

JULY 2014



# *Tracker*

**MEASURES OF DEPARTMENTAL PERFORMANCE**



## Greetings from MoDOT



**Dave Nichols**  
MoDOT Director

### Mission

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

The Missouri Department of Transportation stands committed to being fully transparent and accountable in its business of preserving, managing and developing our state's transportation system. We've demonstrated those qualities during the robust discussions we've been having with our customers about their vision for the future of our transportation system. And accordingly we've seen our customer satisfaction numbers climb to 85 percent – exceptionally high marks for any company but unheard of for a government agency.

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.

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](http://www.modot.org). We encourage you to look it over and let us know how we are doing.

Sincerely,

A handwritten signature in blue ink that reads "Dave Nichols".

**Missouri Department of Transportation**

## 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*



**Tracker**

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.

**RESULT DRIVER:**  
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 five-  
year average trends result-  
ing from traffic crashes on  
all Missouri roadways. The  
rate of fatal and serious  
injury charts display annual  
and five-year average fatal-  
ity 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 re-  
ports into a statewide traffic  
crash database. The data-  
base automatically updates  
MoDOT's crash database  
system which is called the  
Transportation Management  
System.

## KEEP CUSTOMERS AND OURSELVES SAFE

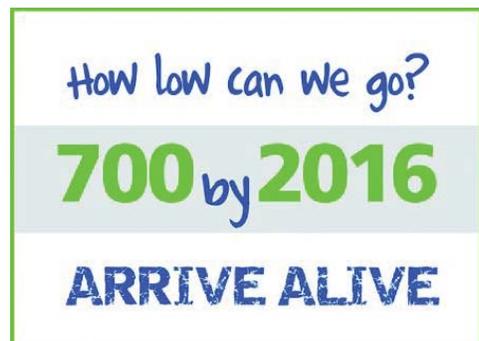
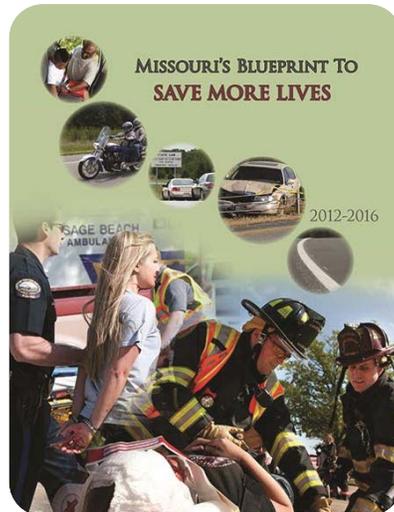
MAP-21

### *Number and rate of fatalities and serious injuries-1a*

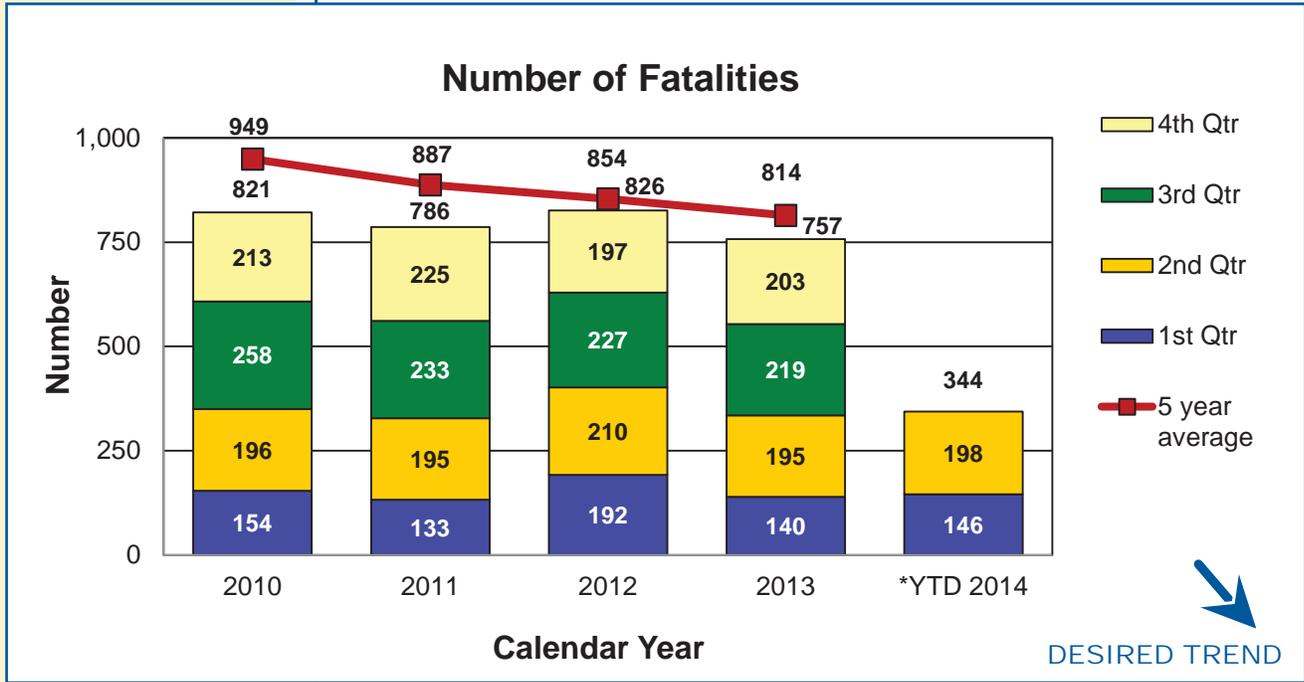
Keeping travelers safe is one of MoDOT's highest priorities. Over the last few years, fatalities and serious injuries have experienced a significant decline, largely due to safety improvements on Missouri roadways, focused enforcement efforts and educational campaigns that have kept these issues in front of motorists. When compared to the previous year, the 2013 traffic fatality count decreased by 8 percent to a total of 757. The five-year average continued on a downward trend to 814 in 2013. The first two quarters for 2014 showed a 3 percent increase in fatalities.

Serious injury data for 2013 are still incomplete. Early indications reflect a continued downward trend for both the number and five-year average of serious injuries for the eighth straight year. The 2013 fatality rate per 100 million miles traveled fell to the lowest rate on record to 1.09.

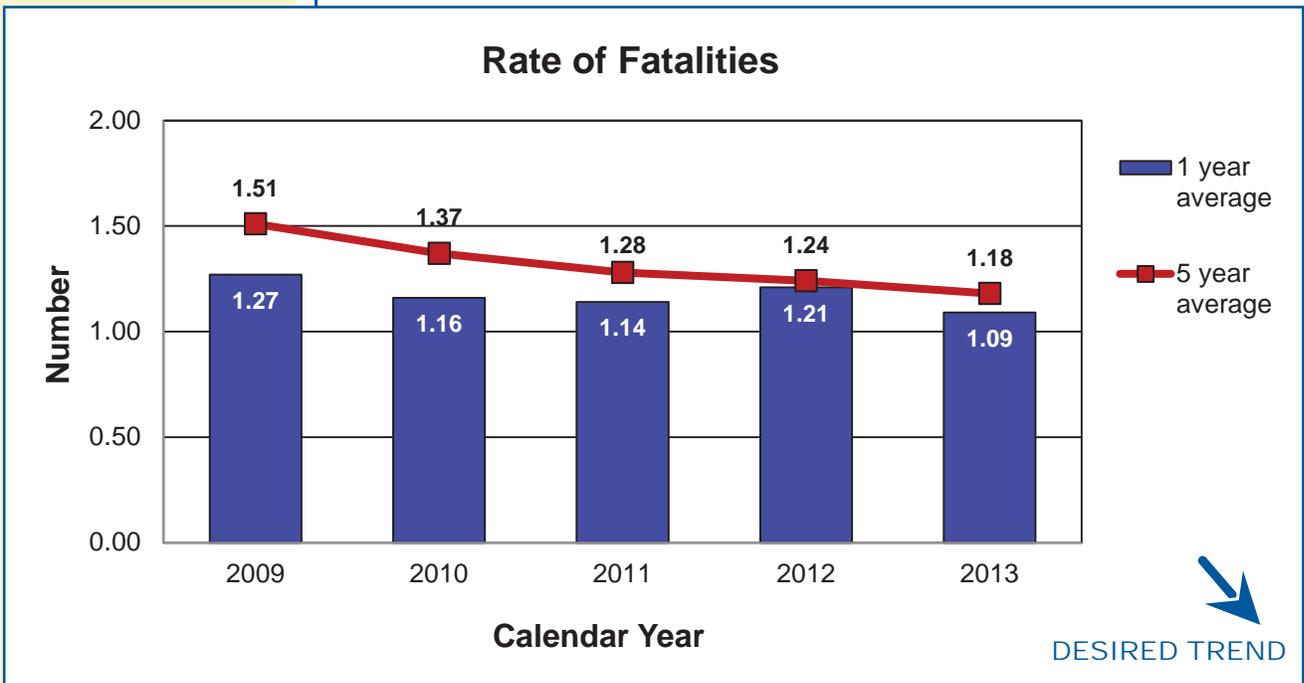
As funding levels decline, MoDOT will be challenged to deliver system-wide safety improvements.



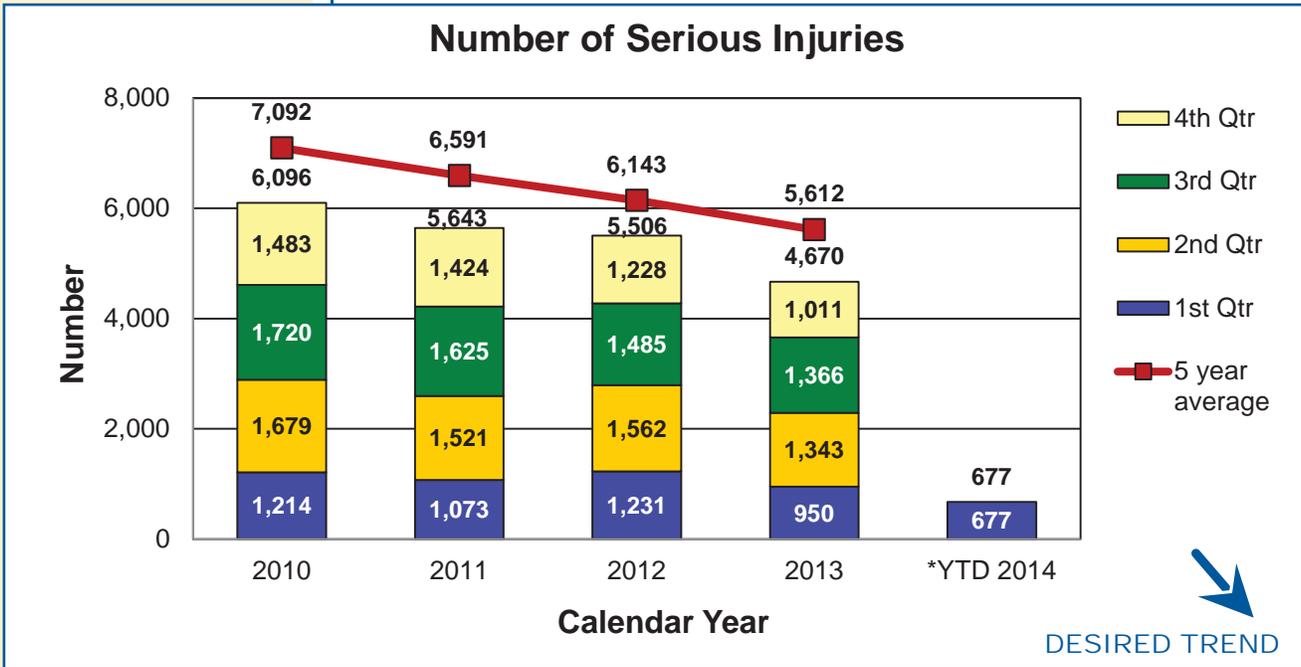
# KEEP CUSTOMERS AND OURSELVES SAFE



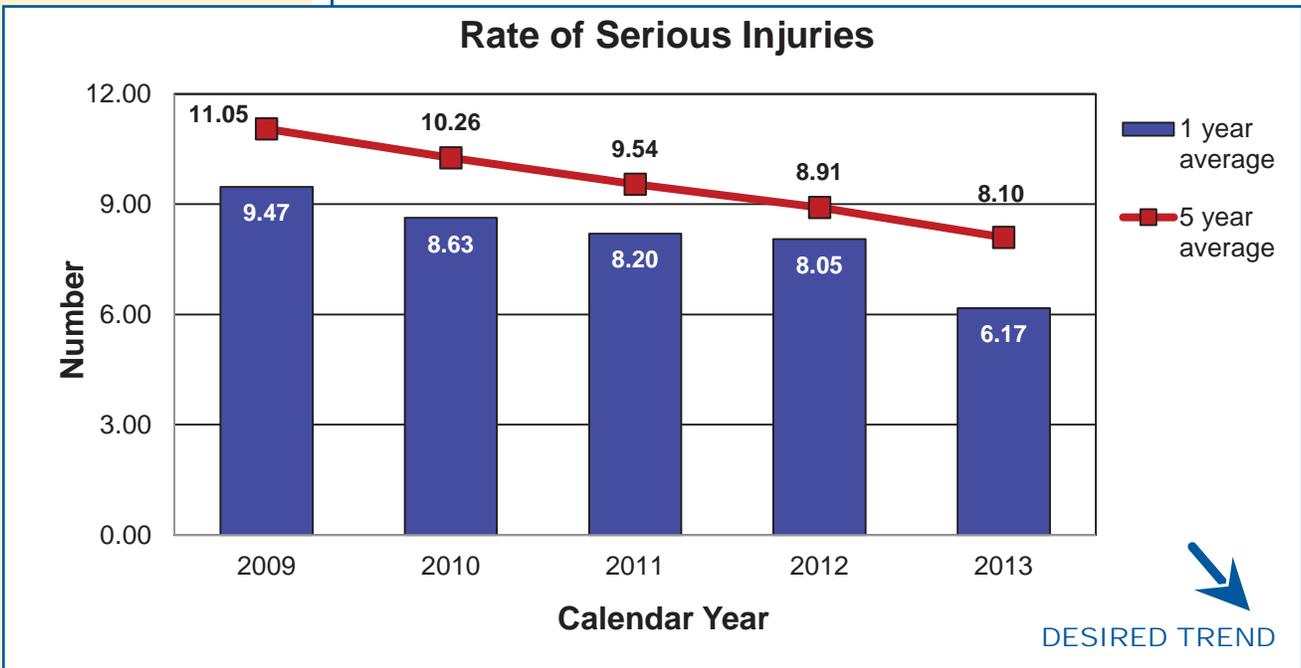
\*YTD 2014 – First quarter fatalities were derived from TMS and second quarter fatalities gathered using MSHP radio reports.



# KEEP CUSTOMERS AND OURSELVES SAFE



\*YTD 2014 - Due to a backlog of crash reports into STARS, the serious injury measure for the first quarter 2014 will only illustrate data derived from TMS. Second quarter 2014 data is unavailable through the MSHP radio reports.



**RESULT DRIVER:**  
Eileen Rackers,  
State Traffic and Highway  
Safety Engineer

# KEEP CUSTOMERS AND OURSELVES SAFE

**MEASUREMENT  
DRIVER:**  
Leanna Depue,  
Highway Safety Director

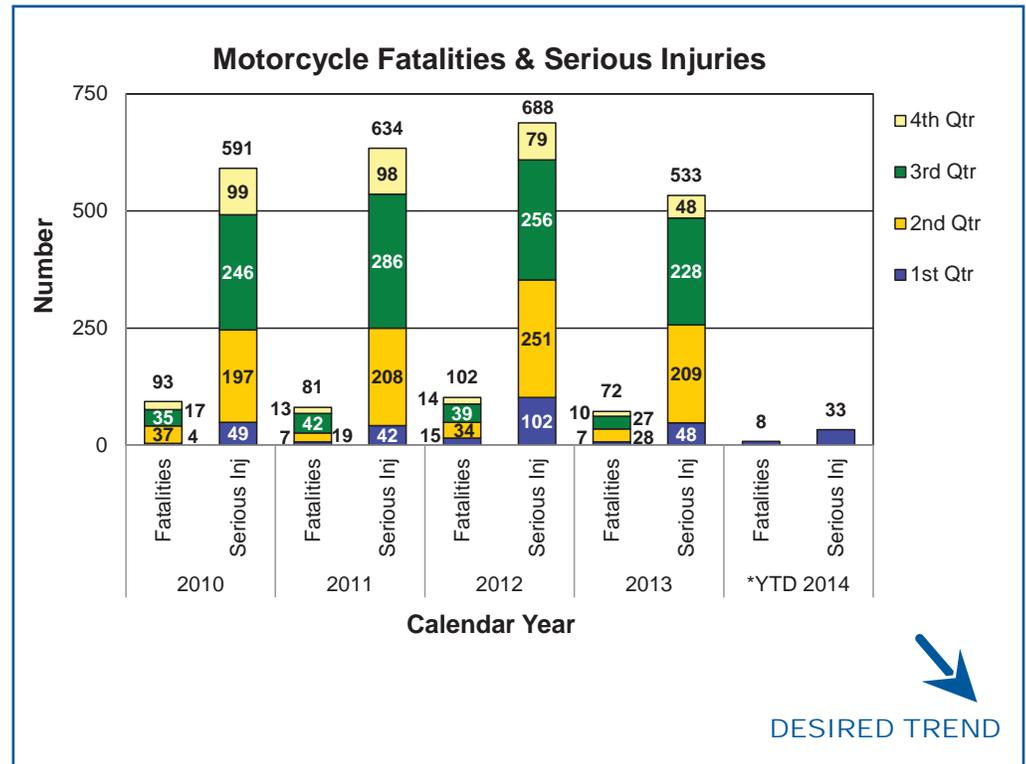
**PURPOSE OF  
THE MEASURE:**  
The vulnerable roadway  
user measures tracks an-  
nual trends in fatalities and  
serious injuries of motor-  
cyclist, pedestrians and  
bicyclists. These roadway  
users are most at risk for  
death or serious injury when  
involved in a motor-vehicle-  
related crash.

**MEASUREMENT  
AND DATA  
COLLECTION:**  
Data is collected by law  
enforcement and entered  
into the State Traffic Ac-  
cident Record System  
managed by the Missouri  
State Highway Patrol. The  
record system automatically  
updates MoDOT's Traffic  
Management System.

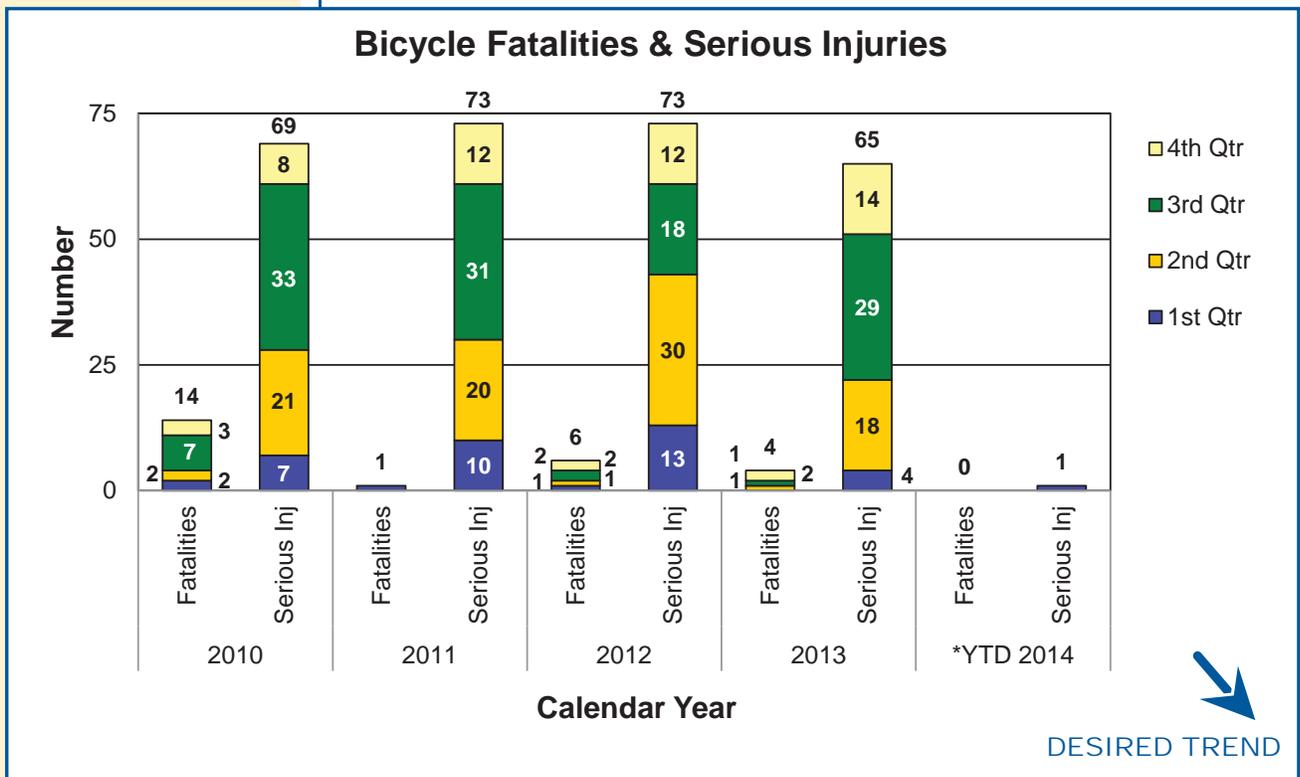
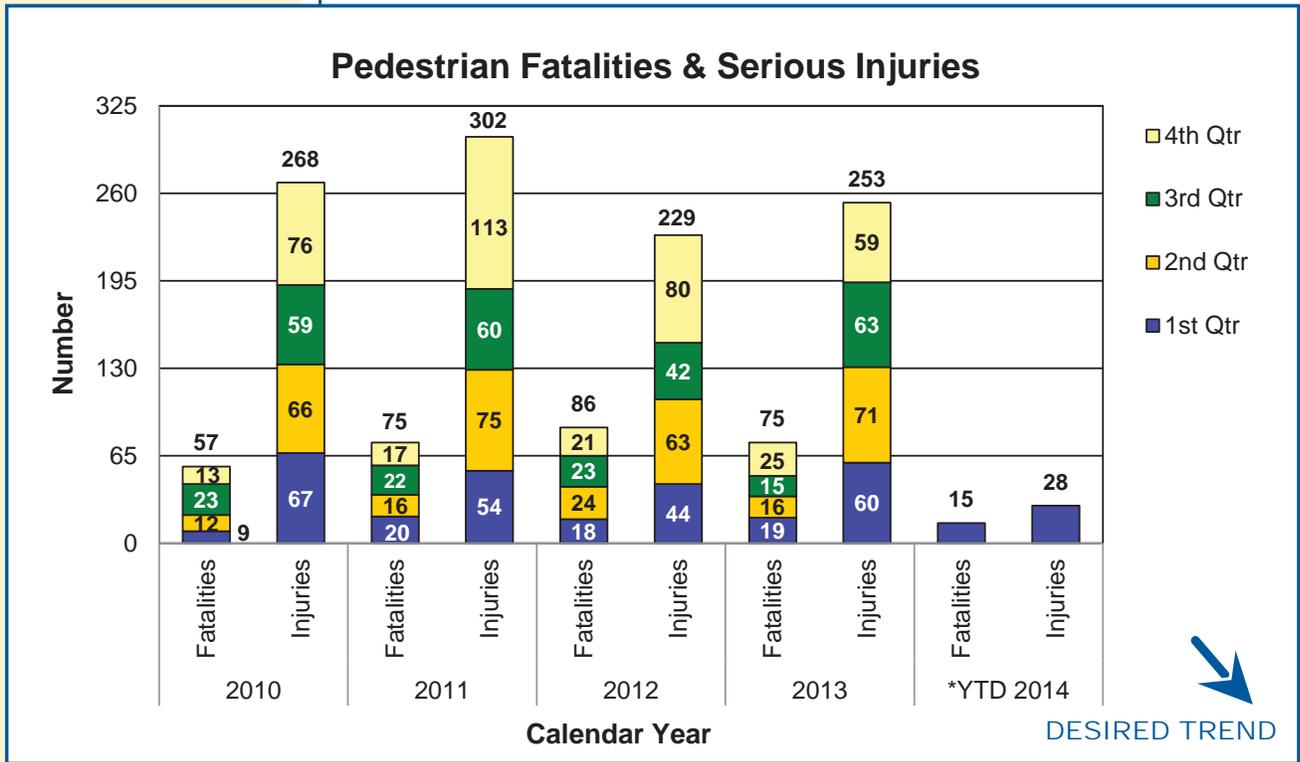
## Number of vulnerable roadway user fatalities and serious injuries-1b

In 2013, vulnerable roadway users were 20 percent of the total number of fatalities. Motorcycle, pedestrian, and bicycle fatalities all decreased in 2013 by 29 percent, 13 percent, and 33 percent respectively. Motorcycle fatalities in 2013 were the lowest since 2004. Early indications for 2014 are mixed with motorcycle fatalities up, pedestrian fatalities down and bicycle having no fatalities.

Serious injury data for 2013 are still incomplete. Motorcycle and bicycle serious injuries are showing a downward trend while pedestrian serious injuries appear to have increased from 2012 to 2013. When comparing very preliminary serious injury data for the first quarter of 2014 to 2013, motorcycle, pedestrian and bicycle injuries decreased.



# KEEP CUSTOMERS AND OURSELVES SAFE



\*YTD 2014 – Due to a backlog of crash reports into STARS, the fatality and serious injury measures for the first quarter of 2014 will only illustrate the data derived from TMS. Second quarter 2014 data is unavailable through MSHP radio reports.

**RESULT DRIVER:**  
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

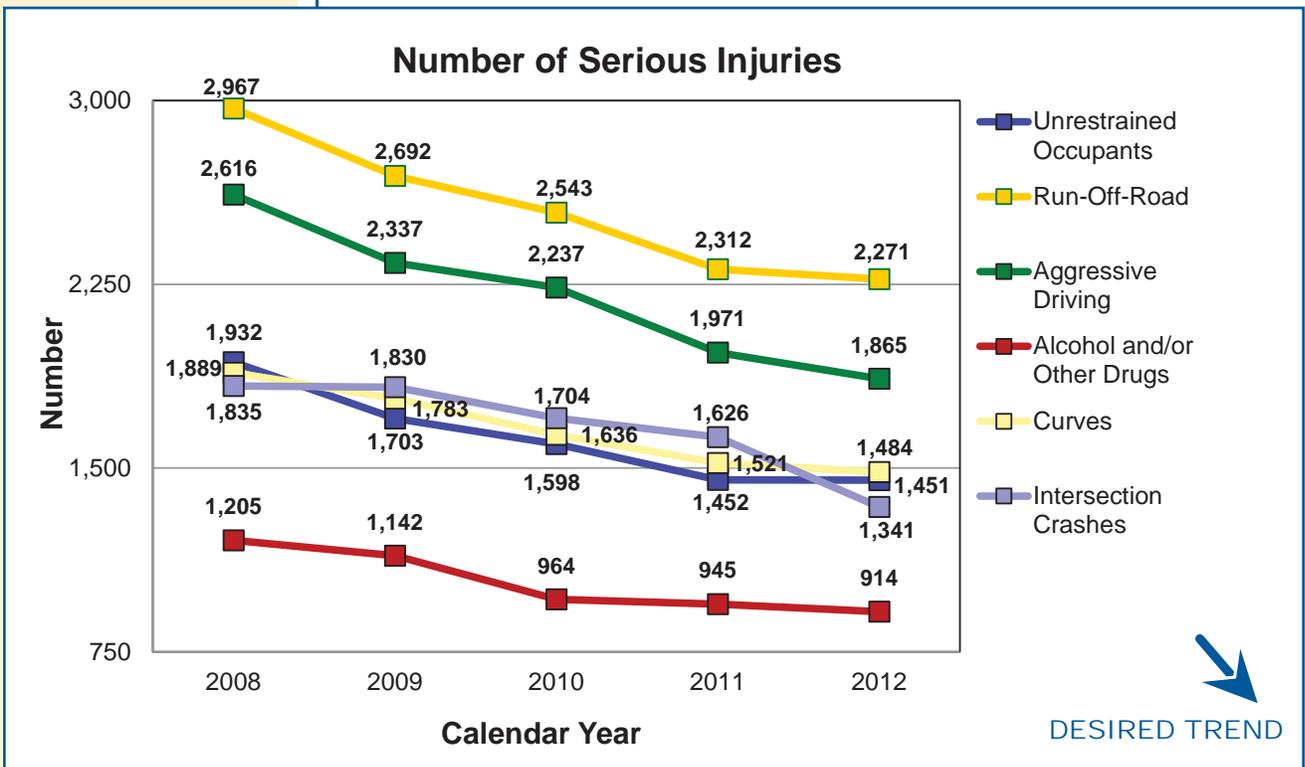
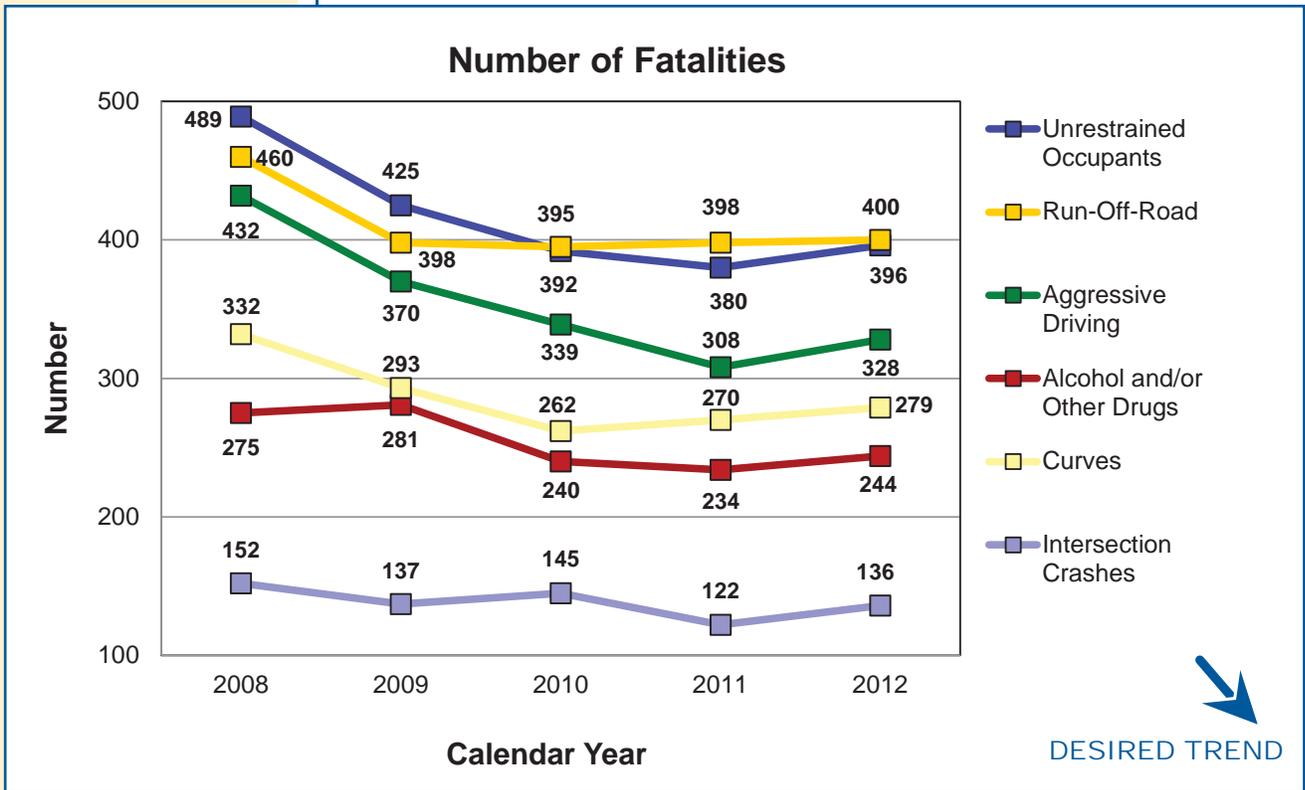
### *Number of fatalities and serious injuries resulting from the most frequent crash causes-1c*

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



**RESULT DRIVER:**  
Eileen Rackers,  
State Traffic and Highway  
Safety Engineer

## KEEP CUSTOMERS AND OURSELVES SAFE

**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 num-  
ber 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 Pa-  
trol and enter these reports  
into a statewide traffic crash  
database. MoDOT staff  
query and analyze this data  
to identify work zone related  
crash statistics.

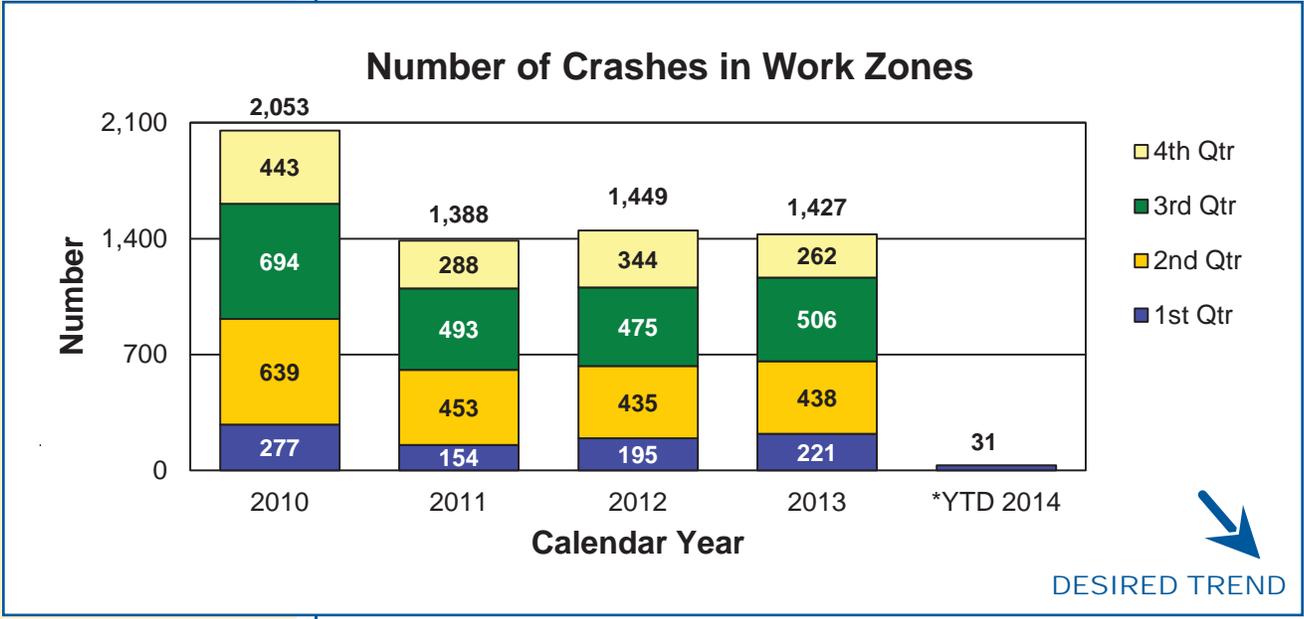
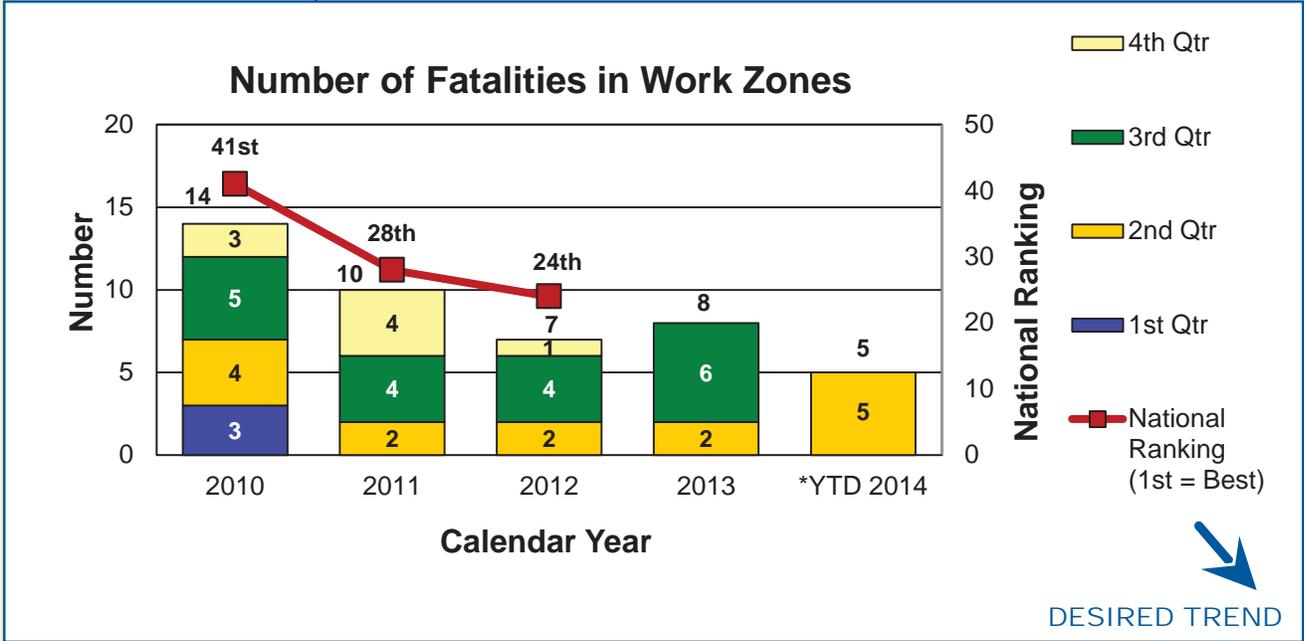
### *Number of fatalities and serious injuries in work zones-1d*

Work zone safety is at the center of MoDOT's safety culture. It is a driving force in all maintenance and construction work. Just as MoDOT expects its crews to be safe and visible, it also expects contractors to provide safe work zones and visible workers. This is demonstrated by the partnership MoDOT has with contractors using the same personal protection equipment it uses; no matter if he is a state employee or a contract employee. Staying safe in work zones is also a partnership the department shares with the driving public. MoDOT wants everyone to get home safely. While MoDOT makes every effort to work safely, it is counting on motorists to pay attention, slow down and move over.

For calendar year 2014, Missouri work zones have experienced 31 crashes resulting in five fatalities and one serious injury. Work zone crashes are down from this time last year. However, the number of fatalities has increased. Eighty percent of the work zone fatalities were unbuckled.

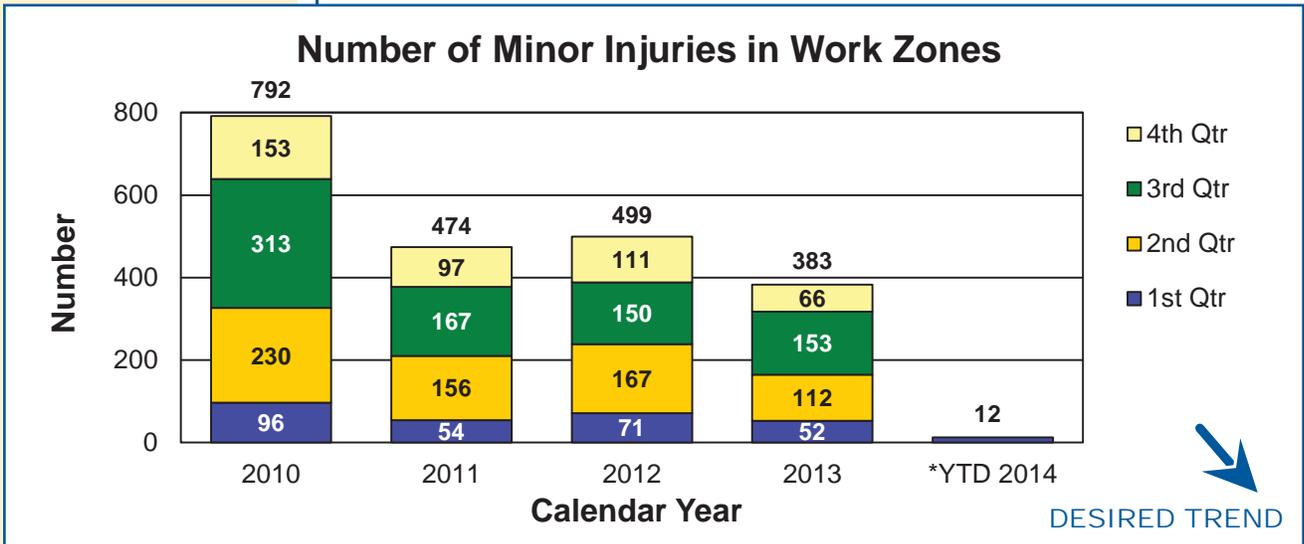
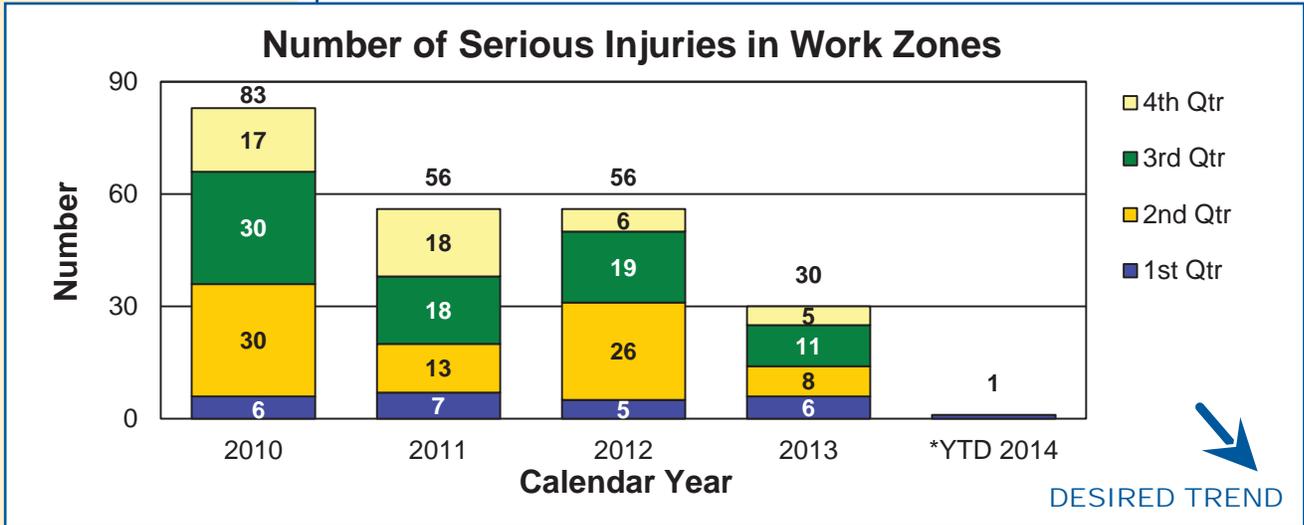


# KEEP CUSTOMERS AND OURSELVES SAFE



\*YTD 2014 – First and second quarter fatalities were derived from TMS. Due to a backlog of crash reports into STARS, the serious, minor injury and work zone crash measures for first quarter will only illustrate data derived from TMS. Second quarter 2014 data is unavailable through the MSHP radio reports.

# KEEP CUSTOMERS AND OURSELVES SAFE



\*YTD 2014 – Due to a backlog of crash reports into STARS, the serious, minor injury and work zone crash measures for the first quarter of 2014 will only illustrate data derived from TMS. Second quarter 2014 data is unavailable through the MSHP radio reports.

**RESULT DRIVER:**  
Eileen Rackers,  
State Traffic and Highway  
Safety Engineer

## KEEP CUSTOMERS AND OURSELVES SAFE

**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.

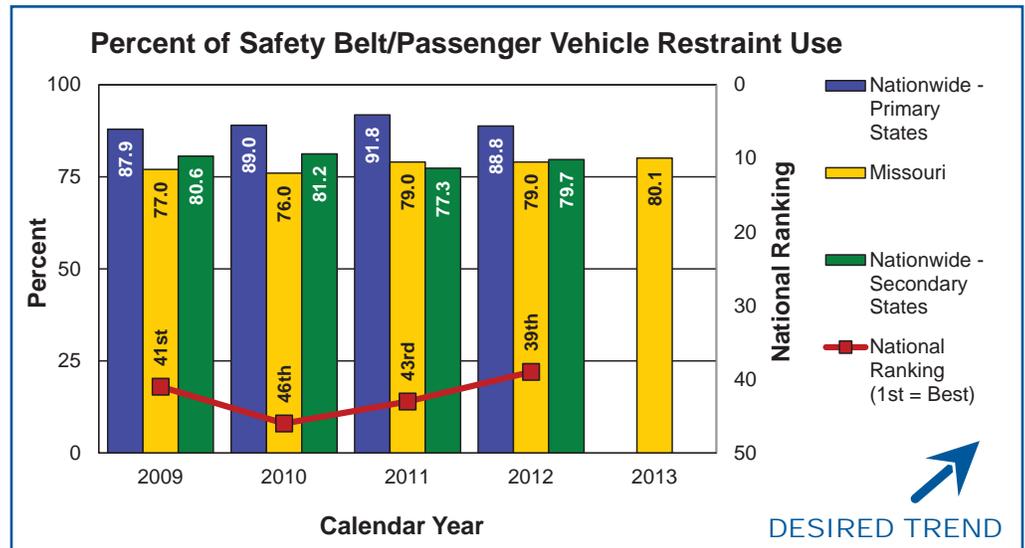
**MEASUREMENT  
AND DATA  
COLLECTION:**  
Each June, a statewide survey is conducted at 560 pre-selected locations in 28 counties. The data collected is calculated into a safety belt usage rate using a formula approved by the National Highway Traffic Safety Administration. The safety belt usage survey collects data from locations representing 85 percent of the state's vehicle occupant fatalities. The data collection plan is the same each year for consistency and compliance with National Highway Traffic Safety Administration guidelines.

### 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 grassroots efforts that enact primary ordinances within city limits. Missouri currently has 39 communities with a primary safety belt ordinance.

Safety belt use in Missouri rose to 80 percent in 2013. The national average for safety belt use in 2012 was 86 percent, the national average for 2013 is not yet available. Missouri's national ranking rose to 39.

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.



**RESULT DRIVER:**  
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 Mo-  
tor 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 Pa-  
trol and enter these reports  
into a statewide traffic crash  
database. The measure re-  
ports the number of CMVs  
involved in crashes in which  
one or more people are se-  
riously 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.

