APRIL 2018

Tracker

MEASURES OF DEPARTMENTAL PERFORMANCE

MoDOT Missouri Department of Transportation

The Tracker cover features MoDOT employee, Jim Dickson, from the Transportation Planning Division.

In his 30 years with the department, he has worked in several divisions, ranging from human resources to communications to planning.

As Tracker was being developed more than 10 years ago, Jim's extensive knowledge and experience made him a logical choice to lead the publication's development team. Jim's exceptional communication style and strategic skills have been evident in nearly every issue—from Tracker ten years ago to the one you hold in your hands today.

But all good things must come to an end. This is Jim's last issue. All of us associated with the publication of Tracker wish Jim happiness in his retirement as we promise to continue to carry the torch of performance excellence that he has sparked to life.

Greetings from MoDOT

Welcome to *Tracker*, MoDOT's performance management tool that documents our commitment to accountability, innovation, efficiency and transparency in order to deliver valuable benefits to Missouri taxpayers.

We want to build a 21st century transportation system that transforms Missouri into a national model for improving safety, serving citizens, supporting the economy and encouraging innovation.

Our commitment to transparency and accountability is reflected in "The Citizen's Guide to Transportation Funding," which was recognized nationally with the AASHTO President's Award. It was a critical document used by the 21st Century Missouri Transportation System Task Force, which concluded seven months of work with the release of its final report and recommendations earlier this month. Their work will drive the discussion and formulation of sustainable transportation policy now and into the future.

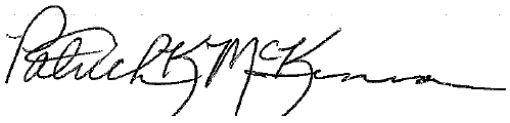
Our dedication to innovation was validated in the fall by selection of the Kansas City-to-St. Louis Corridor for possible future implementation of the cutting-edge Hyperloop technology – a key component to Missouri's quest for Amazon's second headquarters.

More good news is that our customers like what we're doing. Our bi-annual statewide survey was conducted last summer and the results show that customer satisfaction has climbed from 81 to 83 percent – an unheard of rate for a governmental agency.

We have built *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 documented on the following pages are designed to help us focus on the progress we are making to achieve these results. *Tracker* is a living document that evolves and adapts to current conditions and issues with new targets, goals and benchmarks. Soon we will be adding a strategic initiative section that is being developed by senior leaders and employees.

All of the progress we make is a result of the dedicated service of the entire MoDOT team, repeatedly recognized as truly one of the best DOTs in the nation! Throughout 2018, we will continue to be a great organization by focusing all of our efforts on our core values of safety, service and stability.

With warm regards,



Patrick K. McKenna

Mission

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

MoDOT VALUES

TANGIBLE RESULTS

SAFETY **Be Safe**	Keep Customers and Ourselves Safe
SERVICE **Be Accountable** **Be Respectful** **Be Inclusive**	Provide Outstanding Customer Service Deliver Transportation Solutions of Great Value Use Resources Wisely
STABILITY **Be Bold** **Be Better** **Be One Team**	Keep Roads and Bridges in Good Condition Operate a Reliable and Convenient Transportation System Advance Economic Development

So we can be a great organization.

TABLE OF CONTENTS

TABLE OF CONTENTS

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KEEP CUSTOMERS AND OURSELVES SAFE

Mark Shelton, District 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.

KEEP CUSTOMERS AND OURSELVES SAFE

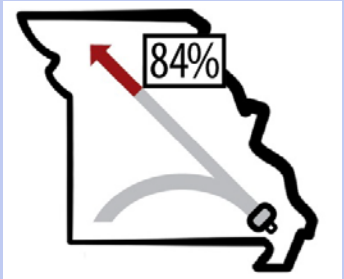
Number and rate of fatalities and serious injuries – 1a

RESULT DRIVER:
Mark Shelton
District Engineer

MEASUREMENT DRIVER:
Bill Whitfield
Highway Safety Director

PURPOSE OF THE MEASURE:
The fatal and serious injury number measure tracks quarterly, annual and five-year average trends resulting from traffic crashes on all Missouri roadways.

MEASUREMENT AND DATA COLLECTION:
Missouri law enforcement agencies submit a vehicle accident report form to the Missouri State Highway Patrol to be entered into a statewide traffic crash database. The database automatically updates MoDOT's crash database system, which is part of the Transportation Management System. The rate of fatal and serious injury charts display annual and five-year average fatality and injury rates per 100 million vehicle miles traveled for these same crashes. In addition, the fatality rate chart includes the national average. The targets are based on a 9 percent improvement rate from the immediate prior year fatalities and a 5 percent improvement in serious injuries from the immediate prior year.



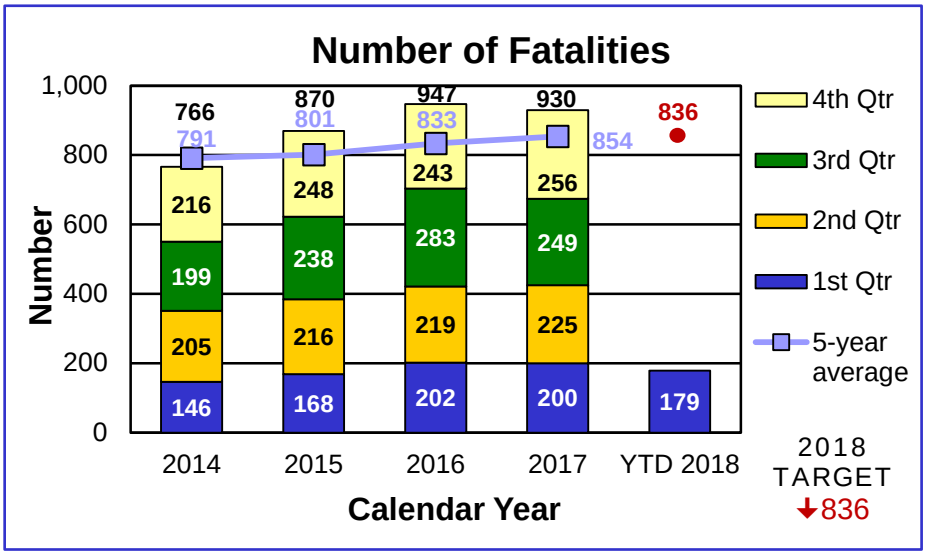
MoDOT wants everyone to reach their destinations safely, so all can go home to their families each day. *Missouri's Blueprint – A Partnership Toward Zero Deaths* is Missouri's strategic highway safety plan designed to reduce the number and severity of traffic crashes using the four key disciplines of traffic safety: engineering, enforcement, education and emergency response.

From 2015-2017, substance-impaired drivers contributed to 21 percent of Missouri's traffic crash fatalities. Alcohol remains the primary contributor to these crash types. Male drivers were more likely than females to be involved in substance-impaired driving crashes contributing to 80 percent of substance-impaired fatalities. Ten percent of the children less than 15 years of age killed in motor vehicle crashes were riding with a substance-impaired driver.

Overall, driver error contributes to 94 percent of traffic crashes nationwide. Missouri's top crash types are:

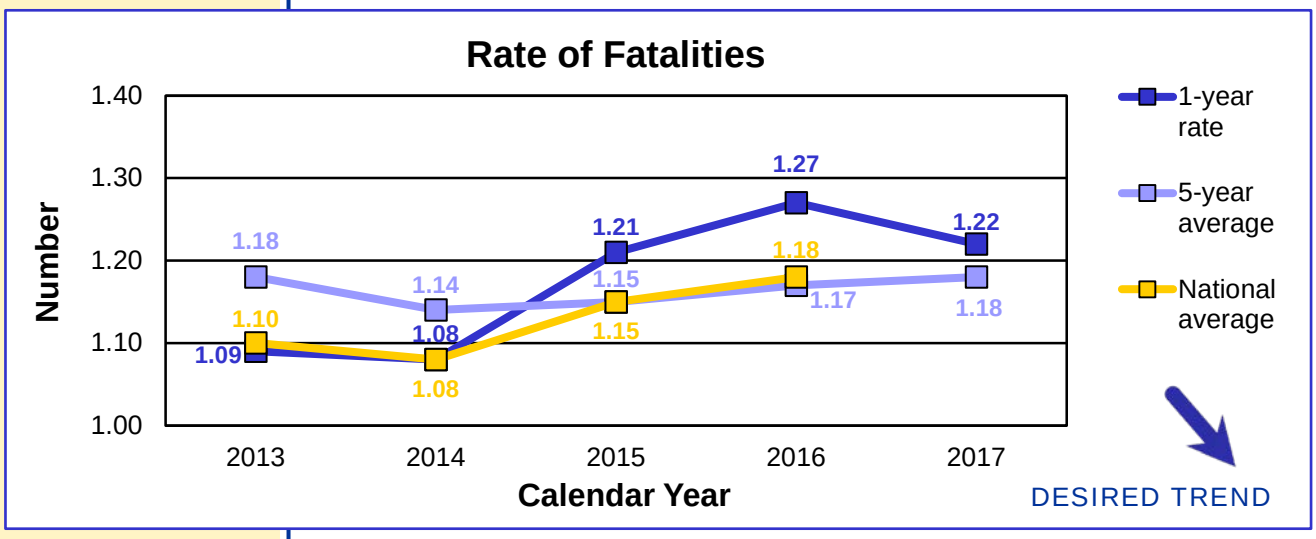
- Run-off-road and curves
- Head-on collisions
- Collision with trees and poles
- Intersection collisions
- Aggressive driving
- Unrestrained occupants
- Substance-impaired driving
- Distracted and inattentive driving
- Younger and older drivers
- Motorcyclists
- Pedestrians
- Commercial motor vehicle crashes

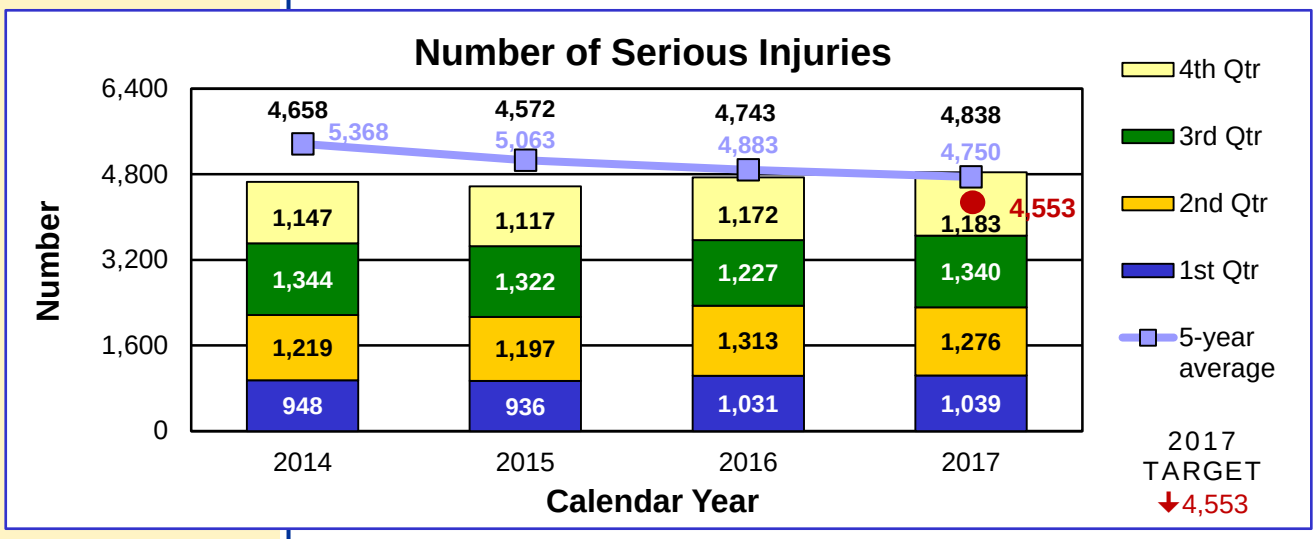
MoDOT's goal was to reduce fatalities by 7 percent and serious injuries by 4 percent between 2016 and 2017. Compared to 2016, fatalities are down 2 percent, but 5 percent over the 2017 target. Serious injuries increased by 95, or 2 percent. In order to reach our Blueprint goal of 700 or fewer by 2020, new targets have been established with a fatality reduction target of 9 percent and a 5 percent reduction for serious injuries. These targets may seem aggressive but are needed to work toward the ultimate goal of zero fatalities.



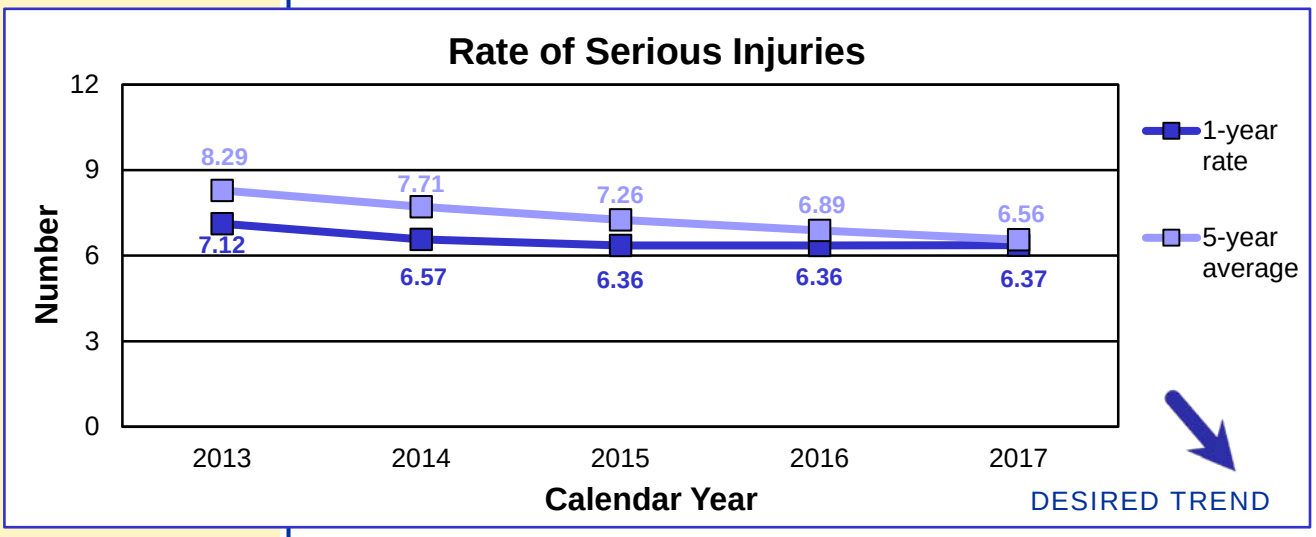
YTD 2018 – First quarter fatalities were derived from MSHP radio reports.

KEEP CUSTOMERS AND OURSELVES SAFE





YTD 2017 – Due to a backlog of crash reports into STARS, the serious-injury measure only includes data derived from TMS. First quarter 2018 data is not available on the MSHP radio reports and is incomplete in TMS.



RESULT DRIVER:
Mark Shelton
District Engineer

MEASUREMENT DRIVER:
Bill Whitfield
Highway Safety Director

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

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

KEEP CUSTOMERS AND OURSELVES SAFE

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

In 2016, vulnerable roadway users were 24 percent of the total number of fatalities. Pedestrian fatalities decreased in 2016 by 5 percent. Motorcycle fatalities increased by 34 percent and bicycle fatalities increased by 11 percent.

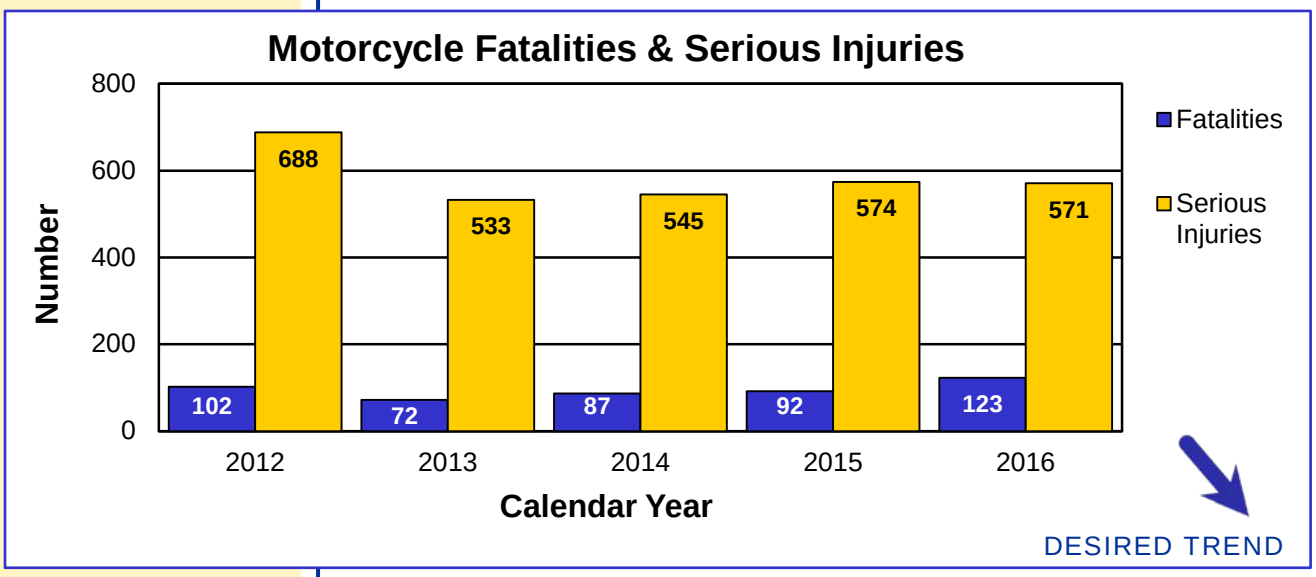
Pedestrian and bicycle serious injuries increased in 2016, meanwhile motorcyclist injuries decreased. Serious injury data for 2016 is incomplete.

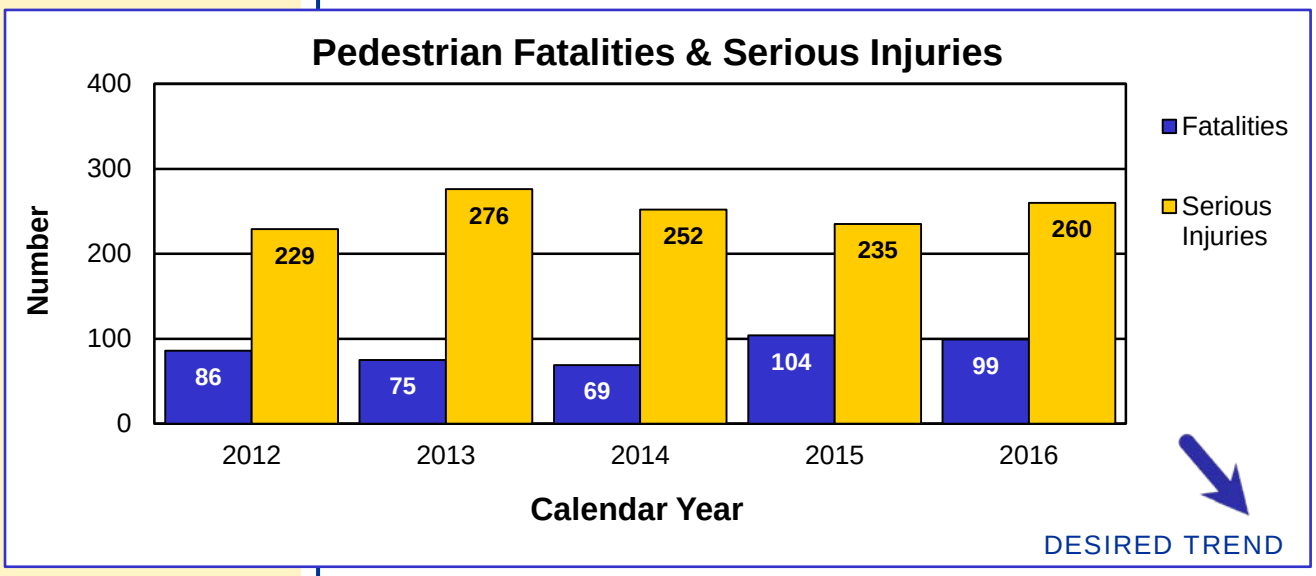
A closer look at these vulnerable roadway users shows that, between 2014 and 2016, there were 151 motorcycle operators who were aggressively driving, which resulted in a fatality. Of those fatalities, 96 percent were male.

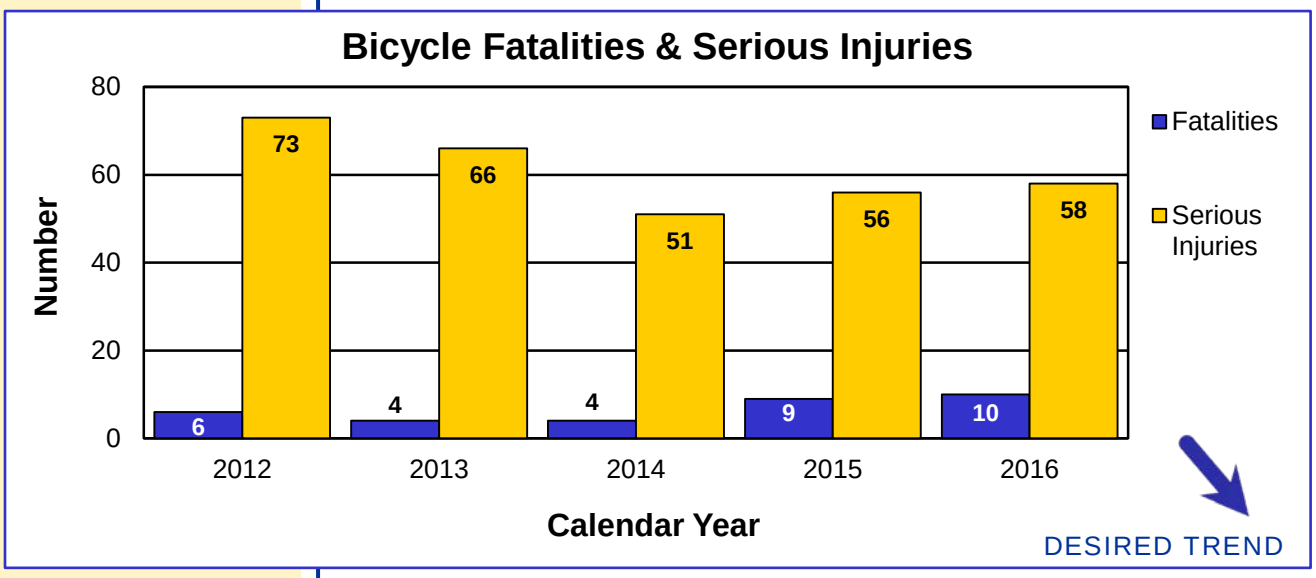
Walking is an essential form of transportation for many Missourians. Between 2014 and 2016, 65 percent of pedestrian fatalities were NOT crossing the roadway at a designated crosswalk.

Lastly, of the 23 bicycle fatalities between 2014 and 2016, the highest percentage, 43 percent, occurred on city streets.

KEEP CUSTOMERS AND OURSELVES SAFE







RESULT DRIVER:
Mark Shelton
District Engineer

MEASUREMENT DRIVER:
Jon Nelson
Traffic Liaison Engineer

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

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

The Highway Patrol experiences a lag in data entry each year which prohibits MoDOT from using current complete crash data. This lag is being reduced through a combination of efforts involving not only manual data entry, but also an increased emphasis in electronic data entry.

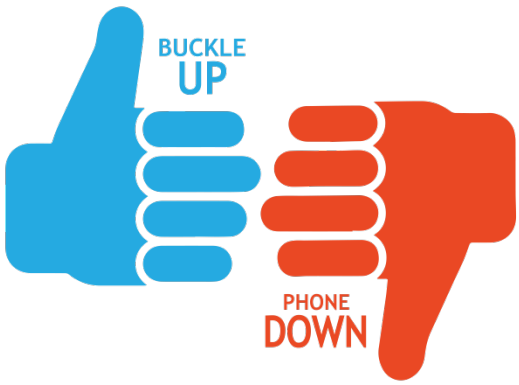
KEEP CUSTOMERS AND OURSELVES SAFE

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

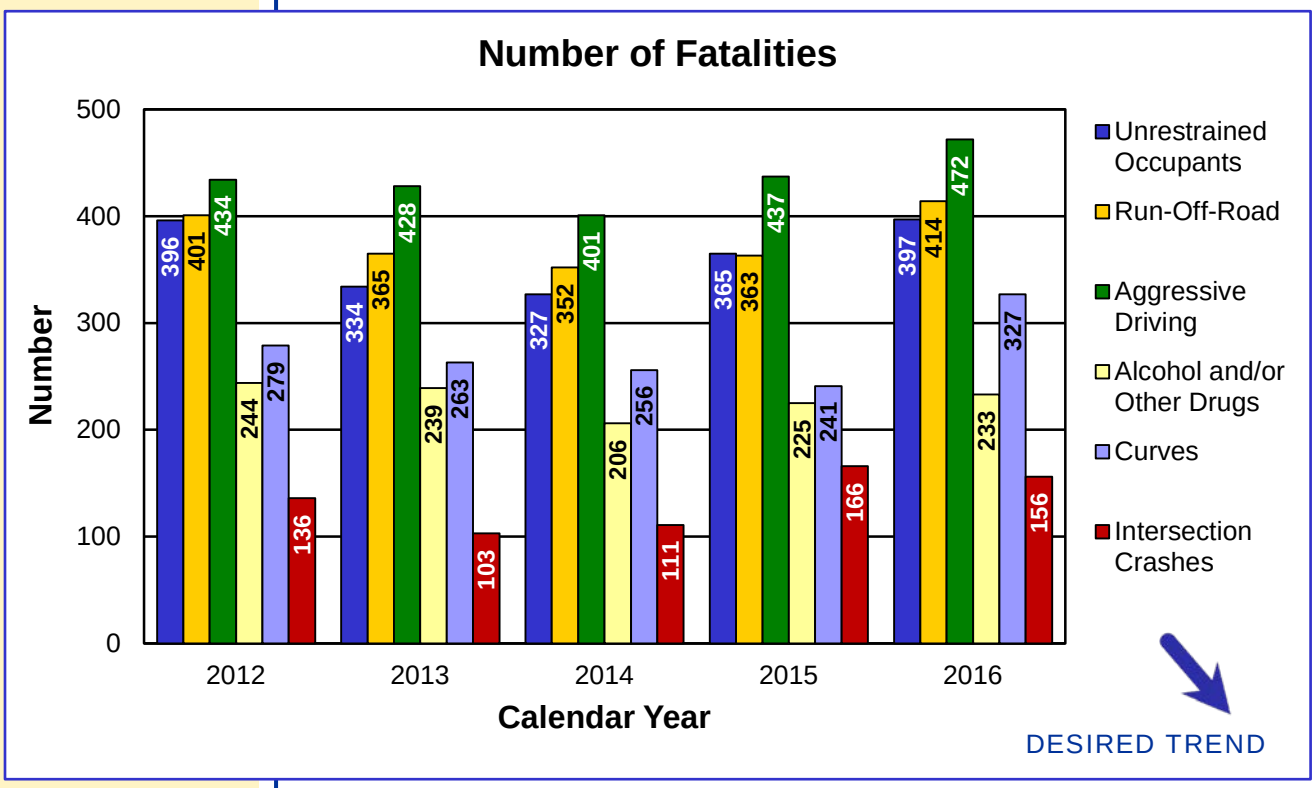
Recording and monitoring crash data is an important part of improving safety for Missouri drivers. But without looking at the causes of these incidents, the data is nothing but numbers. Looking for the reasons why an incident occurs is MoDOT's best approach to address the problem. With that approach,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

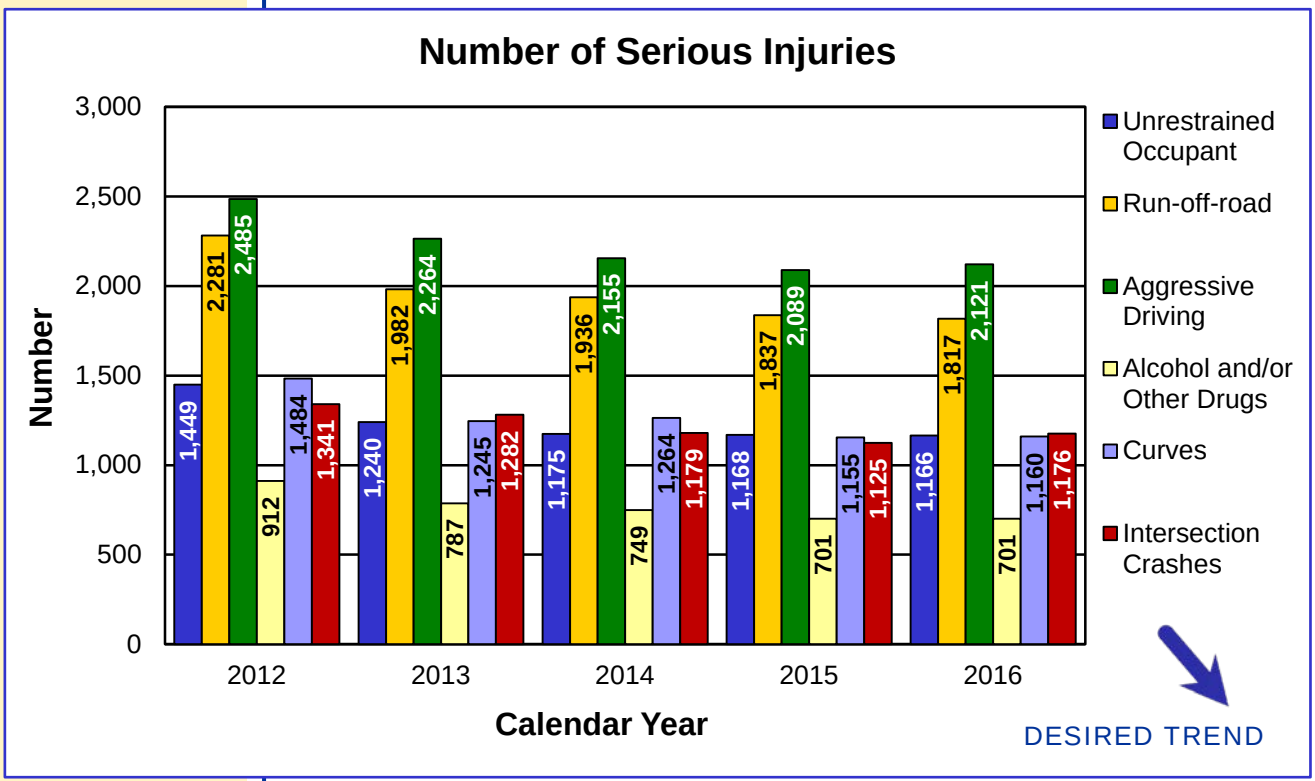
The general trend for fatalities is no longer declining in Missouri, but instead has increased for two consecutive years. Serious injuries increased in 2016, revealing a change in the downward trend for the first time in over a decade. Comparing the number of fatalities in 2015 to 2016 shows a large increase in curve-related fatalities (36 percent) and run-off-road fatalities (14 percent). Unrestrained occupants, aggressive driving and alcohol and/or other drugs also had increases in fatalities (9 percent, 8 percent and 4 percent respectively) while intersection-related fatalities decreased by 6 percent. Comparing the number of serious injuries in 2015 to 2016 shows minimal change for all areas with the exception of intersection-related which had more than a 4 percent increase.

As traffic on Missouri roadways continues to increase, MoDOT efforts will be instrumental in changing the current trends for each of these causes. The primary current initiatives include adding shoulders and rumble strips to minor roads, installing high-friction surface treatments on curves and improving intersection safety. MoDOT continues to target locations and behaviors based on crash data analysis. Another troubling behavior is distracted driving as it may significantly magnify all six of the top crash factors. Mobile devices magnify the fatalities and serious injuries in the categories of unrestrained occupants, run-off-road, aggressive driving, alcohol and/or other drugs, curves and intersection-related crashes as drivers will be less likely to safely navigate roadways, especially in curves and at intersections.



KEEP CUSTOMERS AND OURSELVES SAFE





RESULT DRIVER:
Mark Shelton
District Engineer

MEASUREMENT DRIVER:
Steve Campbell
District Construction & Materials Engineer

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

MEASUREMENT AND DATA COLLECTION:
Missouri law enforcement agencies submit a vehicle accident report form to the Missouri State Highway Patrol to be entered into a statewide traffic crash database. The database automatically updates MoDOT's crash database system, which is part of the Transportation Management System. MoDOT staff query and analyze this data to identify work zone related crash statistics. MSHP prioritizes entry of the crash reports by fatality, serious injury and then property damage only. The target for this measure is updated quarterly. This target is established by projecting a 10 percent improvement over a five-year average.

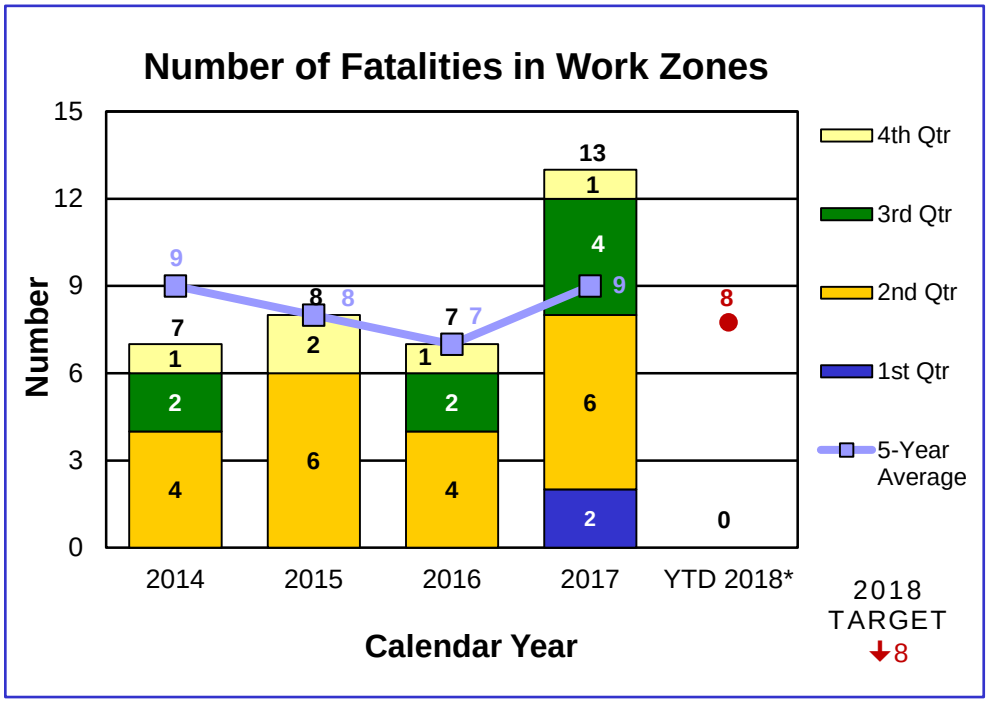
KEEP CUSTOMERS AND OURSELVES SAFE

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

Work zone safety is at the center of MoDOT's safety culture and the driving force in all maintenance and construction work. Just as MoDOT expects its crews to be safe and visible, it also expects contractors and utility companies to provide safe work zones and visible workers. Staying safe in work zones also is a partnership shared with the driving public. MoDOT wants everyone to get home safely. While MoDOT makes every effort to work safely, motorists need to pay attention, slow down, move over, buckle up and drive without distractions.

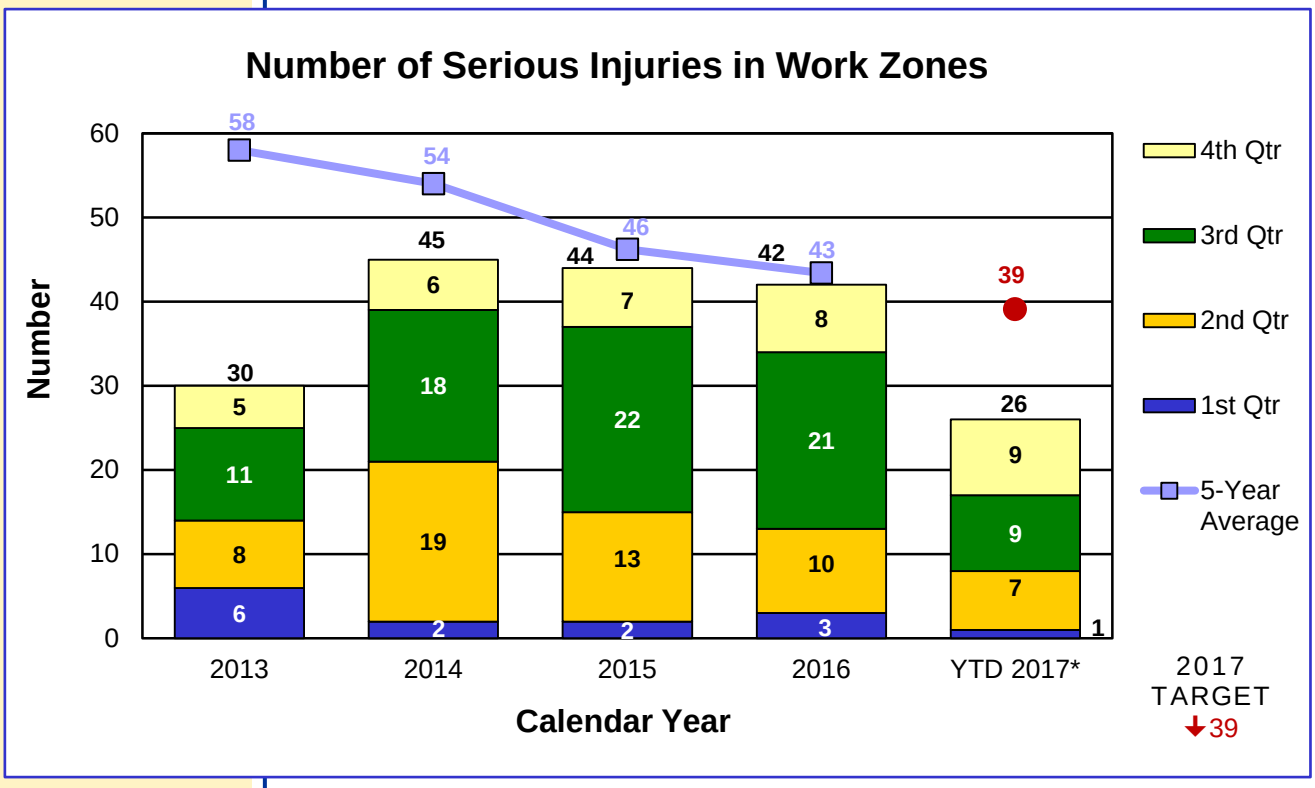
Based on information currently available for the first quarter of 2018, work zone crashes have accounted for zero fatalities. The target for 2018 will be eight, which is slightly below the running four-year average.

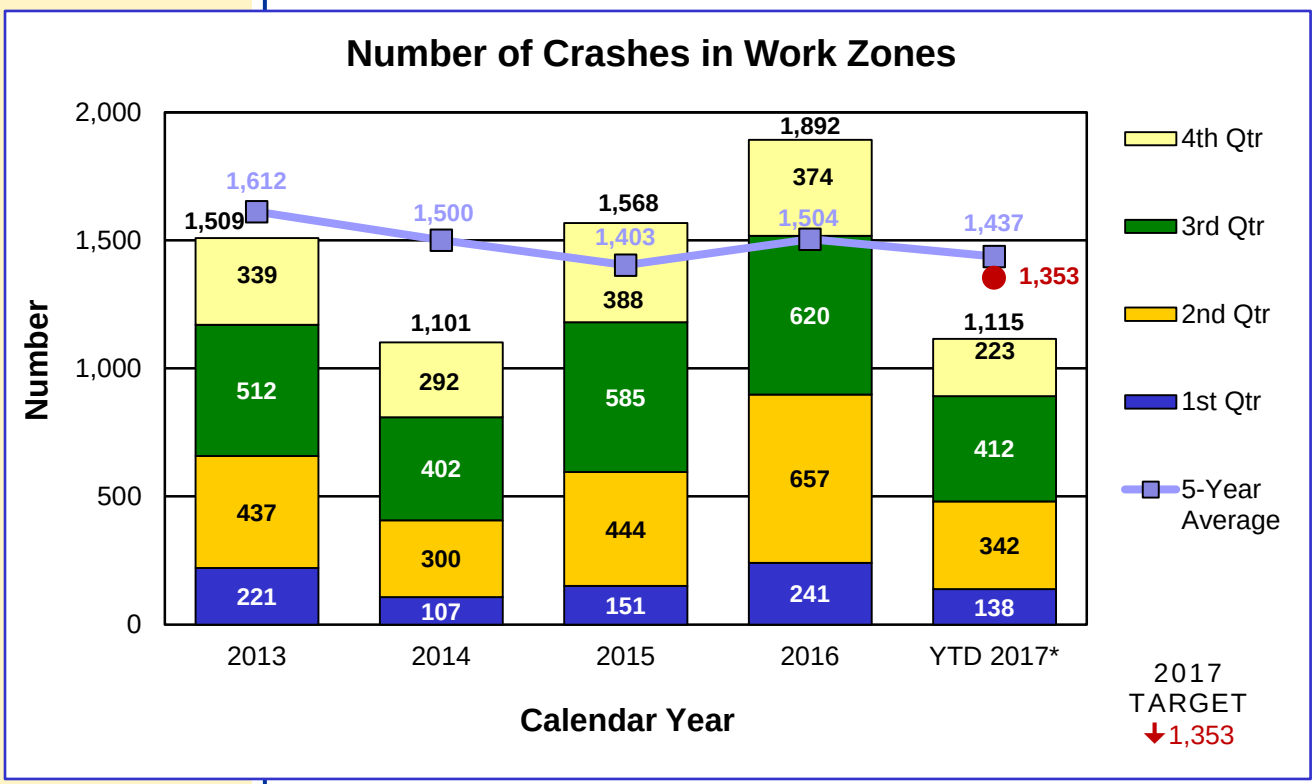
The challenge for 2018 will be to prevent any stopped traffic without advanced warning. When traffic is stopped, better queue management strategies must be employed. The time of day and day of week when performing operations also should be considered.



2018 – Fatalities derived from TMS.

KEEP CUSTOMERS AND OURSELVES SAFE





***YTD 2017 – Due to a backlog of crash reports into STARS, serious injury and crash measures are not final and only illustrate data derived from TMS. First quarter 2018 data is unavailable through the MSHP radio reports and is incomplete in TMS.**

RESULT DRIVER:
Mark Shelton
District Engineer

MEASUREMENT DRIVER:
Scott Jones
Highway Safety Program Administrator

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

MEASUREMENT AND DATA COLLECTION:
Each June, a statewide survey is conducted at 560 preselected locations in 28 counties. The data collected is calculated into a seat belt usage rate using a formula approved by the National Highway Traffic Safety Administration. Data collection locations represent 85 percent of the state's vehicle occupant fatalities. The data collection plan is the same each year for consistency and compliance with NHTSA guidelines. The target for this measure is updated annually in October for the next calendar year. This target is established as the current national average.

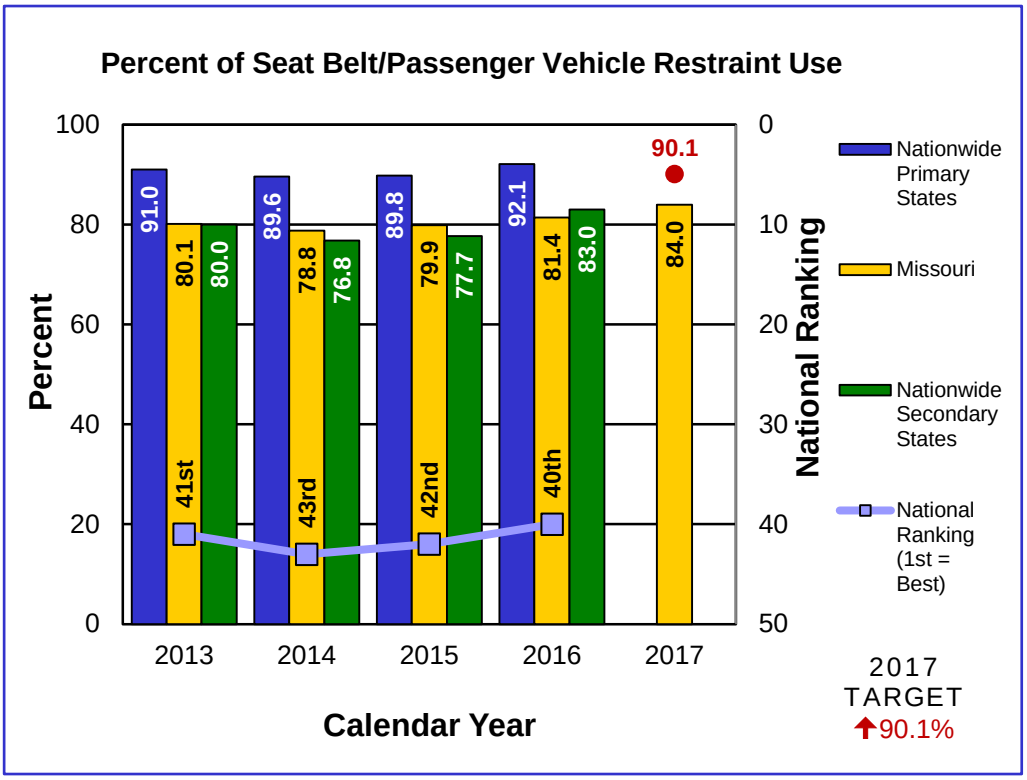
KEEP CUSTOMERS AND OURSELVES SAFE

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

Seat belts save lives, but getting people to use them – even to protect their own lives – is a challenge. Public education is one way to keep the issue in front of motorists. Legislation is another. MoDOT supports each approach, attacking the problem with focused marketing campaigns and reinforcing it with hard facts to back legislative efforts. Several municipalities across the state are taking matters into their own hands enacting primary ordinances within city limits. Missouri currently has 53 municipalities and two counties that have adopted primary seat belt ordinances, representing nearly one fourth of the state's population.

Based on 115,902 observations, the seat belt use in Missouri for 2017 was 84.0 percent. Johnson County was the lowest at 57.2 percent and Callaway County was the highest at 95.1 percent. The national average for seat belt use in 2016 was 90.1 percent (2017 data is not yet available). Missouri's national ranking in 2016 was 40th, with 10 states ranking lower in seat belt use.

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



RESULT DRIVER:
Mark Shelton
District Engineer

MEASUREMENT DRIVER:
Angie Hoecker
Highway Safety and Traffic Commercial Motor Vehicle Program Manager

PURPOSE OF THE MEASURE:
This measure tracks annual trends in fatalities and serious injuries involving Commercial Motor Vehicles. This data guides the development and focus of the Commercial Vehicle Safety Plan (CVSP), which is the plan required to receive Motor Carrier Safety Assistance Program (MCSAP) funds.

