



Tracker

MEASURES OF DEPARTMENTAL PERFORMANCE

Photo features: Kyle Fischer – Central District, Jefferson City Maintenance Supervisor

New year, new direction



In December, I told you we were planning to make several changes in the way we are structured. This decision came from your feedback about the need to focus more on safety and people and from observations received from an independent organizational assessment, as well as by a high rate of employee turnover and budget limitations that have affected our ability to effectively staff for the future. To address these issues, and to ensure our focus and management structure would more adequately reflect our core values of safety, service and stability, we created two new leadership positions: Chief Safety and Operations Officer and Chief Administrative Officer. We also went to work to fill the vacant positions of Assistant Chief Engineer and Chief Financial Officer.

The first step was elevating Ed Hassinger to the new position of Deputy Director/Chief Engineer in the Director's Office. Additionally, we have filled the Assistant Chief Engineer and Chief Financial Officer vacancies and created two additional leadership positions: Chief

Safety and Operations Officer, and Chief Administrative Officer. Eric Schroeter has been selected as Assistant Chief Engineer and Brenda Morris has assumed the duties of Chief Financial Officer. Becky Allmeroth will bring her extensive experience to the position of Chief Safety and Operations Officer and Micki Knudsen has been named Chief Administrative Officer.

Fitting perfectly with our culture of measuring performance, we plan to further review our business and operating practices to standardize best practices throughout the state to continue our efforts to deliver great transportation system value to all Missourians.

As 2018 ended, I was very encouraged to discover that Missourians are getting the message when it comes to safety belt usage. The latest Missouri Seat Belt Usage Survey, which has been taken annually since 1998, shows 87.1 percent of Missourians use their seat belts. This is the highest rate ever and puts us closer to the national average of 89.7 percent.

I'm also very proud of our MoDOT family for last year's Missouri State Employee Charitable Campaign. Thanks to all of you, MoDOT has reclaimed the top spot in giving among all state departments, pledging \$131,412 in 2018—a solid increase over our 2017 total of \$125,186.

As I said before—but it bears repeating—I am humbled to be a part of an organization made up of such caring and competent individuals.

With warm regards,

Patrick K. McKenna

Mission

Our mission is to provide a world-class transportation system that is safe, innovative, reliable and dedicated to a prosperous Missouri.

2018 National Performance Report Card

RANKINGS	
1-10	= A
11-20	= B
21-30	= C
31-40	= D
41-50	= F



Road Conditions

Current Performance = 90 percent major highways (5,517 miles) in good condition. 76 percent of minor highways (28,339) in good condition.
National Ranking = Missouri had the 9th best pavements on the National Highway System. (FHWA Highway Statistics)



Customer Satisfaction

Current Performance = 83 percent satisfied customers
National Ranking = Missouri trails the highest rated company on the American Customer Satisfaction Index by only 4 percent.



Project Management

Current Performance = Missouri road and bridge projects were delivered within 0.8 percent of the award amount and 93 percent were delivered on-time.
National Ranking = Not available.



Congestion (travel time index)

Current Performance = Kansas City - 1.13 St. Louis - 1.15
National Ranking = Kansas City (9th) and St. Louis (10th) rank as some of the least congested urban areas in the U.S. (Texas Transportation Institute)



Administrative Costs

Current Performance = \$2,187 cost per mile
National Ranking = Missouri has the 3rd lowest administrative cost per mile. (FHWA Highway Statistics)



Infrastructure for Business

Current Performance = No internal measure
National Ranking = A CNBC business study ranks Missouri's infrastructure as the 11th best for business.



Number of Fatalities

Current Performance = 932 fatalities
National Ranking = Only 12 states experienced more motor vehicle deaths ranking Missouri 38th. (National Safety Council)



Bridge Conditions

Current Performance = 8 percent of Missouri bridges in poor condition by deck area.
National Ranking = Missouri ranked 38th for the percent of bridges in poor condition by deck area. (FHWA Highway Statistics-2017)



Revenue

Current Performance = \$50,882 revenue per mile
National Ranking = Missouri has the 48th lowest revenue per mile. (FHWA Highway Statistics)



Employee Turnover

Current Performance = 11.99 percent
National Ranking = Not available; However, **Stretch Target** = 6 percent. (Price Waterhouse Cooper's Saratoga Institute benchmark data)

MODOT VALUES

TANGIBLE RESULTS

SAFETY

Be Safe

Keep Customers and Ourselves Safe

Be Accountable

SERVICE

Be Respectful

Be Inclusive

Provide Outstanding Customer Service

Deliver Transportation Solutions of Great Value

Use Resources Wisely

Be Bold

Be Better

STABILITY

Be One Team

So we can be a great organization

Keep Roads and Bridges in Good Condition

Operate a Reliable and Convenient Transportation System

Advance Economic Development

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Keep Roads and Bridges in Good Condition – Dennis Heckman			
Percent of highways in good condition	July	Steve Engelbrecht	2a
Condition of state bridges	July	Jerad Noland	2b
Percent of structurally deficient deck area on National Highway System	July	Dave Wyman	2c
Provide Outstanding Customer Service – Tom Blair			
Percent of overall customer satisfaction	October	Sally Oxenhandler	3a
Percent of customers who view MoDOT as Missouri's transportation expert	October	Gregg Ochoa	3b
Percent of customers who trust MoDOT to keep its commitments to the public	October	Markl Johnson	3c
Percent of customers who feel MoDOT provides timely, accurate and understandable information	October	Jennifer Williams	3d
Percent of customers satisfied with MoDOT's customer service	Quarterly	Tammy Wallace	3e
Customer communication engagement	Quarterly	Taylor Brune	3f
Deliver Transportation Solutions of Great Value – Eric Schroeter			
Percent of programmed project cost as compared to final project cost	Quarterly	Doug Hood	4a
Percent of projects completed on time	Quarterly	Dan Oesch	4b
Percent of change for finalized contracts	Quarterly	Lori Greer	4c
Innovative contracting methods	July	David Simmons	4d
Value engineering	January/July	Sarah Kleinschmit	4e
Percent of customers who believe completed projects are the right transportation solutions	April	Brandi Baldwin	4f
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Number of full-time equivalencies expended	Quarterly	Paul Imhoff	6a
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Level of job satisfaction	October	Elizabeth Reed	6c
State and federal revenue budgets	Quarterly	Janel Lueckenotte	6d
Number of dollars generated through cost-sharing and partnering agreements for transportation	October	Frank Miller	6e
Percent of state funds invested in non-highway modes of transportation	October	Joni Roeseler	6f
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Percent of minorities and women employed	Quarterly	Beckie Brietzke	7e
Percent of disadvantaged business enterprise participation on construction and engineering projects	Quarterly	Missy Stuedle	7f
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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.

RESULT DRIVER:

Mark Shelton
District Engineer

MEASUREMENT DRIVER:

Tonya Lohman
District Maintenance and
Traffic Engineer

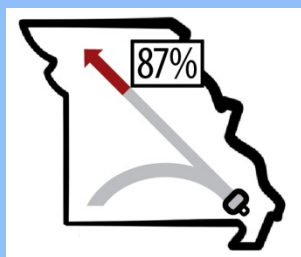
PURPOSE OF THE MEASURE:

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 for fatalities and a 5 percent improvement in serious injuries from the immediate prior year.