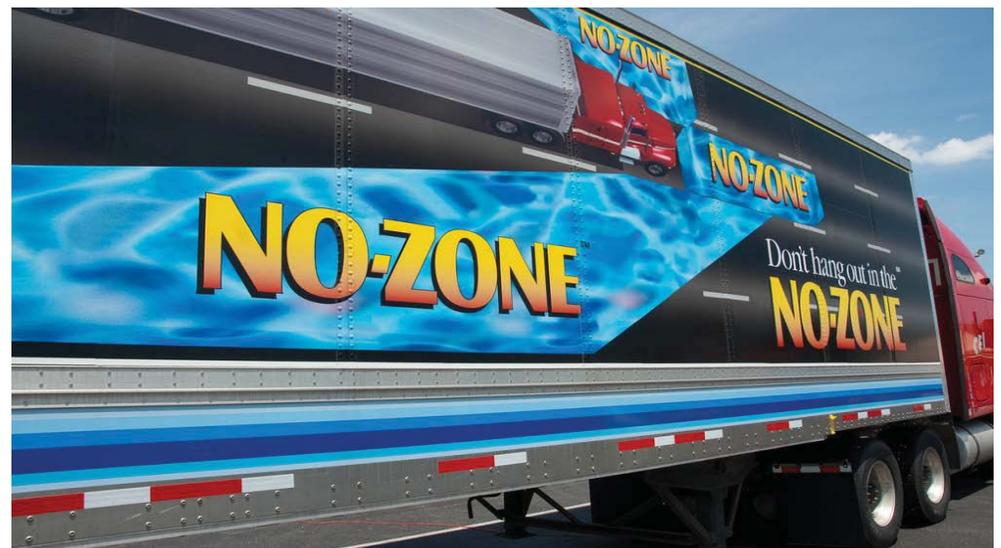
## KEEP CUSTOMERS AND OURSELVES SAFE

### *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 target educational and enforcement efforts, and also improve safety features such as highway signs, reflective pavement markings, guard cables, rumble strips and incident management alert signs.

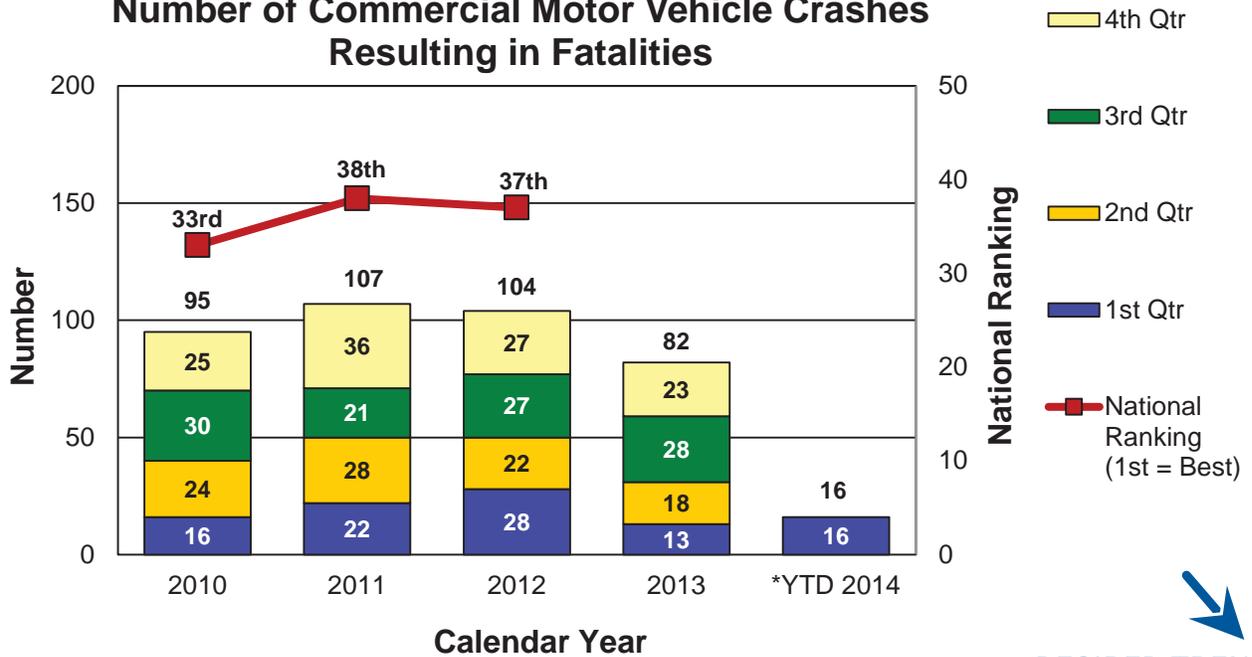
These efforts are making a difference in the number of fatality and serious injury crashes. The number of fatal crashes reported through the first quarter of 2014 is 16. With reduced resources, this is 3 more than reported for first quarter of 2013, or a 23.1 percent increase. Between 2010 and 2013, fatal crashes involving a CMV decreased by 13.7 percent.

The number of serious injury crashes reported through the first quarter of 2014 is 61. This number is 2 less than reported for the first quarter of 2013, or a decrease of 3.2 percent. Between 2010 and 2013, CMV serious injury crashes decreased by 16.6 percent. However, diminished funding will hamper our ability to make significant safety improvements in the future.



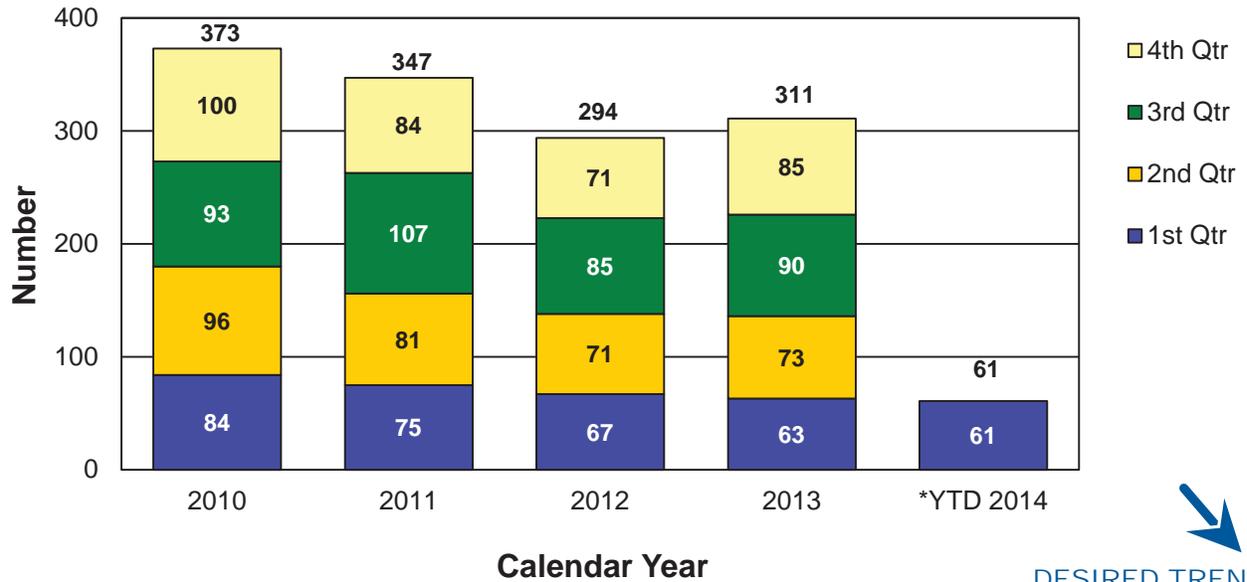
# KEEP CUSTOMERS AND OURSELVES SAFE

## Number of Commercial Motor Vehicle Crashes Resulting in Fatalities



DESIRED TREND

## Number of Commercial Motor Vehicle Crashes Resulting in Serious Injuries



DESIRED TREND

\*2014 - Due to a backlog of crash reports into STARS, the fatality and serious injury measures for the first quarter of 2014 will only illustrate data derived from TMS.

**RESULT DRIVER:**  
Eileen Rackers,  
State Traffic and Highway  
Safety Engineer

# KEEP CUSTOMERS AND OURSELVES SAFE

**MEASUREMENT  
DRIVER:**  
Roberta Jacobson,  
Claims Administration  
Manager

**PURPOSE OF  
THE MEASURE:**  
This measure tracks the  
actual number of days em-  
ployees cannot work due to  
work-related injuries.

**MEASUREMENT  
AND DATA  
COLLECTION:**  
The data is collected  
from Riskmaster, the  
department's risk manage-  
ment claims administration  
software.

## 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.

For the first two quarters of 2014, the total number of lost workdays decreased 26 percent from the same time period in 2013. There were three incidents involving snow or ice conditions that accounted for 28 percent of the lost workdays. These occurred in the Northeast, Kansas City and Central districts. Another 22 percent of the lost workdays was attributable to two incidents involving lifting MoDOT equipment or materials. These occurred in the Southwest and Southeast districts. One motor vehicle incident in the Southeast District accounted for 8 percent of the lost workdays. This incident was caused by a third party.

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.



**RESULT DRIVER:**  
Eileen Rackers,  
State Traffic and Highway  
Safety Engineer

## KEEP CUSTOMERS AND OURSELVES SAFE

**MEASUREMENT  
DRIVER:**  
Jeff Padgett,  
Risk and Benefits  
Management Director

**PURPOSE OF  
THE MEASURE:**  
This measure tracks the  
number of recordable inju-  
ries, in total and as a rate of  
injuries per 100 workers.

**MEASUREMENT  
AND DATA  
COLLECTION:**  
The calculation for inci-  
dence rate is the number of  
recordables times 200,000  
divided by the number of  
hours worked. The 200,000  
used in the calculation is  
the base for 100 full-time  
workers (working 40 hours  
per week, 50 weeks per  
year). MoDOT defines a re-  
cordable incident as a work-  
related injury or illness that  
results in death, days away  
from work or medical treat-  
ment resulting in cost to the  
department. The injury data  
is collected from Riskmas-  
ter, the department's risk  
management claims ad-  
ministration software. The  
number of hours worked is  
taken from MoDOT's payroll  
data.

### *Total and rate of MoDOT recordable incidents-1h*

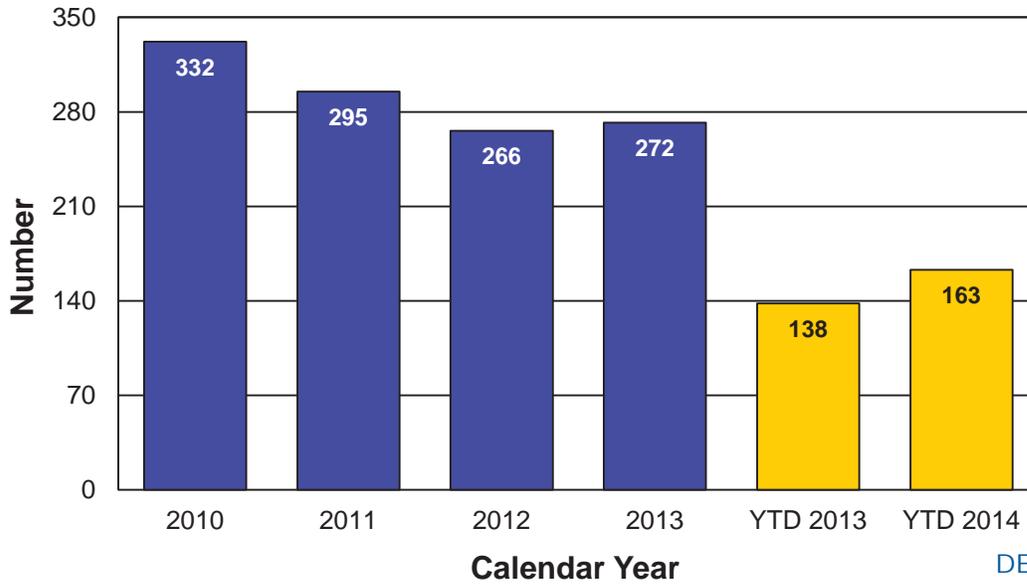
No priority stands higher than safety. Getting home safe is a responsibility every employee shares. MoDOT's dedication to employee safety is evident in the continued decline of recordable incidents. To reinforce this value, the "Safety Begins with Me" program was launched in 2013 to remind all employees that safety is a personal responsibility.

The number and rate of recordable incidents showed an increase when compared to the same time period from last year. Leading causes of incidents during this calendar year-to-date are: slips, trips and falls at 31 percent; strains (lifting, twisting, pushing/pulling) at 13 percent; struck or injured at 12 percent; and cut/puncture at 11 percent each. When looking at the largest category (slips, trips and falls), nearly half of these injuries were snow/ice related. Another 25 percent occurred when employees were entering, exiting or climbing on MoDOT equipment.

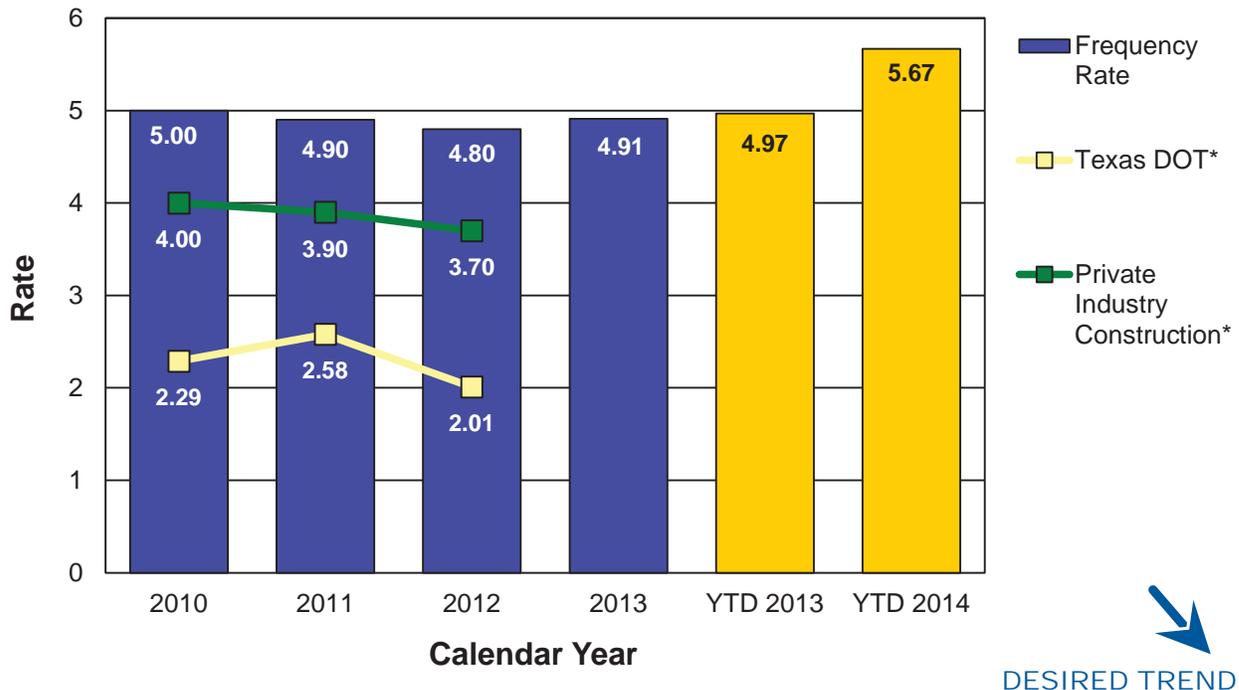


# KEEP CUSTOMERS AND OURSELVES SAFE

## Total of MoDOT Recordable Incidents



## Rate of MoDOT Recordable Incidents



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

RESULT DRIVER:  
Eileen Rackers,  
State Traffic and Highway  
Safety Engineer

## KEEP CUSTOMERS AND OURSELVES SAFE

MEASUREMENT  
DRIVER:  
Steve Patterson, Safety and  
Claims 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 condi-  
tion. Claims data is col-  
lected from Riskmaster, the  
department's risk manage-  
ment claims administration  
software.

### *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 the first two quarters of 2013, there was a decrease of 4 percent in the number of claims. For year to date 2014, the majority of the claims are attributed to striping, inadequate signing and pavement defects. During the same timeframe, there was an increase of 70 percent in the amount paid. This quarter, payment was made on 161 claims against the department totaling \$2,301,052. Over half of this quarter's payments are attributed to two claims.

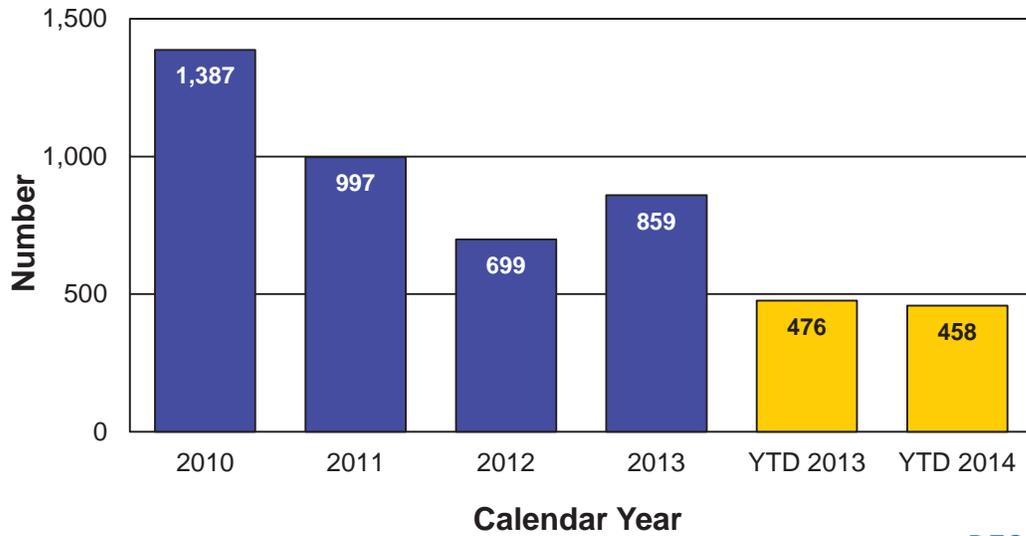
The department lost in arbitration on a 2008 claim, costing \$519,008, where we were found to have excessive gravel on the roadway. The accident resulted in severe injuries to two claimants on a motorcycle.

The department settled a 2008 worker's compensation claim, costing \$660,000, where several employees were named in the lawsuit for negligence. The employee had a severe injury to his hand during a bridge repair project.



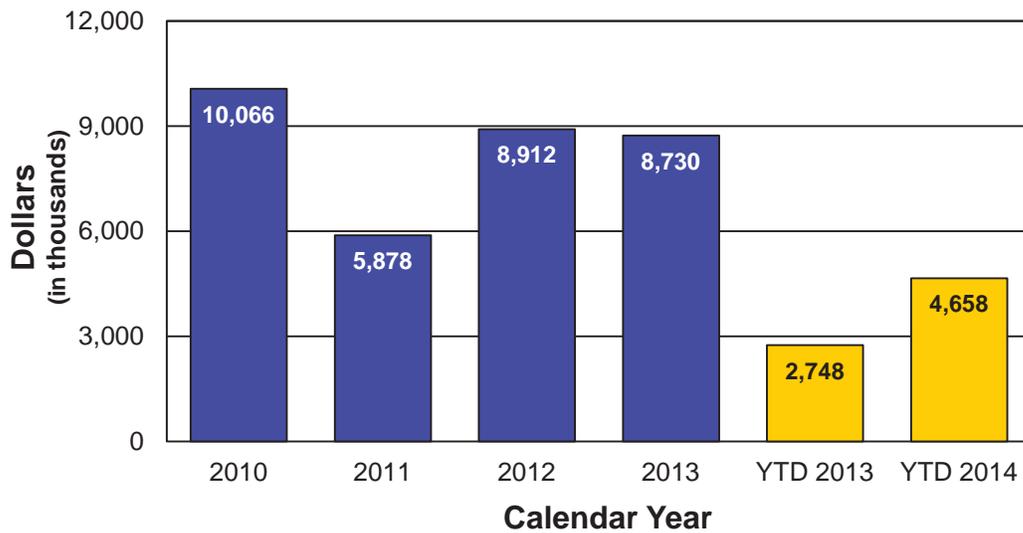
KEEP CUSTOMERS  
AND OURSELVES SAFE

**Number of Claims for General Liability**



DESIRED TREND

**Amount Paid in Claims for General Liability**



DESIRED TREND



# KEEP ROADS AND BRIDGES IN GOOD CONDITION

*Dennis Heckman, State Bridge Engineer*

**Tracker**

MEASURES OF DEPARTMENTAL PERFORMANCE



Missourians have said they want MoDOT to keep roads and bridges in good condition. Customers are looking for smooth pavements and bridges that can safely handle growing traffic demands. With 33,890 miles of highway and 10,371 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.

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

## KEEP ROADS AND BRIDGES IN GOOD CONDITION

MAP-21

### *Percent of major highways in good condition-2a*

**MEASUREMENT DRIVER:**  
Brian Reagan,  
Transportation System  
Analysis Engineer

**PURPOSE OF THE MEASURE:**  
This measure tracks the condition of Missouri's major highways.

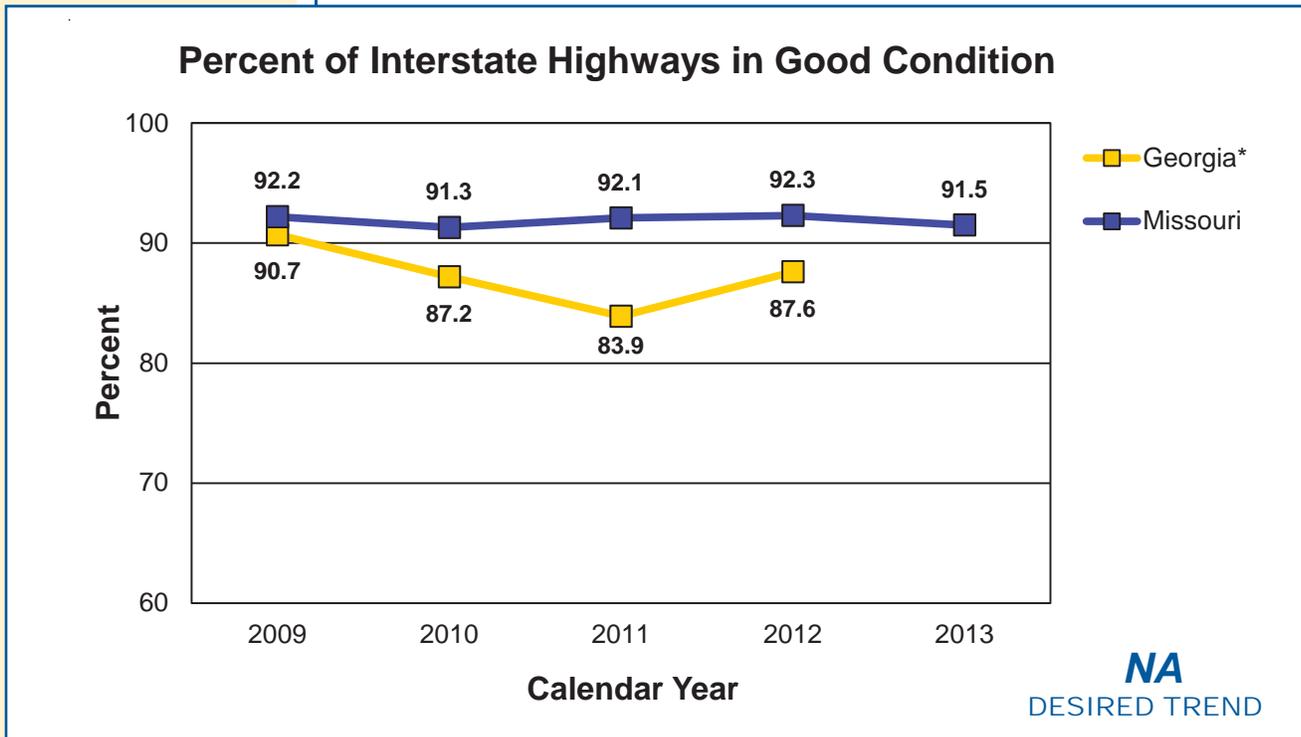
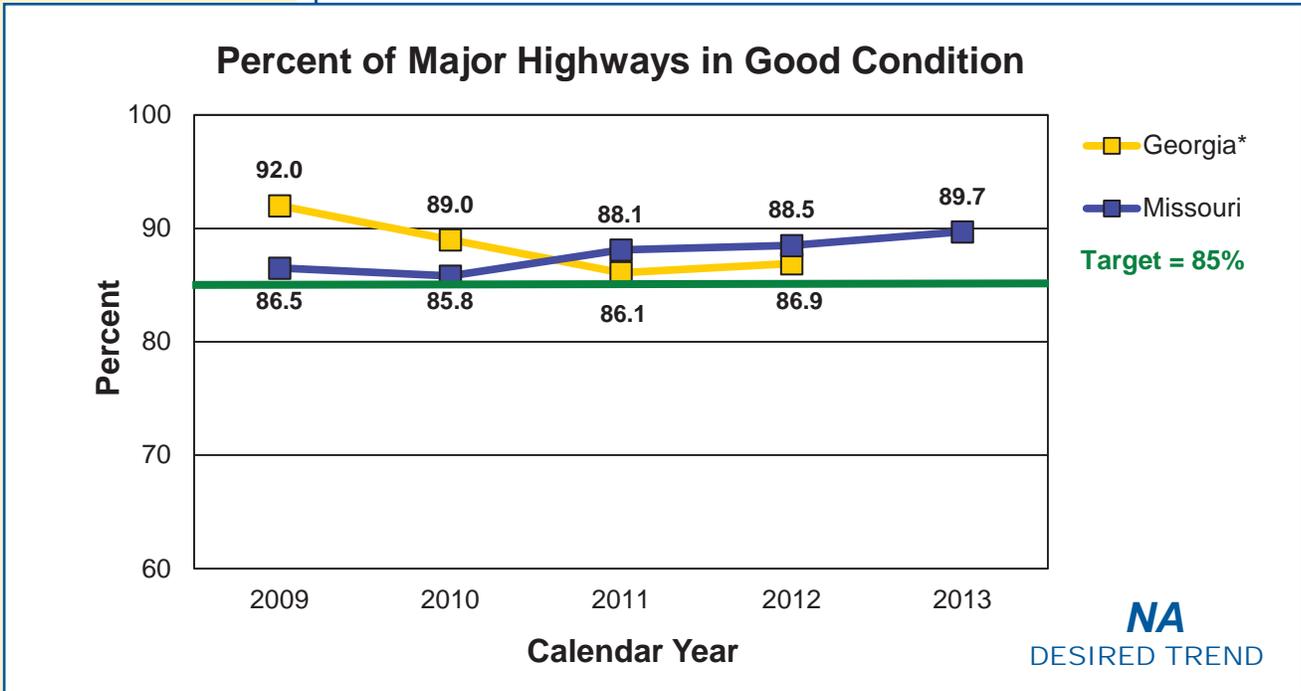
**MEASUREMENT AND DATA COLLECTION:**  
Missouri's major highway system contains the state's busiest highways, including interstates and most U.S. routes. It also includes busy routes in urban areas, particularly where vehicles travel between business districts and residential areas. There are 5,533 miles 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's, MoDOT uses Georgia as a comparable system because it has a similar amount of major highways and also bases its evaluation on the smoothness of the roadways. Missouri measures the condition of its roadways using smoothness as one factor, but also considers physical distresses such as cracking.

MoDOT started a major road improvement program in 2004 called the Smooth Roads Initiative. Over the next two years, the program improved 2,200 miles of Missouri's major routes, bringing them from 47 percent in good condition up to 74 percent. The Better Roads, Brighter Future program in 2007 further improved the system, increasing Missouri's major routes in good condition to 85 percent.

Currently more than 89 percent of major highways are rated in good condition. However, with contractor awards dropping from over \$700 million per year to \$325 million per year beginning in 2017, it will be increasingly difficult to maintain this condition level.



# KEEP ROADS AND BRIDGES IN GOOD CONDITION



\*Source data for Georgia comes from FHWA highway statistics. Data for 2013 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.

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

## KEEP 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  
minor highways.

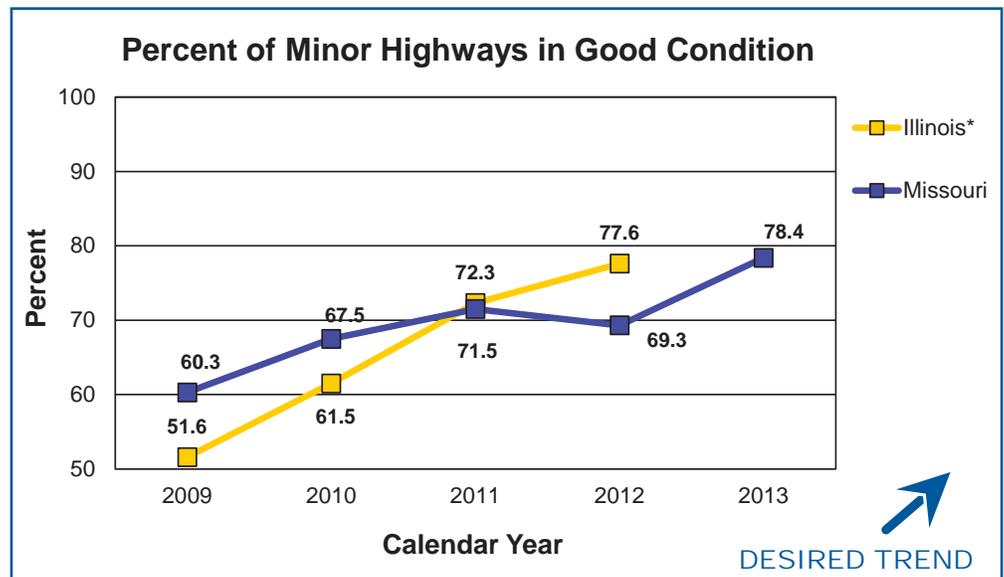
**MEASUREMENT  
AND DATA  
COLLECTION:**  
Missouri's minor highway  
system consists of its less-  
traveled state highways,  
including those routes that  
mainly serve local trans-  
portation needs. The minor  
highway system includes  
most lettered routes. There  
are 28,357 miles of minor  
highways in Missouri. The  
condition of these routes is  
determined using a variety  
of measures.

While it can be difficult to  
compare one state's road-  
ways to another's, MoDOT  
uses Illinois as a compa-  
rable system because it has  
a similar number of minor  
highways and has the high-  
est percentage of routes  
in good condition. Missouri  
measures the condition of  
its roadways using smooth-  
ness as one factor, but also  
considers physical distress-  
es such as cracking.

### Percent of minor highways in good condition-2b

MoDOT began an initiative in 2004 that focused on improving major high-ways. 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, 78 percent of Missouri's minor roads are in good condition, which is an increase from 2012. With contractor awards dropping from over \$700 million per year to \$325 million per year beginning in 2017, the expectation is that the condition of the minor roads will decline.



\*Source data for Illinois comes from FHWA highway statistics. Data for 2013 is not available at the time of publication. Data is based on a combination of pavement condition and smoothness as submitted as part of the Highway Performance Monitoring System.

RESULT DRIVER:  
Dennis Heckman,  
State Bridge Engineer

## KEEP ROADS AND BRIDGES IN GOOD CONDITION

MAP-21

MEASUREMENT  
DRIVER:  
David Koenig,  
Bridge Management  
Engineer

PURPOSE OF  
THE MEASURE:  
This measure tracks  
progress toward improving  
the condition of Missouri's  
bridges.

MEASUREMENT  
AND DATA  
COLLECTION:  
This measure is updated  
in April based on MoDOT  
inspections conducted the  
prior year. Data is pre-  
sented 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 10,371  
bridges on state highways,  
208 are major. Bridges are  
categorized as being in  
good, fair or poor condition.  
Good means no significant  
condition-related problems  
exist. Fair indicates moder-  
ate problems that may re-  
quire minor rehabilitation or  
maintenance to return the  
structure to good condition.

### *Condition of state bridges-2c*

The public has indicated the condition of Missouri's existing roadway system should be one of the state's highest priorities. Currently, 1,966 (47 major) structures are in poor condition, 4,686 (97 major) structures are in fair condition and 3,719 (64 major) structures are in good condition.

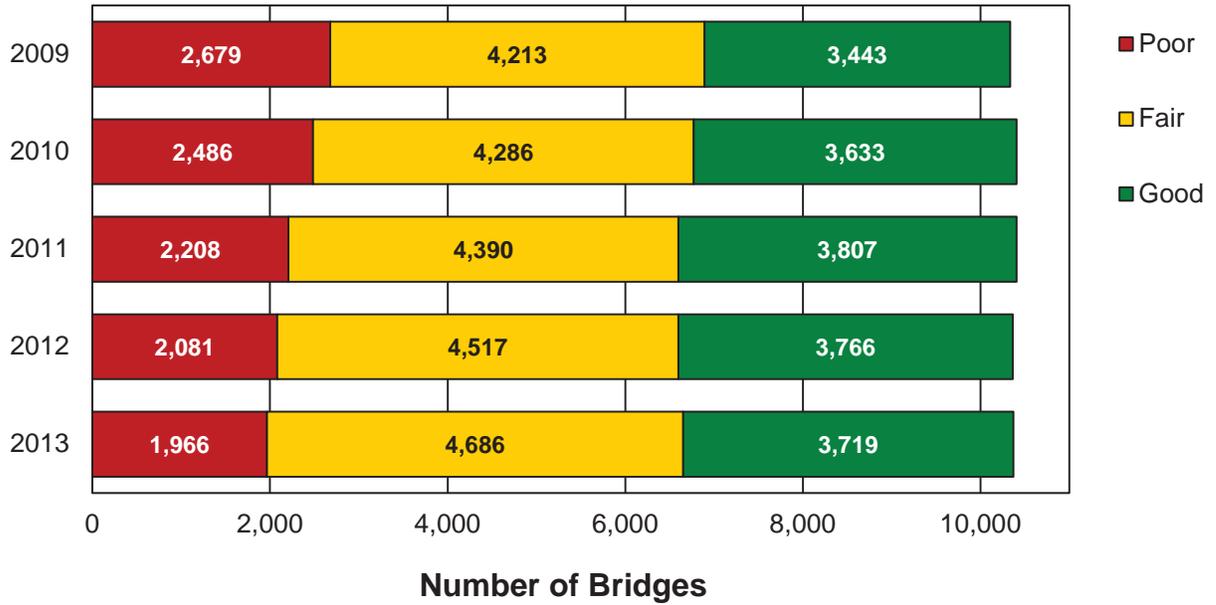
Statewide, the number of structures in poor condition dramatically decreased over the last five years and the number of structures in good condition moderately improved up until 2011. These improvements were heavily impacted by the Safe & Sound Bridge Improvement Program that was completed in 2012, and by the increased construction program that resulted from the passage of Amendment 3 in 2004. It should be noted that while the number of poor-condition bridges dropped by 713 over this five-year period, the number in good condition only increased by 276. The number in fair condition increased by 473 over this period which is reflective of MoDOT's aging bridge population with many structures at the point where they need minor maintenance or rehabilitation. With the decrease in funds available for the construction program, 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, but despite a significant investment in major bridges, the number of structures in good condition generally dropped over the five-year period while the number in fair condition significantly increased. Work on major bridges is 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.

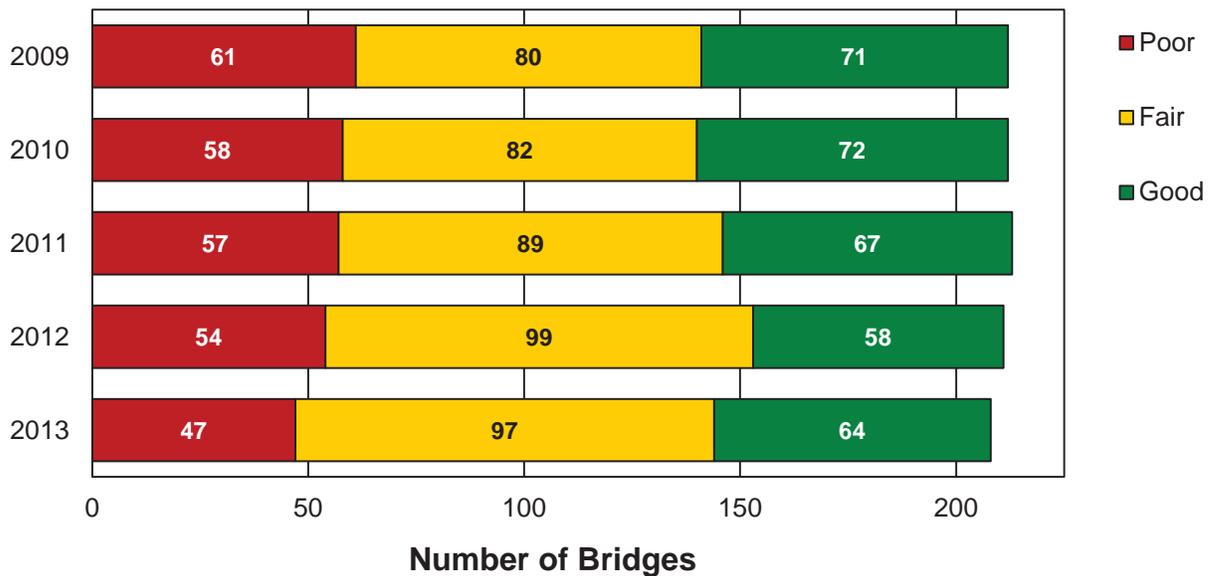


# KEEP ROADS AND BRIDGES IN GOOD CONDITION

## Statewide Condition of All Bridges (10,371 Total Bridges)



## Statewide Condition of Major Bridges (208 Total Bridges)



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

# KEEP ROADS AND BRIDGES IN GOOD CONDITION



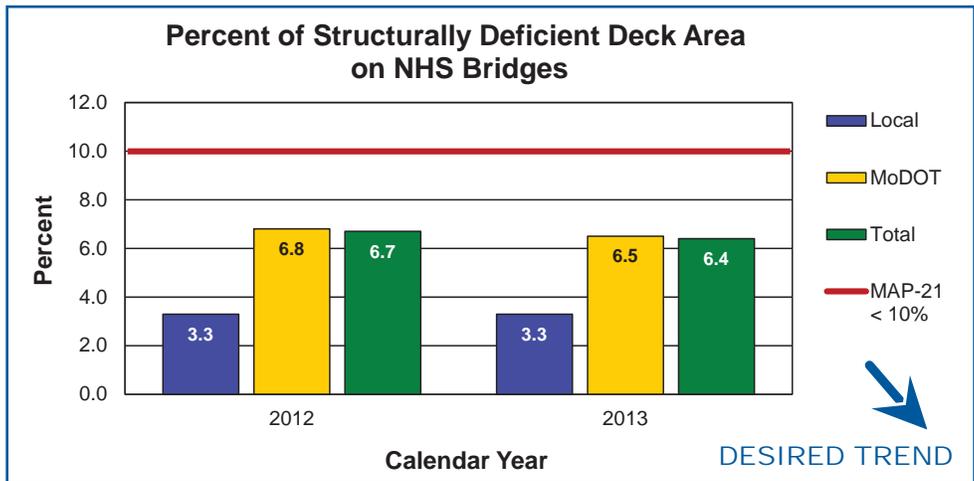
**MEASUREMENT DRIVER:**  
David Koenig,  
Bridge Management  
Engineer

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

**PURPOSE OF THE MEASURE:**  
This measure tracks the percent of structurally deficient deck area for bridges that are part of the National Highway System. Moving Ahead for Progress in the 21st Century, the federal surface transportation act, requires states to track the Structurally Deficient deck area with a national performance goal of it being less than 10 percent.

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 143 NHS structures (five SD) and the MoDOT system has 3,594 NHS structures (145 SD). MoDOT currently meets the national performance goal with the total at 6.4 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. The 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.

**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.





## PROVIDE OUTSTANDING CUSTOMER SERVICE

*Dan Niec, District Engineer*

**Tracker**

MEASURES OF DEPARTMENTAL PERFORMANCE



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

RESULT DRIVER:  
Dan Niec,  
District Engineer

## PROVIDE OUTSTANDING CUSTOMER SERVICE

MEASUREMENT  
DRIVER:  
Tammy Wallace,  
Senior Customer  
Relations Specialist

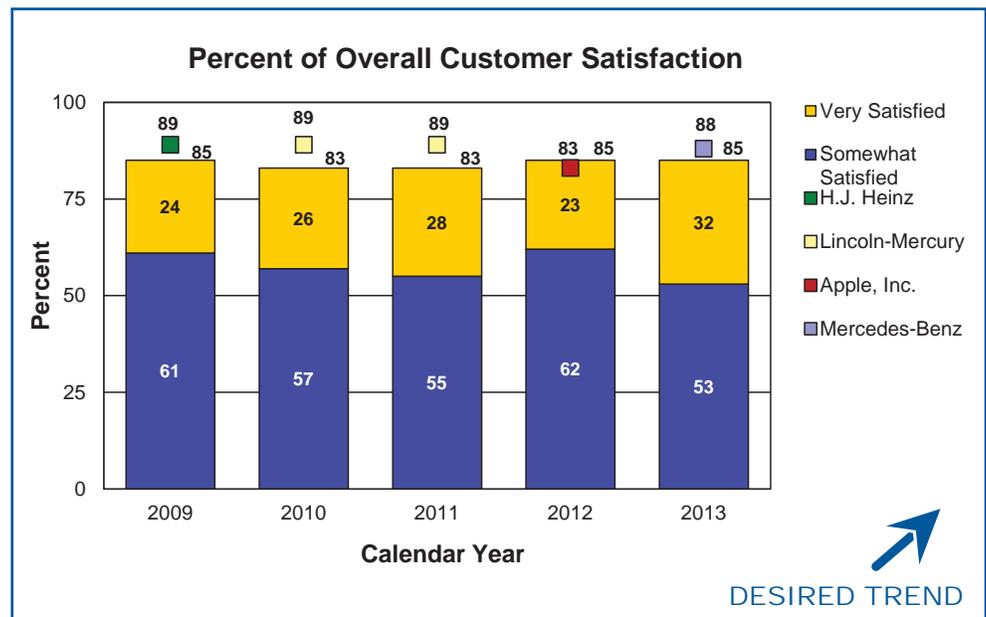
PURPOSE OF  
THE MEASURE:  
This measure tracks  
MoDOT's progress toward  
the mission of delighting its  
customers.

MEASUREMENT  
AND DATA  
COLLECTION:  
Data is collected through  
an annual telephone survey  
of approximately 3,500  
randomly selected Missou-  
rians. Data compiled by the  
American Customer Satis-  
faction Index in 2013 shows  
Mercedes-Benz having the  
highest customer satisfac-  
tion rate – 88 percent – out  
of the hundreds of compa-  
nies and government agen-  
cies the ACSI scores.

### 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.



RESULT DRIVER:  
Dan Niec,  
District Engineer

## PROVIDE OUTSTANDING CUSTOMER SERVICE

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.

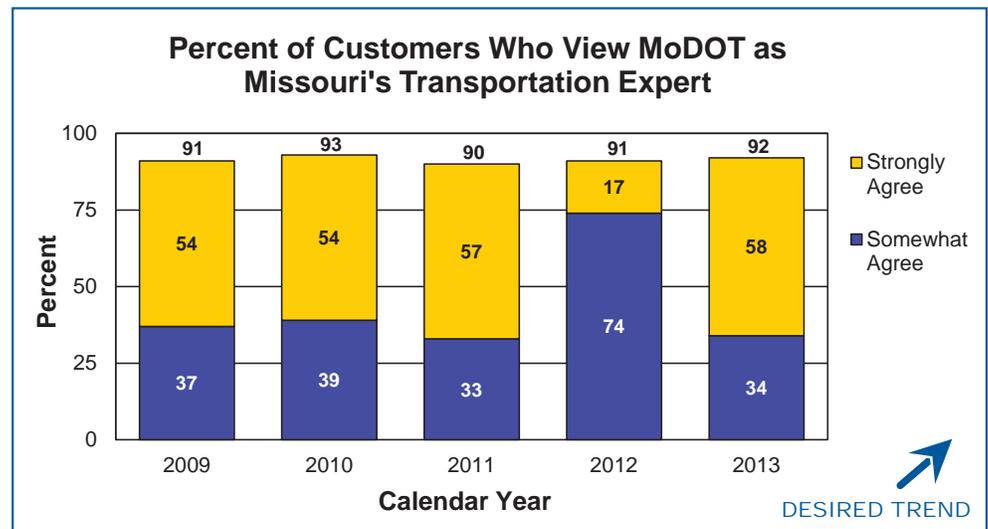
MEASUREMENT  
AND DATA  
COLLECTION:  
Data is collected through  
an annual telephone survey  
of approximately 3,500  
randomly selected Missou-  
rians.

### *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 front-runner – 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.



RESULT DRIVER:  
Dan Niec,  
District Engineer

## PROVIDE OUTSTANDING CUSTOMER SERVICE

MEASUREMENT  
DRIVER:  
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:

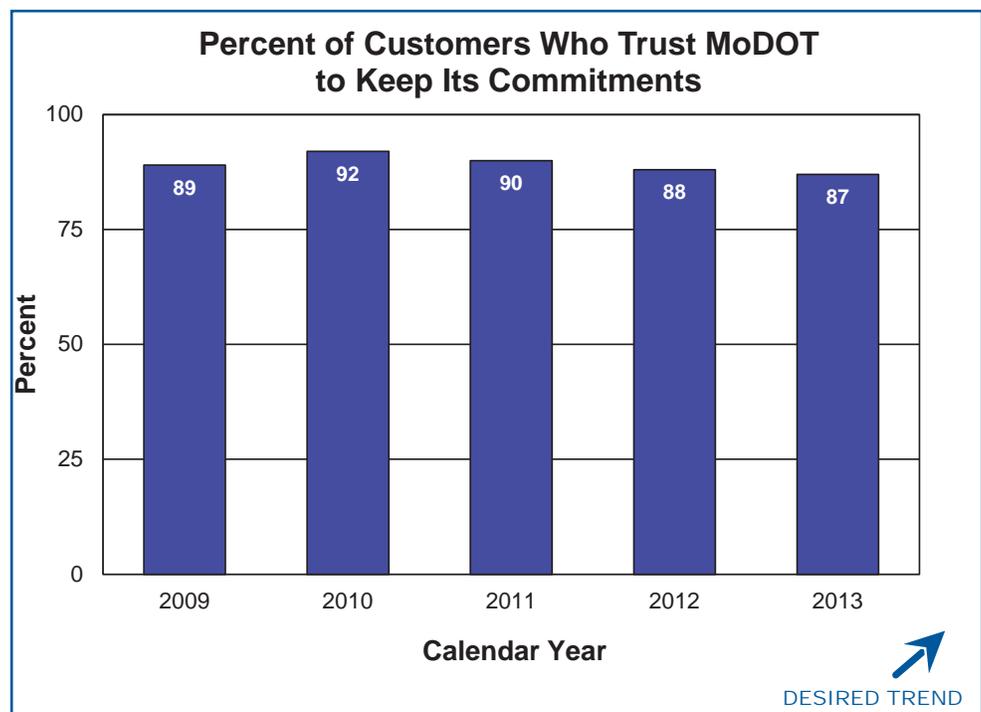
Data is collected through an annual telephone survey of approximately 3,500 randomly selected Missourians, being most recently updated for the October 2013 Tracker. Until 2013, this measure was a yes/no question. This year, customers responded to a satisfaction scale. The sum of the positive responses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

## *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.



RESULT DRIVER:  
Dan Niec,  
District Engineer

## PROVIDE OUTSTANDING CUSTOMER SERVICE

MEASUREMENT  
DRIVER:  
Marie Elliott,  
Customer Relations  
Manager

PURPOSE OF  
THE MEASURE:  
This measure tracks  
whether customers feel  
MoDOT provides timely,  
accurate and understand-  
able 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 Missou-  
rians.