MEASUREMENT AND DATA COLLECTION:
Missouri law enforcement agencies submit a vehicle accident report form to the Missouri State Highway Patrol to be entered into a statewide traffic crash database. The database automatically updates MoDOT's crash database system, which is a part of the Transportation Management System. The fatal and serious injury rates on the charts display the annual fatality and injury rates per 100 million vehicle miles traveled for commercial motor vehicles for these same crashes. The targets are based on a 9 percent improvement rate from the immediate prior year fatalities and a 5 percent improvement in serious injuries from the immediate prior year.

KEEP CUSTOMERS AND OURSELVES SAFE

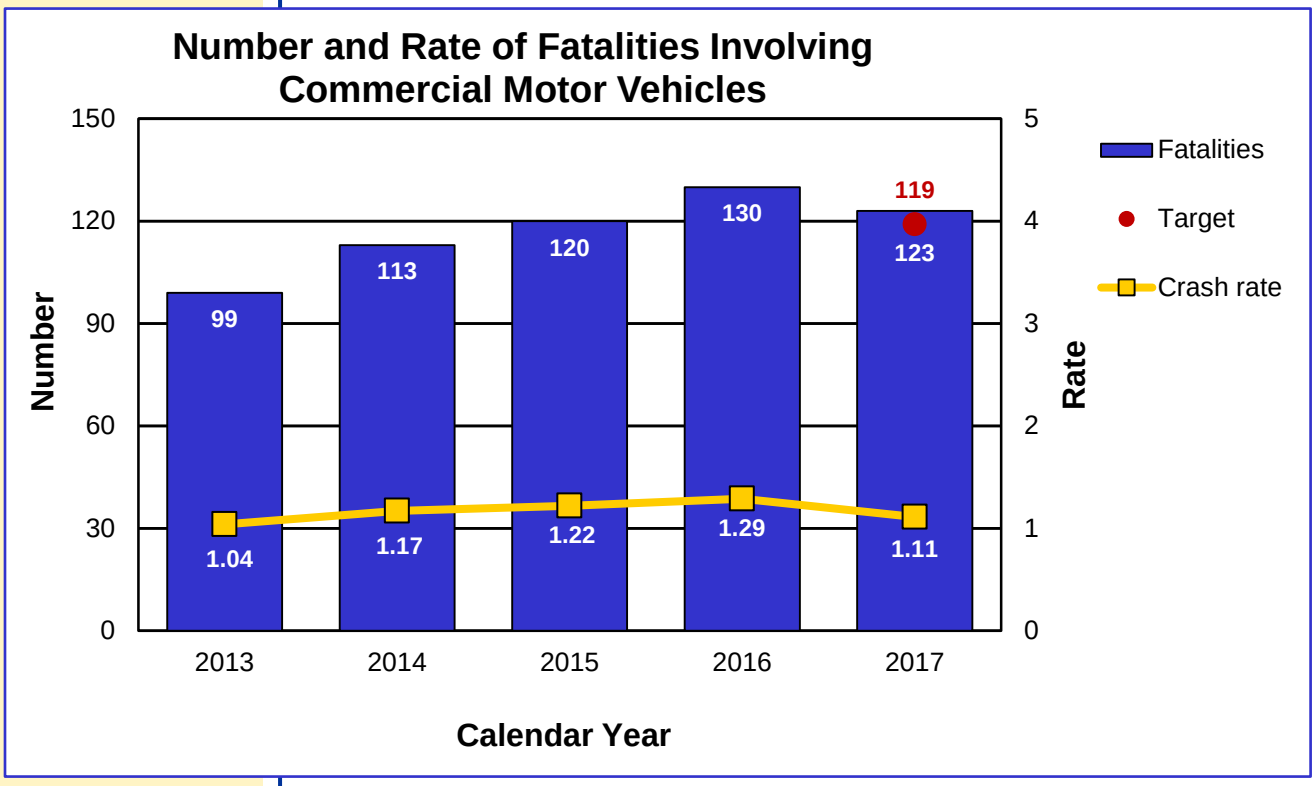
Number and rate of fatalities and serious injuries involving commercial motor vehicles – 1f

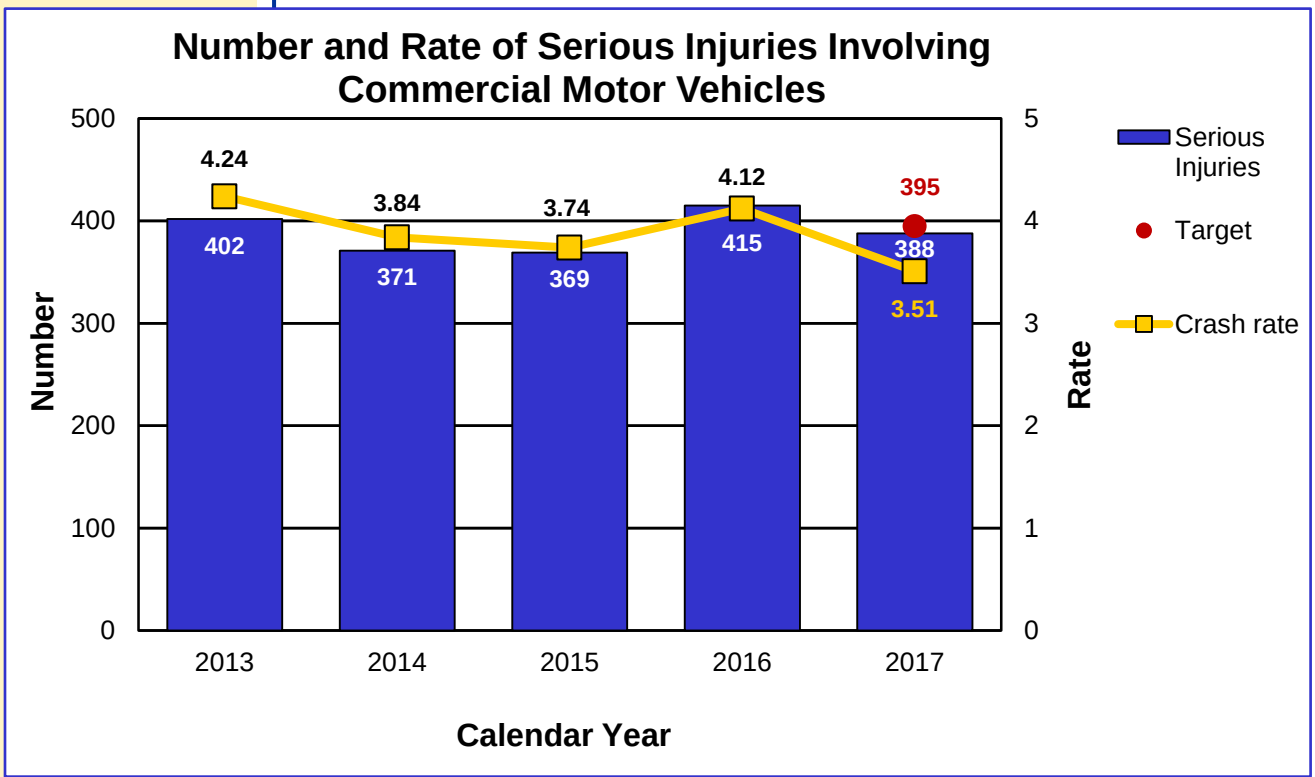
Commercial Motor Vehicles are essential to Missouri's economy. They transport goods and products to keep the nation moving. MoDOT partners with the Missouri State Highway Patrol, St. Louis Metropolitan Police Department, Kansas City Police Department, St. Louis County Police Department and Franklin County's Sheriff's Office to keep people traveling safely in and around CMVs. By tracking the number of CMV involved fatalities and serious injuries, MoDOT can target educational and enforcement efforts, as well as improve safety features such as highway signs, reflective pavement markings, guard cables, rumble strips and incident management alert signs.

While efforts from MoDOT and the partner agencies are effective in improving safety on roadways, Missouri has experienced an increase in the number and rate of fatalities and serious injuries involving CMVs. Between 2013 and 2017, fatalities involving a CMV increased by 24.2 percent and the fatality rate increased from 1.04 to 1.11 per 100 million CMV vehicle miles traveled. In 2017, Missouri had seven fewer fatalities involving a CMV. This resulted in a 2017 fatality rate of 1.11 as compared to 1.29 for 2016.

Between 2013 and 2017, serious injuries involving a CMV decreased by 3.5 percent and the serious injury rate decreased from 4.24 to 3.51 per 100 million CMV vehicle miles traveled. The 388 serious injuries experienced in 2017 is 27 less than reported for 2016. This resulted in a 2017 serious injury rate of 3.51 compared to 4.12 for 2016.

KEEP CUSTOMERS AND OURSELVES SAFE





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

RESULT DRIVER:
Mark Shelton
District Engineer

MEASUREMENT DRIVER:
Evan Adrian
Senior Safety Officer

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

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

The target for total recordable incidents is updated quarterly. The target for rate of recordable incidents is updated annually. The target is calculated by subtracting 10 percent from the year to date comparison period.

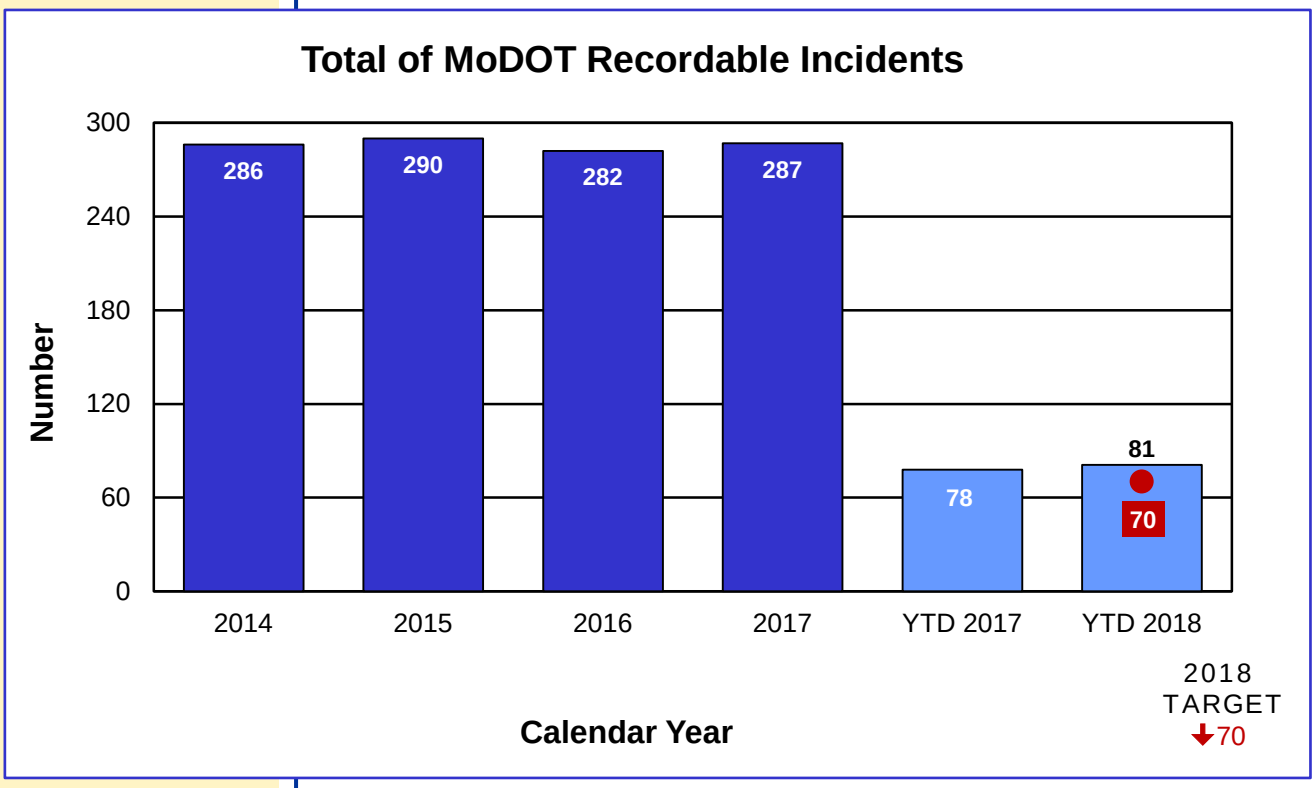
KEEP CUSTOMERS AND OURSELVES SAFE

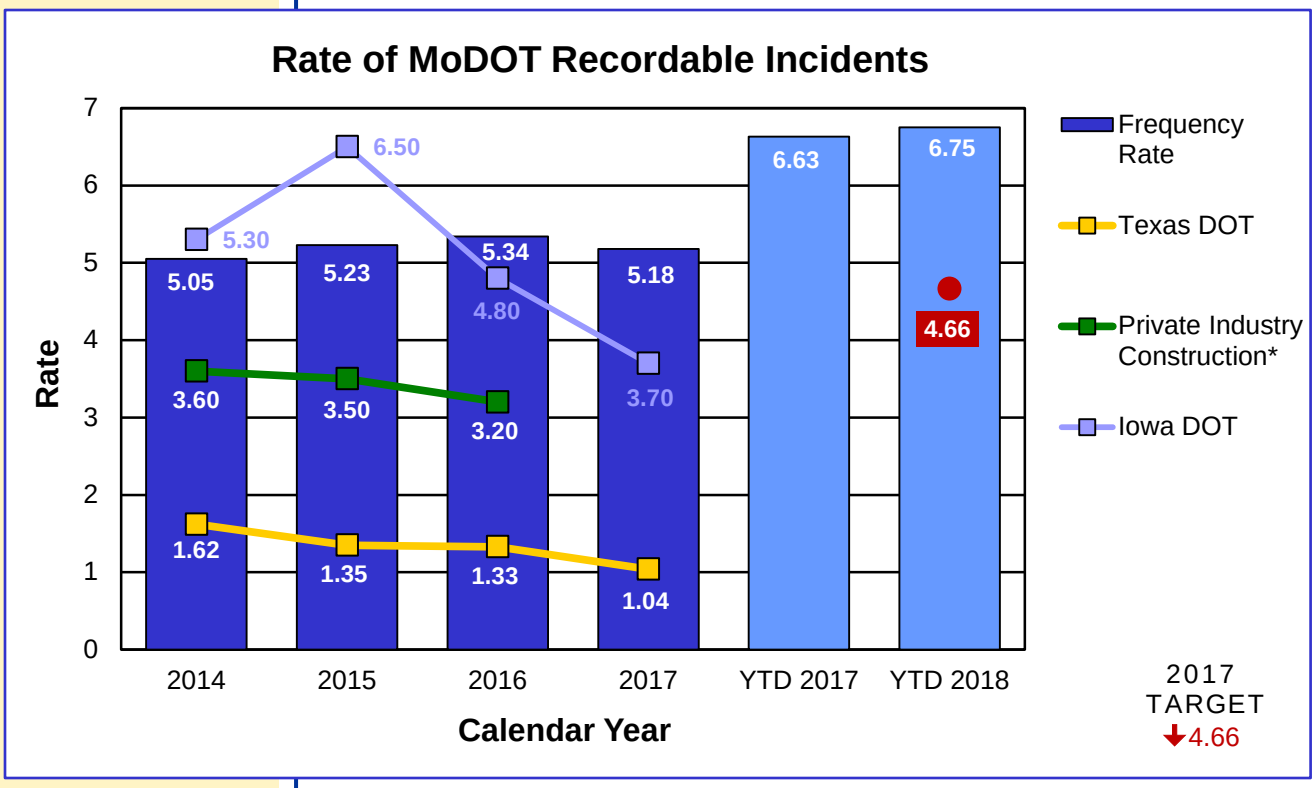
Total and rate of MoDOT recordable incidents – 1g

Safety is a core value of MoDOT. The total and rate of recordable incidents are tracked to look for areas of improvement and learn from mistakes. Although employee loss or suffering is the primary concern, there are many additional benefits to a safe workplace. Safety improves the department's stewardship of tax money through lower worker compensation costs. In addition, emphasizing excellence in safety habits will likely help MoDOT improve overall quality and efficiency.

There has been a slight increase in total number of recordables and rate so far in 2018. Leading causes of injury remains slips, trips and falls followed by motor vehicle and strain or injury. Based on the work activity being performed at the time of the incident, 30 percent of employee injuries were equipment related, 14 percent were related to vehicle operation and 9 percent were related to mowing. MoDOT has established a target of a 10 percent reduction in incidents per quarter and a 10 percent reduction in rate per year until the ultimate goal of zero is reached.

KEEP CUSTOMERS AND OURSELVES SAFE





***OSHA private industry data is not yet available for 2017.**

RESULT DRIVER:
Mark Shelton
District Engineer

MEASUREMENT DRIVER:
Steve Patterson
Safety and Claims Manager

PURPOSE OF THE MEASURE:
This measure tracks the number of general liability claims and the amount paid.

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

The target for this measure is updated annually. This target is calculated by determining a five-year average and subtracting 10 percent. (Exceptionally high or low years are excluded from the five-year average calculation to determine a practical target).

KEEP CUSTOMERS AND OURSELVES SAFE

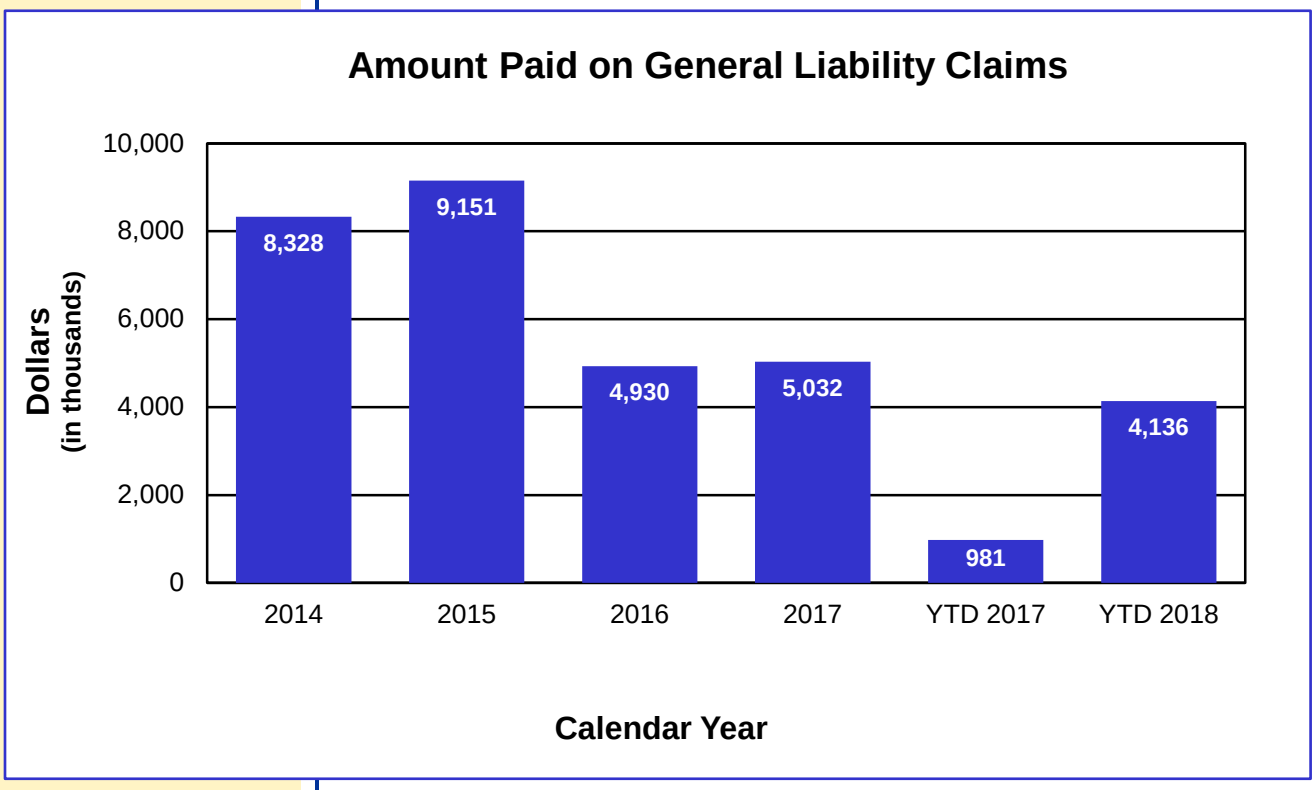
General liability claims and costs – 1h

Keeping employees and the public safe is MoDOT's highest value. Controlling damage to vehicles and reducing personal injury in work zones, on right of way and other areas under department control helps MoDOT accomplish this goal. Compared to the first quarter of 2017, there was a 106 percent increase in the number of claims. The majority of claims in the first quarter of 2018 were attributed to pavement defects. During the same timeframe, there was a 321 percent increase in the amount paid.

This quarter, payment was made on 121 claims against the department, totaling $4,136,253. Four claims accounted for 47 percent of the first quarter's payments. The department went to arbitration on a 2010 claim in which a vehicle crossed the centerline and collided with another vehicle resulting in disabling injuries to three people. The plaintiff was awarded $420,606 based on the allegation that narrow shoulders with guardrail on both sides prevented the second vehicle from avoiding the collision. The second claim occurred in 2016 where a collision in an intersection resulted in a fatality. This claim was settled for $414,418 based on poor sight distance and inadequate signaling. The third claim occurred in 2016 where the signal was malfunctioning and plaintiff pulled into the intersection colliding with another vehicle, resulting in two fatalities. This claim was settled for $700,000. The last claim occurred in 2016 where a crossover crash resulted in a fatality. This claim was settled for $420,606 based on poor sight distance and numerous crash history at this location.

The target for the number of general liability claims is a 10 percent reduction from a five-year average. In an effort to achieve this target, the focus needs to be on our most common claims. For 2018, the top three claims types are attributed to potholes, chip seal operations, and debris on roadway.

KEEP CUSTOMERS AND OURSELVES SAFE



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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 33,856 miles of highway and 10,403 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.

KEEP ROADS AND BRIDGES IN GOOD CONDITION

Percent of major highways in good condition – 2a

RESULT DRIVER:
Dennis Heckman
State Bridge Engineer

MEASUREMENT DRIVER:
Steve Engelbrecht
District Planning Manager

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

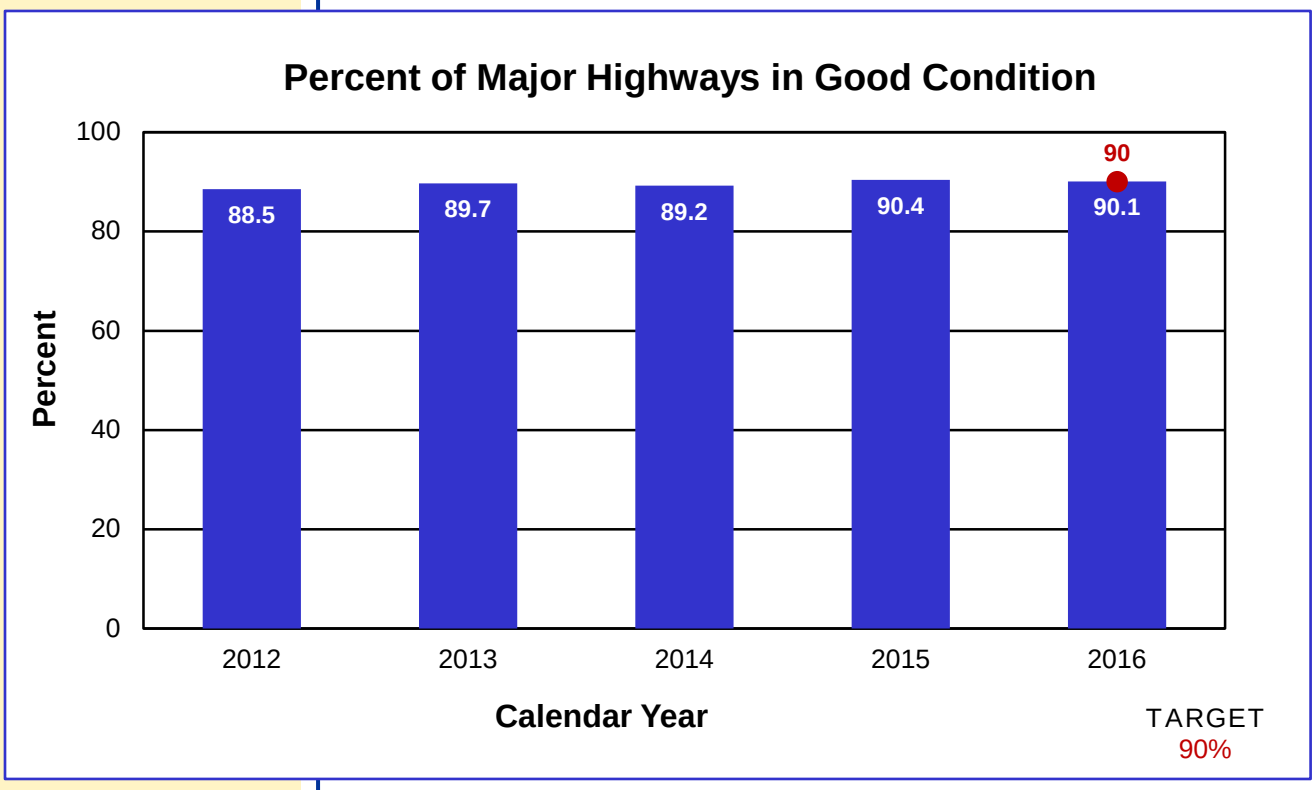
MEASUREMENT AND DATA COLLECTION:
Missouri's major highway system contains the state's busiest highways, including interstates and most U.S. routes. It also includes busy routes in urban areas, particularly where vehicles travel between business districts and residential areas. There are 5,517 total miles on the major highway system, and the condition of these roadways is determined using a variety of measures.

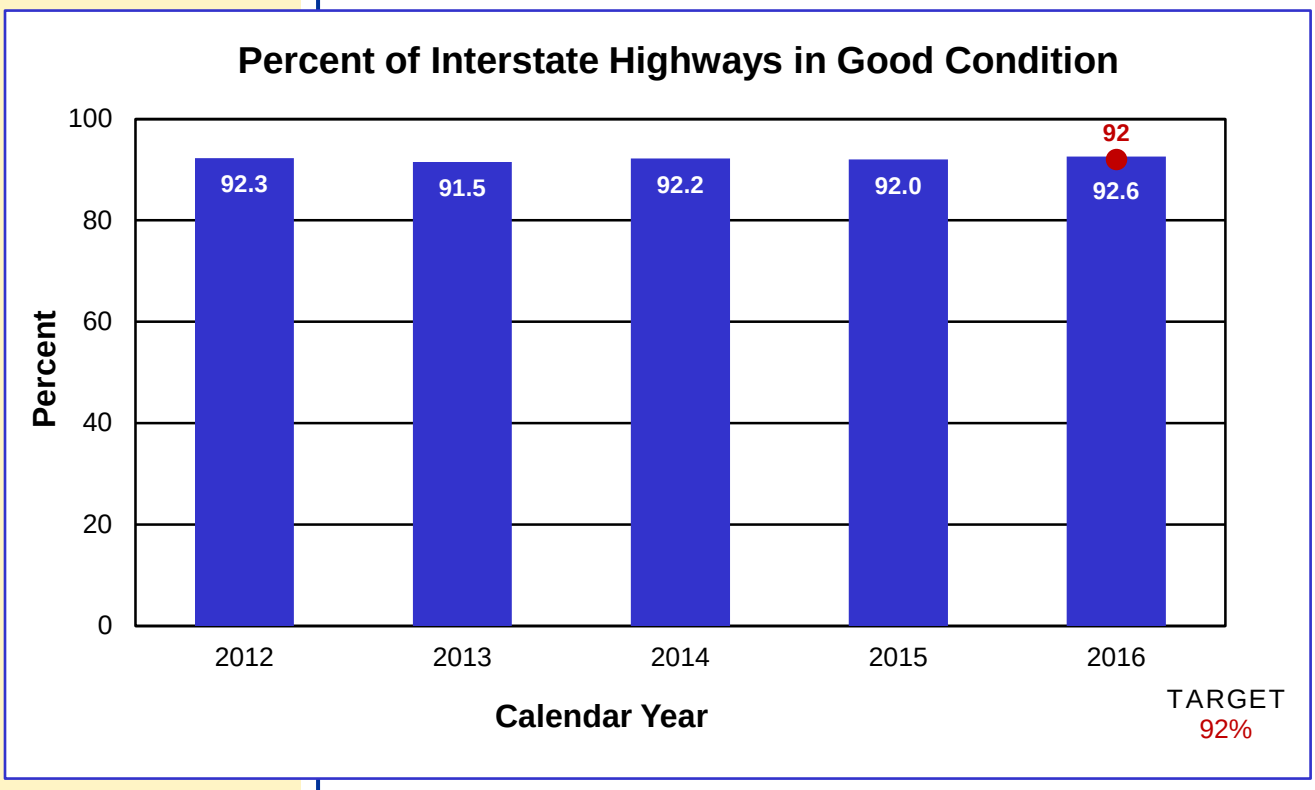
Missouri measures the condition of its roadways using smoothness as one factor, but also considers physical distresses such as cracking.

The target for this measure is set by internal policy and will not change unless policy changes, regardless of performance.

Missourians have repeatedly told MoDOT keeping roads smooth is a top priority. Over the years, MoDOT has been able to fund pavement improvement programs improving pavement conditions on the thousands of miles of state highways. Currently, more than 90 percent of Missouri major highways are rated in good condition. A statewide target for both major highways and interstate highways has been set. The target for Missouri major highways is 90 percent and the target for interstates is 92 percent. These targets are based on the statewide asset management plan and represent MoDOT's goal of maintaining current conditions.

KEEP ROADS AND BRIDGES IN GOOD CONDITION





KEEP ROADS AND BRIDGES IN GOOD CONDITION

Percent of minor highways in good condition – 2b

RESULT DRIVER:
Dennis Heckman
State Bridge Engineer

MEASUREMENT DRIVER:
Wesley Stephen
District Planning Manager

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 transportation needs. The minor highway system includes most lettered routes. There are 28,339 miles of minor highways in Missouri. The condition of these routes is determined using a variety of measures.

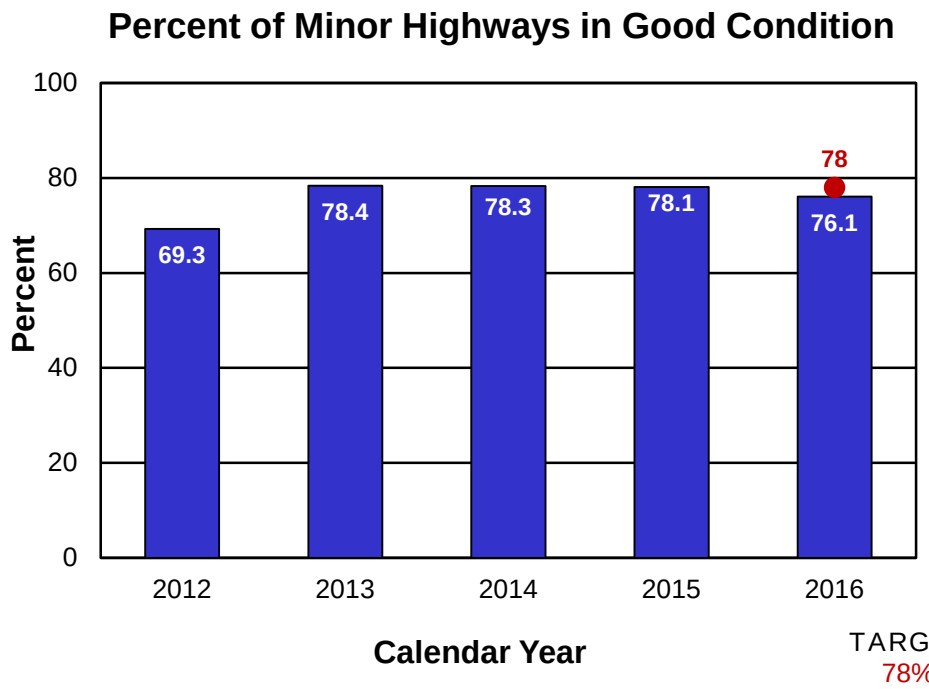
Missouri measures the condition of its roadways using smoothness as one factor, but also considers physical distresses such as cracking.

Data are collected in the previous calendar year and updated in April of the current calendar year. It is subsequently reported on, annually, in July of the current calendar year.

The target for this measure is set by internal policy and will not change unless policy changes.

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

Currently, 76 percent of Missouri's minor highways are in good condition, which is slightly below 2015. A target of 78 percent of minor highways has been established. This target is based on the statewide asset management plan and represents MoDOT's goal of maintaining current condition.



RESULT DRIVER:
Dennis Heckman
State Bridge Engineer

MEASUREMENT DRIVER:
Jerad Noland
District Design 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 July based on MoDOT inspections conducted the prior year. Data is presented for all state bridges and major bridges. Major bridges are those that are longer than 1,000 feet and typically cross the larger rivers and major lakes within the state. Of the 10,403 bridges on state highways, 207 are considered major bridges. Bridges are categorized as being in good, fair or poor condition in accordance with criteria established by FHWA. Good means no significant condition-related problems exist. Fair indicates that moderate problems exist that may require minor rehabilitation or maintenance to return the structure to good condition. Poor indicates that more significant problems exist which will require either a major rehabilitation or replacement of the structure.

The target for this measure is set internally and reflects the department's goal of "holding its own" in terms of bridge condition.

KEEP ROADS AND BRIDGES IN GOOD CONDITION

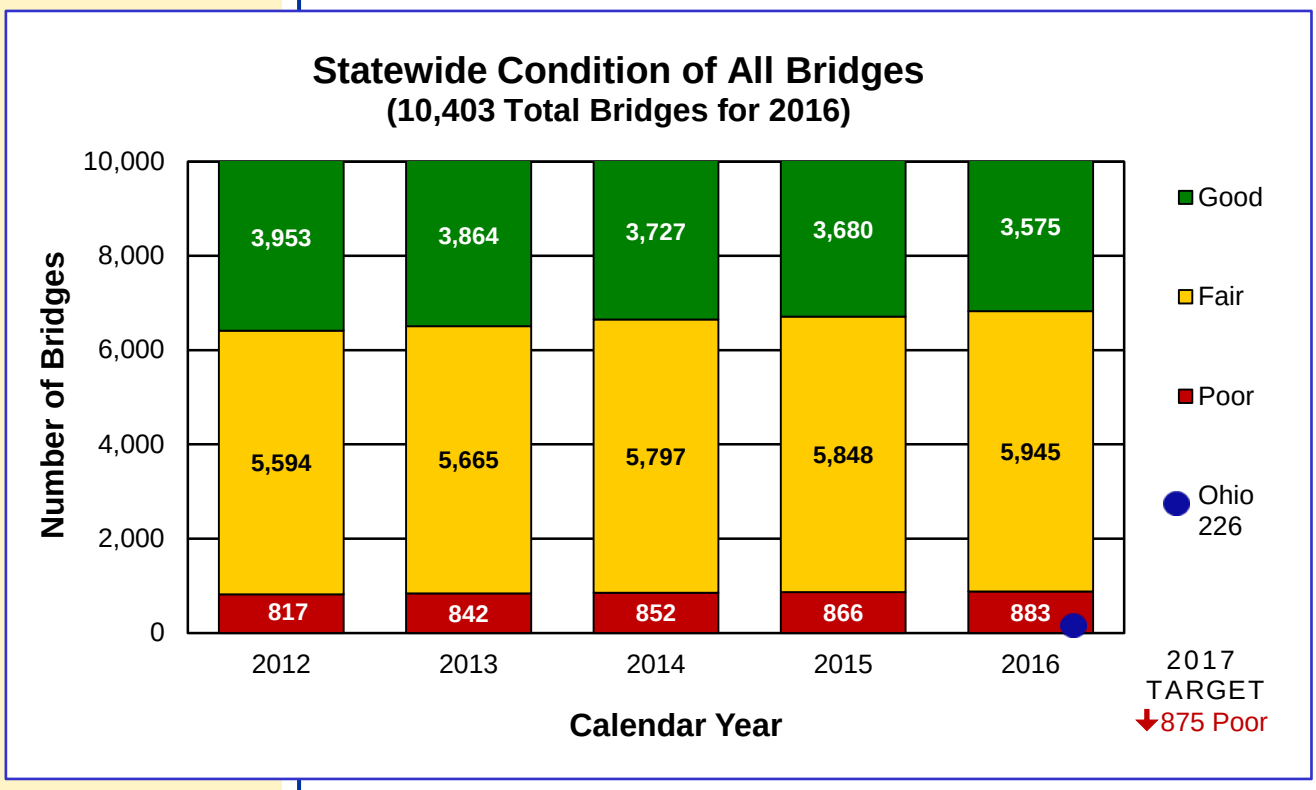
Condition of state bridges – 2c

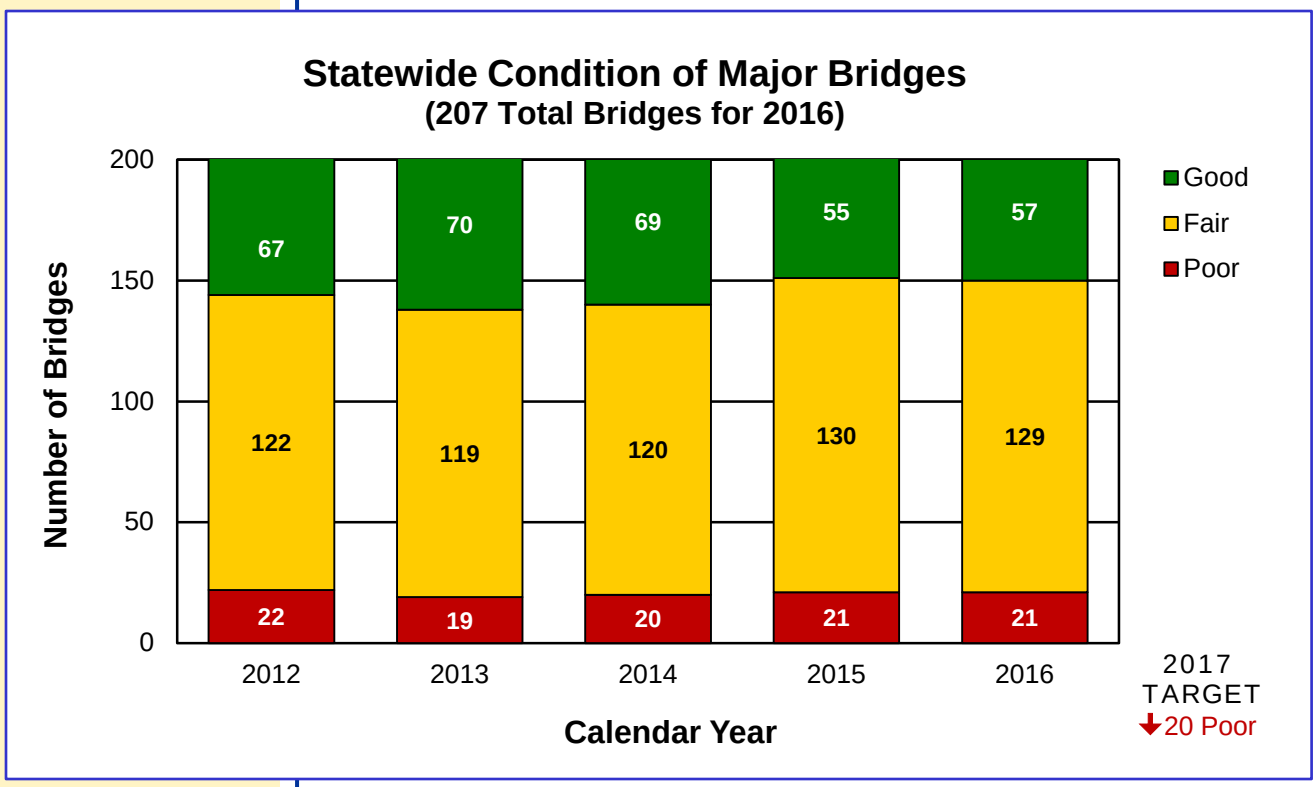
The public has indicated the condition of Missouri's existing roadway system should be one of the state's highest priorities. Currently, 883 (21 major) structures are in poor condition, 5,945 (129 major) structures are in fair condition and 3,575 (57 major) structures are in good condition.

Statewide, the number of structures in poor condition has been slowly increasing over the last five years. The number of structures in good condition peaked in 2012 and has been steadily declining since then, while the number of structures in fair condition has significantly increased. The slow increase in the number of poor condition structures reflects that MoDOT is essentially "holding it's own" even with significant Statewide Transportation Improvement Program investments on bridges in recent years. The decline in good structures reflects the fact that the construction program has slowed down in recent years with the focus on taking care of the existing system. The number of structures in fair condition continues to significantly increase which is reflective of MoDOT's aging bridge demographics with many structures at the point where they need minor maintenance or rehabilitation.

For major bridges, the number of structures in the poor category has generally been steady over the last five years. This is reflective of the significant focus on these structures in the STIP. Even with the significant investment in the STIP, the number of structures in good condition has been generally dropping over the five-year period while the number in fair condition has generally been increasing. Work on major bridges is expensive with rehabilitations costing $10 to $20 million and replacements ranging from $20 million to $200 million. Ohio has been selected for comparison as its number of state bridges (10,394) is only nine fewer than Missouri, as well as having similar demographics, geography and weather conditions.

KEEP ROADS AND BRIDGES IN GOOD CONDITION





RESULT DRIVER:
Dennis Heckman
State Bridge Engineer

MEASUREMENT DRIVER:
David Wyman
Area Engineer

PURPOSE OF THE MEASURE:
This measure tracks the percent of structurally deficient deck area for bridges on the National Highway System.

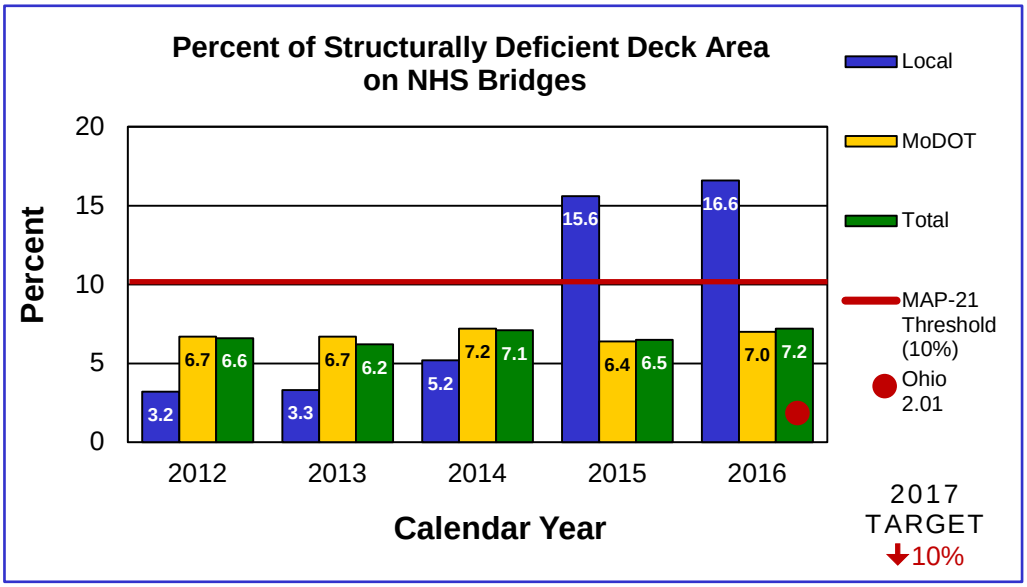
MEASUREMENT AND DATA COLLECTION:
The NHS is defined by federal law and consists of all roadways functionally classified as principal arterials as well as some routes that serve as major connections to multimodal freight-type facilities and some locally owned roadways. Fixing America's Surface Transportation Act requires states to track the structurally deficient deck area on the NHS. Historically, structurally deficient consisted of bridges that were in bad condition or had insufficient load capacity when compared to modern design standards. With the implementation of FAST Act, this definition has changed and this measure reflects those changes. FAST Act has a penalty threshold that requires a state to take certain actions whenever the percentage of structurally deficient deck area within a state exceeds 10 percent. The chart reflects the below 10 percent target.

KEEP ROADS AND BRIDGES IN GOOD CONDITION

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

The public has indicated keeping Missouri's existing roads and bridges in good condition should be one of the state's highest priorities. FAST Act established a 10-percent penalty threshold for states, that when exceeded, has special rules that essentially require a state to focus money on bridges until they are back under 10 percent. The local system has 86 NHS structures (five SD) and the MoDOT system has 3,557 NHS structures (144 SD). Missouri currently falls below the penalty threshold with the statewide structurally deficient deck area at 7.2 percent. This is attributable to the continued efforts at focusing on major bridges when funding is available as well as the increased focus on dealing with the poor condition bridges within the STIP.

Statewide, this measure is also heavily influenced by major bridges because one structure has the ability to impact this measure +/-0.5 percent. When looking at the local system, a large bridge can have a very dramatic impact because of the small number of local structures that are part of the NHS. This is witnessed below in the dramatic change on the local system from 2014 to 2015, which was the result of one newly deficient large structure. The changes on the measure from 2015 to 2016 result from 24 structures dropping off the list while 34 structures were added to the list, resulting in a slight increase in the area of structurally deficient structures on the NHS. After a few years of changes, the roadways included on the NHS have stabilized with only minor changes from year to year resulting in negligible impacts on this measure. Ohio has been selected for comparison as their number of state bridges (10,394) is only nine fewer than Missouri, as well as having similar demographics, geography and weather conditions.



PROVIDE OUTSTANDING CUSTOMER SERVICE

Tom Blair, St. Louis 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:
Tom Blair
District Engineer

MEASUREMENT DRIVER:
Sally Oxenhandler
District Communications Manager

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

MEASUREMENT AND DATA COLLECTION:
Data is collected through a biennial, in odd-numbered years, telephone survey of approximately 3,500 randomly selected Missourians. Benchmarking data is provided by the American Customer Satisfaction Index.

The target for this measure is updated annually in October for the next calendar year. The target for this measure was set by management directive.

