

# Tracker

## **MEASURES OF DEPARTMENTAL PERFORMANCE**



**DOT** Missouri Department of Transportation



Dave Nichols MoDOT Director

#### **Mission**

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

## **Greetings from MoDOT**

For more than two years now, we have enjoyed a robust discussion with our customers about the importance of transportation in Missouri. And we've seen our customer satisfaction numbers climb to 85 percent – exceptionally high marks for any company but unheard of for a government agency. A big reason is MoDOT's commitment to full transparency and accountability in its business of preserving, managing and developing our transportation system.

It's our belief that you have a right to see how we are performing and we want you to know what we are doing well and where we need to improve. Now in its ninth year, the Tracker has been one way that Missourians can hold us accountable for delivering the most efficient and practical transportation services possible.

Missouri depends on a safe and reliable transportation system for the commerce and mobility to support economic stability and job

growth. You have high expectations of us and we want to exceed those expectations. You expect us to keep the good roads maintained and safe and to fix bad roads and bridges. Most importantly, you expect us to get the absolute best value out of every tax dollar we spend. We share your expectations.

We have taken extreme measures to squeeze every dollar we can out of our operating costs to put every possible dollar back on to our system of roads and bridges. The Bolder Five-Year Direction, practical design, practical operations and a commitment to radical cost control are all examples.

But that won't be enough going forward as our construction budget continues to fall. We can't cut our way to a solution for this funding problem. The fuel tax method of funding transportation has become a diminishing revenue stream as vehicles become more and more fuel efficient. Missourians need to decide what kind of transportation system they want and how they are willing to pay for it.

We have built the Tracker around seven Tangible Results. These results are outcomes that you expect to see and they guide us in making decisions every day. The performance measures in the Tracker are designed to help us focus on the progress we are making to achieve these results.

The Tracker is published quarterly to ensure accountability and to allow you to see how we are measuring up. It is available in a printed format and on our website at www.modot.org. We encourage you to look it over and let us know how we are doing.

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## 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.

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## **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:

Leanna Depue, Highway Safety Director

### PURPOSE OF THE MEASURE:

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

#### MEASUREMENT AND DATA COLLECTION:

Missouri law enforcement agencies submit a vehicle accident report form to the Missouri State Highway Patrol who enters these reports into a statewide traffic crash database. The database automatically updates MoDOT's crash database system which is called the Transportation Management System.

## KEEP CUSTOMERS AND OURSELVES SAFE



Keeping travelers safe is one of MoDOT's highest priorities. Over the last few years, fatalities and serious injuries have experienced a significant decline, largely due to safety improvements on Missouri roadways, focused enforcement efforts and educational campaigns that have kept these issues in front of motorists. When compared to the previous year, the 2012 traffic fatality count rose by 5 percent to a total of 826. However, the fiveyear average continued on a downward trend.

Both the number and fiveyear average of serious injuries decreased for the seventh straight year. The fatality rate increased slightly but the serious injury rate decreased in 2012. Preliminary fourth quarter 2013 data show a 10 percent decrease in fatalities when compared to 2012.

As funding levels decline, additional fatality reductions may be hampered as these funding restrictions delay or deter safety countermeasure implementation.





**MAP-21** 

## KEEP CUSTOMERS AND OURSELVES SAFE



TMS with fourth quarter fatalities gathered using MSHP radio reports.



## KEEP CUSTOMERS AND OURSELVES SAFE



\*2013 - Due to a backlog of crash reports into STARS, the serious injury measure will only illustrate data derived from TMS. Fourth quarter 2013 data is unavailable through the MSHP radio reports.



Eileen Rackers, State Traffic and Highway Safety Engineer

#### MEASUREMENT DRIVER:

Leanna Depue, Highway Safety Director

## PURPOSE OF THE MEASURE:

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

#### MEASUREMENT AND DATA COLLECTION:

Data is collected by law enforcement and entered into the State Traffic Accident Record System managed by the Missouri State Highway Patrol. The record system automatically updates MoDOT's Traffic Management System.

## KEEP CUSTOMERS AND OURSELVES SAFE

## Number of vulnerable roadway user fatalities and serious injuries-1b

In 2012, vulnerable roadway users were 23 percent of the total number of fatalities. Pedestrian fatalities increased steadily since 2010 resulting in a 34 percent increase. Motorcycle fatalities represent 12 percent of the overall number, and the 102 fatalities in 2012 was the largest number of deaths since 2008 when 107 were recorded. Preliminary 2013 data for the first three quarters show a more positive trend with a 31 percent decrease in motorcycle and 23 percent decrease in pedestrian fatalities when compared to the same time period in 2012. Early indications also reflect a decline in serious injuries for both motorcyclists and pedestrians. However, as future funding levels diminish, significant improvements to increase safety will not be possible.



## KEEP CUSTOMERS AND OURSELVES SAFE



\*YTD 2013 – Due to a backlog of crash reports into STARS, the fatality measures will only illustrate the first, second and third quarter data derived from TMS.



\*YTD 2013 – Due to a backlog of crash reports into STARS, the serious injury measures will only illustrate the first, second and third quarter data derived from TMS.

Eileen Rackers, State Traffic and Highway Safety Engineer

### MEASUREMENT DRIVER:

Mike Curtit, Traffic Liaison Engineer

## PURPOSE OF THE MEASURE:

This measure tracks annual trends in motor vehicle related fatal and serious injuries resulting from some of 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 crash report form to the Missouri State Highway Patrol and enter these reports into a statewide traffic crash database. 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. Since 2010, the fatalities trend has been virtually flat for all measures. The safety improvements that were included in the Smooth Roads Initiative and Better Roads, Brighter Future programs began the downward trends in fatalities and serious injuries. With both of these programs complete and without additional resources to invest in additional system-wide safety measures, the downward trends for each of these causes will be difficult to maintain. Significant improvements to increase safety will not be possible with diminishing funding levels predicted in the next few years. The primary current initiatives include adding shoulders and rumble strips to minor roads and striping all major roads prior to Memorial Day. 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:

An important factor in evaluating the safety of Missouri's transportation system includes the safety of work zones on the state's roadway system. 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 and enter these reports into a statewide traffic crash database. MoDOT staff query and analyze this data to identify work zone related crash statistics.

## 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. For calendar year 2013, work zone crashes are down 35 percent and injuries by about 50 percent. However, fatalities have increased from the previous year. Eight people have died in Missouri work zones. Fifty percent of those deaths were not wearing safety belts.



\*2013 – Due to a backlog of crash reports into STARS, the fatality, serious, minor injury and work zone crash measures for the first, second and third quarters of 2013 will only illustrate data derived from TMS. Fourth quarter 2013 data is unavailable through the MSHP radio reports.

## KEEP CUSTOMERS AND OURSELVES SAFE







\*2013 – Due to a backlog of crash reports into STARS, the fatality, serious, minor injury and work zone crash measures for the first, second and third quarters of 2013 will only illustrate data derived from TMS. Fourth quarter 2013 data is unavailable through the MSHP radio reports.

Eileen Rackers, State Traffic and Highway Safety Engineer

#### MEASUREMENT DRIVER:

Bill Whitfield, Highway Safety Program Administrator

#### PURPOSE OF THE MEASURE:

This measure tracks annual trends in safety belt use in passenger vehicles. This data drives the development and focus of the Missouri Highway Safety Plan, which is required annually by the National Highway Traffic Safety Administration. In addition, this data supports Missouri's Blueprint to Save More Lives that identifies the statewide initiatives with a goal of reducing fatalities to 700 or fewer by 2016.

#### MEASUREMENT AND DATA COLLECTION:

Each June, a statewide survey is conducted at 460 pre-selected locations in 20 counties. The data collected is calculated into a safety belt usage rate using a formula approved by the National Highway Traffic Safety Administration. The safety belt usage survey collects data from locations representing 85 percent of the state's population. The data collection plan is the same each year for consistency and compliance with National Highway Traffic Safety Administration guidelines.

## KEEP CUSTOMERS AND OURSELVES SAFE

## Percent of safety belt/passenger vehicle restraint use-1e

Safety 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 by supporting grass-roots efforts that enact primary ordinances within city limits.

Safety belt use in Missouri remained at 79 percent in 2012. The national average for safety belt use in 2012 was 86 percent. Missouri's national ranking rose to 43.