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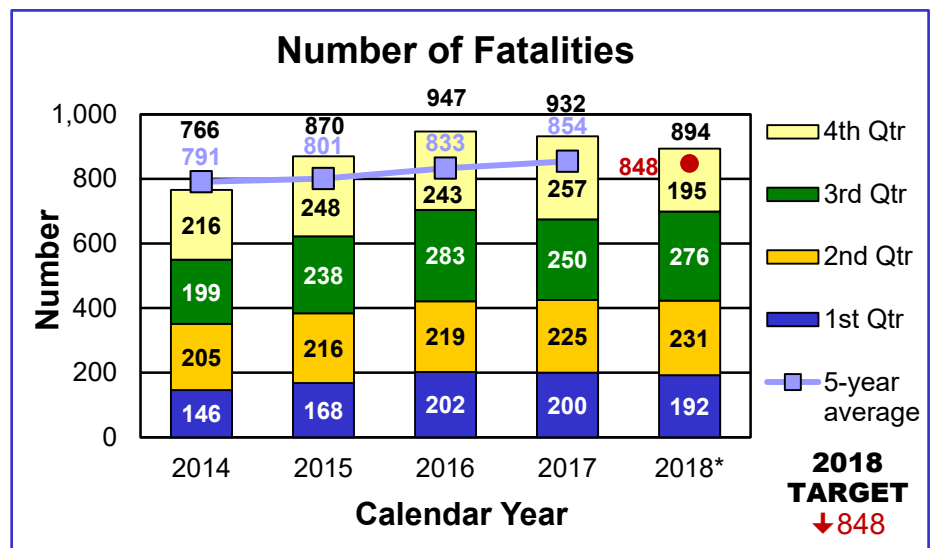
Number and rate of fatalities and serious injuries – 1a

The ultimate goal is for everyone to reach their destination safely. MoDOT supports *Missouri's Blueprint – A Partnership Toward Zero Deaths*, 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.

Safety culture is being improved through statewide strategic initiatives such as Buckle Up Phone Down. This is an opportunity for citizens, businesses and MoDOT employees to commit to driving without distractions by putting the phone down and having all passengers use safety belts.

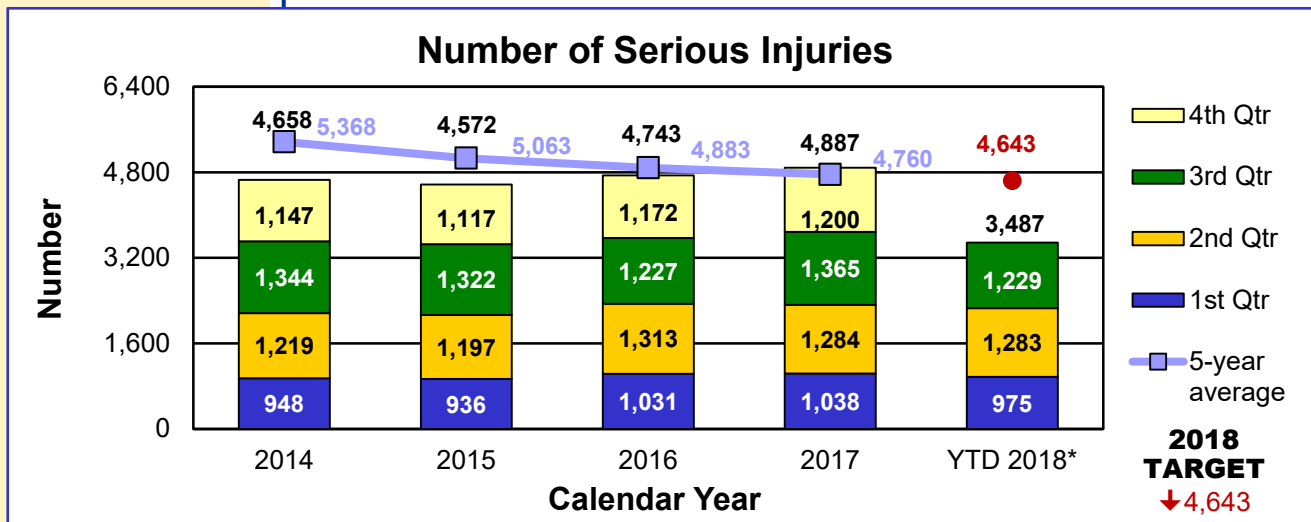
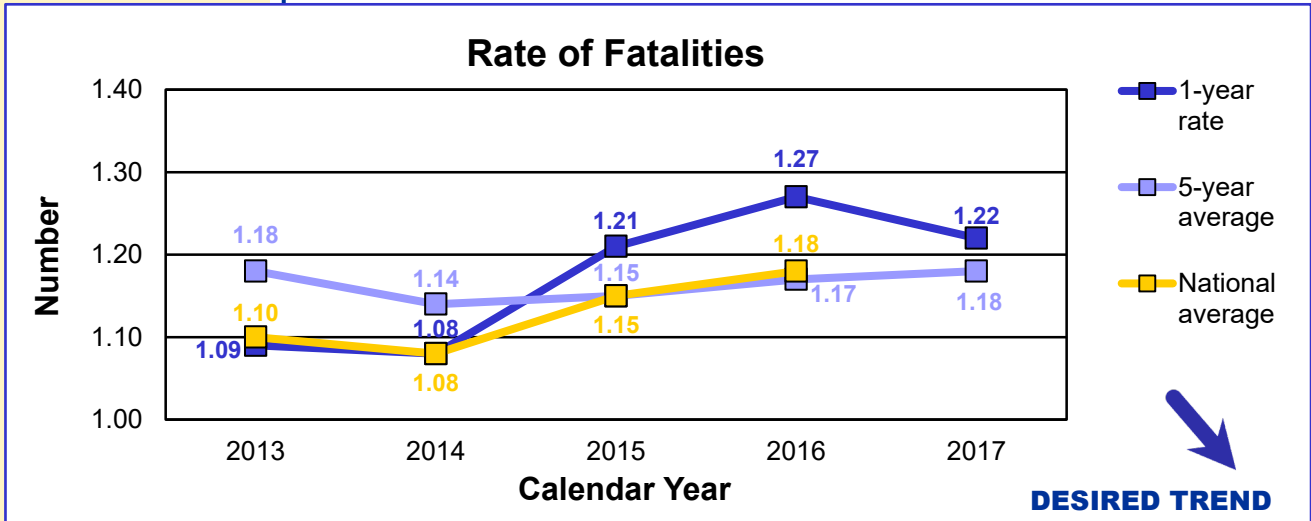
Additionally, MoDOT is using innovation to improve system-wide safety with a prioritized project list based on techniques offered in the Highway Safety Manual, analyzed with benefit cost ratios and implemented via a Design-Build approach. MoDOT is partnering with other agencies and the private sector through predictive analytics to optimize development of enforcement and winter operations resources. In order to reach our Blueprint goal of 700 or fewer fatalities by 2020, new reduction targets were established for 2018: reduce fatalities by 9 percent and serious injuries by 5 percent.

There were 894 fatalities this year, down from 932 in 2017. This represents a reduction of 4 percent from the previous year, which does not meet the desired goal of reducing fatalities by 9 percent. On a more positive note, 3,487 serious injuries have occurred year to date, representing a decrease of 5.5 percent from this time last year, which is on target to meet the desired goal.