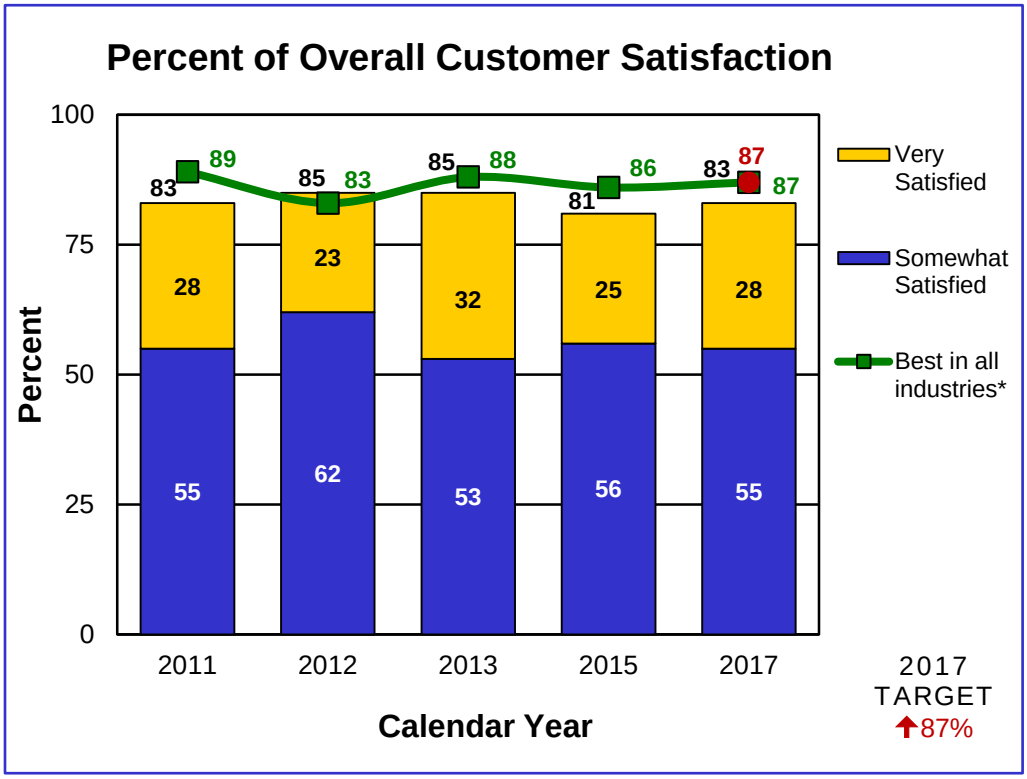
PROVIDE OUTSTANDING CUSTOMER SERVICE

Percent of overall customer satisfaction – 3a

Customer satisfaction with MoDOT continues to remain high. Eighty-three percent of Missourians surveyed said they were satisfied with the job MoDOT is doing, up from 81 percent in 2015. In addition, those customers reporting they are very satisfied with MoDOT increased from 25 percent to 28 percent.

Data compiled by the American Customer Satisfaction Index in 2017 shows Chick-fil-A as having the highest customer satisfaction rate – 87 percent – out of the hundreds of companies and government agencies the ACSI scores.

As in 2015, the 2017 Report Card from Missourians shows that the condition of roads and bridges remains the most important transportation service to customers. The fact that Missourians' satisfaction with MoDOT's efforts to maintain roads and bridges increased in 2017 could explain the increase in overall customer satisfaction.



***2010-2011 – Lincoln Mercury, 2012 – Apple, Inc., 2013 – Mercedes Benz, 2015 – Chick-fil-A, 2017 – Chick-fil-A**

RESULT DRIVER:
Tom Blair
District Engineer

MEASUREMENT DRIVER:
Gregg Ochoa
Senior Communications Specialist

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

MEASUREMENT AND DATA COLLECTION:
Data is collected through a biennial, in odd-numbered years, telephone survey of approximately 3,500 randomly selected Missourians. The target for this measure is updated annually in October for the next calendar year. This target is established by projecting a 10 percent improvement over a five-year average.

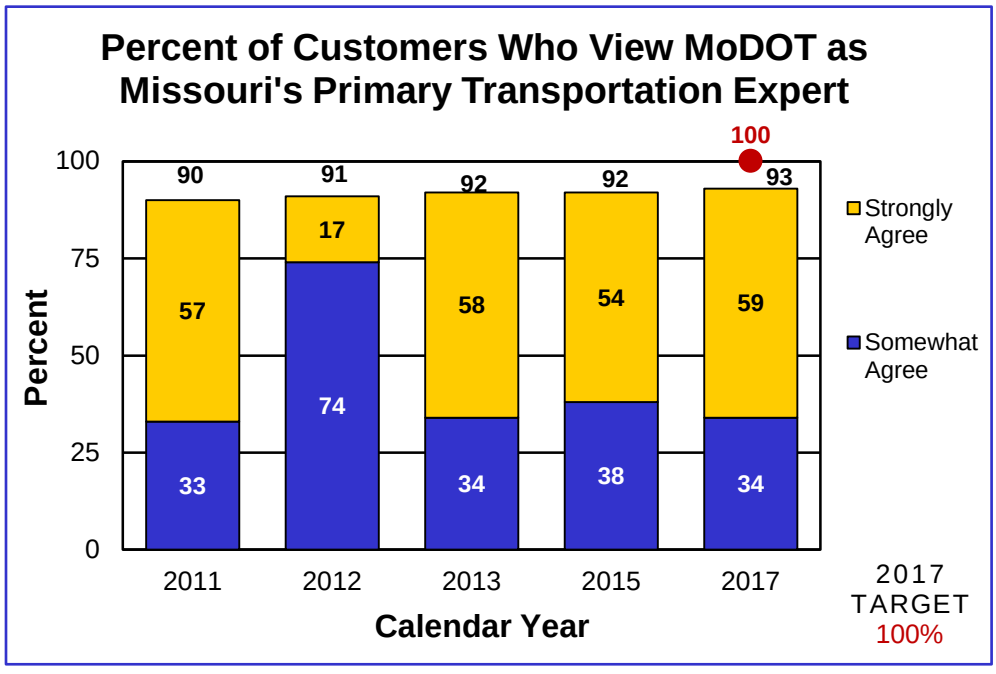
PROVIDE OUTSTANDING CUSTOMER SERVICE

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

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

The 2017 survey shows an overwhelming majority of customers perceive the department as Missouri's transportation expert. Ninety-three percent of those surveyed agreed MoDOT serves this role, a percentage the department has consistently maintained since 2009. Of the 93 percent, 59 percent of respondents "strongly agreed" and 34 percent "somewhat agreed" MoDOT serves as the state's primary transportation expert.

The department continues to work on improving partnerships with all Missourians, including local government, elected officials and transportation-related groups and organizations in order to deliver the very best possible transportation system with the resources available.



RESULT DRIVER:
Tom Blair
District Engineer

MEASUREMENT DRIVER:
Markl Johnson
Senior Communications Specialist

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

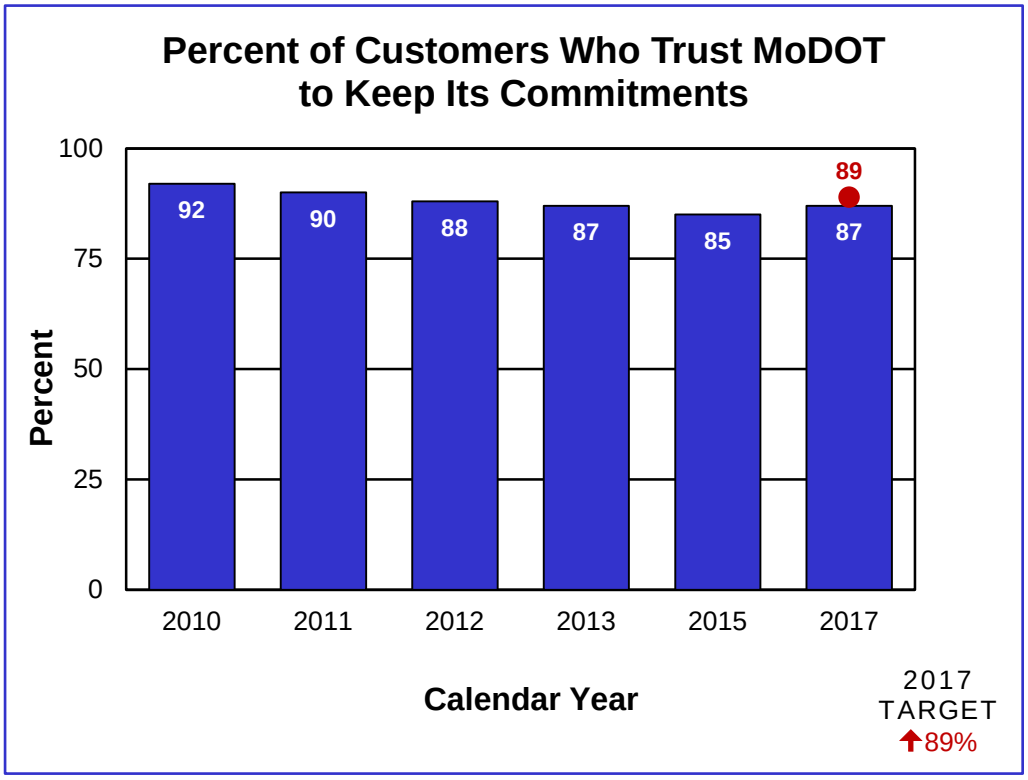
MEASUREMENT AND DATA COLLECTION:
Data is collected through a biennial, in odd-numbered years, telephone survey of approximately 3,500 randomly selected Missourians. The target for this measure is updated annually in October for the next calendar year. The target for this measure was set by management directive.

PROVIDE OUTSTANDING CUSTOMER SERVICE

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

Gaining and keeping the public's trust is critical to MoDOT's overall success. The best way MoDOT can accomplish this is to deliver on the commitments it makes.

The 2017 survey results indicated 87 percent of the residents trust MoDOT to keep its commitments to the public compared to 85 percent in the previous survey. Although this is only a 2 percent increase, it puts us back up to where MoDOT was in 2013.



RESULT DRIVER:
Tom Blair
District Engineer

MEASUREMENT DRIVER:
Jennifer Williams
Communications Manager

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

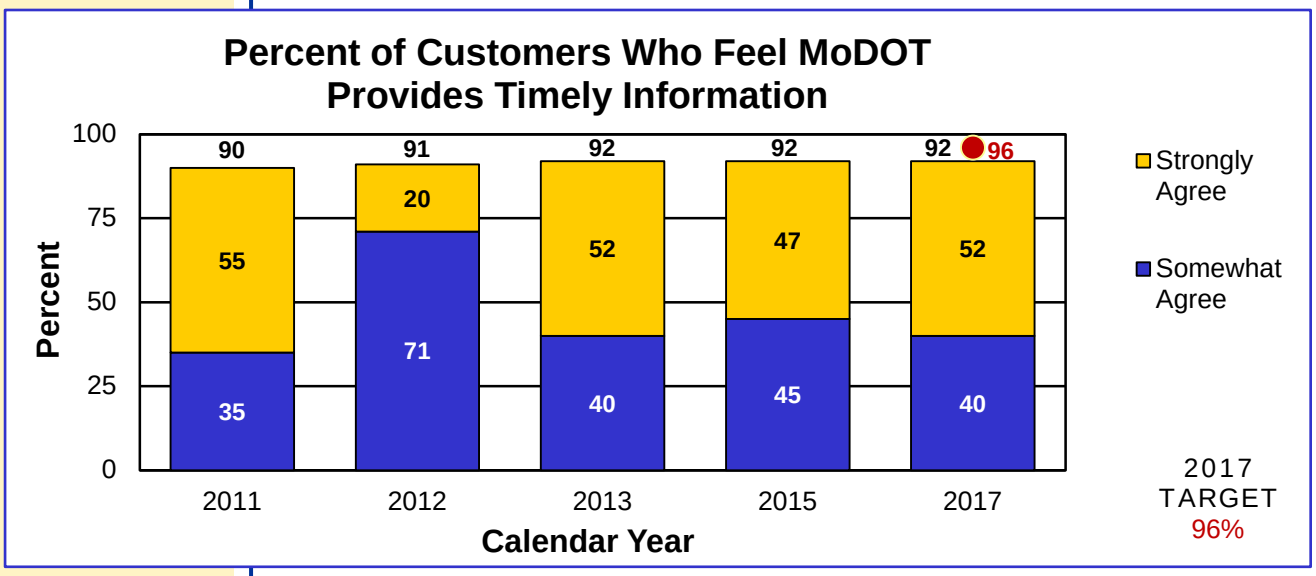
MEASUREMENT AND DATA COLLECTION:
Data is collected through a biennial, in odd-numbered years, telephone survey of approximately 3,500 randomly selected Missourians. The target for this measure is updated annually in October for the next calendar year. The target for this measure was set by management directive.

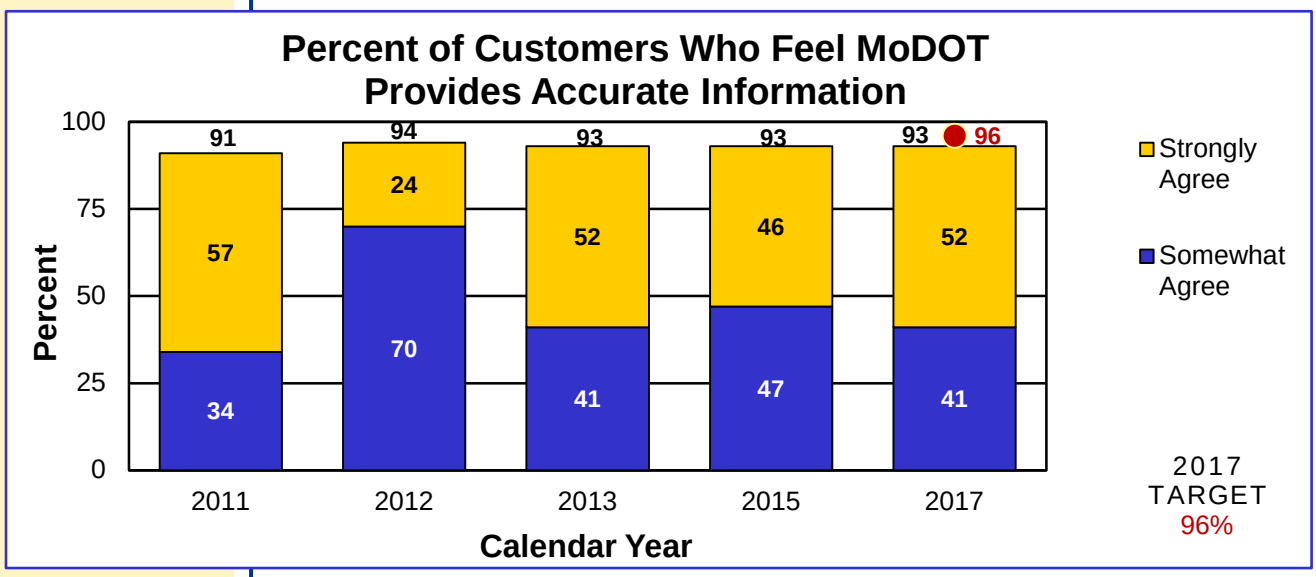
PROVIDE OUTSTANDING CUSTOMER SERVICE

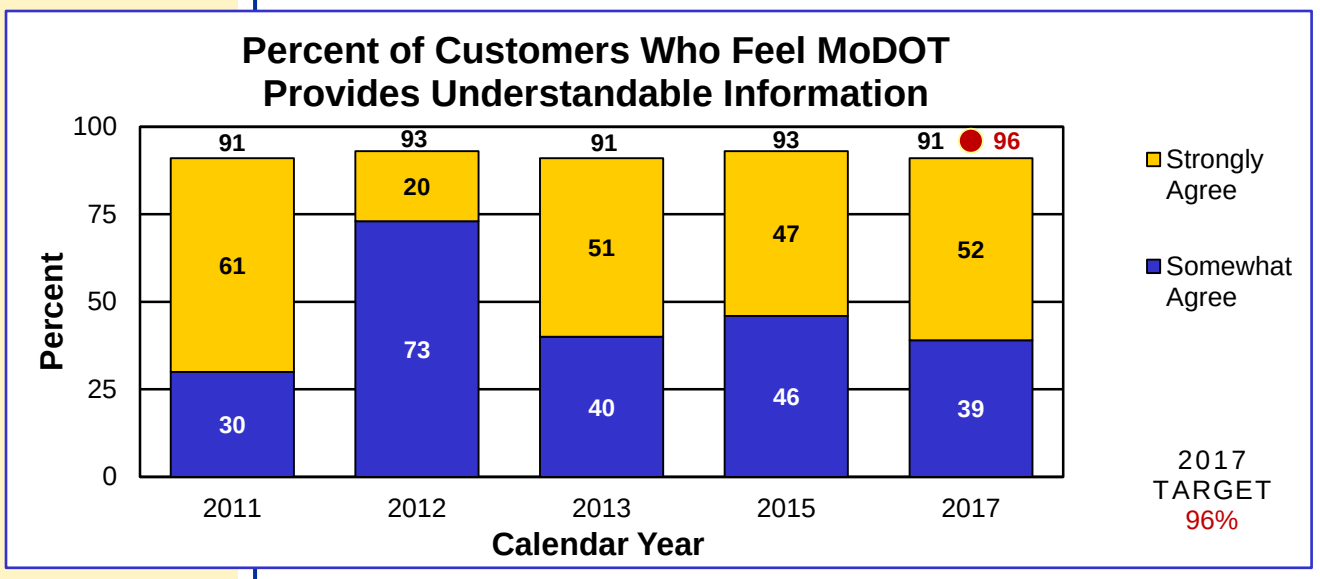
Percent of customers who feel MoDOT provides timely, accurate and understandable information – 3d

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

PROVIDE OUTSTANDING CUSTOMER SERVICE







RESULT DRIVER:
Tom Blair
District Engineer

MEASUREMENT DRIVER:
Tammy Wallace
Senior Communications Specialist

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

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

The target for this measure is updated quarterly. This target is established by projecting a 10 percent improvement over a five-year average.

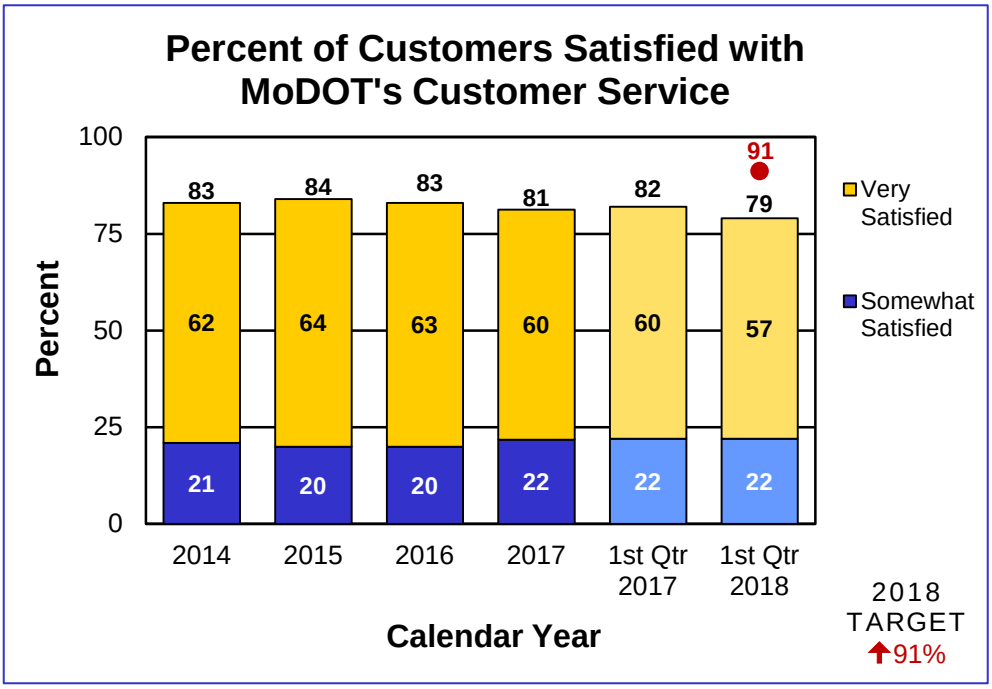
PROVIDE OUTSTANDING CUSTOMER SERVICE

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

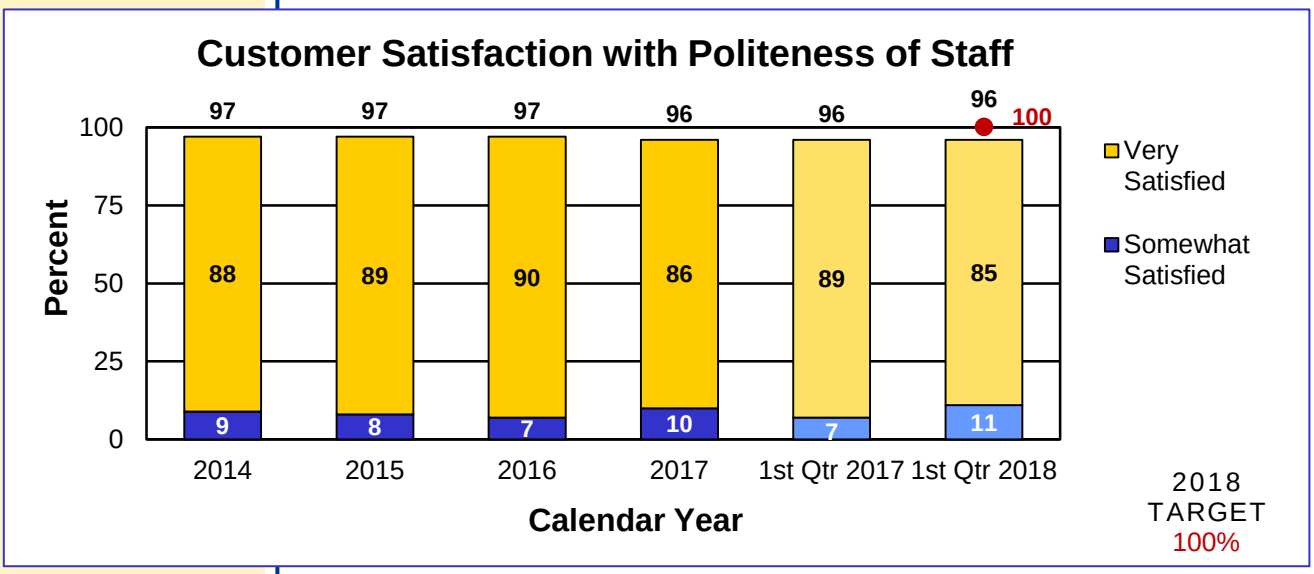
MoDOT actively seeks feedback from the customers it serves. MoDOT uses a statewide call system and an enhanced online call report system that enables customer service representatives to work across seven district boundaries in a one-team approach. Since its implementation, customer perceptions of MoDOT's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

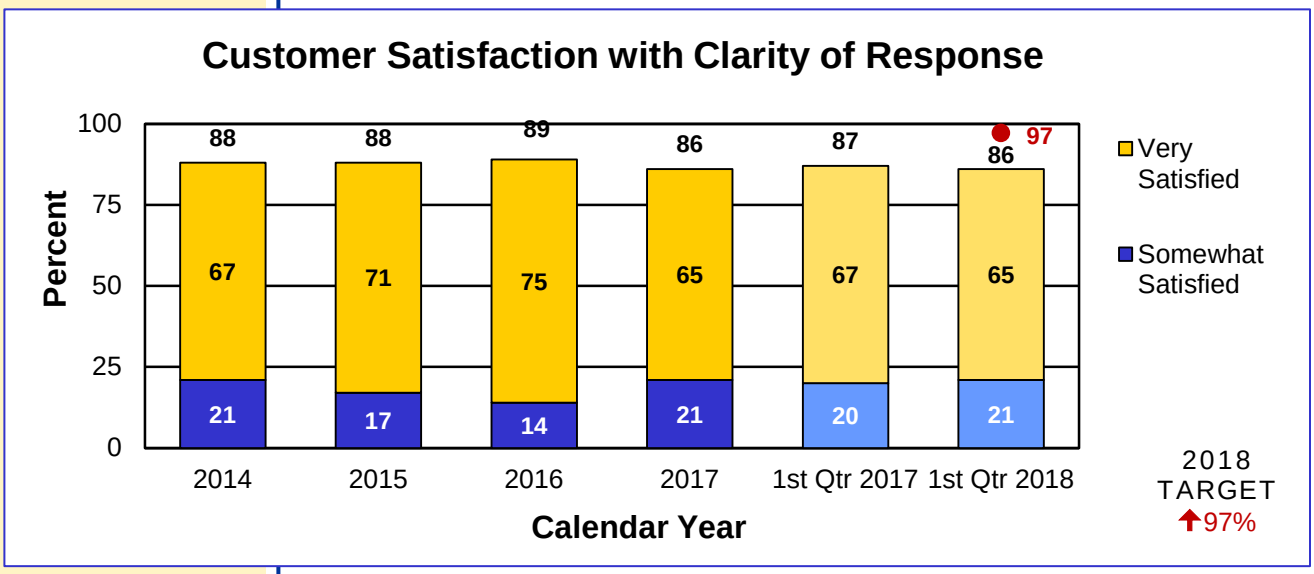
There was slight movement in numbers comparing first quarter 2017 to first quarter 2018. Overall customer satisfaction decreased to 79 percent from 82 percent, which is below the 91 percent target. Politeness of response remained the same at 96 percent. Customers who were satisfied with the clarity of the response they received was down slightly from 87 percent to 86 percent and responsiveness was down from 88 percent to 87 percent.

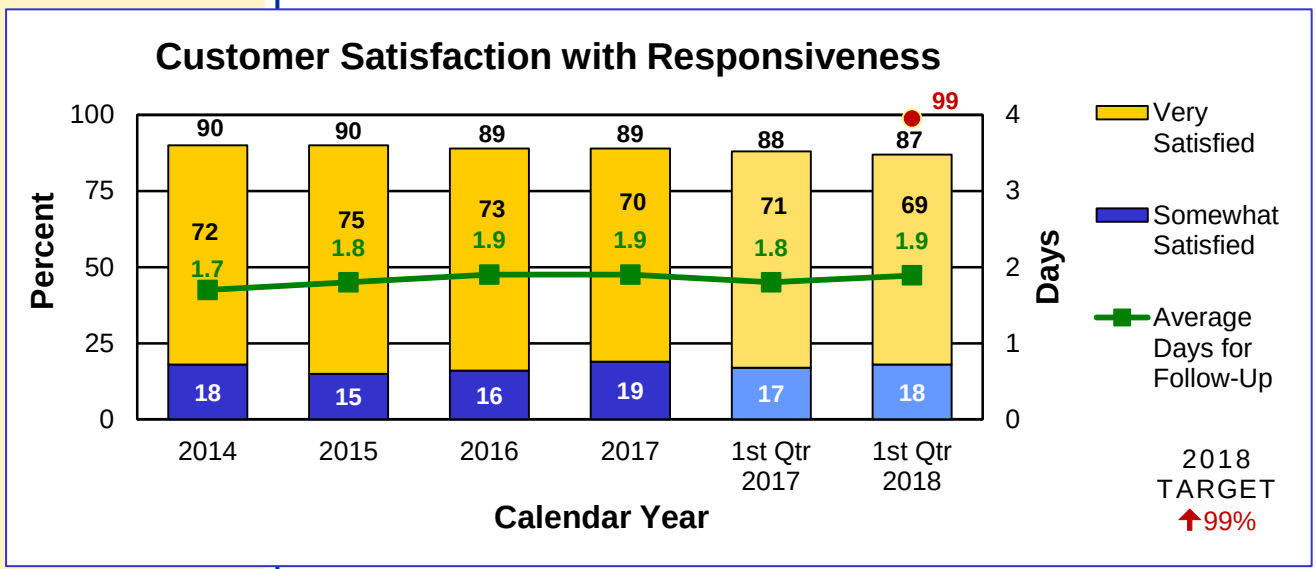
The average time to complete customer requests was just under 2 days (1.9 days).



PROVIDE OUTSTANDING CUSTOMER SERVICE







RESULT DRIVER:
Tom Blair
District Engineer

MEASUREMENT DRIVER:
Chris Kelly
Communications Manager

PURPOSE OF THE MEASURE:
This measure tracks the number of MoDOT customers hitting the department's social media and website information.

MEASUREMENT AND DATA COLLECTION:
MoDOT gathers information for this measure from a variety of sources including Google Analytics. Website traffic and YouTube information are cumulative totals based on visits. Facebook and Twitter information is based on account followers. The target for this measure is updated quarterly. This target is established by projecting a 7 percent improvement over the same quarter in the previous year.

PROVIDE OUTSTANDING CUSTOMER SERVICE

Customer communication engagement – 3f

Good organizations share information with the people they serve. The best, most-trusted organizations engage customers in conversation. MoDOT often interacts with its customers through Internet-based social media networking websites and applications. MoDOT's social media accounts continue to attract followers. When comparing the third quarters of fiscal years 2017 and 2018, there was a growth of 46,770 followers on Facebook statewide and 19,712 to Twitter statewide.

During the third quarter of FY 2018, the most popular social media post on the statewide Facebook page was a graphic of a DMS board that said "Pass on Left, Drive on Right" and also asked people to comment on other ways that people can drive politely. The post reached 77,120 people with 6,600 engagements including post clicks, shares, comments and reactions.

MoDOT websites trended upward when making yearly comparisons with 2,395,954 sessions on MoDOT websites during the third quarter of FY 2018; compared to 1,833,746 in the third quarter of FY 2017. This is an overall increase of 562,208 sessions. The higher numbers are due to a long winter and late winter weather events, with minor flooding in the southern parts of the state causing an increase in traffic.

The top five pages on MoDOT's website for this quarter were:

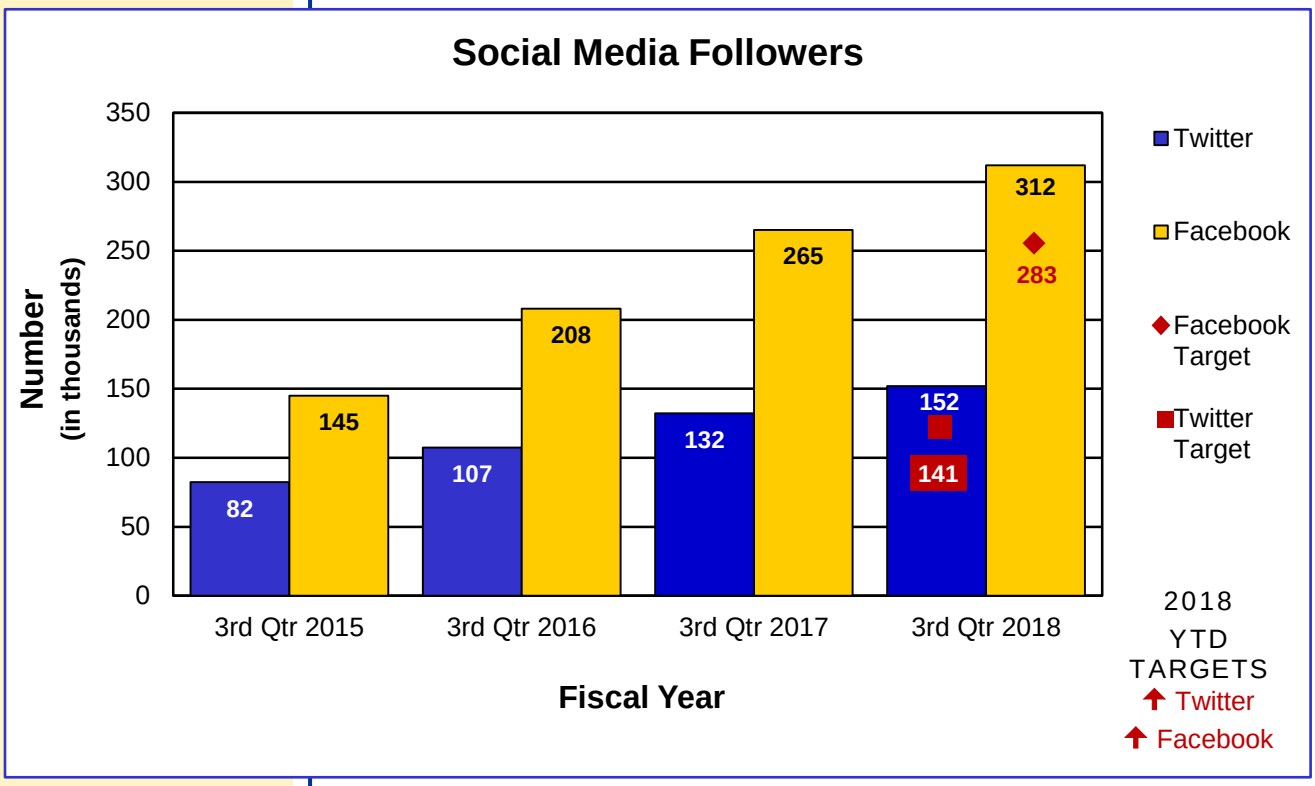
- Traveler Information Map – 1,187,292
- MoDOT Homepage – 363,108
- KC Scout Homepage – 272,558
- Job Listings – 56,695
- Gateway Guide Homepage – 55,434

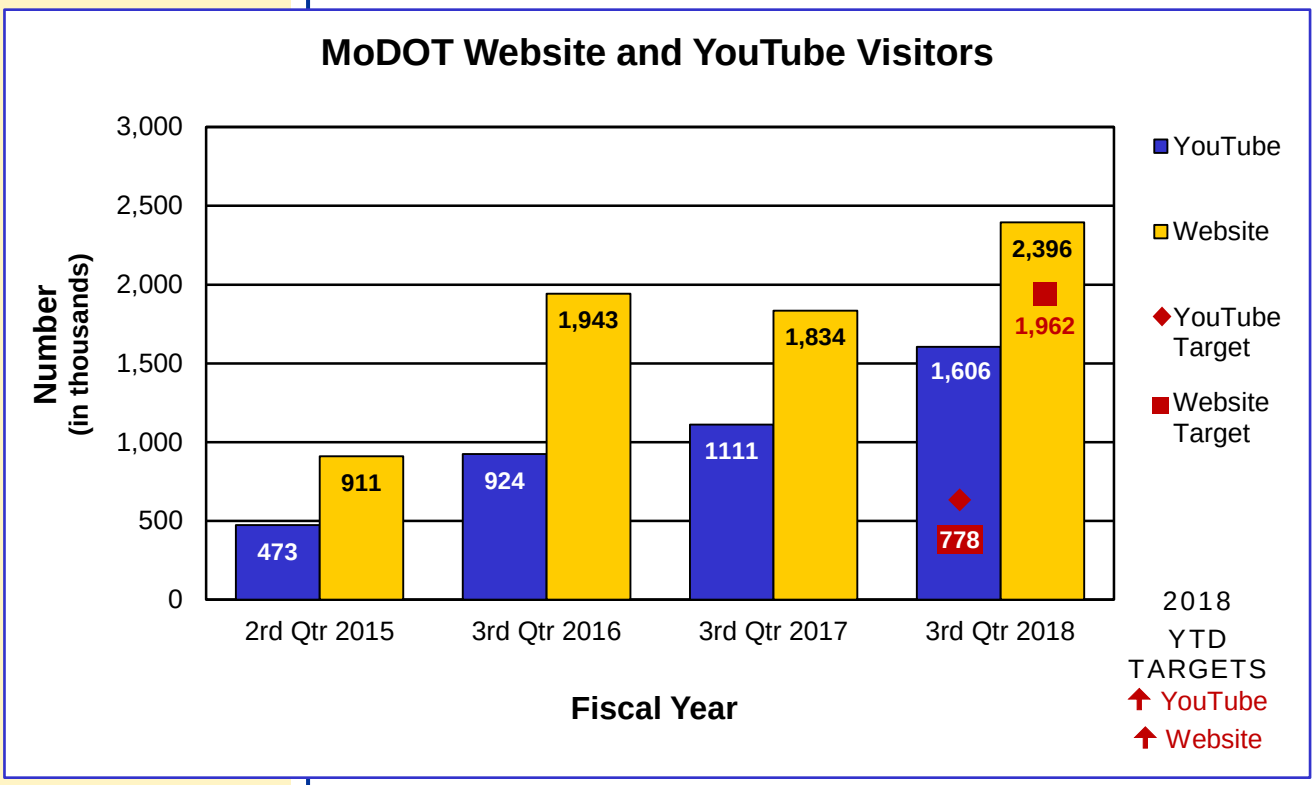
MoDOT videos on YouTube were viewed 1,605,944 times in the third quarter of FY 2018. Numbers now include views through SaveMOLives YouTube account. The spike in numbers when compared to last quarter is largely due to the Buckle Up/Phone Down media campaign-push on the SaveMOLives channel last quarter.

The top five videos viewed in the last quarter were:

- Buckle Up/Phone Down – Coach – 359,925 views
- Tow Plow Action – TowPlow Action Missouri – 210,530 views
- MoDOT Teen Seatbelt 2018 Pt. 1 – 181,084 views
- MoDOT March Imparied 2018 – 158,516 views
- MoDOT Big Game Drive Sober – 82,815 views

PROVIDE OUTSTANDING CUSTOMER SERVICE





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DELIVER TRANSPORTATION SOLUTIONS OF GREAT VALUE

Eric Schroeter, State Design 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.

DELIVER TRANSPORTATION SOLUTIONS OF GREAT VALUE

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

RESULT DRIVER:
Eric Schroeter
State Design Engineer

MEASUREMENT DRIVER:
Doug Hood
Planning and Programming Coordinator

PURPOSE OF THE MEASURE:
The measure determines how close total project costs are to the programmed costs. The programmed cost is considered the project budget.

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

The target for this measure is set by internal policy and will not change unless policy changes.

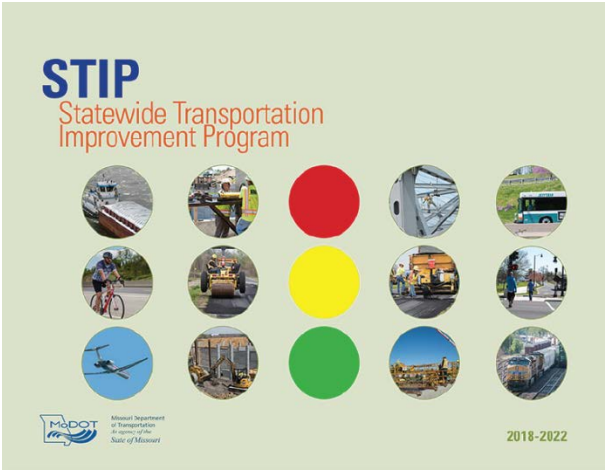
Accurate program cost estimates help MoDOT deliver more timely improvements for taxpayers. As of March 31, 2018, 286 road and bridge projects were completed in fiscal year 2018 at a cost of $619 million. This represents a deviation of 7.4 percent (or $49.6 million) less than the programmed cost of $669 million. Of the 286 road and bridge projects completed, 62 percent were completed within or below budget. In comparison, 56 percent of projects were completed within or below budget as of the same date a year ago. The largest component of project savings came from awards at $52.5 million. Miscellaneous savings (right-of-way purchases, utilities and other costs) were $24.3 million. There may be projects that have adjustments pending, which could cause a slight change in the final values.

In addition, 83 multimodal projects were completed at a cost of $34.1 million, 4.5 percent or $1.6 million less than the programmed cost of $35.7 million. A total of 110 local public agency projects were completed at a cost of $111.4 million, 4.8 percent or $5.6 million less than the programmed cost of $117 million.

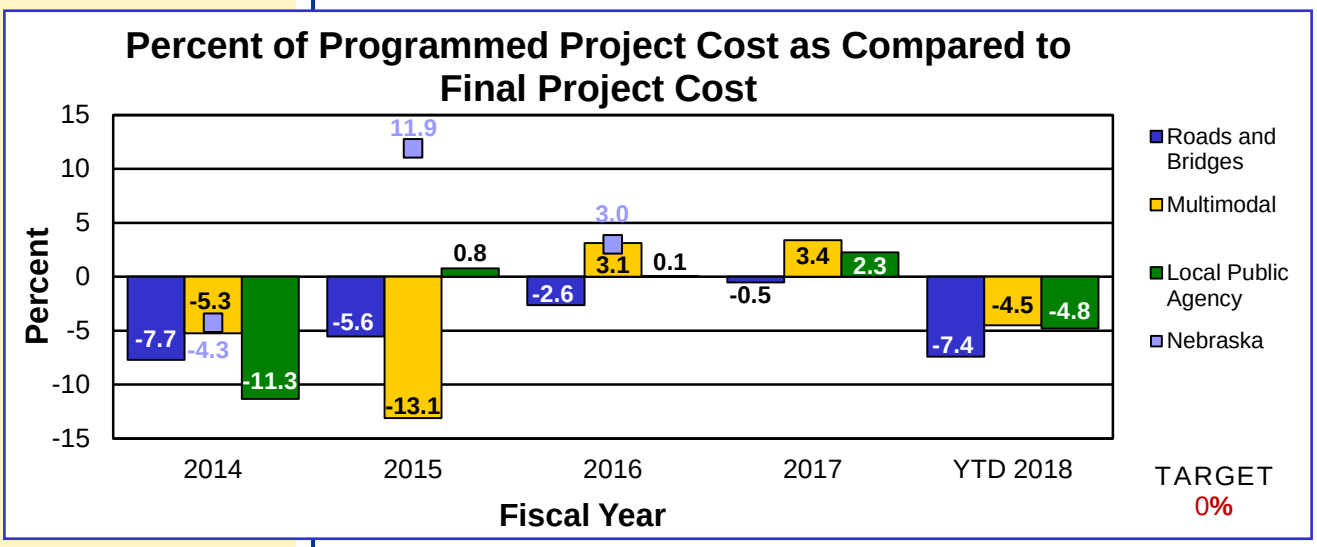
The target is zero percent difference, indicating MoDOT is making timely use of available funds. Road and bridge, multimodal and local public agency projects were within 7.4 percent of the target for projects awarded through the third quarter of FY 2018.

There was an adjustment to the final FY 2017 values, resulting in the multimodal percentage changing from 1.7 to 3.4 percent.

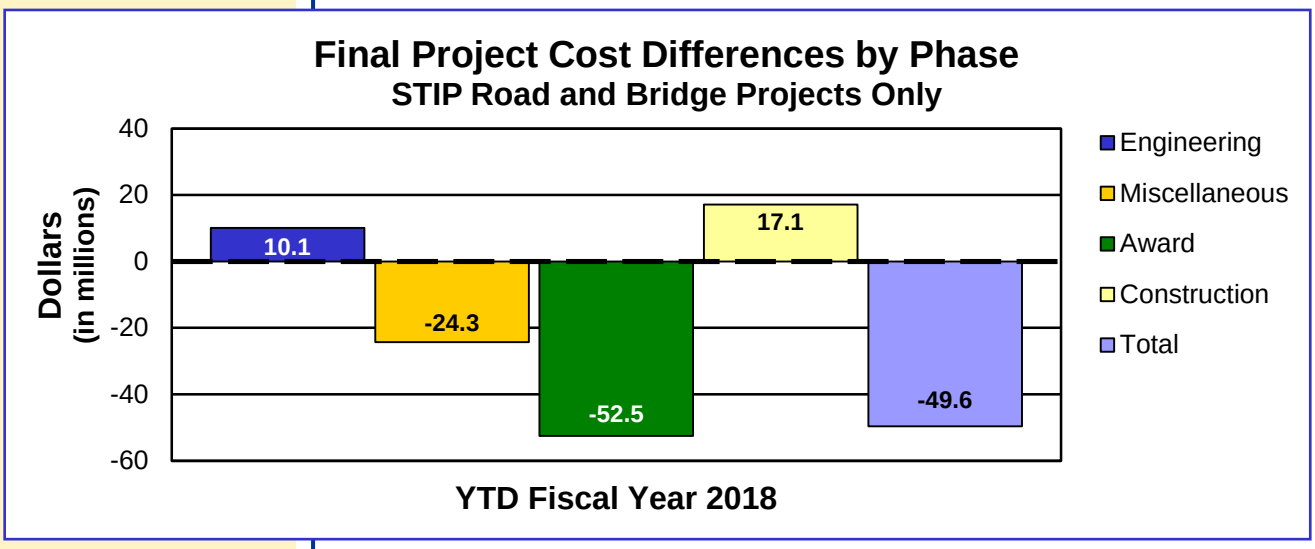
MoDOT uses this historical data as a guide for programming future projects. Projects awarded in FY 2016 and FY 2017 were about 8 percent lower than programmed values. If FY 2018 projects also reflect significant award savings, MoDOT plans to accelerate projects from FY 2019 to FY 2018.



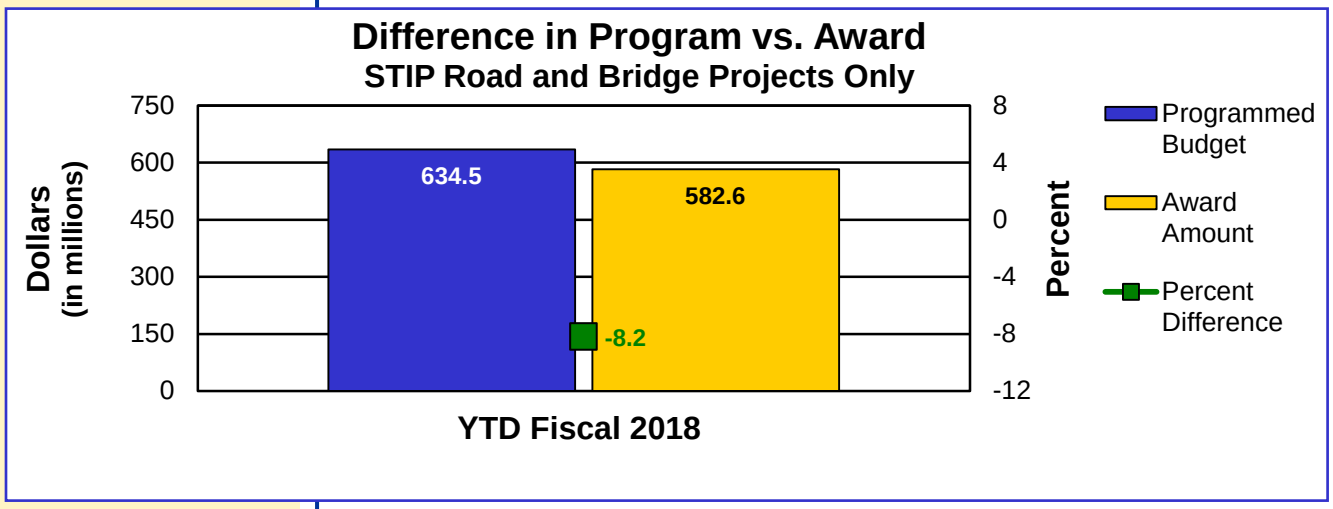
DELIVER TRANSPORTATION SOLUTIONS OF GREAT VALUE



Positive numbers indicate the final (completed) cost was higher than the programmed cost.



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



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

RESULT DRIVER:
Eric Schroeter
State Design Engineer

MEASUREMENT DRIVER:
Dan Oesch
Field Materials Engineer

PURPOSE OF THE MEASURE:
This measure tracks the percentage of road and bridge projects opened by the commitment date established in the contract. This commitment also includes local public agency projects 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 day which is specific to when the road or bridge project will be opened to the public so to eliminate a financial penalty. The resident engineer uses the SiteManager system to track and document the work. Local public agencies and multimodal agencies use staff or consultant resources to set contract completion dates and track performance.