Despite Missouri's consistent safety belt use, the number of states that have a primary seat belt law continues to increase, resulting in a higher rate of use for those states with a primary law. States that have a secondary law continue to fall down the list in the national rankings, overtaken by those with a primary law. As future funding levels diminish, the safety belt education campaigns will be limited, which will affect the ability to increase safety belt usage.



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 each year. MoDOT uses the information to target educational, enforcement and improvement of safety feature efforts.

#### MEASUREMENT AND DATA COLLECTION:

Missouri law enforcement agencies submit a vehicle accident report form to the Missouri State Highway Patrol and enter these reports into a statewide traffic crash database. The measure reports the number of CMVs involved in crashes in which one or more people are seriously injured and those in which one or more people 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 our economy. They transport the goods and materials that keep the nation moving. Partnering with the Missouri State Highway Patrol, MoDOT does everything in its power with reduced resources to keep CMV drivers safe and their vehicles on the road. By tracking the number of CMV crashes resulting in fatalities and serious injuries, the department can not only target educational and enforcement efforts, but 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. The number of fatal crashes reported through the third quarter of 2013 is 59. Even with reduced resources, this is 18 fewer than reported for this same period in 2012, a 23.4 percent decrease. Between 2009 and 2012, fatal crashes involving a CMV increased by 15.6 percent.

The number of serious injury crashes reported through the third quarter of 2013 is 199. This number is 24 fewer than reported for this same period in 2012, a decrease of 10.8 percent. Between 2009 and 2012, CMV serious injury crashes decreased by 22.8 percent. However, as we move forward with diminished funding, our ability to make significant improvements to increase safety may not be possible.



## KEEP CUSTOMERS AND OURSELVES SAFE





\*YTD 2013 - Due to a backlog of crash reports into STARS, the fatality and serious injury measures for the third quarter of 2013 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 work-related injuries.

#### MEASUREMENT AND DATA COLLECTION:

The data 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. Watching this number fall over the years shows us that something is going right. Through 2013, the total number of lost workdays has dropped nearly 45 percent from 2012. Two motor vehicle incidents caused by a third party accounted for 31 percent of the lost workdays. These occurred in the Southeast district. The Kansas City, St. Louis and Southeast districts each incurred an injury in which the employee was struck by MoDOT equipment or materials. These accounted for 17 percent of the lost workdays. There were three incidents involving the movement of MoDOT equipment or materials in the Central and Southeast districts. They accounted for 16 percent of the lost workdays. Another nine percent of the lost workdays were attributable to two incidents involving an employee exiting MoDOT equipment. These occurred in the Northeast and Southeast districts.

Employees are paying attention. They are wearing proper safety gear and taking proper precautions before engaging in a safety-sensitive task. The drop in this number is more than a statistic. It means more people are going home safe.



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 recordable 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

No priority stands higher than safety. Getting home safe is a responsibility every individual employee shares. MoDOT's dedication to employee safety is evident in the continued decline of recordable incidents. To reinforce this value, the "Safety Begins with Me" program was launched in 2013 to remind all employees that safety is a personal responsibility. The number and rate of recordable incidents showed a slight increase over last year's totals. Leading causes of incidents during this calendar year-to-date are: strains (lifting or twisting) at 21 percent; slips, trips and falls at 19 percent; and struck or injured at 10 percent.





\*Texas DOT and Private Industry Construction category data, from the OSHA website, is not yet available for 2013.

Eileen Rackers, State Traffic and Highway Safety Engineer

#### MEASUREMENT DRIVER:

Ashley Halford, Claims Administration Manager

#### PURPOSE OF THE MEASURE:

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

#### MEASUREMENT AND DATA COLLECTION:

General liability claims arise from allegations of injuries/damages caused by the dangerous condition of MoDOT property and the injury/damage 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, right of way and other areas under department control helps MoDOT accomplish this goal. Compared to 2012, there was an increase of 22 percent in the number of claims, which was attributed to payments made for damage caused by chip seal operations, paint claims from striping operations and pavement defects (pot holes). During the same time frame, there was a decrease of 2 percent in the amount paid. This quarter, payment was made on 113 claims against the department totaling \$2,293,728. Five claims account for 86 percent, or \$1,966,548 of the payments.





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## 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 more than 33,000 miles of highway and more than 10,000 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.

#### 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 about 5,500 miles total 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 state's, MoDOT uses Georgia as a comparable system, since it has a similar amount of major highways and 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

**MAP-21** 

In 2004, MoDOT started a major road improvement program called the Smooth Roads Initiative. The program improved 2,200 miles of Missouri's major routes, bringing them from 47 percent to 74 percent in good condition. Another program in 2007 brought 85 percent of Missouri's major routes to good condition.

Currently more than 88 percent of major highways are rated in good condition. However, with construction program funds dropping from over \$700 million per year to just over \$300 million per year beginning in 2017, there will be a significant impact on our ability to maintain this condition level.



## KEEP ROADS AND BRIDGES IN GOOD CONDITION





\*Source data for Georgia comes from FHWA highway statistics. Data for 2012 is not available at the time of publication. Georgia data is based only on pavement smoothness (IRI) submitted as part of the Highway Performance Monitoring System.

#### 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. They include most lettered routes. There are approximately 28,200 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 state's, MoDOT uses Georgia as a comparable system since 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

In 2004, MoDOT began an initiative that focused on improving major highways. As a result, less time and funding were spent on minor roads and the percentage of minor roads in good condition fell from 71 percent in 2005 to 60 percent in 2009. After MoDOT made headway improving major highways, it targeted its focus on minor routes and brought 71 percent back to good condition.

Currently, 69 percent of Missouri's minor roads are in good condition, which is a slight decrease from 2011. With construction program funds dropping from over \$700 million per year to slightly above \$300 million per year beginning in 2017, the expectation is that the condition of the minor roads will continue to decline.





\*Source data for Georgia comes from FHWA highway statistics. Data for 2010 is not available at the time of publication. Data is based on a combination of pavement smoothness as submitted as part of the Highway Performance Monitoring System.

**RESULT DRIVER:** Dennis Heckman, State Bridge Engineer

#### MEASUREMENT DRIVER:

David Koenig, Structural Services 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 10,364 bridges on state highways, 211 are major.

Bridges are categorized as being in good, fair or poor condition. Good means no significant condition-related problems exist. Fair indicates moderate problems that may require minor rehabilitation or maintenance to return the structure to good condition.

## 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, 2,081 (54 major) structures are in poor condition, 4,517 (99 major) structures are in fair condition and 3,766 (58 major) structures are in good condition.

Statewide, the number of structures in poor condition has dramatically decreased over the last five years and the number of structures in good condition has moderately improved. These improvements were heavily impacted by the Safe & Sound Bridge Improvement Program that was completed in 2012, but were also impacted by the increased construction program that resulted from the passage of Amendment 3. It should be noted that while our poor-condition bridges dropped by about 800 over this five-year period, the number in good condition only increased by 400. The number in fair condition increased by about 500 over this period, which is reflective of our aging bridge population with many structures at the point where they need minor maintenance or rehabilitation. With the decrease in funds available for our construction program in the future, continued improvements in the number of structures in poor condition is unlikely.

For major bridges, the number of structures in the poor category has been dropping over the last five years because of an aggressive focus on these structures in the STIP, which required a significant investment of money. It should be noted that even with this significant investment of money, the number of structures in good condition still dropped while the number in fair condition significantly increased. Work on major bridges is very expensive with simple rehabilitations costing \$10 to \$20 million and replacements ranging from \$20 million to \$200 million. With a greatly reduced construction program and potential problems with matching federal funds in 2020, significant future improvements in the condition of major bridges are unlikely.



## KEEP ROADS AND BRIDGES IN GOOD CONDITION





**RESULT DRIVER:** Dennis Heckman, State Bridge Engineer

#### MEASUREMENT DRIVER:

David Koenig, Structural Services Engineer

### PURPOSE OF THE MEASURE:

This measure tracks the percent of structurally deficient deck area for bridges that are part of the National Highway System (NHS). Moving Ahead for Progress in the 21st Century, the federal surface transportation act requires states to track the Structurally Deficient (SD) deck area with a national performance goal of this being less than 10 percent.

#### 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, SD 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 SD is determined and this measure has been created based on these proposed adjustments.