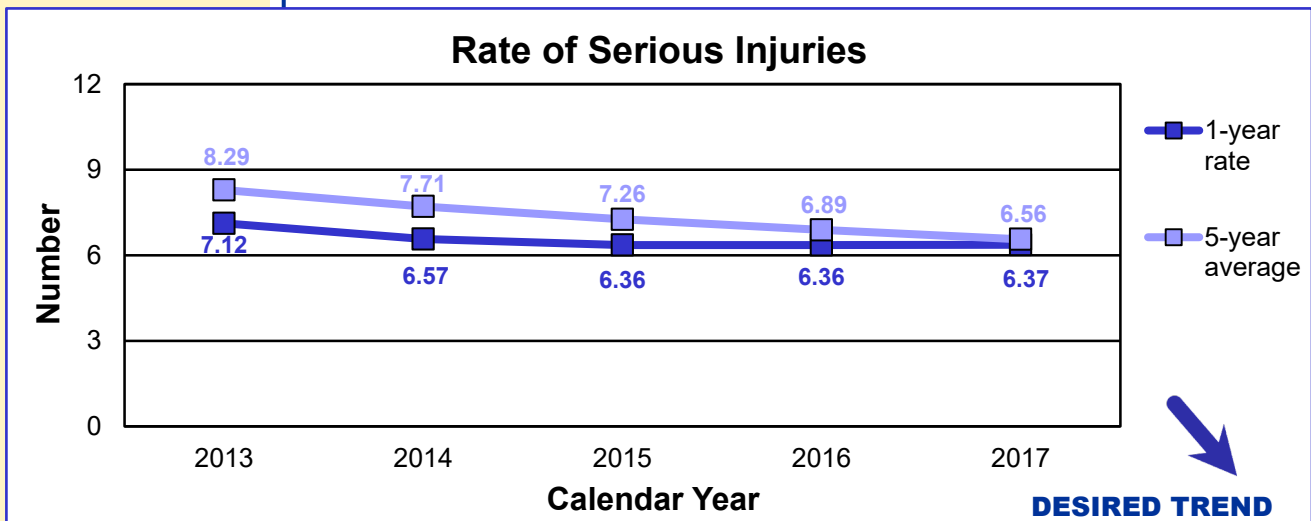


2018* – Due to the backlog of data, first, second and third quarter fatalities were derived from TMS. Fourth quarter fatalities are from MSHP radio reports.

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*YTD 2018 – Due to a backlog of crash reports into STARS, the serious injury measure only includes data derived from TMS. Fourth quarter 2018 data is unavailable on the MSHP radio reports and is incomplete in TMS.



RESULT DRIVER:

Mark Shelton
District Engineer

MEASUREMENT DRIVER:

Tonya Lohman
District Maintenance and
Traffic Engineer

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-related 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.

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

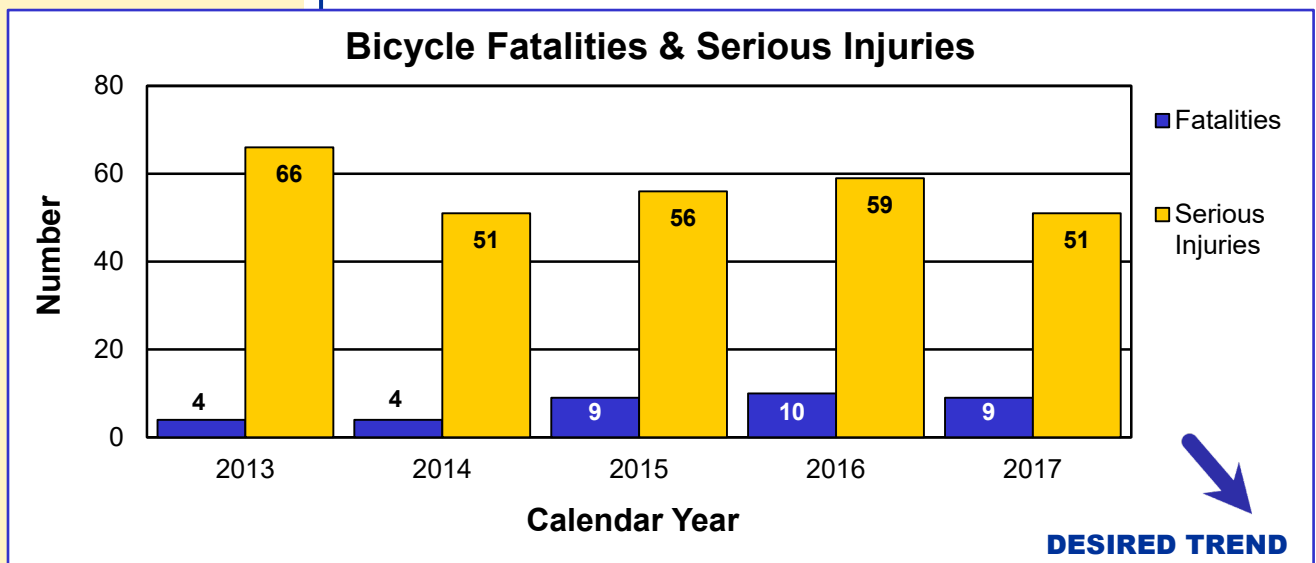
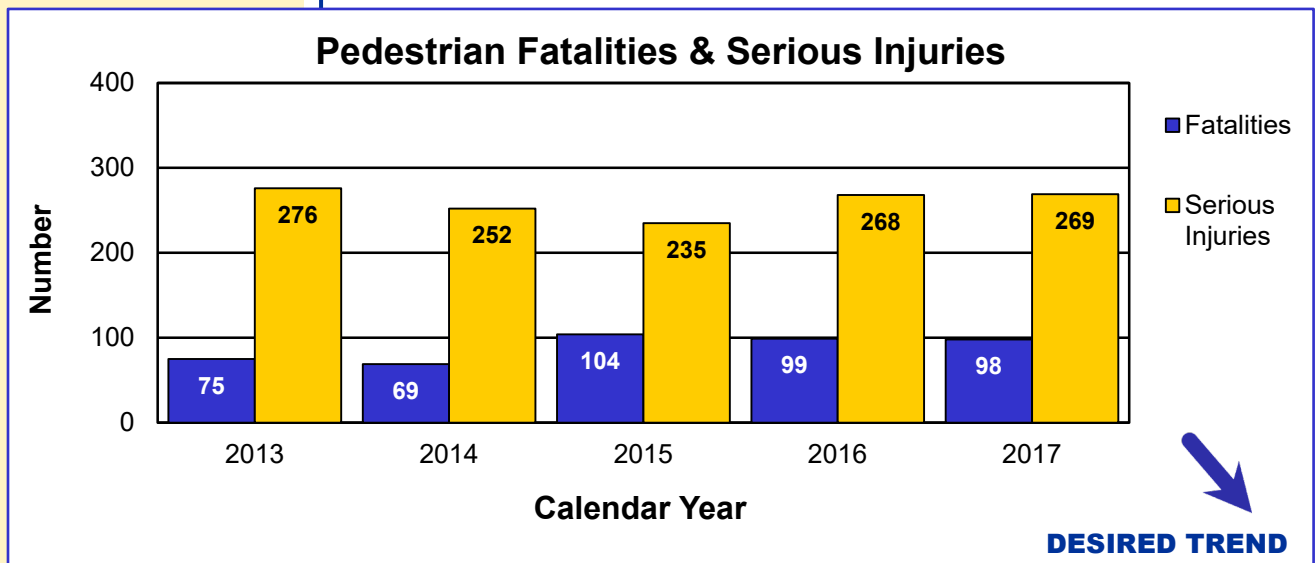
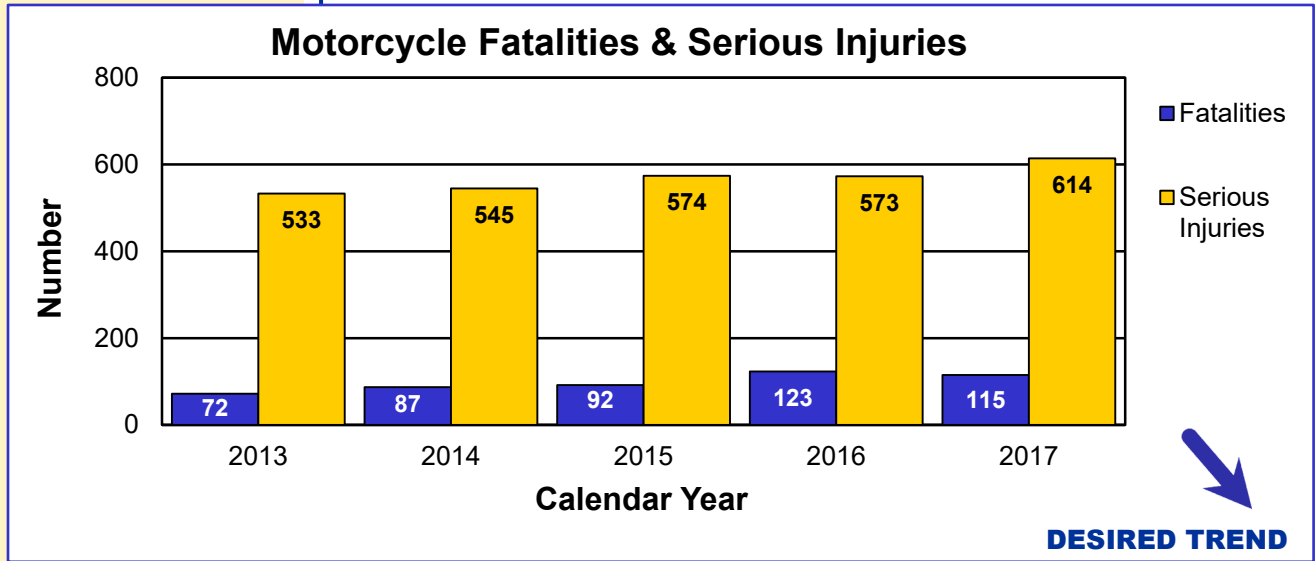
In 2017, vulnerable roadway users were 24 percent of the total number of fatalities. Pedestrian fatalities remained almost unchanged from 2016 to 2017. Motorcycle and bicycle fatalities decreased, 7 percent and 1 percent, respectively.