The target for this measure was set by management directive.

DELIVER TRANSPORTATION SOLUTIONS OF GREAT VALUE

Percent of projects completed on time – 4b

MoDOT's customers expect transportation improvements to be completed and roadways opened quickly with minimal impact to their lives. Delivering projects by the contract completion date is the target for all projects and is considered a commitment to Missourians and drivers. Completing projects on time helps maintain credibility with Missourians, minimizes drivers' exposure to work zones and provides facilities in good condition that improve safety and reduce vehicle maintenance costs.

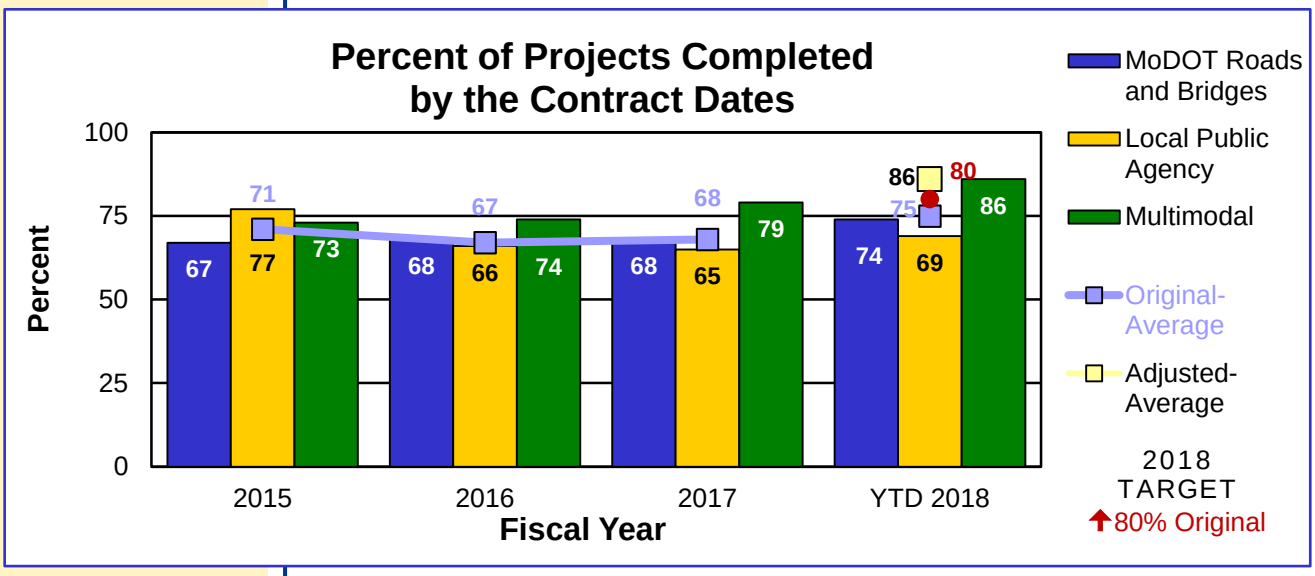
MoDOT works to meet the initial contract completion date by preparing accurate plans and quantities, setting aggressive but reasonable completion dates and setting liquidated damages to reinforce completion dates without undue bid risks. In the first three quarters of fiscal year 2018, 75 percent of all closed-out projects were completed by their planned completion dates.

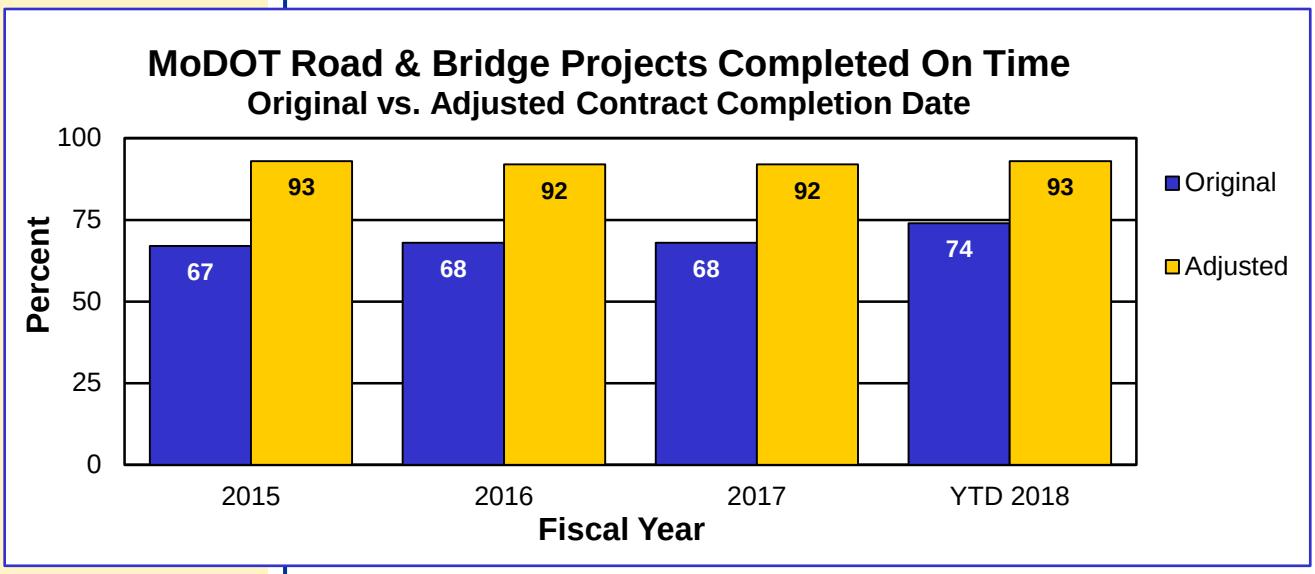
Sometimes, weather, additional work or a MoDOT directive necessitates an authorized extension of the completion date without any financial assessment to the contractor. In the first three quarters of FY 2018, 86 percent of the closed-out projects were completed by the adjusted dates.

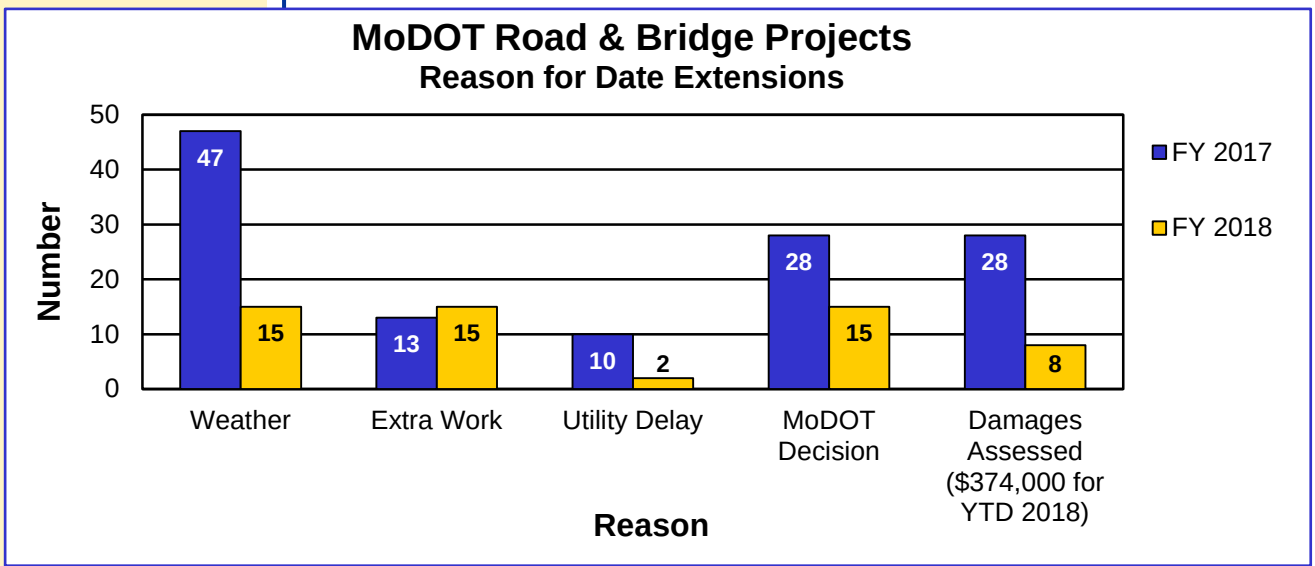
There are times when a contractor misses the contract completion date and the contractor is assessed damages. Of the road and bridge projects completed in the first three quarters of FY 2018 that did not meet the original contract date, 27 percent were extended due to weather delays, 27 percent were extended due to extra work, 4 percent experienced utility delays, 27 percent were extended by MoDOT and 15 percent missed the completion date with damages assessed totaling $374,000.

The target for this measure is to have at least 80 percent of projects completed by the original completion date. At the end of the first three quarters of FY 2018, the average number of all contracts completed by the original completion date was 75 percent which is a 7 percent improvement from the previous year.

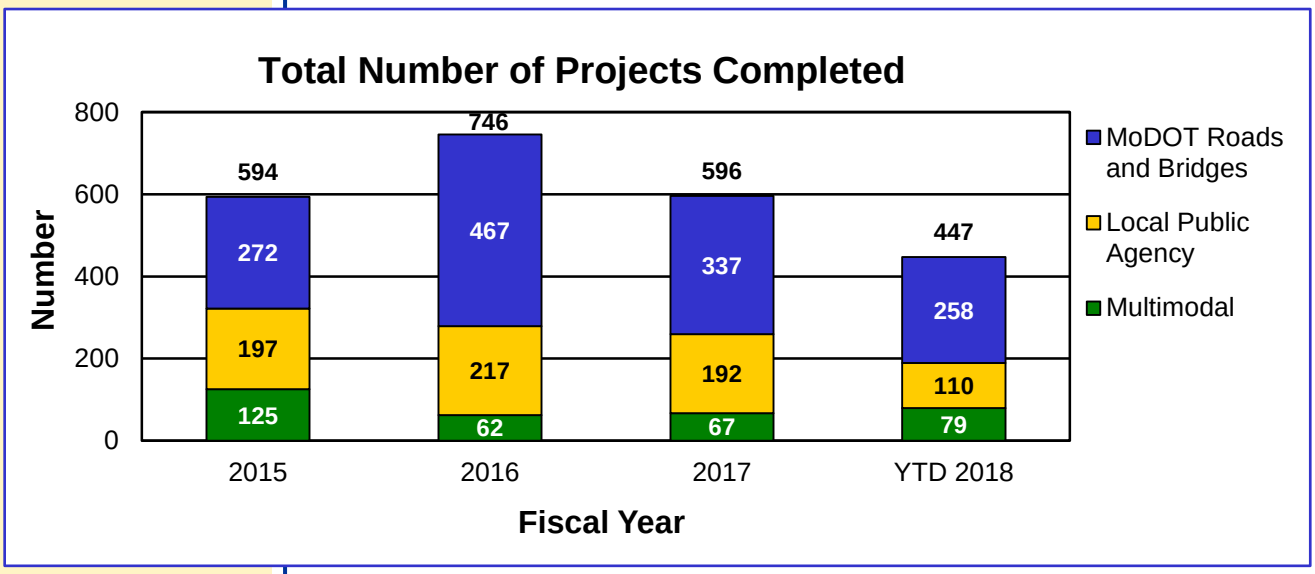
DELIVER TRANSPORTATION SOLUTIONS OF GREAT VALUE

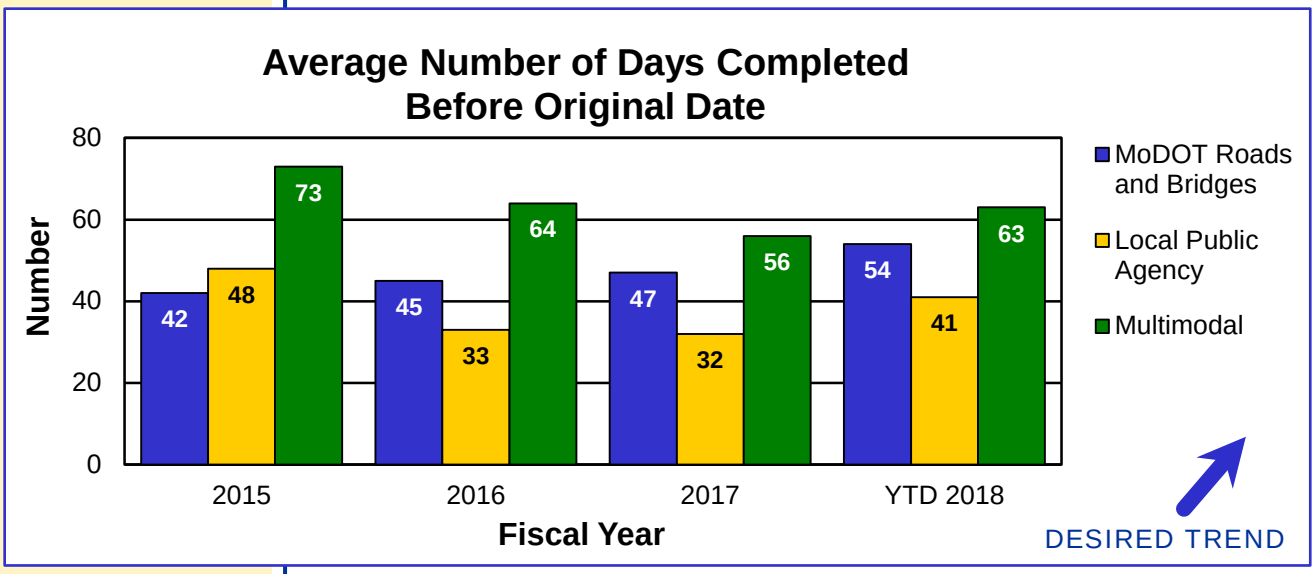


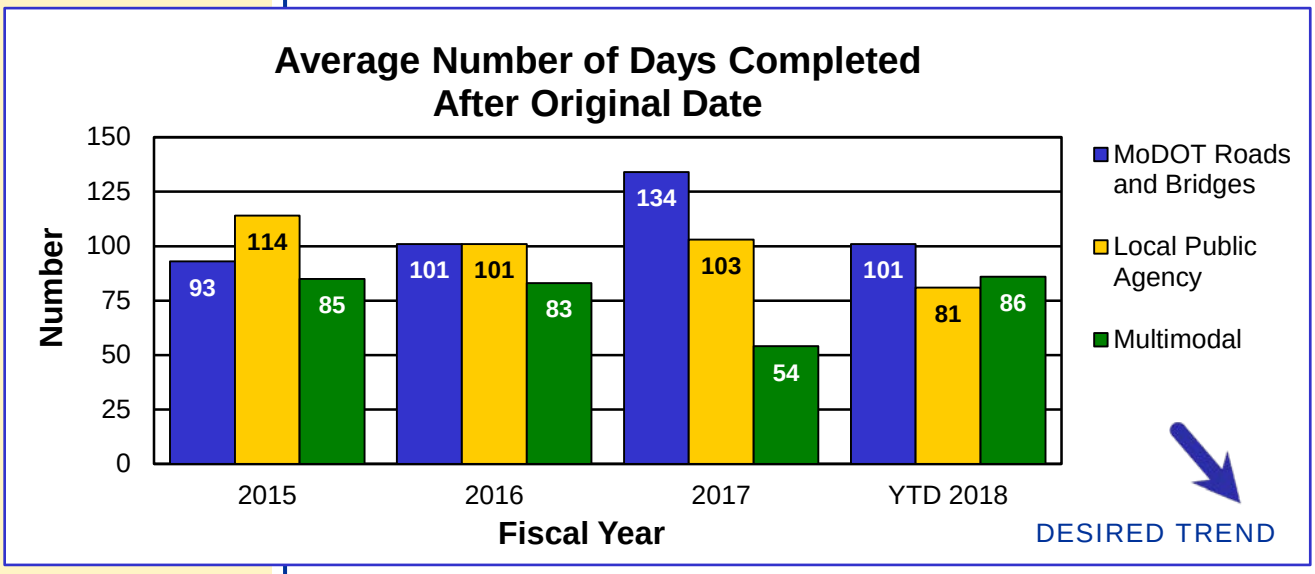




DELIVER TRANSPORTATION SOLUTIONS OF GREAT VALUE







RESULT DRIVER:
Eric Schroeter
State Design Engineer

MEASUREMENT DRIVER:
Lori Greer
Field Materials Engineer

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

MEASUREMENT AND DATA COLLECTION:
For road and bridge projects, contractor payments are generated through MoDOT's SiteManager database and processed in the financial management system for payment. Change orders document the under-run/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. The target for this measure is set by internal policy and will not change unless policy changes.

DELIVER TRANSPORTATION SOLUTIONS OF GREAT VALUE

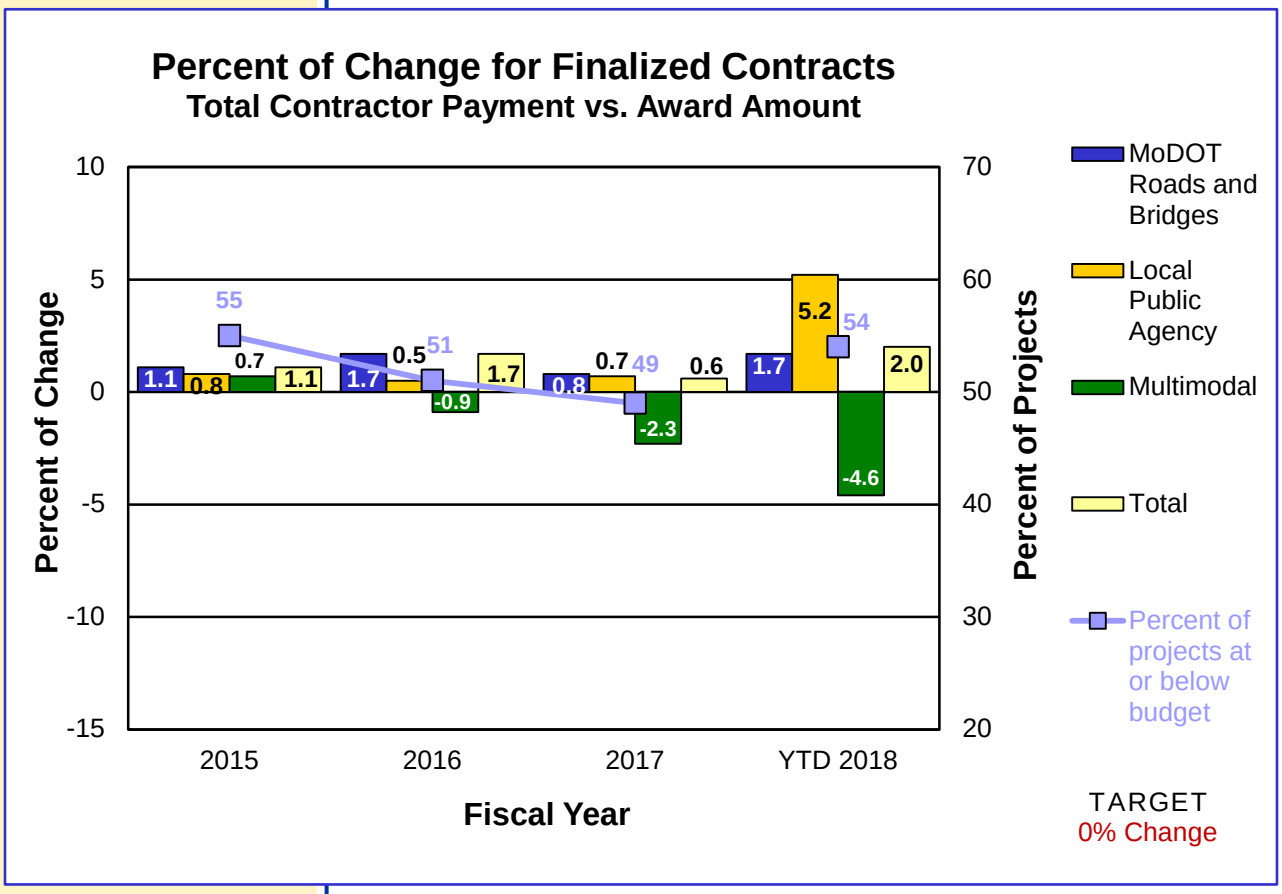
Percent of change for finalized contracts – 4c

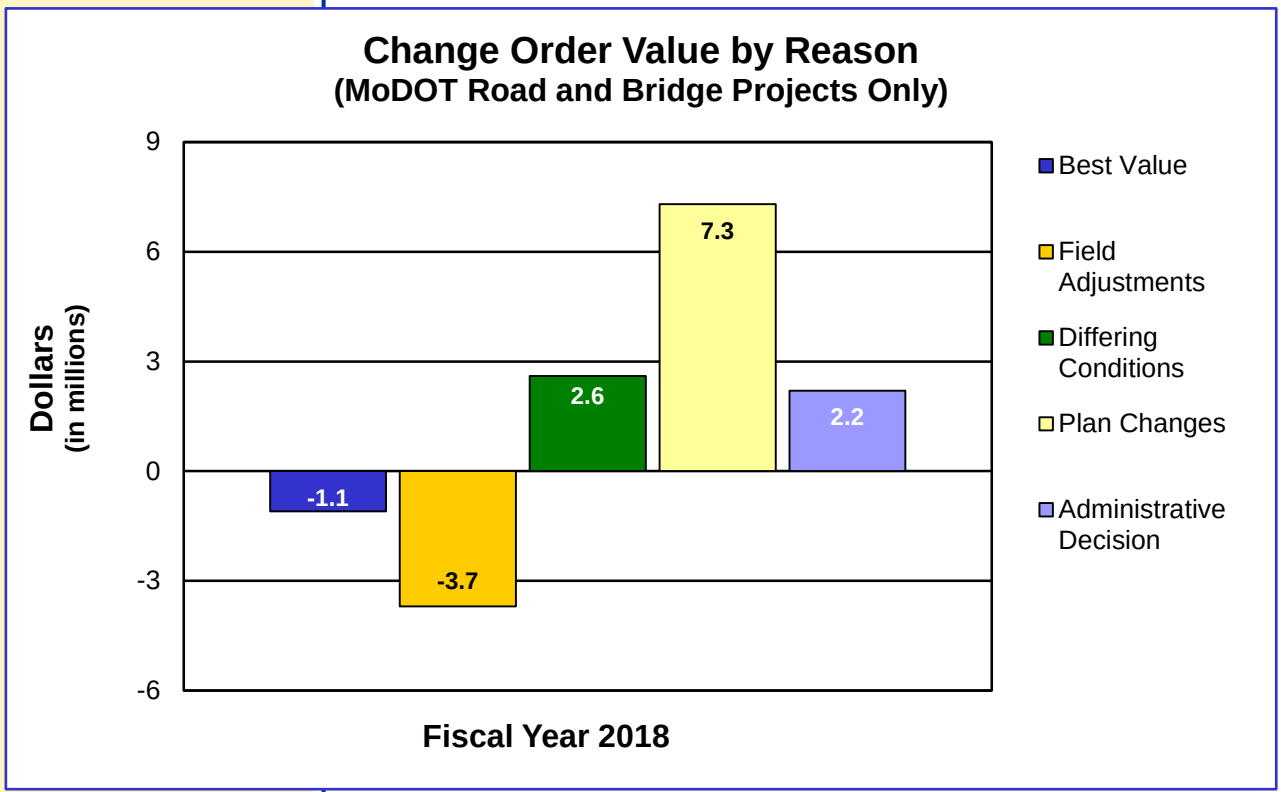
By limiting overruns on contracts, MoDOT can continue to keep its maintenance and construction commitments. This emphasis, combined with the use of practical design and value engineering, has contributed to limiting overruns on contracts. MoDOT's performance in the first three quarters of fiscal year 2018 is 2 percent over the award amount ($11.3 million over the award amount of $578 million worth of projects completed) with 54 percent of the projects being completed below the original award amount.

Many factors can affect the ability to complete a project within 2 percent of the award amount. These factors can include design changes, differing conditions, additional work items and administrative decisions.

For the first three quarters of FY 2018, MoDOT road and bridge projects were completed 1.7 percent over budget; local public agency projects were completed 5.2 percent over budget and multimodal projects were completed 4.6 percent under budget.

DELIVER TRANSPORTATION SOLUTIONS OF GREAT VALUE





RESULT DRIVER:
Eric Schroeter
State Design Engineer

MEASUREMENT DRIVER:
David Simmons
Design Liaison Engineer

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

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

A target of 10 percent of the programmed STIP, or two projects per year, is an appropriate target for utilizing innovative contracting methods in Missouri.

DELIVER TRANSPORTATION SOLUTIONS OF GREAT VALUE

Innovative contracting methods – 4d

MoDOT has delivered over $1.5 billion in Design-Build projects that have saved taxpayers over $275 million. When combined, these projects were completed more than 60 months ahead of schedule. MoDOT partners with the public and private sectors to deliver projects that maximize available resources into collaborative solutions that achieve goals. This effort challenges the way projects are delivered with innovation, speed and efficiency as driving forces. MoDOT pushes the boundaries to execute projects using innovative data-driven processes and a wide range of partnerships.

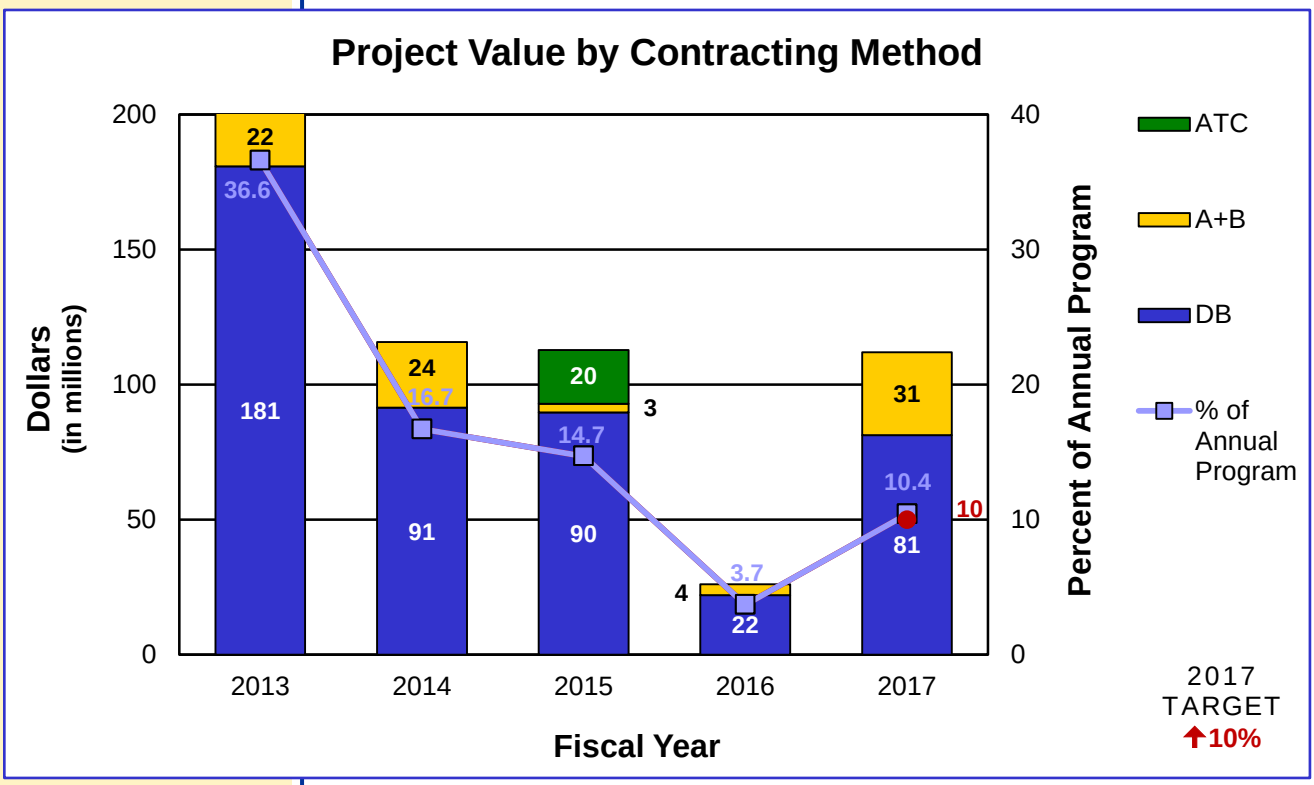
MoDOT evaluates project risks such as size (cost), type (preservation, rehabilitation or reconstruction), and complexity (opportunity for innovation and speed) when determining project delivery methods. The advantages of MoDOT's innovative contracting methods are as follows:

- DB contracts include design and construction under one contract, procured using a two-phased selection process. MoDOT scores proposals using a best-value or "build-to-budget" selection.
- 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 a more cost-effective alternative design prior to the bid. ATC discussions are held in a confidential environment which maximizes competitive bidding. The low bid is awarded the contract.

During this reporting period, DB projects were awarded in the St. Louis and Northeast Districts. The Safety Improvements DB Project was procured using a data-driven process to systematically target roadway improvements that are expected to save lives quickly and efficiently. The U.S. Route 54 Champ Clark Bridge was procured with Missouri as the lead, but in a unique bi-state partnership with Illinois as its first experience with DB.

Based on the 2017 STIP, MoDOT delivered five out of 402 projects statewide using innovative contracting methods. Two were delivered using DB and three were delivered using the A+B process. The two DB projects accounted for $81.28 million of the $776 million programmed budget (10.4 percent). This target was met for FY 2017 and has been exceeded four of the last five fiscal years.

DELIVER TRANSPORTATION SOLUTIONS OF GREAT VALUE



DELIVER TRANSPORTATION SOLUTIONS OF GREAT VALUE

Value engineering – 4e

RESULT DRIVER:
Eric Schroeter
State Design Engineer

MEASUREMENT DRIVER:
Sarah Kleinschmit
Policy and Innovations Engineer

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

MEASUREMENT AND DATA COLLECTION:
Information on value analysis during design is gathered from MoDOT's Statewide Transportation Improvement Program information management system. The target for this measure is updated annually in October for the next fiscal year. This target is established by projecting a 10 percent improvement over a five-year average.

Construction value engineering change proposal information is gathered from MoDOT's Value Engineering Proposal database. Implementation of best practice progress is tracked by MoDOT staff.

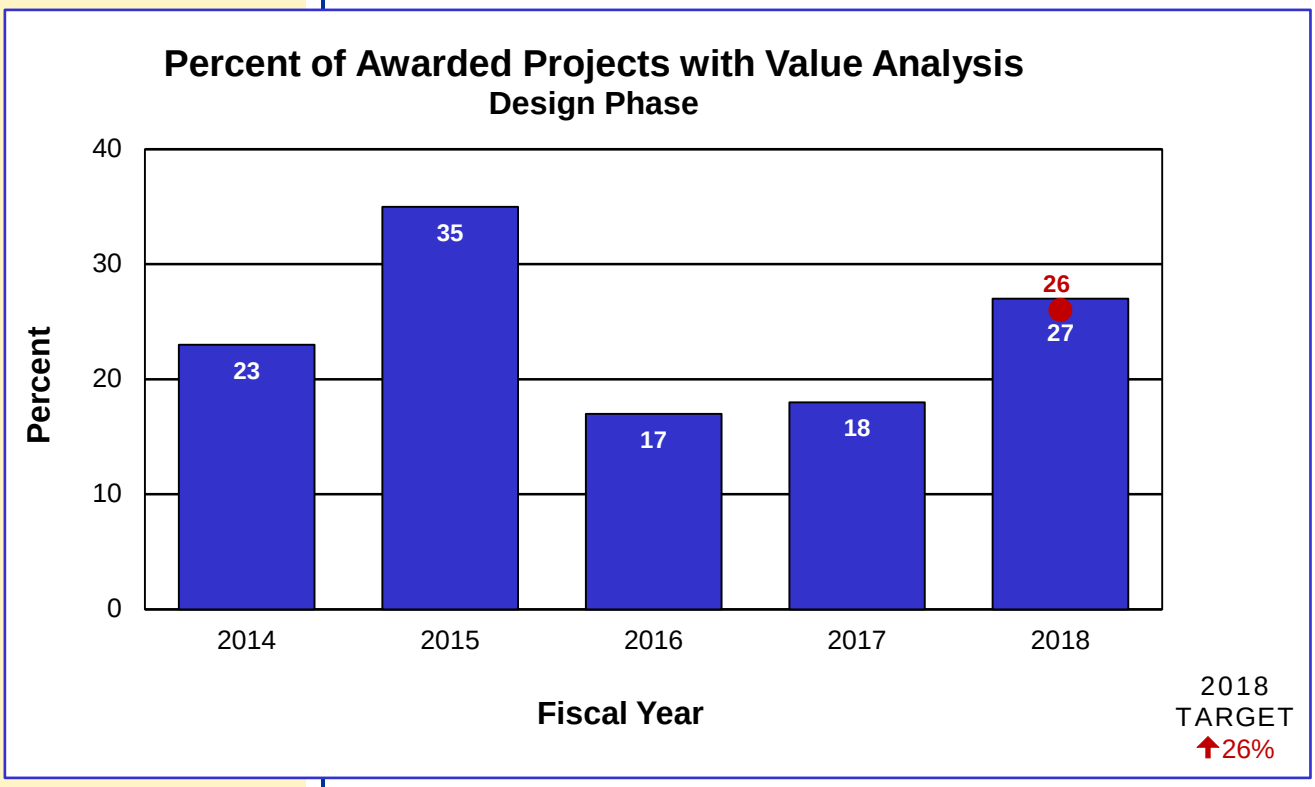
The goal of value engineering is to build the right project at the right time, meeting the project need with the appropriate project scope. MoDOT uses the VE program to ensure the public receives great value for every tax dollar invested in Missouri's transportation system. MoDOT has been increasingly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

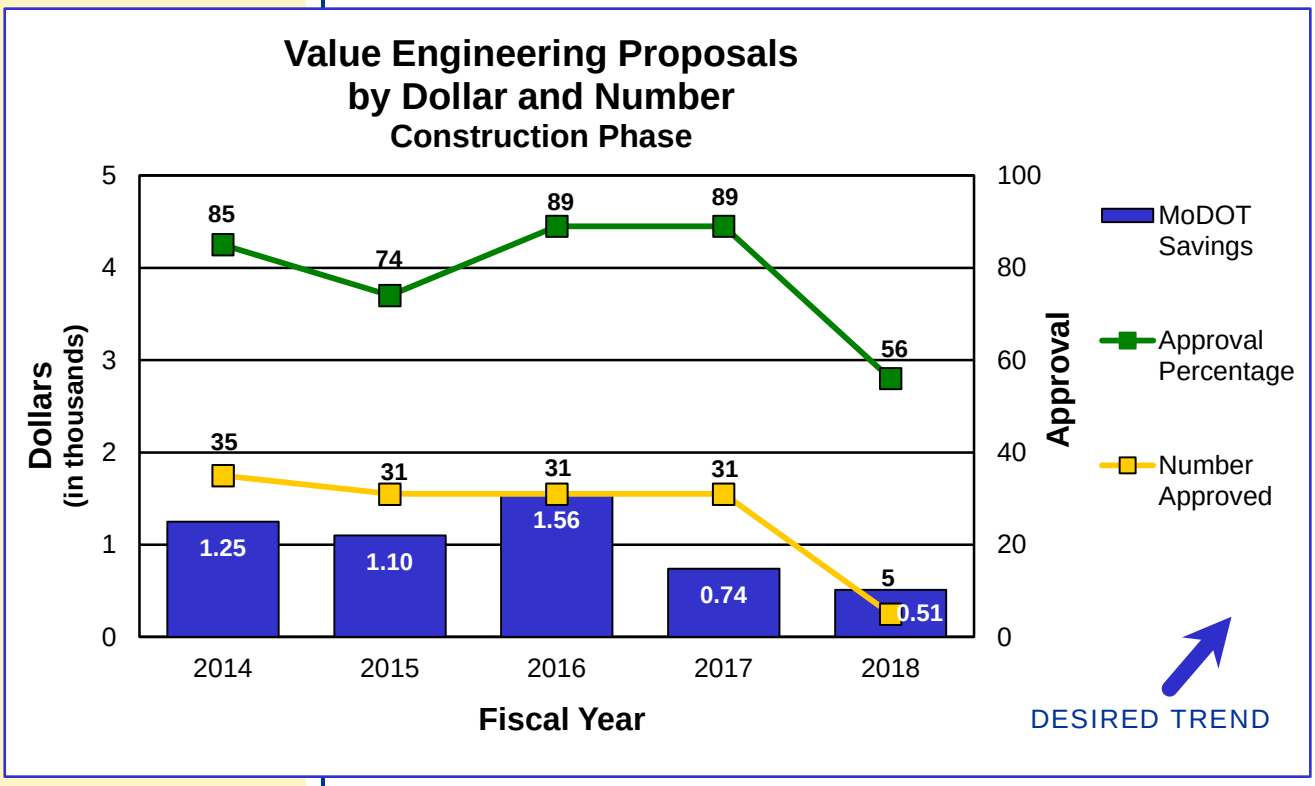
MoDOT uses design-phase value analysis to remove unnecessary scope, reduce project costs and improve project flexibility. For the first half of fiscal year 2018, 27 percent of applicable projects underwent some form of value analysis during design, which is on target for design-phase value analyses. Programmatic value analysis studies associated with the level-course and seal coat programs continue to account for the largest portion of this percentage. Districts continue to use the Practical Review Tool to add value and cost savings to projects.

MoDOT partners with industry to find more cost-effective solutions during the construction phase. Value Engineering Change Proposals engage contractor ideas to deliver improved projects. For the first half of FY 2018, five VECPs were approved resulting in a MoDOT savings of $505,826. This represents a 56 percent approval rate. One Post-Award Value Engineering change proposal has resulted in a MoDOT cost savings of $20,130.

Nationally, VE studies save millions of dollars every year. In FY 2016, MoDOT saved over $11.2 million and ranked 12th out of 52 state departments of transportations. The Texas and Florida DOTs ranked highest with $263 million and $175 million, respectively.

DELIVER TRANSPORTATION SOLUTIONS OF GREAT VALUE





DELIVER TRANSPORTATION SOLUTIONS OF GREAT VALUE

Percent of customers who believe completed projects are the right transportation solutions – 4f

RESULT DRIVER:
Eric Schroeter
State Design Engineer

MEASUREMENT DRIVER:
Missy Wilbers
Design Liaison Engineer

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

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

In 2017, MoDOT changed the methodology for collecting data for this measure. Data collection will utilize social media platforms to gain more immediate feedback from customers impacted by projects.

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.

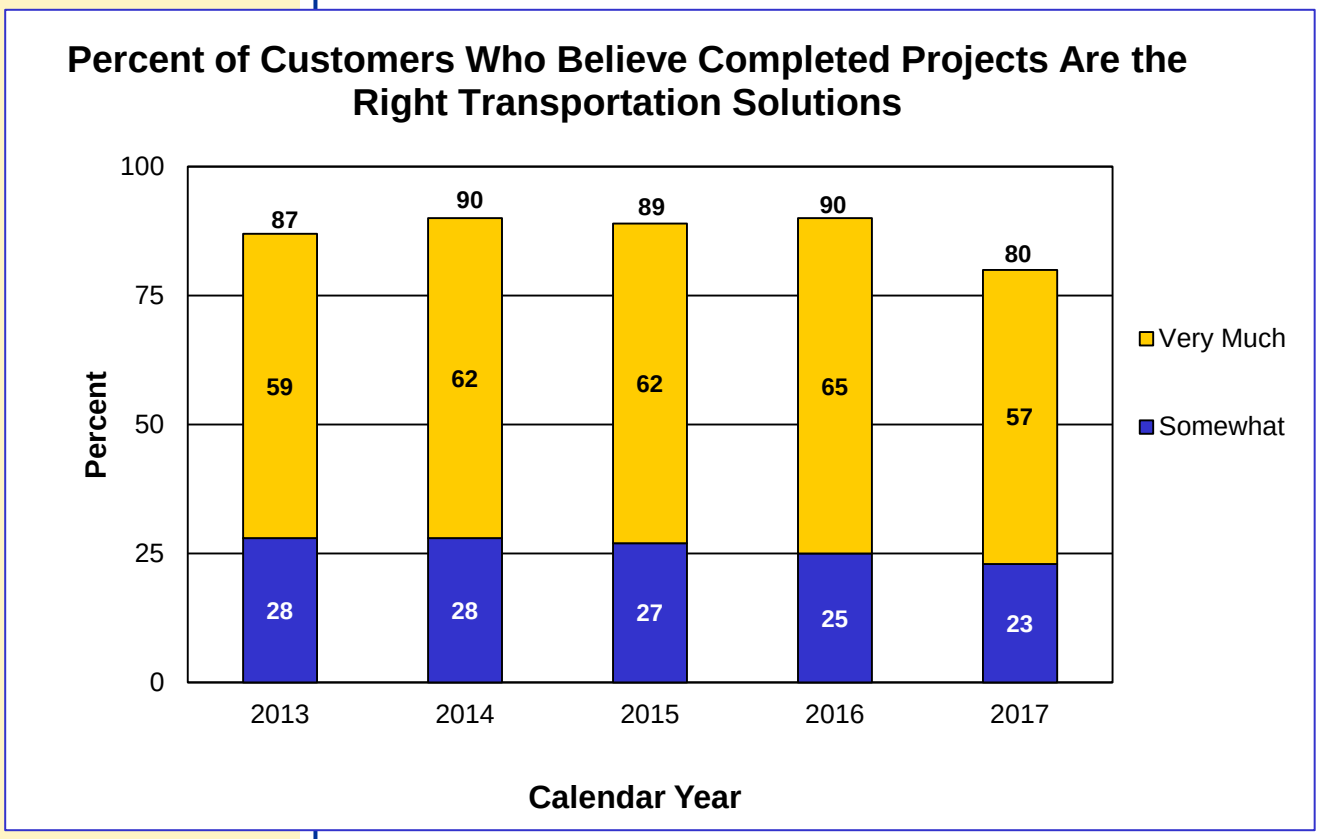
In 2016, a pilot project was conducted to determine the value of implementing an alternative survey mechanism. Two projects – one large and one small – were surveyed online. These online surveys yielded similar results, but cost 75 percent less than previously used mailed surveys.

In 2017, nearly 4,900 surveys were submitted online showing Missourians are satisfied with the majority of local projects and believe MoDOT provides the right transportation solution. The respondents thought the projects made the roadway: safer (75 percent), more convenient (72 percent), less congested (66 percent), easier to travel (69 percent), better marked (77 percent) and considered the projects the right transportation solution (80 percent).

Survey responses resulted in the following percentages of customers who believe completed projects are the right transportation solutions in each district: Northwest (84), Northeast (94), Kansas City (71), Central (92), St. Louis (54), Southwest (87) and Southeast (78).

As part of the survey, each respondent has the opportunity to provide comments about why the project was – or was not – the right transportation solution. More than 2,350 comments were received for the 21 online surveys. These comments were shared with local staff for evaluation to guide future projects.

DELIVER TRANSPORTATION SOLUTIONS OF GREAT VALUE



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OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

Becky Allmeroth, State Maintenance 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.

OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

Travel times and reliability on major routes – 5a

RESULT DRIVER:
Becky Allmeroth
State Maintenance Engineer

MEASUREMENT DRIVER:
Alex Wassman
Traffic Management and Operations Engineer

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

MEASUREMENT AND DATA COLLECTION:
Travel time data is collected continuously via wireless technology. To assess mobility, MoDOT compares travel times during rush hour to free-flow conditions where vehicles can travel at the posted speed limit. This measure also assesses reliability, an indicator of how variable those travel times are on a daily basis.

The charts in this measure show the average travel time and the 95th percentile travel time, which is the time motorists should plan in order to reach their destinations on time 95 percent of the time.

The maps display the mobility of specific sections of roadways during rush hour.

The target for this measure is updated quarterly. This target is established by projecting a 10 percent improvement over the same quarter of the previous year. The minimum value for the target time is 10 minutes. This corresponds to the time it takes to travel 10 miles at the posted speed limit of 60 miles per hour.

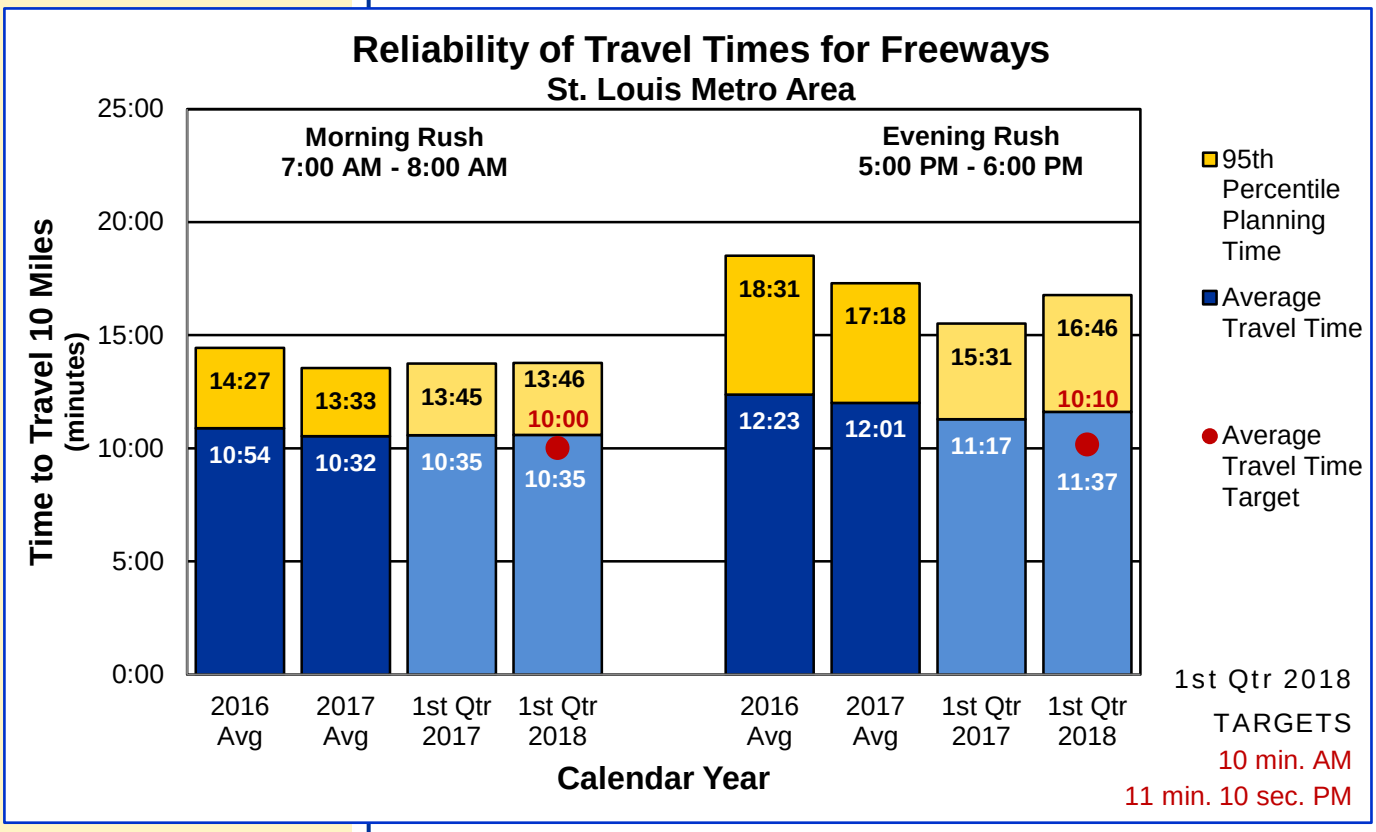
From January to March 2018, average travel times in St. Louis and Kansas City were generally longer compared to the same period last year. In the first quarter of 2018, the average 10-mile travel time in St. Louis was 10 min., 35 sec. during the morning and 11 min., 37 sec. during the evening. For Kansas City, the average travel time was 10 min., 46 sec. during the morning and 11 min., 14 sec. during the evening. The average travel time for the St. Louis morning rush period was the same as last year. All other rush periods experienced longer average travel times than the previous year. All average travel times were within 10 seconds above or below the 2017 average with the exception of the St. Louis evening rush, which was 24 seconds lower than the 2017 average. Overall, average speeds ranged between 50 mph and 57 mph.

