway Administration regarding the expected total DBE participation on all federally-funded construction projects. Individual DBE project goals are determined by subcontract opportunity, project location and available DBE firms that can perform the scope of work. DBE utilization is tracked for each construction project identifying the prime contractor, contract amount, the established goal and how the prime contractor fulfilled the goal. This measure is based on the federal fiscal year, which is October 1 through September 30. Collection of data of the DBE classifications began in FFY 2012.

ADVANCE ECONOMIC DEVELOPMENT

Percent of disadvantaged business enterprise participation on construction and engineering projects – 7j

MoDOT believes it is good business to support diversity among its contractors, subcontractors and suppliers. Contractors, subcontractors and suppliers working on construction projects that receive federal aid or federal financial participation are required to take reasonable steps to ensure DBEs have an opportunity to compete for and participate in project contracts and subcontracts.

The overall DBE goal for federal fiscal year 2015 is 15.38%. The DBE participation for FFY 2015 is 11.59%. This is a 1.55% decrease from FFY 2014. Of the 11.59% utilization, 1.40% is participation from minority-owned DBE firms, 0.25% is participation from minority women-owned DBE firms and 9.94% is participation from women-owned DBE firms. The collective goals set for projects closed during this period amounted to 9.10%.



Machelle Watkins Transportation Planning Director

MEASUREMENT DRIVER:

Rebecca Jackson General Services Manager

PURPOSE OF THE MEASURE:

This measure tracks the department's non-program spending with certified minority, women, and disadvantaged business enterprises (MWDBE).

MEASUREMENT AND DATA COLLECTION:

Data is obtained from the statewide financial accounting system expenditure reports and United Missouri Bank purchasing card reports. Certified vendors are maintained in a statewide procurement vendor database. Vendors may be certified through the Office of Administration as well as the **Missouri Regional Certification** Committee. Included in these expenditures are items such as materials, equipment, tools and supplies. Program spending, including construction, design consultants, local agencies, highway safety and multimodal programs and exempted activities such as utilities, postage, organizational memberships, conferences and travel are excluded from total dollars spent.

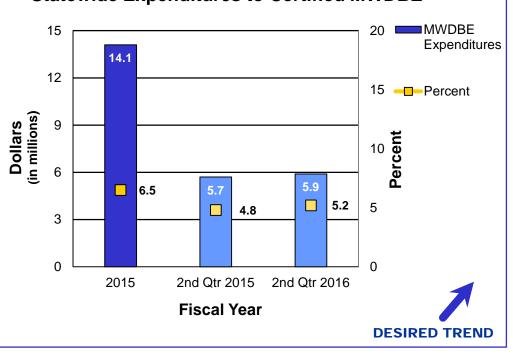
ADVANCE ECONOMIC DEVELOPMENT

Expenditures made to certified minority, women and disadvantaged business enterprises – 7k

Ensuring MoDOT spending is representative of Missouri communities advances economic development for all business enterprises. Historical data helps identify opportunities for improvement. Improvement efforts include training staff who have procurement authority, outreach to MWDBE vendors to encourage them to become certified and focused inclusion efforts.

Fiscal year 2016 second quarter results show an increase of \$200,000 in MWDBE disbursements compared to second quarter FY 2015 results. Compared to second quarter FY 2015, the FY 2016 percentage of MWDBE expenditures spent increased by 0.4 percent.

This measure will continue to track the department's efforts to ensure the vendor pool is representative of the business community as a whole.



Statewide Expenditures to Certified MWDBE