## 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 SD deck area of NHS bridges be less than 10 percent. The local system has 144 NHS structures (five SD) and the MoDOT system has 3,591 NHS structures (153 SD). MoDOT currently meets the national performance goal with the total at 6.7 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. That ability to continue to meet this goal will become more difficult with a reduced construction program. Additionally, the potential inability for MoDOT to fully match available federal funds in 2020 could have a severe impact on this measure. This measure is also heavily influenced by major bridges because one structure has the ability to impact this measure +/-0.5 percent. Since many major bridges are part of the NHS, any reduction in funding available for the construction program will limit MoDOT's ability to keep up with the replacement/rehabilitation needs on major bridges.







## 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.

#### MEASUREMENT DRIVER:

Tammy Wallace, Senior Customer Relations 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 an annual telephone survey of approximately 3,500 randomly selected Missourians. Data compiled by the American Customer Satisfaction Index in 2013 shows Mercedes-Benz having the highest customer satisfaction rate – 88 percent – out of the hundreds of companies and government agencies the ACSI scores.

## PROVIDE OUTSTANDING CUSTOMER SERVICE

## Percent of overall customer satisfaction-3a

Over the past few years customer satisfaction has remained high. Last year, 85 percent of Missourians surveyed said they were satisfied with the job MoDOT is doing, which tied a record high. We also saw an increase in the number of very satisfied customers.

The condition of our roads and bridges and customer satisfaction are closely tied together. In the 2013 Report Card from Missourians, customers told us the condition of roads and bridges were the most important transportation service to them. MoDOT staff has been diligent in providing outstanding customer service, and temporary funding has allowed us to keep our system maintained at a level customers expect. However, over the next few years as MoDOT's funding is anticipated to drop below what is required to even maintain the state system, customer satisfaction levels are likely to be impacted.



#### MEASUREMENT DRIVER:

Holly Dentner, Customer Relations 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 an annual 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 2013 survey shows an overwhelming majority of customers perceive the department as Missouri's transportation expert. Ninety-two percent of those surveyed agreed MoDOT serves this role, a percentage the department has consistently maintained since 2009. Of the 92 percent, 58 percent of respondents "strongly agreed" and 34 percent "somewhat agreed" MoDOT serves as the state's 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. With the suspension of the cost share program, these relationships may face challenges.


Melissa Black, Customer Relations 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 an annual telephone survey of approximately 3,500 randomly selected Missourians, being most recently updated for the October 2013 Tracker. Until 2013, this measure was a yes/no question. This year, customers responded to a satisfaction scale. The sum of the positive responses - Somewhat Agree at 45 percent and Strongly Agree at 42 percent - provide the comparative data for 2013.

## 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. In the 2013 survey, 87 percent of Missouri residents said they trusted MoDOT to keep its commitments compared to 88 percent in 2012. While the 1 percent difference is within the statistical margin of error, it is part of a four-year downward trend from 92 percent in 2010.

The department's annual construction program, which is estimated to be just over \$700 million for 2015, will drop to \$600 in 2016 and then just more than \$300 million each year in 2017 through 2019. 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. Because of the current financial forecast, the Missouri Highways and Transportation Commission decided no new projects will be added to the 2015-2019 STIP. The Commission also suspended the cost share program, which allowed local governments to partner with MoDOT to deliver state highway and bridge projects that enhance economic development in the state.

As fewer projects are completed, and the system deteriorates, it is likely the public's trust in the department to keep its commitments will continue to decline.



#### Missouri Department of Transportation 3c

Marie Elliott, Customer Relations 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 they need and use.

#### MEASUREMENT AND DATA COLLECTION:

Data is collected through an annual 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 topping 90 percent agreement for the past four years, this measure shows that the department meets our customers' high expectations.



## PROVIDE OUTSTANDING CUSTOMER SERVICE







Eric Schroeter, 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 different categories (large - major route listed as or funded through major project dollars; medium - district-wide importance; and small - only local significance). A sample of residents is drawn from zip code areas adjoining the roadway where the project was recently completed. The samples include 500 addresses per project area.

## PROVIDE OUTSTANDING CUSTOMER SERVICE

# Percent of customers who believe completed projects are the right transportation solutions-3e

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 2013 survey results continue to show most Missourians are very satisfied with local projects and generally believe that MoDOT provides the right transportation solution.

The majority of respondents thought that the project made the roadway:

- safer (90.1 percent),
- more convenient (84.4 percent),
- less congested (72.0 percent),
- easier to travel (86.7 percent),
- better marked (84.1 percent), and
- 87.3 percent considered the project the right transportation solution.

As part of the questionnaire, each respondent had 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.

MoDOT expects the funding available for the annual construction program to drop until it reaches just more than \$300 million by 2017. At that level, the department will not be able to maintain the highway and bridge system, not to mention undertake projects that solve transportation problems. This measure could decline in the near future.



### Missouri Department of Transportation 3e

Melissa Black, Customer Relations 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:

The data for this measure is obtained from a monthly telephone survey of 200 customers who contacted a MoDOT customer service center in the previous month. The customer contacts come from call reports logged in to the customer service database. Survey participants are asked to respond on a Strongly Agree to Strongly Disagree scale regarding representative politeness and how quickly and clearly MoDOT responded to and answered questions or concerns. A fourth question asks for a rating of overall satisfaction. This measure also includes the average time to complete requests logged into the customer service database. Requests that require more than 30 days to complete are removed to prevent skewing overall results.

## PROVIDE OUTSTANDING CUSTOMER SERVICE

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

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

In calendar year 2013, 82 percent of customers surveyed indicated overall satisfaction with MoDOT's handling of their question or concern, an increase of 2 percent from the previous year. Satisfaction with politeness was indicated by 98 percent of respondents, 91 percent felt they received a clear, understandable answer and 92 percent were satisfied or very satisfied with the promptness of the response they received. While politeness remains the strongest feature, all measures increased slightly. The average time to complete customer requests during 2013 was one day, an improvement from the 1.5 days required in the past two years.



## PROVIDE OUTSTANDING CUSTOMER SERVICE







DeAnne Rickabaugh, Customer Relations Coordinator

#### PURPOSE OF THE MEASURE:

This measure tracks how MoDOT customers receive and exchange information with the agency.

#### MEASUREMENT AND DATA COLLECTION:

MoDOT gathers information for this measure from a variety of sources. These include the annual MoDOT Report Card survey, Google Analytics to measure Web traffic and social media analytics.

## PROVIDE OUTSTANDING CUSTOMER SERVICE

# Percent of customer communication engagement-3g

Good organizations share information with the people they serve. The best, most trusted organizations engage customers in conversation. It is easier these days for MoDOT to interact with its customers through Internet-based social media networking websites and applications. However, as platforms for storytelling and accountability, print, television and radio continue their vital information-sharing service.

MoDOT's social media accounts continue to attract followers. Recent increases in MoDOT's website visitors and Facebook and Twitter followers can be attributed to winter weather-related messaging in the second quarter of FY 2014. Social media managers statewide continue to seek ways to attract and engage customers.

Though new media provides an opportunity to communicate interactively, traditional communication methods remain the most effective way to convey MoDOT messages. In the MoDOT Customer Report Card, customers said they are most likely to learn about MoDOT projects and activities through highway message boards and trusted local reporters.



## PROVIDE OUTSTANDING CUSTOMER SERVICE







Kelly Backues, Senior Organizational Performance Analyst

#### PURPOSE OF THE MEASURE:

This measure tracks MoDOT's progress toward the goal of increasing the level of partner satisfaction with MoDOT in delivering transportation services.

#### MEASUREMENT AND DATA COLLECTION:

Customer Relations, working with an independent research and survey firm, conducts an annual survey in January to collect satisfaction data from MoDOT's 11 partner groups. Motor **Carrier Services conducts** a separate partner survey. State legislators are surveyed separately later in the year. The survey collects data from the previous calendar year and is updated annually in April. The survey groups include agencies and industries representing: bidding, business, construction, design consultants, environmental, highway safety, legislators, local public entities, minority and women-owned construction and consultant enterprises, disadvantaged business enterprises, motor carrier services, multimodal, transportation planning and vendors.