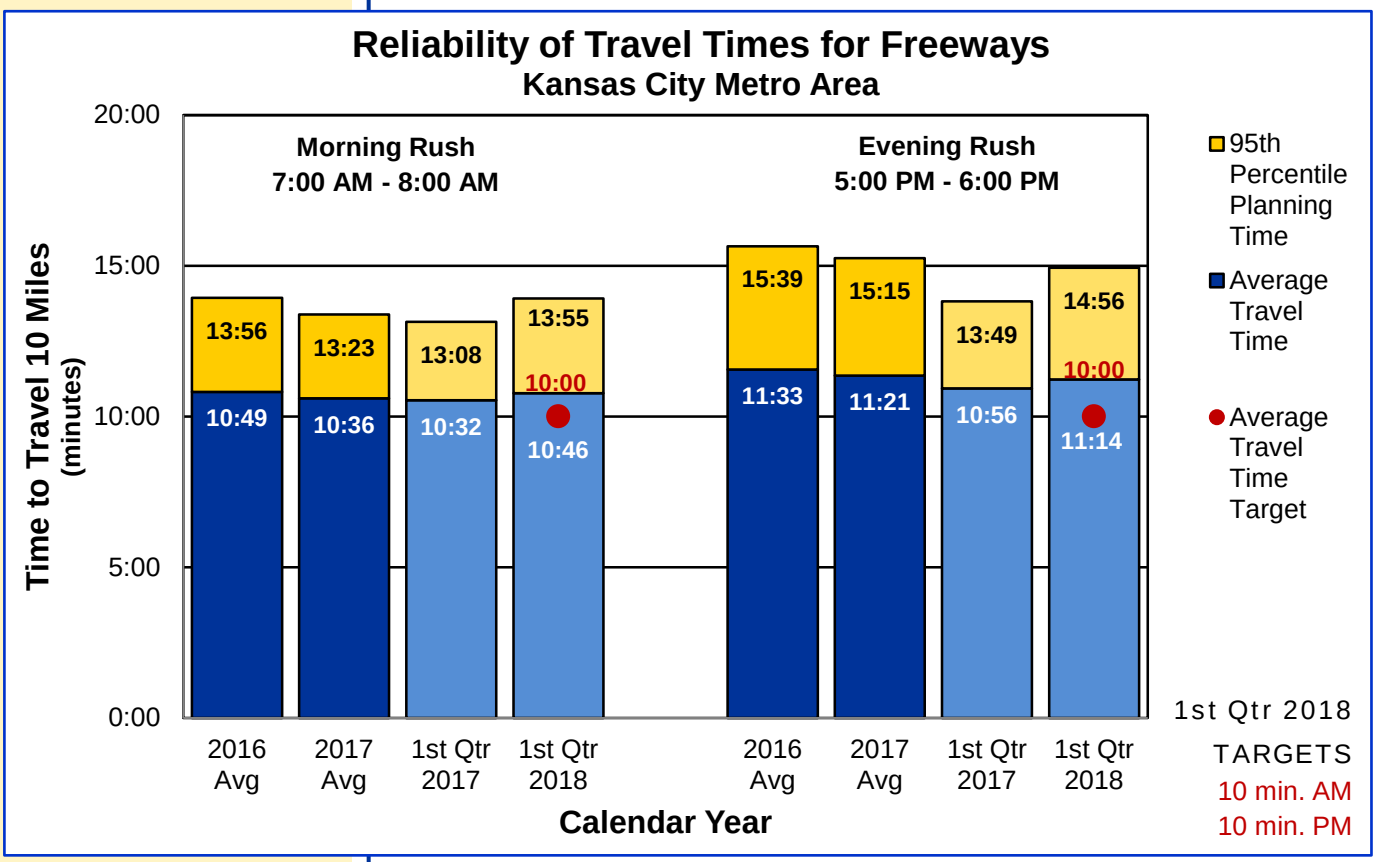
The planning times account for unexpected delays and indicate how long customers needed to plan in order to arrive on time 95 percent of the time. In St. Louis, the average 10-mile planning times were 13 min., 46 sec. during the morning and 16 min., 46 sec. during the evening. This means customers in the St. Louis evening rush needed to plan 6 min, and 46 sec. more for a 10-mile trip than they would need in free-flow conditions. In Kansas City, the average planning times were 13 min., 55 sec. during the morning and 14 min., 56 sec. during the evening. Customers in the Kansas City evening rush needed to plan 4 min. and 56 sec. more for a 10-mile trip than they would need in free-flow conditions. The planning times in St. Louis and Kansas City represent average rush-hour speeds between 36 and 44 mph. The planning times for morning rushes in both regions were in line with previous years, while the planning times for evening rushes were more than one minute higher. Morning planning times for the quarter were higher than the 2017 average while evening times were lower.

The average travel times in both regions are higher than the target for the first quarter of 2018. The morning travel times are 35 seconds to 46 seconds greater than the target, while the evening travel times are 1 min. 14 sec. and 1 min. 27 sec. greater than the target.

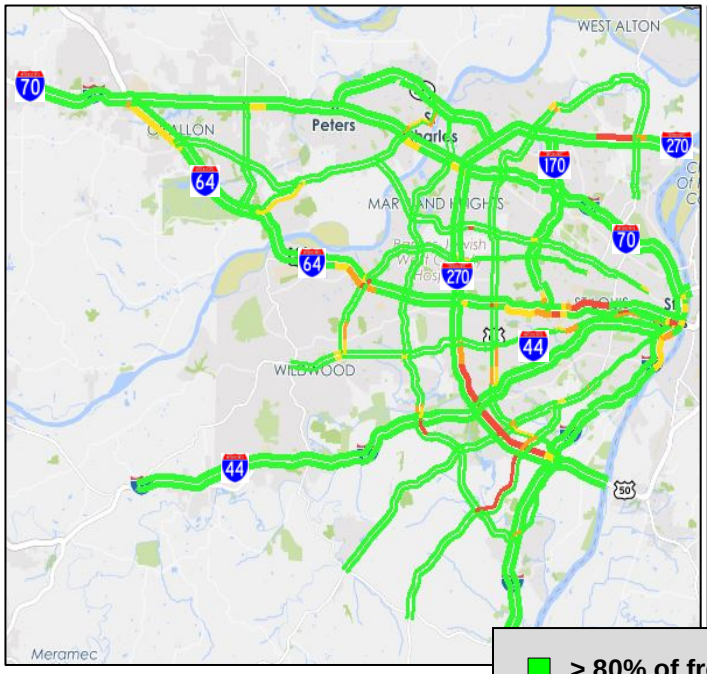
Individual freeway segments within the regions experienced longer travel times than the regional averages as depicted in the maps. The maps also depict rush-hour conditions on selected arterial routes compared to normal traffic flow during non-peak traffic conditions.

OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

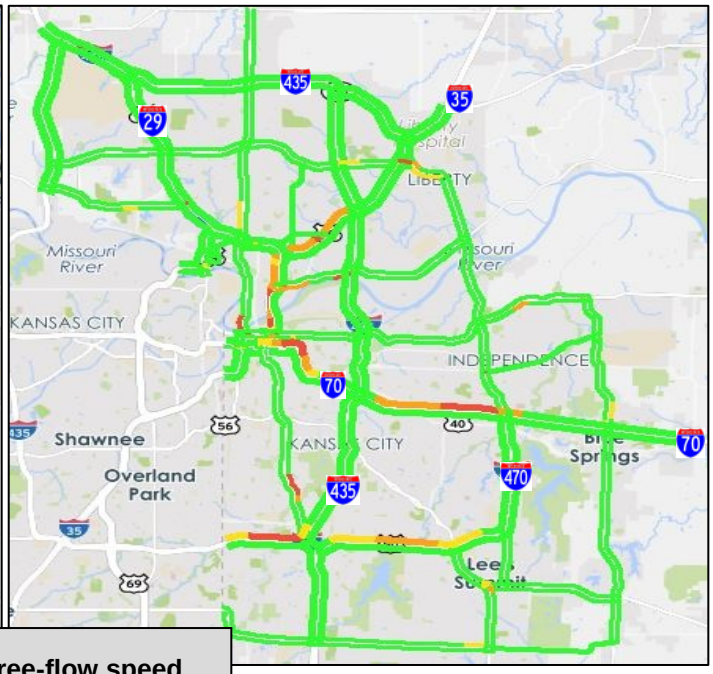




A.M. Mobility

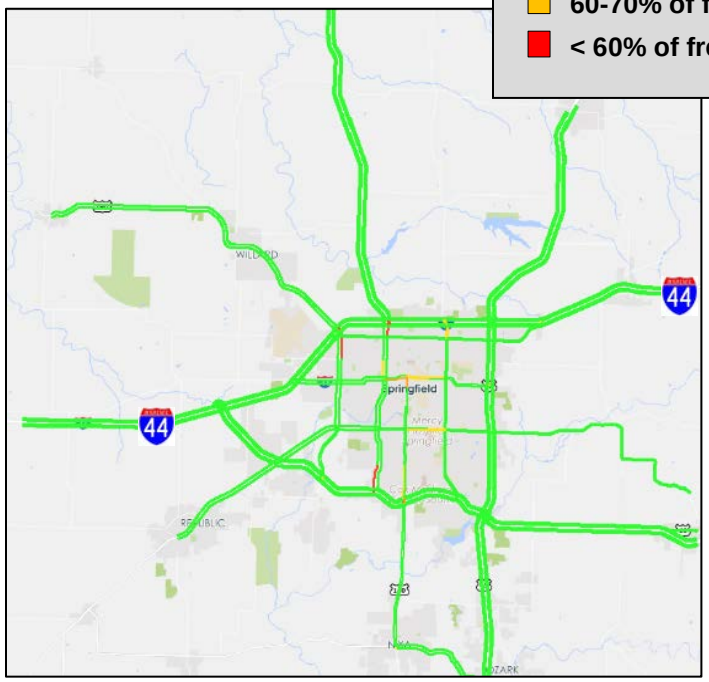


St. Louis Area

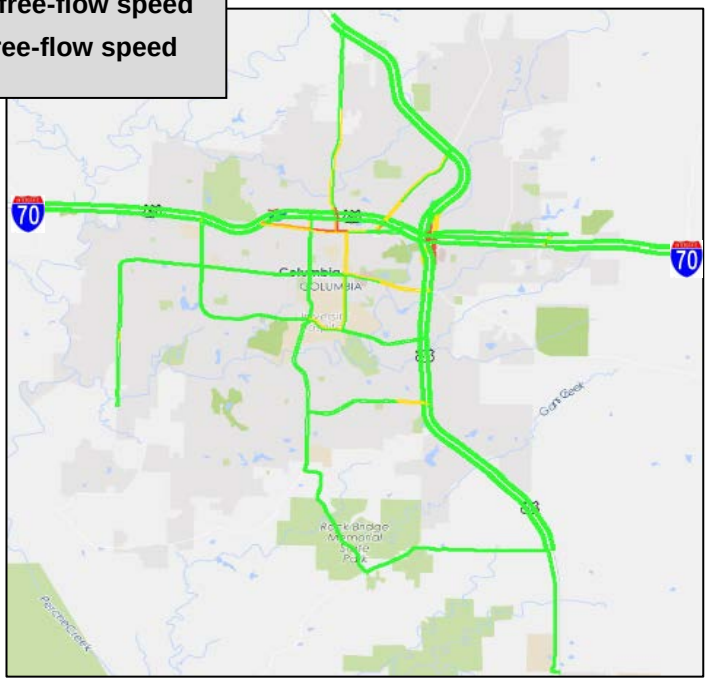


Kansas City Area

- > 80% of free-flow speed
- 70-80% of free-flow speed
- 60-70% of free-flow speed
- < 60% of free-flow speed



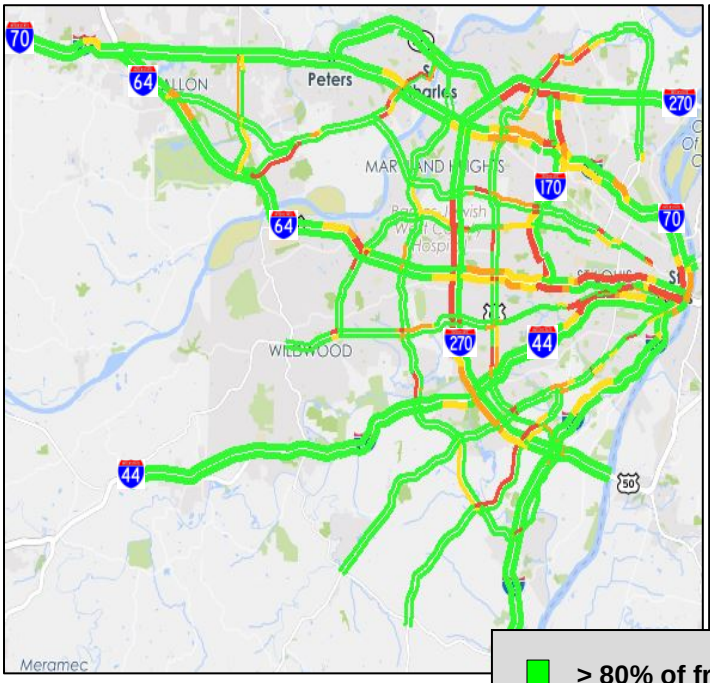
Springfield Area



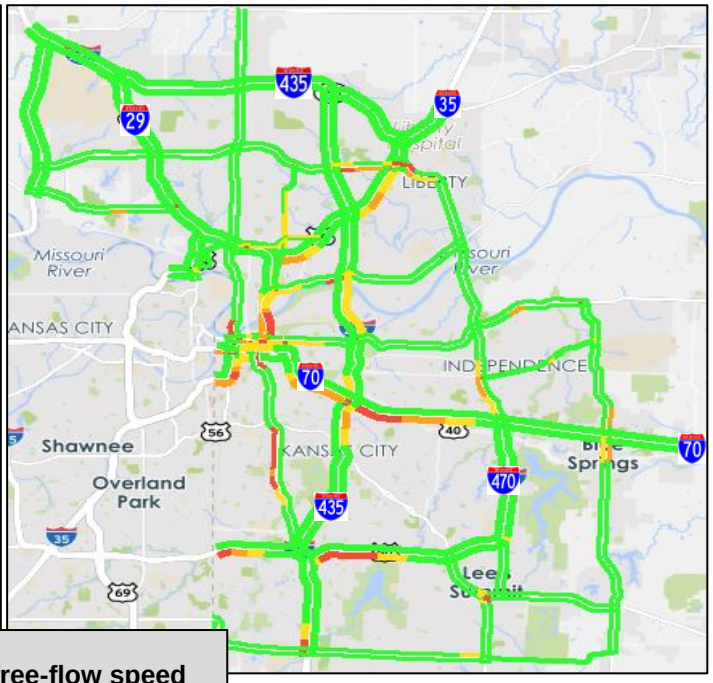
Columbia Area

OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

P.M. Mobility

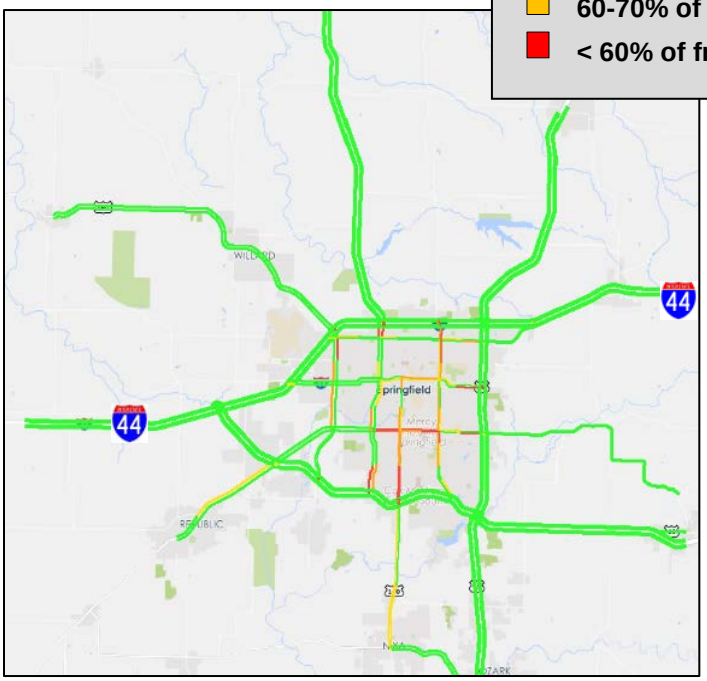


St. Louis Area

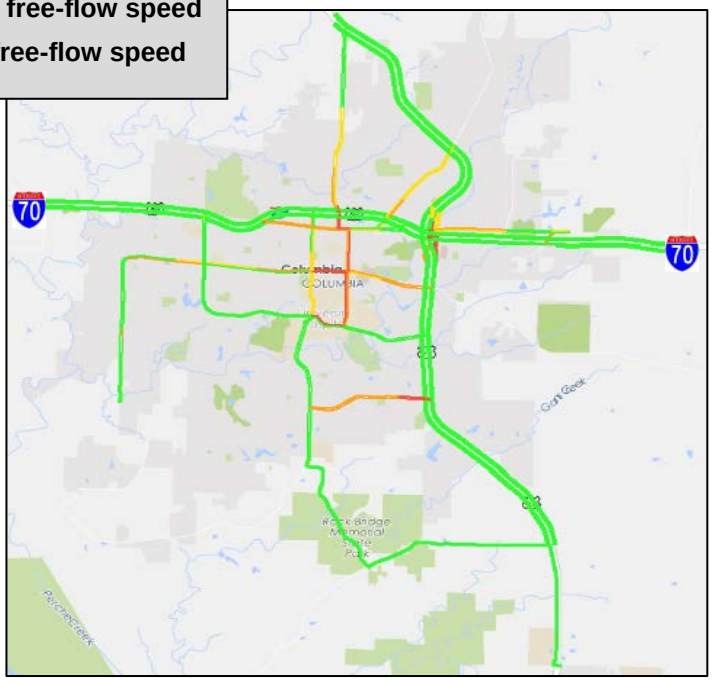


Kansas City Area

- > 80% of free-flow speed
- 70-80% of free-flow speed
- 60-70% of free-flow speed
- < 60% of free-flow speed



Springfield Area



Columbia Area

OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

Cost and impact of traffic congestion – 5b

RESULT DRIVER:
Becky Allmeroth
State Maintenance Engineer

MEASUREMENT DRIVER:
Jeanne Olubogun
District Traffic Engineer

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

MEASUREMENT AND DATA COLLECTION:
A reporting tool available in the Regional Integrated Transportation Information System looks at user delay costs. This data, in combination with industry standard costs for passenger cars and trucks, reflects the overall costs of congestion. RITIS also includes historic data so trend lines can be tracked and evaluated. The unit cost per passenger car is $17.67 per hour and is obtained from the Texas A&M Transportation Institute. The unit cost per truck is $68.09 obtained from the American Transportation Research Institute, which specializes in tracking freight mobility and provides the best source of data related to freight costs. For previous reporting, the department used data provided by the TTI, which annually produces the Urban Mobility Report. The target for this measure is updated annually in April and is established by projecting a 10 percent improvement over a four-year average.

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

While the desired trend for both costs is downward, challenges exist in Missouri's metropolitan regions to continue toward this desired outcome. A comprehensive look at congestion is needed, looking beyond typical solutions of adding capacity. 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.

The 2017 target was $496 million. The actual calculation from the RITIS data is $568 million. This report looks at the 2014 to 2017 cost of congestion in the urban areas of Kansas City and St. Louis, as well as rural I-44 and I-70 across the state.

Congestion costs in Kansas City and St. Louis have steadily increased during this period, and the volume trends have slightly decreased. Interestingly, the costs on rural I-44 and I-70 have decreased, as well as volume trends being down slightly.

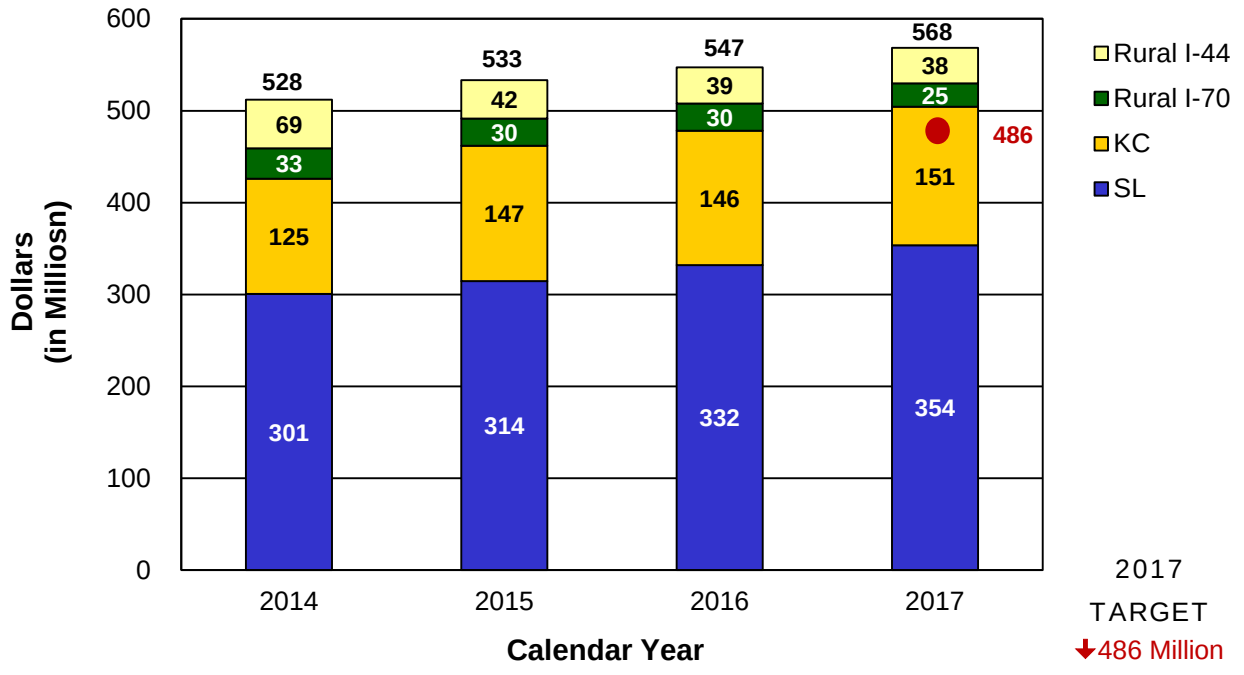
Volume growth is often seen when gas prices remain low. The average cost of gasoline in April 2014 was $3.52/gallon, while in April 2018 it was about $2.45/gallon. Since mid-2016, while gas prices have fluctuated a bit, the price has been fairly steady.

Traffic congestion is widely viewed as a growing problem in many urban areas because the overall volume of vehicular traffic in many areas (based on VMT) continues to grow faster than the overall capacity of the transportation system. Capacity is not merely defined by roadway expansion, but also by things such as carpool efforts, transit usage increases, flexible work hours, incident clearance practices, work zone management and many other factors. Like many other state DOTs, MoDOT puts forth great effort in incident clearance practices, work zone management and other factors that impact mobility.

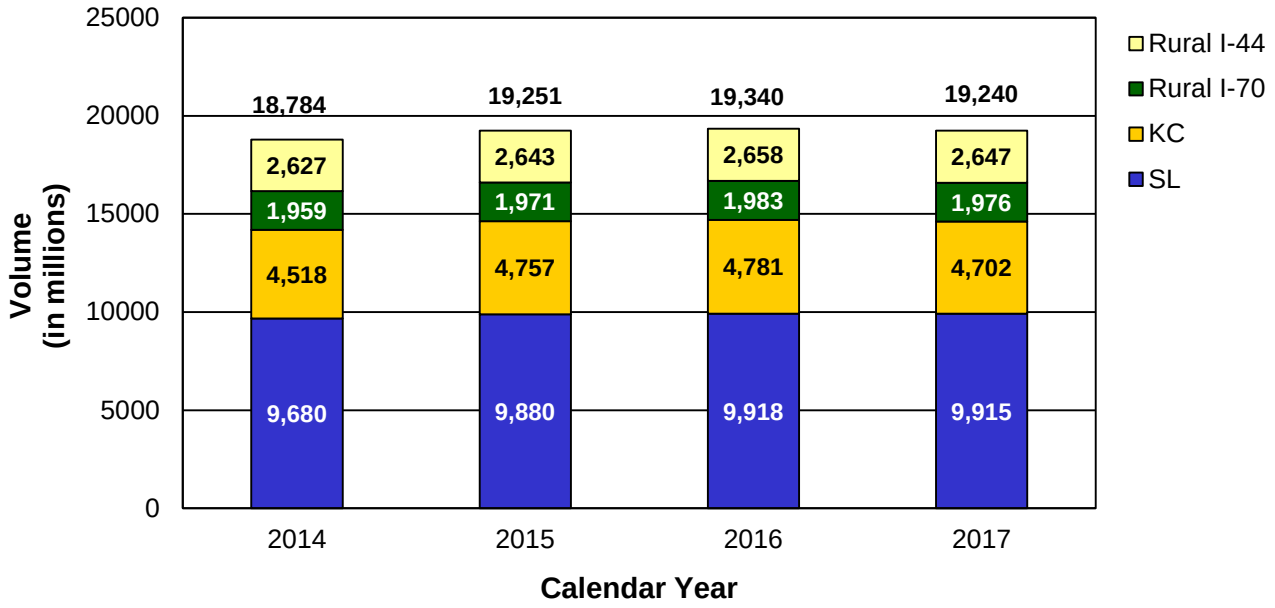
As a state and individual regions, a comprehensive look at all available means to reduce the cost of congestion is necessary.

OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

Cost of Congestion on Selected State Roads



Traffic Volume on Selected State Routes



OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

Average time to clear traffic incident – 5c

RESULT DRIVER:
Becky Allmeroth
State Maintenance Engineer

MEASUREMENT DRIVER:
Randy Johnson
Traffic Center Manager

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

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

This target is established by projecting a 10 percent improvement over a five-year average.

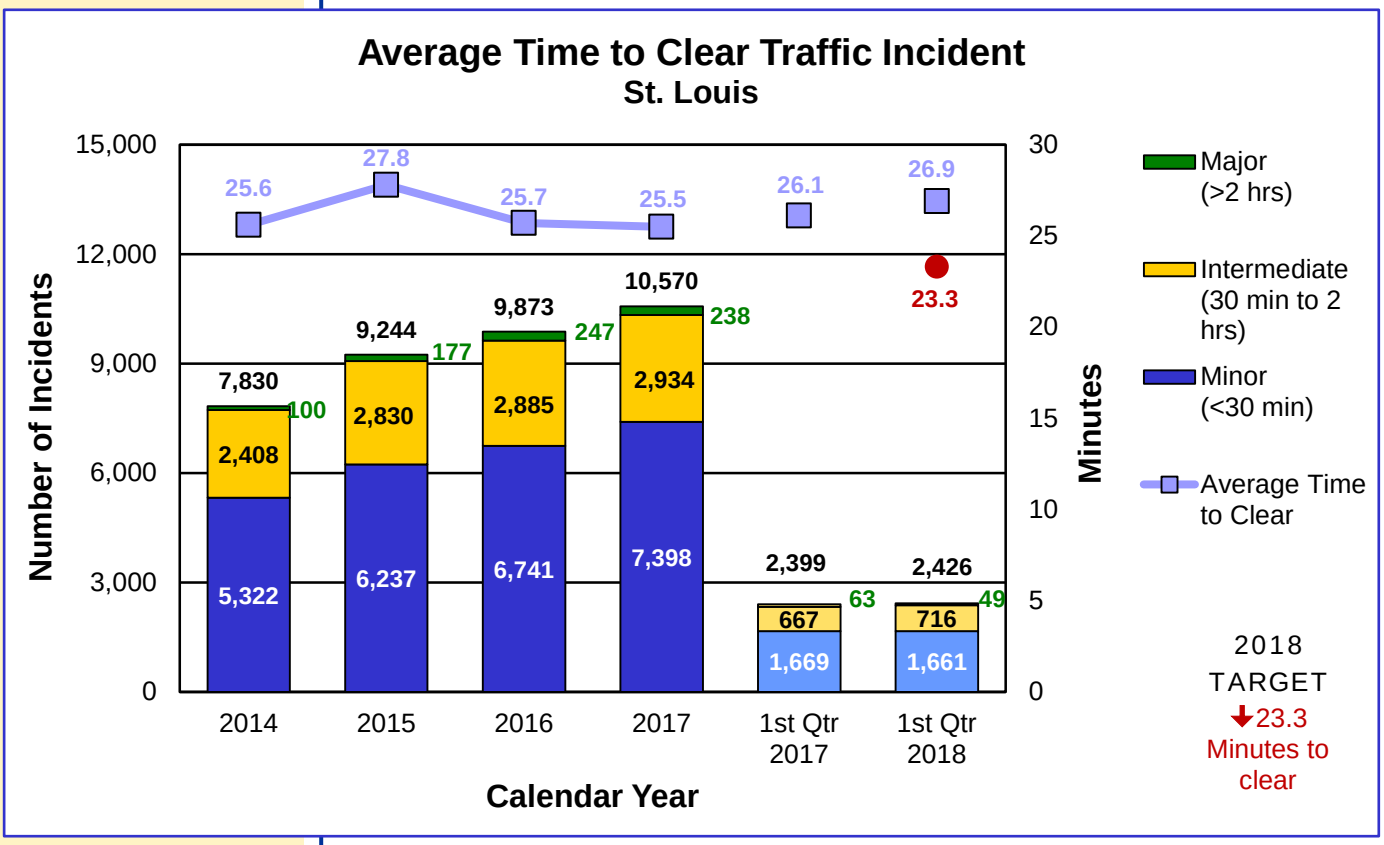
A traffic incident is an unplanned event that blocks travel lanes and temporarily reduces the number of vehicles that can travel on the road. The speed of incident clearance is essential to the highway system returning back to normal conditions. Responding to and quickly addressing the incident (crashes,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

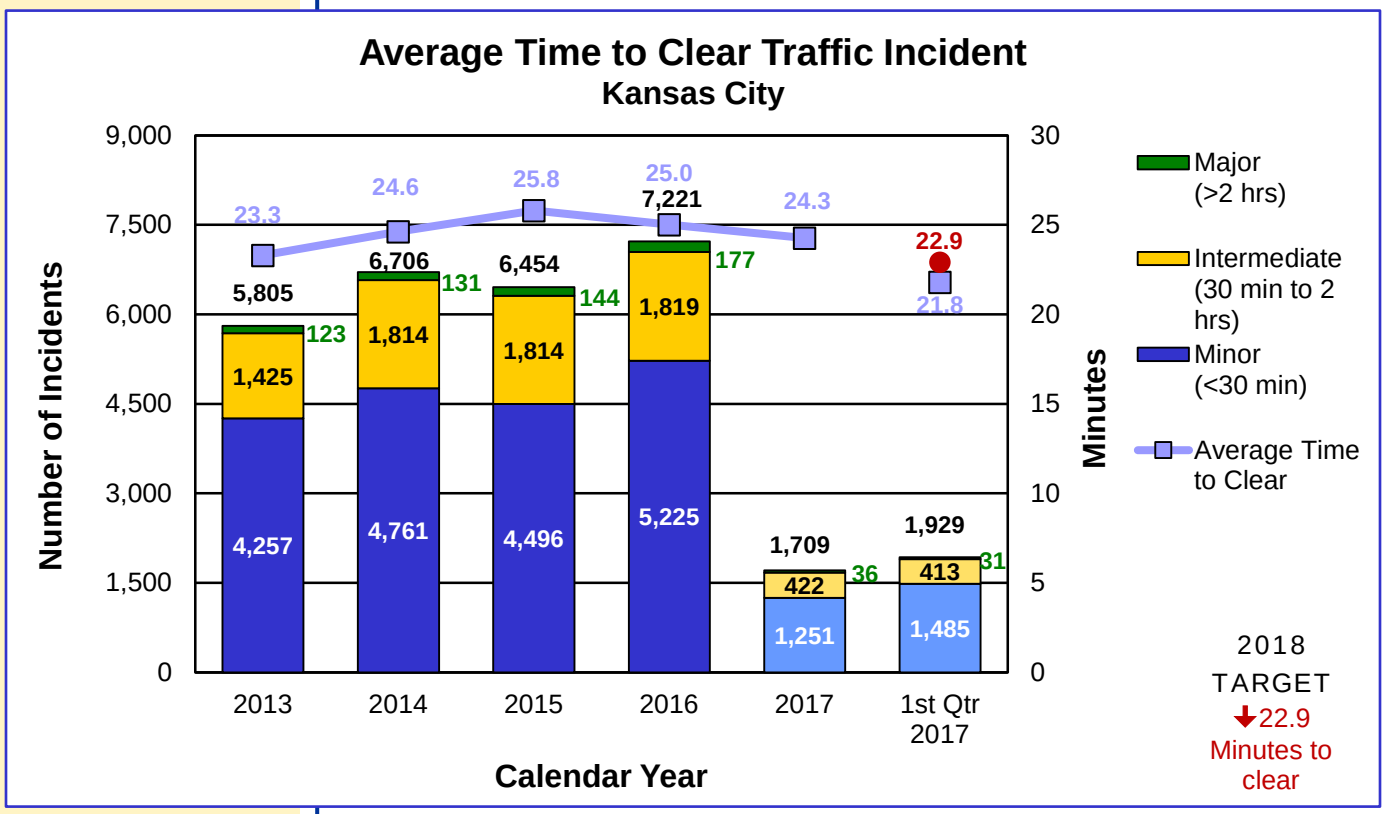
St. Louis recorded 2,426 incidents in the first quarter of 2018. The average time to clear traffic incidents was 26.9 minutes, an increase of 3.1 percent from the first quarter of 2017.

Kansas City recorded 1,929 incidents in the first quarter of 2018. The average time to clear traffic incidents was 21.8 minutes, a decrease of 10.2 percent from the first quarter of 2017.

The first quarter for Kansas City and St. Louis revealed an array of incidents that included overturned tractor trailers, school bus, multi-vehicles and MoDOT fleet. Kansas City and St. Louis had an increase in the number of incidents when compared to first quarter of 2017, but continue to use communication, coordination and data to reduce the average time to clear. Continuous traffic incident management training has helped with quick clearance of incidents. Communication between the Traffic Management Center and Emergency Response team is vital for quick and safe responses. St. Louis had a slight increase of 3.1 percent due to several major crashes involving tractor trailers. Kansas City had a reduction of 10.2 percent with significant credit going to increased push/pulls and quicker debris removal.

OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM





OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

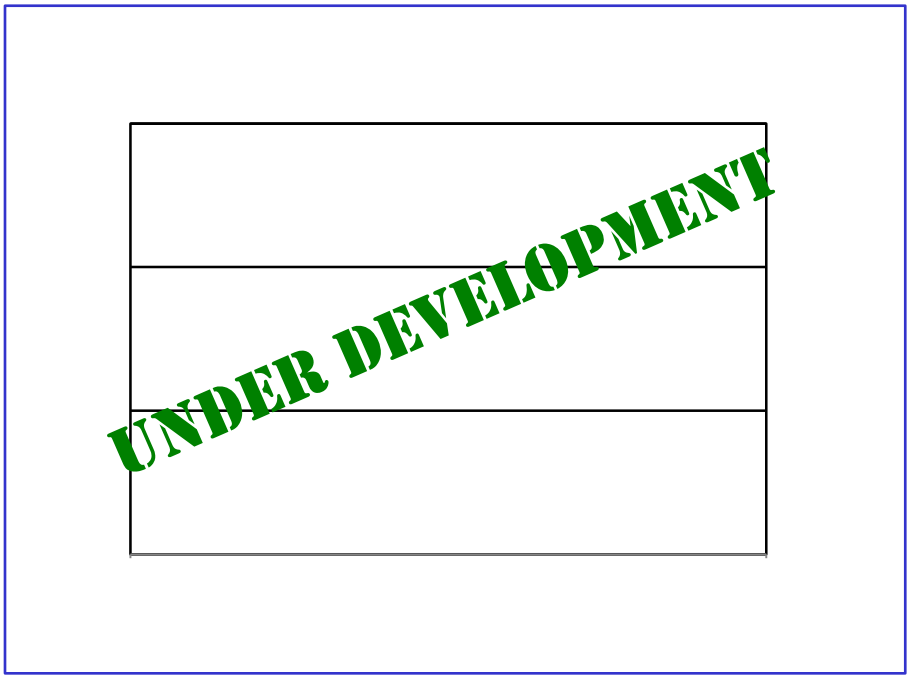
Traffic incident impacts on major interstate routes – 5d

RESULT DRIVER:
Becky Allmeroth
State Maintenance Engineer

MEASUREMENT DRIVER:
Laurel McKean
Assistant District Engineer

PURPOSE OF THE MEASURE:
This measure tracks the traffic incident impacts on Interstate 70 and Interstate 44 due to highway incidents.

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



OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

Work zone delays to the traveling public – 5e

RESULT DRIVER:
Becky Allmeroth
State Maintenance Engineer

MEASUREMENT DRIVER:
Jon Nelson
Traffic 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 identified using automated data collection or by visual observations. An impact is defined as the additional time a work zone adds to normal travel. Impacts resulting in a delay of at least 10 minutes are included in this report.

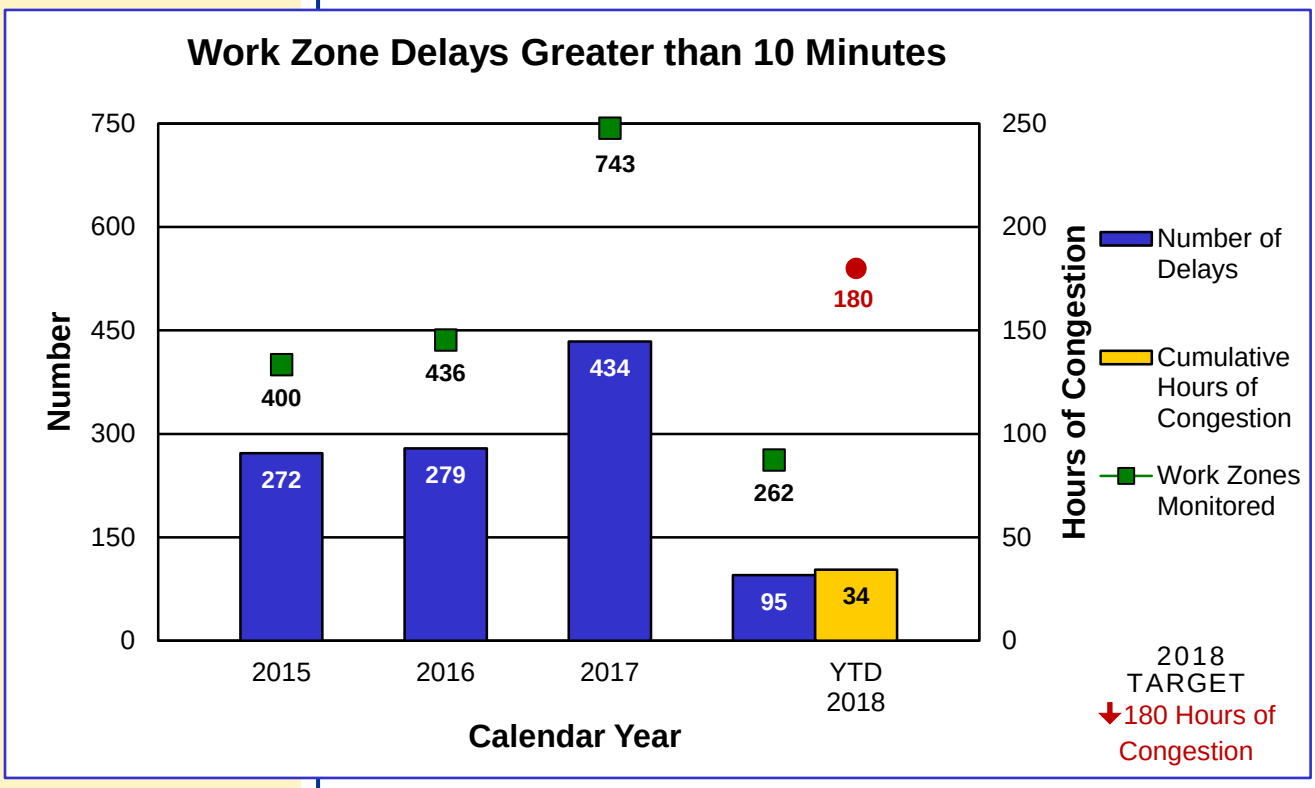
The targeted hours of work zone congestion are based on previous years' data and an acceptable tolerance of 30 total minutes for work zone congestion statewide. The target for this measure is updated quarterly.

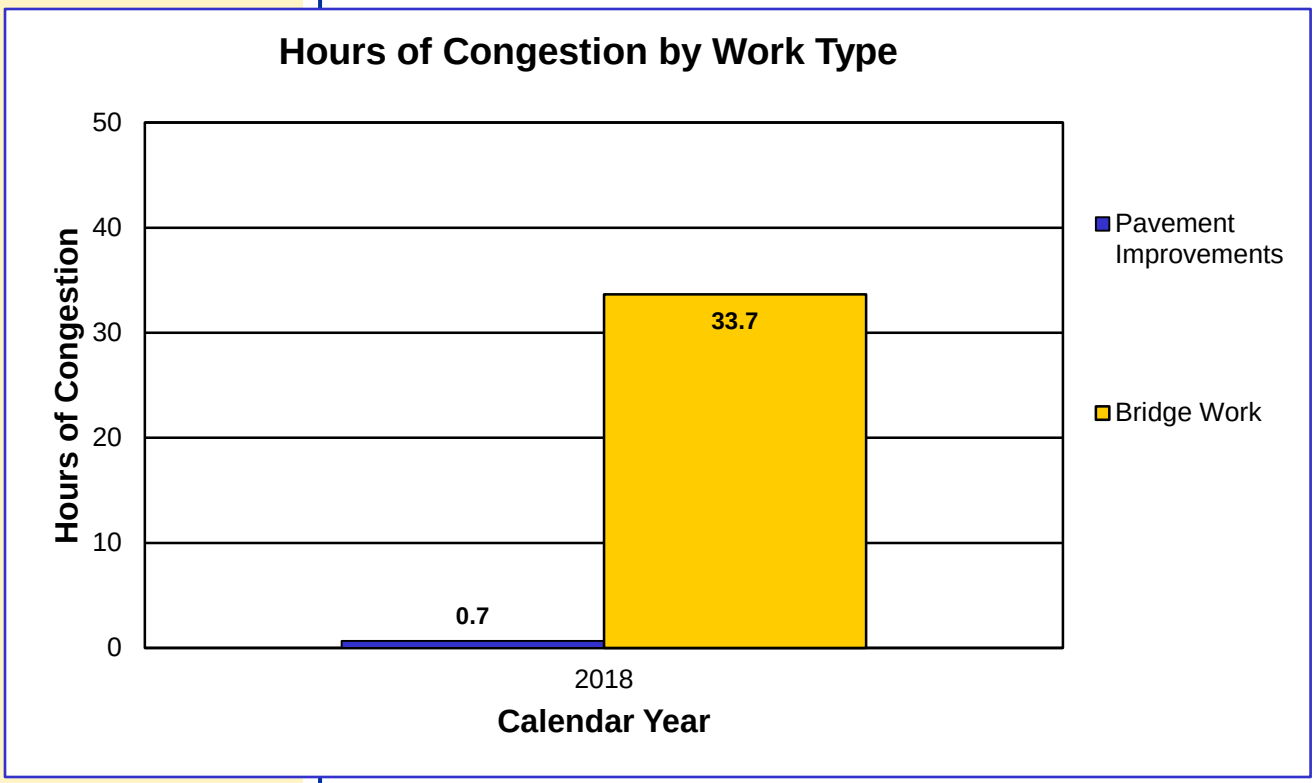
Motorists want to get through work zones with as little inconvenience as possible. MoDOT tries to minimize travel impacts by shifting work to nighttime hours or during times when there are fewer impacts to the traveling public. Other strategies include using technology in work zones, providing valuable information to customers and innovative uses of traffic control devices to promote efficient traffic flow. To measure the effectiveness of these strategies, each quarter MoDOT monitors the performance of work zones with the greatest potential to impact traffic. The goal is to minimize the number of times a work zone creates a traffic delay of 10 minutes or more.

From January to March, MoDOT monitored 262 work zones. There were 95 instances in which traffic was delayed for at least 10 minutes. These 95 instances occurred in six work zones and accounted for 2,060 total minutes (34.3 hours) of congestion. Most of the congestion was experienced in three work zones: Poplar Street Bridge (I-64) in St. Louis, bridge work on I-44 at Grand in St. Louis and the new interchange on I-70 at Warrenton. The Poplar Street Bridge work zone was congested for a total of 21.5 hours during the quarter (1 percent of the time). The I-44 work zone at Grand was congested for a total of 8.3 hours during the quarter (0.4 percent of the time). The work zone on I-70 at Warrenton was congested for a total of 3.2 hours during the quarter (0.1 percent of the time).

An initial target for the cumulative work zone congestion statewide has been set at 180 hours for the year (45 hours per quarter). This target translates to approximately 30 minutes of work zone congestion per day statewide. Since this is a new measure, MoDOT will evaluate the identified target after the first year and adjust accordingly.

OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM





OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

Time to meet winter storm event performance objectives – 5f

RESULT DRIVER:
Becky Allmeroth
State Maintenance Engineer

MEASUREMENT DRIVER:
Arisa Prapaisilp
Assistant District Maintenance Engineer

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

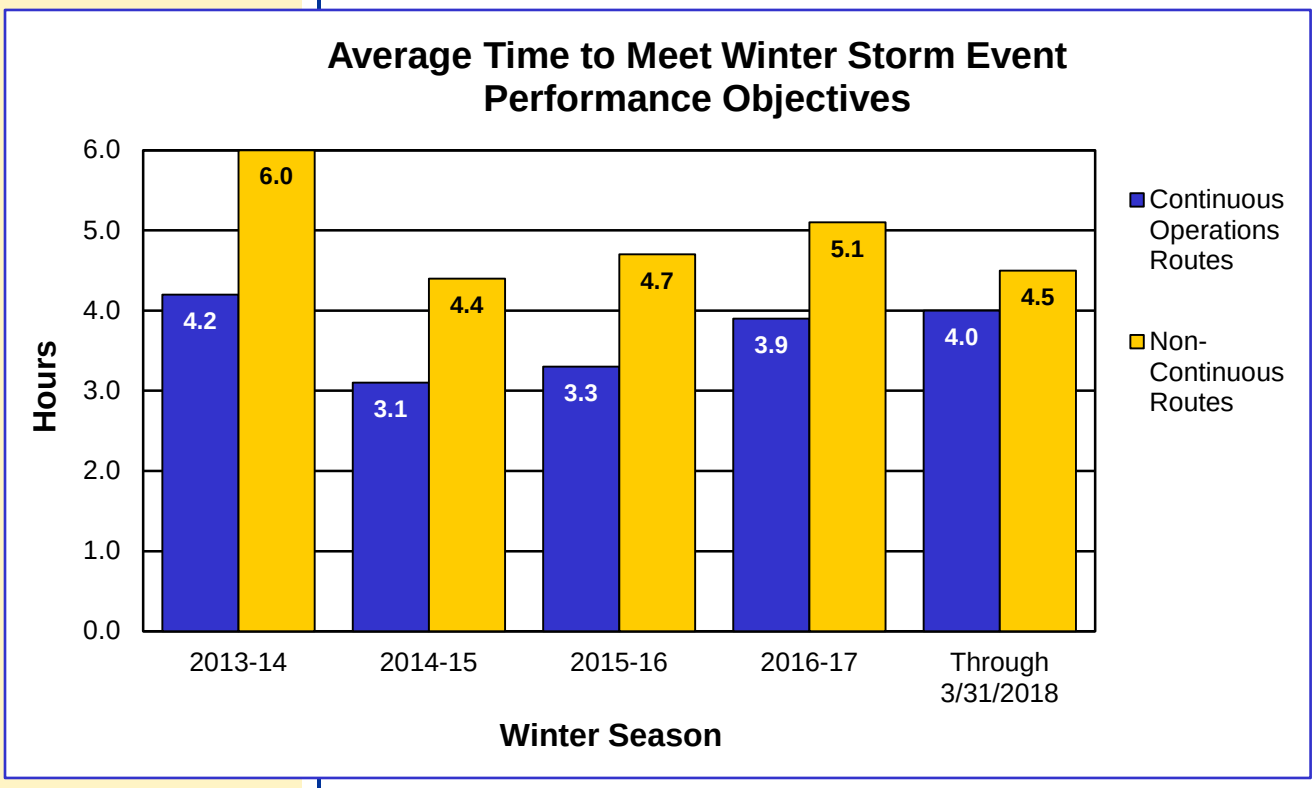
MEASUREMENT AND DATA COLLECTION:
For major highways and regionally significant routes, the objective is to restore them to a mostly clear condition as soon as possible after the storm has ended. MoDOT calls these "continuous operations" routes. State routes with lower traffic volumes should be opened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

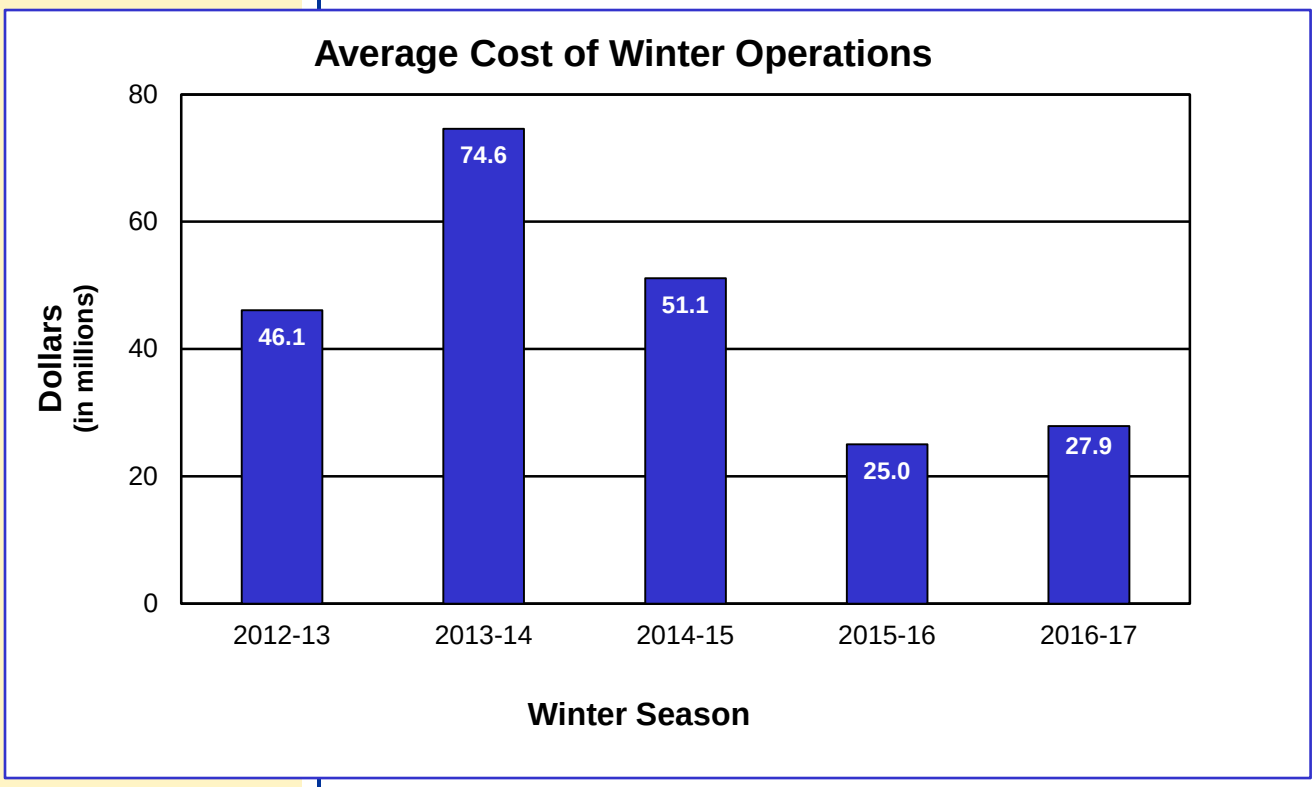
Knowing the time it takes to clear roads after a winter storm can help the department better analyze the costs associated with that work. MoDOT's response rate to winter events provides good customer service for the traveling public while keeping costs as low as possible.

Through March, the 2017-2018 winter has been relatively light in accumulation of snow and ice but still challenging. Most of the winter events have been freezing rain and ice events that require significant treatment which is costly. Responding to this high number of freezing rain and ice events has resulted in the average times to meet MoDOT's objective of 4.0 hours for continuous operations routes, and 4.5 hours for non-continuous routes. These response times are typical for the last several winters and this winter should result in typical expenditure levels.

Winter operations on average cost about $45 million per year. As of March 31, 2018, MoDOT expended $38.2 million responding to events this winter. Unfortunately, winter events are rare after March 31st but that is not the case for 2018, an additional update will occur in July to represent the entire 2017-2018 storm season.

OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM





OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

Bike/pedestrian and ADA transition plan improvements – 5g

RESULT DRIVER:
Becky Allmeroth
State Maintenance 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 within the right of way, such as sidewalks and traffic signals. Removal of the barriers listed in MoDOT's 2010 ADA Transition Plan is required as part of the department's compliance with the Americans with Disabilities Act.

MEASUREMENT AND DATA COLLECTION:
MoDOT's investment in pedestrian facilities is determined from the awarded contract amounts for the 20 most common construction elements used on pedestrian projects each year.
ADA Transition Plan progress is based upon completed work that has corrected defective items reported in the ADA Transition Plan inventory. The dollar amounts are based on unadjusted estimates from 2008 and will not reflect actual expenditures. This avoids impacts from inflation or changing field conditions.
A progress target line is included to show where MoDOT's progress should be in order to fully complete the ADA Transition Plan by 2027. Annual funding levels necessary to complete the ADA Transition Plan by 2027 determine the target, which is set in April of each year.

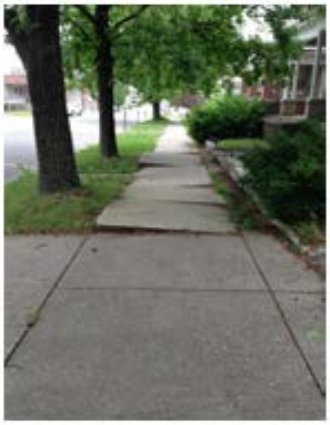
MoDOT has improved more than $27.7 million of deficient Americans with Disabilities Act facilities in the right of way since 2008. However, additional work totaling more than $123.6 million remains to be completed from the 2010 ADA Transition Plan inventory before the August 2027 completion date. To meet the commitment of the Missouri Highways and Transportation Commission, MoDOT needs to be completing more than $12 million of improvements each year until 2027.

Since FY 2016, the MHTC has retained half of the Transportation Alternatives Program funding it receives to be used toward MoDOT's Americans With Disabilities Act Transition Plan activities. The 2018 STIP estimates the annual TAP funds retained for MoDOT ADA projects at approximately $8.6 million per year. Additional investments is required to complete the ADA Transition Plan by August 2027.

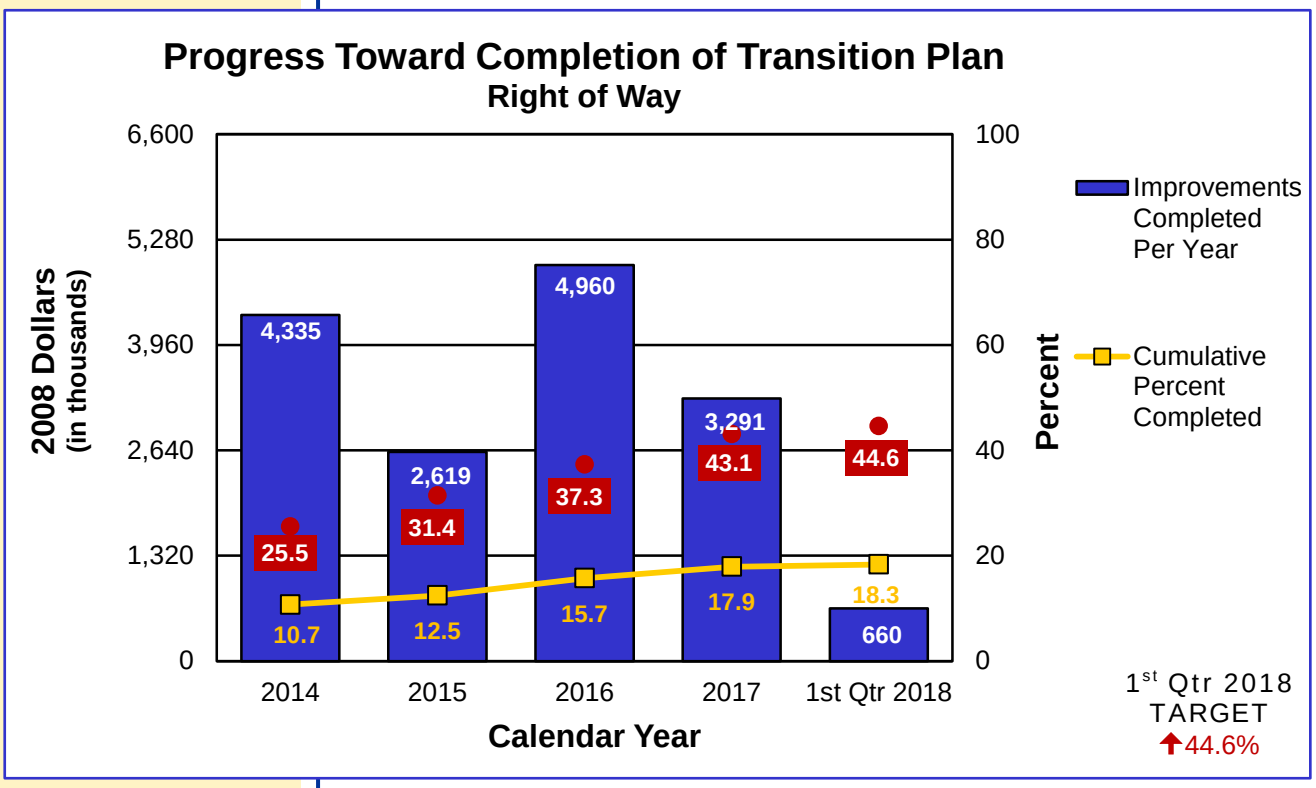
So far in 2018, MoDOT has completed $660,085 in ADA improvements. In 2017, MoDOT completed a total of $3.29 million in ADA improvements. These amounts are well below the annual pace needed to complete the required ADA improvements by 2027. Current reporting of Transition Plan Completion at 18.3 percent complete is significantly behind the 44.6 percent target for the first quarter of 2018.

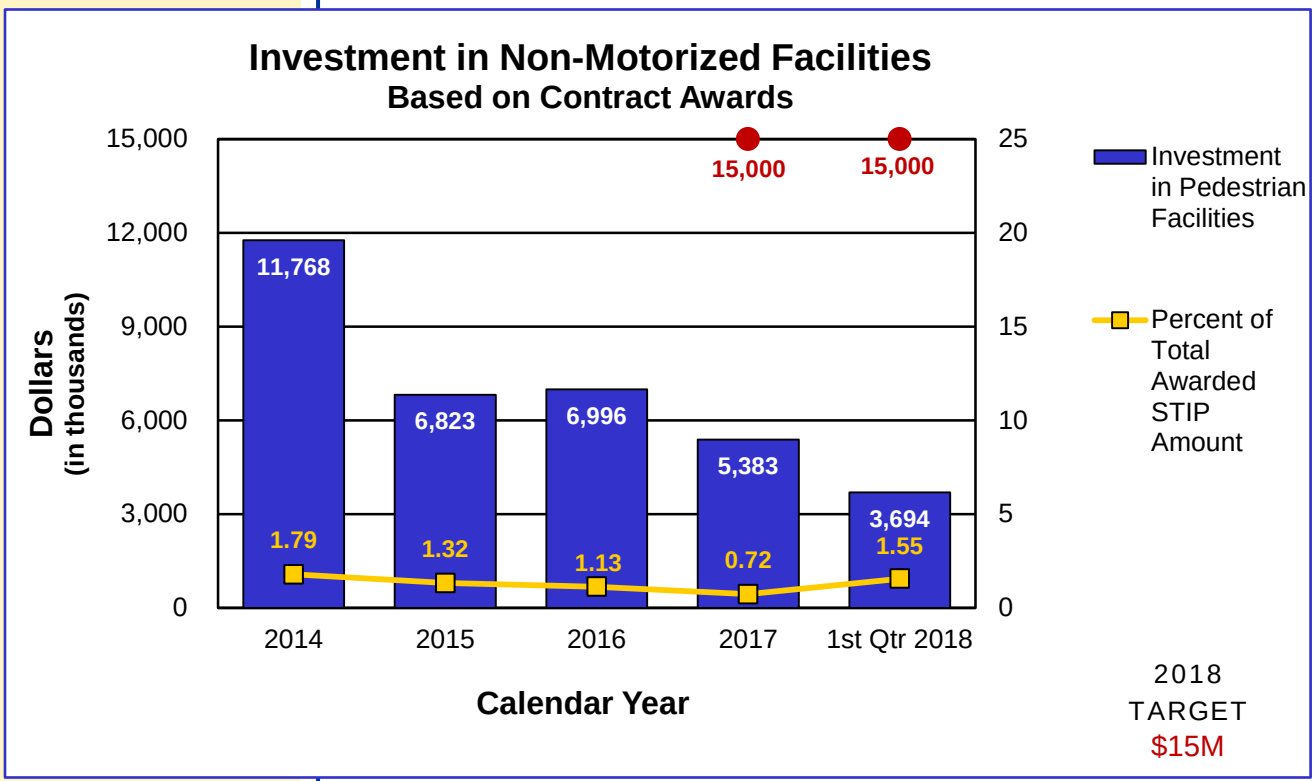
In first quarter 2018, MoDOT invested $3.69 million toward improvements in pedestrian facilities. At 1.55 percent of the 2018 STIP awards, ADA investment in 2018 is showing an increase over the record low rate posted in 2017 of 0.72 percent. In all of 2017, MoDOT invested a total of $5.38 million in pedestrian facility improvements.

The annual investment target for this measure has been set at $15 million. A significant increase in ADA Transition Plan progress is necessary for MoDOT to be able to complete the ADA Transition Plan by August 2027.



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

MEASUREMENT DRIVER:
Paul Imhoff
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, data for salaried employment is annualized, whereas temporary employment and overtime data represent actual year-to-date calculations. This measure does not represent salaried headcount.

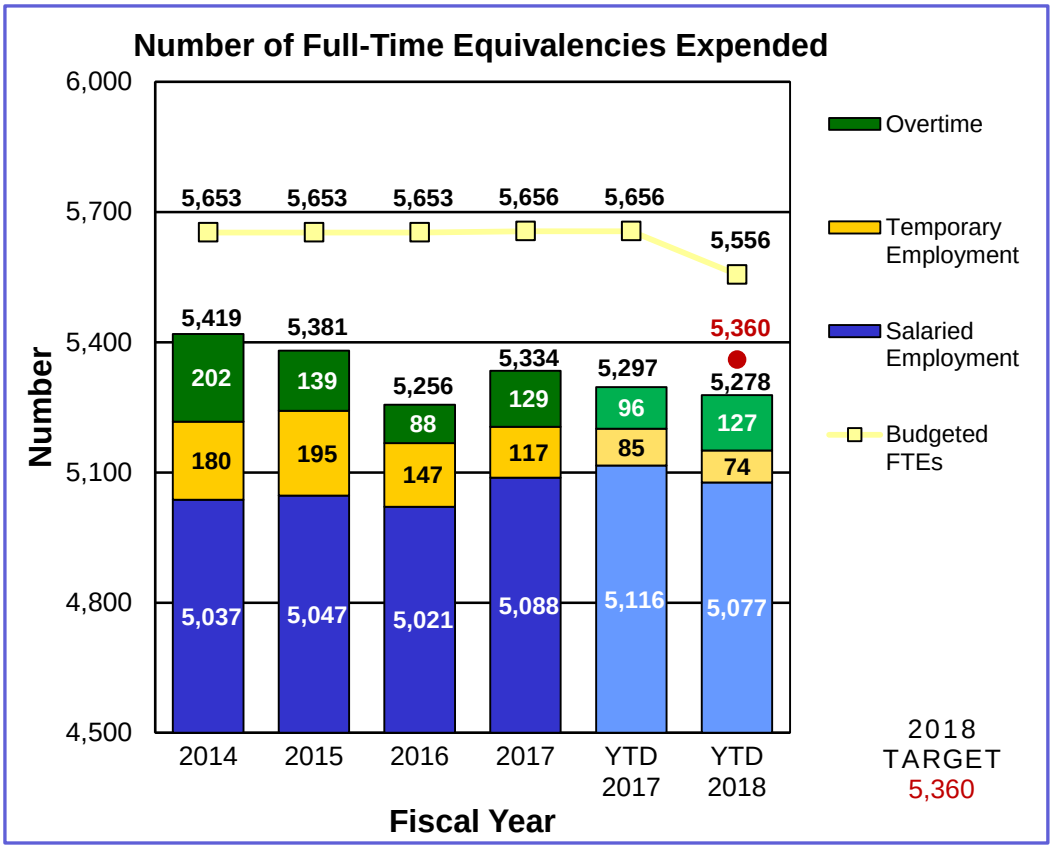
The target for this measure was set by management directive.

USE RESOURCES WISELY

Number of full-time equivalencies expended – 6a

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

During the first three quarters of fiscal year 2018, the number of FTEs expended decreased slightly by 19, or 0.4 percent, compared to the same time in FY 2017. The number of salaried employment FTEs decreased slightly. This reduction mainly is due to a decrease in maintenance employees in a few areas. The increase in overtime FTEs primarily is due to overtime hours worked during snow fight events in January, February and March. FTEs for temporary employment during the winter season decreased slightly compared to the same time last year as the department is hiring fewer seasonal maintenance workers and is focused on hiring more full-time maintenance employees.



RESULT DRIVER:
Brenda Morris
Financial Services Director

MEASUREMENT DRIVER:
Paul Imhoff
Special Projects Coordinator

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

MEASUREMENT AND DATA COLLECTION:
The data is collected statewide from SAM II Advantage HR system and includes only salaried employees. Voluntary turnover includes resignations and retirements. Involuntary turnover reflects dismissals. Data is reported quarterly, with current year-to-date data included. Stretch goal is derived from Price Waterhouse Cooper's Saratoga Institute benchmark data.

The target for this measure was set by management directive.

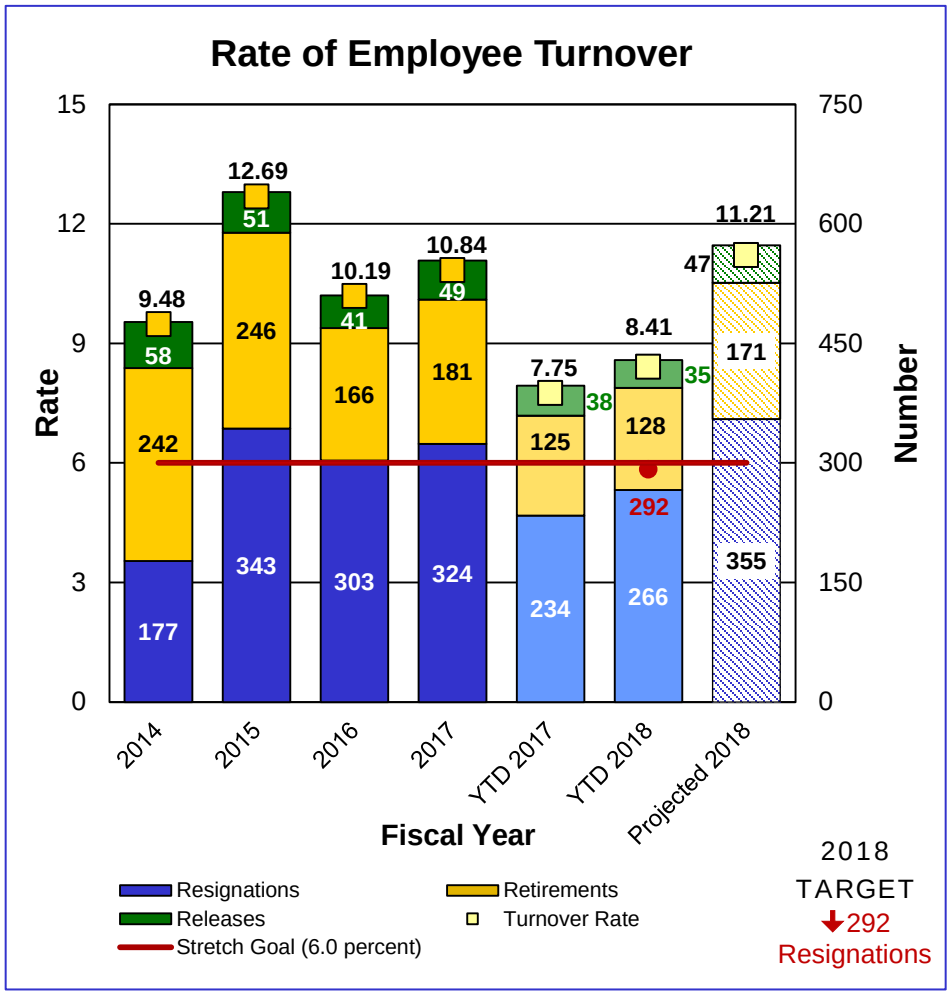
USE RESOURCES WISELY

Rate of employee turnover – 6b

When employees leave MoDOT, the department loses a large investment in recruiting, hiring, and training its workforce. While some turnover is appropriate, 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.

The overall turnover rate has risen from 7.75 percent in the first three quarters of fiscal year 2017 to 8.41 percent in the first three quarters of FY 2018. During the first three quarters of FY 2018, resignations showed an upward trend and retirements increased slightly. Releases have decreased with 38 during the first three quarters of FY 2017 and 35 during the first three quarters of FY 2018. The 2018 target is to have 292 or fewer resignations.

In spring 2018, MoDOT launched a new Performance Development approach to performance management. It is designed to increase communication between employees and supervisors, drive performance, increase engagement and improve retention.



USE RESOURCES WISELY

Level of job satisfaction – 6c

RESULT DRIVER:
Brenda Morris
Financial Services Director

MEASUREMENT DRIVER:
Elizabeth Reed
Special Projects Coordinator

PURPOSE OF THE MEASURE:
This measure tracks the level of employee satisfaction throughout the department at specific points in time.

MEASUREMENT AND DATA COLLECTION:
Employee satisfaction is measured with a bi-annual employee survey in even-numbered years. Employees rate items related to their satisfaction with MoDOT using a five-point scale, with one indicating low satisfaction and five indicating high satisfaction. Society for Human Resources Management best practice data was gathered from an SHRM report of an annual job satisfaction survey of 55 Fortune 500 companies. The target for this measure is updated in odd-numbered years.

The target for this measure was set by management directive.

Illinois DOT was selected as a comparative due to its similar employee demographics.

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

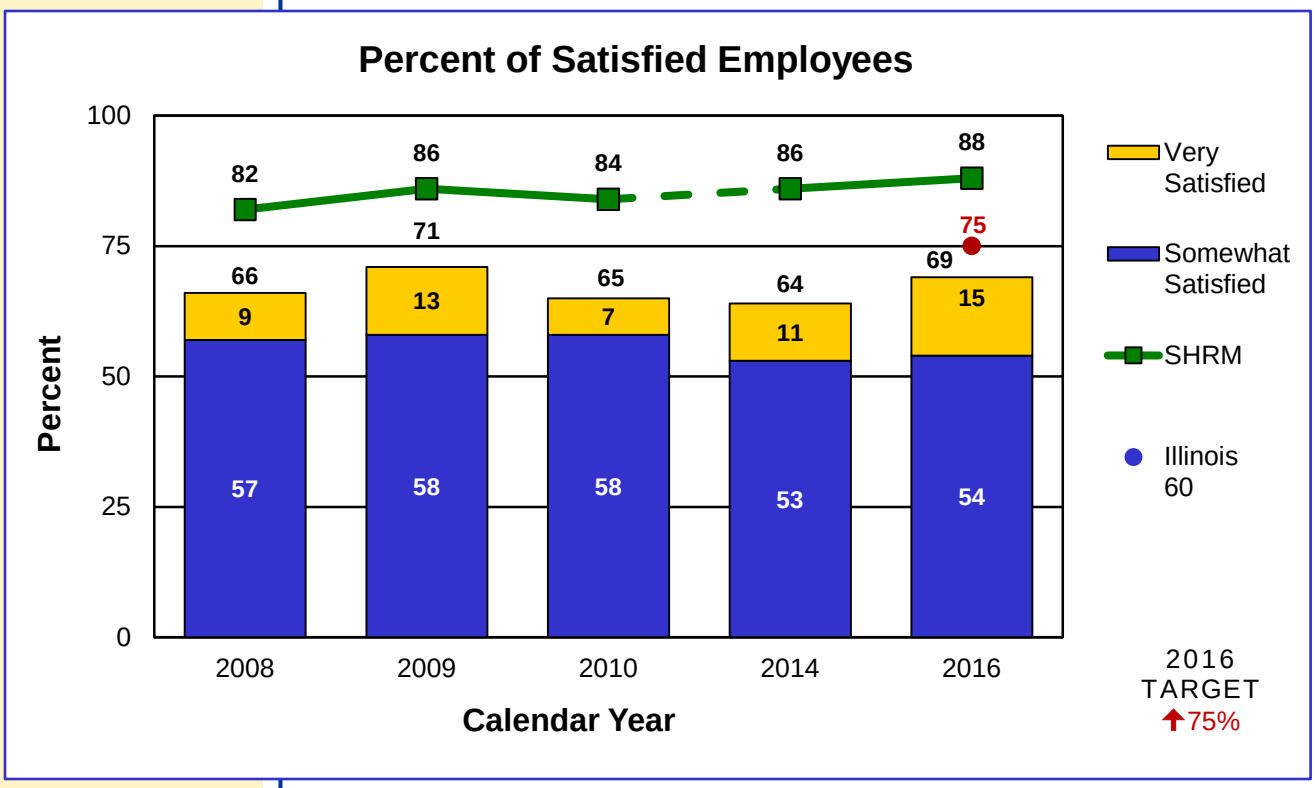
Between 2005 and 2010, the average employee satisfaction ratings and percent of satisfied employees both showed upward trends with peaks in 2009. Following a four-year break, the employee survey was conducted in the spring of 2014 and showed little change from the 2010 survey. Given the major organizational changes the department went through, the slight decline in job satisfaction from 3.5 in 2010 to 3.4 in 2014, and the slight decrease in the percentage of satisfied employees from 65 percent in 2010 to 64 percent in 2014 were seen as good. In fact, the percentage of very satisfied employees during that period increased from 7 percent in 2010 to 11 percent in 2014.

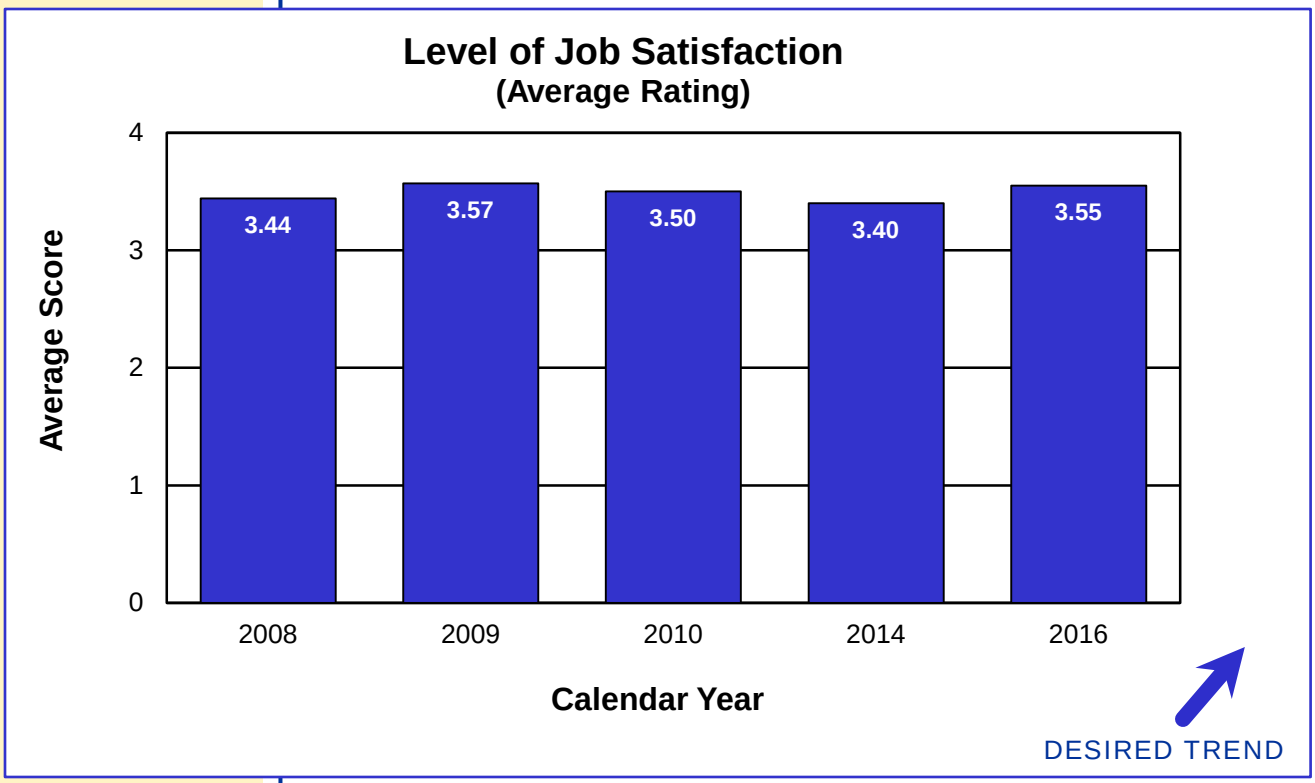
Following the 2014 survey, five employee-led teams worked to develop a series of recommendations to the concerns employees raised in the survey. The recommendations are in various stages of implementation.

The most recent employee survey was conducted in the spring of 2016. Overall job satisfaction increased from 3.40 in 2014 to 3.55 in 2016. The percentage of satisfied employees also increased from 64 percent in 2014 to 69 percent in 2016. The survey results also show the percentage of very satisfied employees increased from 11 percent in 2014 to 15 percent in 2016.

Areas of low satisfaction centered on not having acceptable opportunities for professional growth and not making MoDOT employees feel valued. The lack of salary increases was scored low on most surveys and dominated written comments as well. Areas of high satisfaction revolved around having a cooperative work unit and having supervisors support needs to balance work and family.

USE RESOURCES WISELY





RESULT DRIVER:
Brenda Morris
Financial Services Director

MEASUREMENT DRIVER:
Todd Grosvenor
Assistant Financial Services Director

PURPOSE OF THE MEASURE:
This measure shows the precision of state and federal revenue budgets.

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

The targets set for this measure are set by internal policy and will not change unless policy changes, regardless of performance.

USE RESOURCES WISELY

State and federal revenue budgets – 6d

State and federal revenue budgets 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 budgets with no variance.

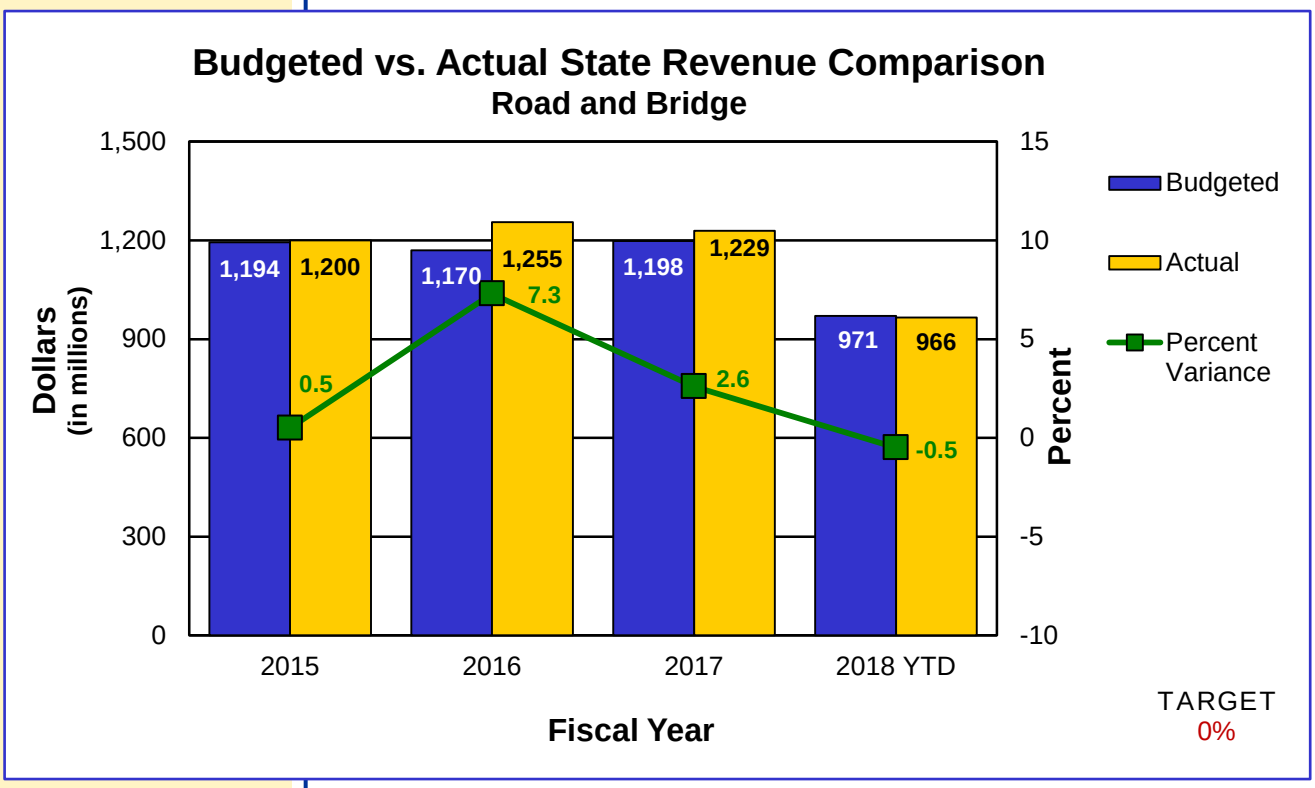
The actual state revenue for road and bridge from motor fuel taxes, motor vehicle sales taxes, motor vehicle and driver licensing fees and miscellaneous was 0.5 percent less than budgeted for the third quarter of fiscal year 2018. The majority of the variance is related to motor fuel taxes. The positive variance of 4.1 percent for non-highway modes is mostly attributable to the jet fuel sales tax.

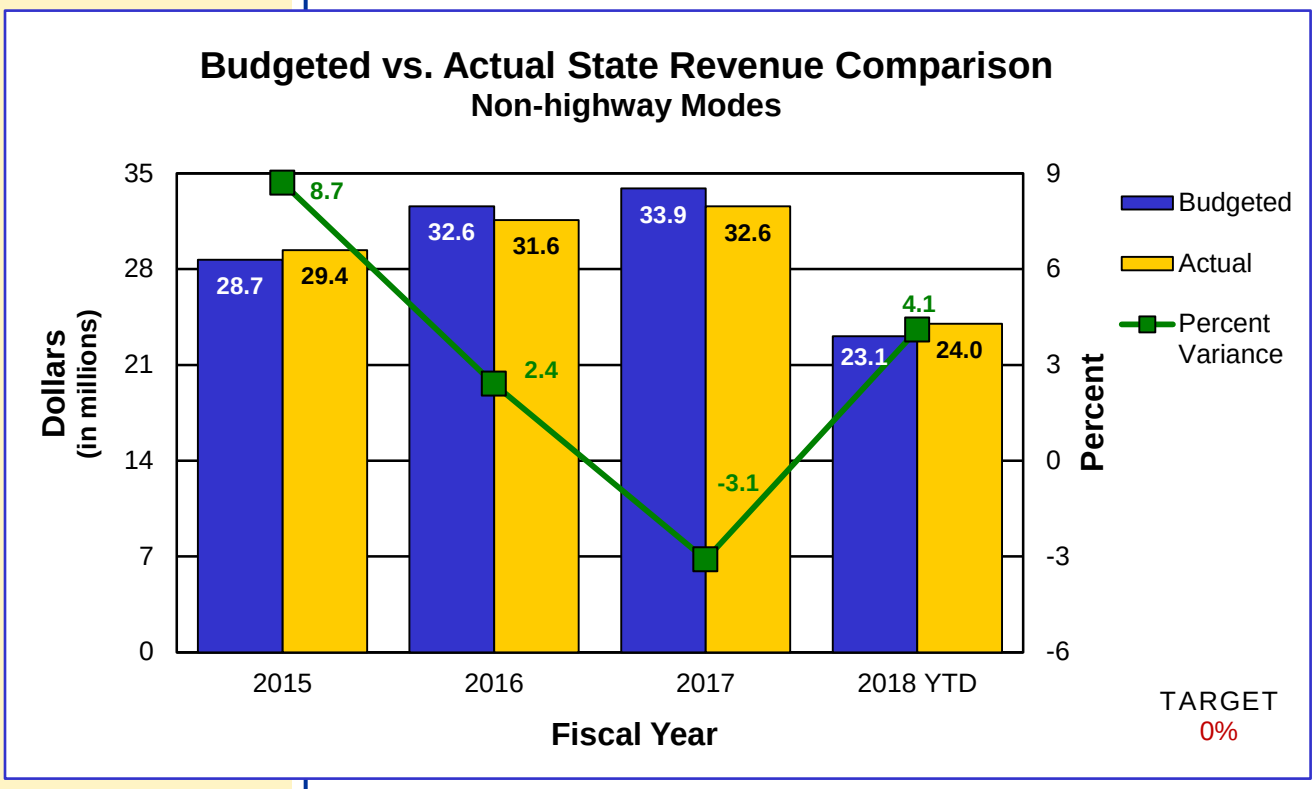
The actual federal revenue for road and bridge was only 0.2 percent less than budgeted for federal fiscal year 2017. The negative variance of 32.6 percent for non-highway modes is attributable to the timing of project expenditures.

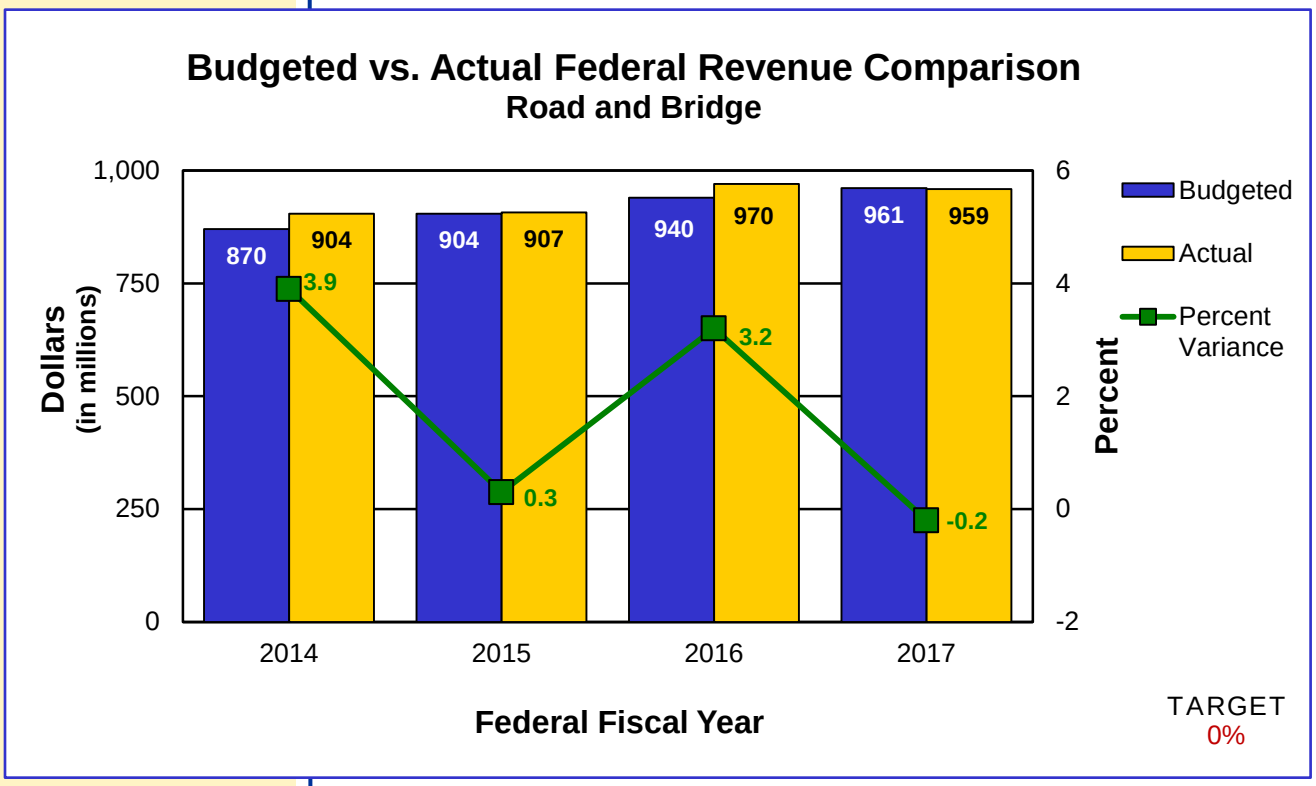
The largest source of transportation revenue is from the federal government. Funding is received through various federal transportation agencies including Federal Highway, Transit, Aviation and Railroad Administrations. In December 2015, Congress passed a five-year federal transportation reauthorization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

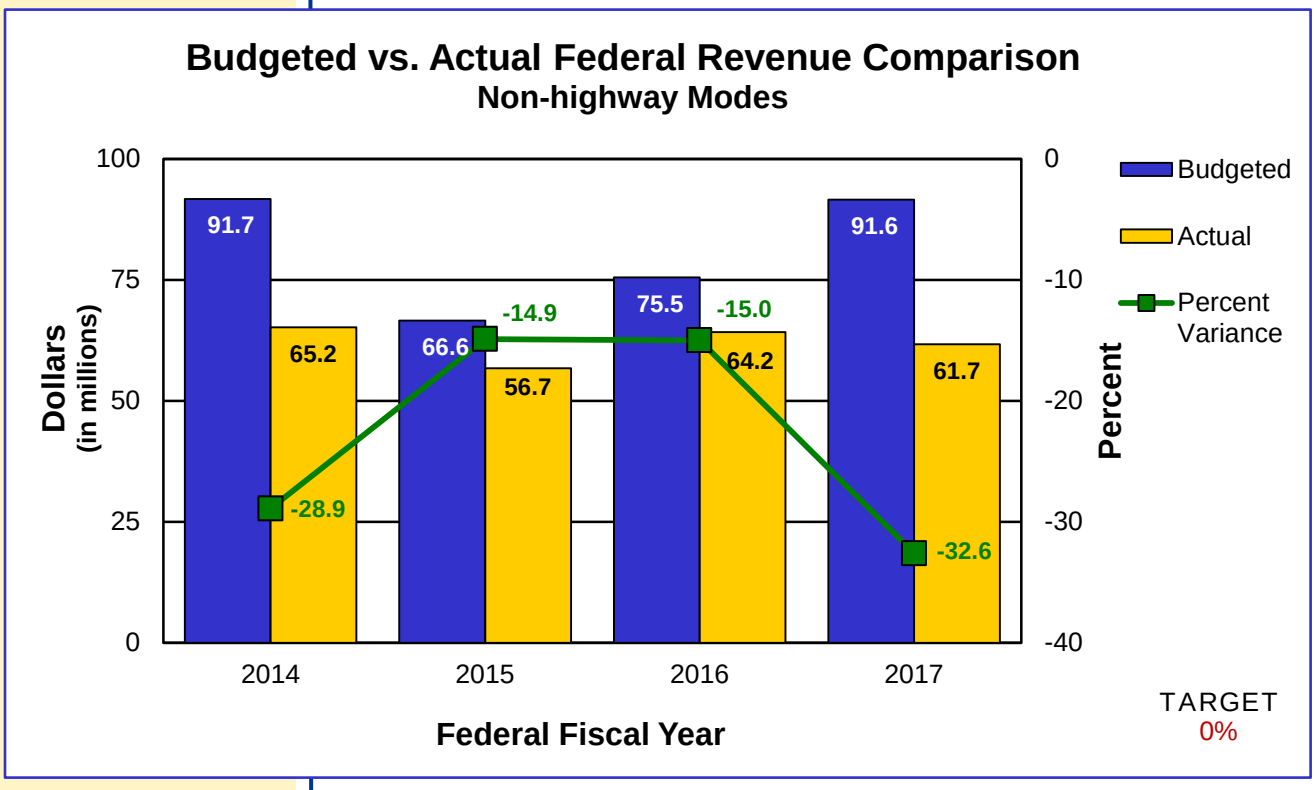
The primary source of federal and state revenue is motor fuel tax. The motor fuel tax rates have not changed in more than 20 years, while the costs for materials and labor have doubled or even tripled in the same timeframe.