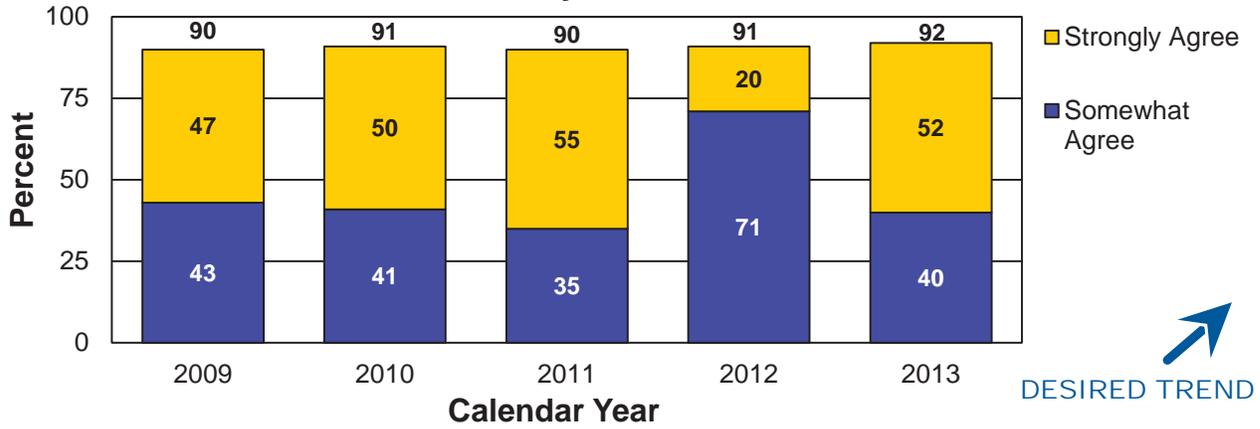
### *Percent of customers who feel MoDOT provides timely, accurate and understandable information-3d*

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.

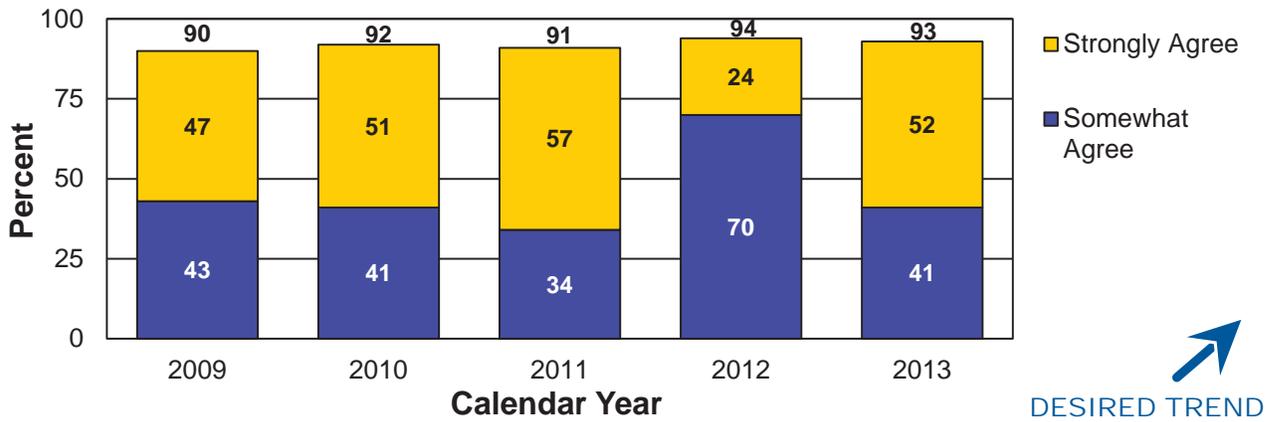


# PROVIDE OUTSTANDING CUSTOMER SERVICE

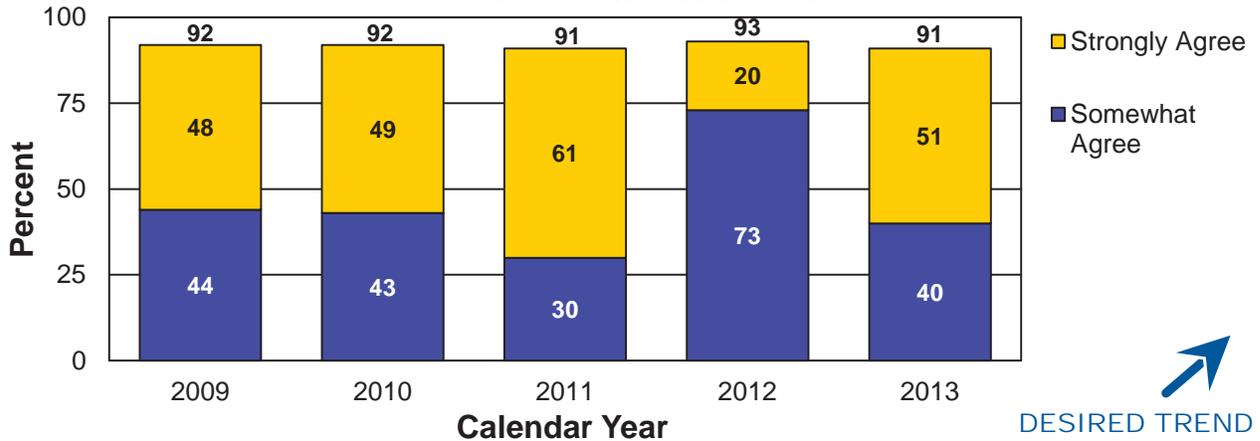
## Percent of Customers Who Feel MoDOT Provides Timely Information



## Percent of Customers Who Feel MoDOT Provides Accurate Information



## Percent of Customers Who Feel MoDOT Provides Understandable Information



**RESULT DRIVER:**  
Dan Niec,  
District Engineer

## PROVIDE OUTSTANDING CUSTOMER SERVICE

**MEASUREMENT  
DRIVER:**  
Eric Schroeter,  
State Design Engineer

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

**PURPOSE OF  
THE MEASURE:**  
This measure provides information regarding the public's perception of MoDOT's performance in providing the right transportation solutions.

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 believe that MoDOT provides the right transportation solution.

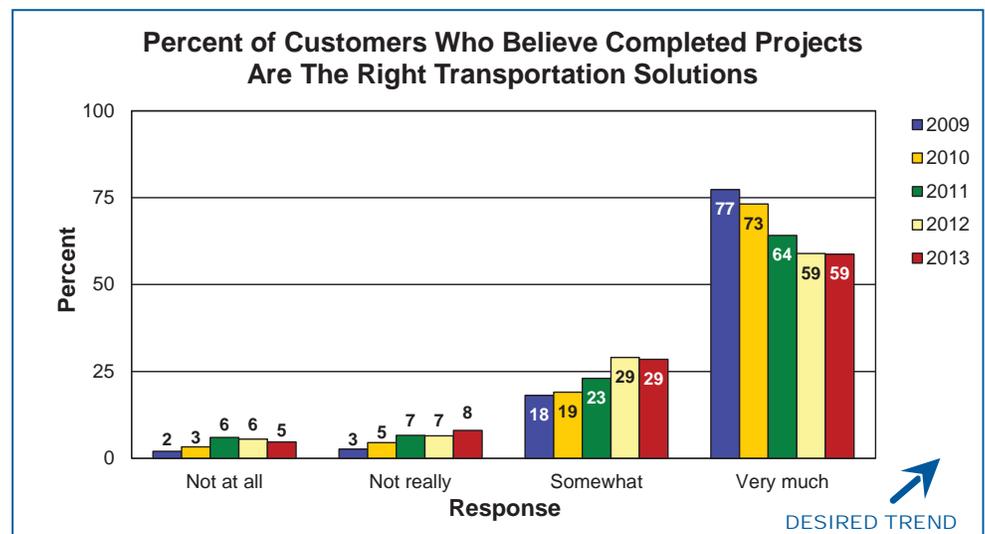
The majority of respondents thought that the project made the roadway:

- 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.

**MEASUREMENT  
AND DATA  
COLLECTION:**  
Data for this measure is collected through an annual survey sent to users of projects completed and opened to traffic within the previous year. The districts identify 21 projects – three per district – in three categories: large, medium and small. Large projects are defined as those involving a major route or one that is funded through major project dollars. Medium projects are of district-wide importance. Small projects have only local significance. A sample of residents is drawn from zip code areas adjoining the recently completed project. The samples include 500 addresses per project area.

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

MoDOT expects the funding available for the annual construction program to drop until it reaches \$325 million in fiscal year 2017. At that level, the department will not be able to keep the highway and bridge system in the shape it is in today and undertaking projects that solve transportation problems will be out of the question. Because of this, the results of this measure are likely to decline in the near future.



RESULT DRIVER:  
Dan Niec,  
District Engineer

## PROVIDE OUTSTANDING CUSTOMER SERVICE

MEASUREMENT  
DRIVER:  
Melissa Black,  
Customer Relations  
Manager

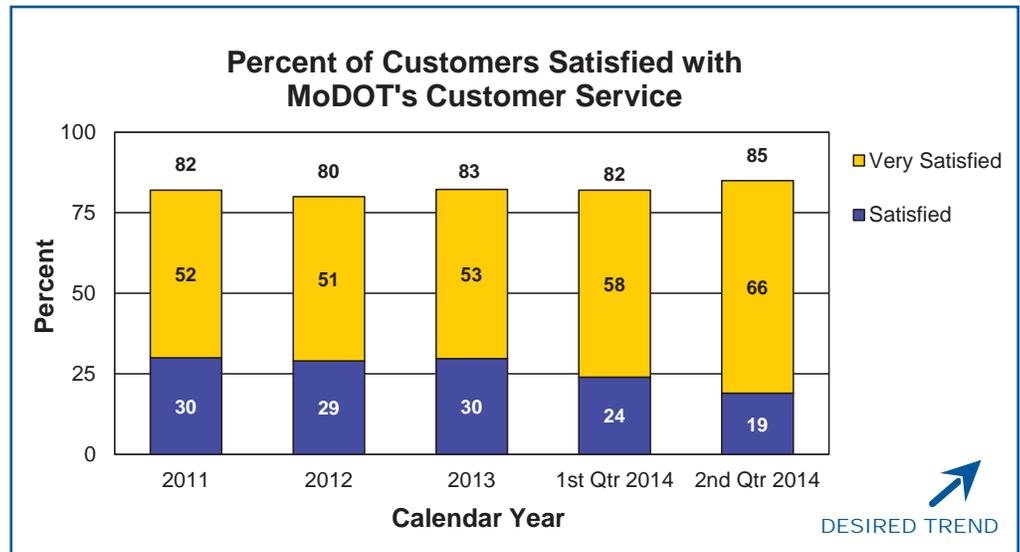
PURPOSE OF  
THE MEASURE:  
This measure shows how  
satisfied customers who  
contact MoDOT are with the  
politeness, clarity and re-  
sponsiveness they receive.

MEASUREMENT  
AND DATA  
COLLECTION:  
The data for this measure  
is obtained from a monthly  
telephone survey of 200  
customers who contacted  
a MoDOT customer ser-  
vice center in the previous  
month. The customer con-  
tacts come from call reports  
logged into the customer  
service database. Survey  
participants are asked to  
respond on a Strongly  
Agree to Strongly Disagree  
scale regarding represen-  
tative politeness and how  
quickly and clearly MoDOT  
responded to and answered  
questions or concerns. A  
fourth question asks for a  
rating of overall satisfac-  
tion. 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.

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

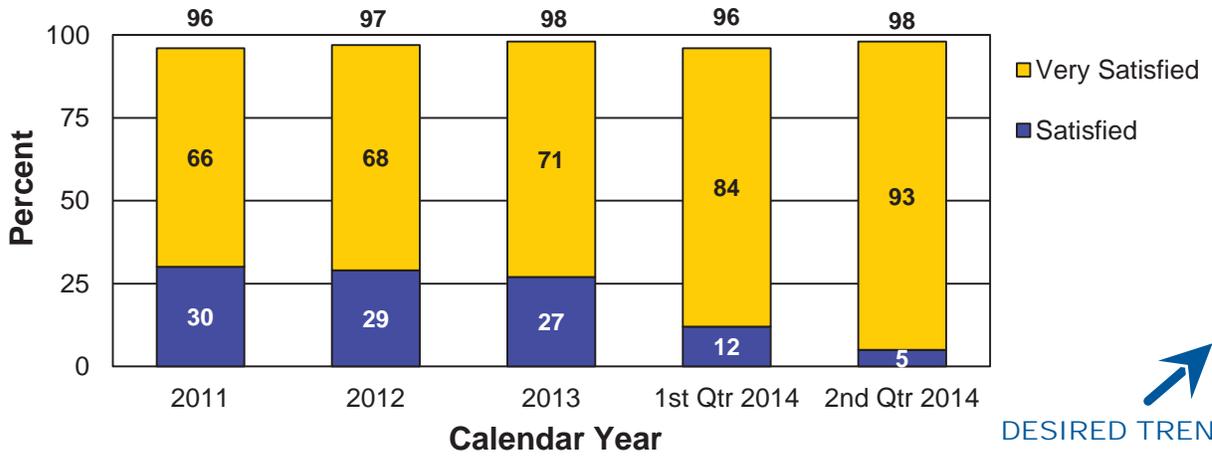
MoDOT actively seeks feedback from the people it serves. In 2012, MoDOT created a statewide call system and enhanced its online call report system that enables customer service representatives to work across seven district boundaries in a one-team approach. Since implementation, customer perceptions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

In the second quarter 2014, 85 percent of customers surveyed indicated overall satisfaction with MoDOT's handling of their questions or concerns. This is the highest since before 2011. Satisfaction with politeness was indicated by 98 percent of respondents, 91 percent felt they received clear, understandable answers and 93 percent were satisfied or very satisfied with the responsiveness of the answers they received. All measures increased this quarter compared to first quarter 2014, except for clarity and overall the very satisfied numbers were all up. The average time to complete customer requests during this quarter decreased to 1.4 days.

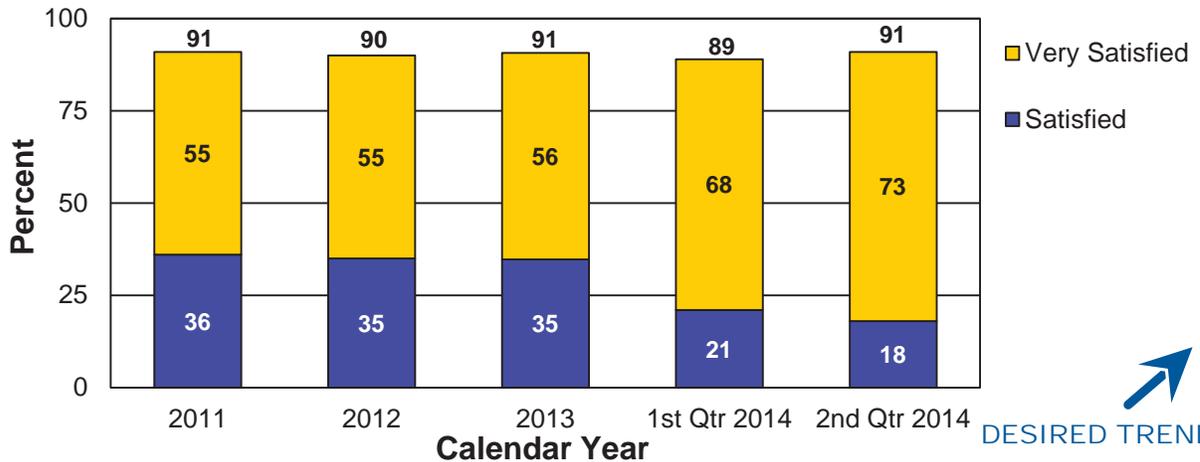


# PROVIDE OUTSTANDING CUSTOMER SERVICE

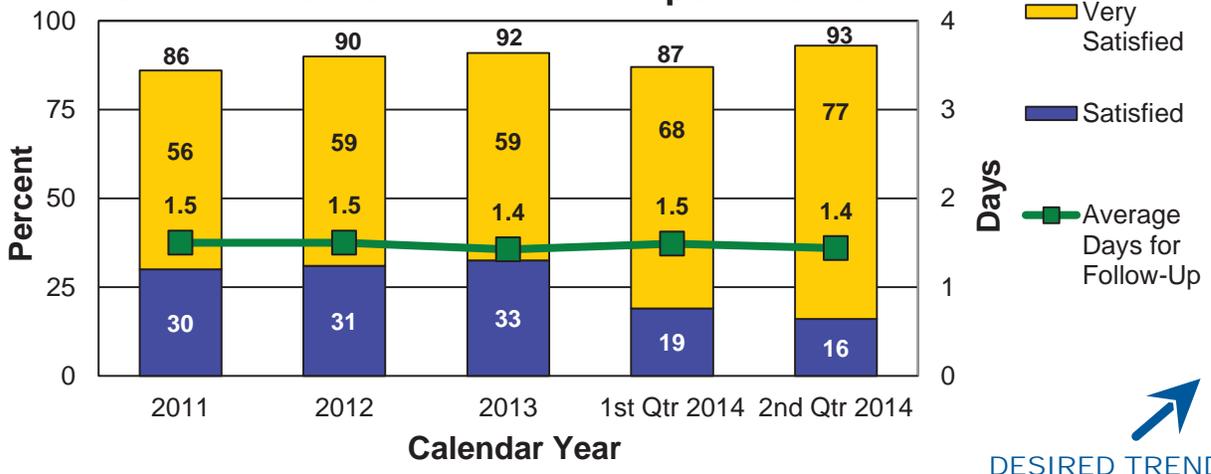
## Customer Satisfaction with Politeness of Staff



## Customer Satisfaction with Clarity of Response



## Customer Satisfaction with Responsiveness



RESULT DRIVER:  
Dan Niec,  
District Engineer

MEASUREMENT  
DRIVER:  
Melissa Black, Customer  
Relations Manager

PURPOSE OF  
THE MEASURE:  
This measure tracks how  
MoDOT customers receive  
and exchange information  
with the agency.

MEASUREMENT  
AND DATA  
COLLECTION:  
MoDOT gathers informa-  
tion for this measure from a  
variety of sources. These in-  
clude the annual telephone  
survey of approximately  
3,500 randomly selected  
Missourians, Google Analyt-  
ics to measure Web traffic  
and social media analytics.

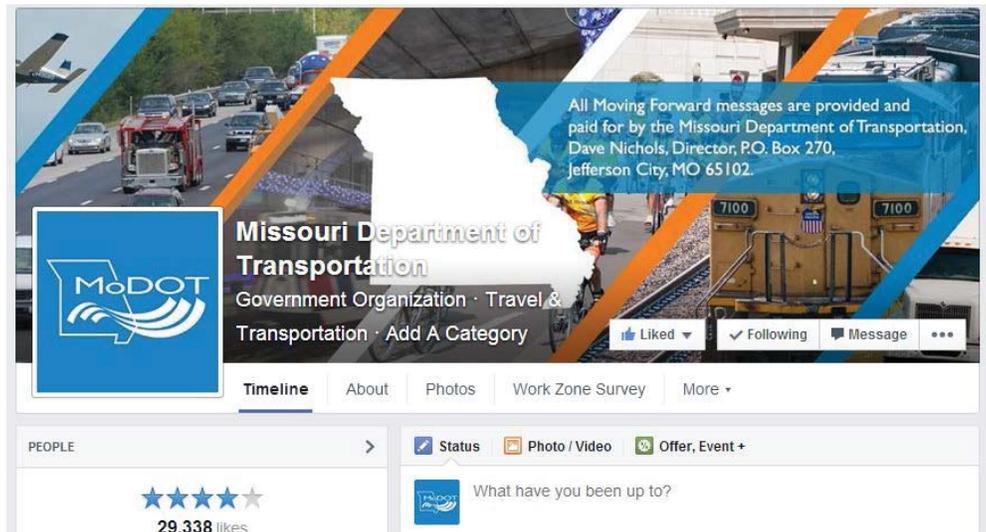
## PROVIDE OUTSTANDING CUSTOMER SERVICE

### *Percent of customer communication engagement-3g*

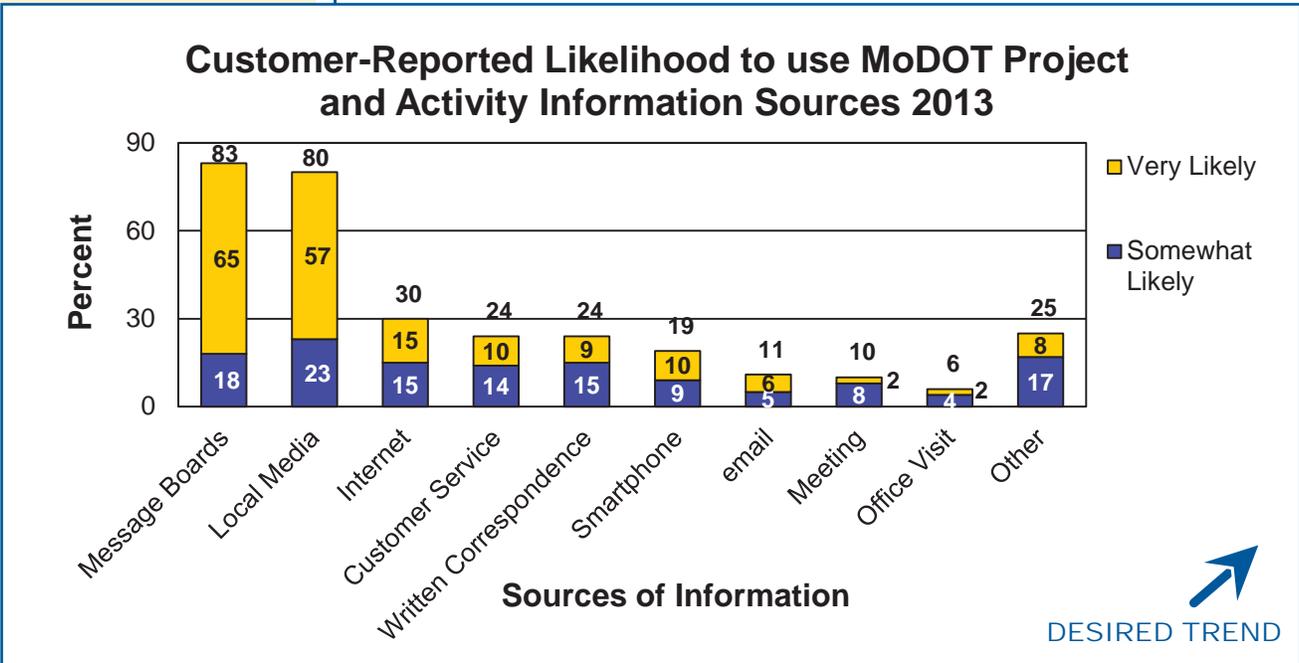
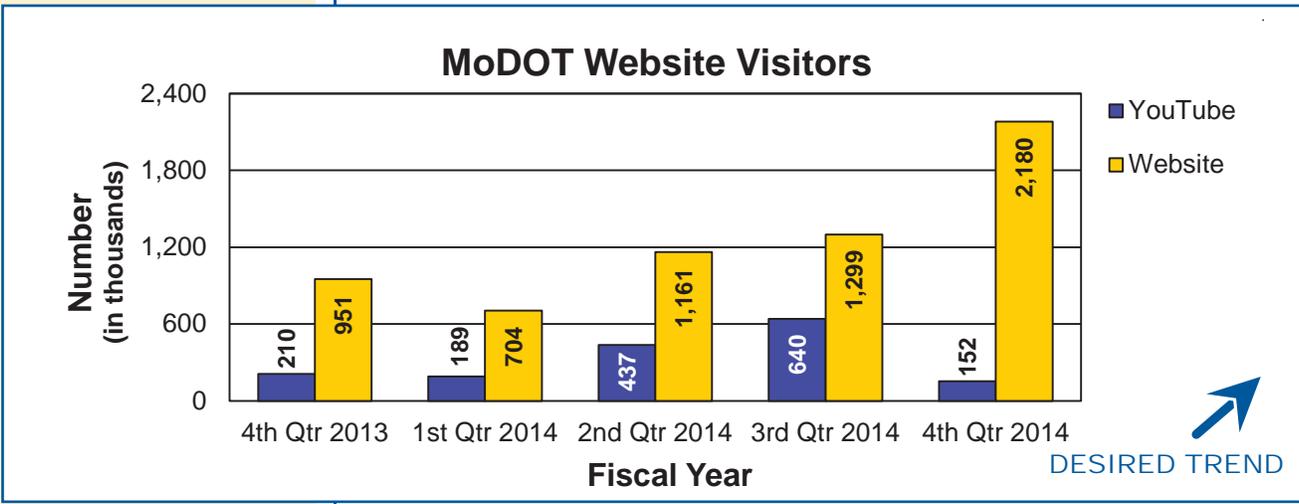
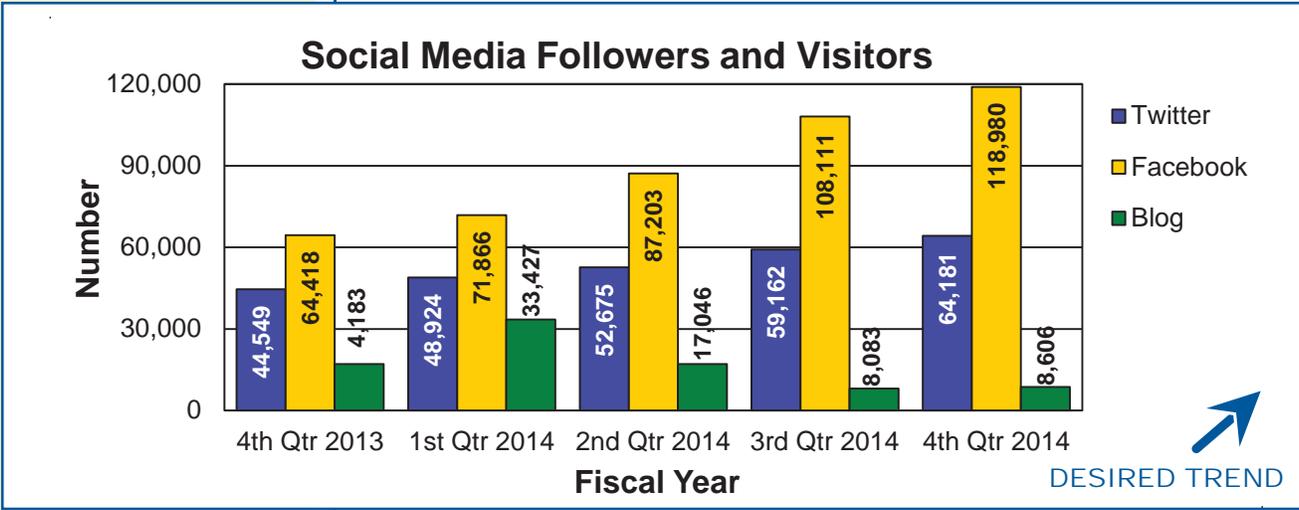
Good organizations share information with the people they serve. The best, most trusted organizations engage customers in conversation. It is easier these days for MoDOT to interact with its customers through Internet-based social media networking websites and applications. However, as platforms for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

MoDOT's social media accounts continue to attract followers. While the fourth quarter did not have the same benefit of growth due to weather-related content, there was an increase in social media followers and visitors slightly higher but similar to the growth shown in previous quarters. DMS-themed information was our most liked, shared and commented on posts. MoDOT posts these to Facebook every Monday.

Though new media provides an opportunity to communicate interactively, traditional communication methods remain the most effective way to convey MoDOT messages. In the annual telephone survey, 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



RESULT DRIVER:  
Dan Niec,  
District Engineer

## PROVIDE OUTSTANDING CUSTOMER SERVICE

### MEASUREMENT DRIVER:

Kelly Backues,  
Senior Organizational Per-  
formance 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.

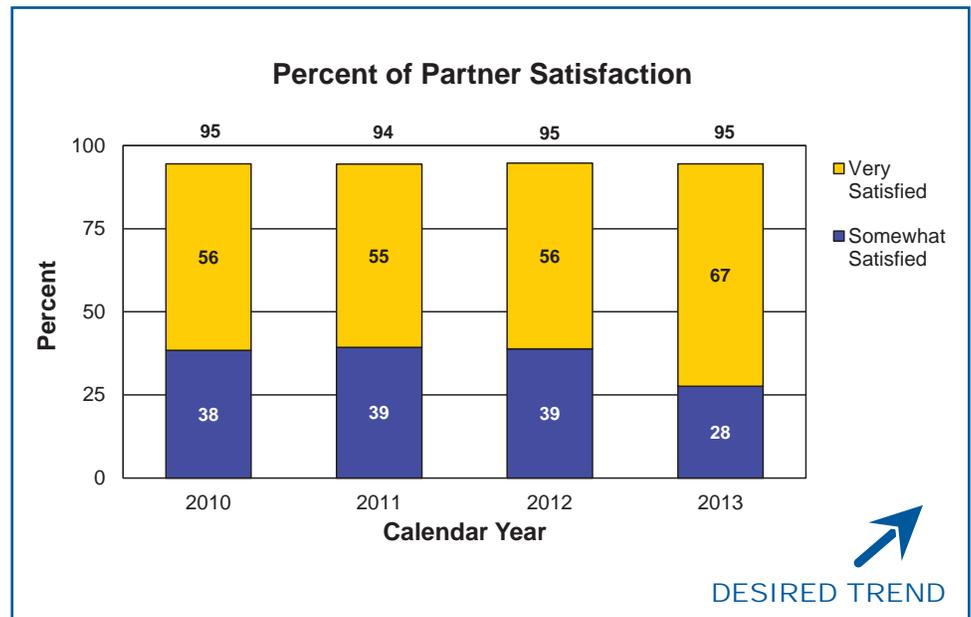
### MEASUREMENT AND DATA COLLECTION:

An independent research  
and survey firm conducted  
an expanded survey in Jan-  
uary 2014, broadening the  
partner groups to include  
agencies and industries in  
nearly all areas of MoDOT.  
The January survey col-  
lects data from the previous  
calendar year and will be  
updated annually in April.

### *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 have completed an online survey indicating their levels of satisfaction in working with MoDOT. The three-year period from 2010 to 2012 surveyed a specific pool of partners with a very satisfied and satisfied rating of 94 percent or better. With the expanded survey this year, department partners continued the 95 percent satisfaction rate, and the very satisfied partners increased 11 percent compared to the prior year. In addition to rating MoDOT's services, participants can offer written feedback. The information received is used to target specific areas MoDOT can improve.

With diminishing resources that have led to a drastically reduced construction program and suspension of the cost-share program, it is anticipated the condition of Missouri's roads and bridges will deteriorate and dissatisfaction will result.



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# DELIVER TRANSPORTATION SOLUTIONS OF GREAT VALUE

*David Silvester, District Engineer*

**Tracker**

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

## DELIVER TRANSPORTATION SOLUTIONS OF GREAT VALUE

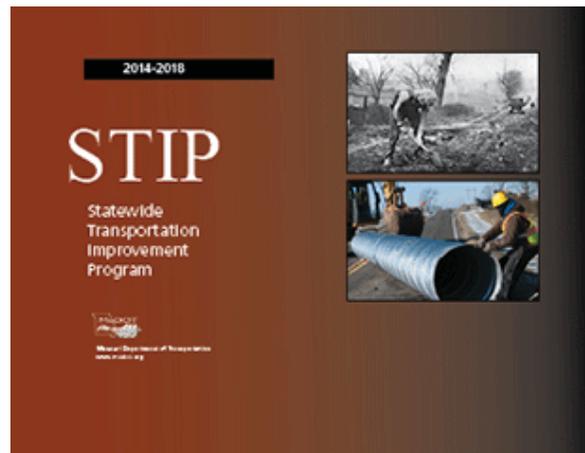
MEASUREMENT  
DRIVER:  
Renate Wilkinson,  
Planning and Programming  
Engineer

PURPOSE OF  
THE MEASURE:  
This measure determines  
how close total project  
completion costs are to the  
programmed costs. The  
programmed cost is consid-  
ered 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-of-  
way purchases, utilities,  
construction, inspection  
and other miscellaneous  
costs. The programmed  
cost is based on the amount  
included in the most re-  
cently approved Statewide  
Transportation Improvement  
Program. Completed costs  
include actual expendi-  
tures. Multimodal and Local  
Public Agency project costs  
typically reflect state and/or  
federal funds, but not local  
funding contributed toward  
projects.

### *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 June 30, 2014, 411 road and bridge projects were completed in fiscal year 2014 at a cost of \$1.592 billion. This represents a deviation of -7.64 percent or \$132 million less than the programmed cost of \$1.724 billion. Of the 411 road and bridge projects completed, 69 percent were completed within or below budget. In comparison, 70 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 59 percent. Engineering and miscellaneous savings (right of way, utilities and other costs) represent 38 and 29 percent, respectively. Construction-phase costs were 26 percent over what was awarded. The final FY 2014 value will be presented in the October 2014 Tracker. There may be projects that have adjustments pending, which could cause a slight change in the values presented here.



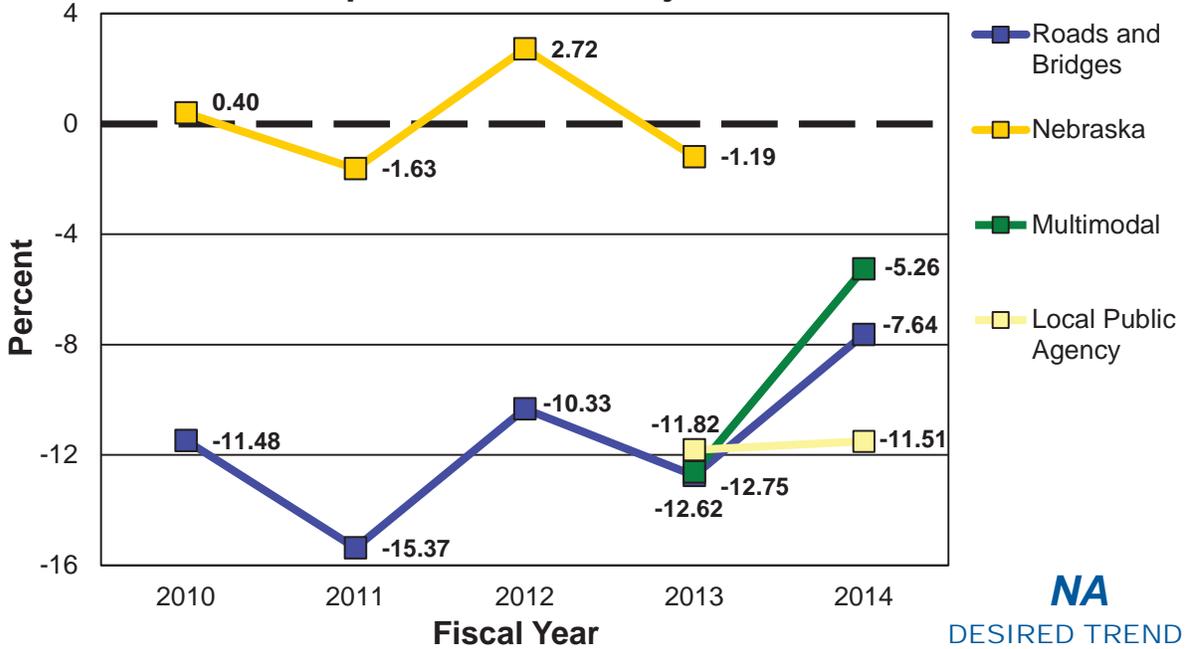
In addition, 53 multimodal projects were completed for a cost of \$31.83 million, -5.26 percent or \$1.77 million less than the programmed cost of \$33.60 million. 130 local public agency projects were completed for a cost of \$71.83 million, -11.51 percent or \$9.34 million less than the programmed cost of \$81.17

million.

MoDOT uses this historical data as a guide for programming future projects. In FY 2014, 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, awards for FY 2014 were 1 percent higher than programmed. Consequently, the 2015-2019 STIP was developed assuming no award savings.

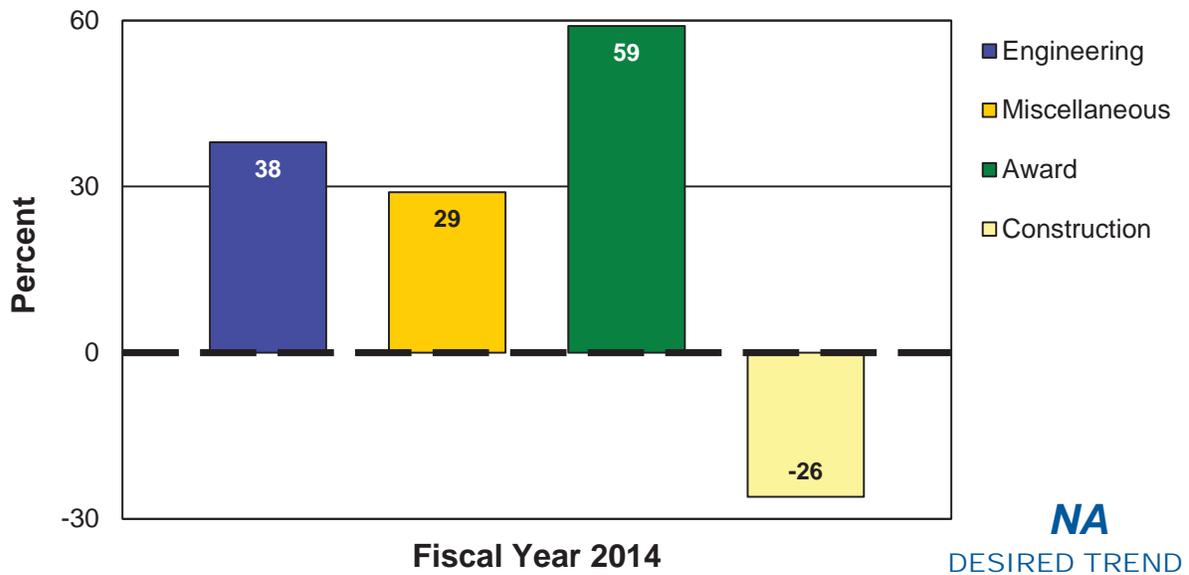
# DELIVER TRANSPORTATION SOLUTIONS OF GREAT VALUE

## Percent of Programmed Project Cost as Compared to Final Project Cost



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.

## Composition of Savings



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

RESULT DRIVER:  
David Silvester,  
District Engineer

## DELIVER TRANSPORTATION SOLUTIONS OF GREAT VALUE

### MEASUREMENT DRIVER:

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.

## *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 user exposure to work zones and provides facilities in good condition that improve safety and reduce vehicle maintenance costs.

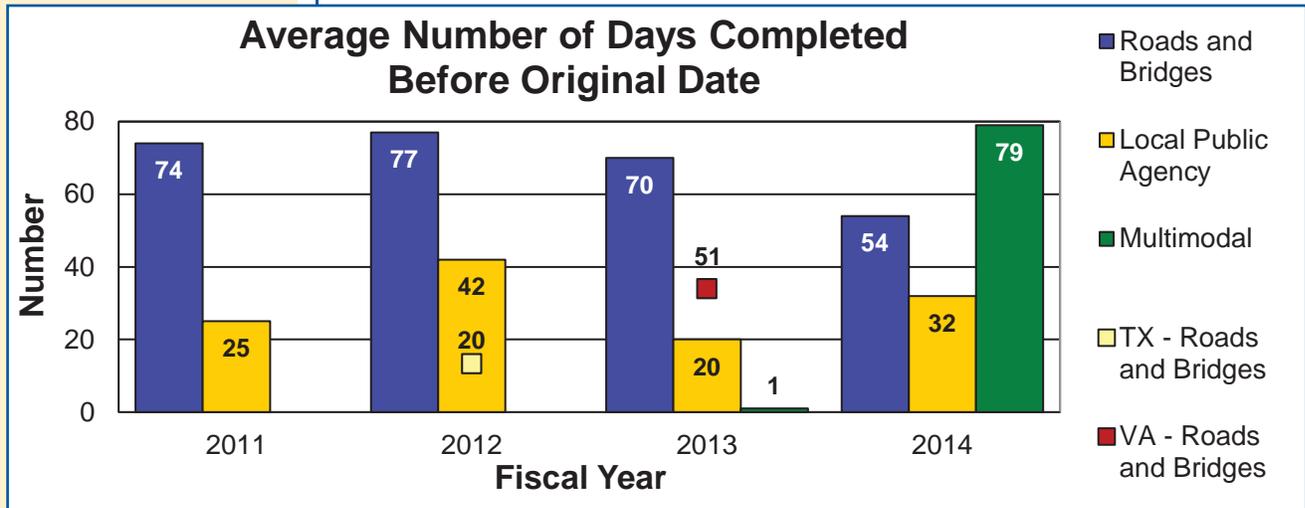
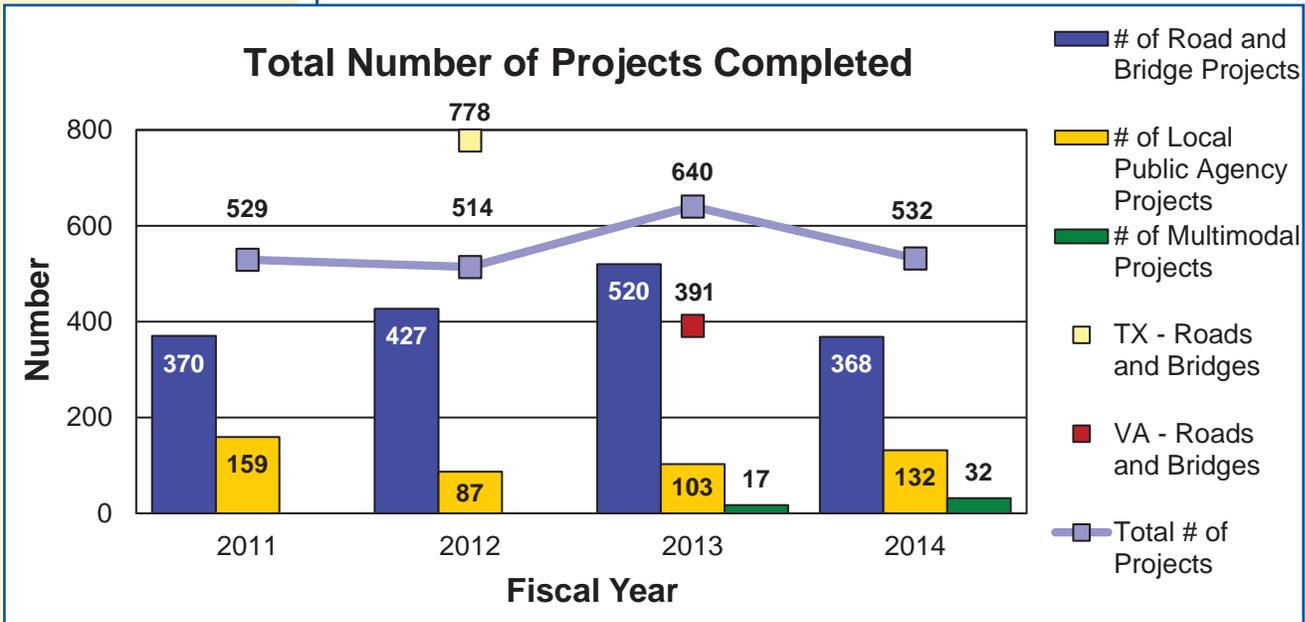
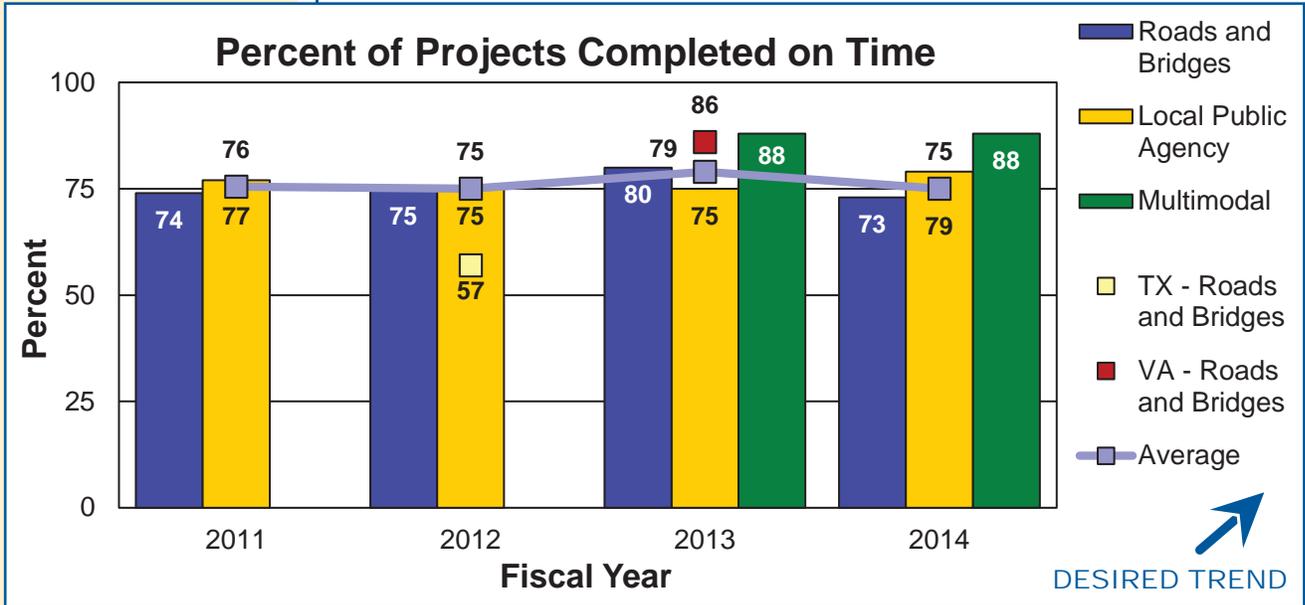
Sometimes, unusual weather or additional contract work necessitates an extension of the completion date. There are also times when a contractor misses the project completion date. In fiscal year 2014, 75 percent of the projects were completed on or ahead of schedule.

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.