## PROVIDE OUTSTANDING CUSTOMER SERVICE

## Percent of partner satisfaction-3h

MoDOT relies on a large number of partners to deliver transportation projects and services to Missourians statewide. Each year since 2010, partners completed an online survey indicating their levels of satisfaction in working with MoDOT. During the three-year period, the percent of satisfied and very satisfied MoDOT partners is consistently 94 percent or better. In addition to rating MoDOT's services, participants offer written feedback. That information is used to target specific areas in which MoDOT can improve.

With the predicted funding downfall and drastically reduced construction program, fewer construction and cost-share jobs will be available for the department's partners in the coming years. This could result in increased dissatisfaction for several years.



## **PROVIDE OUTSTANDING CUSTOMER SERVICE**



2010 Design Consultants 2011 Design Consultants 2012 Design Consultants 2010 Environmental 2011 Environmental 2012 Environmental 2010 Hwy Bidding 2011 Hwy Bidding 2012 Hwy Bidding 2010 Hwy Construction 2011 Hwy Construction 2012 Hwy Construction

## PROVIDE OUTSTANDING CUSTOMER SERVICE



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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:

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

#### MEASUREMENT AND DATA COLLECTION:

The completed project costs are reported during the fiscal year in which the project is completed. Road and bridge project costs include design, right-ofway 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 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 decreasing transportation funding and increasing costs. As of December 31, 2013, 201 projects had been completed in fiscal year 2014 at a cost of \$443 million. This represents a deviation of -14.4 percent or \$75 million less than the programmed cost of \$518 million. Of the 201 projects completed, 75 percent were completed within or below budget. In comparison, 72 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 award savings, at 85 percent. Engineering and miscellaneous (right of way, utilities and other costs) savings represent 15 and 8 percent, respectively. Construction phase costs were 8 percent over what was awarded.

In addition, 28 Multimodal projects were completed for a cost of \$25 million, -1.2 percent or \$300,000 less than the programmed cost of \$25.3 million. And 74 Local Public Agency projects were completed for a cost of \$38.6 million, -11 percent or \$4.8 million less than the programmed cost of \$43.4 million.

For road and bridge projects completed in the five-year period from 2009-2013, final costs of \$5.915 billion were within -9.4 percent of programmed costs, or \$613 million less than the programmed cost of \$6.528 billion.

MoDOT uses this historical data as a guide for programming future projects. In FY2014, MoDOT added 10 percent of available funding for highway and bridge construction awards or \$68.5 million worth of projects in anticipation of award savings. However, award savings to date for FY2014 are averaging only 4 percent. Future programming assumptions will be revised downward to reflect this trend.





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.



Positive numbers indicate savings. Miscellaneous includes right of way, utilities, and other costs.

Jay Bestgen, Assistant State 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 engineers use 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 this is considered a commitment to Missourians and users. Completing projects on time helps maintain credibility which is of utmost importance to maintaining Missourians long-term support for times when more resources are needed to adequately maintain the transportation system. Completing projects on time minimizes users' exposure to work zones and provides good-condition facilities that improve safety and reduce vehicle maintenance costs.

Sometimes, unusual weather or additional contract work necessitates an extension of the completion date. There are also times when a contractor misses the project completion date. In the second quarter of fiscal year 2014, 78 percent of the 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,
- Setting liquidated damages that reinforce completion date without undue bid risks,
- Discussing potential completion times with industry before setting, and
- Negotiating with contractor to maintain schedule.









Missouri Department of Transportation 4b2

Jeremy Kampeter, Construction Management Systems 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. This measure evaluates 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 the commitments that have been made. Decreasing revenue coupled with the increasing costs of products such as asphalt, concrete and steel has placed an even stronger emphasis on constructing projects within budget. This emphasis combined with the use of practical design and value engineering has contributed to limiting overruns on contracts. MoDOT's performance in the first two quarters of fiscal year 2014 was 0.2 percent (\$396 million worth of projects completed \$660,000 over the award amount). Many factors can affect the ability to complete a project within 2 percent of the award amount.

With decreasing transportation funding and increasing costs, MoDOT's focus on keeping final project costs within award amounts is more important than ever.



Angela Fuerst, Transportation Project Manager

#### PURPOSE OF THE MEASURE:

This measure tracks the use of innovative contracting methods used on MoDOT projects including: Incentive/Disincentive

- Contracts,
- A + B Contracts,
- Add Alternate Contracts,
- Alternate Technical Concepts, and
- Design-Build Contracts

#### MEASUREMENT AND DATA COLLECTION:

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

## DELIVER TRANSPORTATION SOLUTIONS OF GREAT VALUE

## Innovative contracting methods-4d

With decreasing transportation funding and increasing costs, MoDOT looks to implement non-traditional methods and practices in contract administration to improve efficiency, increase flexibility and maximize value for its customers. By promoting the use of innovative contracting tools, MoDOT is better able to mitigate declining resources and meet each project's unique challenges and to provide the best-value solution to the needs being addressed. MoDOT uses innovative contracting to ensure the public receives full value for every tax dollar invested in Missouri's transportation system. However, dwindling resources will result in a dramatic reduction in the number of large-scale, system-improvement projects MoDOT can afford. Even with innovative contracting techniques, MoDOT will be challenged to even maintain the current system.

In fiscal year 2013, MoDOT delivered 31 out of 252 projects using innovative contracting methods. The 31 projects totaled \$271.904 million out of the \$743.952 million program.



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

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, and Construction value engineering proposals during the construction phase.

#### MEASUREMENT AND DATA COLLECTION:

Information on value analysis during design is gathered from MoDOT's STIP Information Management System application. Construction value engineering change proposal information is gathered from MoDOT's value engineering change proposal database.

## 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 decreasing funding, Mo-DOT 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 innovative solutions to reduce project costs and provide additional value.

MoDOT uses design phase value analysis to remove unnecessary scope, reduce project costs and to improve project flexibility. Value analysis includes specific, targeted processes aimed to improve the project value, including the formal VE program studies. Tracking progress toward the goal of evaluating all projects for value allows MoDOT to accurately gauge its performance. So far, for fiscal year 2014, 39 percent of projects underwent some form of value analysis during the design phase.

MoDOT partners with industry to find more cost effective methods to accomplish the proposed work on our projects in order to better use our limited available funds. During the construction phase, the Value Engineering Change Proposal process encourages contractors to submit proposals to deliver improved projects of the best attainable value. After award of a project, contractor proposals for cost reduction are considered and if accepted, the contractor receives a portion of the savings, up to a maximum of 50 percent. Even though the savings are shared, the program generates savings on active projects that can be used to offset project cost escalation or reduce cost of delivering the project. So far for fiscal year 2014, 17 VE proposals were approved resulting in MoDOT savings of \$555,000. Although with reduced project scopes there are fewer opportunities, MoDOT leaders will continue to challenge department staff and industry partners to improve the value of construction projects.

A successful VECP program will incorporate approved VECPs into future design plans, so MoDOT can realize 100 percent of the affiliated savings for future projects. VE changes implemented as MoDOT best practices are incorporated into MoDOT's Engineering Policy Guide.







**RESULT DRIVER:** David Silvester, District Engineer

#### MEASUREMENT DRIVER:

Natalie Roark, 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 rate was increased to the current rate of 17 cents per gallon. Costs for chip seal and minor road one-inch 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-lane 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 that can be managed by MoDOT and others that are affected by the economy. For example, Missouri's highway system has long depended on fuel taxes, but now people drive less and vehicles are more fuel efficient. 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 increased fuel, oil and material costs. Overall, the price of asphalt, concrete and steel is double and triple what they were 20 years ago, when fuel taxes were last raised.

With MoDOT's construction program having dropped by about half in the last five years, 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. In time, MoDOT will be challenged just to maintain the system of roads and bridges Missourians enjoy today.













\*\* No two-lane projects bid in 2012 and 2013.



\*\*\* No four-lane projects bid in 2013.







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.

Jon Nelson, Traffic Management and Operations 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 for many state routes is continuously collected via roadside detectors and other technologies. For other routes, travel times are collected manually by driving the route at least twice in each direction. 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 80th percentile travel time, which is the time motorists should plan in order to reach their destinations on time 80 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

Minimizing travel times and delays on the state's most traveled routes is essential to operating a reliable and convenient transportation system. The desired outcome for any route is a safe flow of traffic at the posted speed limit. From October to December 2013, it took customers, on average, 11.86 minutes during the morning rush and 13.09 minutes during the evening rush to travel 10 miles on interstate routes in St. Louis. For interstates in Kansas City, it took customers, on average, 11.29 minutes during the morning rush and 11.62 minutes during the evening rush to travel 10 miles. This is the equivalent of driving about 45-50 mph.