USE RESOURCES WISELY






Budgeted vs. Actual Federal Revenue Comparison
Road and Bridge
Dollars (in millions)
1,000
750
500
250
0
6
4
2
0
-2
Percent
870
904
904
907
940
970
961
959
3.9
0.3
3.2
-0.2
2014
2015
2016
2017
Federal Fiscal Year
Budgeted
Actual
Percent Variance
TARGET
0%


Budgeted vs. Actual Federal Revenue Comparison
Non-highway Modes
Dollars (in millions)
100
75
50
25
0
0
-10
-20
-30
-40
Percent
91.7
65.2
66.6
56.7
75.5
64.2
91.6
61.7
-14.9
-15.0
-28.9
-32.6
2014
2015
2016
2017
Federal Fiscal Year
Budgeted
Actual
Percent Variance
TARGET
0%

RESULT DRIVER:
Brenda Morris
Financial Services Director

MEASUREMENT DRIVER:
Frank Miller
District Planning Manager

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

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

The target for this measure is set by internal policy and will not change unless policy changes.

USE RESOURCES WISELY

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

MoDOT works with public agencies to leverage its limited resources to implement projects that might not otherwise be built. Cost-share projects are transportation improvements in which costs are shared by MoDOT and other public agencies such as cities and counties. After a temporary suspension of the Cost Share Program through fiscal year 2017, the Missouri Highways and Transportation Commission reactivated the Cost Share Program with the adoption of the 2018-2022 Statewide Transportation Improvement Program.

In addition, MoDOT partners with cities and counties for projects not part of the formal Cost Share Program, with other states for projects of mutual interest such as border bridges and with federal agencies through competitive discretionary programs. MoDOT also partners with developers and other private entities to make improvements to the state transportation system through the permitting process.

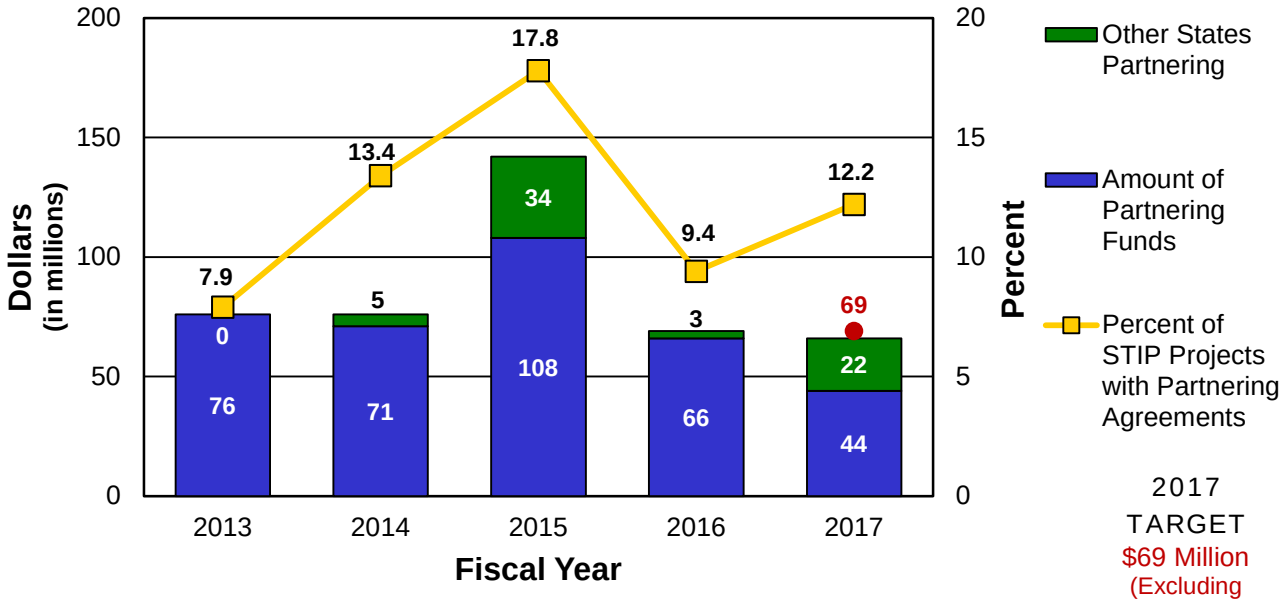
The amount of partnership funding declined significantly in FY 2017, with $44 million in partnerships on the MoDOT system and $22 million in partnerships with other states for projects on jointly-owned facilities. For partnerships only on the MoDOT system, this is a decrease of approximately one third.

While the amount of partnership funding declined, the percent of projects in the STIP with partnership funding increased from 9.4 percent in FY 2016 to 12.2 percent in FY 2017. However, the total number of projects in the STIP decreased in FY 2017 with the number of projects with partnership contributions being down. In FY 2016, there were 66 projects with funds from partnership agencies, but in FY 2017, that number decreased to 53.

The average partner contribution to partnership projects decreased in FY 2017. In FY 2017, the average partner contribution per project was $824,000, compared to the five-year average of $1,161,000.

USE RESOURCES WISELY

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



RESULT DRIVER:
Brenda Morris
Financial Services Director

MEASUREMENT DRIVER:
Dion Knipp
Administrator of Transit

PURPOSE OF THE MEASURE:
This measurement provides the percent of state funds invested in non-highway modes of transportation. Modes include aviation, rail, transit, waterways, freight and bike/pedestrian.

MEASUREMENT AND DATA COLLECTION:
Investments in non-highway modes of transportation represent the state and federal dollars spent on aviation, rail, transit, waterways, freight and bike/pedestrian. Federal investments represent the amount spent on MoDOT-administered programs only. Investments are limited to the amounts appropriated by the state legislature each year.

The target for this measure was set by management directive.

USE RESOURCES WISELY

Percent of state funds invested in non-highway modes of transportation – 6f

During the long-range planning process, "On the Move," Missourians chose more transportation choices as a top priority. MoDOT works closely with its multimodal partners to provide more choices within the available funding amounts. In fiscal year 2017, state and federal expenditures for non-highway modes of transportation decreased $1.3 million and $2.2 million, respectively.

Aviation – Fiscal year 2017 state expenditures of $10.3 million represent 26 percent of funds invested. Federal Aviation Administration and State Aviation Trust funds require a minimum local match of 10 percent.

Rail – Fiscal year 2017 state expenditures of $12.4 million represent 64 percent of funds invested.

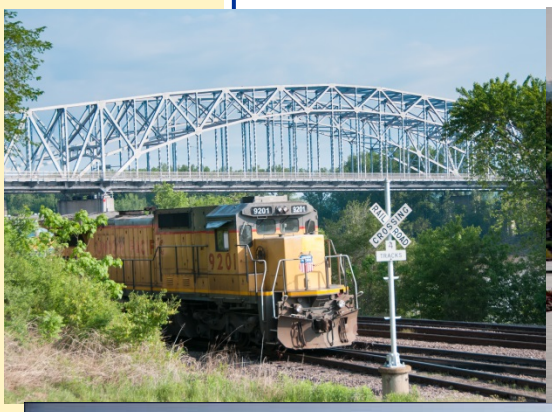
Transit – Fiscal year 2017 state expenditures of $4.5 million represent 15 percent of funds invested.

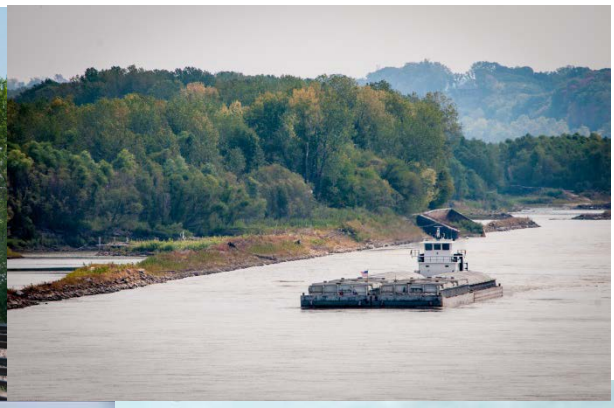
Waterways – Fiscal year 2017 state expenditures of $4.5 million represent 100 percent of funds invested.

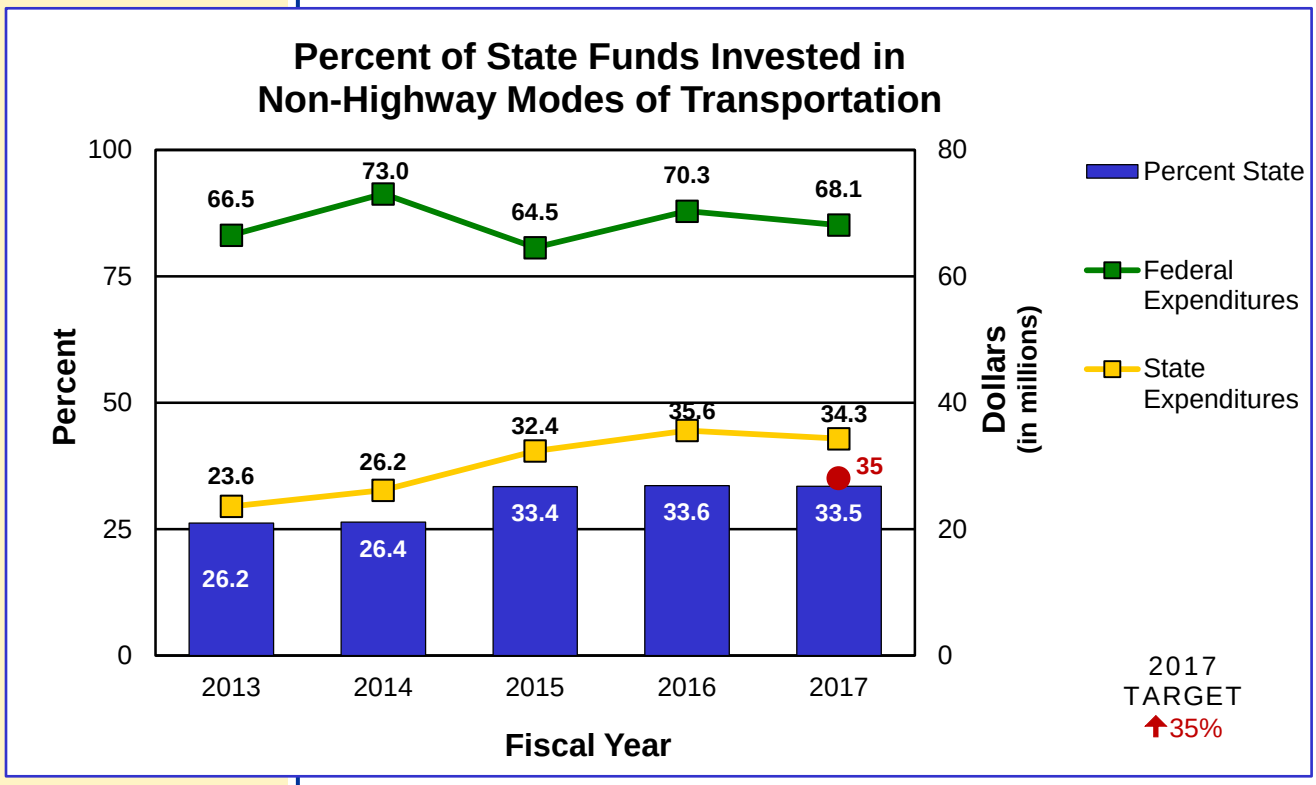
Freight – Fiscal year 2017 state expenditures of $1 million represent 100 percent of funds invested.

Bike/Pedestrian – Fiscal year 2017 state expenditures of $1.6 million represent 20 percent of funds invested.

USE RESOURCES WISELY







RESULT DRIVER:
Brenda Morris
Financial Services Director

MEASUREMENT DRIVER:
Julie Stotlemeyer
Assistant State Design Engineer

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 the Federal Highway Administration's Fiscal Management Information System and based on the federal fiscal year from Oct. 1st through Sept. 30th. 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.

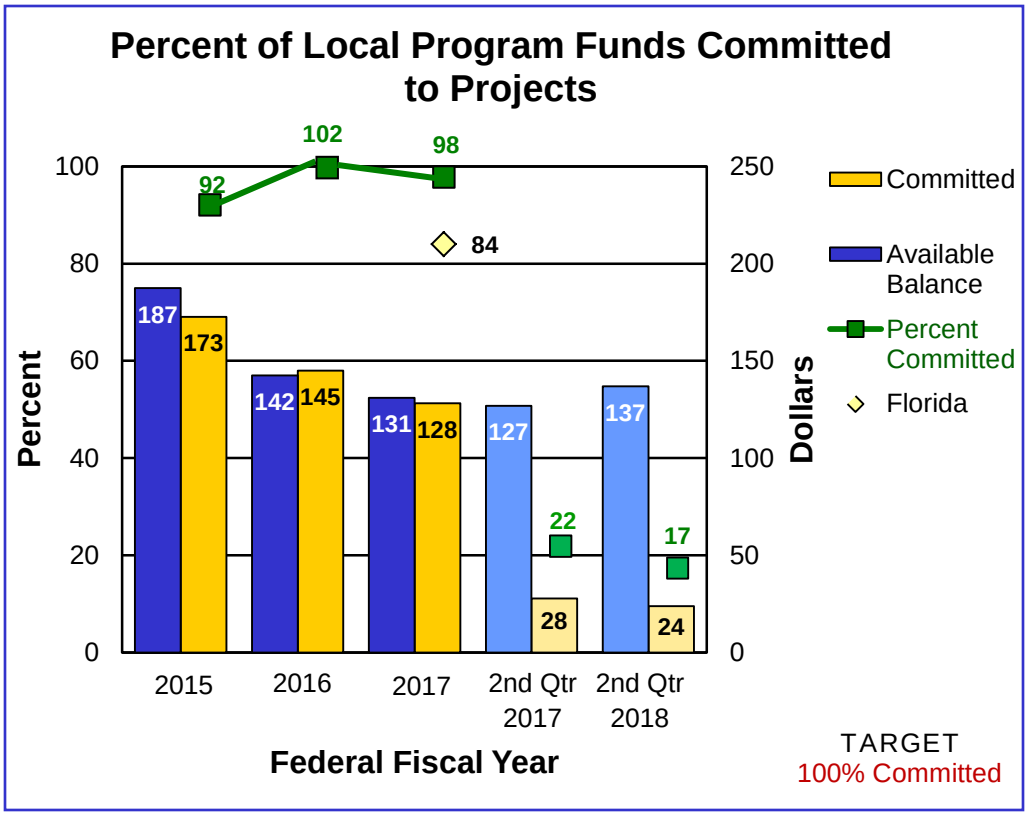
The target for this measure is set by internal policy and will not change unless policy changes, regardless of performance.

USE RESOURCES WISELY

Percent of local program funds committed to projects – 6g

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

MoDOT has set a target of committing 100 percent of local program funds to projects each year. In the second quarter of federal fiscal year 2018, 17 percent ($23.7 million) of the $137 million in available funds has been committed to local projects. This represents a 5 percent decrease in commitments compared to second quarter FFY 2017. Since FFY 2015, the percent of local program funds committed to projects has increased from 92 percent to 98 percent.



USE RESOURCES WISELY

Fleet usage and fuel efficiency – 6h

RESULT DRIVER:
Brenda Morris
Financial Services Director

MEASUREMENT DRIVER:
Kevin James
Assistant District Engineer

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

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

The target for this measure is updated quarterly. This target is established by projecting a 3 percent improvement over a five-year average.

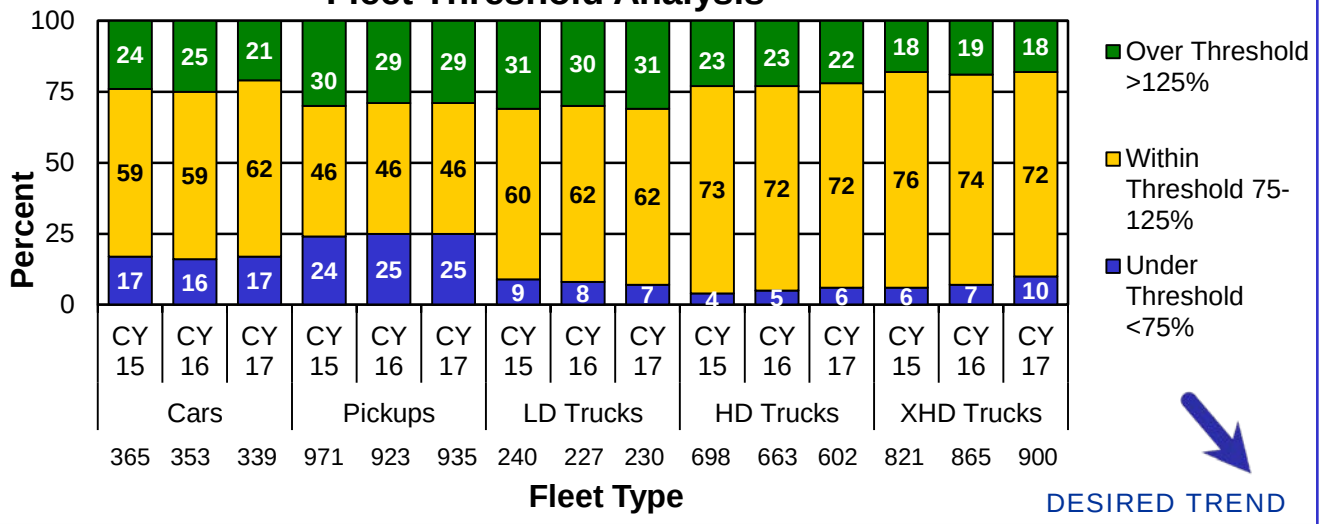
The fleet threshold measure will be updated in July 2018.

The fuel efficiency measure shows a decrease, and the fuel consumption measure shows an increase in the third quarter of fiscal year 2018 compared to the third quarter of FY 2017. Fuel consumption in FY 2018 has increased by 0.89 percent (49,650 gallons) compared to FY 2017. During the third quarter of FY 2018, fewer gallons were used for pipe culvert and edge rut repairs compared to the third quarter of FY 2017. For the same period, increases in gallons used for snow and ice prevention/removal were recorded. Changes in fuel use by activity resulted in a decrease in fuel efficiency of 0.41 miles per gallon compared to the same period last year.

MoDOT has set a target of 8.73 average miles per gallon based on the five-year average of 8.48 mpg plus 3 percent. The usage trends by activity and vehicle type (dump trucks versus pickup trucks) resulted in miles per gallon lower than the target. Strategies to maintain results at target level include encouraging more carpooling and using more fuel-efficient light-duty vehicles when able.

USE RESOURCES WISELY

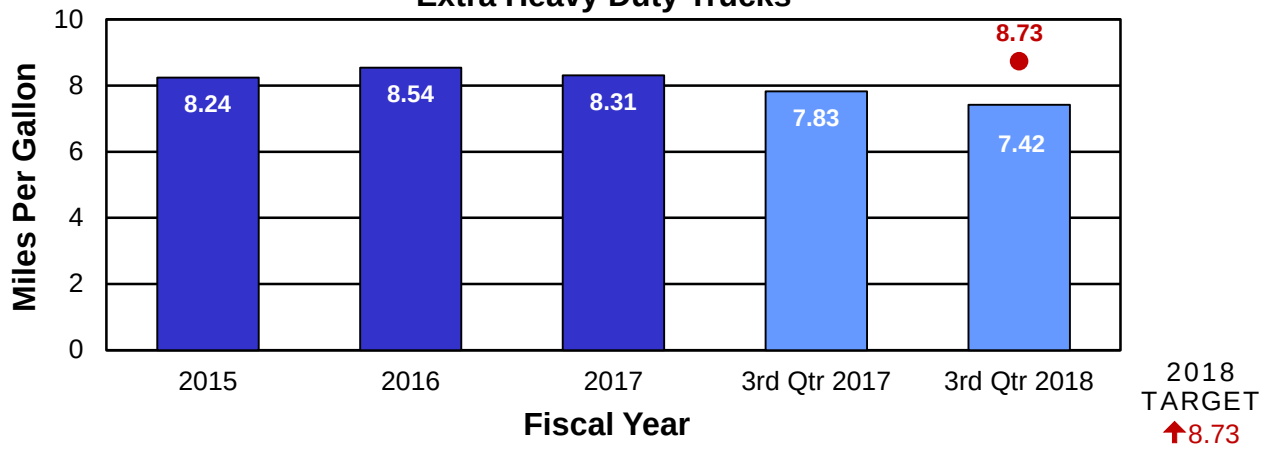
Fleet Threshold Analysis



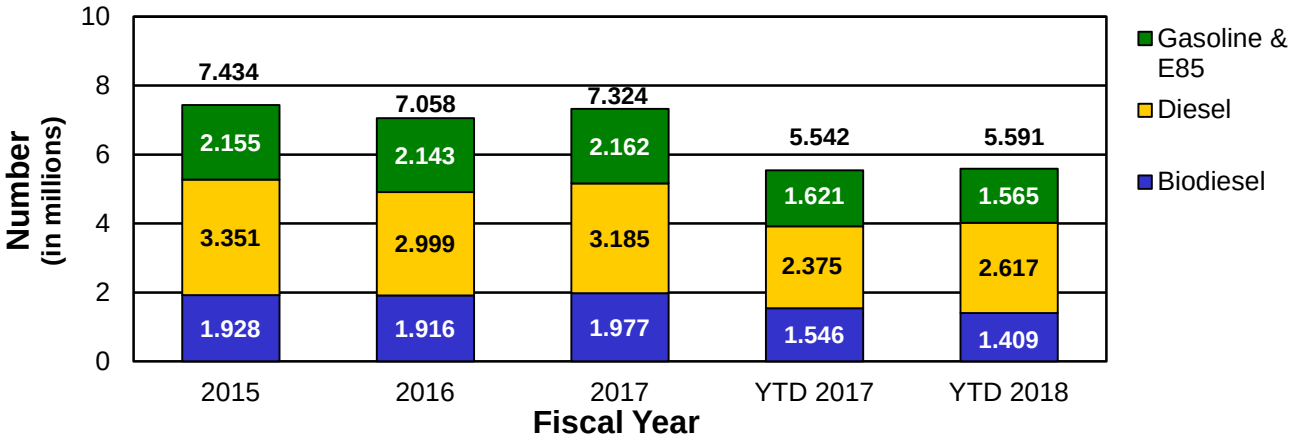
Annual miles and/or hours threshold. Fleet threshold analysis based on life of vehicle. Number of fleet vehicles by fiscal year is shown under categories.

Average Miles Per Gallon

Cars, Pickups, Light Duty Trucks, Heavy Duty Trucks and Extra Heavy Duty Trucks



Gallons of Fuel Consumed



USE RESOURCES WISELY

Number of tons of recycled material – 6i

RESULT DRIVER:
Brenda Morris
Financial Services Director

MEASUREMENT DRIVER:
Jonathan Varner
Intermediate Materials Specialist

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.

For more than a decade, MoDOT has incorporated recycled asphalt pavements and roof shingles into new asphalt pavements to help offset increasing costs. While the cost of rock, sand, liquid asphalt, labor, fuel and equipment have increased, recycling efforts have helped offset the cost increases. In 2017, 27 percent of the 3.2 million tons of new asphalt pavement constructed came from recycled components. Based on tonnage bids in 2017, this saved taxpayers about $5.46 per ton, or $17.5 million overall. The $17.5 million savings would be equivalent to improving more than 384 miles of a two-lane roadway with a thin overlay.

By comparison, 18 percent of new asphalt pavement constructed by the Illinois DOT in 2016 came from slag, recycled pavement and shingles. In 2016, 20 percent of new asphalt pavement constructed by MoDOT came from slag, recycled pavement and shingles.

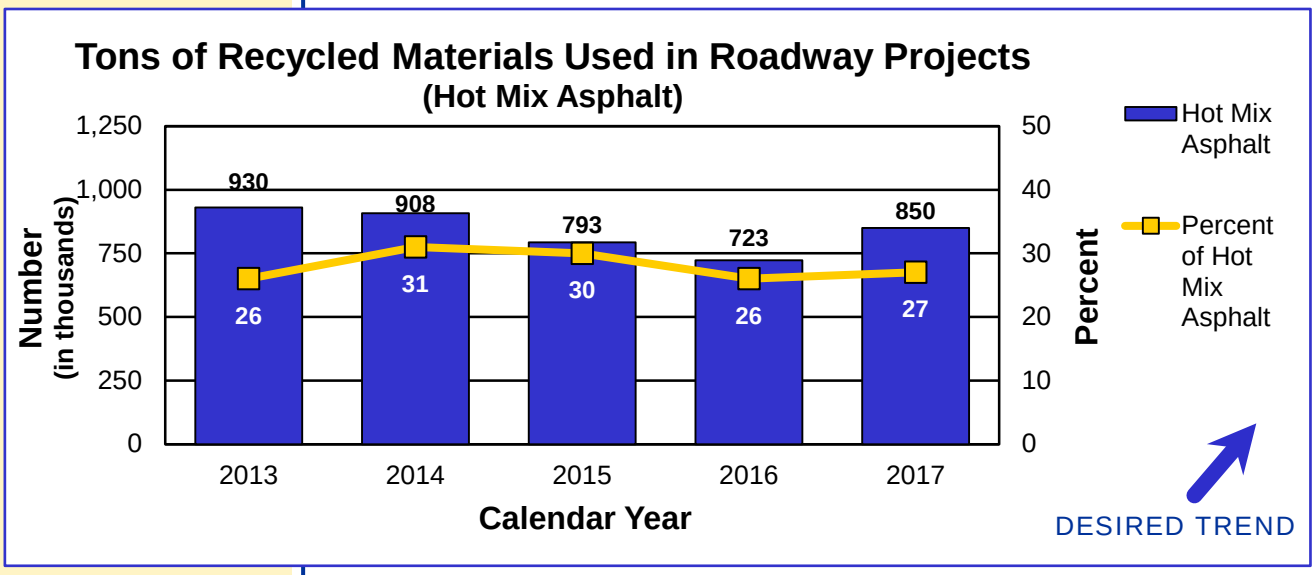
MoDOT also engages in internal recycling efforts. In 2017, the amount of recycled material increased by 333 tons. The majority of the recycled tonnage comes from scrap metal and scrap rubber/tires. More than 2,090 tons of scrap metal and 127 tons of scrap rubber/tires (equivalent to about 11,300 passenger car tires) were recycled. The cost to recycle some items, such as scrap rubber/tires and oil, was just under $267,000. Other recycling efforts returned more than $549,000. The net revenue was slightly more than $282,000.

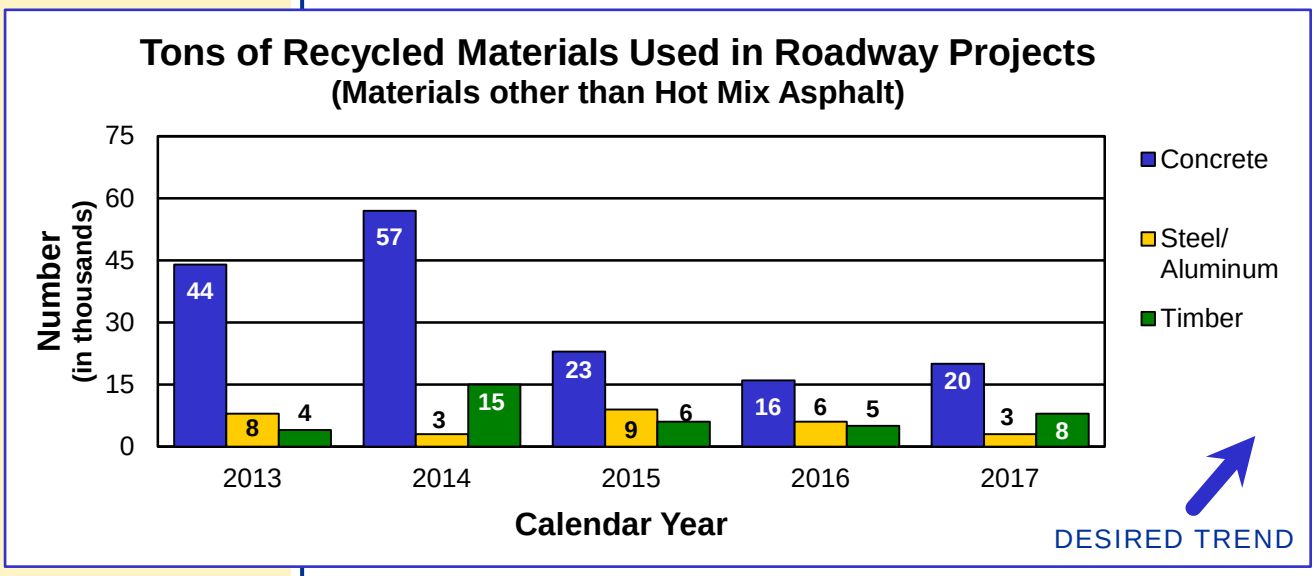
Recycling is good for the environment and helps continue to stretch available funds.

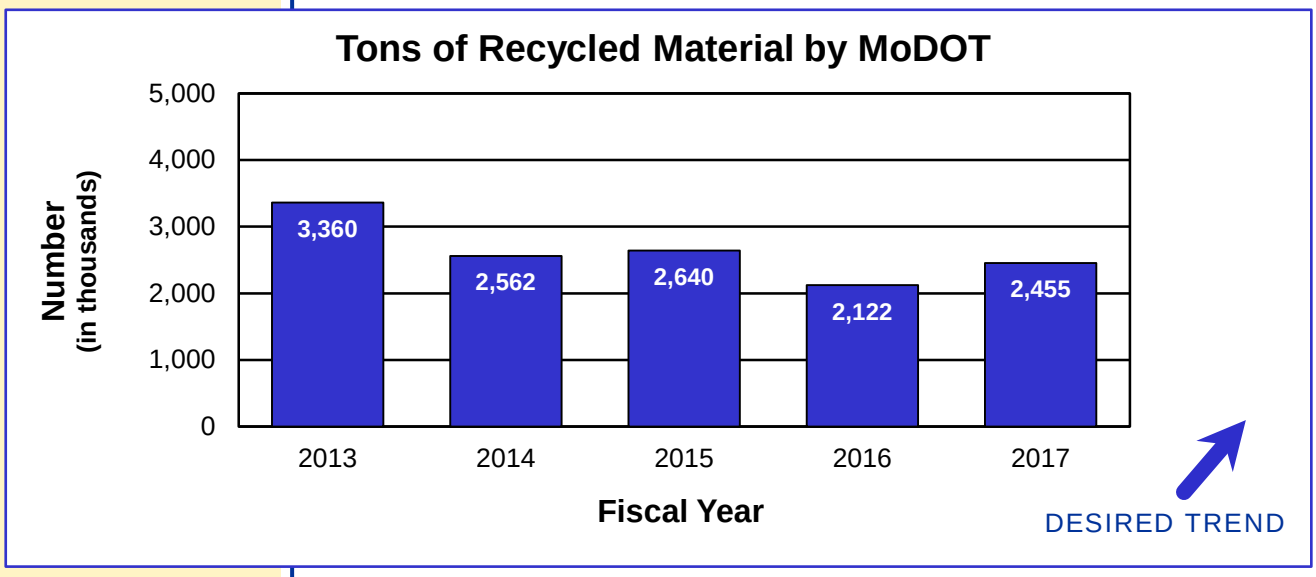
Roofs to Roads

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

USE RESOURCES WISELY







RESULT DRIVER:
Brenda Morris
Financial Services Director

MEASUREMENT DRIVER:
Mary Miller
District Construction and Materials Engineer

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

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

The target for this measure is set by internal policy and will not change unless policy changes, regardless of performance.

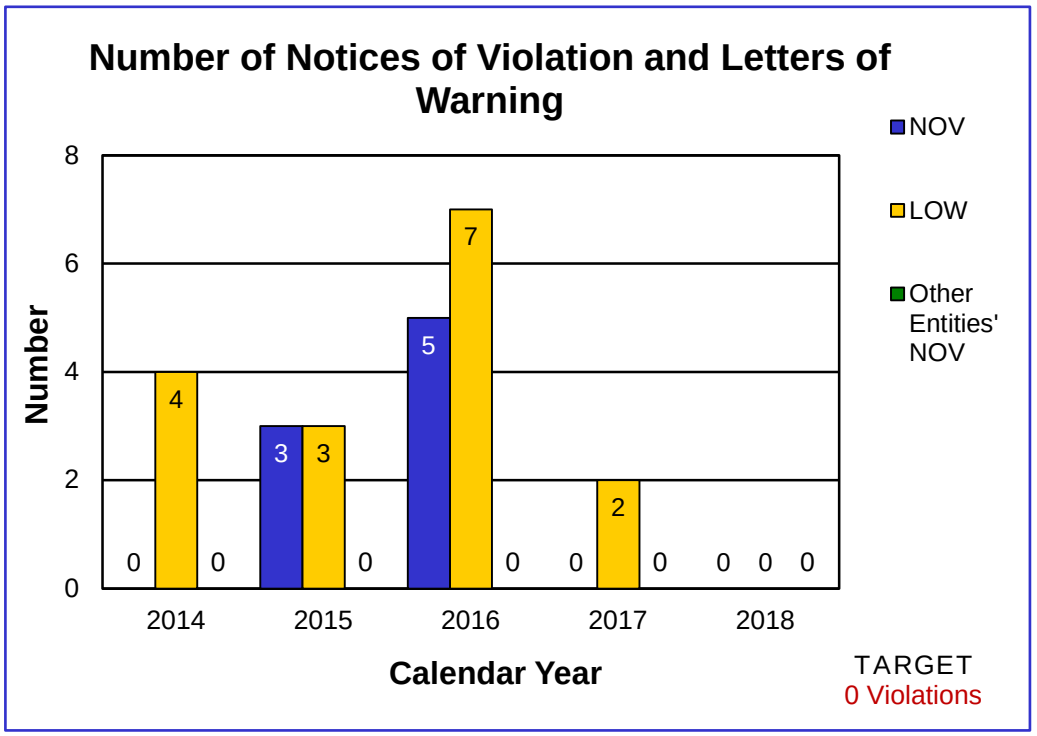
USE RESOURCES WISELY

Number of environmental warnings and violations – 6j

MoDOT seeks to reduce its impact on Missouri's 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.

MoDOT has a zero-tolerance policy toward any Notices of Violation 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 Letters of Warning then take action to prevent future occurrences.

For the first quarter of calendar year 2018, MoDOT received no NOVs or LOWs.



RESULT DRIVER:
Brenda Morris
Financial Services Director

MEASUREMENT DRIVER:
Brian Williams
Stormwater Compliance Coordinator

PURPOSE OF THE MEASURE:
This measure tracks compliance with MoDOT's stormwater permit and court ordered consent decree. The consent decree established requirements for MoDOT projects from 2015-2018 where greater than one acre of land is disturbed.

MEASUREMENT AND DATA COLLECTION:
A database is used to record the compliance of MoDOT and construction contractors with requirements to:

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

The database also tracks fines resulting from not meeting the decree requirements. The target for this measure is set by internal policy and will not change unless policy changes. MoDOT's benchmark is Kansas DOT because it monitors similar elements of the Clean Water Act. Kansas' consent decree was a four year decree beginning in 2013. There also are significant differences in how their consent decree computes violations compared to MoDOT's.

USE RESOURCES WISELY

Number of stormwater violations – 6k

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

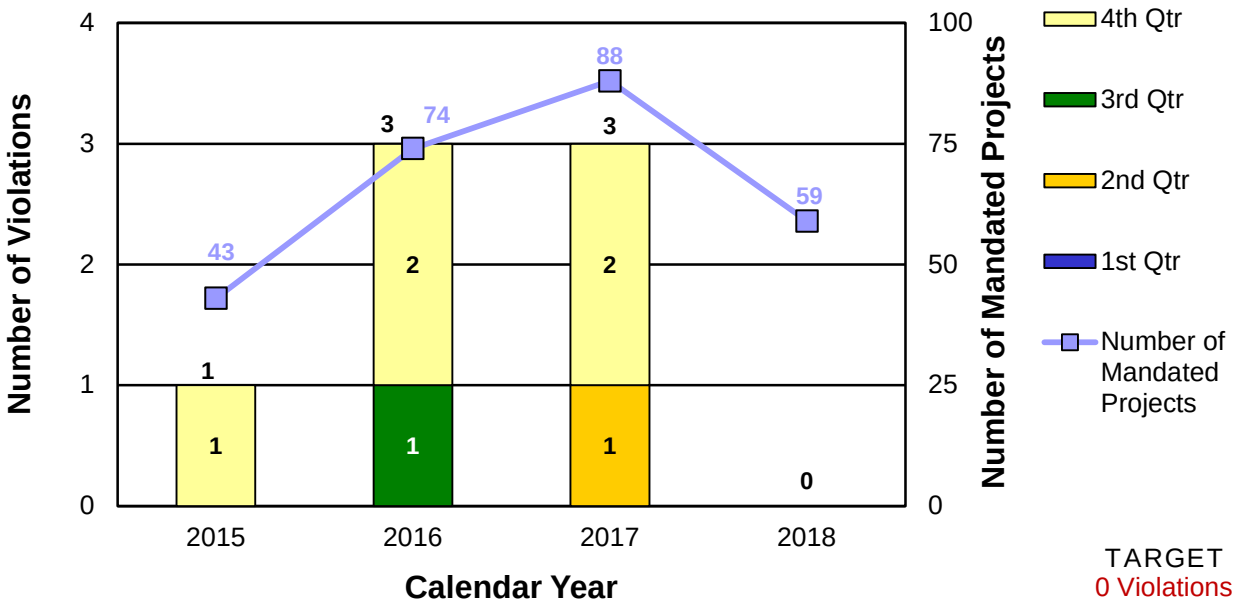
Zero consent decree violations occurred in the first quarter of 2018.

The target for this measure is no violations and no penalties paid. The accumulated total consent decree violations are now at seven and no penalties have been paid. The Environmental Protection Agency has not commented on MoDOT's 2016 Annual Report.

In KDOT's four years under a consent decree with the EPA, a total of 360 violations valued at $1.15 million were reported. Taking these same 360 violations compared to how MoDOT's consent decree computes violation amounts, the total violation amount would be $458,250. This amount could be broken down to an average of 90 violations per year at an average value of $114,563 per year.

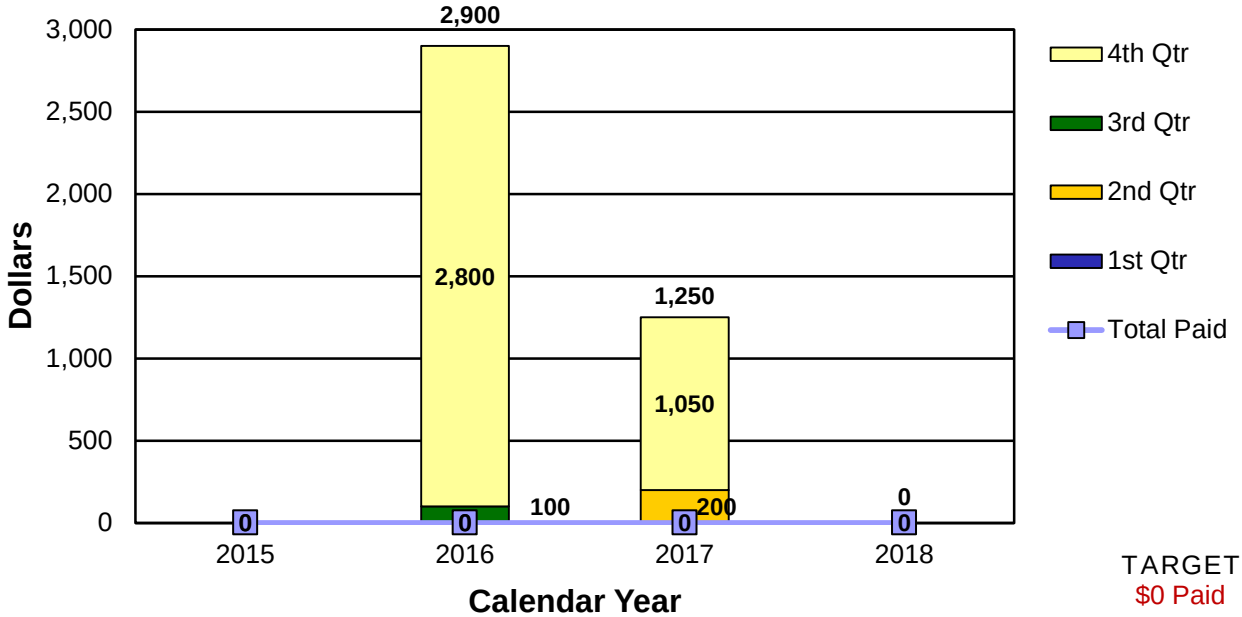
Continued communication with the field staff and district contacts to keep everyone engaged and focused will assist MoDOT in keeping on track and meeting the target.

Number of Stormwater Violations on Mandated Projects



TARGET
0 Violations

Anticipated and Total Paid Amounts for Stormwater Violations



TARGET
$0 Paid

RESULT DRIVER:
Brenda Morris
Financial Services Director

MEASUREMENT DRIVER:
Amy Wilson
Assistant Information Systems Director

PURPOSE OF THE MEASURE:
This measure reports how MoDOT ranks in cybersecurity incidents per employee compared to other state agencies. An incident is defined as any threat that standard anti-virus protection software can't detect.

MEASUREMENT AND DATA COLLECTION:
Data for this measure is captured from the Office of Administration reporting and individual agency websites.

A target for this measure is in the process of being determined.

The reporting period for this measure is a rolling 12 months.

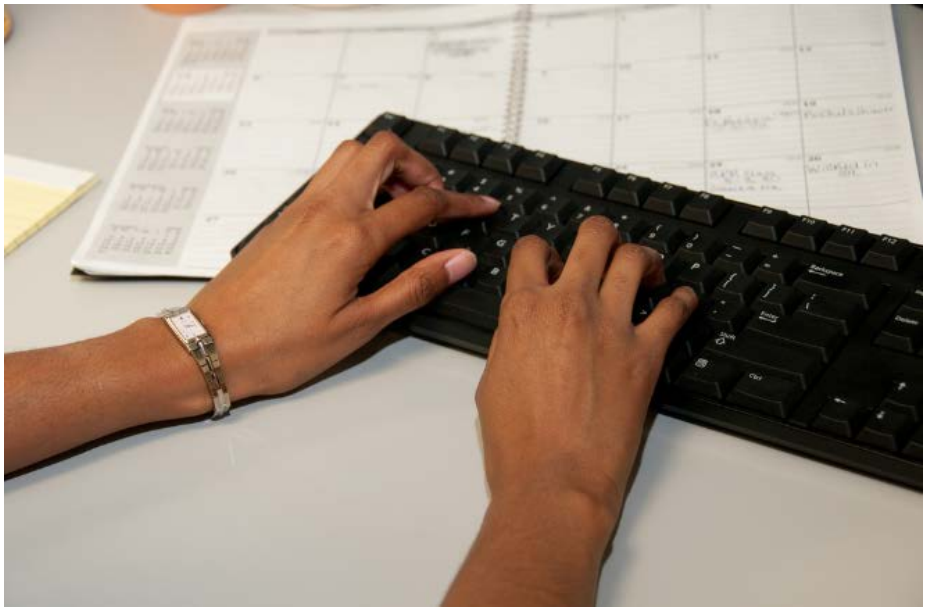
USE RESOURCES WISELY

MoDOT state ranking in cybersecurity incidents per employee – 6l

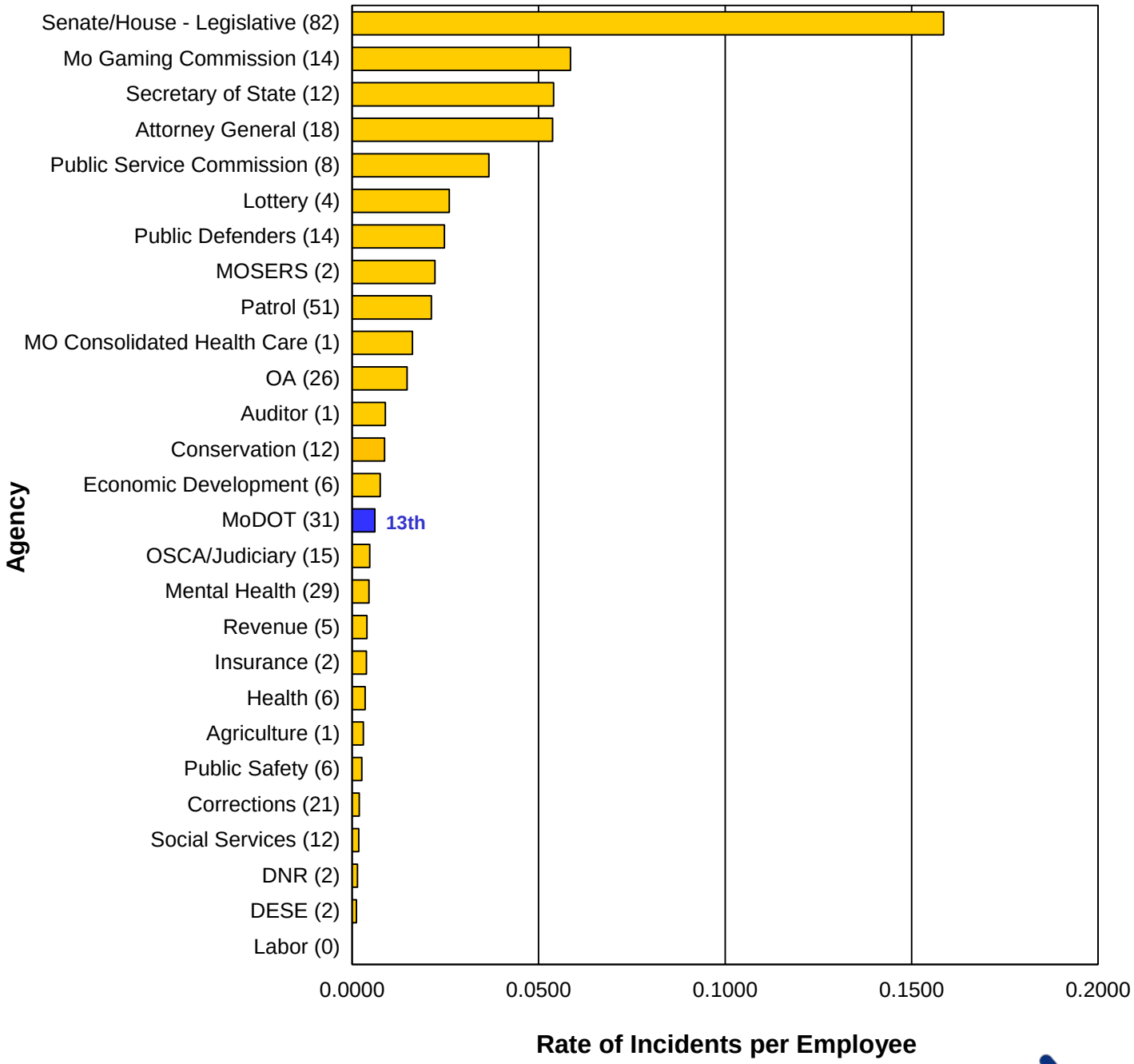
MoDOT uses thousands of computer devices to get its work completed from thousands of locations around the state. Keeping those computers safe from outside computer threats is a 24-hour job using the latest security measures. Still, it's a responsibility all department computer users must share.