# DELIVER TRANSPORTATION SOLUTIONS OF GREAT VALUE



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

# DELIVER TRANSPORTATION SOLUTIONS OF GREAT VALUE

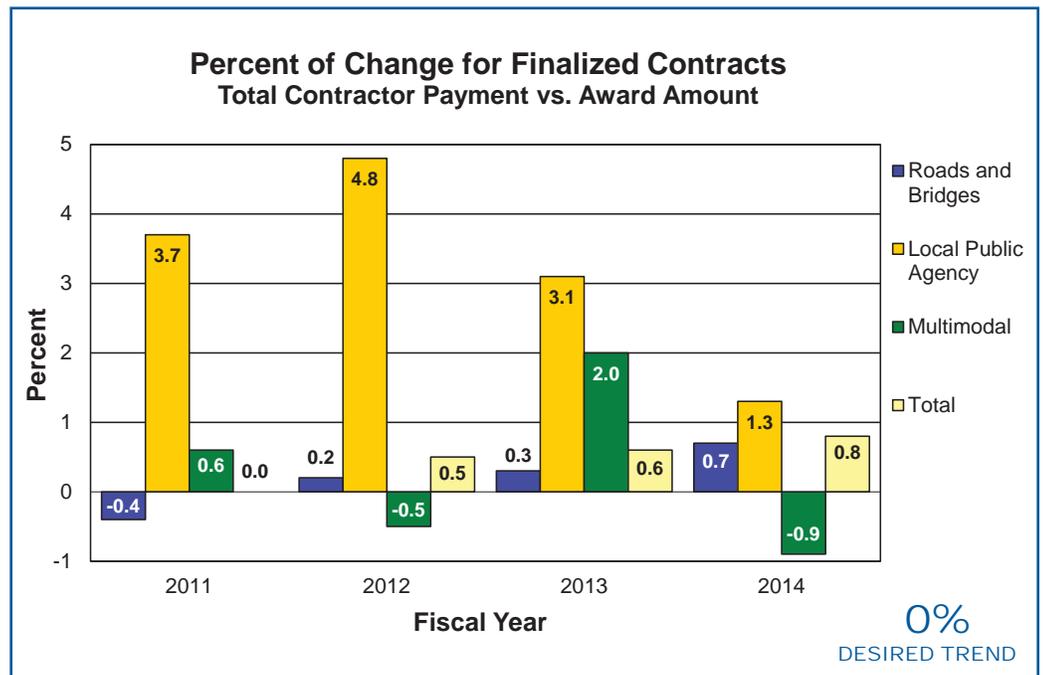
**MEASUREMENT DRIVER:**  
Jeremy Kampeter,  
Construction Management  
Systems Administrator

**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.

## Percent of change for finalized contracts-4c

By limiting overruns on contracts, MoDOT can continue to keep its commitments. Decreasing transportation funding 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 fiscal year 2014 was 0.8 percent (\$914 million worth of projects completed \$7.0 million over the award amount). Many factors can affect the ability to complete a project within 2 percent of the award amount.



RESULT DRIVER:  
David Silvester,  
District Engineer

# DELIVER TRANSPORTATION SOLUTIONS OF GREAT VALUE

MEASUREMENT  
DRIVER:  
Angela Fuerst,  
Transportation Project  
Manager

PURPOSE OF  
THE MEASURE:  
This measure tracks the  
use of innovative contract-  
ing methods on MoDOT  
projects including:  
■ A + B Contracts,  
■ Alternate Technical  
Concepts, and  
■ Design-Build Contracts

MEASUREMENT  
AND DATA  
COLLECTION:  
MoDOT projects utilizing in-  
novative contracting meth-  
ods are reported during the  
fiscal year in which they are  
awarded. Contract award  
values are collected through  
MoDOT's bid opening sum-  
maries and project records.

## *Innovative contracting methods-4d*

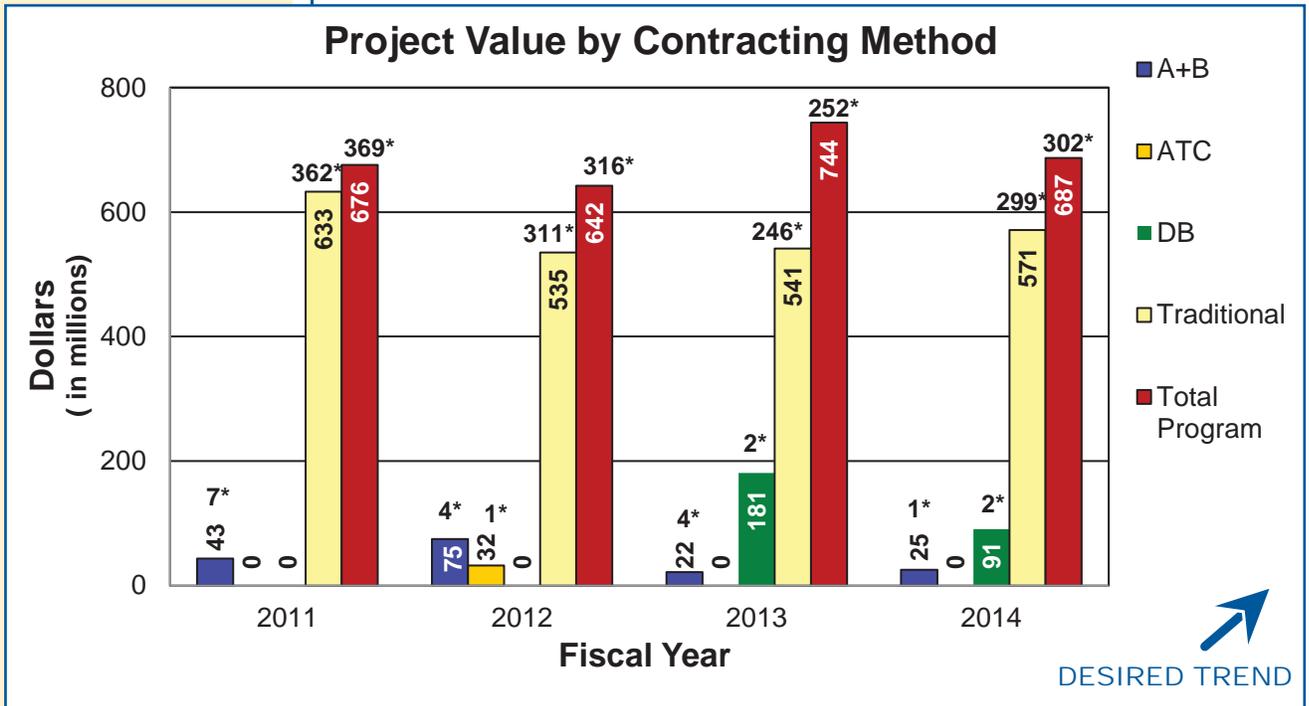
With decreasing transportation funding and increasing costs, MoDOT looks to implement non-traditional methods and practices in contract procurements to improve efficiency, increase flexibility and maximize value for its customers. By promoting the use of innovative contracting tools, MoDOT is better 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 simply maintain the current system.

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

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

In fiscal year 2014, MoDOT delivered three out of 302 projects using innovative contracting methods, with two being delivered as Design-Build and one being delivered as A + B. The three projects accounted for \$115 million of the \$687 million program.

# DELIVER TRANSPORTATION SOLUTIONS OF GREAT VALUE



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

RESULT DRIVER:  
Dave Silvester,  
District Engineer

# DELIVER TRANSPORTATION SOLUTIONS OF GREAT VALUE

MEASUREMENT  
DRIVER:  
Llans Taylor,  
Innovations Engineer

PURPOSE OF  
THE MEASURE:  
This measure tracks the  
use of value engineering  
during design and construc-  
tion on traditional MoDOT  
projects including:  
■ Value analysis during the  
design phase, and  
■ Construction value en-  
gineering proposals during  
the construction phase.  
■ Implementation of best  
practice into our standards  
and policies.

MEASUREMENT  
AND DATA  
COLLECTION:  
Information on value analy-  
sis during design is gath-  
ered from MoDOT's STIP  
information management  
system. Construction value  
engineering change pro-  
posal information is gath-  
ered from MoDOT's VECP  
database. Implementation  
of best practice progress is  
tracked by MoDOT staff.

## 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, MoDOT is increasingly focused on smaller, maintenance-type projects that are not traditionally targeted by the VE program. Still, MoDOT must be innovative in utilizing the VE process to search for solutions to reduce project costs and provide additional value.

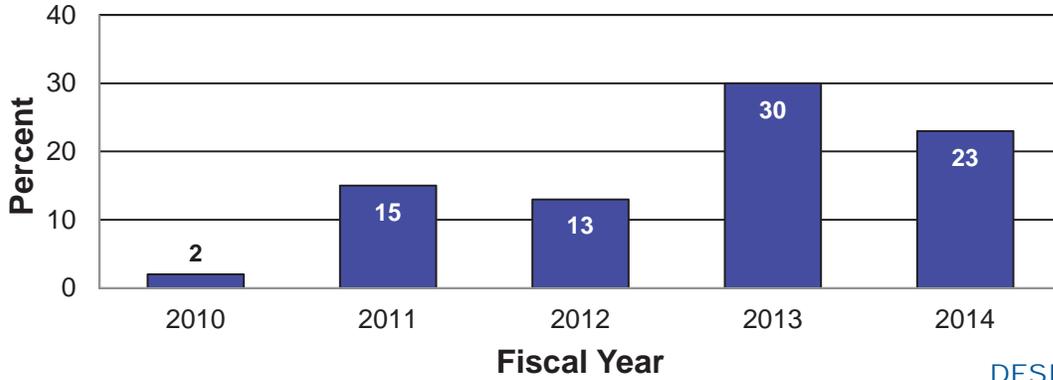
MoDOT uses design-phase value analysis to remove unnecessary scope, reduce project costs and to improve project flexibility. Value analysis includes specific, targeted processes aimed to improve the project value, including the formal VE program studies. Tracking progress toward the goal of evaluating all projects for value allows MoDOT to accurately gauge its performance. For FY 2014, 23 percent of projects underwent some form of value analysis during design. Recognizing a performance gap, efforts are being made to look for opportunities to expand coverage and develop new tools.

MoDOT partners with industry to find more cost-effective methods to accomplish proposed project work. During the construction phase, the VECP process encourages contractors to submit proposals to deliver improved projects. After award of a project, contractor proposals are considered. If accepted, contractors receive up to a maximum of 50 percent of the savings. For FY 2014, 39 VE proposals were approved resulting in MoDOT savings of \$1,360,000. Outreach and partnering opportunities were identified as tools to improve upon the recent trend. A pamphlet about the program was developed and distributed to MoDOT's contracting partners.

A successful VECP program incorporates approved VECPs into future projects, so MoDOT can realize all of the affiliated savings. A multi-disciplinary team reviews approved VECPs in order to integrate the approved concepts into engineering policies, standards and specifications. Starting with fiscal years 2012 and 2013, the team considered each approved VECP to determine if there was an opportunity to improve the way MoDOT does business. To date, 134 approved VECPs have been reviewed with two changes implemented and 30 potential revisions being investigated. Approved VECPs from 2014 and future years will be considered on a biannual basis.

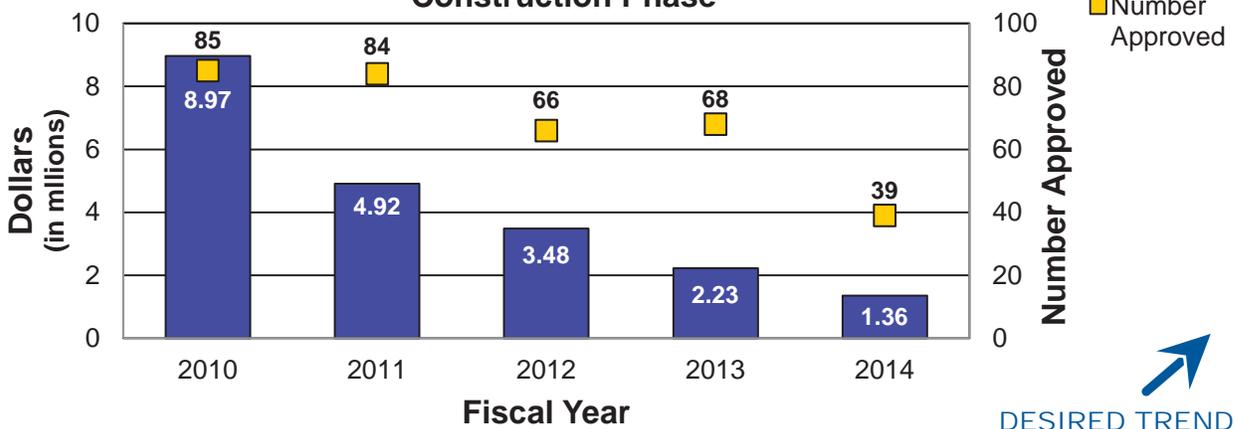
# DELIVER TRANSPORTATION SOLUTIONS OF GREAT VALUE

## Percent of Awarded Projects with Value Analysis Design Phase



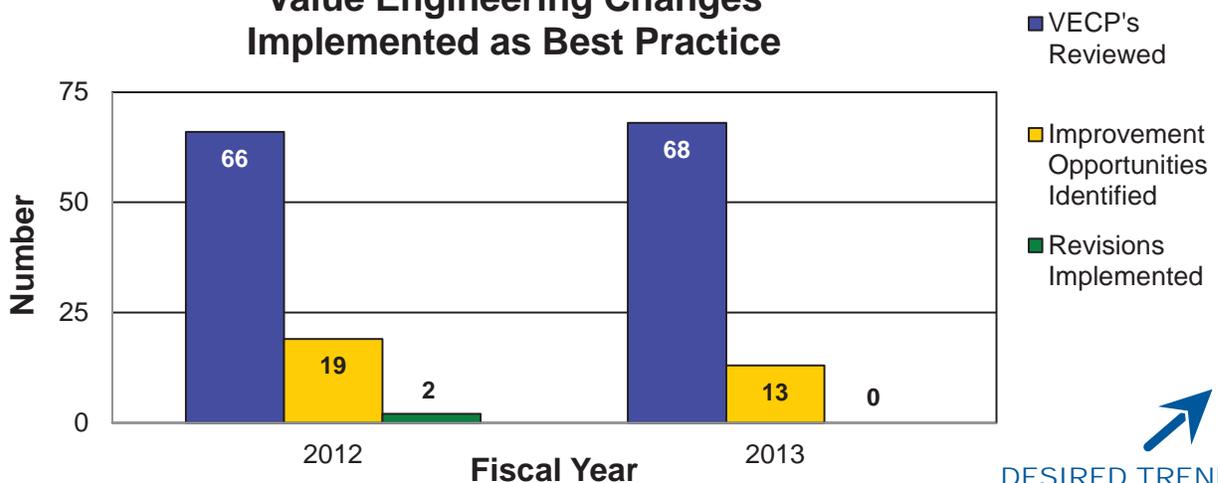
DESIRED TREND

## Value Engineering Change Proposals by Dollar and Number Construction Phase



DESIRED TREND

## Value Engineering Changes Implemented as Best Practice



DESIRED TREND

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

## DELIVER TRANSPORTATION SOLUTIONS OF GREAT VALUE

**MEASUREMENT  
DRIVER:**  
Jason Vanderfelt,  
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.

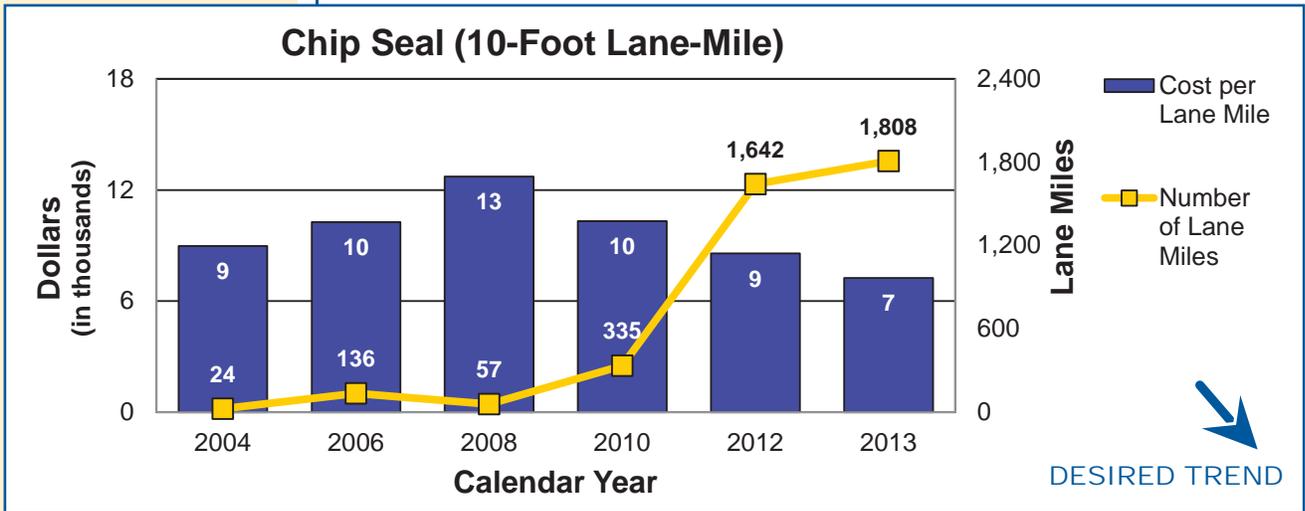
### *Average highway lane-mile and bridge construction costs-4f*

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 prices of asphalt, concrete and steel are double and triple what they were 20 years ago, when fuel taxes were last raised.

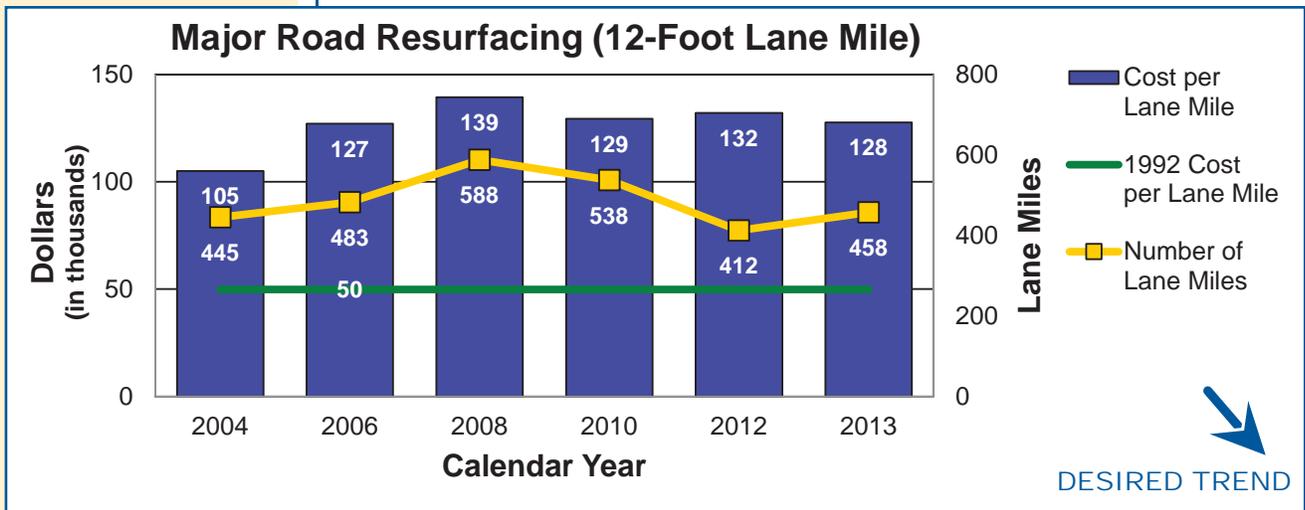
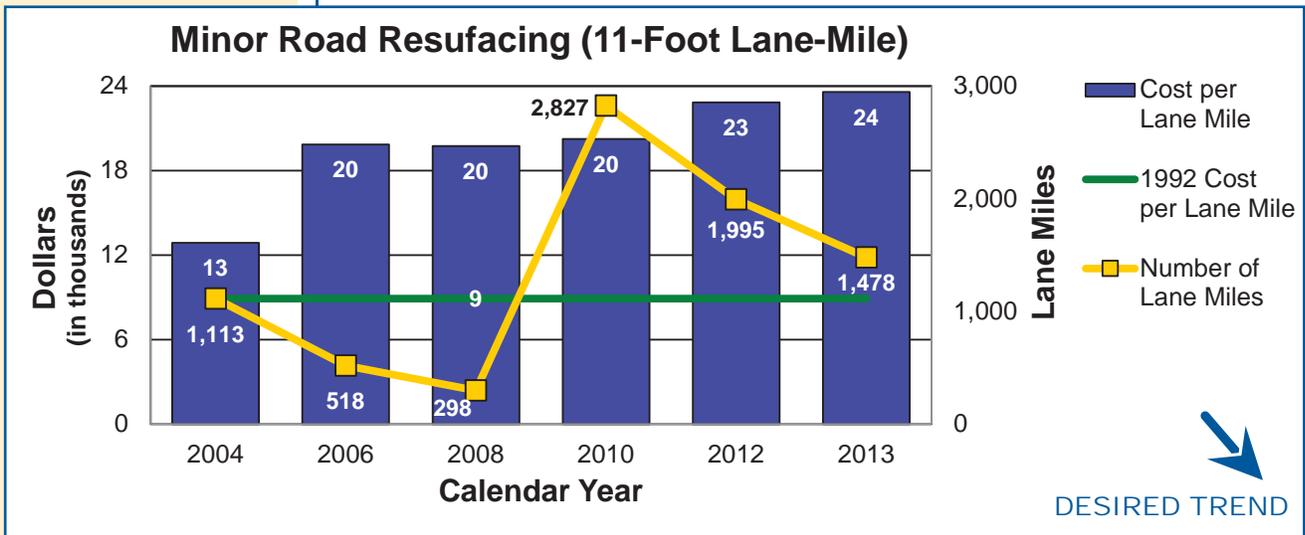
With MoDOT's construction program having dropped from \$1.3 billion in 2009 to \$685 million in fiscal year 2014, few complex two- and four-lane projects have been available for contractors to bid. For the larger, more robust projects, MoDOT continues to partner with industry to allow flexibility and 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.



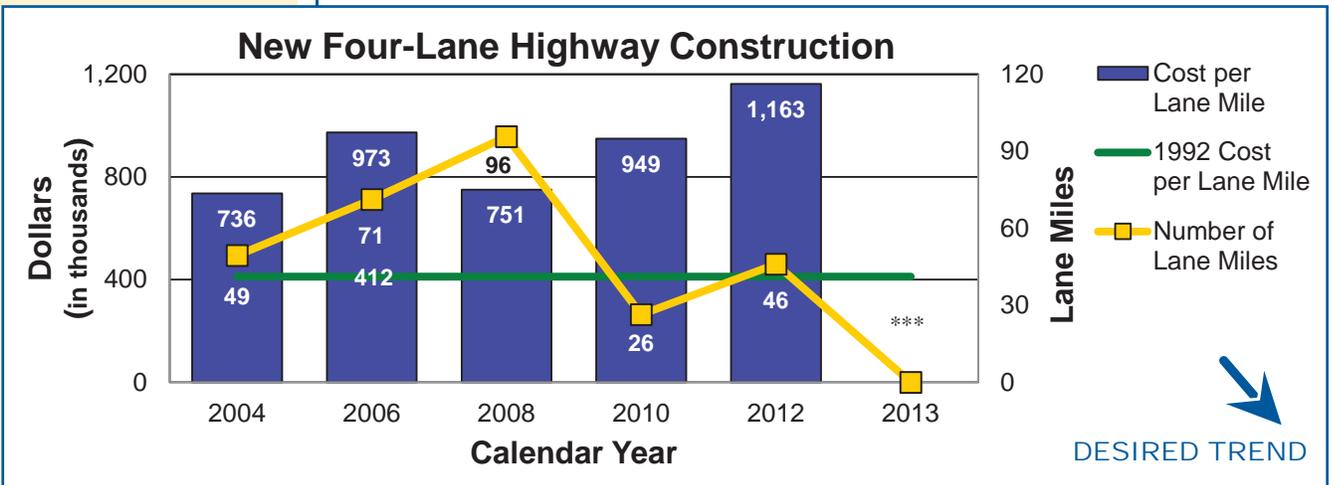
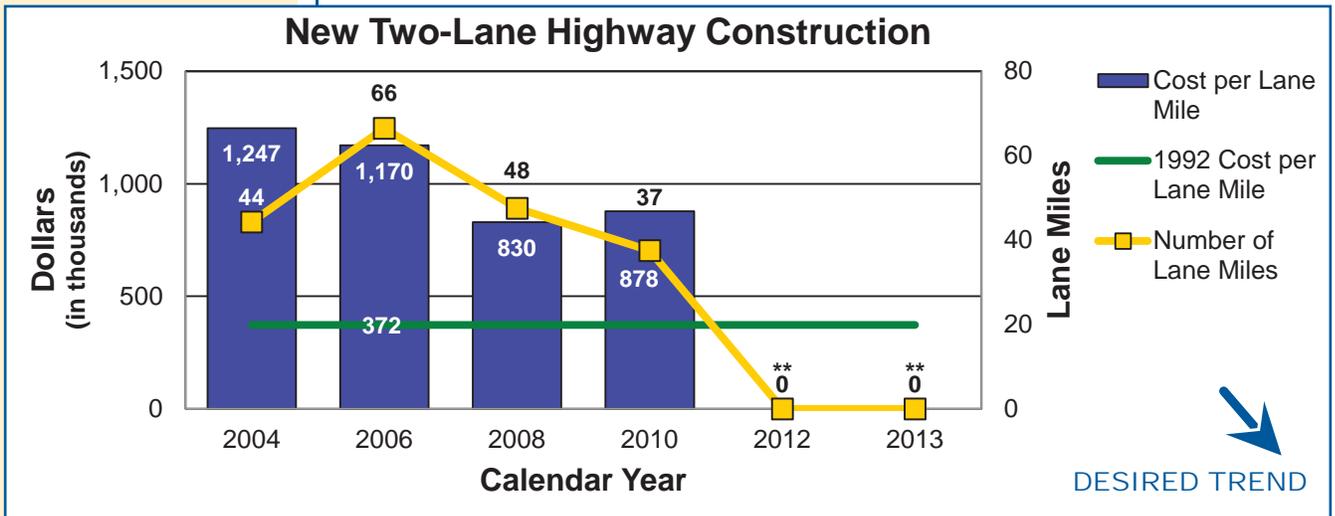
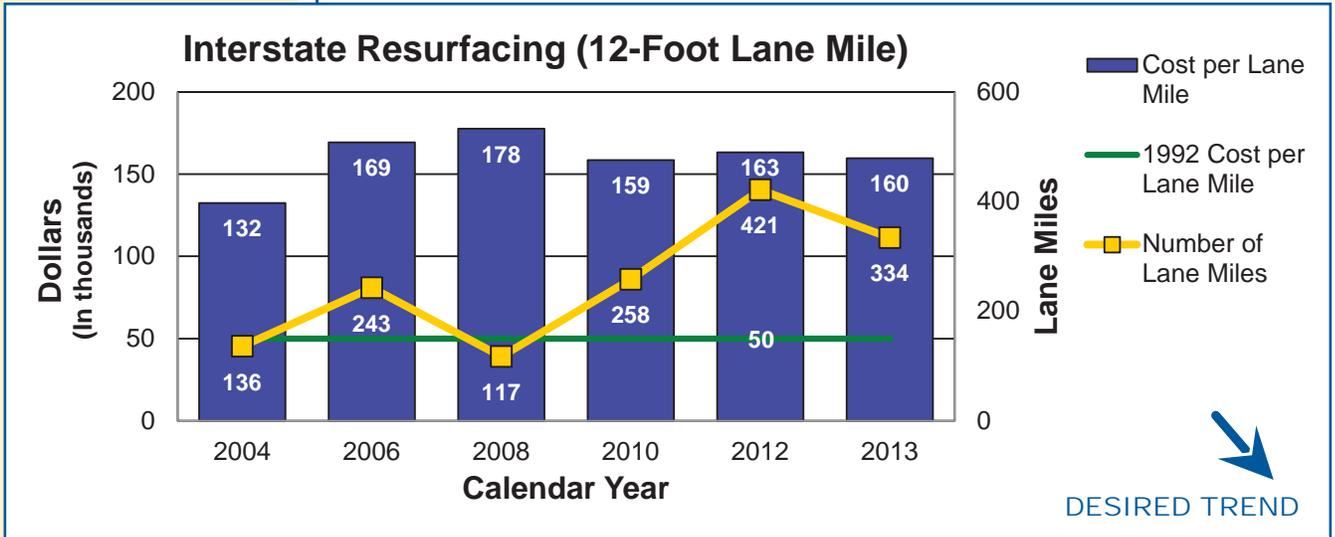
# DELIVER TRANSPORTATION SOLUTIONS OF GREAT VALUE



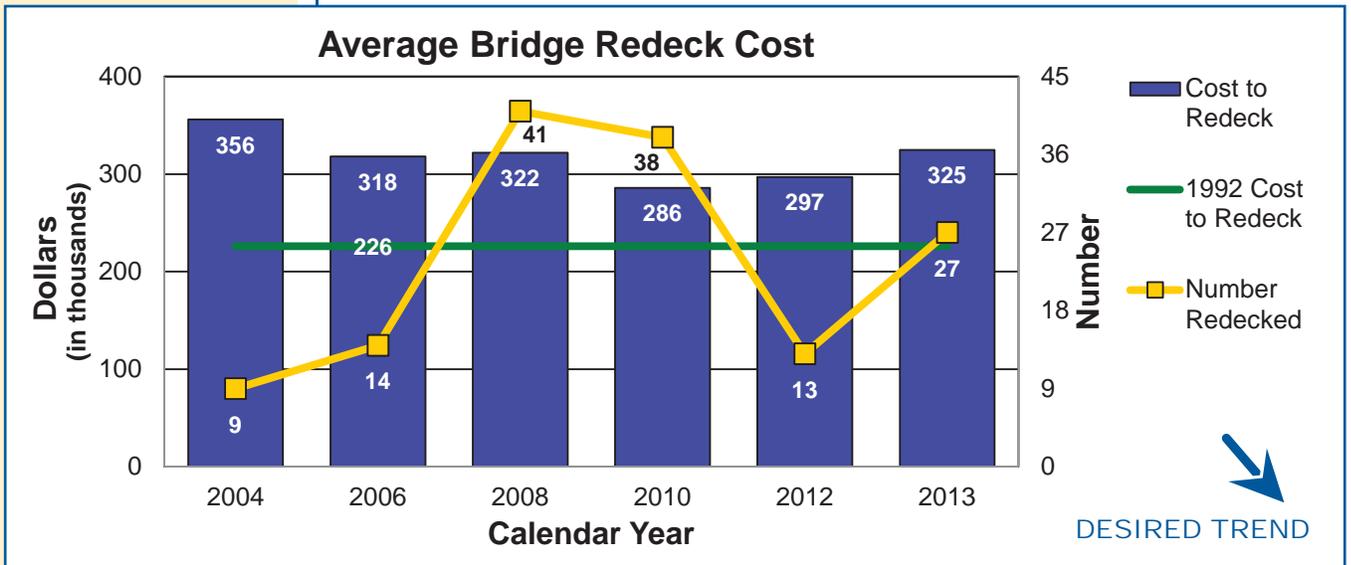
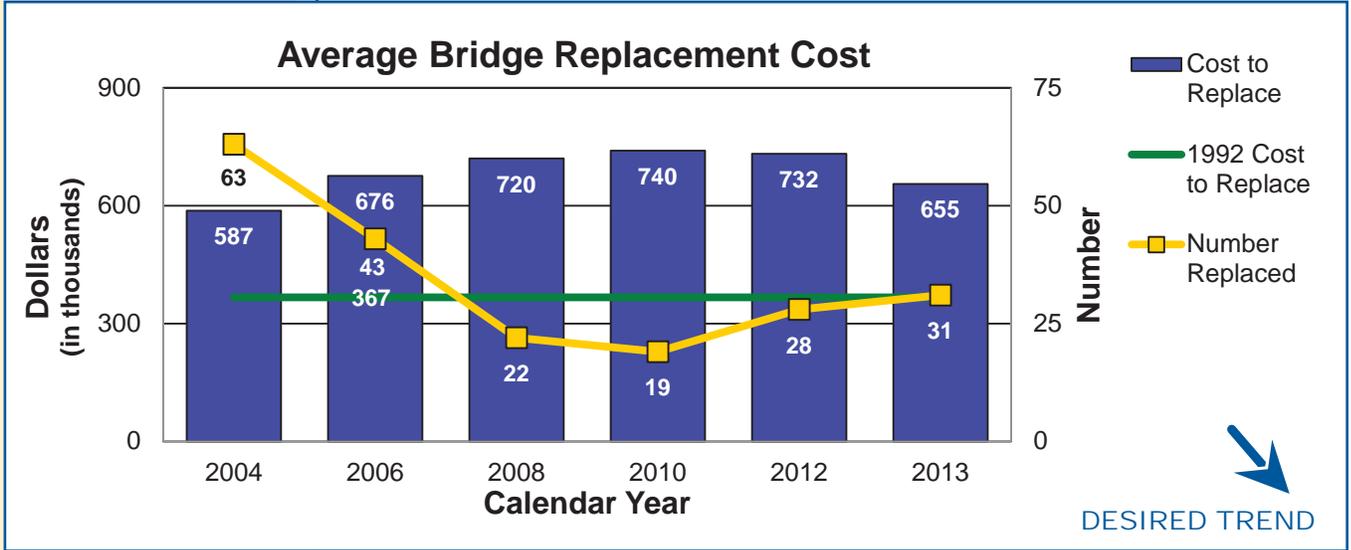
Note: No contract chip seal projects in 1992.



# DELIVER TRANSPORTATION SOLUTIONS OF GREAT VALUE



# DELIVER TRANSPORTATION SOLUTIONS OF GREAT VALUE



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# OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

*Paula Gough, District Engineer*

## Tracker

MEASURES OF DEPARTMENTAL PERFORMANCE



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

RESULT DRIVER:  
Paula Gough,  
District Engineer

## OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

MAP-21

MEASUREMENT  
DRIVER:  
Jon Nelson,  
Traffic Management and  
Operations Engineer

### *Travel times and reliability on major routes-5a*

PURPOSE OF  
THE MEASURE:  
This measure tracks the  
mobility of significant state  
routes in St. Louis, Kansas  
City, Springfield and Colum-  
bia.

Minimizing 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 April to June 2014, the average travel time was 10.18 minutes during morning rush and 10.95 minutes during evening rush for a 10 mile trip in St. Louis. For Kansas City, the average travel time was 10.21 minutes during the morning and 10.47 minutes during the evening. Though some segments experienced significantly lower speeds, most of the freeway segments maintained free-flow conditions.

MEASUREMENT  
AND DATA  
COLLECTION:  
Travel time data for most  
state routes is collected  
via roadside detectors and  
other technologies. For a  
few routes, travel times are  
collected manually by driv-  
ing 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 reli-  
ability, an indicator of how  
variable those travel times  
are on a daily basis. The  
charts in this measure show  
the average travel time and  
the 95th percentile travel  
time, which is the time mo-  
torists should plan in order  
to reach their destinations  
on time 95 percent of the  
time. The maps display the  
mobility of specific sections  
of roadways during rush  
hour.

Individual freeway segments within St. Louis and Kansas City experienced significantly longer travel times than the regional averages. For example, the average 10-mile travel time on I-270 was more than 13 minutes. Likewise, westbound I-70 in Kansas City had a 12 minute 10-mile travel time during the morning rush, while eastbound averaged nearly 14 minutes during the evening rush.

For days when the overall traffic conditions for a region are worse than average, looking at the 95th percentile planning time is a way to capture that data. During the morning rush in St. Louis and the morning and evening rush in Kansas City, customers needed to plan about 13 minutes for every 10 miles traveled. During the evening rush in St. Louis, customers actually needed to plan more than 16 minutes for every 10 miles traveled to ensure on-time arrival. This is equivalent to an average speed of about 38 mph.

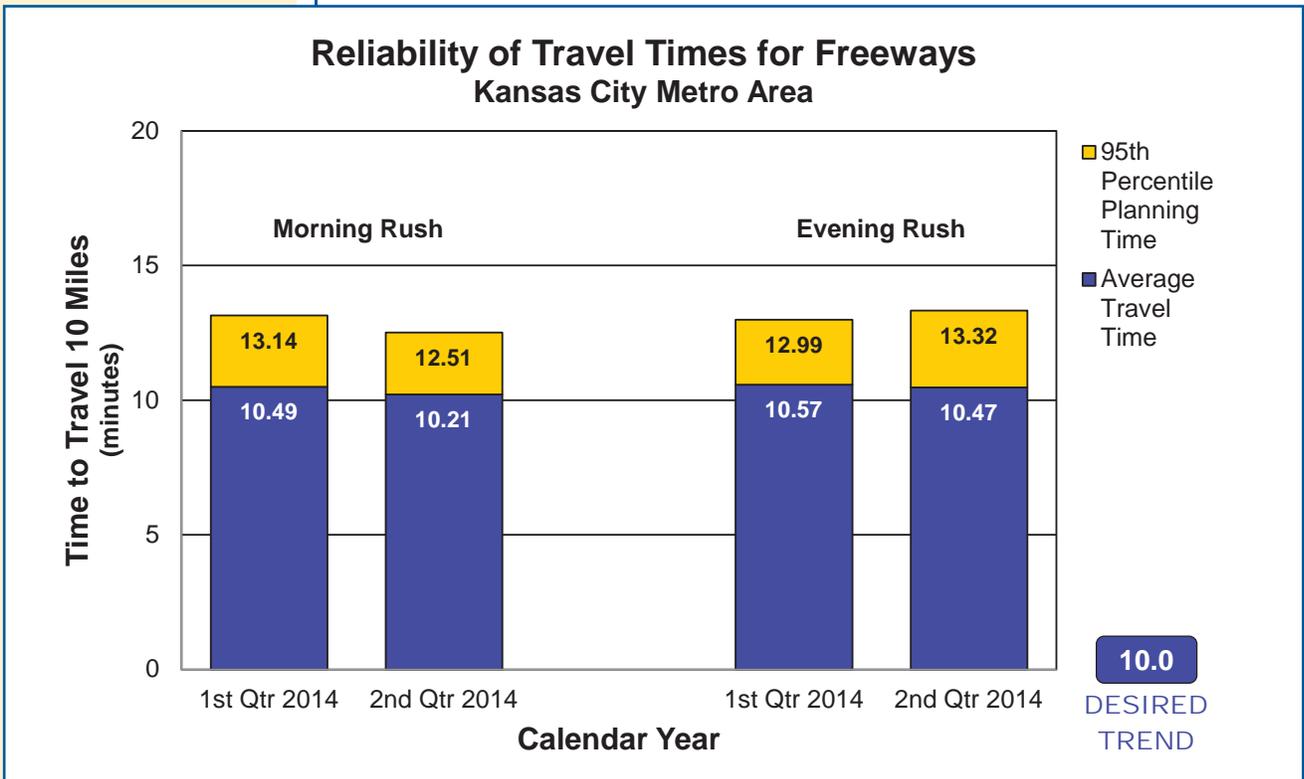
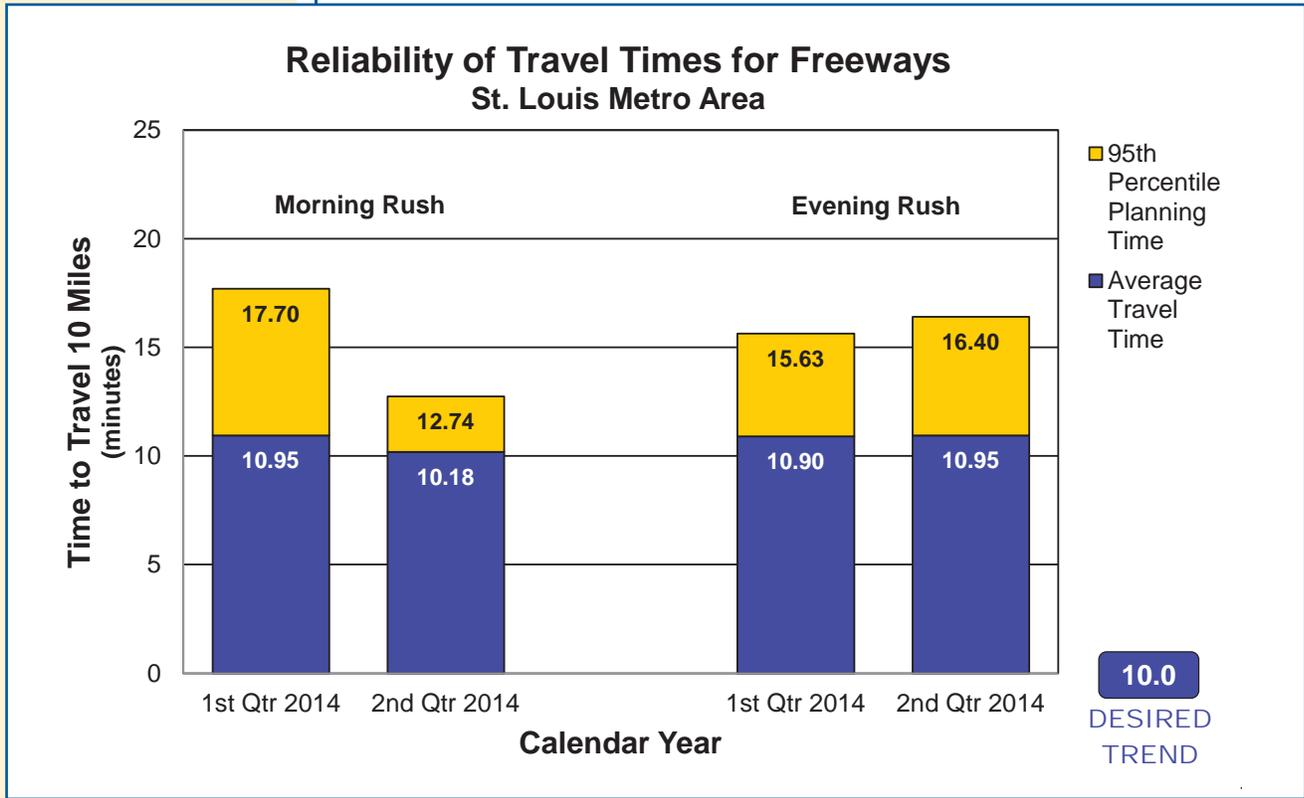
In St. Louis, the most notable delays during the morning rush were I-270 northbound between Route 30 and Manchester, and I-64 westbound just east of I-170. During the evening rush, delays occurred on portions of I-64 (particularly westbound) and I-270 southbound just before and after I-64. In Kansas City, delays during the morning rush were most notable on I-70 westbound between I-470 and I-435. During the evening rush, slower conditions were experienced on eastbound I-70 and I-435 northbound on the southern side of Kansas City near the state line.

In Columbia, there were notable delays on US 63 northbound, due to construction near the Stadium and Broadway interchanges.

Arterial data in the maps was previously only collected for each segment manually and only occasionally. Access to new traffic data now allows for data on many of these routes to be collected and evaluated continuously.

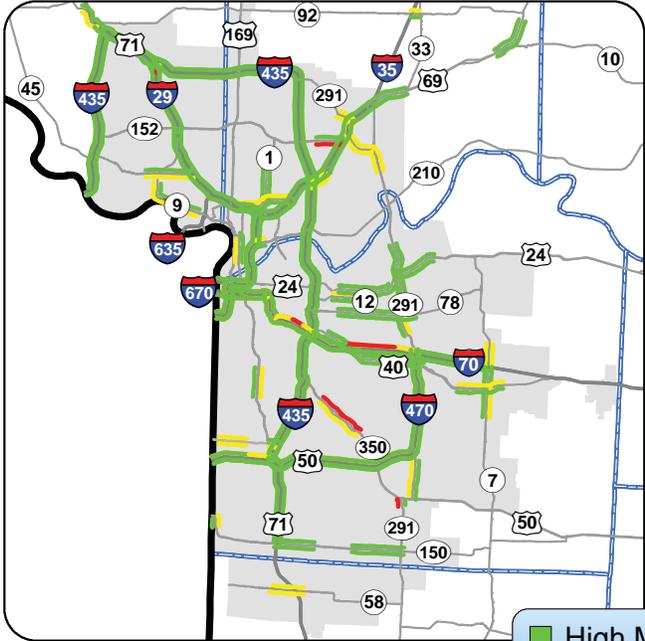
As MoDOT's construction budget continues to shrink over the next few years, the department will be increasingly challenged to invest in projects that improve traffic flow on Missouri's busiest roadways.

# OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

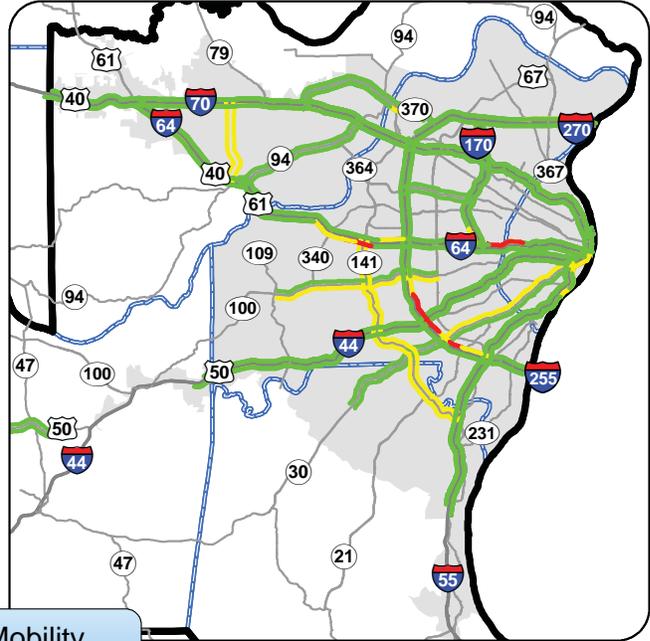


# OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

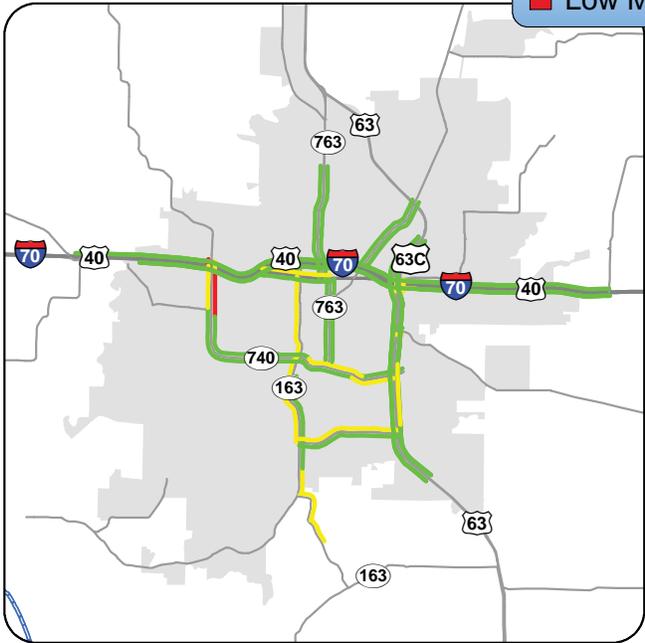
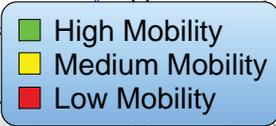
## AM Mobility



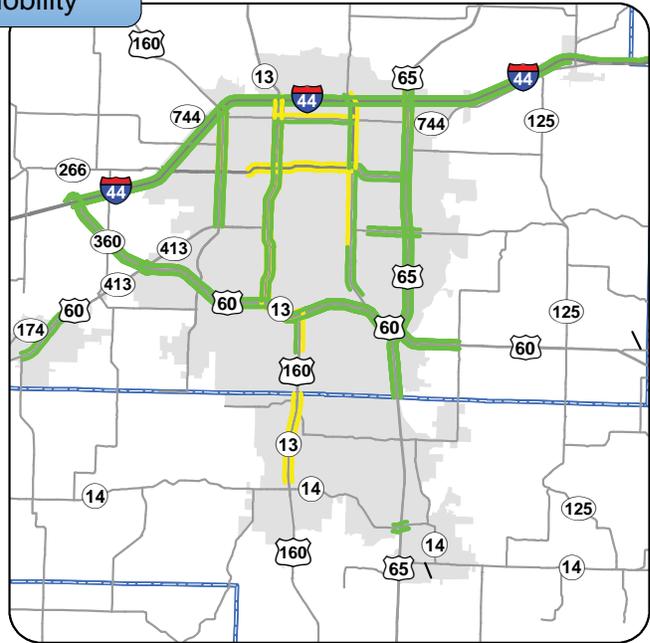
**Kansas City Area**



**Saint Louis Area**



**Columbia Area**



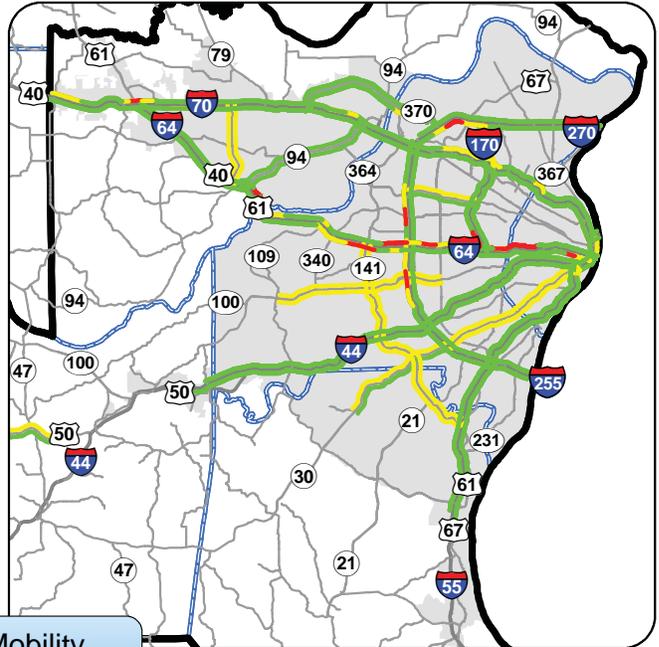
**Springfield Area**

# OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

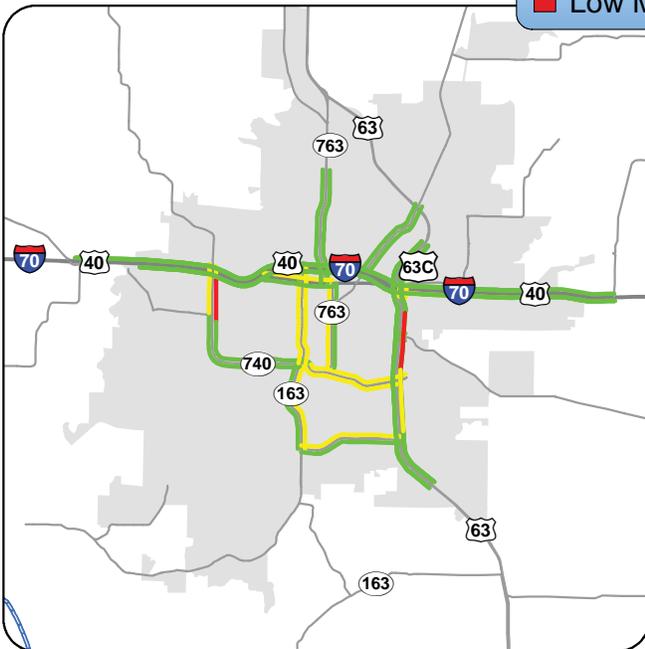
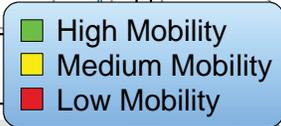
## PM Mobility



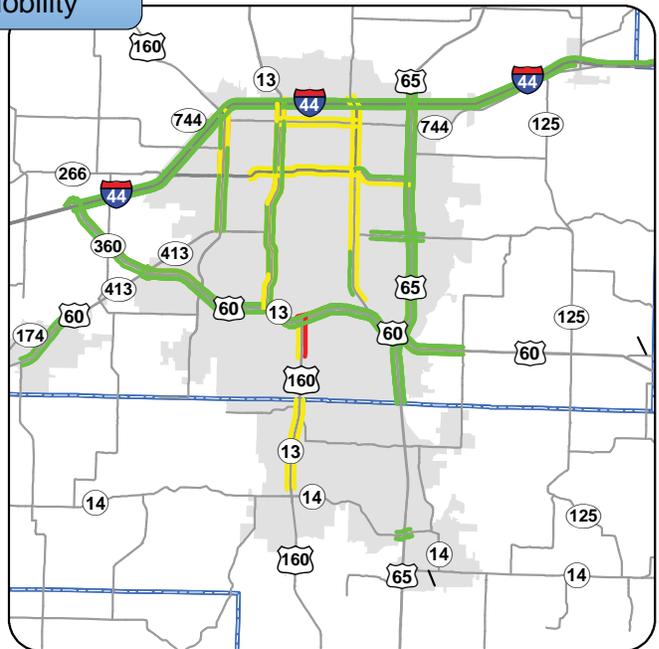
**Kansas City Area**



**Saint Louis Area**



**Columbia Area**



**Springfield Area**

RESULT DRIVER:  
Paula Gough,  
District Engineer

## OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

MAP-21

MEASUREMENT  
DRIVER:  
Jeanne Olubogun,  
District Traffic Engineer

PURPOSE OF  
THE MEASURE:  
This measure tracks the  
annual cost and impact of  
traffic congestion to motor-  
ists 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 Transpor-  
tation 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 mea-  
sure will use that data to  
evaluate the St. Louis and  
Kansas City metro areas  
as compared to the es-  
tablished average of other  
large urban areas around  
the country.

### *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.

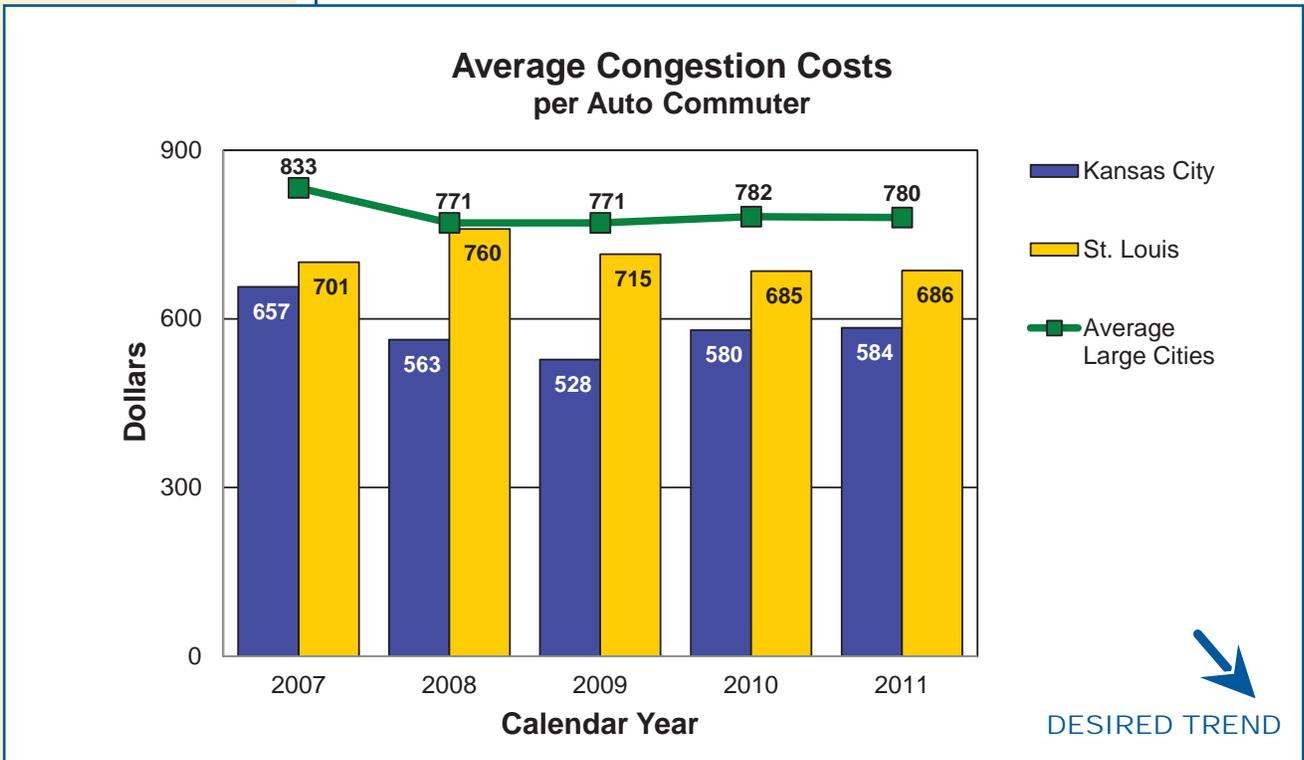
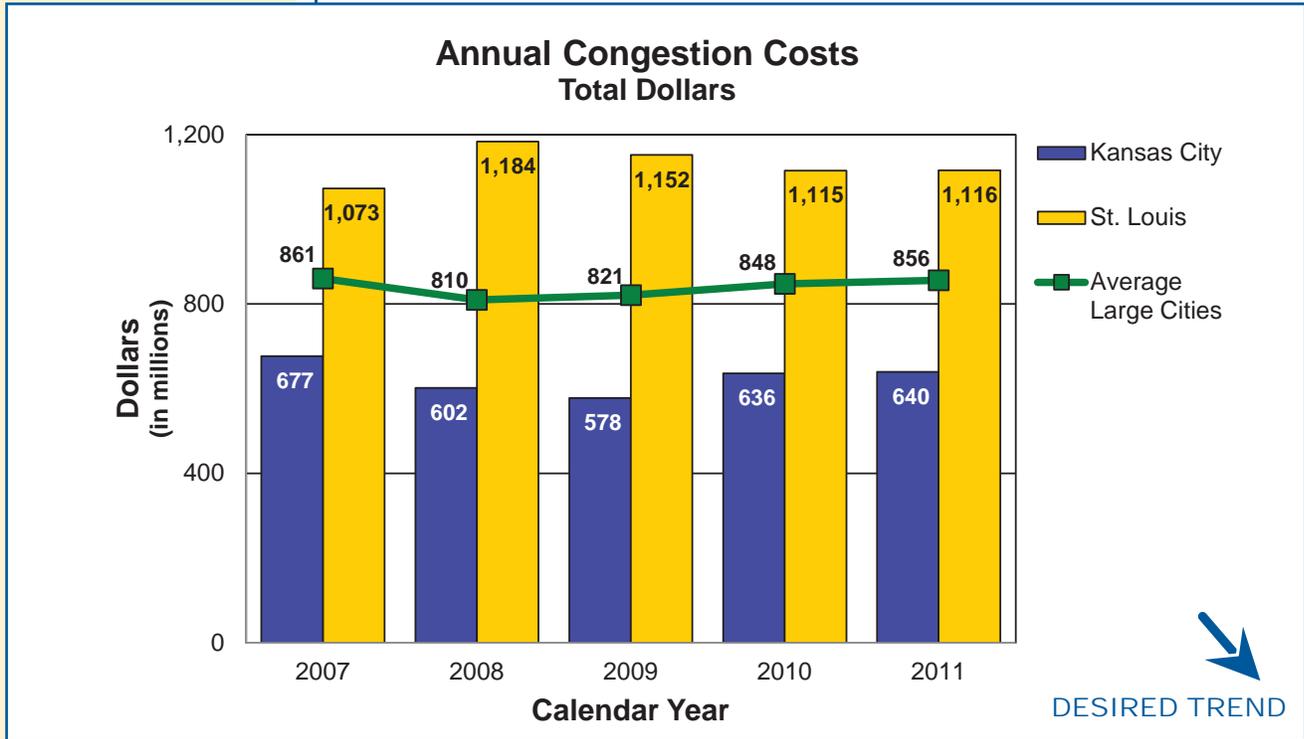
The Kansas City and St. Louis metro regions both fall within the category of large urban areas, according to the Urban Mobility Report. Large urban areas have populations between one million and three million people. Other cities considered to be large urban areas include Minneapolis-St. Paul, Nashville,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



# OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM



RESULT DRIVER:  
Paula Gough,  
District Engineer

## OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

MEASUREMENT  
DRIVER:  
Jason Sims,  
Traffic Center Manager

PURPOSE OF  
THE MEASURE:  
This measure is used to  
determine the trends in inci-  
dent clearance on the state  
highway system.

MEASUREMENT  
AND DATA  
COLLECTION:  
Advanced Transportation  
Management Systems are  
used by the Kansas City  
and St. Louis traffic man-  
agement centers to record  
incident start time and the  
time when all lanes are  
declared cleared.

### *Average time to clear traffic incident-5c*

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

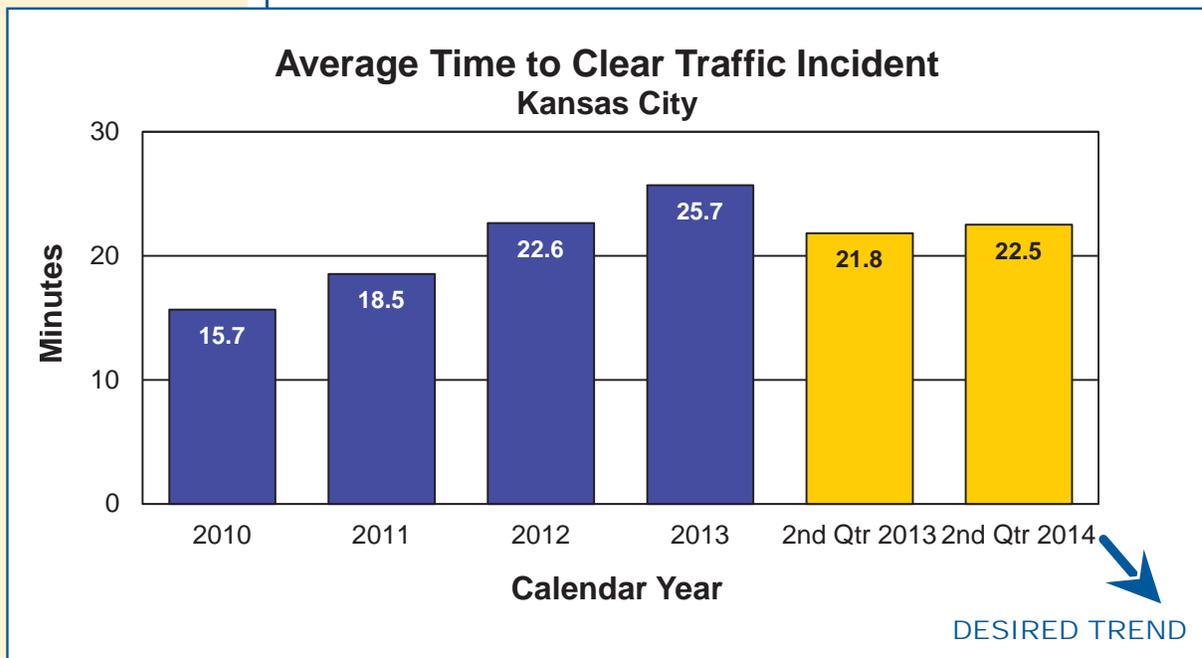
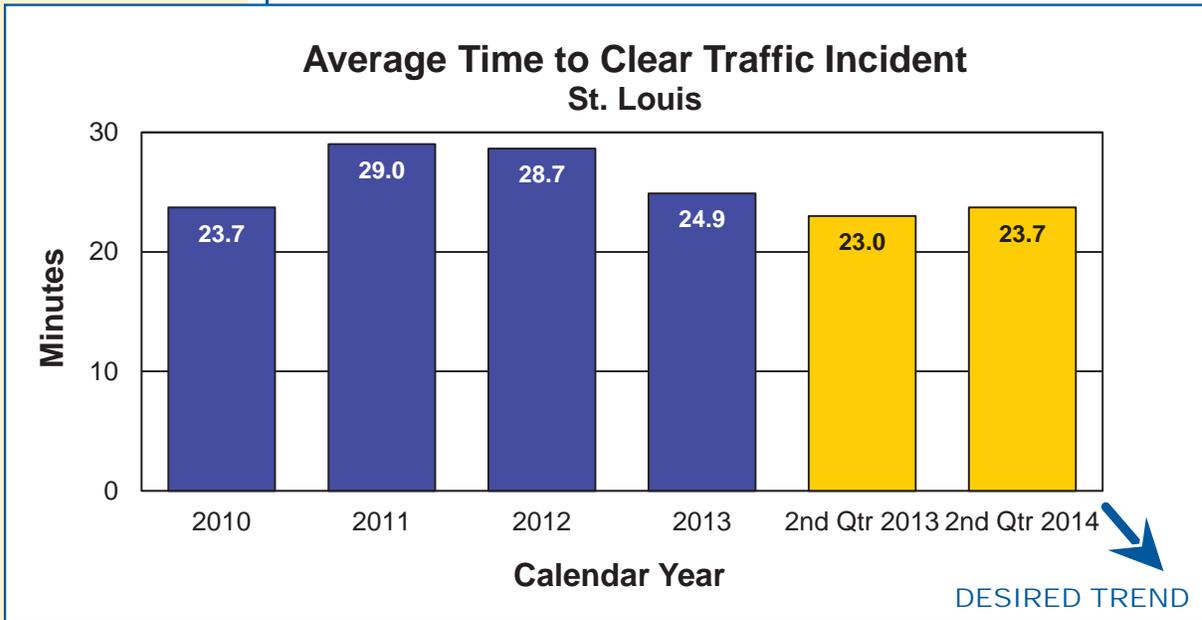
St. Louis recorded 603 incidents in April, 678 in May, and 701 in June. The average time to clear traffic accidents was 23.7 minutes, a slight increase of three percent compared to the second quarter of 2013.

Kansas City recorded 650 incidents in April, 759 in May, and 745 in June. The average time to clear traffic incidents was 22.5 minutes, an increase of 3 percent from the second quarter of 2013.

St. Louis and Kansas City have demonstrated quick clearance of incidents with yearly averages of 26 minutes and 25 minutes respectively.



# OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM



RESULT DRIVER:  
Paula Gough,  
District Engineer

## OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

MEASUREMENT  
DRIVER:  
Rick Bennett,  
Traffic Liaison Engineer

### *Traffic impact closures on major interstate routes-5d*

PURPOSE OF  
THE MEASURE:  
This measure tracks the  
closures on Interstate 70  
and Interstate 44 due to  
various traffic impacts.

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.

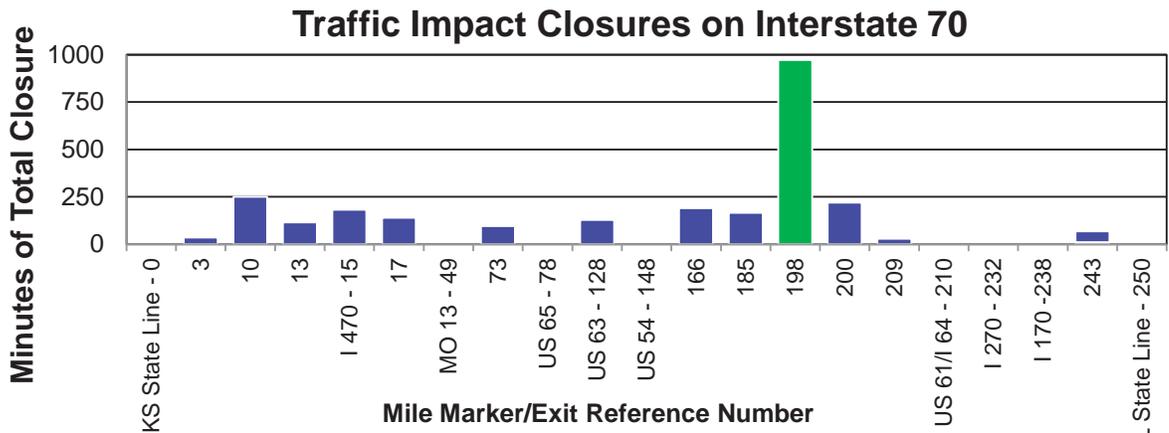
MEASUREMENT  
AND DATA  
COLLECTION:  
The interstate route clo-  
sures that have an actual  
or expected duration of  
30 minutes or more are  
entered into MoDOT's  
Transportation Management  
System for display on the  
Traveler Information Map on  
MoDOT's website.

Fifteen complete closures or blockages occurred on I-70 this quarter: four in April, three in May, and eight in June. In April there were two vehicle crashes that exceeded 90 minutes: a two-vehicle crash resulting in an overturned vehicle in Jackson County and a commercial motor vehicle crash in Warren County. During May, there were two vehicle crashes that exceeded 90 minutes, both in Jackson County: a two-vehicle crash involving a commercial motor vehicle and passenger vehicle that resulted in a fatality and a three-vehicle chain-reaction crash involving two commercial motor vehicles and passenger vehicle that resulted in serious injuries. During June, there were five incidents that exceeded 90 minutes in duration. In Warren County, there was a planned closure with a duration over 16 hours that was mistakenly entered as a mainline closure instead of a rest area closure. The remaining four impacts were all traffic crashes: a commercial vehicle that lost control and blocked all lanes in Saline County, a tour bus that caught fire in Montgomery County, a pedestrian fatality in Jackson County and a three-vehicle chain-reaction crash resulting in a fatality in Montgomery County.

On Interstate 44, 21 complete closures or blockages occurred, all due to vehicle crashes: five in April; 10 in May, and six in June. In April, there were three vehicle crashes that exceeded 90 minutes; an overturned commercial motor vehicle in Lawrence County, an RV fire in Greene County and a single-vehicle crash in St. Louis City. In May there were four vehicle crashes that exceeded 90 minutes: a two-vehicle collision involving a motorcycle and truck pulling a camper in Greene County, a commercial motor vehicle that crossed the median and overturned across opposing lanes in Laclede County, a pedestrian and commercial motor vehicle incident that created two closures, one for the incident and a second for reconstruction in St. Louis City. In June, there was one vehicle crash that exceeded 90 minutes: a commercial motor vehicle crash in Newton County.

MoDOT continues to work with emergency responders to minimize the delay caused by closures on the interstate system.

# OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM



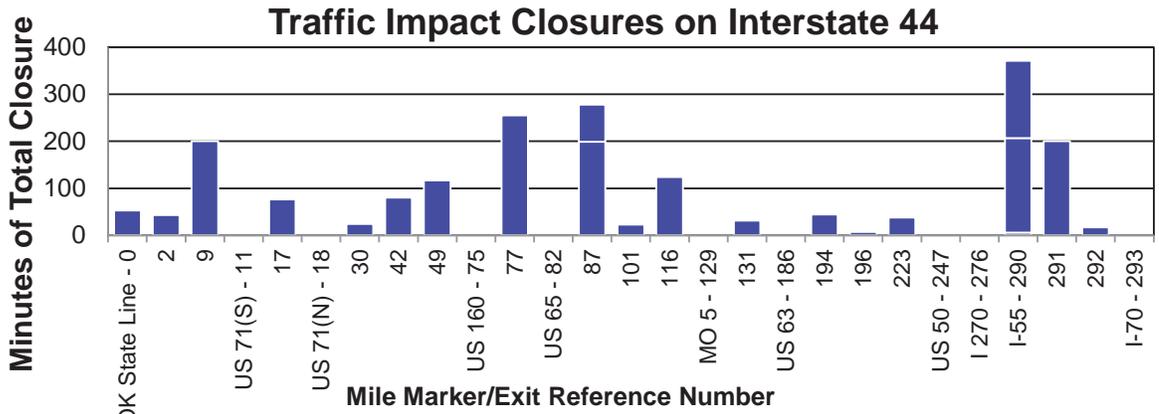
- Other (Planned)
- Police Emergency
- Vehicle Crash
- Winter Weather Closure/Flood Closure
- Utility/Bridge/Roadway Damage/Debris



- Other (Planned)
  - Police Emergency
  - Vehicle Crash
  - Winter Weather Closure/Flood
  - Utility/Bridge/ Roadway Damage/Debris
- ▲ 0 – 30 Minutes      □ 31-90 Minutes      ☆ 91+ Minutes

SYMBOL	COUNTY	DIR	MILE MARKER	START DATE	TYPE	DURATION (H:MM)
■	JACKSON	W	2.85	25-May-14	VEHICLE CRASH	0:35
☆	JACKSON	W	10.29	14-May-14	VEHICLE CRASH	4:10
☆	JACKSON	E	13.34	20-Apr-14	VEHICLE CRASH	1:55
☆	JACKSON	W	14.69	20-Jun-14	VEHICLE CRASH	3:01
☆	JACKSON	E	16.50	12-May-14	VEHICLE CRASH	2:20
☆	SALINE	E	72.50	04-Jun-14	VEHICLE CRASH	1:36
▲	BOONE	W	128.28	22-Apr-14	VEHICLE CRASH	0:21
☆	MONTGOMERY	E	167.63	28-Jun-14	VEHICLE CRASH	3:10
☆	MONTGOMERY	W	185.17	07-Jun-14	VEHICLE CRASH	2:46
★	WARREN	E	198.28	20-Jun-14	OTHER (PLANNED)	16:11
☆	WARREN	W	200.16	28-Apr-14	VEHICLE CRASH	3:39
▲	ST. CHARLES	E	209.38	24-Jun-14	VEHICLE CRASH	0:28
■	ST. LOUIS	E	242.69	13-Jun-14	VEHICLE CRASH	0:57
▲	ST. LOUIS	E	242.81	13-Jun-14	VEHICLE CRASH	0:03
▲	ST. LOUIS	W	242.84	02-Apr-14	VEHICLE CRASH	0:08

# OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM



- Other (Planned)
- Winter Weather Closure/Flood Closure
- Police Emergency
- Utility/Bridge/Roadway Damage/Debris
- Vehicle Crash



- Other (Planned)
  - Police Emergency
  - Vehicle Crash
  - Winter Weather Closure/Flood
  - Utility/Bridge/Roadway Damage/Debris
- △ 0 – 30 Minutes      □ 31-90 Minutes      ☆ 91+ Minutes

SYMBOL	COUNTY	DIR	MILE MARKER	START DATE	TYPE	DURATION (H:MM)
■	NEWTON	W	0.20	14-Jun-14	VEHICLE CRASH	0:53
■	NEWTON	W	1.67	25-May-14	VEHICLE CRASH	0:43
☆	NEWTON	W	8.94	18-Jun-14	VEHICLE CRASH	3:20
■	JASPER	W	17.45	09-May-14	VEHICLE CRASH	1:16
▲	JASPER	W	29.89	20-Jun-14	VEHICLE CRASH	0:24
■	LAWRENCE	W	41.72	19-May-14	VEHICLE CRASH	1:20
☆	LAWRENCE	W	49.00	11-Apr-14	VEHICLE CRASH	1:57
☆	GREENE	E	76.53	07-May-14	VEHICLE CRASH	4:15
■	GREENE	W	86.82	12-Apr-14	VEHICLE CRASH	1:19
☆	GREENE	E	86.82	12-Apr-14	VEHICLE CRASH	3:19
▲	WEBSTER	E	100.98	26-Jun-14	VEHICLE CRASH	0:23
☆	LACLEDE	W	115.58	17-May-14	VEHICLE CRASH	2:04
■	LACLEDE	W	131.37	03-Jun-14	VEHICLE CRASH	0:31
■	PHELPS	W	193.52	18-Apr-14	VEHICLE CRASH	0:44
▲	PHELPS	W	195.69	29-May-14	VEHICLE CRASH	0:07
■	CRAWFORD	E	222.66	26-May-14	VEHICLE CRASH	0:38
▲	ST. LOUIS CITY	E	289.81	04-May-14	VEHICLE CRASH	0:06
☆	ST. LOUIS CITY	W	289.82	30-May-14	VEHICLE CRASH	2:46
☆	ST. LOUIS CITY	W	290.25	01-Apr-14	VEHICLE CRASH	3:21
☆	ST. LOUIS CITY	W	290.68	30-May-14	VEHICLE CRASH	3:20
▲	ST. LOUIS CITY	W	292.13	22-Jun-14	VEHICLE CRASH	0:17

RESULT DRIVER:  
Paula Gough,  
District Engineer

## OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

MEASUREMENT  
DRIVER:  
Jerica Holtsclaw, Design  
Liaison Engineer

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

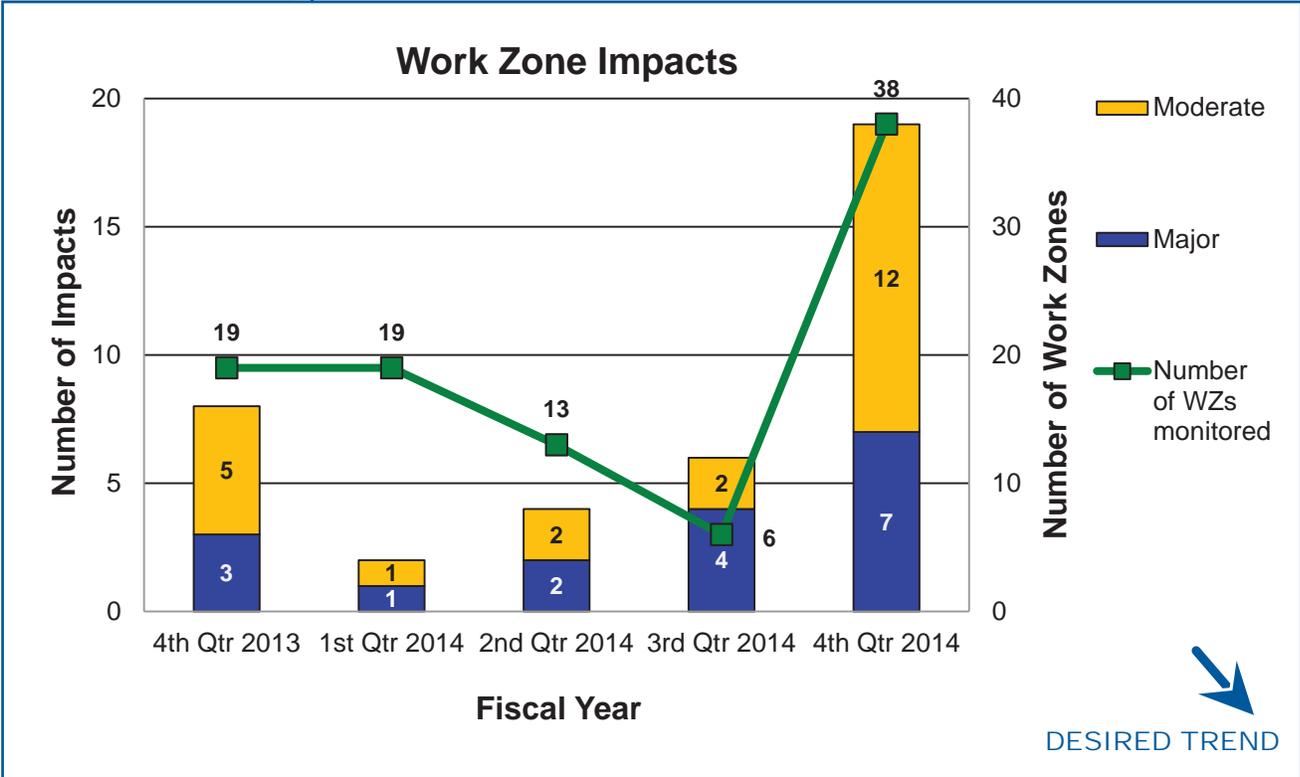
MEASUREMENT  
AND DATA  
COLLECTION:  
Work zone impacts are  
collected by conducting  
visual observations or using  
automated data collection.  
An impact is defined as  
the additional time a work  
zone adds to normal travel.  
They are categorized into  
three levels: a minor impact  
lasts less than 10 minutes;  
a moderate impact lasts 10  
to 14 minutes; and a major  
impact lasts 15 minutes or  
more.

### *Work zone impacts to the traveling public-5e*

Motorists want to get through work zones with as little inconvenience as possible. 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 38 significant work zones this quarter, with seven major impacts and 12 moderate impacts. Four major impacts were in the Northeast District and three major impacts were in the St. Louis District. Based on work zone surveys received this quarter, 46 percent are satisfied with timeliness when traveling in a work zone.



# OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM



RESULT DRIVER:  
Paula Gough,  
District Engineer

## OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

MAP-21

MEASUREMENT  
DRIVER:  
Mike Henderson,  
Transportation Planning  
Specialist

### *Effectiveness of improving air quality-5f*

**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.

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.

**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.

#### Effectiveness of Improving Air Quality

**UNDER DEVELOPMENT**

RESULT DRIVER:  
Paula Gough,  
District Engineer

## OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

MEASUREMENT  
DRIVER:  
Tim Chojnacki,  
Maintenance Liaison  
Engineer

### *Time to meet winter storm event performance objectives-5g*

PURPOSE OF  
THE MEASURE:  
This measure tracks the  
amount of time needed to  
perform MoDOT's snow and  
ice removal efforts.

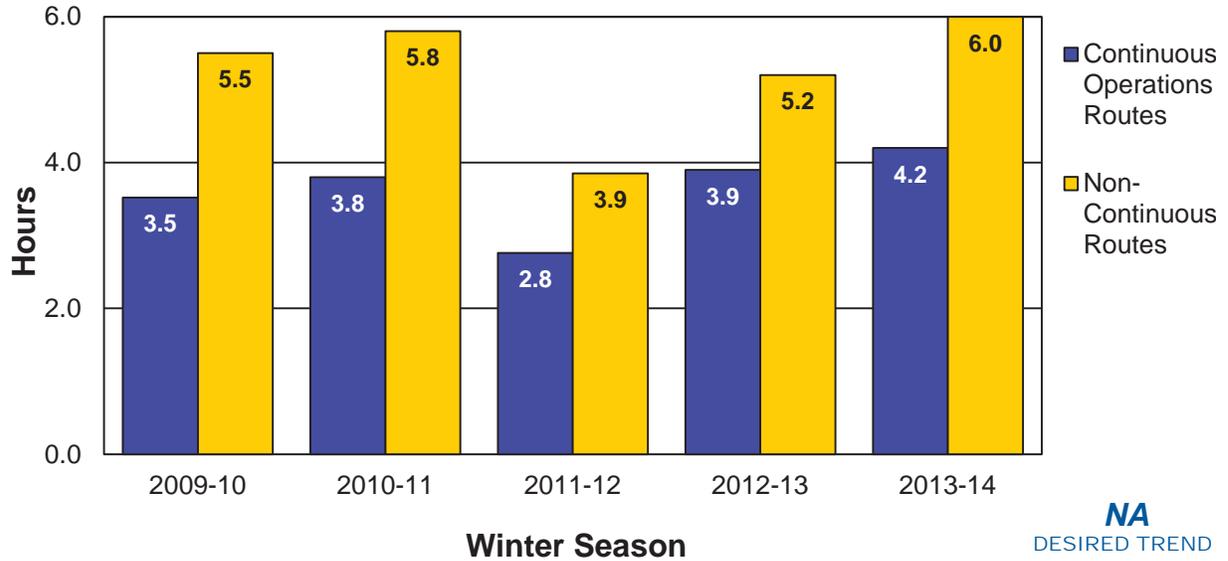
Knowing the time it takes to clear roads after a winter storm can help the department better analyze the costs associated with that work. MoDOT's response rate to winter events provides good customer service for the traveling public while keeping costs as low as possible. This winter brought several events to the state. It took an average of 4.2 hours to meet MoDOT's objective for continuous operations routes, and an average of six hours for non-continuous routes. These numbers compare favorably with past years. However crews worked over 830,000 hours fighting these snow and ice events at a cost of \$71 million through the end of March. Winter operations, on average, cost about \$46 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.

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 opera-  
tions" routes. State routes  
with lower traffic volumes  
should be opened to two-  
way traffic and treated with  
salt or abrasives at critical  
areas such as intersections,  
hills and curves. These are  
called "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 classifica-  
tions.

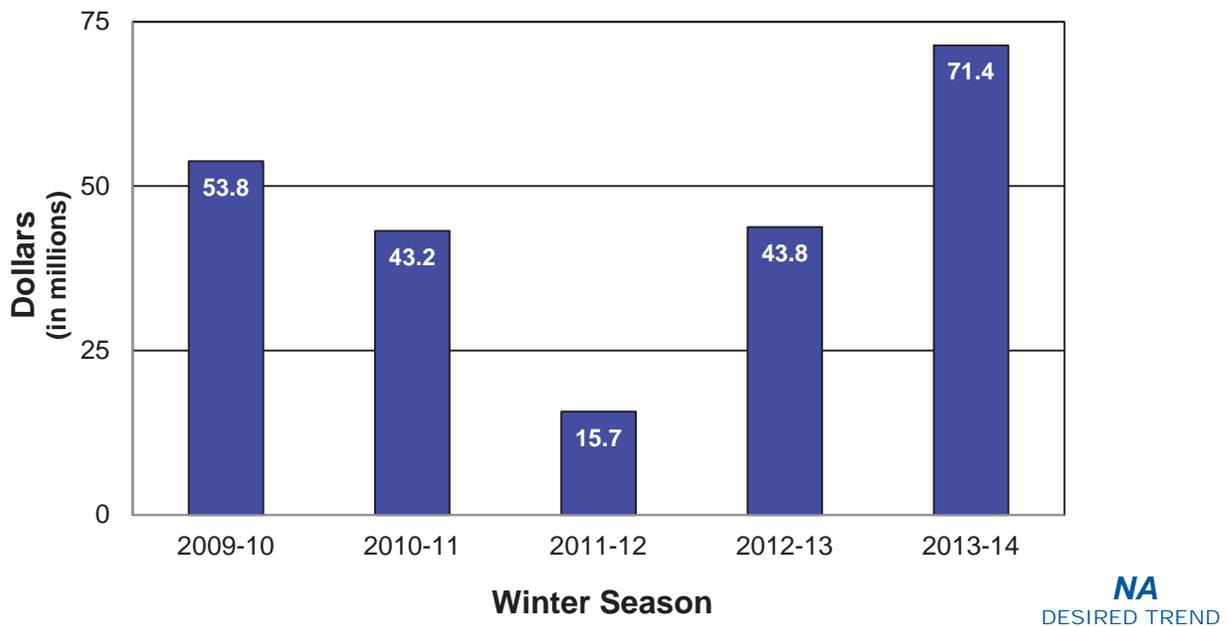


# OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

## Time to Meet Winter Storm Event Performance Objectives



## Average Cost of Winter Operations



RESULT DRIVER:  
Paula Gough,  
District Engineer

MEASUREMENT  
DRIVER:  
Ron Effland, Non-motorized  
Transportation Engineer

PURPOSE OF  
THE MEASURE:  
This measure tracks  
MoDOT's investment in  
pedestrian facilities and  
progress toward removing  
barriers. Accessibility needs  
occur both within the right of  
way, such as sidewalks and  
traffic signals, and within  
department buildings, park-  
ing lots and restrooms. Re-  
moval of the barriers listed in  
MoDOT's 2010 Transition  
Plan is required as part of  
the department's compli-  
ance with the Americans  
with Disabilities Act.

MEASUREMENT  
AND DATA  
COLLECTION:  
Tracking of MoDOT's  
investment in pedestrian  
facilities is done by col-  
lecting awarded contract  
amounts for the 20 most  
common construction ele-  
ments used on pedestrian  
projects each year. Transi-  
tion Plan progress is based  
upon completed work that  
has corrected defective  
items reported in the August  
2010 Transition Plan inven-  
tory. The dollar amounts  
are based on unadjusted  
estimates from 2008 and  
will not reflect actual expen-  
ditures. 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 has been responsive to public requests for improved accessibility and has been proactive in many areas to make systematic improvements when opportunities arise and limited funding allows. MoDOT has improved more than \$11 million worth of ADA facilities in the right of way since 2010. There is still more work to do as there is more than \$140 million worth of work left to complete on the 2010 ADA Transition Plan inventory.

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

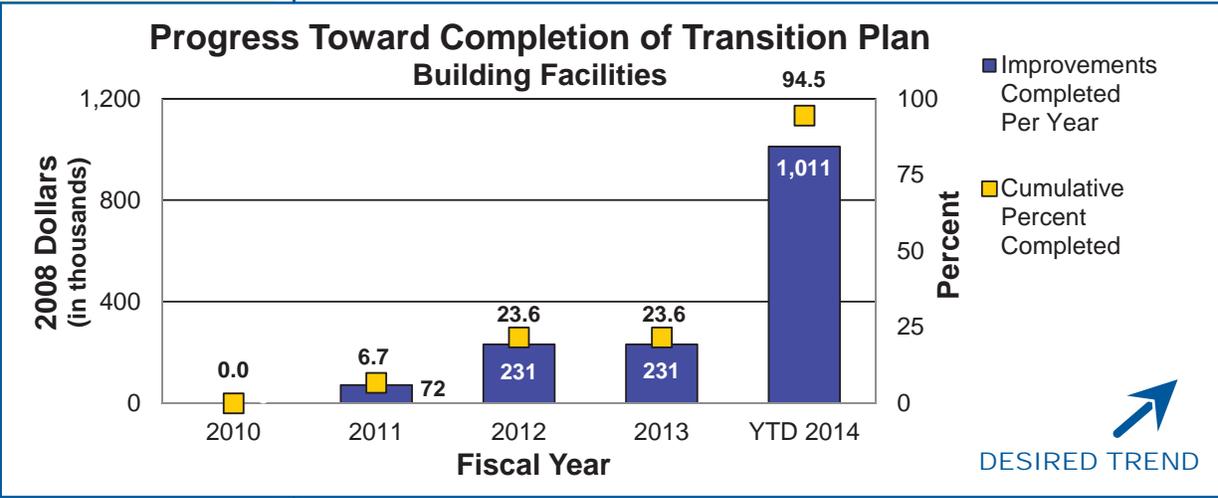
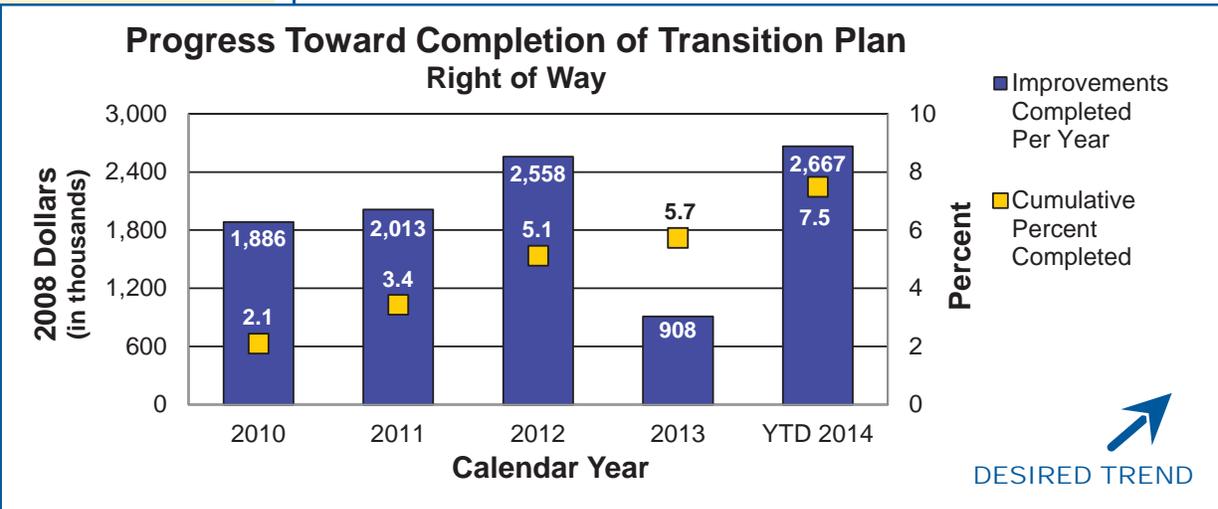
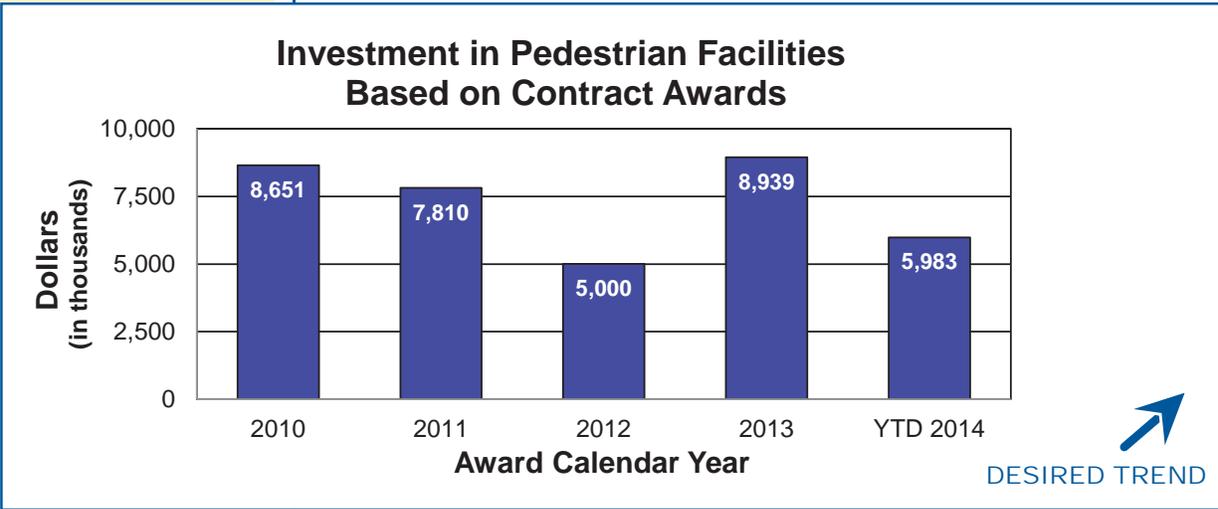
MoDOT's investment in pedestrian facilities so far in calendar year 2014 totals \$5.98 million. This exceeds the \$5 million invested in 2012 and is on pace with the 2013 total of \$8.9 million. MoDOT has committed to complete ADA improvements, including cross slope corrections, as work is being done on the adjacent roadway section.

Reporting of Transition Plan improvements for 2014 shows \$2.67 million of work has been completed in just the first half of 2014.

ADA compliance in MoDOT facilities is nearing completion with six of the seven districts showing ADA improvement projects are 100 percent completed. The Central Office and the Southeast District have some facilities with ADA work remaining.