Motorcycle serious injuries increased by 7 percent in 2017, meanwhile bicyclist injuries decreased 14 percent, and pedestrian injuries were relatively unchanged.

Walking is an essential form of transportation for many Missourians. However, not all pedestrians who die or are injured on the roadway are out walking. Frequently, people are out of their vehicles after an incident occurs and are hit in the crash zone. Others are out of their vehicles to change a tire or check a load. MoDOT is included in the state law encouraging all vehicles to get over for emergency vehicles, tow trucks, utility vehicles and maintenance equipment, to help protect MoDOT employees. However, driver behavior still needs to change so that more vehicles slow down and move over.



KEEP CUSTOMERS AND OURSELVES SAFE



RESULT DRIVER:

Mark Shelton
District Engineer

MEASUREMENT DRIVER:

Jon Nelson
Assistant to the State Highway
Safety and Traffic 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.

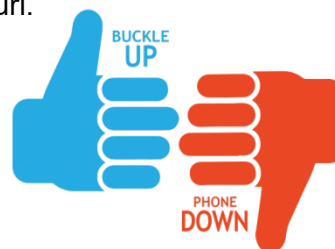
KEEP CUSTOMERS AND OURSELVES SAFE

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

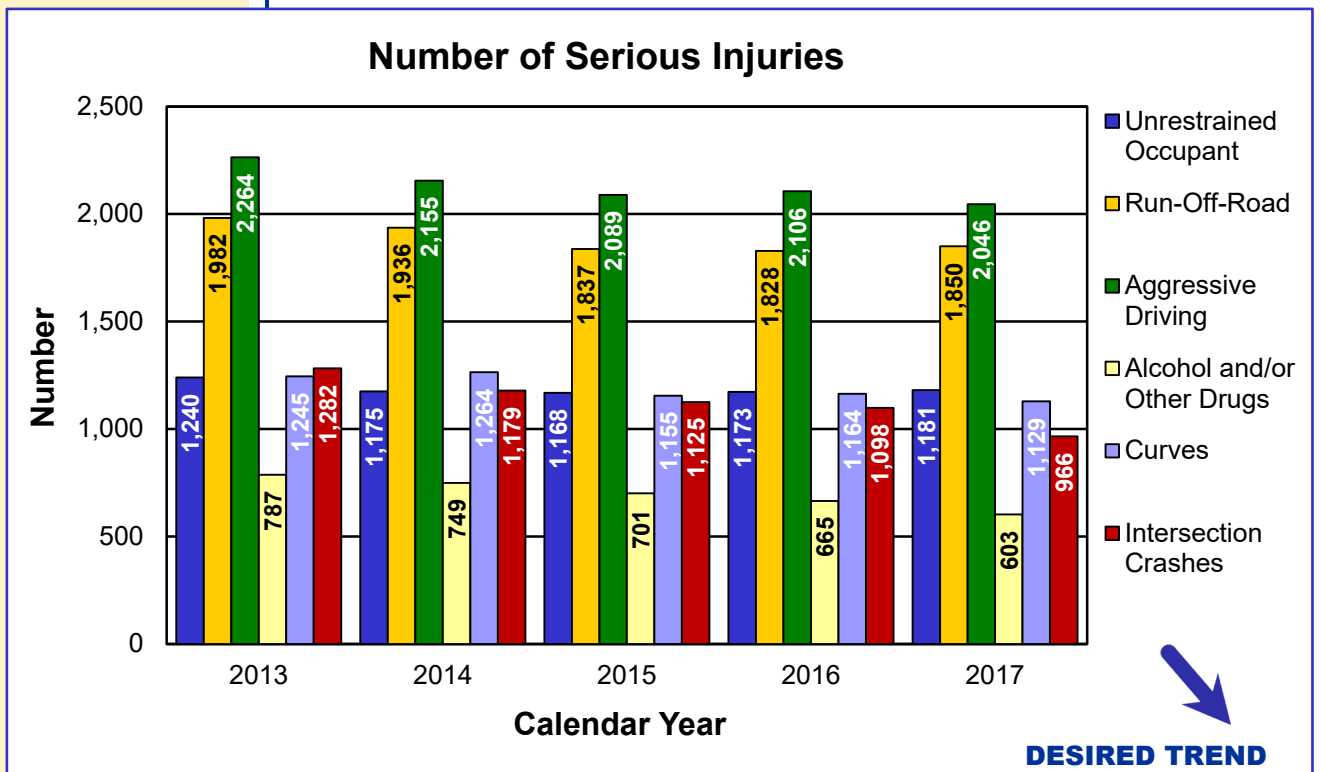
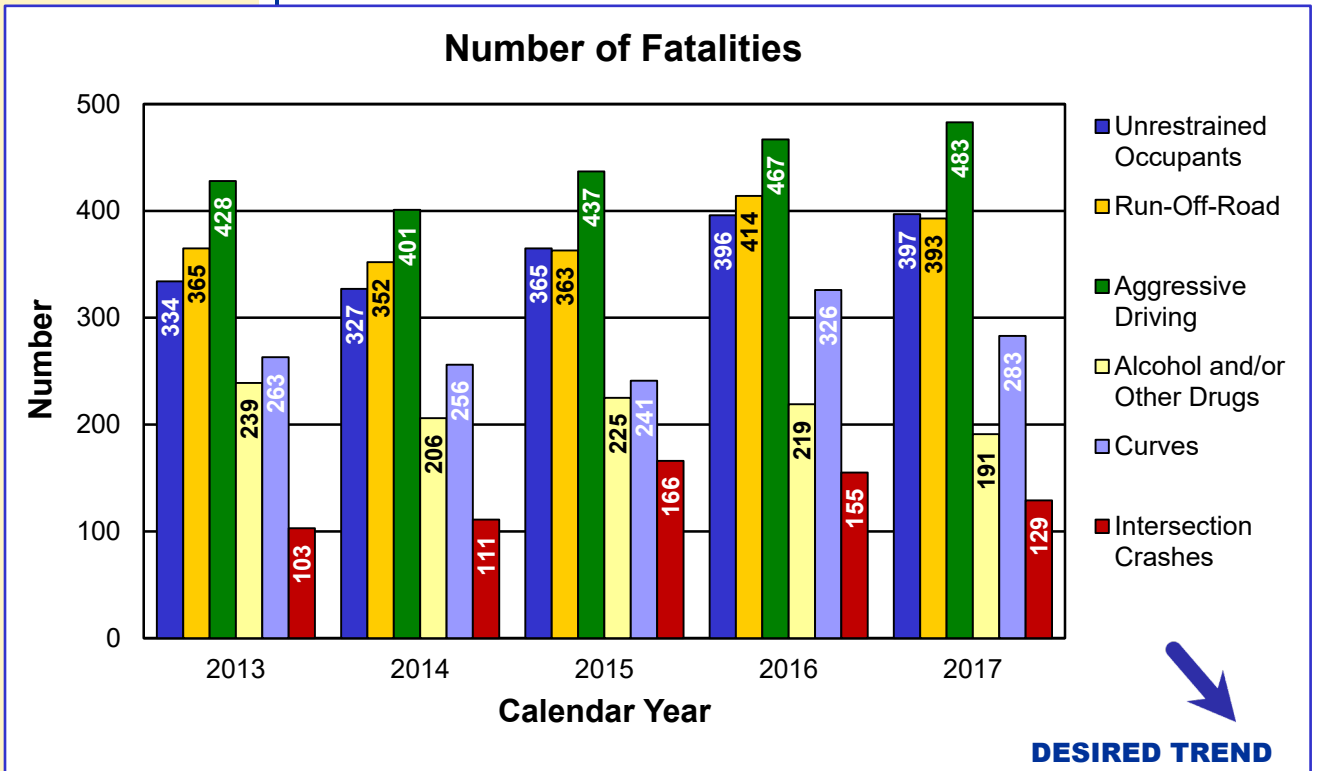
MoDOT's first value and tangible result is to keep customers and ourselves safe. The greatest challenge in providing this is the recurring frequency of fatal and serious crashes on Missouri roadways. In order to combat this, MoDOT utilizes a comprehensive data-driven analysis to identify the most common contributing circumstances of severe crashes. By identifying behaviors and characteristics most closely associated with these crashes, MoDOT can make more informed decisions to address the problem. Though the most common causes are related to human behavior, MoDOT can help implement solutions through education, enforcement and engineering to minimize poor decisions or the impact of the resulting consequences.