Individual roadways within St. Louis and Kansas City, however, experienced longer travel times than the regional averages. In St. Louis, this was particularly true on I-64 where the average travel times were 13.78 minutes in the morning and 17.43 minutes during the evening. Likewise, I-35 in Kansas City experienced an average travel time of 15 minutes during the morning and 15.91 minutes in the evening. This is equivalent to driving less than 40 mph.

On any given day, travel times can be longer due to non-recurring events such as crashes, work zones, or adverse weather. Some of the more unreliable travel times this quarter occurred on I-64, I-170, and I-270 in St. Louis and I-35 in Kansas City where 10-mile travel times reached as high as 21 minutes.

As shown on the maps below, there are certain bottlenecks along each corridor where traffic congestion tends to exist on a daily basis. In St. Louis, the heaviest recurring congestion for the quarter existed on I-64 and segments of I-270, particularly south of I-64. In Kansas City, the heaviest recurring congestion occurred in the downtown region, with much of I-70 experiencing moderate congestion as well. Northbound I-435 also experienced heavy congestion in the evening near the Kansas border, and significant congestion occurred on Route 291 north of the Missouri River during the evening rush hour.

For Columbia and Springfield, most traffic delays occurred on signalized arterial routes, though there were some moderate slowdowns near major interchanges such as I-70 at US 63 and I-44 at US 65. Several significant arterials in each region experienced medium levels of congestion during the morning and evening rush with the heaviest congestion occurring on Stadium Boulevard near I-70 in Columbia. Other arterials such as Providence Road in Columbia and Kansas Expressway (MO 13) and US 160 in Spring-field also experienced significant traffic during peak periods.





Missouri Department of Transportation 5a2





Jeanne Olubogun, District Traffic Engineer

#### PURPOSE OF THE MEASURE:

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

#### MEASUREMENT AND DATA COLLECTION:

The Texas A&M Transportation Institute annually produces the Urban Mobility Report. In the 2012 report, there are hundreds of speed data points on almost every mile of major road in urban America for almost every 15-minute period of the average day. This means 600 million speeds on 875,000 miles across the U.S. - an enormous amount of information to analyze congestion patterns and accurately determine what solutions can be targeted to specific areas. This measure will use that data to evaluate the St. Louis and Kansas City metro areas as compared to the established average of other large urban areas around the country.

## OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

MAP-21

## 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.

The Kansas City and St. Louis metro regions both fall within the category of large urban areas, according to the Urban Mobility Report. Large urban areas have populations between one million and three million people. Other cities considered to be large urban areas include Minneapolis-St. Paul, Nashville, Indianapolis, Milwaukee and Louisville.

The annual congestion cost totals and the annual congestion cost per auto commuter for Kansas City both follow a similar trend. There is a slight decrease from 2007 to 2009 and a slight increase since 2009. In St. Louis, both measures show a slight increase in 2008 and a slight decrease through 2010.

While the desired trend for both costs is downward, challenges exist in both regions to continue toward this desired outcome. A comprehensive look at congestion is needed, and looking beyond typical solutions of adding capacity is a must. As the department adapts to shrinking 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.







Jason Sims, 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.

## 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 that temporarily reduces the number of vehicles that can travel on the road. The faster an incident is cleared is essential to the highway system returning back to normal conditions. Therefore, responding to and quickly addressing the incident (crashes, flat tires and stalled vehicles) improves system performance.

St. Louis recorded 747 incidents in October, 643 in November, and 611 in December. The average time to clear traffic accidents was 25 minutes, a slight decrease of 1 percent compared to the fourth quarter of 2012.

Kansas City recorded 744 incidents in October, 644 in November, and 653 in December. The average time to clear traffic incidents was 23.3 minutes, a slight decrease of 1 percent from the fourth quarter of 2012.

St. Louis and Kansas City have demonstrated quick clearance of incidents with yearly averages of 24.9 minutes and 25.7 minutes respectively.






Rick Bennett, Traffic Liaison Engineer

#### PURPOSE OF THE MEASURE:

This measure tracks the closures on Interstate 70 and Interstate 44 due to various traffic impacts.

#### MEASUREMENT AND DATA COLLECTION:

The interstate route closures that have 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 on MoDOT's website.

# OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

# *Traffic impact closures 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 nature and vehicle crashes affect the department's ability to keep the interstates moving. During this review period, Missouri experienced several significant closure events.

Interstate 70 eastbound lanes were closed on Nov. 10 near the Wright City rest area due to a pedestrian fatality. Westbound I-70 was closed two hours at exit 121 on Nov. 4 for a crash on the Missouri River Bridge near Boonville. On Nov. 19, all eastbound lanes of I-70 were closed nearly two hours near St. Louis Ave. to investigate a drive-by shooting. On Dec. 14, a portion of I-70 eastbound in St. Charles County was closed due to winter weather.

Interstate 70 in St. Louis City had three long-term closures in this reporting period. The eastbound lanes were closed 3.5 hours at Salisbury Street for a single vehicle fatality on Oct. 1. On Oct. 30, all eastbound lanes were closed 1.5 hours just before I-55 due to a multivehicle crash involving a commercial motor vehicle and numerous passenger vehicles. On Nov. 9, all westbound lanes of I-70 were closed over 1.5 hours near Lucas and Hunt to work multiple incidents involving a tour bus and passenger cars.

On Interstate 44, there were several long-term closures that occurred during winter weather events. On Dec. 5, all westbound lanes were closed 1.5 hours in Phelps County due to numerous vehicles losing control near Jerome. On Dec. 6, all eastbound lanes in Webster County were closed 1.5 hours for multiple slide-off and loss of control crashes. On Dec. 14, all eastbound lanes were closed about 4.5 hours near Jerome to clear multiple slide-off and loss of control crashes.

On Dec. 13, a multiple vehicle fatal crash closed all eastbound lanes of I-44 about 3.5 hours near Halltown. On Oct. 31, all lanes in both directions were closed in Phelps County near Rolla for a commercial motor vehicle crash and fire. On Oct. 27, eastbound I-44 was closed in St. Louis County near Bowles Ave. about 4.5 hours due to a pedestrian fatality. On Dec. 13, near Bowles Ave., all westbound lanes were closed for a multiple vehicle fatality. In St. Louis City, on Dec. 14, all eastbound lanes were closed due to a fatal crash involving a passenger vehicle and commercial motor vehicle.

During this reporting period most of the long-term closures were either related to winter weather or fatality crashes, which required incident reconstruction. MoDOT continues to work with all emergency responders to minimize the delay caused by closures on our Interstate System.

## OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM



## OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM



Jason Vanderfeltz, Design Liaison Engineer

#### PURPOSE OF THE MEASURE:

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

#### MEASUREMENT AND DATA COLLECTION:

Work zone impacts are collected by MoDOT staff driving through work zones, conducting visual observations or using automated data collection. An impact is defined as the additional time a work zone adds to normal travel. They are categorized into three levels: a minor impact lasts less than 10 minutes; a moderate impact lasts 10 to 14 minutes; and a major impact 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. Based on work zone surveys received this quarter, 69 percent are satisfied with timeliness when traveling in a work zone. MoDOT makes efforts to minimize the travel impacts by shifting work to nighttime hours or during times when there are fewer impacts to the traveling public. The department monitored 13 significant work zones this quarter, with major impacts showing a 100 percent increase and moderate impacts showing a 100 percent increase.



## OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM



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 by 2015.

# OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

**MAP-21** 

# 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.



**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 twoway traffic and treated with salt or abrasives at critical areas such as intersections, hills and curves. These are called "non-continuous 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. This winter of has brought several events to the state already in December. It took an average of 3.7 hours to meet MoDOT's objective for continuous operations routes, and an average of 5.7 hours for non-continuous routes. These numbers compare favorably with past years, however crews worked over 295,000 hours fighting these snow and ice events at a cost of \$25 million through the end of December. Winter operations, on average, cost about \$42 million dollars per year. The money and time spent on clearing the roads of ice and snow means funds are not available to maintain the roadways in the spring, such as surface improvements, sign repair, brush cutting and drainage work. The average snowfall data is not available this quarter and will be updated in April 2014.



## OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM





#### **RESULT DRIVER:** Paula Gough, District Engineer

#### MEASUREMENT DRIVER:

Ron Effland, Non-motorized Transportation Engineer

#### PURPOSE OF THE MEASURE:

This measure tracks Mo-DOT's investment in pedestrian facilities and progress toward removing barriers. Accessibility needs occur both within the right of way in features 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's current Transition Plan reported an inventory of needed ADA improvements totaling more than \$151 million. MoDOT strives to improve pedestrian travel by considering ADA needs and accessibility issues on all projects. MoDOT has been responsive to public requests for new facilities and has been proactive in many areas to make systematic improvements when opportunities arise and limited funding allows.

An increased investment in pedestrian facilities is needed to provide a more comprehensive transportation system that meets the expectations of all users. Unfortunately, a dwindling revenue stream at both state and federal levels makes it very difficult to even maintain existing facilities. Additional funding sources will need to be developed before significant progress can be made in developing the additional pedestrian and bicycling facilities that Missourian's desire.

Reporting of progress made in Transition Plan improvements appears to have fallen sharply in 2013. As projects close out over the winter months, reporting was expected to show significantly more progress than the report does at this time.

MoDOT increased its annual investment in pedestrian facilities during 2013 by 79 percent over previous year. The increase is a direct result of a renewed commitment to improving pedestrian facilities in the state.





## OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM







#### **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 and from individual airports. 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 January and October, respectively - while ferryboat and rail data is updated quarterly.

# OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

# Use and connectivity of modes of transportation-5i

Planes, trains, ferries and transit options are vital means of transport for Missourians. Alternative modes of transportation connect Missourians to work, health care 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. As revenues continue to decline, the state is increasingly unable to meet even a portion of the existing needs for these important transportation system components.

Passengers are slowly returning to commercial airline travel and transit services following recession-related downturns. Bad economic times drive customers away from air travel and can cause cutbacks in transit services. The number of airline passengers in 2012 decreased slightly to the same levels as seen in 2009 and 2010, and preliminary estimates for calendar year 2013 suggest passenger enplanements have not increased. Metro transit ridership held relatively stable, while non-metro transit ridership in some regions decreased slightly in fiscal year 2013 to levels similar to 2010 and 2011.

In the second quarter of fiscal year 2014, the number of ferry boat passengers slightly decreased compared to the same period a year earlier. This decrease was primarily due to an increase in days that the New Bourbon ferry was closed due to low-water levels. Maintaining ferry service helps alleviate travel time and expenses for travelers who otherwise would have to drive substantially farther to use Mississippi River bridge crossings to reach their destinations.

Ridership remains steady on Missouri River Runner trains during the second quarter of fiscal year 2014, and year-to-date ridership is up 1.5 percent.

MoDOT continues to support these travel modes by administering federal and state inspection, construction and operational programs, assisting with advocacy efforts and educating the public about the benefits these services provide.

## OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM



\*2013 data is based on preliminary individual airport statistics. FAA publishes data in October for the preceding year.



## OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM





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# **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.

Steve Meystrik, Special Projects Coordinator

#### PURPOSE OF THE MEASURE:

This measure tracks the change in the number of full-time equivalencies (FTEs), 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, we annualize the data for salaried employment, whereas temporary employment and overtime data represent actual year-todate 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 size staff to provide outstanding customer service and respond to the state's transportation needs, especially during emergency situations, is an important part of MoDOT's efforts to use resources wisely. Due to projected funding shortfalls, MoDOT has reduced the number of salaried employees since 2008, and has fallen below its targeted employment level of 5,106 full-time employees. MoDOT has made some progress and continues the challenging task of reaching its targeted employment level.

In the first half of fiscal year 2014, FTE levels for overtime increased compared to the same time last year due to winter weather and flooding events. FTEs for temporary employment have decreased because some seasonal maintenance workers were hired to full-time maintenance positions. These conversions to full-time employment, as well as the hiring of other full-time employees needed to reach targeted staffing levels, resulted in an increase in FTEs expended for salaried employment compared to last year at this time.



Paul Imhoff, Compensation Manager

#### 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.

# **USE RESOURCES WISELY**

# Level of job satisfaction-6b

MoDOT is currently working with an external vendor to develop a new employee survey to be launched in March 2014. MoDOT wants employees to be satisfied with their work and workplace, and feel like they are a good fit for their jobs, and within MoDOT's culture. High employee satisfaction can be a driver of positive 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.





Aaron Kincaid, Employment Manager

#### PURPOSE OF THE MEASURE:

This measure tracks the percentage of employees who leave MoDOT annually and compares the department's voluntary and involuntary turnover rate to benchmarked data.

#### MEASUREMENT AND DATA COLLECTION:

Voluntary turnover includes resignations and retirements. Involuntary turnover reflects dismissals. The data is collected statewide to assess overall employee turnover. Comparison data is collected from various sources annually. For benchmarked data, Saratoga Institute surveys more than 300 organizations representing a wide variety of industries.

# **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 quarters of fiscal year 2014, voluntary turnovers gradually returned to more historically normal statewide rates (73 retirements and 123 resignations). Involuntary turnovers also have returned to normal statewide rates with 27 involuntary separations (dismissals) so far in fiscal year 2014.



Kelly Wilson, Resource Management Specialist

#### 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 and use 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, year-todate 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. MoDOT staff adjusts future operating and capital budgets to account for these variances, if needed.

While actual state revenue for road and bridge and other modes is greater than projected for fiscal year 2014, state revenue has been relatively stagnant from year-to-year.

The largest source of transportation revenue is from the federal government. Funding is received through various federal transportation agencies including the Federal Highway, Transit, Aviation and Railroad Administrations. Federal funding is uncertain. In June 2012, Congress passed a new two-year federal transportation reauthorization act entitled Moving Ahead for Progress in the 21st Century Act (MAP-21). MAP-21 reduced the amount of road and bridge funding for all state DOTs. Federal revenues for other modes is reliant on the timing of MoDOT's partners (airports, railroads, etc.) delivering projects.

The primary source of federal and state revenue is fuel tax. With people driving more fuel efficient vehicles and fewer miles, motor fuel tax is a declining revenue source. The motor fuel tax rate has not changed in almost 20 years, while the costs for materials and labor have doubled, and even tripled for some materials, in the same time frame.

















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, a permits database and Multimodal Operations' budget. The dollars are shown in the state 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. MoDOT allocated \$30 million in fiscal years 2009-2011, \$37.5 million in fiscal year 2012 and \$47.5 million in 2013 for cost-share projects. In addition, districts may also cost share with distributed STIP funds and partner with developers and other private entities to make improvements to the state transportation system through the permitting process. The Missouri Highways and Transportation Commission suspended the Cost Share Program and the addition of new projects to the STIP at its January 2014 meeting because of a projected reduction in available funds.

Highways and Bridges – The number for fiscal year 2013 is above the fiveyear averages of \$69 million. The percent for fiscal year 2013 is right at the five-year average of 7.9 percent. These projects have shifted from major projects to taking care of the system projects and smaller scale projects. As a greater share of MoDOT funds have to be focused on taking care of the system, these numbers will decline.

Railroads – The total investment for fiscal year 2013 of \$14.8 million for rail improvements and passenger service is higher than the five-year average of \$10.7 million. Federal and private entities provided \$14.8 million for capital improvements. Documented rail needs far exceed the amount of funds available for them.

Transit – The total investment for fiscal year 2013 of \$49.3 million for transit improvements and operations is below the five-year average of \$53.2 million. Federal and local entities provided \$9.0 million for capital improvements and federal, state and local entities contributed \$40.3 million for operating assistance.

Aviation – The total investment for fiscal year 2013 of \$25.5 million for airport improvements and maintenance is slightly under the five-year average of \$26.4 million. Local entities provided \$2.5 million for capital improvements and \$4,000 for operating assistance.

Waterways – The total investment for fiscal year 2013 of \$43.6 million for port improvements and operations is above the five-year average of \$25.3 million. Federal, State, local and private entities provided \$43.0 million for capital improvements. Federal and state entities contributed \$600,000 for operating assistance. Without additional investment available for ports, Missouri loses an opportunity to support economic growth and job creation.