# 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 pas-  
senger use of modes other  
than highways in Missouri.

MEASUREMENT  
AND DATA  
COLLECTION:  
Airline passenger counts  
are obtained from the Fed-  
eral Aviation Administration  
and from individual airports.  
Washington is the bench-  
mark due to its comparable  
population. Ferry passenger  
data is compiled from the  
New Bourbon and Missis-  
sippi County ferryboats,  
services owned and oper-  
ated by Missouri public port  
authorities. Amtrak supplies  
Missouri River Runner pas-  
senger counts. Urban and  
rural transit services provide  
transit passenger data, with  
Wisconsin as the bench-  
mark. Aviation and transit  
data is updated annually  
– in January and October,  
respectively – while ferry-  
boat and rail data is updat-  
ed quarterly.

## OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

### *Use and connectivity of modes of transportation-5i*

Planes, trains, ferries and transit 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 2013 suggest passenger enplanements remain steady.

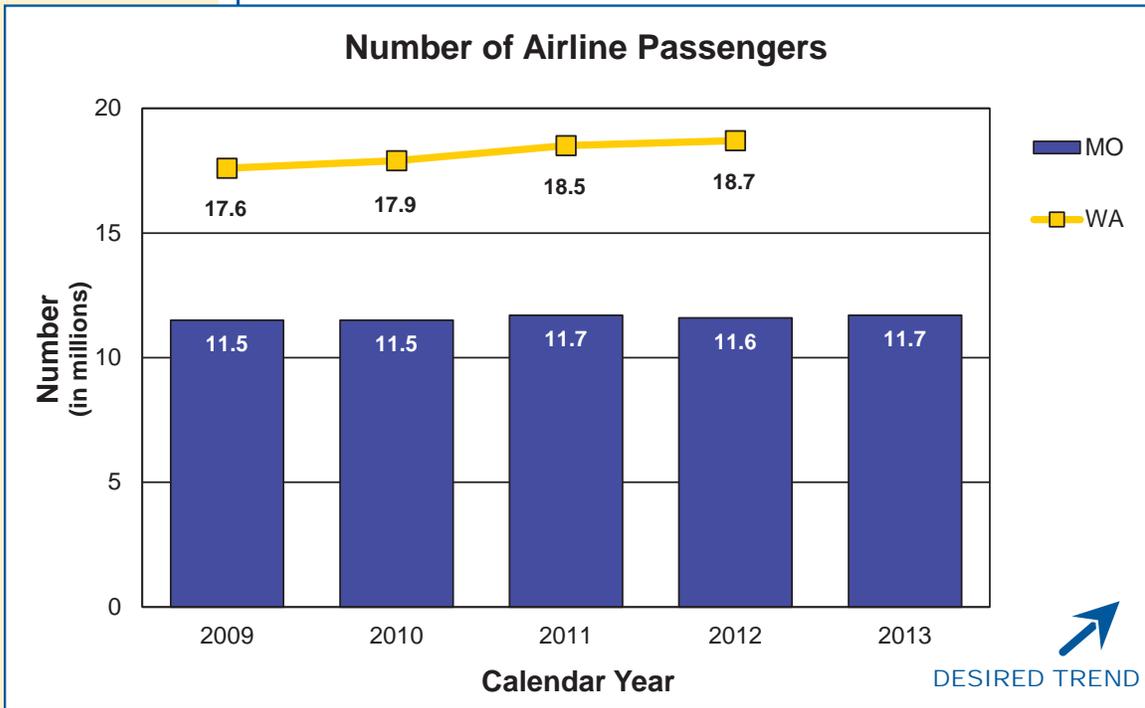
In the fourth quarter of fiscal year 2014, the number of ferry boat passengers nearly doubled compared to last year. Both ferry boats carried more passengers compared to the same quarter of FY 2013, likely due to the number of days ferry boat service was operational. FY 2014 saw nearly 61,000 passengers use state supported ferry boat services, as compared to just over 38,000 in 2013. There were unfavorable river conditions throughout much of 2013, which meant more days where the ferry boat services were closed.

Ridership decreased approximately 10 percent on Missouri River Runner trains from the fourth quarter of FY 2013 compared to the fourth quarter of FY 2014. In 2014, ridership decreased by 4 percent compared to 2013, with a total of 189,145 passengers using the Missouri River Runner. This is the first decrease in total ridership in seven years. The decline in annual ridership is in part due to lower gas prices, extreme winter weather and service disruptions due to flooding and maintenance. Several of these service disruptions occurred in the fourth quarter of FY 2014. The Missouri River Runner also saw a decline in on-time performance for the year, falling from 90 percent in 2013 to 86 percent. Delays to on-time performance can primarily be attributed to weather, repair work and increasing freight train traffic.

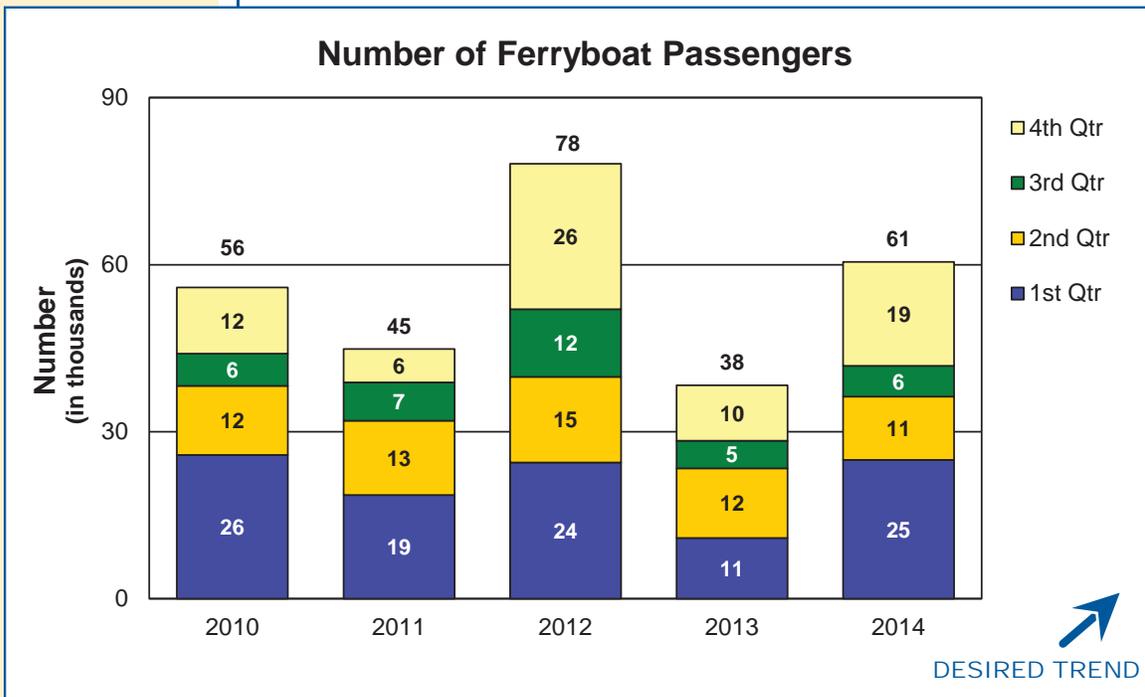
Metro transit ridership held relatively stable, while non-metro transit ridership in some regions decreased slightly in FY 2013 to levels similar to 2010 and 2011.

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.

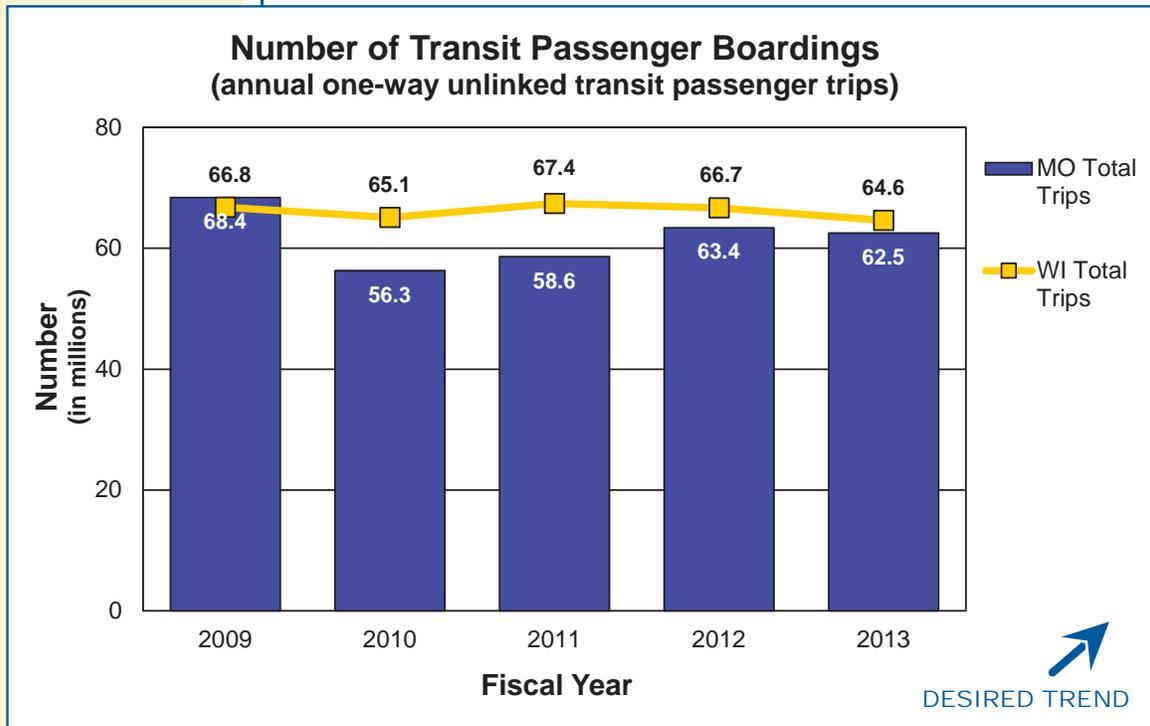
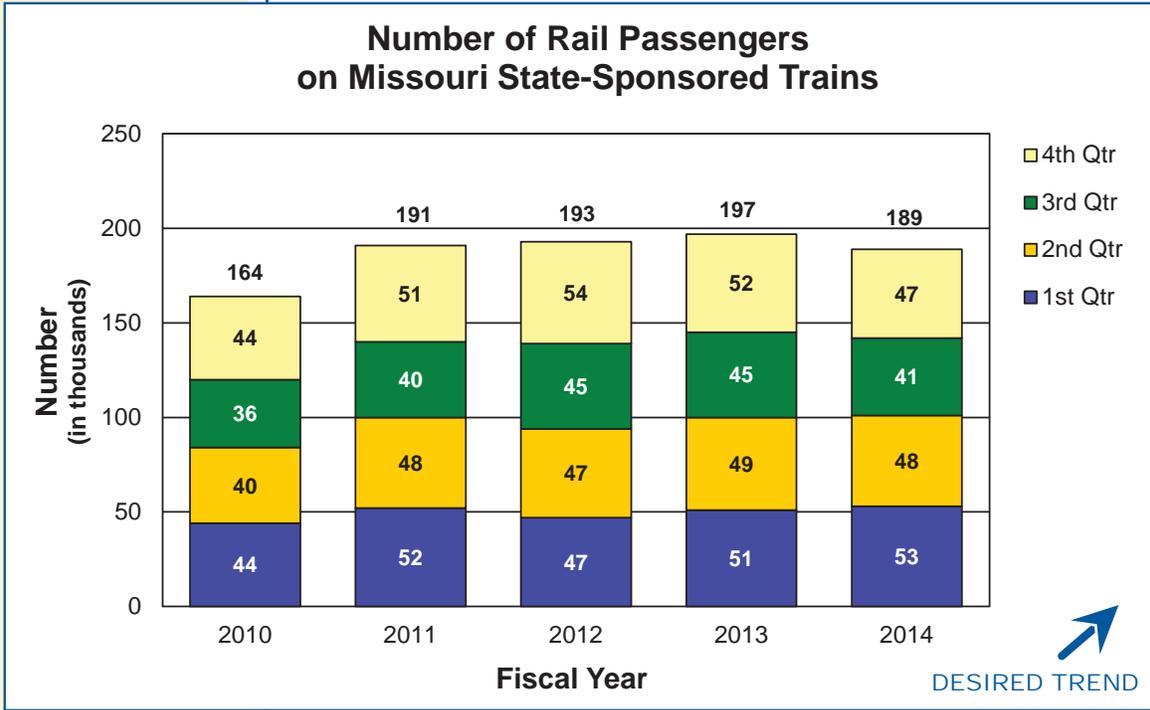
# OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM



\*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*

**Tracker**

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.

RESULT DRIVER:  
Brenda Morris,  
Financial Services Director

## USE RESOURCES WISELY

MEASUREMENT DRIVER:  
Steve Meystrik, Special Projects Coordinator

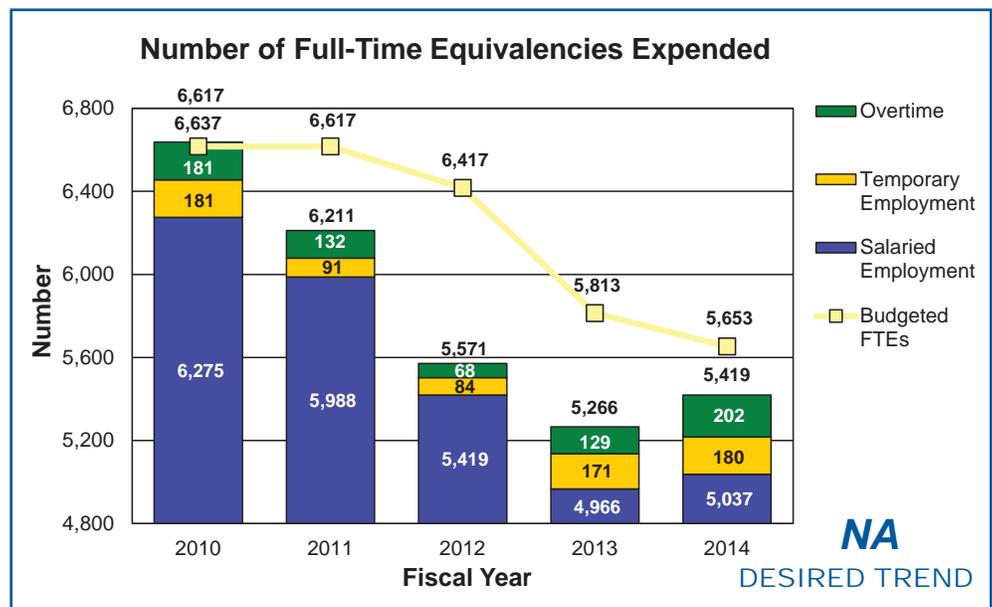
PURPOSE OF THE MEASURE:  
This measure tracks the change in the number of full-time equivalencies (a calculation of hours) expended within the department and compares it to the number of FTEs in the legislative budget.

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

### Number of full-time equivalencies expended-6a

Having the right number of employees to provide outstanding customer service and respond to the state's transportation needs, especially during emergency situations, is an important part of MoDOT's efforts to use resources wisely. MoDOT has reduced the number of salaried employees since 2008, and has fallen below its targeted employment level of 5,106 salaried employees. MoDOT has made some progress and continues the challenging task of reaching its targeted employment level.

During fiscal year 2014, FTE levels for salaried employment, temporary employment, and overtime increased compared to fiscal year 2013. FTEs from overtime have increased due to the amount of snow and ice experienced this past winter. There were approximately 160,000 more overtime hours, or the equivalent of 77 more FTEs, spent on snow and ice removal than what was required last year. FTEs for temporary employment have increased due to continued use of temporary employees to assist in seasonal maintenance activities and emergency response functions such as snow and ice removal. FTEs expended for salaried employment have increased as the department continues to staff full-time positions in areas where it remains below targeted staffing levels.



RESULT DRIVER:  
Brenda Morris,  
Financial Services Director

## USE RESOURCES WISELY

MEASUREMENT  
DRIVER:  
Rudy Nickens,  
Equal Opportunity and  
Diversity Director

PURPOSE OF  
THE MEASURE:  
This measure tracks the  
level of employee satisfac-  
tion throughout the depart-  
ment at specific points in  
time.

MEASUREMENT  
AND DATA  
COLLECTION:  
Employee satisfaction is  
measured with an annual  
employee survey. Em-  
ployees rate items related  
to their satisfaction with  
MoDOT using a five-point  
scale, with one indicating  
low satisfaction and five  
indicating high satisfaction.

### *Level of job satisfaction-6b*

MoDOT is currently working with an external vendor who has developed and distributed an employee survey. The survey data collection has completed and analysis is currently underway with reporting expected in the October 2014 Tracker. MoDOT wants employees to be satisfied with their work, workplace 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.



Level of Job Satisfaction

**UNDER DEVELOPMENT**

RESULT DRIVER:  
Brenda Morris,  
Financial Services Director

## USE RESOURCES WISELY

MEASUREMENT DRIVER:  
Aaron Kincaid,  
Employment Manager

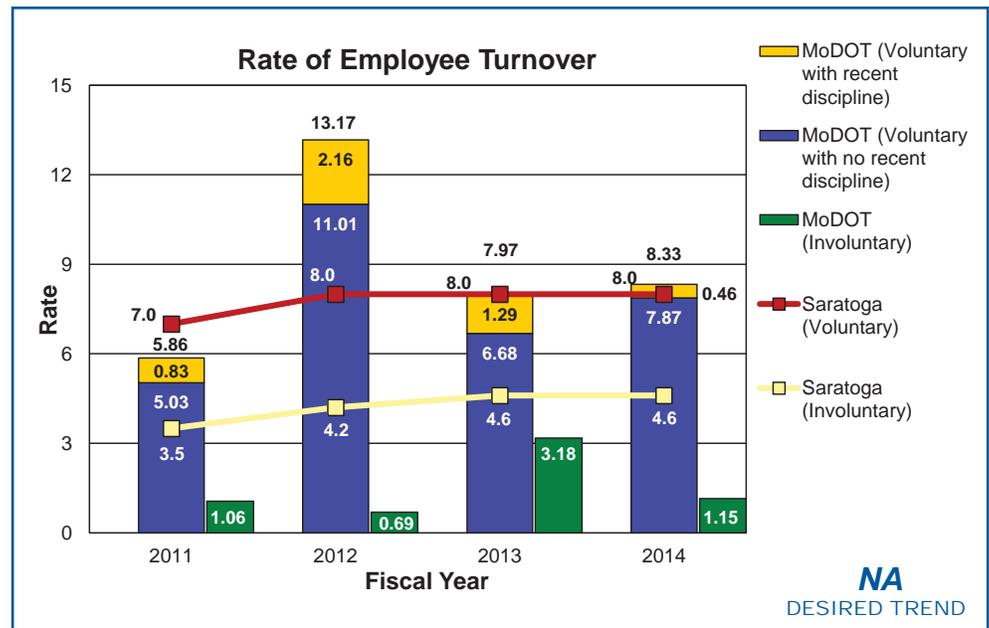
PURPOSE OF THE MEASURE:  
This measure tracks the percentage of employees who leave MoDOT annually and compares the department's voluntary and involuntary turnover rates to benchmarked data.

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.

### 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 fiscal year 2014, voluntary turnover rates are showing an upward trend over historical statewide rates (177 retirements and 242 resignations). While the overall voluntary turnover is a slight increase of 0.36 percent over the prior fiscal year, it does show that employees are voluntarily leaving the department at an increasingly higher rate in comparison to historical rates. First-year turnover remains the highest rate of turnover and is an area the department continues to focus on with employee onboarding to positively impact employee retention. Involuntary turnover rates have decreased from FY 2013, reducing back to more similar historical statewide rates with 54 involuntary separations (dismissals) in FY 2014.



RESULT DRIVER:  
Brenda Morris,  
Financial Services Director

## USE RESOURCES WISELY

MEASUREMENT  
DRIVER:  
Todd Grosvenor,  
Special Projects  
Coordinator

PURPOSE OF  
THE MEASURE:  
This measure shows the  
precision of state and fed-  
eral 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 vehi-  
cle sales taxes, aviation fuel  
taxes, jet fuel sales taxes,  
motor vehicle licensing  
fees, railroad assessments,  
appropriations from General  
Revenue, and interest earn-  
ings. The measure provides  
the cumulative, year-to-  
date percent variance of  
actual state revenue versus  
projected state revenue  
by state fiscal year. Fed-  
eral revenue for roads and  
bridges is the amount avail-  
able to commit in a federal  
fiscal year of federal funds.  
Federal funds are distrib-  
uted to states via federal  
law. Federal revenue for  
other modes is the amount  
reimbursed to MoDOT for  
expenses incurred in a state  
fiscal year.

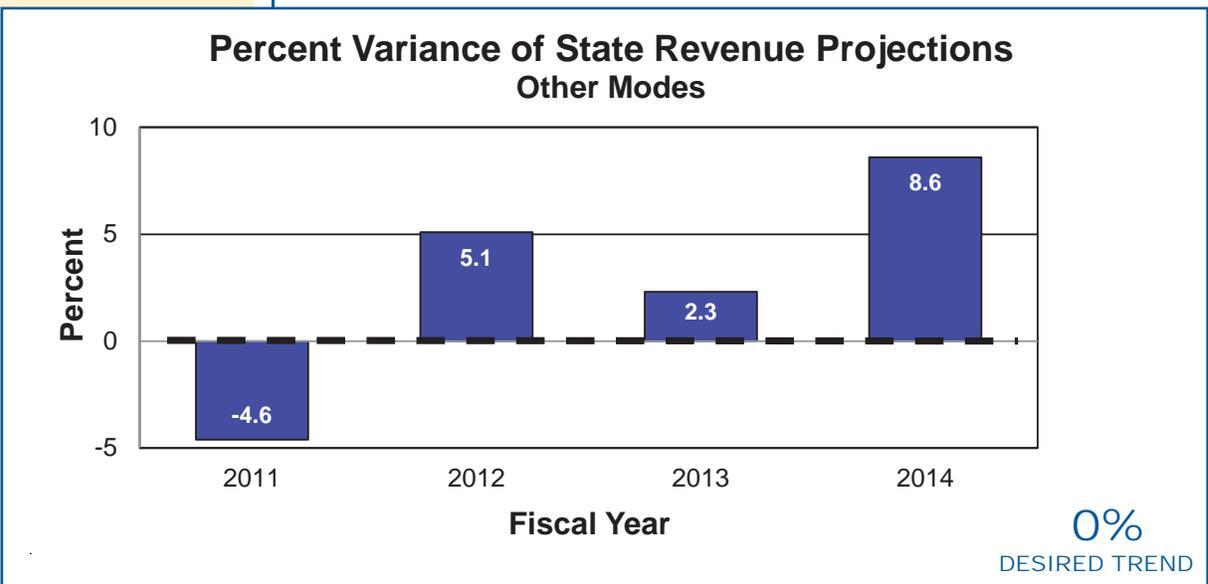
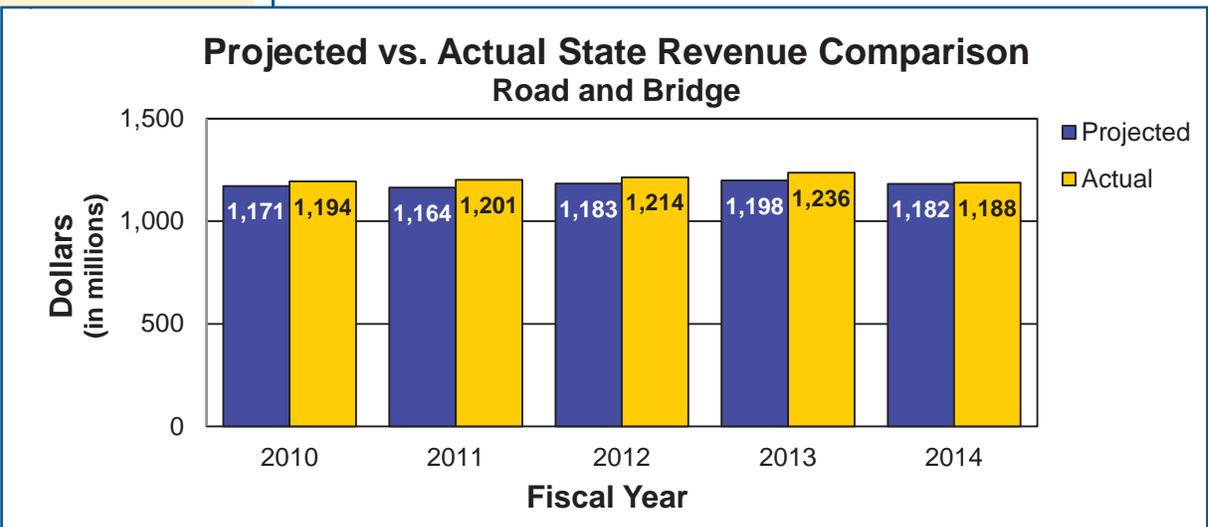
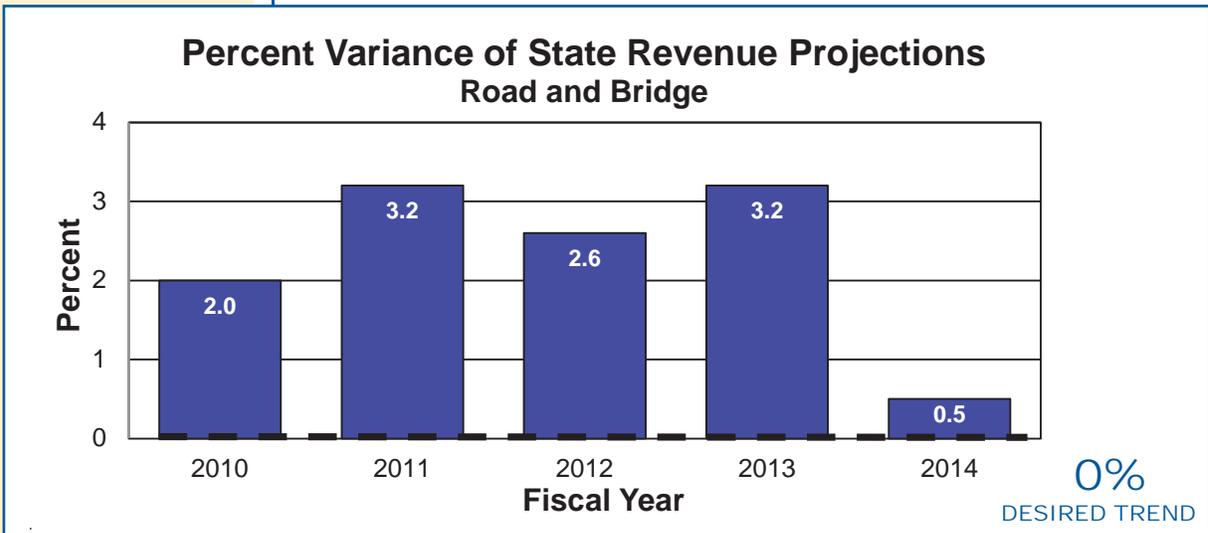
### *State and federal revenue projections-6d*

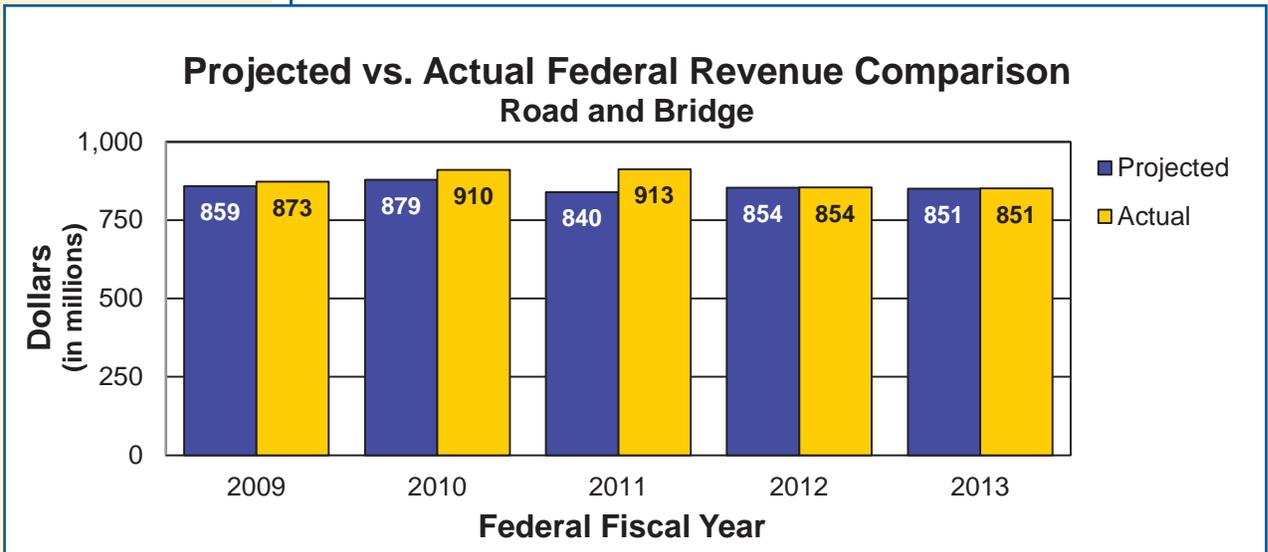
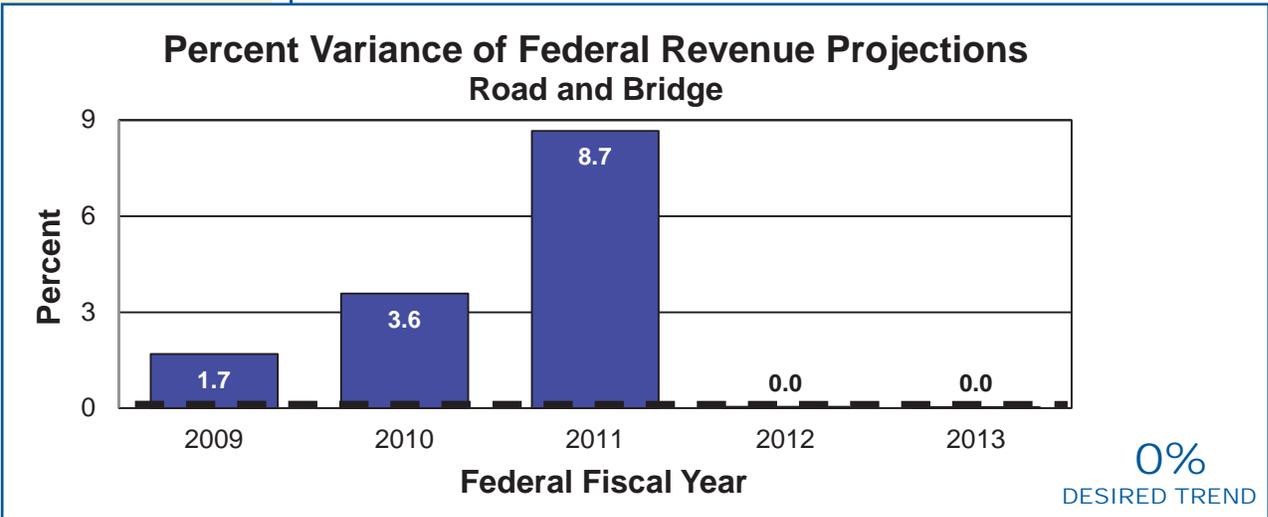
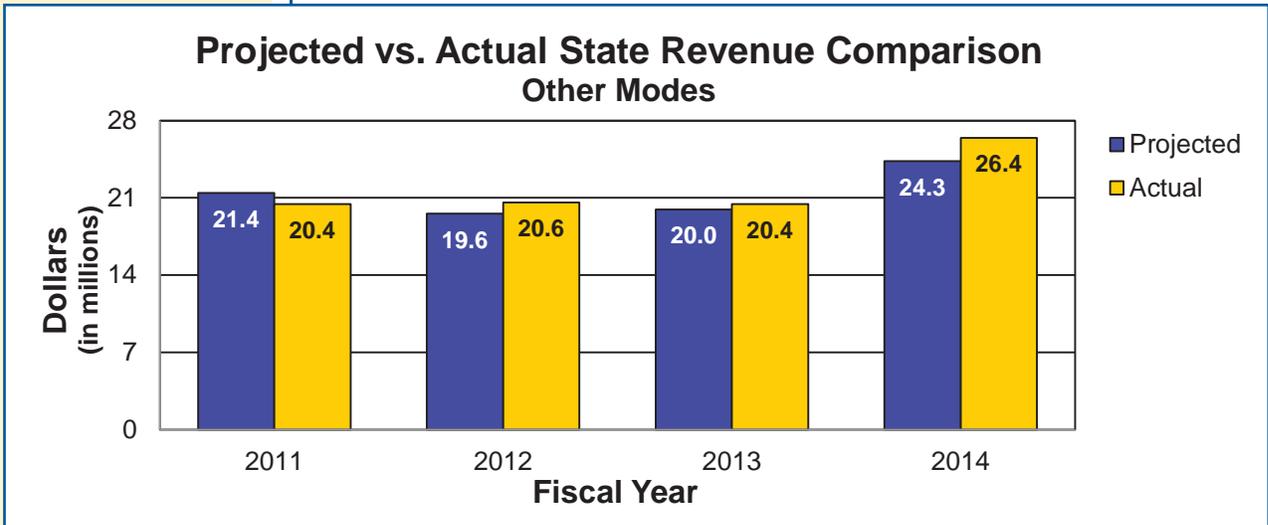
State and federal revenue projections help MoDOT staff do a better job of budgeting limited funds for its operations and capital program. The desired trend is for actual revenue to match projections with no variance. MoDOT staff adjusts future operating and capital budgets to account for these variances, 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. Based on a year-to-year comparison, motor vehicle and driver licensing fees and motor vehicle sales and use taxes have grown, but motor fuel taxes have declined. The positive variance of 8.6 percent for other modes is attributable to jet fuel and motor vehicle sales taxes.

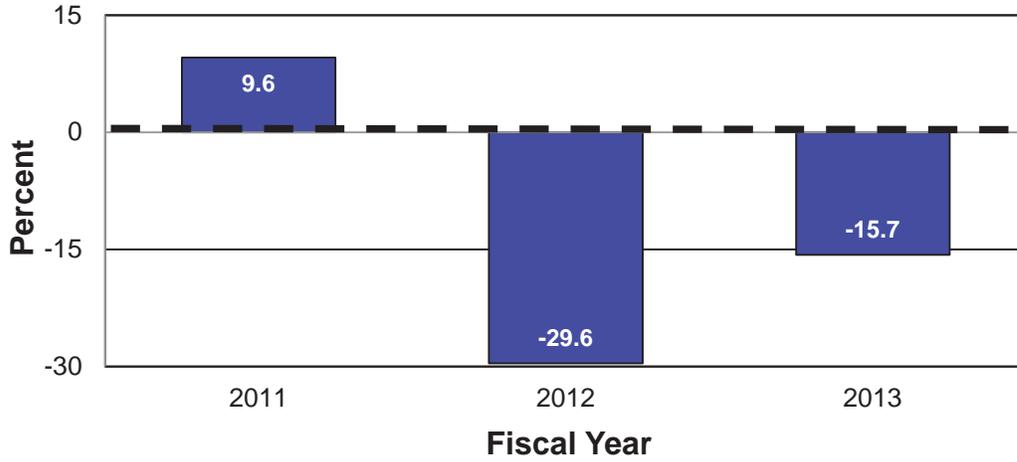
The largest source of transportation revenue is from the federal government. Funding is received through various federal transportation agencies including Federal Highway, Transit, Aviation and Railroad administrations. Federal funding is uncertain. In June 2012, Congress passed a new two-year federal transportation reauthorization act entitled Moving Ahead for Progress in the 21st Century Act. MAP-21 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.



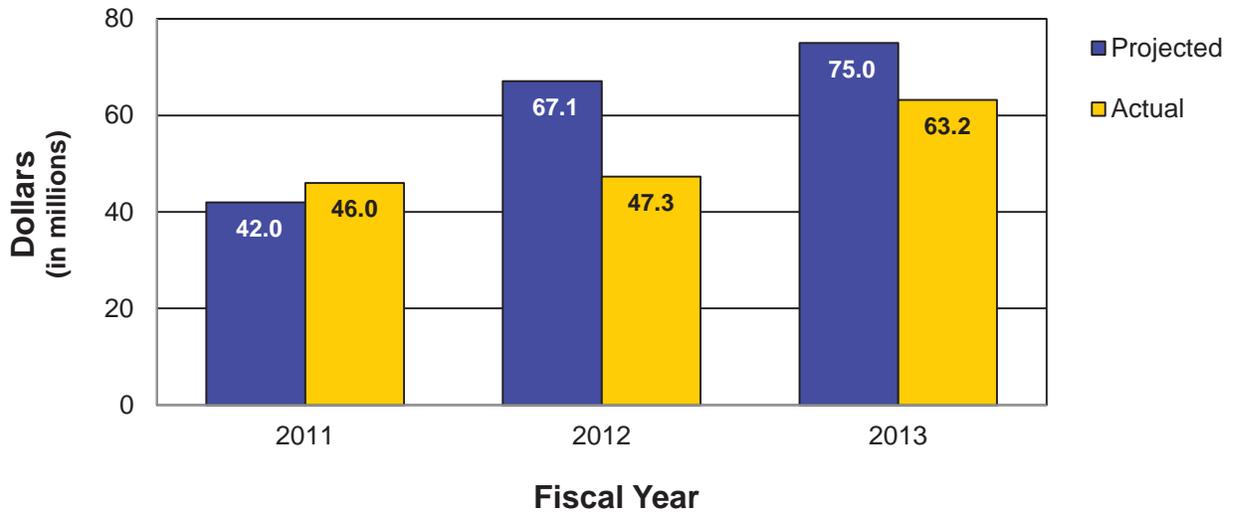


**Percent Variance of Federal Revenue Projections  
Other Modes**



0%  
DESIRED TREND

**Projected vs. Actual Federal Revenue Comparison  
Other Modes**



RESULT DRIVER:  
Brenda Morris,  
Financial Services Director

## USE RESOURCES WISELY

MEASUREMENT  
DRIVER:  
Frank Miller,  
District Planning Manager

PURPOSE OF  
THE MEASURE:  
This measurement moni-  
tors the effectiveness of  
MoDOT's cost-sharing and  
partnering programs.

MEASUREMENT  
AND DATA  
COLLECTION:  
MoDOT collects this  
data from the Statewide  
Transportation Improve-  
ment 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.

### *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 FY 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 five-year 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.

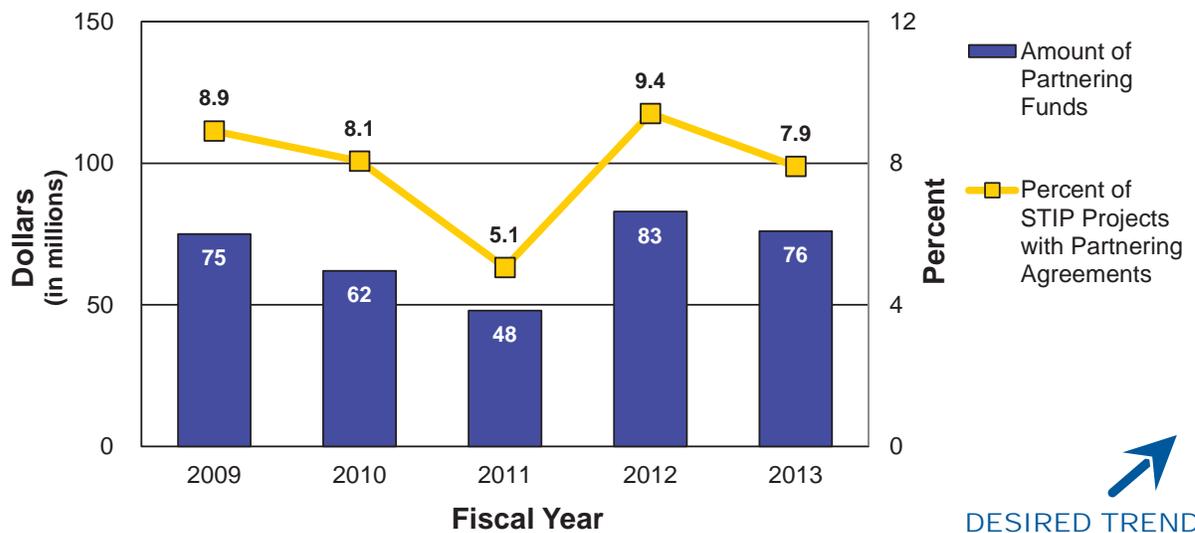
Aviation – The total investment for fiscal year 2013 of \$25.5 million for airport improvements and maintenance is slightly under the five-year average of \$26.4 million. Local entities provided \$2.5 million for capital improvements and \$4,000 for operating assistance.

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.

# USE RESOURCES WISELY



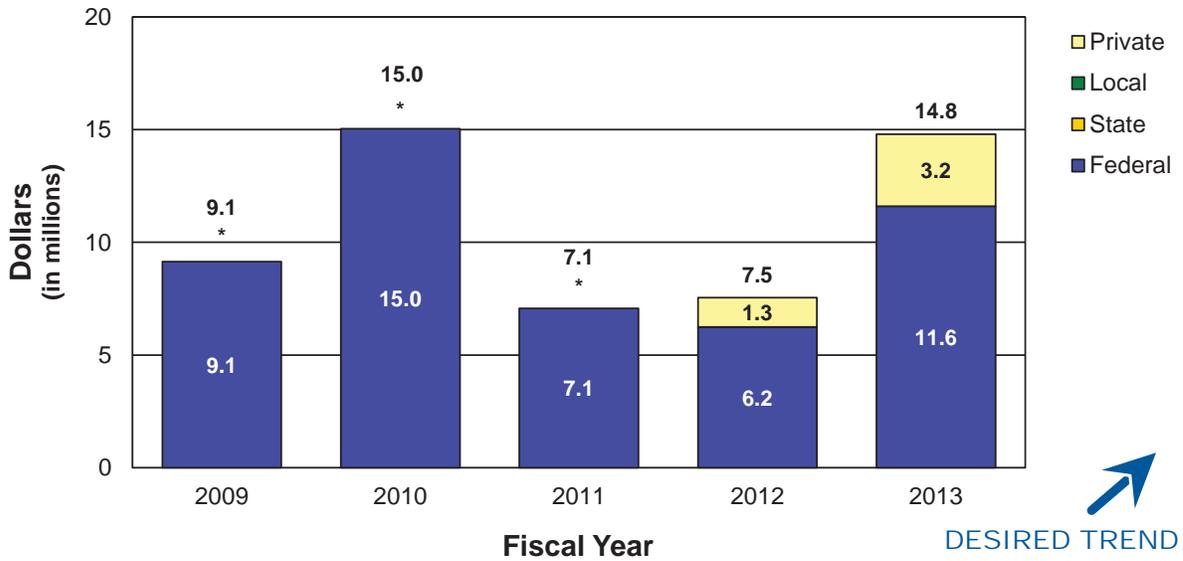
### Number of Dollars Generated Through Cost-sharing and Partnering Agreements for Highway and Bridge Projects



DESIRED TREND

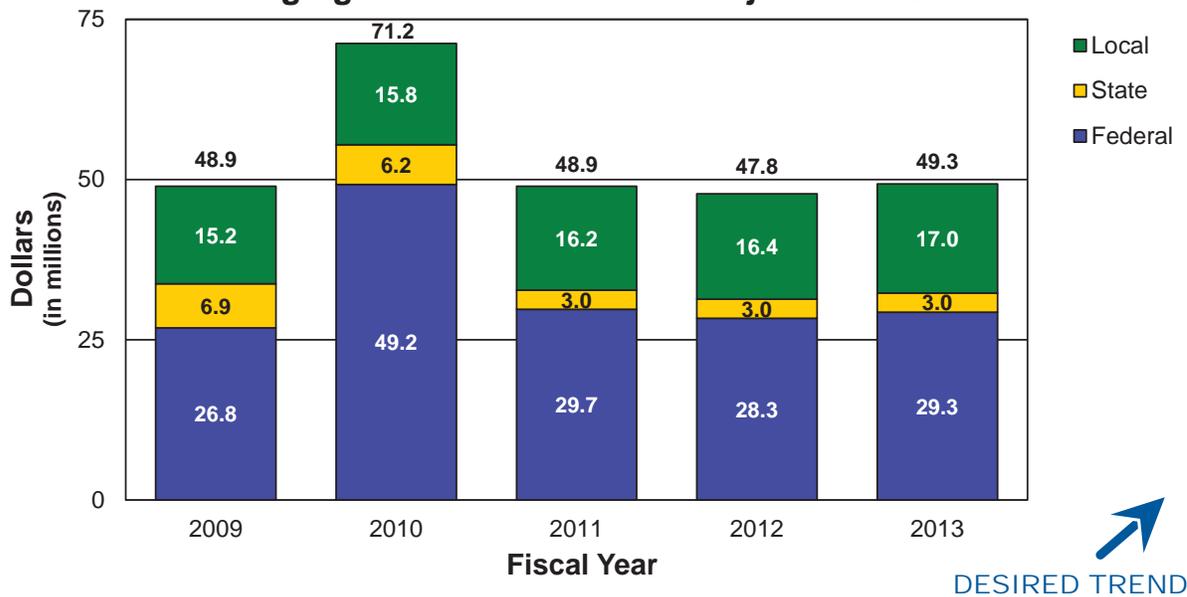
# USE RESOURCES WISELY

## Number of Dollars Generated Through Cost-sharing and Partnering Agreements for Railroad Projects and Services



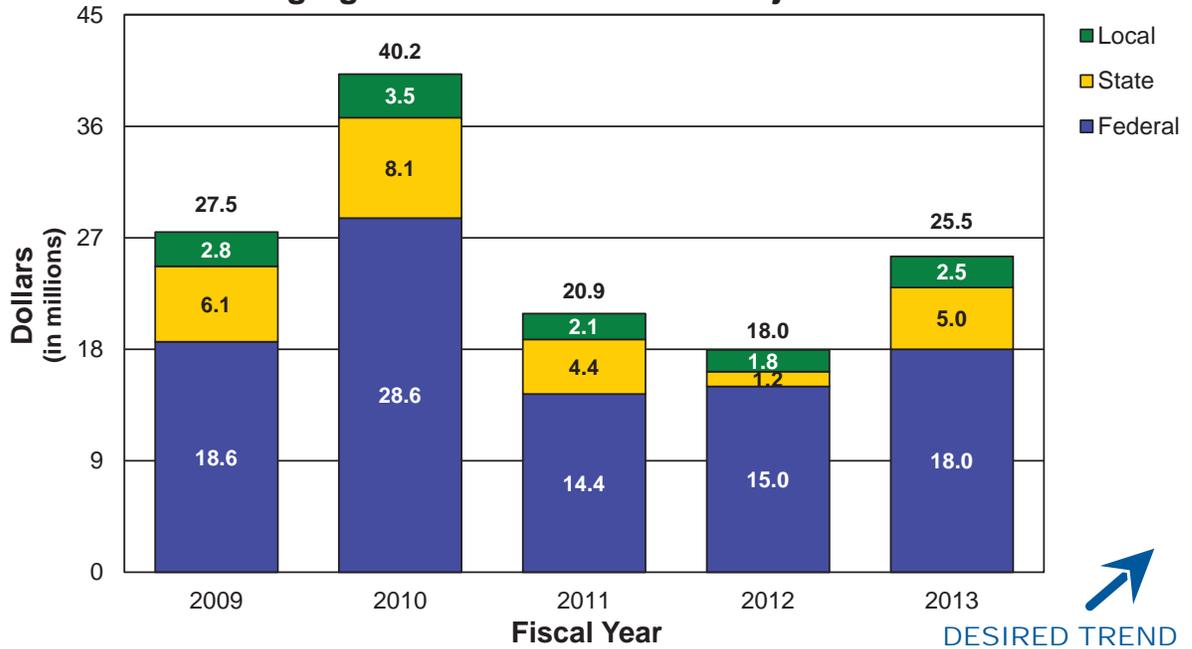
\*Private data is not available for FY 2009-2011.