With 932 traffic fatalities in 2017, aggressive driving and impaired driving continued to be the leading behavioral causes of severe crashes in Missouri. These poor driving behaviors have a direct impact on the occurrence of run-off road crashes, particularly in curves and intersection crashes. When coupled with the decision to not buckle up, the results are even more deadly. In 2017, only 16 percent of Missourians were unbuckled. However, they accounted for 64 percent of the state's fatalities. Another increasingly troubling behavior is distracted driving. Studies have shown distracted driving significantly increases the risk of having a crash.

Through the Statewide Transportation Improvement Program, MoDOT continues to program millions of dollars in safety improvements each year: curve improvements, high friction surface treatment, paved shoulders, rumble strips and intersection improvements including J-Turns, turn lanes, roundabouts and pedestrian accommodations. These improvements are being identified through a data-driven, benefit-cost analysis to maximize the return on investment. In addition, MoDOT continues to invest in educational and enforcement programs to reduce the occurrence of poor driving behaviors. Substance impaired crashes are trending downward over the last five years, an indication these programs are effective. In addition, the Buckle Up Phone Down campaign has more than 4,600 pledges from individuals and participation from more than 380 organizations. MoDOT will continue implementing programs to reach new audiences and improve the culture of highway safety in Missouri.



KEEP CUSTOMERS AND OURSELVES SAFE



RESULT DRIVER:

Mark Shelton
District Engineer

MEASUREMENT DRIVER:

Steve Campbell
District Construction and
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. Missouri State Highway Patrol 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.

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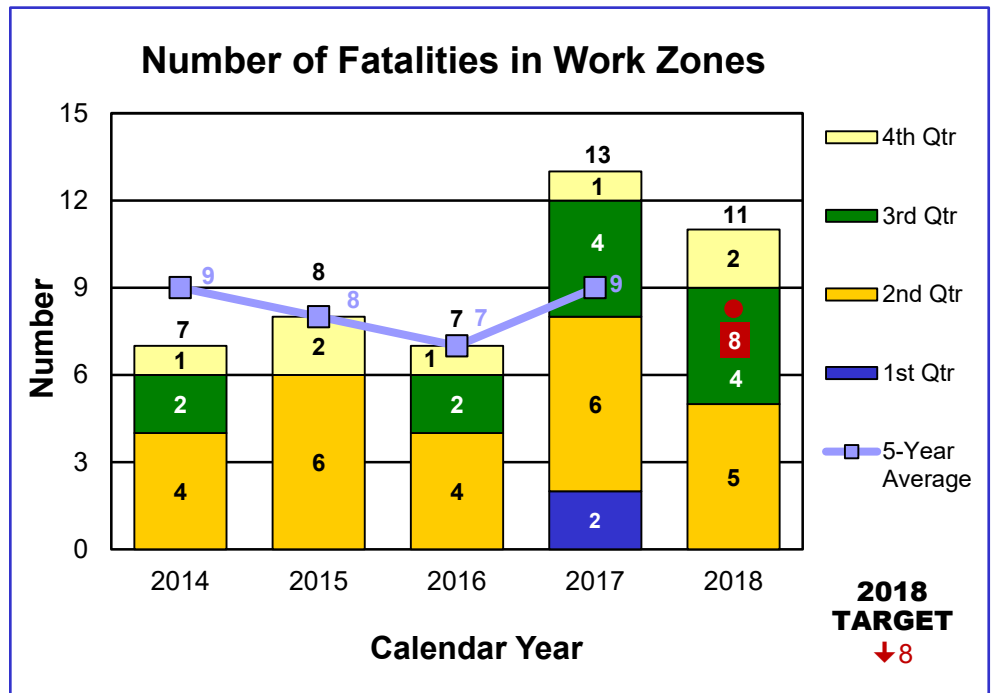
Number of fatalities and serious injuries in work zones – 1d

Work zone safety is crucial to MoDOT. Crews are expected to be safe and visible and expect contractors and utility companies to do the same. 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.

MoDOT's goal is zero fatalities in work zones. Only through continued efforts from MoDOT, industry and the driving public will that happen. There must be continual improvement in planning, strategies and technologies employed. Based on information currently available, work zone crashes accounted for 11 fatalities and 36 serious injuries in 2018.