During the year ending March 30, 2018, MoDOT ranked 13th compared to all other state agencies in terms of cybersecurity incidents per employee. MoDOT's total of 31 cybersecurity incidents equated to a rate of .0061 incidents per employee. This is a decrease from the last reporting period. Incidents included an infected document download, web browsing drive-by events, infected site on a Google search and other targeted technology exploits.

MoDOT continues to emphasize cybersecurity with users and provides cybersecurity training for all department computer users. The department's cybersecurity oversight team works to define areas of vulnerability and deploy solutions to address those risks.



MoDOT State Ranking in Cybersecurity Incidents per Employee
(Mar. 1, 2017 - Apr. 1, 2018)



*Number inside the parentheses indicates the number of incidents

DESIRED TREND

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ADVANCE ECONOMIC DEVELOPMENT

Lester Woods, External Civil Rights 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:
Lester Woods
External Civil Rights Director

MEASUREMENT DRIVER:
Eva Voss
Transportation Planning Specialist

PURPOSE OF THE MEASURE:
This measure tracks the economic impact resulting from the state's transportation investments.

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

This target was set by analyzing historical performance. MoDOT would like to reach the performance level that was achieved in the 2014-2018 STIP cycle.

ADVANCE ECONOMIC DEVELOPMENT

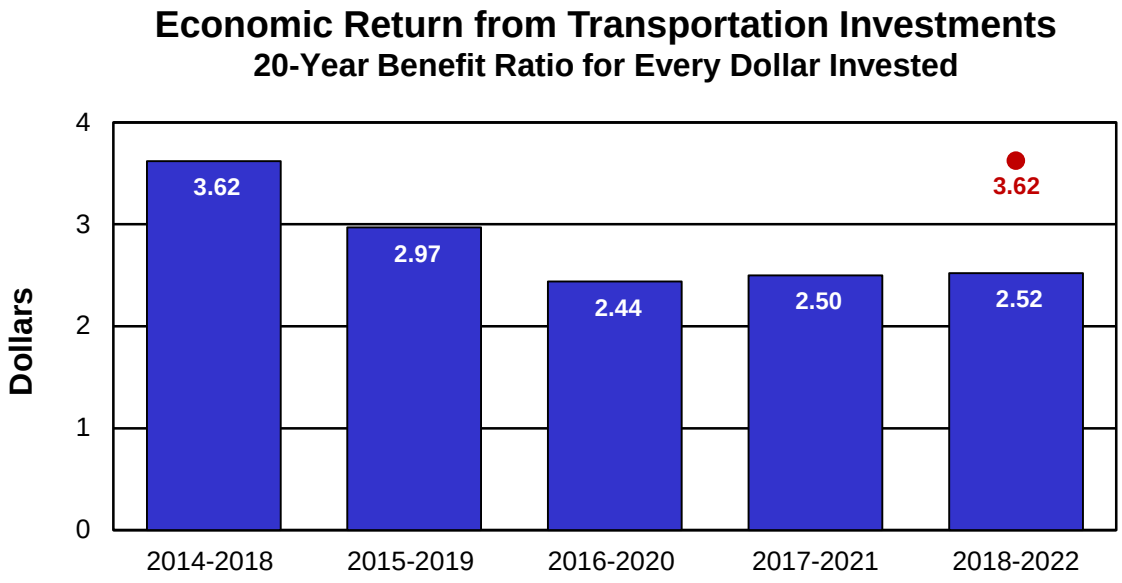
Economic return from transportation investment – 7a

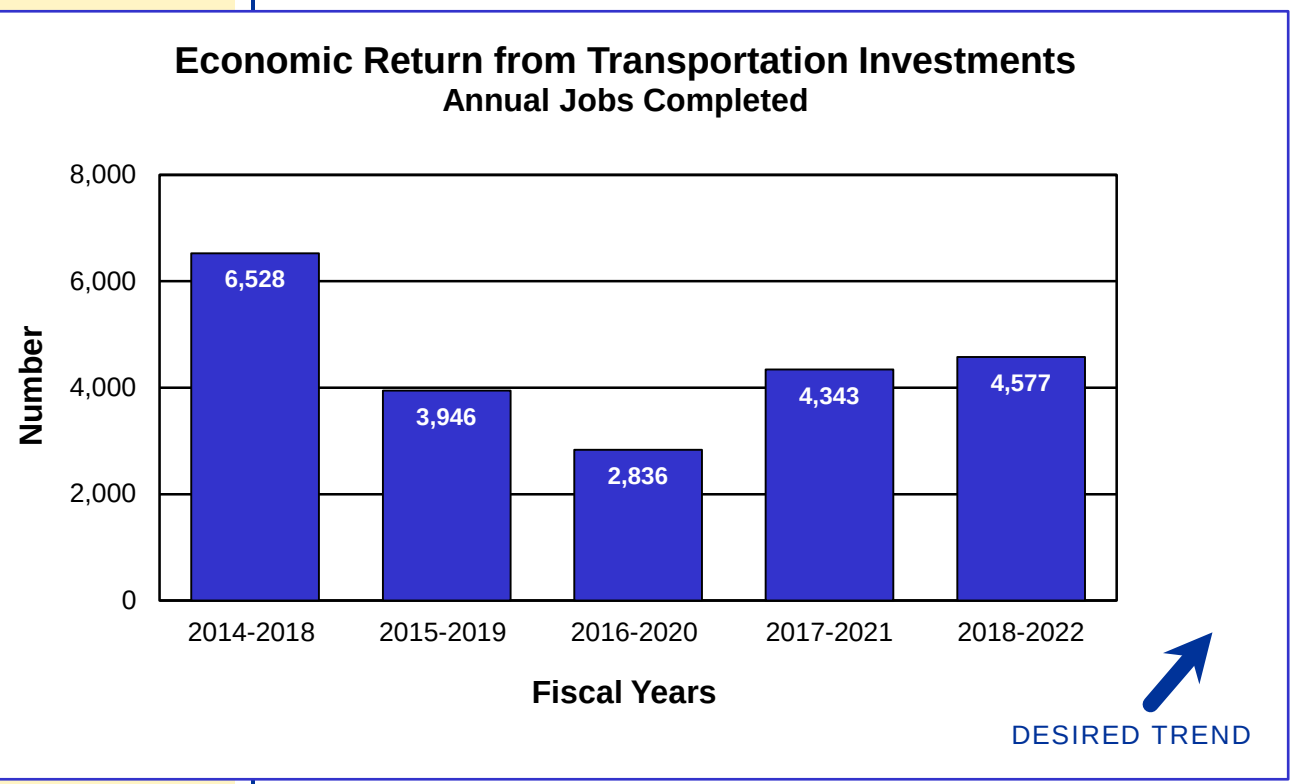
Investment in transportation improvements has long been held as a major economic engine that drives growth in job creation, personal income and new value added to Missouri's economy.

Based on MoDOT's 2018-2022 Statewide Transportation Improvement Program investment of $5.9 billion, the program is estimated to create 4,577 jobs – a 5 percent increase when compared to MoDOT's 2017-2021 STIP. Transportation investments are expected to contribute $14 billion of economic output during the next 20 years, resulting in a $2.52 return on every $1 invested in transportation. This year's return on investment, $2.52, is approximately a 1 percent increase in comparison to last year's STIP return of $2.50.

The increase in economic return is due to the increasing construction investment of highway and bridge improvements. Though these figures tell a powerful economic story, they are also a sign of missed opportunity. Current investments must focus on maintaining our current transportation system rather than new major projects that offer a larger economic return.

ADVANCE ECONOMIC DEVELOPMENT





ADVANCE ECONOMIC DEVELOPMENT

Goods movement competitiveness – 7b

RESULT DRIVER:
Lester Woods
External Civil Rights Director

MEASUREMENT DRIVER:
Cheryl Ball
Administrator of Freight and Waterways

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

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

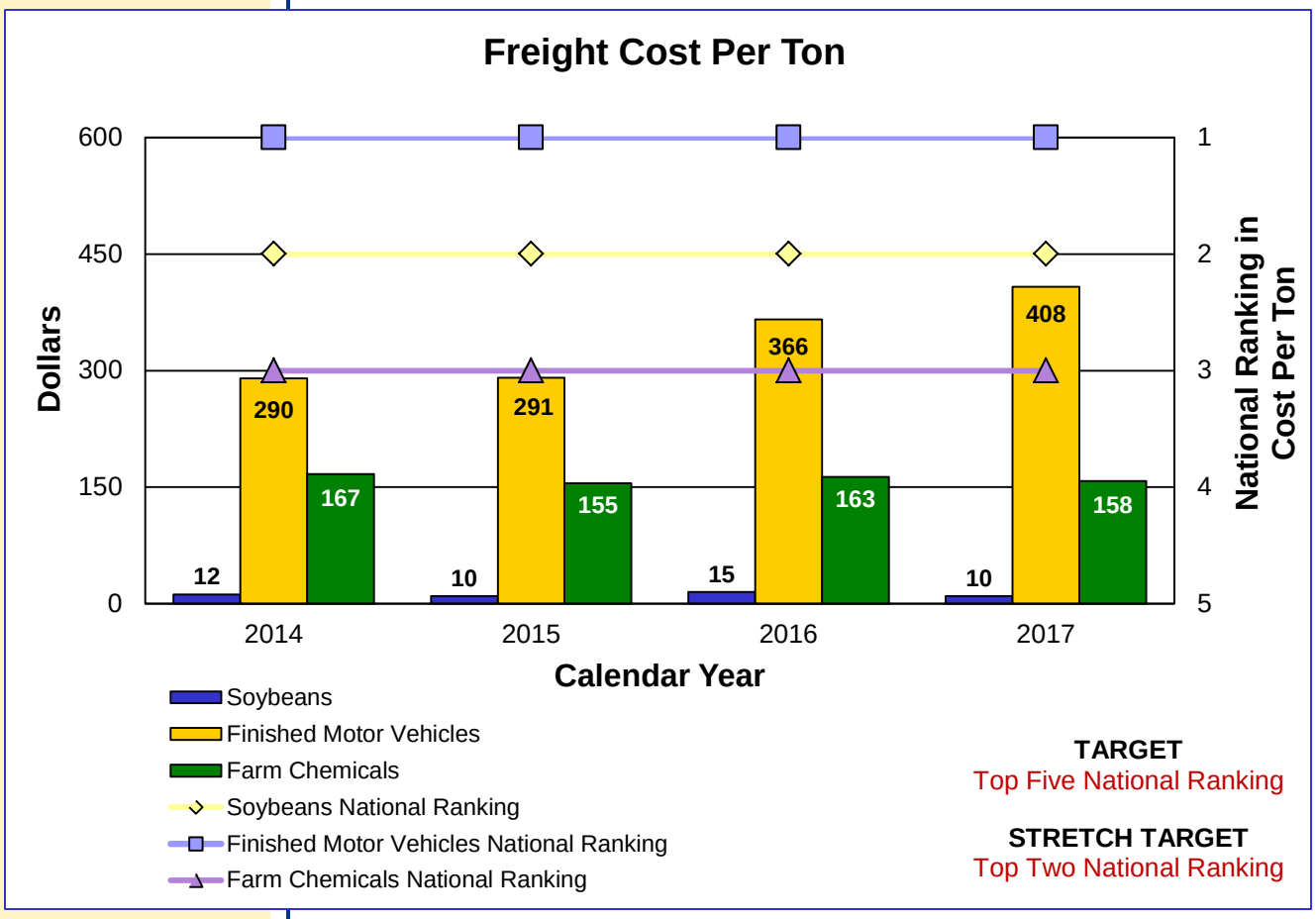
Product transportation costs vary depending on the efficiency, reliability, safety and modal options in a state's transportation system. Accumulation of costs to transport, starting at product origination through travel to the production facility and finally to market, directly impact the final cost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

The three key Missouri products (soybeans, finished motor vehicles and chemical manufacturing) account for more than $8 billion in revenue annually and employ more than 300,000 Missouri workers. Missouri producers of these products compete with other states and other countries for customers. MoDOT compares Missouri transportation costs to those of the closest domestic competitors. At this time, Missouri's transportation cost is among the lowest of these competitors.

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

MoDOT plays an active role in keeping costs low by working with existing businesses to identify transportation barriers that reduce their competitiveness regardless of transportation mode. These barriers can include bridges with load postings, closed bridges, rough pavement, at-grade rail crossings, congestion and inability to access a port or airport. MoDOT works to find solutions for these barriers, but Missouri's transportation funding does not allow the agency to fully respond to those needs.

ADVANCE ECONOMIC DEVELOPMENT



RESULT DRIVER:
Lester Woods
External Civil Rights Director

MEASUREMENT DRIVER:
Bryan Ross
Senior Multimodal Operations Specialist

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

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

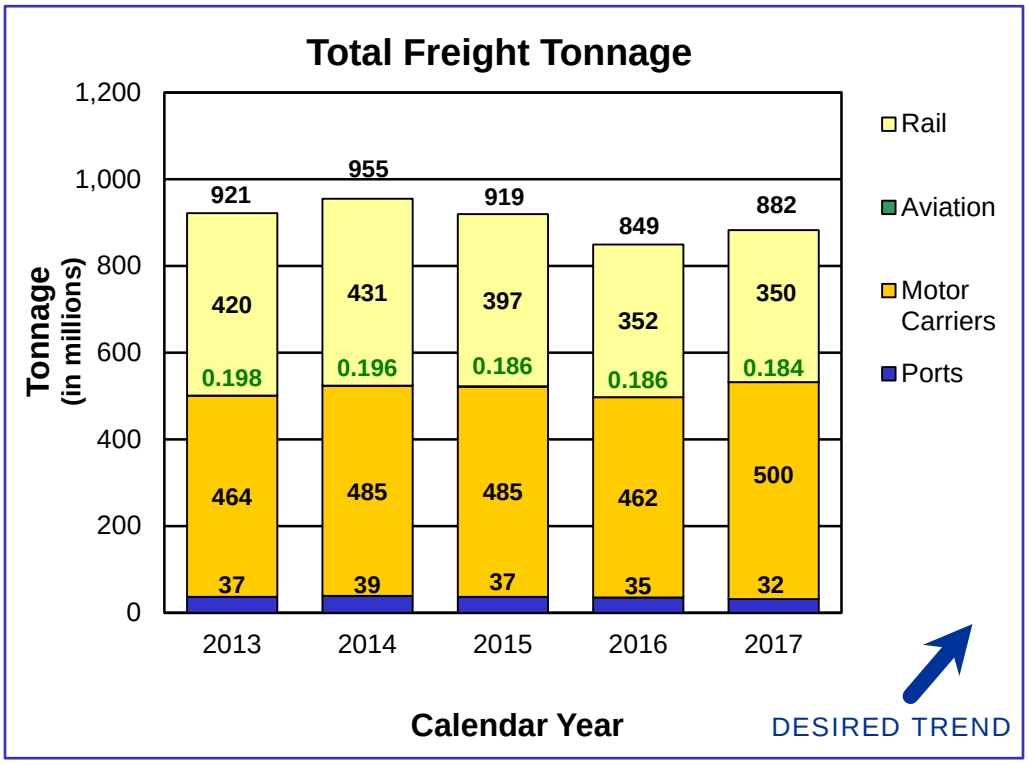
ADVANCE ECONOMIC DEVELOPMENT

Freight tonnage by mode – 7c

Everything comes from somewhere. How it gets from place to place depends on a number of factors. The different transportation 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.

State funding cannot address transportation needs other than highways and bridges. Moving hundreds of million tons of freight a year requires thoughtful improvements of transportation facilities such as ports, railroads and airports. Yet many of these needs remain underfunded.

In calendar year 2017, Missouri experienced an overall 3.9 percent increase in freight movements as compared to 2016. However, only freight movement by truck experienced an increase (8.2 percent), while the other modes each saw decreases (rail -0.5 percent; water -8.6 percent; air -1.1 percent). Coal continues to be the largest commodity shipped by rail, and while coal shipments increased from 2016-2017, 2017 still marked the second fewest number of carloads of coal since 1988. Motor carriers continued to haul the most tonnage and experienced an 8 percent increase in shipping, which parallels an increase in U.S. consumer spending and the overall economy. However, ports experienced an estimated 8.6 percent decrease in tonnage. The reduction made in the estimate of waterborne shipments is attributed to a rush of shipments made in late December 2016 that normally would have been made in January 2017, plus flooding on the Mississippi River in April/May 2017.



RESULT DRIVER:
Lester Woods
External Civil Rights Director

MEASUREMENT DRIVER:
Brian Reagan
Transportation System Analysis Engineer

PURPOSE OF THE MEASURE:
This measure is proposed to be used as a Fixing America's Surface Transportation Act national freight performance measure.

MEASUREMENT AND DATA COLLECTION:
Annual hours of truck delay quantifies the extra time spent by commercial motor vehicles on an interstate corridor based upon a state-determined threshold. Missouri's threshold is set at 55 mph in St. Louis and Kansas City. All other rural areas have a threshold of 65 mph. Speeds below that rate indicate congestion and/or other delay factors for trucks. Missouri chose this threshold because many commercial trucks are governed at 65 mph even though the posted speed limit for most interstate highways is 70 mph. Commercial vehicle delays 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.

This target will be updated annually.

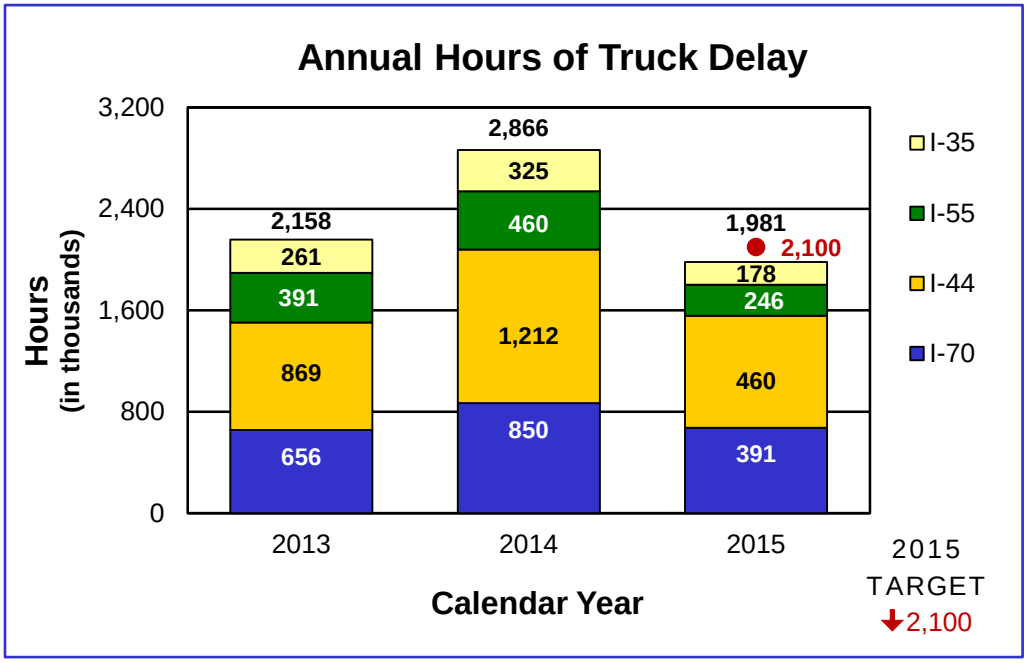
ADVANCE ECONOMIC DEVELOPMENT

Annual hours of truck delay – 7d

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

Growth in freight volumes is a major contributor to congestion in urban areas and on intercity routes. Long-distance freight movements are often a significant contributor to local congestion, and local congestion typically impedes freight to the detriment of local and distant economic activity. Unfortunately, Missouri's long-term transportation funding is insufficient to address congestion factors.

On average, those shipping by truck can expect a delay of 13.3 minutes per trip on I-70, 29.2 minutes on I-44, 12.7 minutes on I-55 and 8.6 minutes on I-35. The annual cost of delay for the trucking industry on I-70 is $45.7 million, $58.1 million on I-44, $16.9 million on I-55 and $12.3 million on I-35.



***2013 data contains only July through December.**

RESULT DRIVER:
Lester Woods
External Civil Rights Director

MEASUREMENT DRIVER:
Brian Reagan
Transportation System Analysis Engineer

PURPOSE OF THE MEASURE:
This reliability measure is proposed to be used as a Fixing America's Surface Transportation Act national freight performance measure. By annually comparing the reliability index number for each corridor, MoDOT can determine if the corridor has become less or more reliable. A lower index for a succeeding year means reliability has improved.

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

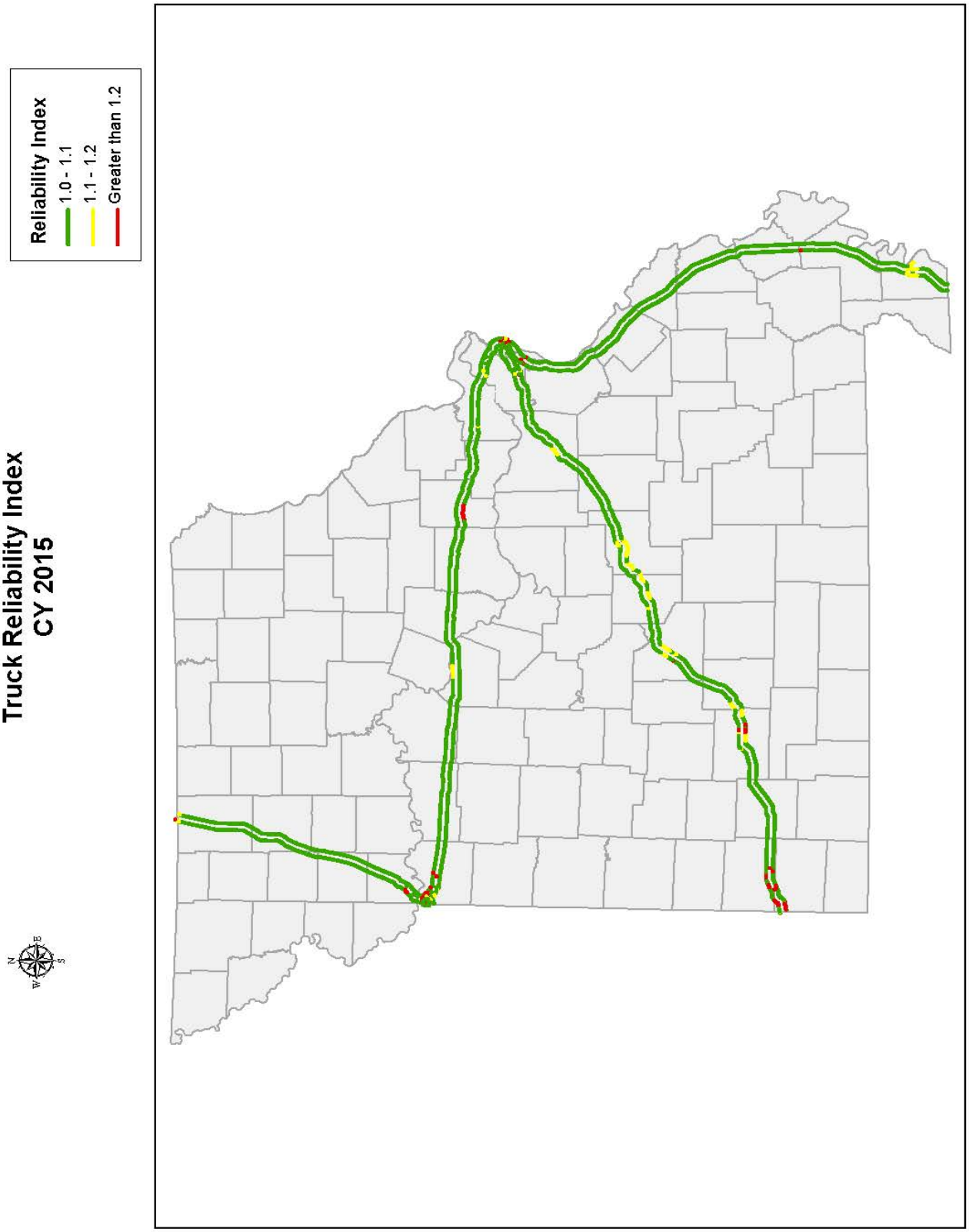
ADVANCE ECONOMIC DEVELOPMENT

Truck reliability index – 7e

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

In 2015 Kansas City and St. Louis metropolitan areas both improved truck travel time reliability reducing previously identified red areas. Springfield and Joplin were unchanged. I-35 South improved in Clay County near Liberty from yellow to green. I-70 East improved in Lafayette County at both Odessa and Concordia from yellow to green. I-44 East improved in Pulaski County near Waynesville from red to yellow and Franklin County near St. Clair from yellow to green. I-55 South improved in New Madrid County near Marston from yellow to green and Pemiscot County near Caruthersville from red to yellow.

MoDOT continually seeks ways to deliver the infrastructure to support reliable trips for drivers and to help keep costs down and improve travel-time reliability.


Reliability Index
1.0 - 1.1
1.1 - 1.2
Greater than 1.2
Truck Reliability Index
CY 2015

RESULT DRIVER:
Lester Woods
External Civil Rights Director

MEASUREMENT DRIVER:
Sunny Wilde
Financial Services Coordinator

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

MEASUREMENT AND DATA COLLECTION:
Data for this measure is collected from a partnership development database. This measure is based on the state fiscal year.

ADVANCE ECONOMIC DEVELOPMENT

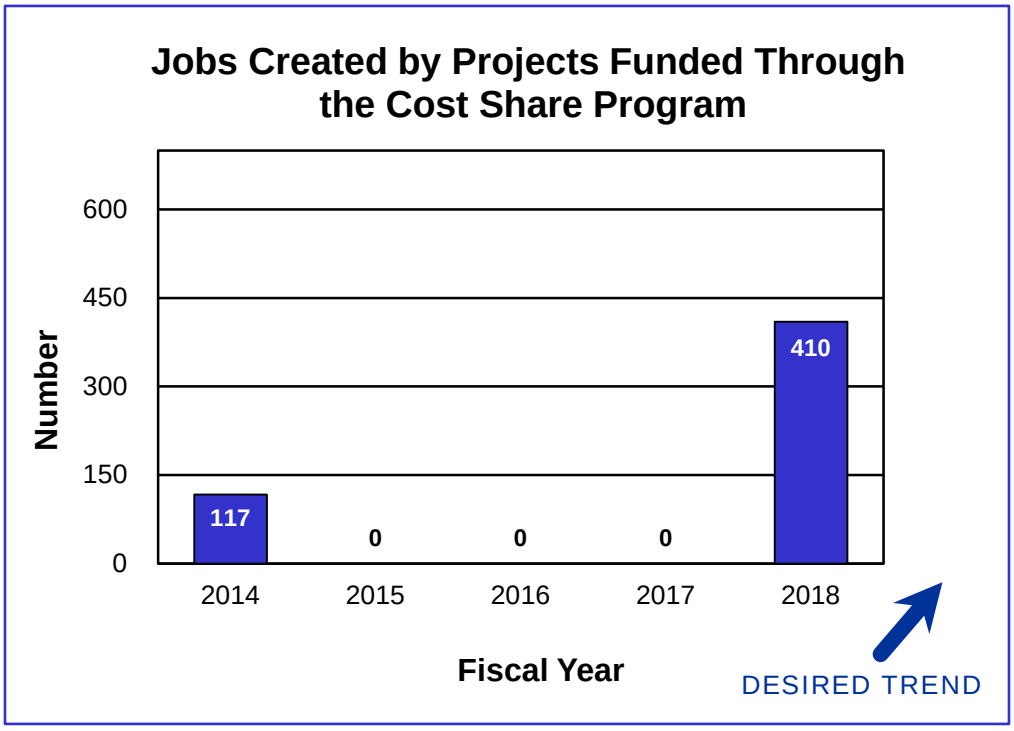
Jobs created by projects funded through the cost share program – 7f

The Cost Share Program builds partnerships with local entities to pool efforts and limited resources in order to deliver state highway and bridge projects. MoDOT allocates Cost Share funds annually based on the funding distribution formula set by the Missouri Highways and Transportation Commission. Ten percent of the Cost Share Program funds are set aside for projects that demonstrate economic development through job creation. MoDOT works in cooperation with the Department of Economic Development with project sponsors to determine when targeted investments can be made to create jobs and may provide up to 100 percent of participation costs. Retail development projects do not qualify as economic development projects that create jobs.

Projects approved in FY 2018:

- City of Farmington/St. Francois County – Construct J-turns and close two crossovers on Route 67 for the Centene Corporation (275 jobs).
- Stoddard County – Construct left turn lane and resurfacing on Route 25 and Route Y for Nestle Purina (50 jobs).
- City of Monett – Intersection improvements of Route 60 and Route 37 for Schrieber Dairy (85 jobs).

The Cost Share Program was suspended in Fiscal Years 2015, 2016 and 2017.



RESULT DRIVER:
Lester Woods
External Civil Rights Director

MEASUREMENT DRIVER:
Beckie Brietzke
Senior Diversity and Inclusion Specialist

PURPOSE OF THE MEASURE:
This measure tracks minority and women 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. The availability number is derived from two different sets of data; the 2010 census and the current pool of MoDOT employees who are trainable, transferable or promotable. The two statistics are factored together and weighted based on the hiring practices from the previous year. The weighted number allows for a more accurate reflection of the hiring process. This number ultimately conveys the number of women and minorities who currently possess the skills necessary to work for the department.

The target for this measure is based on Missouri's availability and is set each October.

ADVANCE ECONOMIC DEVELOPMENT

Percent of minorities and women employed – 7g

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 increased about 4.3 percent (493 to 518) from third quarter fiscal year 2017 to third quarter FY 2018.

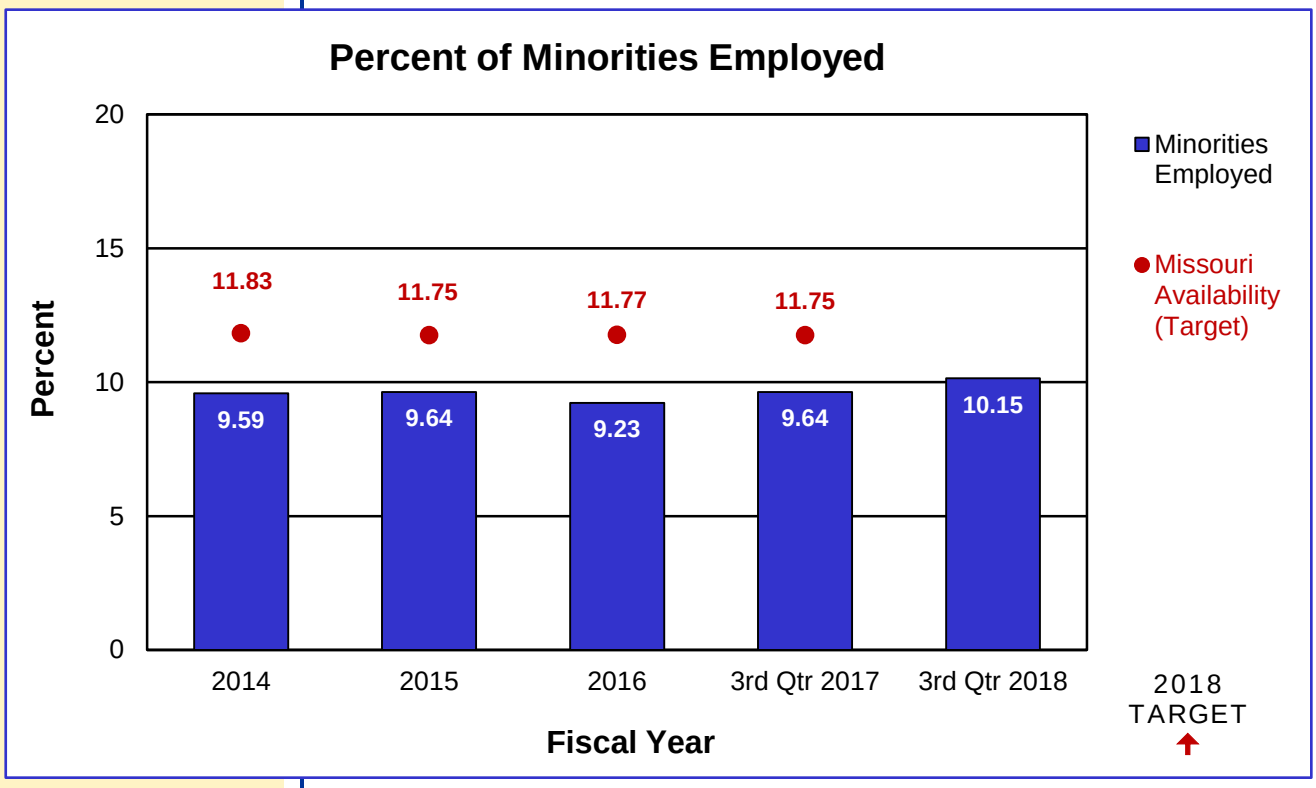
The number of women employees decreased slightly from third quarter FY 2017 to third quarter FY 2018 (927 to 919).

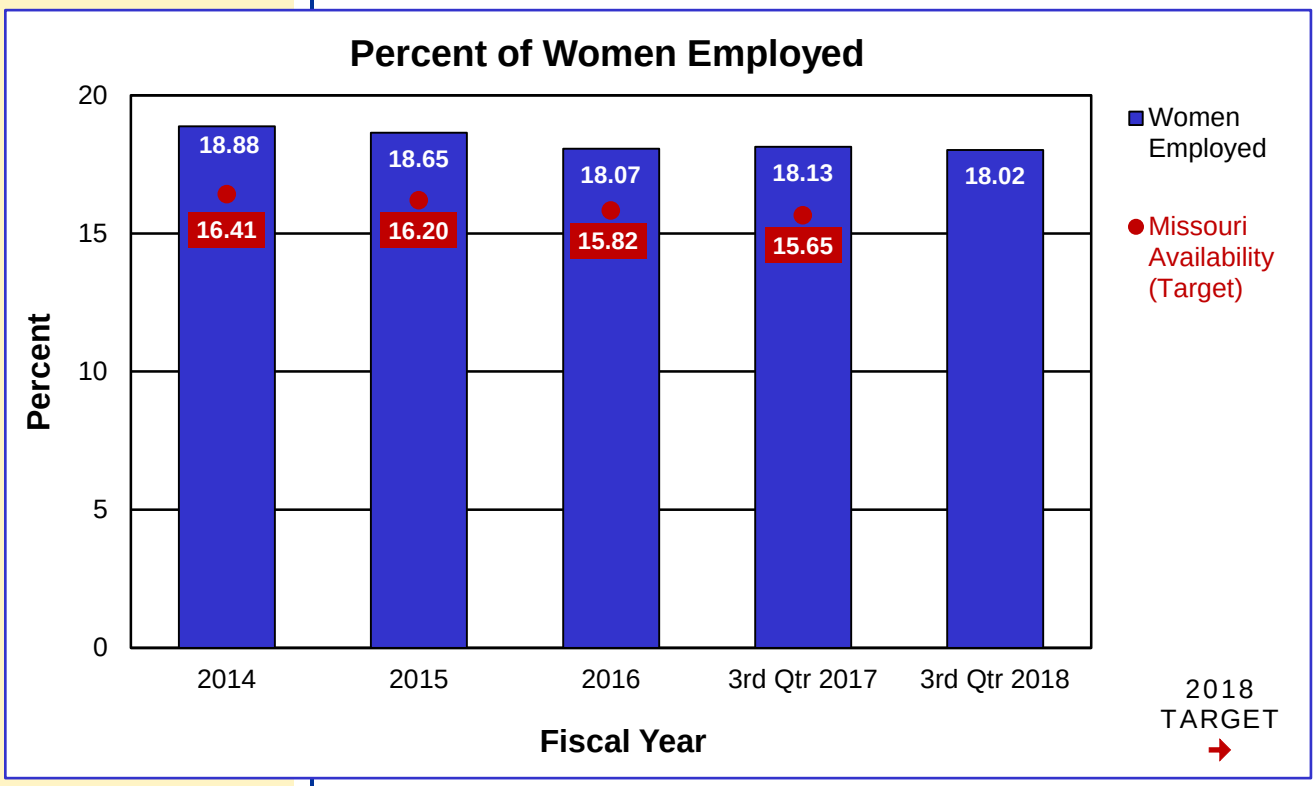
The Missouri availability (target) number was not able to be determined this quarter.

Total full-time employment between third quarter FY 2017 and third quarter FY 2018 decreased from 5,114 to 5,101 employees.

Recently, MoDOT has developed new relationships with organizations and universities that are geared toward minorities and women. MoDOT has expanded its partnership with Lincoln University to include employment preparedness training opportunities and increased presence in discipline-specific classrooms. These good-faith efforts aid in increasing an applicant pool of qualified minorities and women, which ultimately helps narrow the gap between actual employment and target employment of minorities and women.

ADVANCE ECONOMIC DEVELOPMENT





Note: Missouri availability data is not available for 3rd quarter 2018

RESULT DRIVER:
Lester Woods
External Civil Rights Director

MEASUREMENT DRIVER:
Missy Stuedle
External Civil Rights Manager

PURPOSE OF THE MEASURE:
This measure tracks the percent of Disadvantaged Business Enterprise use on construction and engineering projects.

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

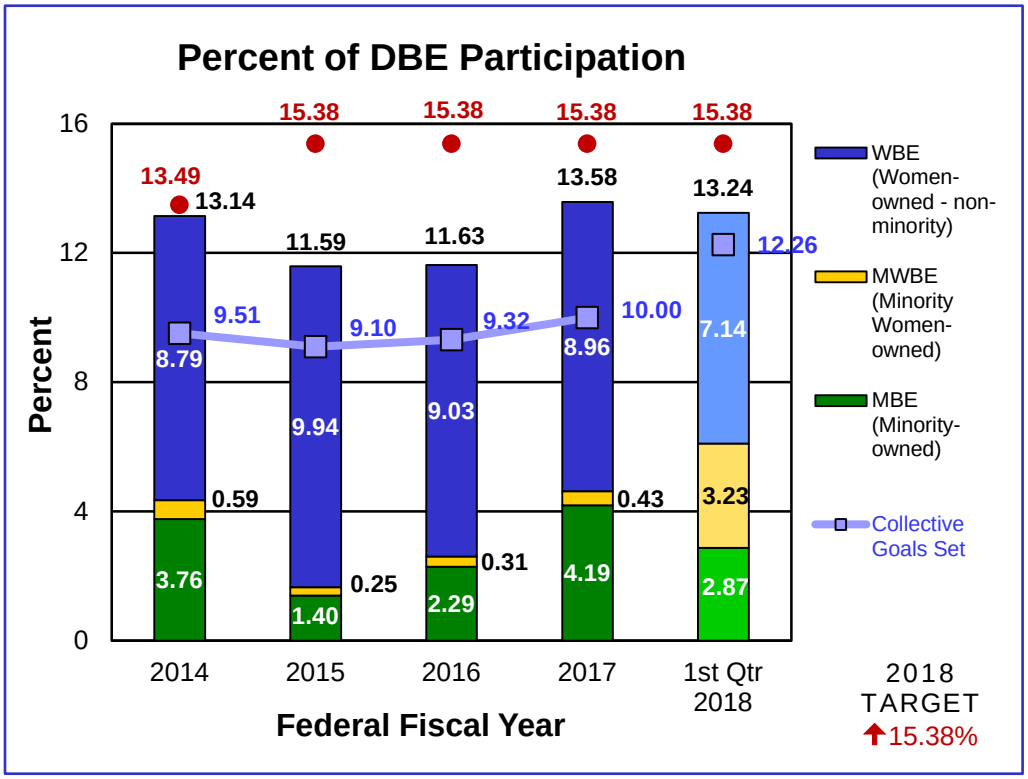
The target for this measure is set by FHWA policy and is updated every three years.

ADVANCE ECONOMIC DEVELOPMENT

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

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

The overall DBE target for federal fiscal year 2018 is 15.38 percent. The DBE participation for first quarter FFY 2018 is 13.24 percent. This is a 0.34 percent decrease from FFY 2017. Of the 13.24 percent utilization, 2.87 percent was participation from minority-owned DBE firms, 3.23 percent was participation from minority women-owned DBE firms and 7.14 percent was participation from women-owned DBE firms. The collective goals set for projects closed during this period amounted to 12.26 percent. To narrow the gap between the target and performance, MoDOT is conducting outreach meetings to encourage new firms to apply for DBE certification and using DBE supportive services funding to expand the capacity of certified DBE firms.



RESULT DRIVER:
Lester Woods
External Civil Rights Director

MEASUREMENT DRIVER:
Kevin Kiesling
General Services Manager

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

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

The target for this measure is an average of the availability percentage of minority-owned and women-owned businesses and MoDOT's most recent five-year average utilization. This target will be updated annually in October.

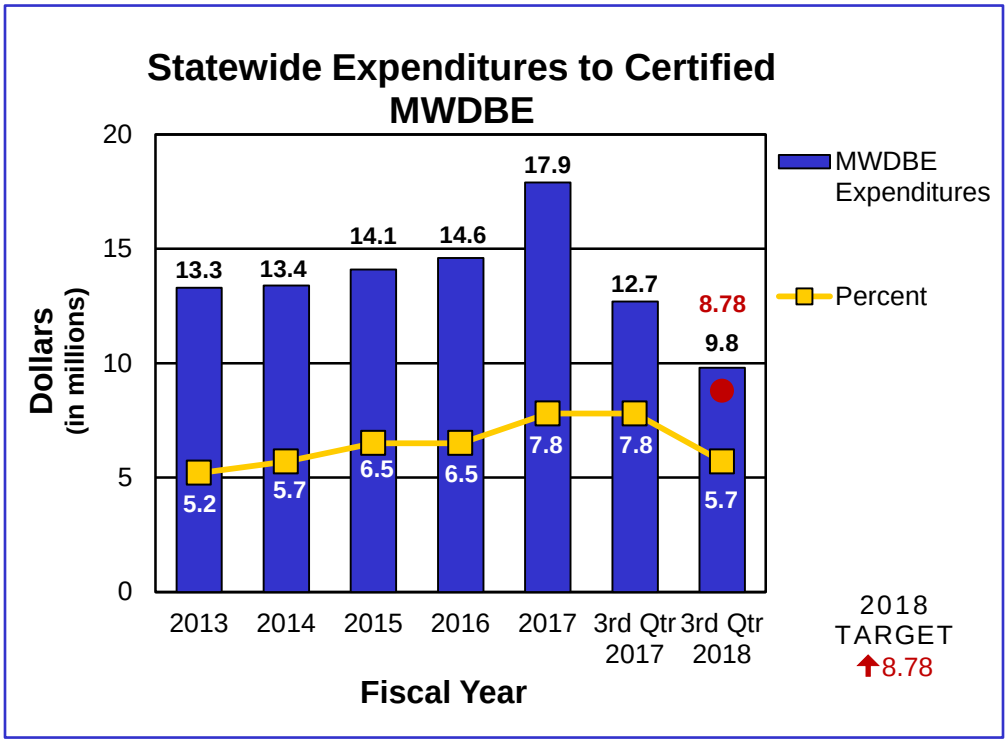
ADVANCE ECONOMIC DEVELOPMENT

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

Ensuring MoDOT spending is reflected in all 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 in order to encourage them to become certified and focused inclusion efforts.

Fiscal year 2018 third quarter results show a decrease of $2.9M in MWDBE disbursements compared to the third quarter of FY 2017. Compared to third quarter FY 2017, the FY 2018 percentage of MWDBE expenditures decreased by 2.1 percent of total expenditures.

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



RESULT DRIVER:
Lester Woods
External Civil Rights Director

MEASUREMENT DRIVER:
Jay Wunderlich
Governmental Relations Director

PURPOSE OF THE MEASURE:
This measure tracks the department's efforts toward eliminating restrictive language and unnecessary administrative rules that may hinder business growth in the state.

MEASUREMENT AND DATA COLLECTION:
Missouri Gov. Greitens' staff has given department managers a list of administrative rules containing restrictive language. Restrictive language includes any regulation containing the words "shall," "must," "may not," "required" or "prohibited." MoDOT business areas linked to those rules will conduct a full review to determine ways to amend rules to eliminate restrictive language or eliminate those rules entirely. Progress will be collected in a shared spreadsheet.

ADVANCE ECONOMIC DEVELOPMENT

Number of Restrictive Regulations Eliminated – 7j

Being a business-friendly state can be a big plus in attracting and retaining business investments. A major decision point for many businesses is the amount of red tape or restrictive government rules they will encounter doing business in a state. Restrictive government rules also can mean lost time and revenue for existing businesses.

In 2016, *Forbes* magazine ranked Missouri as the 12th best state to do business in based on its regulatory environment. In January 2017, in an effort to improve that ranking and drive the state's economy, Missouri Gov. Eric Greitens issued a challenge to all state agencies to eliminate one-third of their restrictions by May 2018. For MoDOT, this targeted number is 868. Reducing restrictive regulatory language may result in fewer department-wide administrative rules.

To date, MoDOT has eliminated 1,533 restrictions representing 58 percent of the 2,631 restrictions within its administrative rules. These changes resulted in 100 regulations being amended and 49 being rescinded. MoDOT has reviewed 96 percent of its 214 adminstrative rules containing restrictive language.

ADVANCE ECONOMIC DEVELOPMENT