## Number of Dollars Generated Through Cost-sharing and Partnering Agreements for Transit Projects and Services

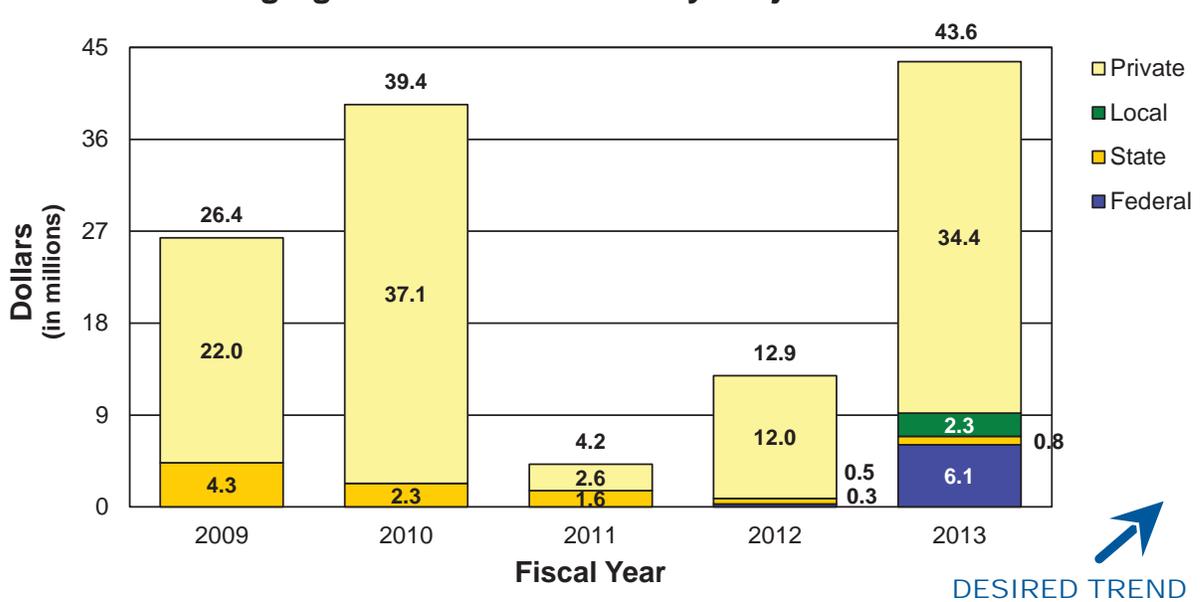


# USE RESOURCES WISELY

## Number of Dollars Generated Through Cost-sharing and Partnering Agreements for Aviation Projects and Services



## Number of Dollars Generated Through Cost-sharing and Partnering Agreements for Waterway Projects and Services



RESULT DRIVER:  
Brenda Morris,  
Financial Services Director

## USE RESOURCES WISELY

MEASUREMENT DRIVER:  
Kenny Voss,  
Local Program Administrator

PURPOSE OF THE MEASURE:  
This measure tracks the percent of available Local Program funds committed to projects.

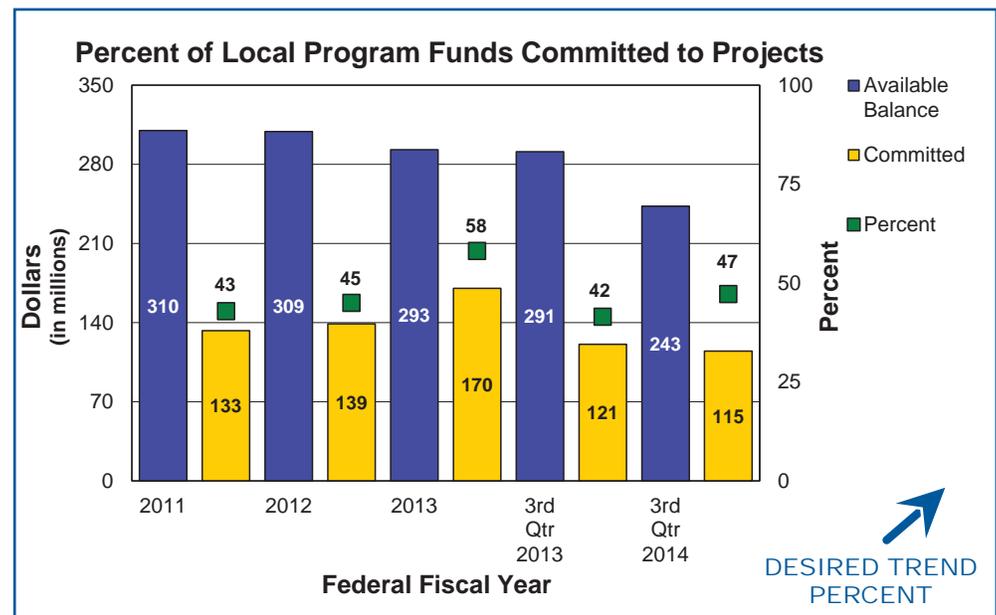
MEASUREMENT AND DATA COLLECTION:  
The data is obtained from Federal Highway Administration's Fiscal Management Information System and is based on the federal fiscal year from October 1 through September 30. The committed amounts represent what FHWA will reimburse for the project. The available amounts 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.

### 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 third quarter of federal fiscal year 2014, 47 percent (\$115 million) of the \$243 million in available funds has been committed to local projects. This represents \$6 million less in commitments compared to the same period last year. Last year, local entities committed more funds to the design of projects than this year to aggressively reduce the available balance. For FFY 2014, more funds are scheduled to be committed to construction of projects which typically occurs in the last quarter. Since FFY 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 FFY 2014.



RESULT DRIVER:  
Brenda Morris,  
Financial Services Director

## USE RESOURCES WISELY

MEASUREMENT  
DRIVER:  
Sunny Wilde,  
Resource Management  
Specialist

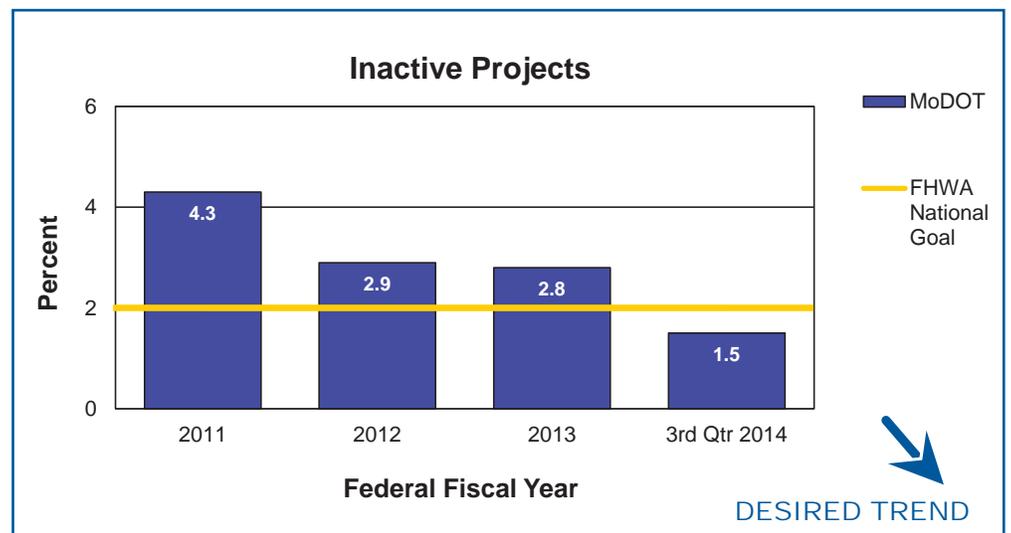
PURPOSE OF  
THE MEASURE:  
This measure tracks the  
percent of inactive federal  
projects.

MEASUREMENT  
AND DATA  
COLLECTION:  
The data is obtained from  
Federal Highway Adminis-  
tration's quarterly inactive  
projects report and is based  
on the federal fiscal year  
from October 1 through  
September 30. The inac-  
tive report includes projects  
with no expenditure activi-  
ty for more than one year.  
MoDOT uses a tracking  
database to assist in the  
analysis and reporting of  
inactive projects.

### 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 MoDOT's increased efforts, as requested by FHWA, inactive projects have declined from 4.3 percent in 2011 to 1.5 percent (\$13.9 million) in 2014. For the third quarter of federal fiscal year 2014, Missouri's inactive projects were below FHWA's national goal of 2 percent. Local program projects accounted for \$12.3 million (88 percent of this quarter's inactive projects). In this quarter, MoDOT implemented procedures to identify projects that will potentially become inactive in the coming months and identified necessary actions to ensure funds committed to projects are valid.



RESULT DRIVER:  
Brenda Morris,  
Financial Services Director

## USE RESOURCES WISELY

MEASUREMENT  
DRIVER:  
Doug Hood,  
Financial Services  
Administrator

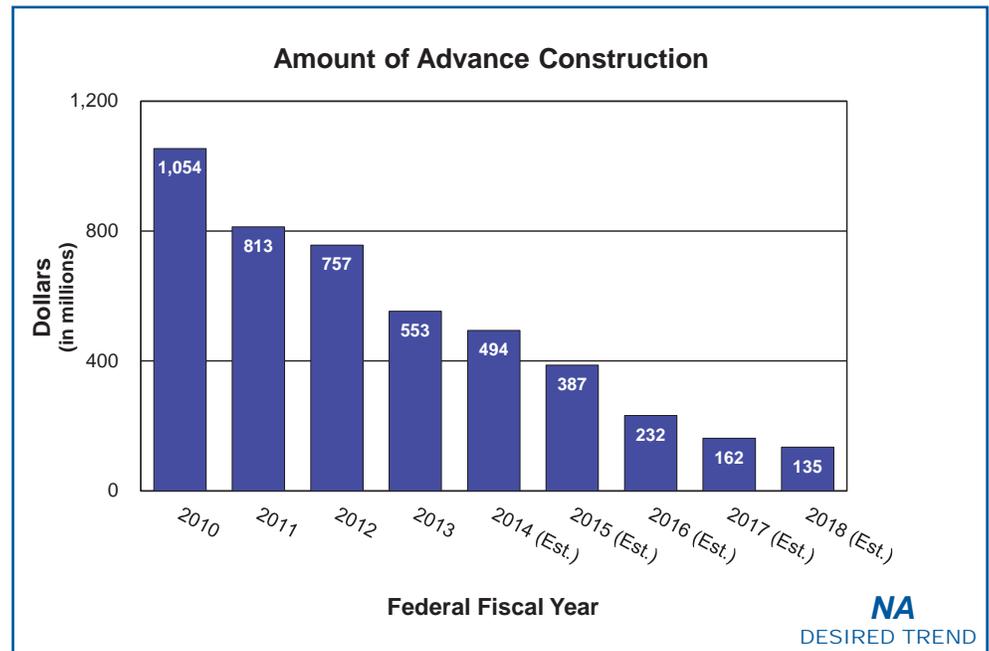
PURPOSE OF  
THE MEASURE:  
This measure tracks the  
amount of advance con-  
struction funds.

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 ad-  
vance construction is based  
on the total estimated proj-  
ect costs.

### 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.



RESULT DRIVER:  
Brenda Morris,  
Financial Services Director

## USE RESOURCES WISELY

MEASUREMENT  
DRIVER:  
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.

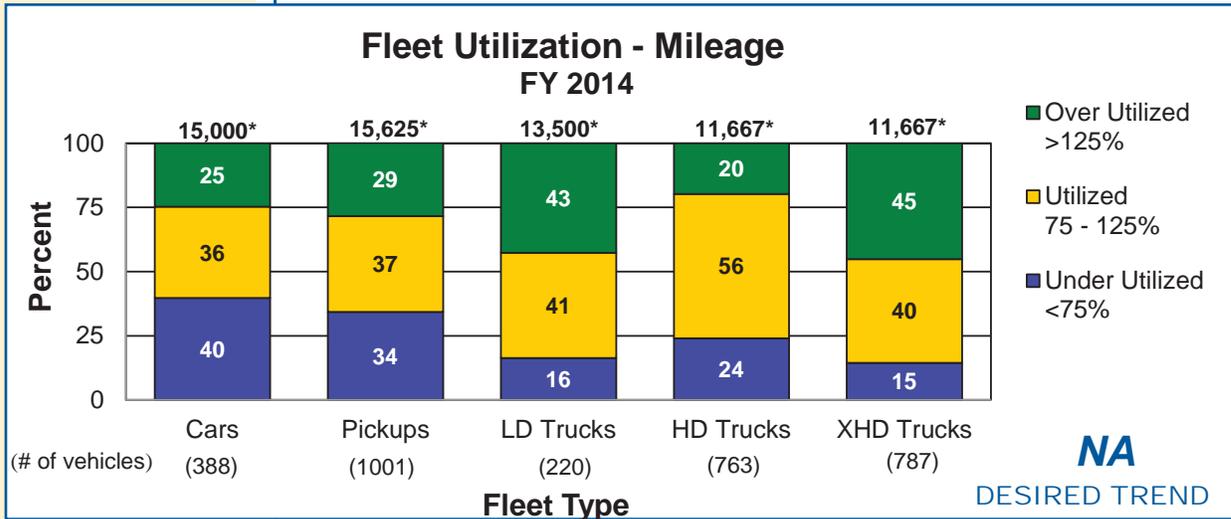
### *Fleet utilization and fuel efficiency-6i*

The fleet utilization numbers for fiscal year 2014 have little variation for cars, pickups and light duty trucks. There are significant increases in the over utilized results for HD and XHD trucks. HD trucks experienced an increase of 11 percent in the over utilized category as compared to the calendar year 2013. XHD trucks saw a significant 20 percent increase in the over utilized category. The high amount of miles driven due to snow removal was the main factor in the change of these results. An increase in over utilized equipment will result in equipment requiring replacement before its expected life.

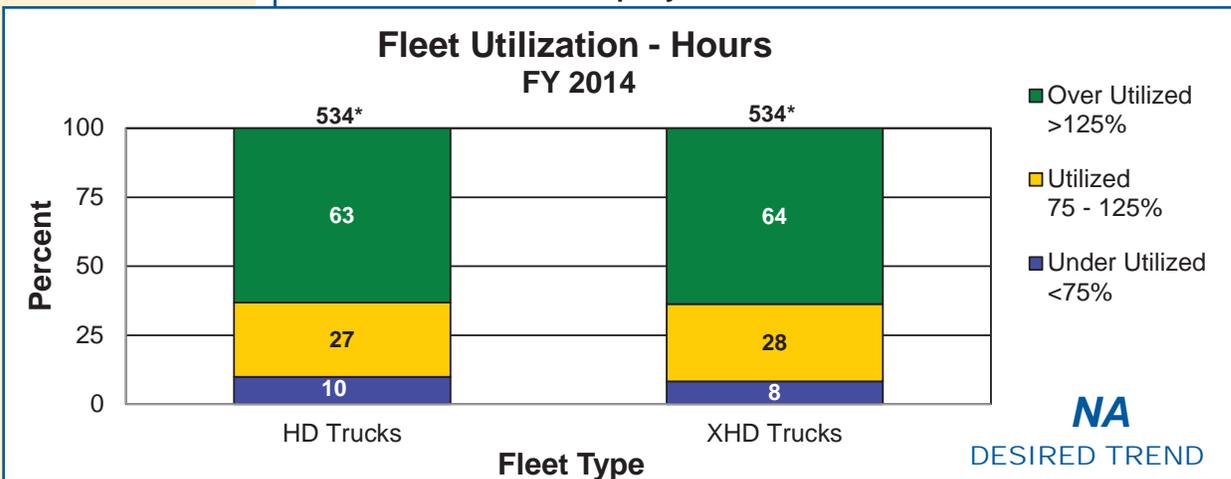
The fuel consumption and fuel efficiency measures are trending opposite of the desired trend. Fuel consumption in FY 2014 has increased by more than 1 million gallons with 100 percent of this increase in diesel fuel. The fuel efficiency measure has decreased approximately 0.45 miles per gallon. The increase 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.



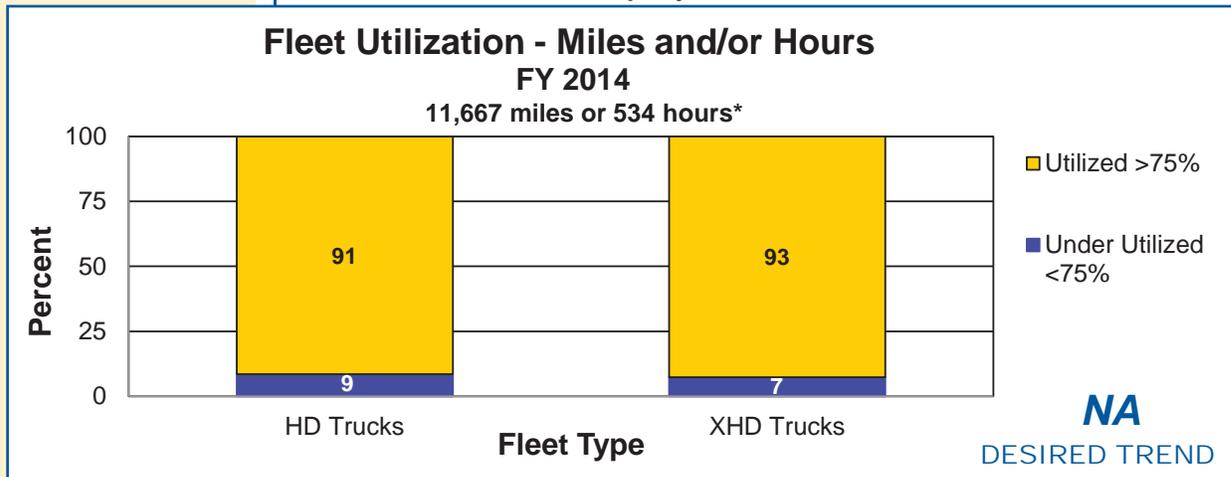
# USE RESOURCES WISELY



\*Miles considered utilized per year



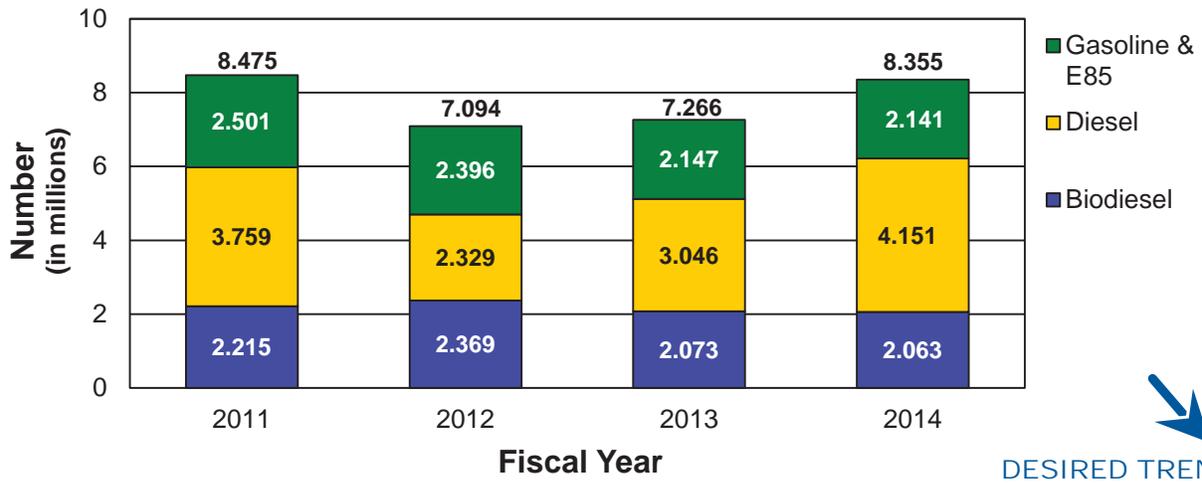
\*Hours considered utilized per year



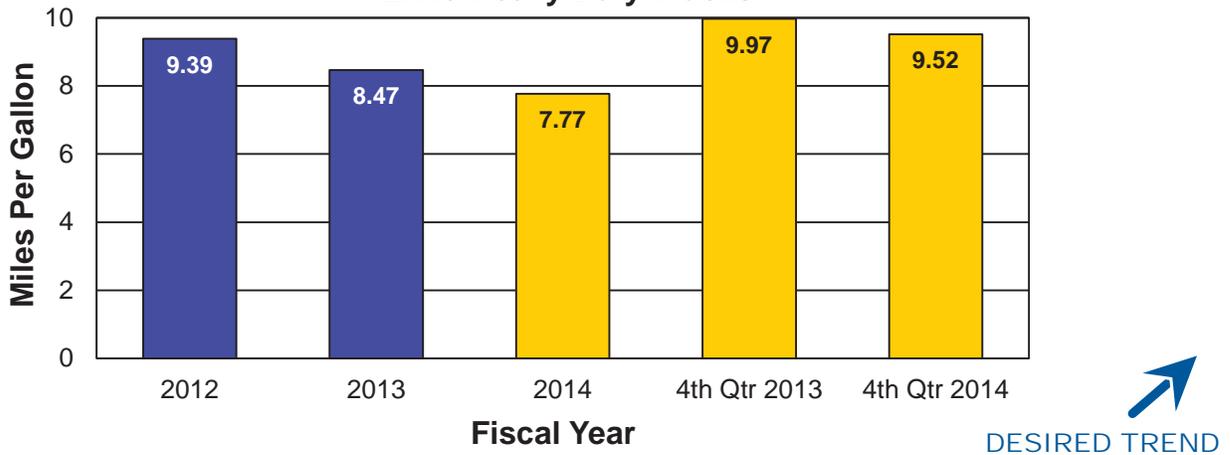
\*Miles and/ or hours utilized per year

# USE RESOURCES WISELY

## Gallons of Fuel Consumed



## Average Miles Per Gallon Cars, Pickups, Light Duty Trucks, Heavy Duty Trucks and Extra Heavy Duty Trucks



RESULT DRIVER:  
Brenda Morris,  
Financial Services Director

## USE RESOURCES WISELY

### MEASUREMENT DRIVER:

Jay Bestgen, Assistant State Construction and Materials Engineer

### PURPOSE OF THE MEASURE:

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

### MEASUREMENT AND DATA COLLECTION:

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

## 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 constructed came from recycled components. This saved MoDOT and taxpayers about \$11 per ton, or \$30 million overall. The \$30 million savings would be equivalent to improving 680 miles of a two-lane roadway with a thin overlay.

MoDOT also recycles materials no longer needed for internal operations. The majority of the recycled products come from: 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). In fiscal year 2013, it cost over \$210 thousand to recycle some items, such as scrap rubber/tires and to shred documents. However, other recycling efforts returned over \$1.2 million in revenue. The net result was just over \$1 million.

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.



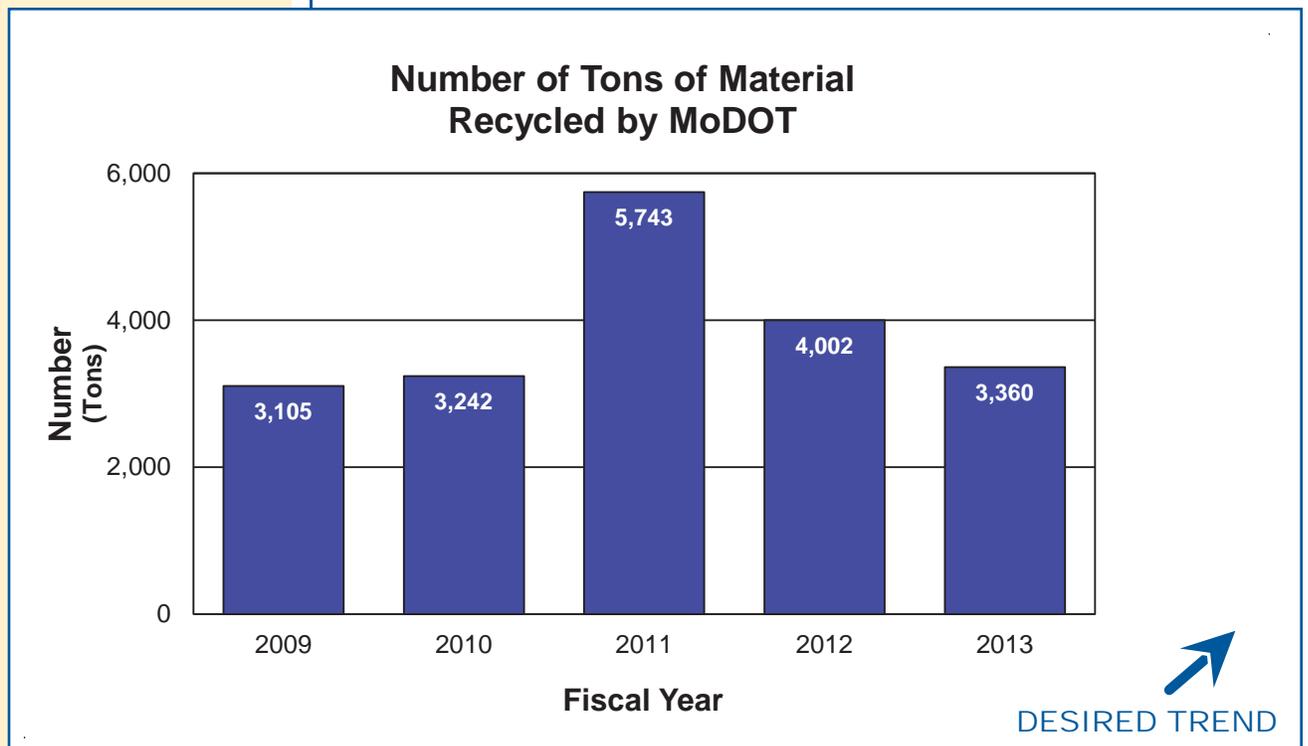
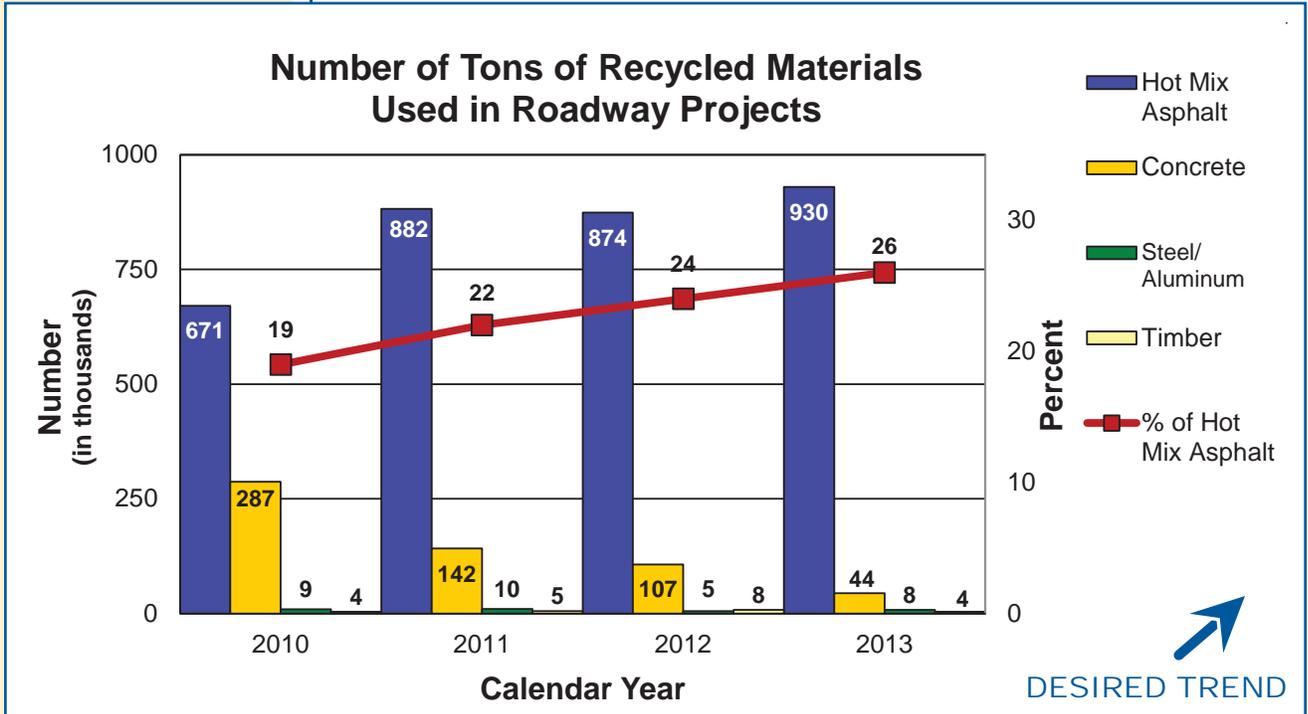
### Roofs to Roads

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

Shingles are ground up and processed.



# USE RESOURCES WISELY



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 compli-  
ance with environmental  
laws and regulations, which  
includes obtaining and  
abiding by specific require-  
ments contained in various  
permits.

MEASUREMENT  
AND DATA  
COLLECTION:  
Notices of Violation are  
similar to a traffic ticket as  
they are written to indicate  
you are operating outside  
of legal limits. A Letter of  
Warning indicates that there  
are problems and if not  
corrected could lead to an  
NOV. Issued by environ-  
mental regulatory agencies,  
NOVs, LOWs and letters  
of satisfactory inspections  
are collected and tracked  
by location and/or project.  
The measure reports by  
calendar year the number of  
NOVs, LOWs and satisfac-  
tory 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 important to avoid violations. Violations with fines assessed against MoDOT result in less funding for transportation projects.

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

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

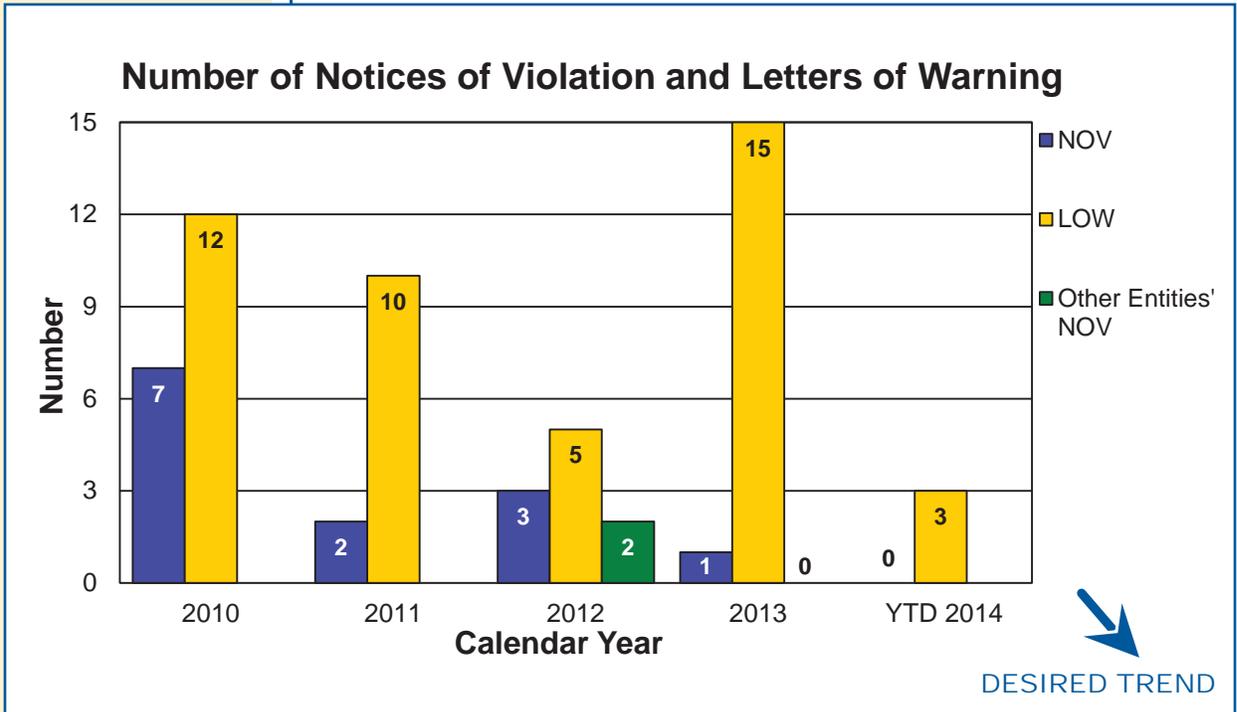
For calendar year 2014, MoDOT has received three LOWs all issued by MDNR. During this same period, the department also received two letters of satisfactory inspections from MDNR. One other letter of inspection noted a minor correction to safety placarding that was made during the inspection, but did not note any violations. The second letter detailed a satisfactory land disturbance inspection.

One LOW was issued for failure to submit a quarterly discharge monitoring report on a rest area lagoon. An LOW was issued for various petroleum and hazardous waste management deficiencies. The third LOW was for unsatisfactory features related to erosion control at a construction site.

Although not issued to MoDOT, an LOW for unsatisfactory land disturbance and erosion and sediment control features was issued by MDNR to a contractor for a permitted borrow site.

MoDOT continues to work with facility supervisors and construction inspectors through training and dialog to comply with permit requirements.

# 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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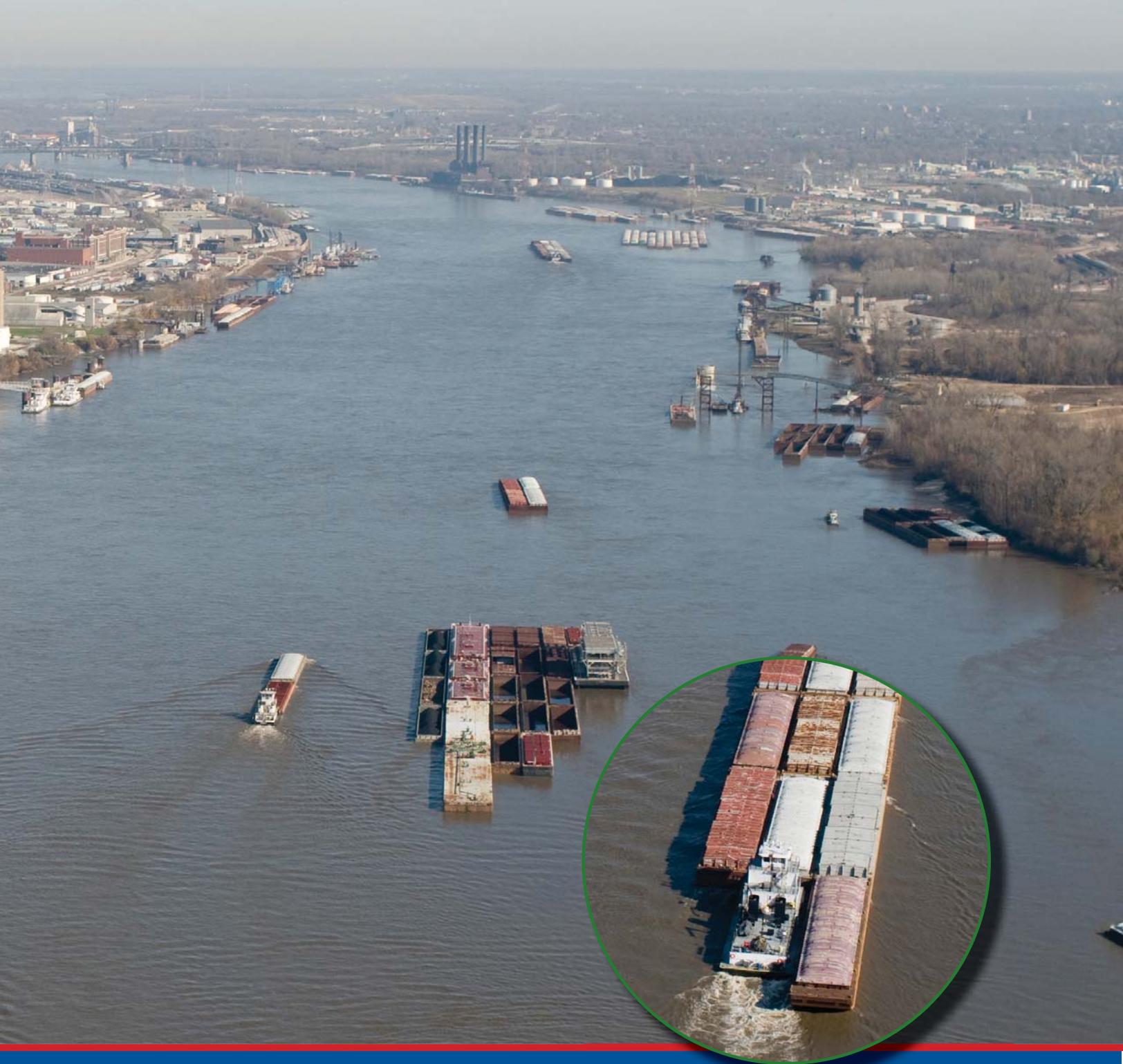


# ADVANCE ECONOMIC DEVELOPMENT

*Machelle Watkins, Transportation Planning Director*

**Tracker**

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.

RESULT DRIVER:  
Machelle Watkins,  
Transportation Planning  
Director

## ADVANCE ECONOMIC DEVELOPMENT

MEASUREMENT  
DRIVER:  
Eva Voss, Senior  
Transportation Planner

PURPOSE OF  
THE MEASURE:  
This measure tracks the  
economic impact resulting  
from the state's transporta-  
tion 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 mod-  
el called the Transportation  
Economic Development  
Impact System, or TREDIS.  
The TREDIS model results  
demonstrate a strong link  
between transportation  
investment and 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.

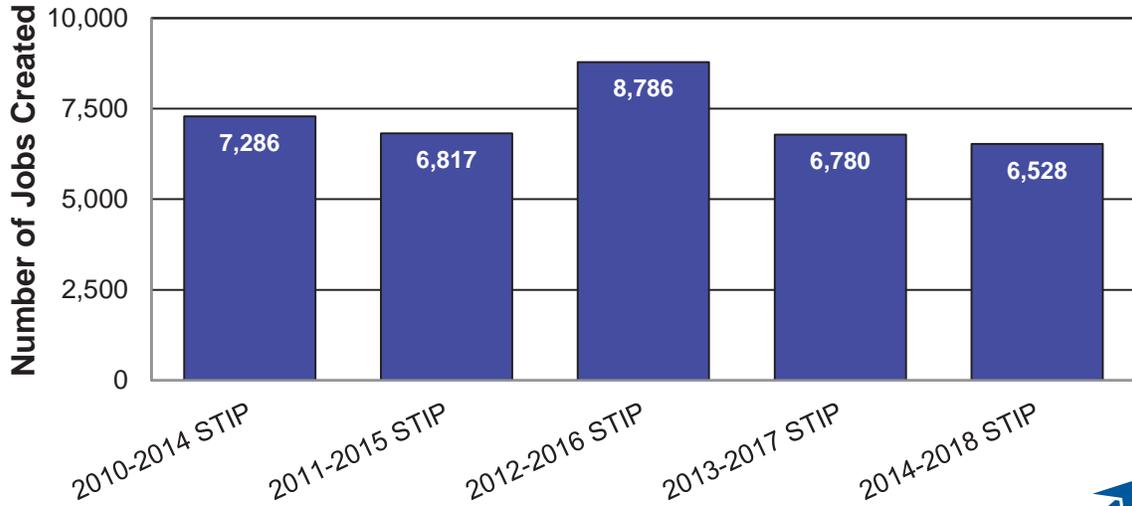
The figures tell a powerful story of economic success, but are also a sign of missed opportunity. When compared to the previous year's STIP (2013-2017), the jobs estimate decreased 3.7 percent.

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



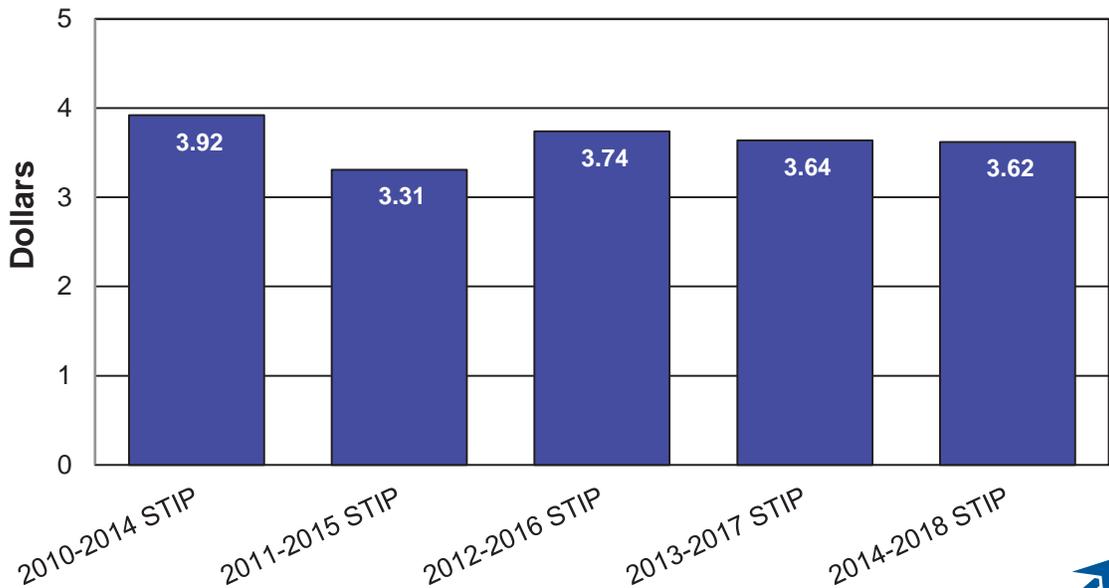
# ADVANCE ECONOMIC DEVELOPMENT

## Economic Return from Highway and Bridge Investments Annual Employment Benefit



  
DESIRED TREND

## Economic Return from Highway and Bridge Investments 20-Year Benefit Ratio for Every Dollar Invested



  
DESIRED TREND

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

## ADVANCE ECONOMIC DEVELOPMENT

**MEASUREMENT  
DRIVER:**  
Ben Reeser,  
Long-Range Transportation  
Planning Coordinator

**PURPOSE OF  
THE MEASURE:**  
This measure analyzes the  
strength of Missouri's trans-  
portation infrastructure for  
conducting business.

**MEASUREMENT  
AND DATA  
COLLECTION:**  
Data for this measure is ob-  
tained from an annual study  
conducted by the Consumer  
News and Business Chan-  
nel. The study scores all  
50 states on 51 measures  
of competitiveness devel-  
oped collaboratively with  
business groups including  
the National Association  
of Manufacturers and the  
Council on Competitive-  
ness, as well as the states  
themselves. Metrics are  
separated into 10 catego-  
ries, including transportation  
infrastructure. The transpor-  
tation infrastructure catego-  
ry measures the following  
for each state:

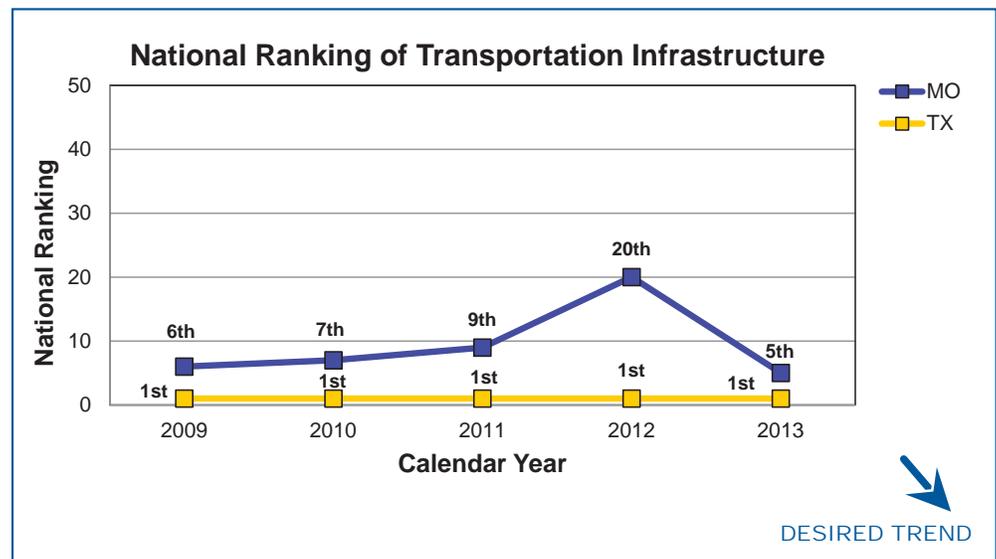
- Quantity of goods shipped by air, waterways, roads and rail (2009-2012 based on value of goods shipped, not quantity)
- Availability of air travel
- Quality of roads and bridges
- Time it takes to commute to work (added in 2012)

### National ranking of transportation infrastructure-7b

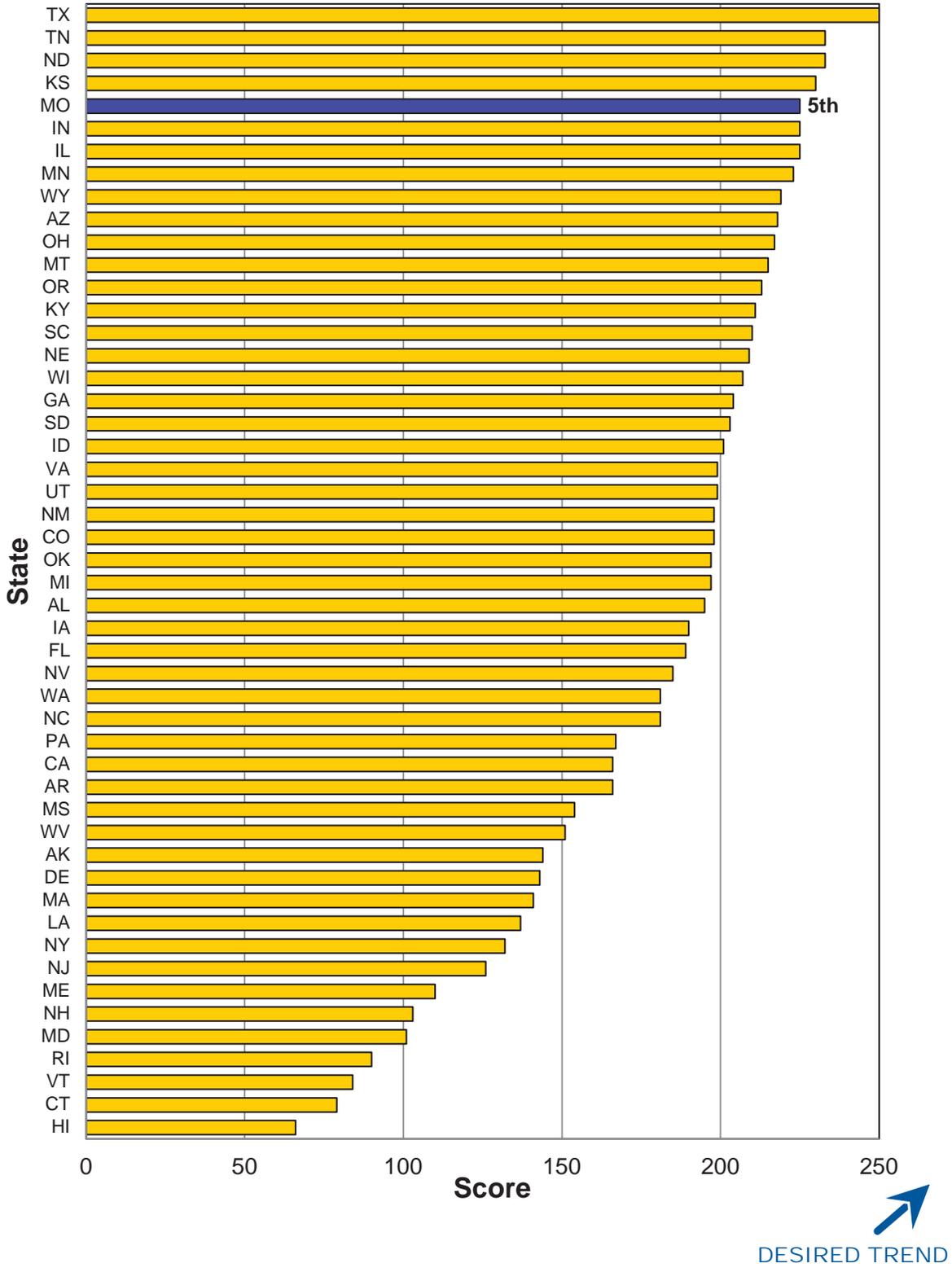
Transportation infrastructure leads to the attraction of new businesses and of employers looking to expand. These actions lead to new jobs, new opportunities and new revenue for states. A robust transportation infrastructure allows manufacturers to distribute their products quickly and inexpensively 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 decreased to 20 in the national ranking. The ranking improved in 2013 as the measure changed to quantity of goods shipped instead of value. 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 is likely to fall in the near future as MoDOT's construction budget is projected to decline to \$325 million in Fiscal Year 2017. At that point, MoDOT will not be able to keep the transportation system in the shape it is in today. Many of the factors used to rank transportation infrastructure are expected to decline.