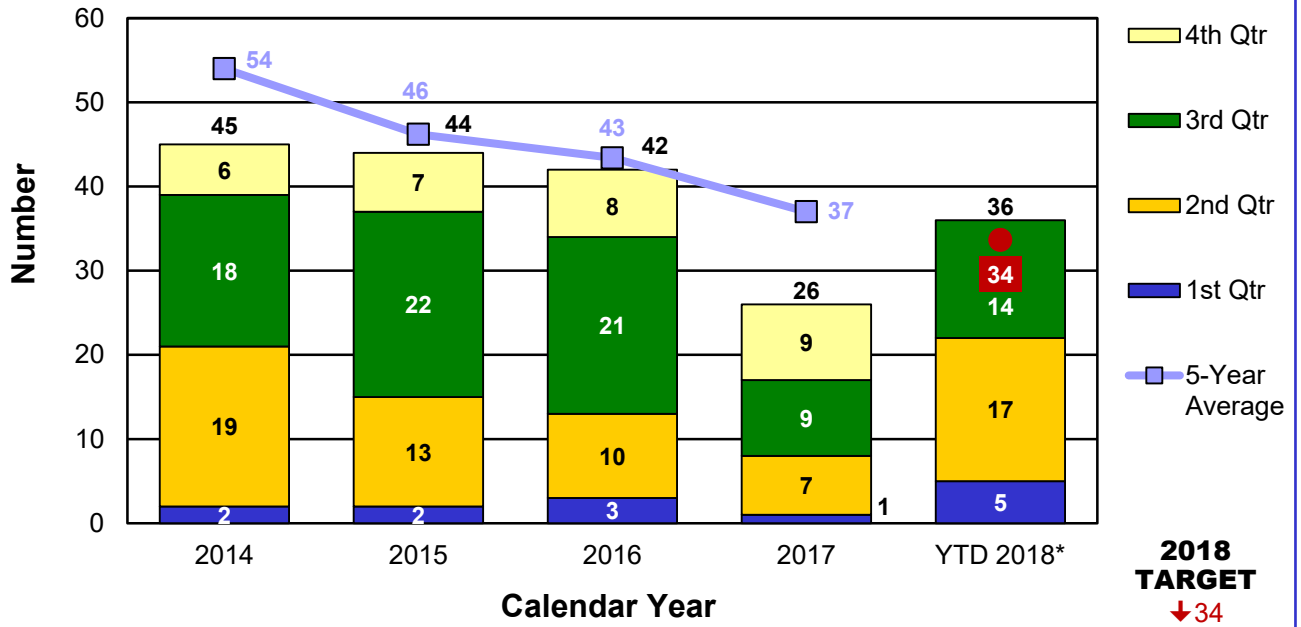
The challenges for MoDOT remain many. Strategic initiatives, such as the use of autonomous Truck Mounted Attenuators and TMA flagger vehicles, will help overcome some of the challenges. Continual monitoring of work zones and deployment of sound queue management strategies are imperative. The time of day and day of week should always be considered before working.



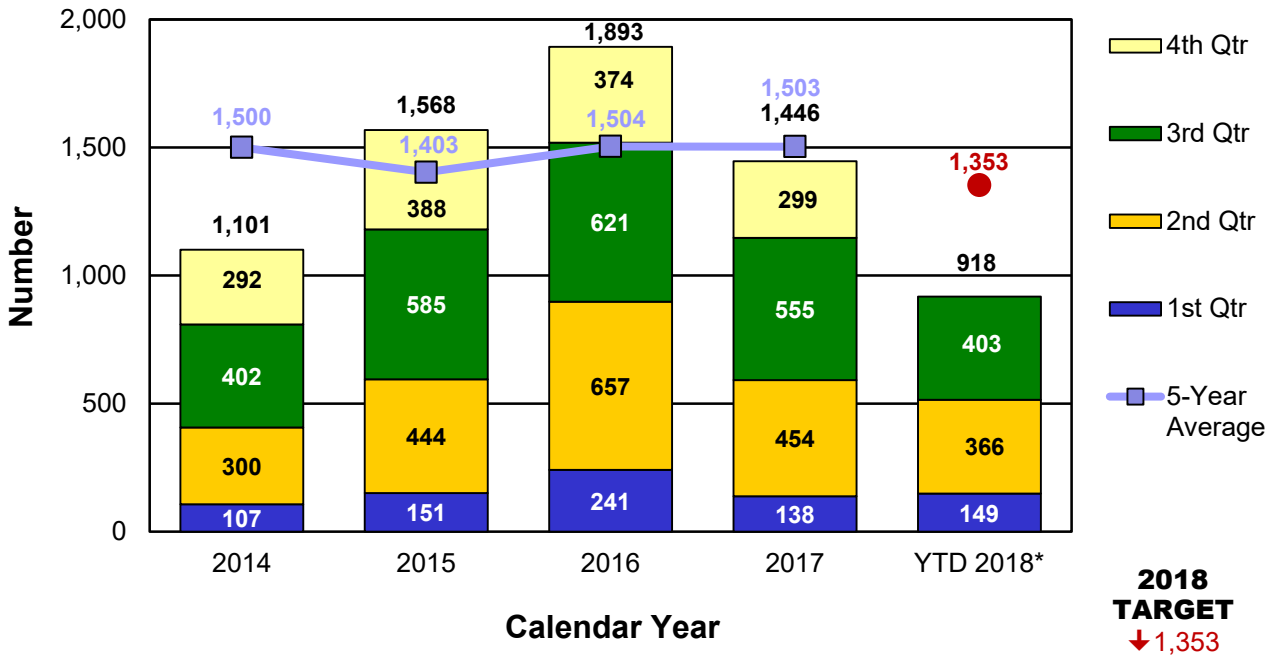
2018 – Fatalities derived from TMS.

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Number of Serious Injuries in Work Zones



Number of Crashes in Work Zones



*YTD 2018 – Due to a backlog of crash reports into STARS, serious injury and crash measures are not final and only illustrate data derived from TMS. Fourth quarter 2018 data is unavailable through the MSHRP 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 are selected from counties that represent 85 percent of the state's vehicle occupant fatalities. While the data collection plan is the same each year for consistency, NHTSA guidelines require survey sites to be re-selected every five years based on updated fatality data. The 2018 survey is the first survey using updated survey sites since Missouri's new survey methodology started in 2013. The target for this measure is updated annually in October for the next calendar year. This target is established as the current national average.

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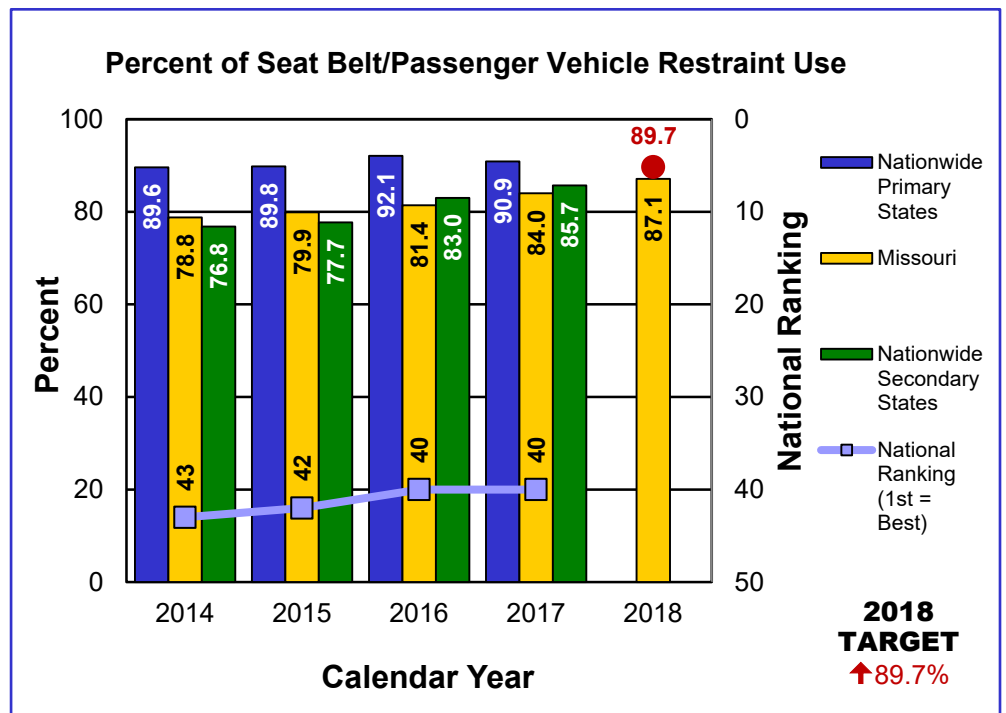
Percent of seat belt/passenger vehicle restraint use – 1e

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 58 municipalities and two counties that have adopted primary seat belt ordinances, representing almost 27 percent of the state's population.

Based on 135,646 observations, the seat belt use in Missouri for 2018 was 87.1 percent. Johnson County was the lowest at 64.4 percent and Webster County was the highest at 94.8 percent (weighted data). The national average for seat belt use in 2017 was 89.7 percent (2018 data is not yet available). Missouri's national ranking in 2017 was 40th, with 11 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.