\*Private data is not available for FY 2009-2011.







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 is based on the federal fiscal year from October 1 through September 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-6f*

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.

As of the first quarter of federal fiscal year 2014 (October through December), 14 percent of the \$243 million in available funds have been committed to local projects. This represents \$13 million less in commitments compared to the same period last year. Last year, local entities committed more funds to design of projects than this year to aggressively reduce the available balance. For 2014, more funds are scheduled to be committed to construction of projects which typically occurs in the later quarters. Since 2011, the available balance has decreased from \$310 million to \$243 million.

When local entities use federal funds, they provide the matching funds. Matching funds provided by local entities help MoDOT use all of the transportation federal funding available to Missouri. A goal of \$200 million in project commitments has been set for federal fiscal year 2014.



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**

# Inactive projects-6g

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 timely manner. When this happens, MoDOT analyzes projects to determine why there has been no activity, and actions are taken to accelerate project activity. Discussions with local project sponsors often are used to ensure invoices are submitted on a timely basis.

Due to an increased effort by MoDOT, inactive projects during federal fiscal years 2011 through 2014 have declined from 4.3 percent down to 1.7 percent of available federal funds. For the first quarter of federal fiscal year 2014, Missouri's inactive projects were below FHWA's national goal of 2.0 percent at 1.7 percent. For the first quarter, Missouri's inactive projects total \$15 million.



Todd Grosvenor, 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. Fiscal years 2014-2018 are estimates from the current financial forecast. The amount of advance construction is based on the total estimated project costs.

# **USE RESOURCES WISELY**

# Amount of advance construction-6h

Advance construction is an innovative finance tool MoDOT uses to more efficiently manage its limited resources. Advance construction helps provide the 20 percent match required for federal funds. Without advance construction, MoDOT would be unable to match federal funds today. As the amount of advance construction declines, the ability to match federal funds becomes more difficult.

By 2020, MoDOT won't have enough state revenue to match federal funds. That means those unmatched federal funds will be directed to other states and lost forever to improve Missouri's transportation system.



Kevin James, Assistant District Engineer

#### PURPOSE OF THE MEASURE:

This measure tracks levels of under- and over-utilized fleet along with fuel efficiency for the five vehicle classes representing the majority of fleet expenditures and miles driven.

#### MEASUREMENT AND DATA COLLECTION:

Data reflects performance during the previous 12 months. Ideal fleet utilization 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. An underutilized passenger car is used less than 75 percent of 15,000 miles, or 11,250 miles. An over utilized passenger car is used more than 18,750 miles, and a utilized passenger car is used between 11,250 to 18,750 miles. 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 the **FASTER** fleet management system.

# **USE RESOURCES WISELY**

# Fleet utilization and fuel efficiency-6i

The fleet utilization measures have changed since the last period. The percent of HD and XHD trucks over utilized or utilized has increased by 4 percent and the percent of pickups over utilized or utilized has increased by 5 percent. Use of cars and light duty trucks has not changed. The increased use for HD and XHD trucks resulted from a 30 percent jump during winter operations.

The fuel consumption and fuel efficiency measures are trending opposite of the desired trend. Fuel consumption so far in FY 2014 has increased by more than 652,000 gallons with 98 percent of this increase in diesel fuel. The fuel efficiency measure has decreased slightly more than 1.5 miles per gallon. The increase in snow removal causes the increase in fuel consumption and the decrease in fuel efficiency (both negative trends). The resulting increase in resources used on snow removal takes away from resources available to use in other areas.









\*Miles and/ or hours utilized





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 measurements for 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-6j

In 2004, recycled asphalt pavements and roof shingles started being incorporated 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 2013, 26 percent of the 3.3 million tons of new asphalt pavement came from recycled components. This saved MoDOT and taxpayers about \$11 per ton, or \$30 million overall. The \$30 million savings is equivalent to improving about 680 miles of a two-lane roadway with a thin lift overlay.

MoDOT also recycles materials no longer needed for internal operations. The majority of the recycled products come from seven products: aluminum, cardboard, office paper, scrap rubber/tires, scrap metal, motor oil and wood pallets. Of these, 2,500 tons of scrap metal makes up the majority of the recycling followed by 641 tons of rubber/tires (equivalent to more than 61,000 passenger car tires) and 95 tons of motor oil (equivalent to about 27,000 gallons).

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.





**RESULT DRIVER:** Brenda Morris, Financial Services Director

#### 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 (NOV) are similar to a traffic ticket as they are written to indicate you are operating outside of legal limits. A Letter of Warning (LOW) 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 by the Design Division 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 – 6k

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 also is importation to avoid violations. Violations with fines assessed against MoDOT result in less funding for roadway 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.

The number of NOVs during the last five years ranged from one to seven, LOWs ranged from five to 15. The trend for number of NOVs is down over the last three years.

For calendar year 2013, MoDOT received one NOV and 15 LOWs. During this same period, the department also received 10 letters of satisfactory inspections from DNR.

One NOV and five LOWs were issued for unsatisfactory features associated with erosion control structures and concrete washout on construction projects. MoDOT continues to train inspectors and contractors while developing improved erosion control specifications.

Five LOWs were received on MoDOT facilities: two for failing to submit quarterly discharge reports on maintenance facility lagoons; one for failing to obtain a construction permit for modifying a sewage system; and two for waste-water effluent at two welcome centers. A contractor is being used to help with compliance issues for maintenance facility lagoon systems.

Five LOWs issued by the U.S. Army Corps of Engineers concerned tree planting survivability. MoDOT has replanted trees that did not live after initial plantings.
### **USE RESOURCES WISELY**



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



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# **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, or TREDIS. The TREDIS model results demonstrate a strong link between transportation investment and economic development.

# ADVANCE ECONOMIC DEVELOPMENT

# *Economic return from transportation investment-7a*

Transportation projects are an economic engine that drives growth in employment and other benefits. Economists use tools such as TREDIS modeling, to provide state and regional estimates of economic benefits related to specific projects, corridors and program expenditures.

MoDOT's 2014-2018 Statewide Transportation Improvement Program invests approximately \$4.4 billion into highway and bridge projects, creating 6,528 new jobs. The projects are expected to contribute \$15.9 billion of economic output during the next 20 years, resulting in a \$3.62 return on every \$1 invested in transportation.

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 (2013-2017), the jobs estimate decreased approximately 4 percent.

Decreasing transportation funding and increasing costs are chipping away at the levels of economic return. The situation will become more drastic as the annual construction program plummets from \$700 million to \$325 million during the 2015-2019 STIP years.





**Economic Return from Highway and Bridge Investments** 20-Year Benefit Ratio for Every Dollar Invested 5 4 3.92 3.74 3.64 3.62 Dollars 3 3.31 2 1 0 2012-2016 STIP 2013-2017 STIP 2010-2014 STIP 2011-2015 STIP 2014-2018 STIP **DESIRED TREND** 

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 51 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 categories, including transportation infrastructure. The transportation infrastructure category measures the following for each state:

- Quantity of goods shipped by air, waterways, roads and rail (2009-2012 based on value of goods shipped, not quantity)
- Availability of air travel
- Quality of roads
- Time it takes to commute to work (added in 2012)

# 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.

Between 2009 and 2011, Missouri's national rank in transportation infrastructure was in the top nine. In 2012 Missouri ranked 20th. Missouri's current ranking of fifth best in the nation is challenging to maintain as the state's annual transportation infrastructure funding decreased \$500 million beginning in 2011.

Missouri's ranking could be affected in the near future as transportation funding is projected to decline to remarkably low levels. At those levels, many of the factors used to rank transportation infrastructure are expected to worsen in Missouri.





#### **RESULT DRIVER:** Machelle Watkins,

Transportation Planning Director

### MEASUREMENT DRIVER:

Tona Bowen, Financial Services Administrator

### PURPOSE OF THE MEASURE:

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

### MEASUREMENT AND DATA COLLECTION:

Per state revenue, highway mileage and bridge counts used in this measure are gathered from Federal Highway Administration annual reports. The information is updated as the data becomes available from the Federal Highway Administration.