### 2013 Transportation Infrastructure Scores by State



RESULT DRIVER:  
Machelle Watkins,  
Transportation Planning  
Director

## ADVANCE ECONOMIC DEVELOPMENT

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.

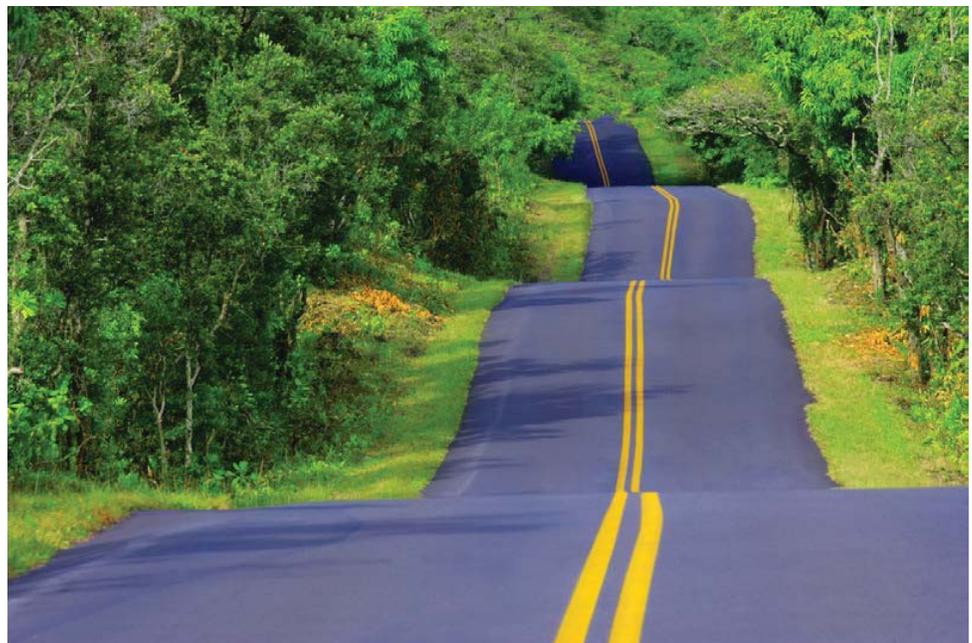
MEASUREMENT  
AND DATA  
COLLECTION:  
Per state revenue, highway  
mileage and bridge counts  
used in this measure are  
gathered from Federal  
Highway Administration annual  
reports. The information is  
updated as the data becomes  
available from the Federal  
Highway Administration.

### *MoDOT national ranking in revenue per mile-7c*

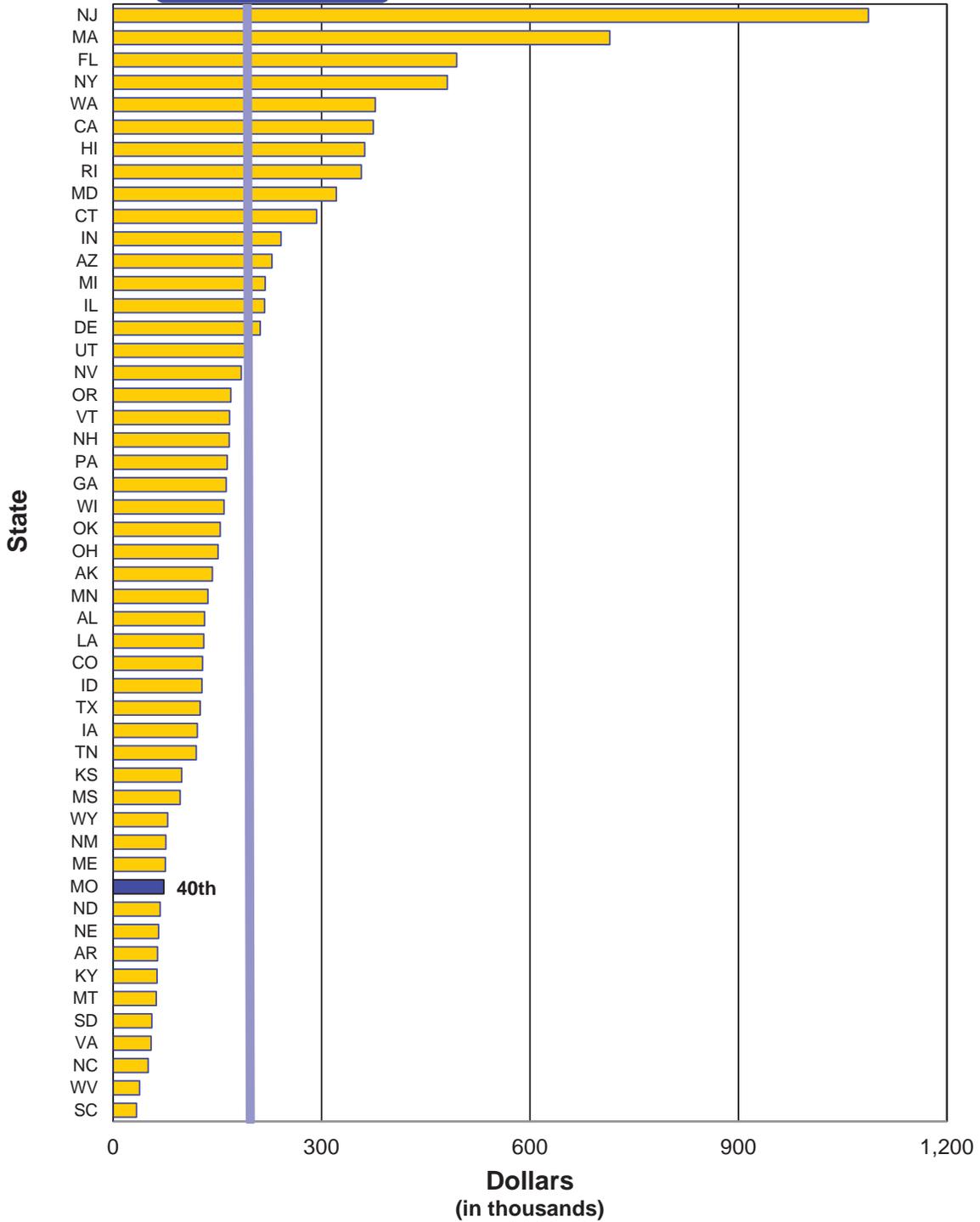
Missouri's revenue per mile of \$73,041 currently ranks 40th in the nation. Missouri's state highway system, consisting of 33,890 miles, is the seventh largest system in the nation. In addition, Missouri ranks sixth nationally in number of bridges with 10,371 bridges. New Jersey's revenue per mile of \$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 and people drive less.

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. By fiscal year 2017, construction funding will not cover the cost of keeping Missouri's transportation system in the shape it is in today and won't begin to address the system expansion projects Missourians desire in their transportation system.



**MoDOT National Ranking in Revenue per Mile  
Fiscal Year 2011**



RESULT DRIVER:  
Machelle Watkins,  
Transportation Planning  
Director

## ADVANCE ECONOMIC DEVELOPMENT

MEASUREMENT  
DRIVER:  
Cheryl Ball,  
Administrator of  
Freight Development

PURPOSE OF  
THE MEASURE:  
This measure tracks the  
estimated cost of transport-  
ing representative Missouri  
products from key economic  
industries (chemical manu-  
facturing, transportation  
equipment, and agriculture)  
to top destinations as com-  
pared to shipping the same  
products from competitor  
states. The relative costs for  
these illustrative products  
serve as a proxy for Mis-  
souri's competitiveness on  
transport costs as a whole.

MEASUREMENT  
AND DATA  
COLLECTION:  
Transearch 2011 freight  
data was used to identify  
products representative of  
Missouri's economic drivers,  
as well as the top origins,  
destinations, and modes of  
transport. Estimates of the  
transport costs are calcu-  
lated using multiple exter-  
nal sources.(1) The 2012  
American Transportation  
Research Institute report,  
An Analysis of the Opera-  
tional Costs of Trucking, (2)  
AAA's diesel on-highway  
price data, (3) the Bureau of  
Labor Statistics wage data,  
(4) the Surface Transpor-  
tation Board's Uniform  
Railroad Costing System,  
and (5) the USDA's Average  
Weekly River Barge Rates.

### *Goods movement competitiveness-7d*

Product transportation costs vary depending on the efficiency, reliability, safety and modal options in a state's transportation system. Keeping transportation costs low is important to retaining businesses and attracting new business to create new employment. Deterioration in any of these factors likely results in higher prices in local stores and reduced competitiveness for Missouri products.

MoDOT plays an active role in keeping costs low by working with existing businesses to identify transportation barriers that reduce their competitiveness. MoDOT continually aims to find solutions for these barriers, but the stark reality of Missouri's transportation funding situation limits the agency's ability to fully respond to those needs.

Soybeans were the most valuable crop in 2013, with more than \$2 billion in receipts and employing nearly 300,000 workers. Missouri is the seventh largest soybean producer in the country. The Bootheel region grows approximately 40 percent of Missouri's agricultural output. Most of the crop is transported by truck to the Mississippi River and then by barge to New Orleans for international distribution. The average cost per ton from New Madrid to New Orleans was \$11.95 per ton, which is only slightly higher than \$11.17 in Arkansas and significantly less than the next competitor, Ohio, at \$23.61.

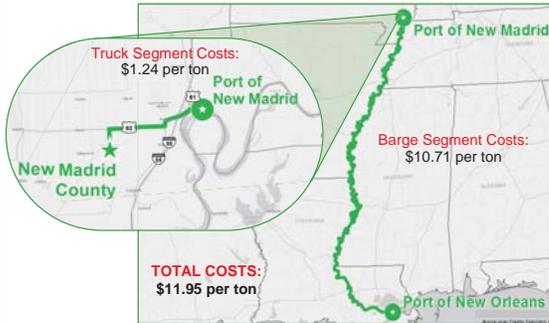
Transportation equipment is one of the state's largest exports, bringing in more than \$3.2 billion to the state economy in 2012 and employing nearly 35,000 workers. Finished motor vehicles were the most valuable in this industry at \$1.8 billion. Similar to other automotive companies, the Ford plant in Claycomo ships vehicles to many destinations worldwide, including to Los Angeles and Toronto. Although Claycomo's \$237 transportation cost by truck to Toronto is relatively higher than most of the competitor states, its central location provides versatility to Ford with economical transportation to domestic markets and to Los Angeles' major international shipping port by rail.

Chemical manufacturing is Missouri's second largest international export, bringing in more than \$2.2 billion in 2013, employing 7,000 Missourians and is the fifth largest of all manufacturing sectors. Agricultural products, such as crop protection products, are the largest sector of Missouri's chemical industry, and the state is home to several industry leaders such as Monsanto and BASF. The clusters of chemical manufacturing are located primarily in the Northeast, Northwest, and St. Louis regions. These products are shipped all over the world, including a large portion to Los Angeles by truck. The average cost of the trip from Hannibal to Los Angeles is \$167, which is very competitive with the other large chemical producing states.

# ADVANCE ECONOMIC DEVELOPMENT

## SOYBEANS

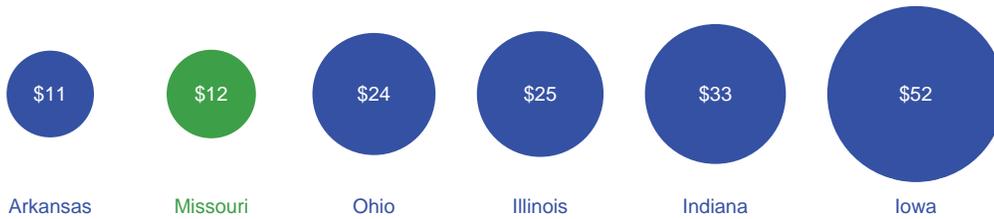
The Water Route from New Madrid County to New Orleans



The Water Route from Competitor States to New Orleans



The Cost of Shipping One Ton of Soybeans to New Orleans (largely by barge)



## FINISHED MOTOR VEHICLES

The Route from Kansas City to Toronto by Truck and Los Angeles by Rail



The Route from Competitor States to Toronto by Truck and Los Angeles by Rail



The Cost of Shipping One Motor Vehicle



# ADVANCE ECONOMIC DEVELOPMENT

## CROP PROTECTION PRODUCTS (CHEMICALS)

The Truck Route from Hannibal to Los Angeles



The Truck Route from Competitor States to Los Angeles



The Cost of Shipping One Ton of Crop Protection Products to Los Angeles by Truck



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

# ADVANCE ECONOMIC DEVELOPMENT

**MEASUREMENT  
DRIVER:**  
Eric Curtit,  
Administrator  
of Railroads

**PURPOSE OF  
THE MEASURE:**  
This measure tracks the  
amount of freight moved by  
Missouri's largest transpor-  
tation modes.

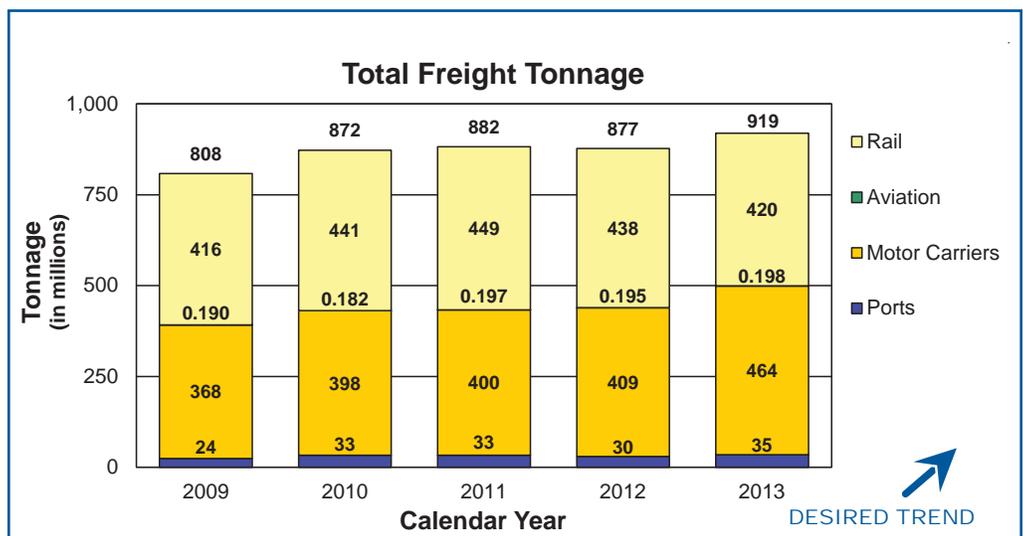
**MEASUREMENT  
AND DATA  
COLLECTION:**  
Two times a year, a freight  
tonnage estimator is used  
to calculate the amount of  
freight moved by railroads  
and highways. The estima-  
tor provides timely informa-  
tion for Missouri's primary  
freight movers. Freight data  
for aviation and waterways  
is a combination of direct  
surveys and trend analy-  
sis. This measure's data is  
estimated but provides an  
indication of current trends  
and movements.

## Freight tonnage by mode-7e

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

Unfortunately, current transportation funding has dwindled to a level which by 2017 will make it impossible to maintain highways and bridges in their current condition. Nor can current funding address transportation needs other than highways and bridges. Moving 919 million tons of freight a year requires thoughtful improvements of transportation facilities such as ports, railroads and airports, yet these needs remain underfunded.

During 2013, Missouri experienced an overall increase in movements, generally indicative of a rebounding economy. Railroad tonnage fell slightly, primarily due to the continued decline of coal shipments. Motor carriers hauled the most tonnage, which can be attributed to an increase in durable good shipments. Durable goods, such as appliances and furniture, tend to move by truck. Aviation maintained tonnage similar to previous levels. Missouri's Mississippi River ports saw increased tonnage from a combination of favorable water levels and new port customers. The Lewis County-Canton port began regular grain shipments in the spring of 2013 from a new grain elevator built at the port and the Pemiscot County port began trans-loading crude oil from rail to barge.



RESULT DRIVER:  
Machelle Watkins,  
Transportation Planning  
Director

## ADVANCE ECONOMIC DEVELOPMENT

MAP-21

### MEASUREMENT DRIVER:

Aaron Hubbard,  
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:

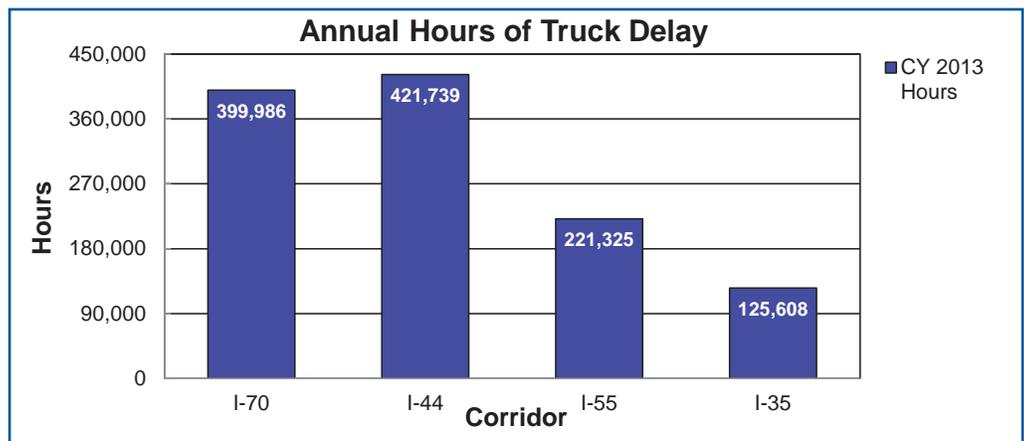
Annual Hours of Truck Delay quantifies the extra time spent by commercial motor vehicles on an interstate corridor based upon a state-determined threshold. Missouri's threshold is set at 5 mph below the speed limit. Speeds below that rate indicate congestion and/or other delay factors for trucks. Missouri chose this threshold because many commercial trucks are governed at 65 mph though the posted speed limit for most of the Interstate is 70 mph. Commercial vehicle delay on the Interstate system may be caused by congestion due to factors such as traffic, severe weather, safety inspections or roadway geometrics. AHTD is composed of vehicle miles traveled by trucks, speed of travel, and the desired speed of travel.

## Annual hours of truck delay-7f

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

Growth in freight volumes is a major contributor to congestion in urban areas and on intercity routes. Long-distance freight movements are often a significant contributor to local congestion, and local congestion typically impedes freight to the detriment of local and distant economic activity. Unfortunately, Missouri's construction budget is falling to a point that will make it very difficult for MoDOT to address congestion factors. In fiscal year 2017, the \$325 million construction budget will not even cover the costs of keeping today's transportation system in the status quo.

On average, those shipping by truck can expect a delay of 5.3 minutes per trip on I-70, 7.1 minutes on I-44, 4.85 minutes on I-55, and 3.25 minutes on I-35. The annual cost of delay for the trucking industry on I-70 is \$34.7 million, \$36.6 million on I-44, \$19.2 million on I-55, and \$10.9 million on I-35. Given MoDOT's financial situation, delays and the cost of delay are expected to grow.



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

## ADVANCE ECONOMIC DEVELOPMENT

MAP-21

### Truck reliability index-7g

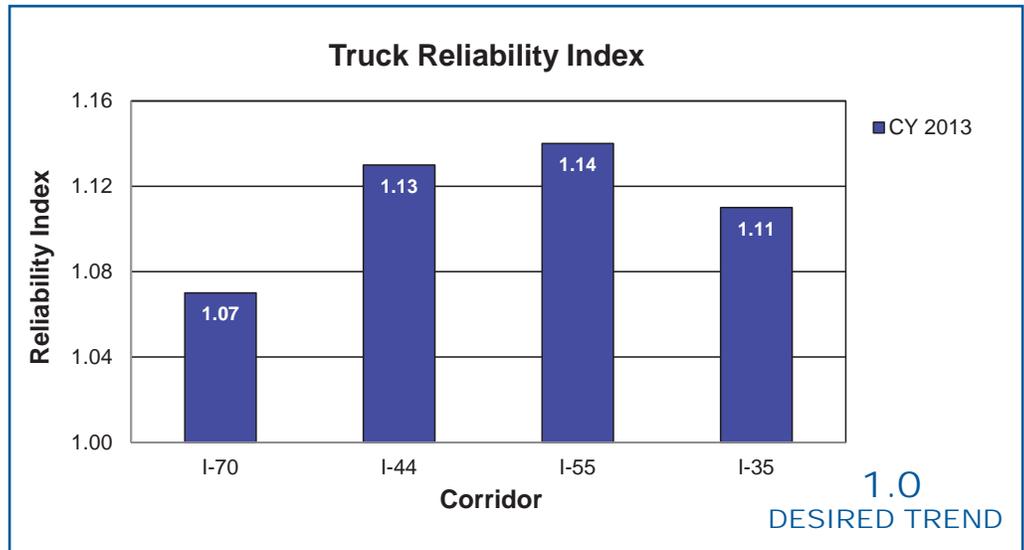
**MEASUREMENT DRIVER:**  
Chuck Gohring,  
Motor Carrier Services  
Assistant Director

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

**MEASUREMENT AND DATA COLLECTION:**  
This measure uses the Truck Reliability Index, a ratio of the total truck travel time needed to ensure on-time arrival four out of five times to the agency-determined threshold speed of 5 mph below the speed limit. The ratio is used to gauge consistency in truck freight travel times. The data for 2013 includes the months July through December. Further guidance about data requirements and measure methodology will be forthcoming from the Federal Highway Administration.

The reliable movement of goods by commercial motor vehicle is critical to the U.S. economy. The reliability of the interstate system affects the trucking industry's ability to respond to customer requirements and directly affects the cost of goods bought and sold in the United States. The Federal Highway Administration estimates the cost of transit time at \$25 to \$200 per hour, depending on the product being transported. Shippers and freight carriers require predictable travel times to control transportation costs and remain competitive. Additional costs of unexpected delays can be redistributed throughout the supply chain.

MoDOT continually seeks ways to deliver the infrastructure to support reliable trips for drivers and to help keep costs down. Many new strategies and technologies for operating highway systems are emerging that can help improve travel-time reliability, however with declining state and federal transportation funding and increasing costs to do business, MoDOT is unable to make needed reliability investments.



RESULT DRIVER:  
Machelle Watkins,  
Transportation Planning  
Director

## ADVANCE ECONOMIC DEVELOPMENT

MEASUREMENT  
DRIVER:  
Doug Hood,  
Financial Services  
Administrator

PURPOSE OF  
THE MEASURE:  
This measure tracks the  
number of jobs created  
through MoDOT's economic  
development program.

MEASUREMENT  
AND DATA  
COLLECTION:  
Data for this measure is  
collected from a partner-  
ship development database.  
This measure is based on  
the state fiscal year – July 1  
to June 30.

### *Jobs created by projects funded through the economic development program-7h*

The Cost Share/Economic Development Program builds partnerships with local entities to pool efforts and limited resources in order to deliver state highway and bridge projects. In the past, MoDOT allocated \$45 million of Cost Share/Economic Development funds annually, based on the funding distribution formula set by the Missouri Highways and Transportation Commission. Each year, a minimum of \$5 million were set aside for projects that demonstrated economic development through job creation. MoDOT contributed up to 100 percent of the total cost for projects on the state highway system if the Missouri Department of Economic Development verifies the project creates jobs. Retail development projects were 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 more than \$700 million in 2015 to \$325 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.

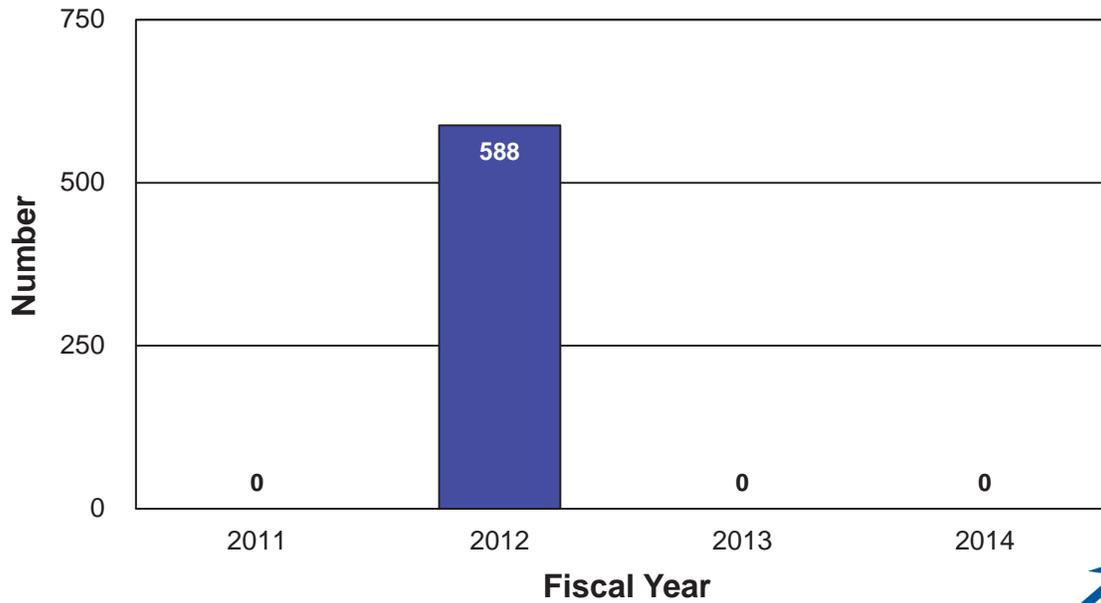
In Fiscal Year 2012, Edward Jones created 588 verified new jobs in conjunction with interchange improvements at I-270 and Dorsett Road in St. Louis County.

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.

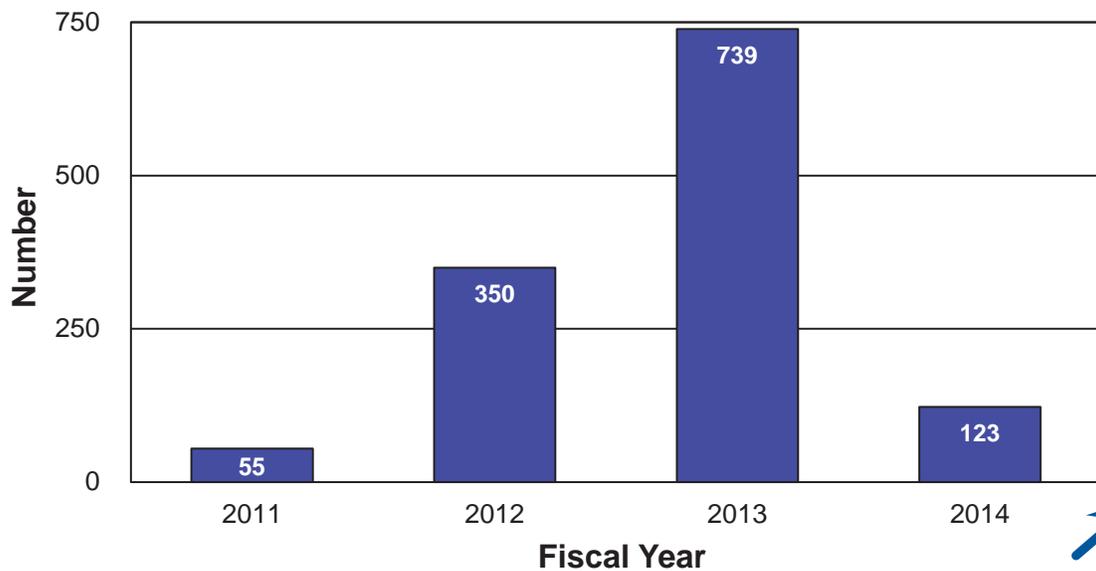
# ADVANCE ECONOMIC DEVELOPMENT

## Jobs Created by Projects Funded Through the Economic Development Program



 DESIRED TREND

## Economic Development Projects Approved with Estimated Future Job Creation



 DESIRED TREND

RESULT DRIVER:  
Machelle Watkins,  
Transportation Planning  
Director

## ADVANCE ECONOMIC DEVELOPMENT

MEASUREMENT  
DRIVER:  
Ida Mitchell,  
Senior Human Resources  
Specialist

PURPOSE OF  
THE MEASURE:  
This measure tracks minor-  
ity 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.

### *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.

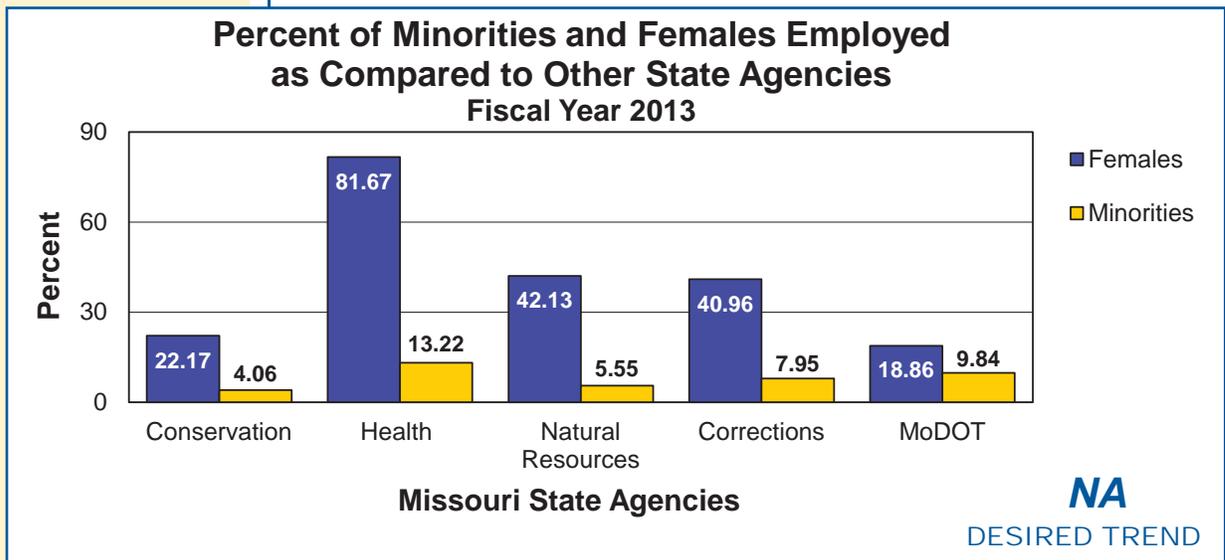
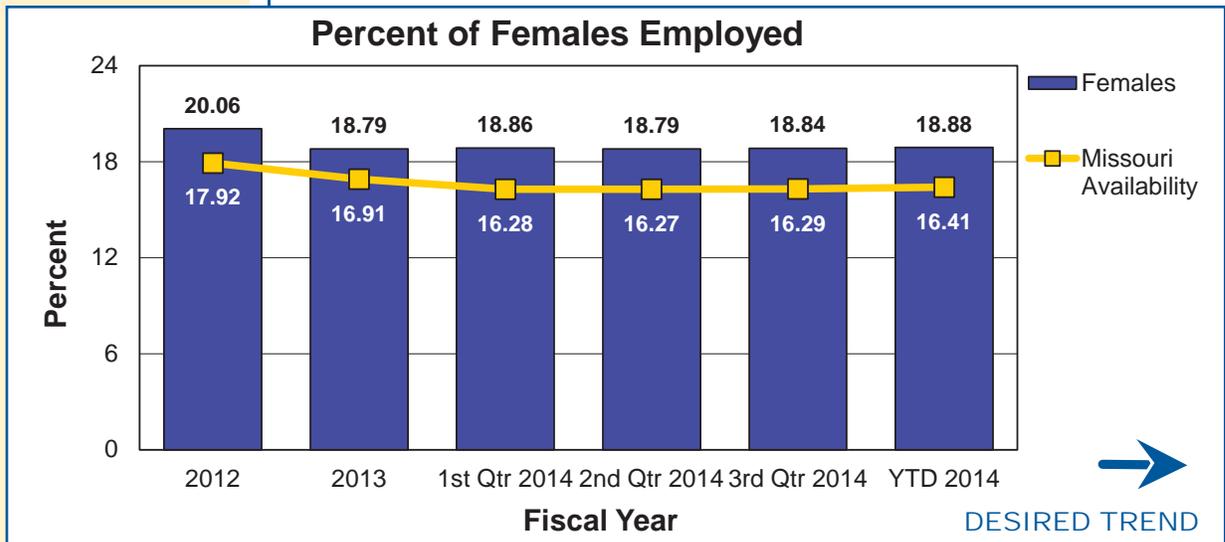
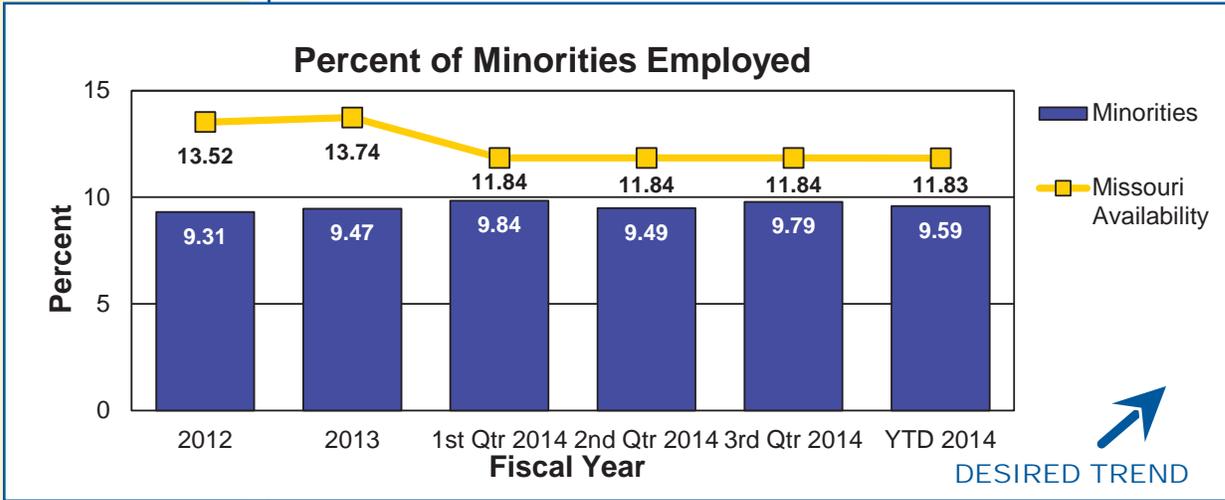
The number of minority employees decreased by 2.4 percent (498 to 486) from the third quarter of fiscal year 2014 to the fourth quarter of FY 2014. The number of female employees decreased by 0.1 percent from third quarter of FY 2014 to fourth quarter of FY 2014 (958 to 957). When compared to overall employment, the percent of females increased (18.84 to 18.88 percent) and is still above Missouri Availability of 16.29 percent. The percent of minorities decreased (9.79 to 9.59 percent), and is below Missouri availability of 11.84 percent. Total employment during this time decreased from 5,086 to 5,068.

During the fourth quarter of FY 2014, the department has increased efforts to hire, retain, and promote minorities and females. Some of these efforts included advertised job announcements with organizations that are geared toward females and minorities, career fairs at historically black colleges and universities in and out of Missouri, job announcements available at minority and women organizations' meetings and forwarded announcements to diverse contacts. Managers also recommended female and minority employees to the ALD and mentor programs. In addition, the department held a MoDOT Day for students who are member of diverse engineering groups on the campuses of the University of Missouri-Columbia and the Missouri University of Science and Technology. Students participated in tours of various divisions and a panel discussion.

Note: Beginning in FY 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.



# ADVANCE ECONOMIC DEVELOPMENT



RESULT DRIVER:  
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 engineer-  
ing projects.

MEASUREMENT  
AND DATA  
COLLECTION:  
Data is collected through  
Site Manager for each con-  
struction project. The overall  
DBE goal is a yearly target  
established by MoDOT  
and the Federal Highway  
Administration regarding the  
expected total DBE partici-  
pation on all federally-fund-  
ed construction projects.  
Individual DBE project goals  
are determined by subcon-  
tract opportunity, project  
location and available DBE  
firms that can perform the  
scope of work. DBE utili-  
zation is tracked for each  
construction project identi-  
fying the prime contractor,  
contract amount, the es-  
tablished 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 participa- tion on construction and engineering projects-7j*

MoDOT believes it is good business to support diversity among its contrac-  
tors, subcontractors and suppliers. Contractors, subcontractors and sup-  
pliers 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.

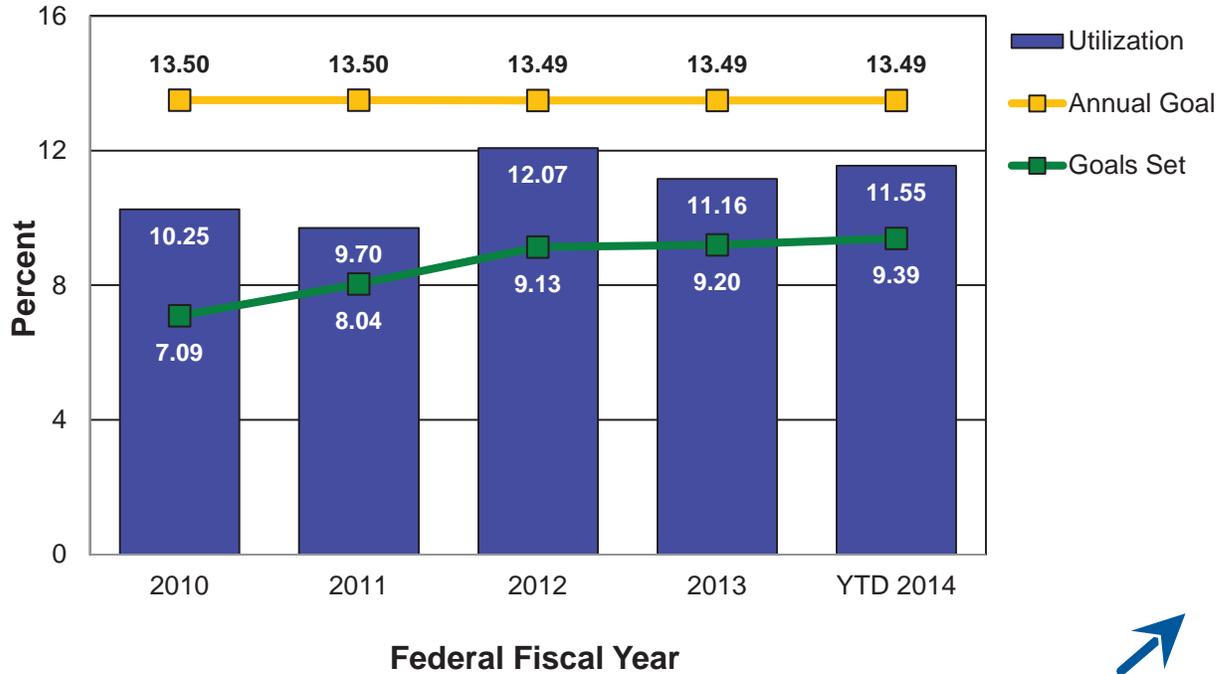
The overall DBE goal for FFY 2014 is 13.49 percent. The DBE participation  
for the first two quarters of FFY 2014 is 11.55 percent. This is a 0.39 percent  
increase from FFY 2013. Of the 11.55 percent utilization, 4.01 percent is  
participation from minority-owned DBE firms, 0.67 percent is participation  
from minority women-owned DBE firms and 6.87 percent is participation  
from women-owned DBE firms. The collective goals set for projects closed  
during this period amounted to 9.39 percent.

MoDOT will continue to support diversity among its contractors, subcontractors  
and suppliers even as the funding available for its construction program  
falls to \$325 million by 2017.



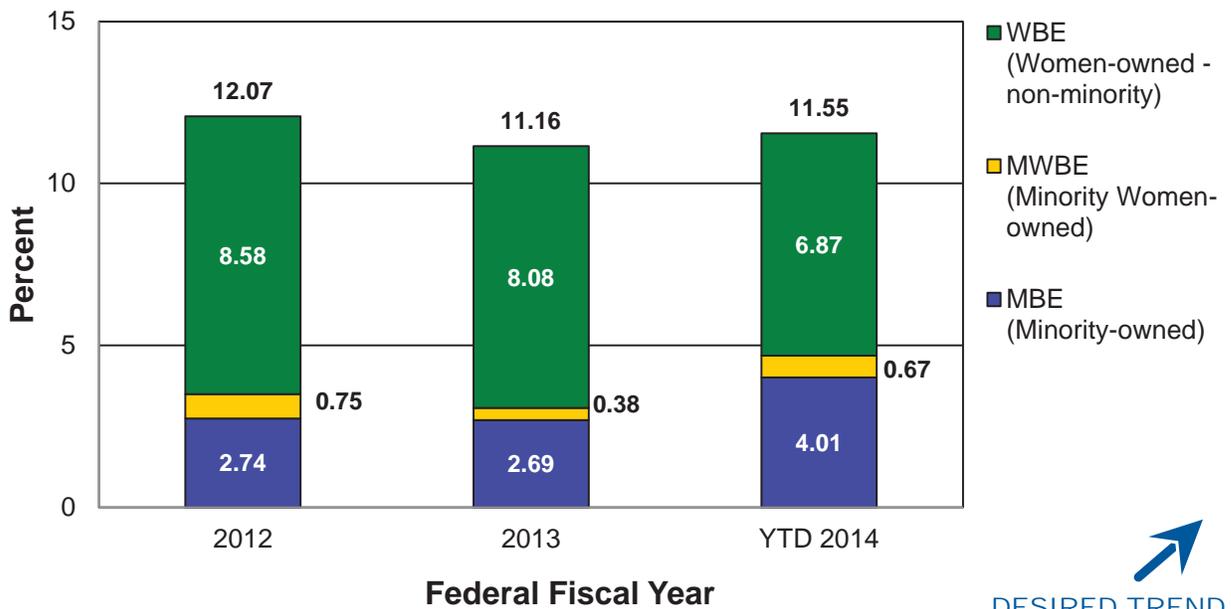
# ADVANCE ECONOMIC DEVELOPMENT

## Percent of DBE Participation



 DESIRED TREND

## Percent of DBE Participation by Classification



 DESIRED TREND

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

## ADVANCE ECONOMIC DEVELOPMENT

**MEASUREMENT  
DRIVER:**  
Rebecca Jackson,  
General Services  
Manager

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

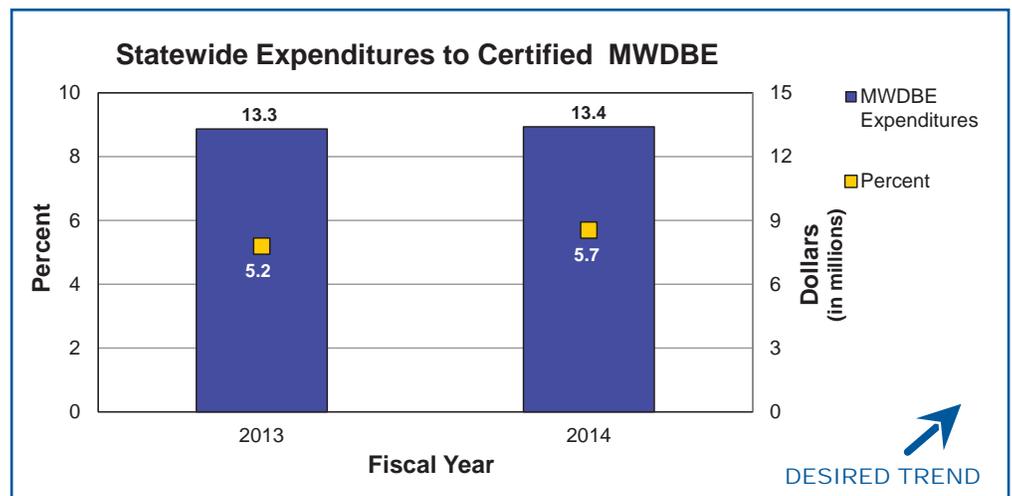
**MEASUREMENT  
AND DATA  
COLLECTION:**  
Data is obtained from the statewide financial accounting system expenditure reports and United Missouri Bank purchasing card reports. Certified vendors are maintained in a statewide procurement vendor database.

### *Expenditures made to certified minority, women and disadvantaged business enterprises-7k*

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

Fiscal year 2014 results indicate a \$100,000 increase in MWDBE discretionary expenditures compared to FY 2013. Compared to FY 2013, the FY 2014 percentage of discretionary MWDBE spending increased by 0.5 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 the vendor pool is representative of the business community as a whole.



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