MoDOT is improving safety culture through Statewide Strategic Initiatives such as Buckle Up Phone Down and coordinating the Click It or Ticket, Youth Seat Belt and Child Passenger Safety Campaigns as well as providing educational programs such as Teens Taking Action To Prevent Traffic Crashes and ThinkFirst.



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, which is the plan required to receive Motor Carrier Safety Assistance Program 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.

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

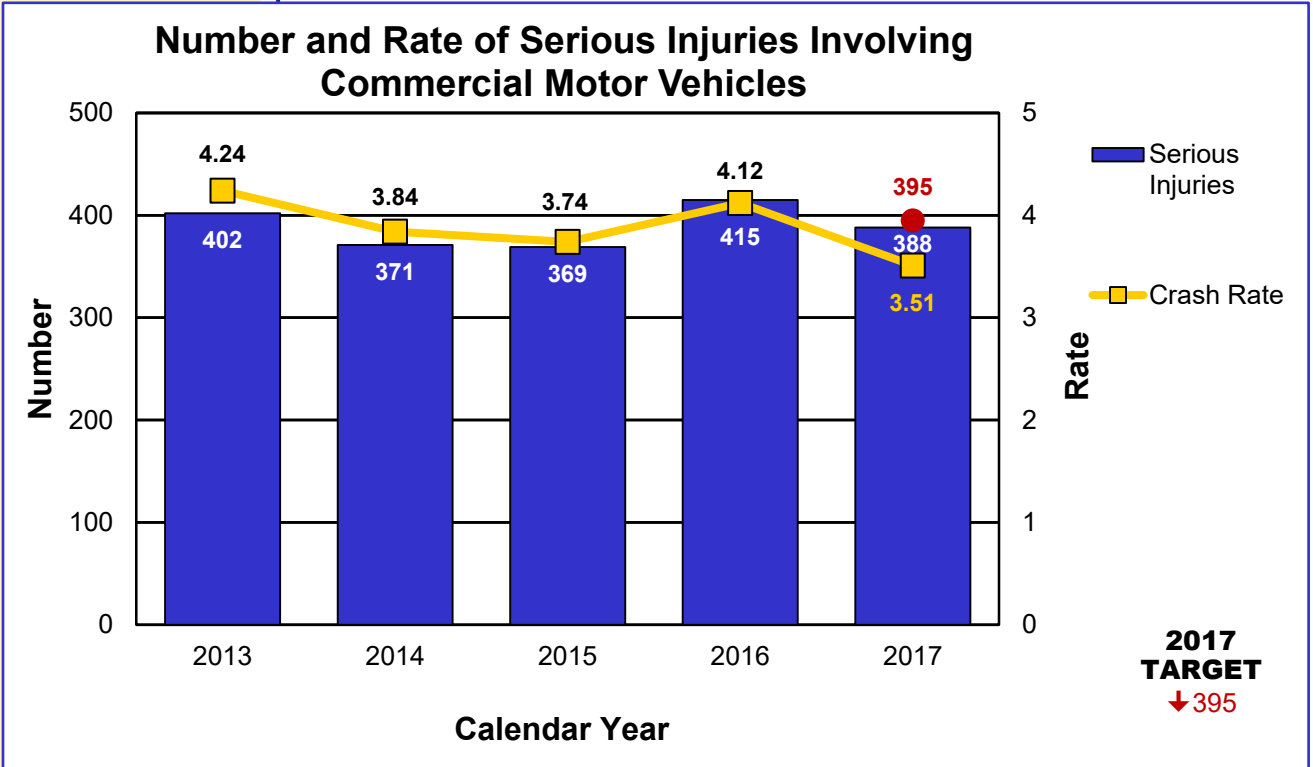
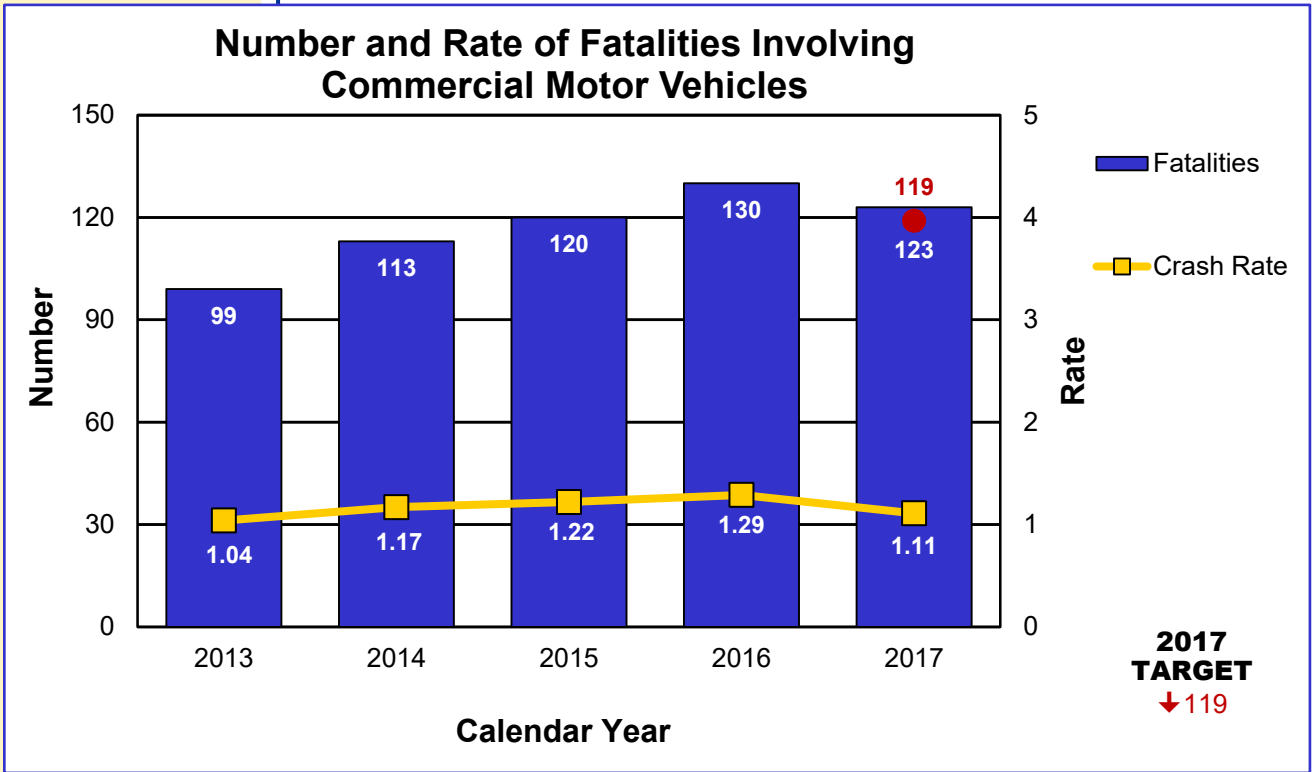
Commercial Motor Vehicles are essential to Missouri's economy. They transport goods and products to keep the nation moving. MoDOT partners with the Missouri State Highway Patrol, St. Louis Metropolitan Police Department, Kansas City Police Department, St. Louis County Police Department and Franklin County's 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. Deploying a suite of these demonstrably impactful safety techniques through a design-build program structure is one of the Strategic Vision Initiatives that will help MoDOT use innovation to improve work zone and system-side safety.

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 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 serious injury rate of 3.51 in 2017 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.