# ADVANCE ECONOMIC DEVELOPMENT

# MoDOT national ranking in revenue per mile-7c

Missouri's revenue per mile of \$73,041 currently ranks 40th in the nation. Missouri's state highway system, consisting of 33,845 miles, is the seventh largest system in the nation. In addition, Missouri ranks sixth nationally in number of bridges with 10,364 bridges. New Jersey's revenue per mile of \$1,086,768 ranks first. However, its state highway system includes only 2,323 miles and 2,371 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 continue to decrease as vehicles become more fuel efficient.

MoDOT stretches transportation revenue as far as it can, in order to put as much as possible into roads and bridges. However, MoDOT's revenue per mile is likely to plummet if the current projections hold true. By 2020, MoDOT won't have enough state revenue to match federal funds. The unmatched funds will be given to other states instead. Current funding barely covers the cost of maintaining our existing system and doesn't begin to address the system expansion projects Missourians desire in their transportation system.





#### **RESULT DRIVER:** Machelle Watkins.

Machelle Watkins, Transportation Planning Director

### MEASUREMENT DRIVER:

Cheryl Ball, Administrator of Freight Development

### PURPOSE OF THE MEASURE:

This measure tracks annual trends in the price of transporting products in Missouri as compared to other Midwest states.

MEASUREMENT AND DATA COLLECTION: Under Development

# ADVANCE ECONOMIC DEVELOPMENT

# Goods movement competitiveness-7d

Product transportation costs vary depending on efficiency, reliability, safety, and available modal options in the state's transportation system. Low transportation costs are important to retain existing businesses and attract new business to increase employment and economic opportunity. Missourians also feel the effect of transportation costs at the cash register. When the system does not work well, the cost of everything from groceries to clothing to fuel is likely to rise.

The data in this measure indicates of how well Missouri's transportation system, management, and operations align with the needs of businesses to maintain economic competitiveness in domestic and global markets. Existing businesses collaborate with MoDOT to identify transportation barriers that reduce their competitiveness. However, current transportation funding limits MoDOT's ability to respond to these needs resulting in higher prices in Missouri stores and reduced competitiveness in global markets.

### **Goods Movement Competitiveness**



#### **RESULT DRIVER:** Machelle Watkins,

Transportation Planning Director

### MEASUREMENT DRIVER:

Eric Curtit, Administrator of Railroads

### PURPOSE OF THE MEASURE:

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

### MEASUREMENT AND DATA COLLECTION:

Two times 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 but 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. In Missouri, the vast majority of freight moves by rail, followed closely by trucks. 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, current transportation funding has dwindled to a level which makes it difficult to maintain roads and bridges. Nor can current funding address transportation needs outside of roads and bridges. Moving nearly 900 million tons of freight a year requires investment in non-traditional transportation facilities such as ports, railroads, and airports and it requires more than reactive approaches.

The first half of 2013 saw an overall increase in movements. Railroad tonnage fell slightly primarily due to the continued decline of coal shipments. Motor carriers hauled the most tonnage, which can be attributed to a rebounding economy and an increase in durable good shipments. Durable goods, such as appliances and furniture, tend to move by truck. The drop in port tonnage in 2012 and the first six months of 2013 can be attributed to low water levels on the Mississippi River. During this time, low water levels caused the St. Louis Port Authority to experience a two-thirds reduction in tonnage because barges were unable to dock from October 2012 to February 2013. Aviation maintained tonnage similar to previous levels.



#### **RESULT DRIVER:** Machelle Watkins, Transportation Planning Director

# ADVANCE ECONOMIC DEVELOPMENT

MAP-21

### MEASUREMENT DRIVER:

Kim Russell, Motor Carrier Services Project Manager

### PURPOSE OF THE MEASURE:

This delay 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:

This measure will track travel time above the congestion threshold in units of vehicle-hours for commercial motor vehicles on the interstate highway system. Further guidance about data requirements and measure methodology will be forthcoming from FHWA.

# Annual hours of truck delay-7f

## **Annual Hours of Truck Delay**



#### **RESULT DRIVER:** 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.

### MEASUREMENT AND DATA COLLECTION:

This measure uses the Truck Reliability Index, a ratio of the total truck travel time needed to ensure ontime arrival to the agencydetermined threshold travel time (e.g., observed travel time or preferred travel time), to gauge consistency in truck freight travel times. Further guidance about data requirements and measure methodology will be forthcoming from FHWA.

# ADVANCE ECONOMIC DEVELOPMENT

# Truck reliability index-7g



**MAP-21** 

Machelle Watkins, Transportation Planning Director

### MEASUREMENT DRIVER:

Todd Grosvenor, 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 updated quarterly and 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. MoDOT allocates \$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, at least \$5 million is set aside for projects that demonstrate economic development through job creation. MoDOT contributes up to 100 percent of the total cost for projects on the state highway system if the Missouri Department of Economic Development verifies the project creates jobs. Retail development projects are not eligible.

In light of a plummeting 2015-2019 construction program, the Missouri Highways and Transportation Commission suspended the Cost Share/Economic Development Program on January 8, 2014. With contractor awards dropping from just over \$700 million in 2015 to slightly more than \$300 million by 2017, MODOT will be unable to maintain the existing system, much less pursue projects that add to the system. Projects already reviewed and approved by the cost share committee are eligible to move forward: however, no additional projects will be considered for funding at this time.

In Fiscal Year 2012, Edward Jones created 588 verified new jobs in conjunction with interchange improvements at I-270 and Dorsett Road in St. Louis County.

In Fiscal Year 2014, the following economic development partnerships are approved.

- \$4.7 million for Route 210 improvements in Clay County. The project is estimated to cost \$7.5 million and to create 39 new jobs at Adrian Steel by December 31, 2017.
- \$425,540 for Route I-70 Outer Road improvements in Montgomery and Warren Counties. The project is estimated to cost \$500,000 and to create 70 new jobs at CertainTeed by April 1, 2019.
- \$479,264 for Routes 60 & 114 intersection improvements in Stoddard County. The project is estimated to cost \$600,000 and to create 14 new jobs at Lansing Trade Group by December 31, 2016.





Machelle Watkins, Transportation Planning Director

### MEASUREMENT DRIVER:

Rudolph Nickens, Director of Equal Opportunity and Diversity

### 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.

# 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 2.6 percent (493 to 480) from the first quarter of fiscal year 2014 to the second quarter of FY 2014. The number of female employees increased by 0.4 percent from first quarter of FY 2014 to second quarter of FY 2014 (945 to 949). When compared to overall employment, the percent of females decreased (18.86 to18.79 percent), but is still above Missouri Availability of 16.27 percent. The percent of minorities also decreased (9.84 to 9.49 percent), and is below Missouri Availability of 11.84 percent. Total employment during this time increased from 5,010 to 5,050.

MoDOT continues to advertise job announcements with organizations that are geared toward females and minorities, attend career fairs at historically black colleges and universities, make job announcements available at NAACP meetings and forward announcements to diverse contacts. MoDOT managers are encouraged to recruit diverse candidates and develop partnerships with organizations statewide.

Note: Beginning in fiscal year 2014, 2010 census data, which includes new census counts and census job titles, is used as a benchmark. Several census titles changed, as did the number of minorities and females in the census groups from which MoDOT hires.





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 FHWA 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 Oct. 1 through Sept. 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 2013 is 13.49 percent. The DBE participation for FFY 2013 is 11.16 percent. This is a 0.91 percent decrease from FFY 2012. Of the 11.16 percent utilization, 2.69 percent is participation from minority-owned DBE firms, 0.38 percent is participation from minority women-owned DBE firms and 8.08 percent is participation from women-owned DBE firms. The collective goals set for projects closed during this period amounted to 9.20 percent.

MoDOT will continue to support diversity among its contractors, subcontractors and suppliers even as the funding available for its construction program falls to slightly more than \$300 million by 2017.







Missouri Department of Transportation 7j2

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. 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.

### 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.

# 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.

After the first two quarters of FY 2014, results indicate a \$1.8 million increase in MWDBE discretionary expenditures compared to the same period in FY 2013. Compared to the first two quarters FY 2013, the FY 2014 percentage of discretionary MWDBE spent increased by 0.4 percent. This increase is due to better identification of available MWDBE vendors beginning in early FY 2013.

With declining state and federal transportation funding and the increasing costs to do business, the dollars spent with all vendors, including MWDBE vendors are expected to fall. This measure will continue to track the department's efforts to ensure our vendor pool is representative of the business community as a whole.



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