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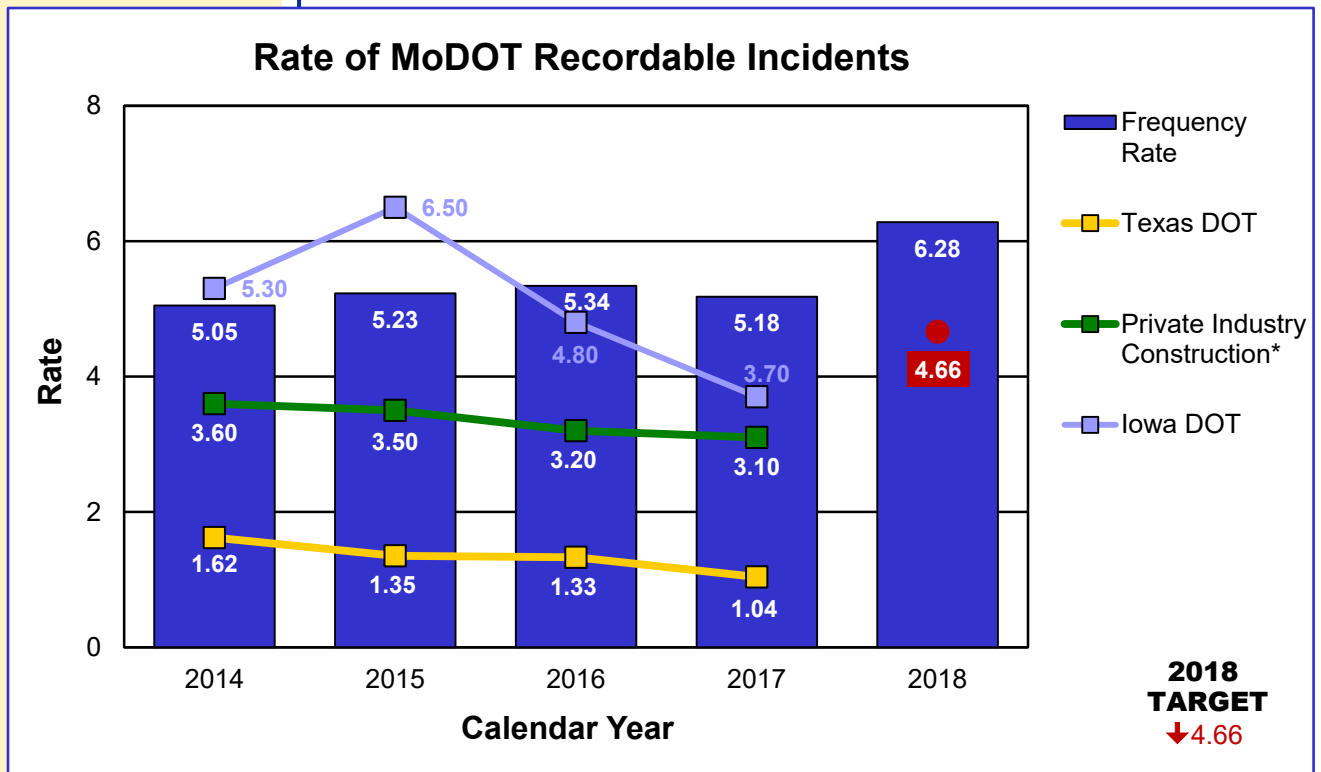
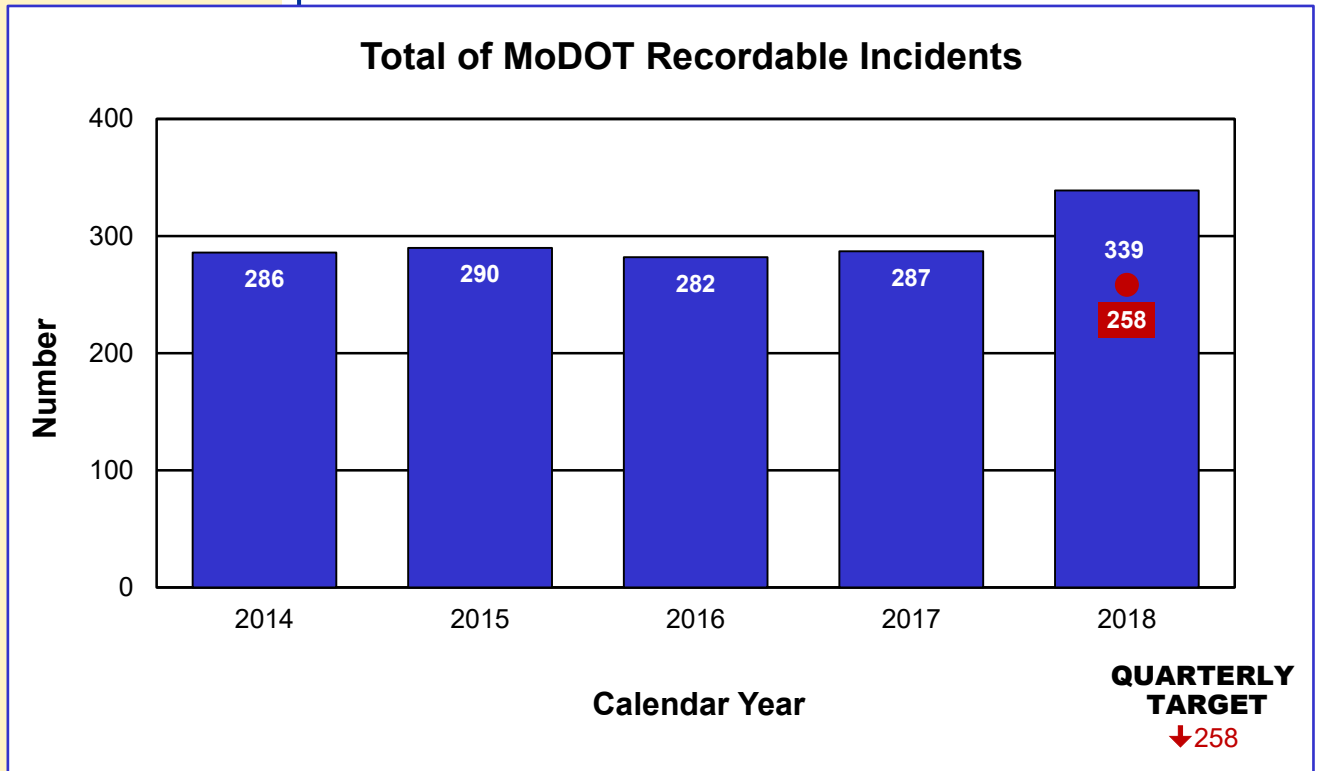
Total and rate of MoDOT recordable incidents – 1g

The total and rate of recordable incidents are tracked to measure the department's performance in improving safety. Safety is an expectation of each employee. In addition to Behavioral Based Safety integration, the development of Statewide Safety Standard Procedures, and District Training Academies have been introduced to continue the growth of the department's safety culture. The department's Innovations Challenge encourages employees to create or improve tools and equipment, processes and projects to progress safety. These initiatives are expected to reduce injuries and help improve in this measure.

It is believed that the conclusion of the individual and team safety incentive programs have resulted in a spike in reporting. This has contributed to the increase in the rate and the total number of recordable incidents. There was an 18 percent increase in the total number of recordables for 2018 compared to last year. There was also a 21 percent increase in the rate of incidents. Leading causes of injuries this year were: slips, trips, and falls (19 percent), strain of injury (14 percent), struck/injured by and cut/punctured/scraped (13 percent each). Based on the work activity being performed at the time of the incident, 29 percent of employee injuries were equipment related, 11 percent were due to vehicle use and 10 percent were related to mowing.



KEEP CUSTOMERS AND OURSELVES SAFE



*OSHA private industry data is not yet available for 2018.

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 2017, there was a 20 percent increase in the number of claims in 2018. The majority of claims in 2018 were attributed to pavement defects. During the same time frame, there was a 97 percent increase in the amount paid.

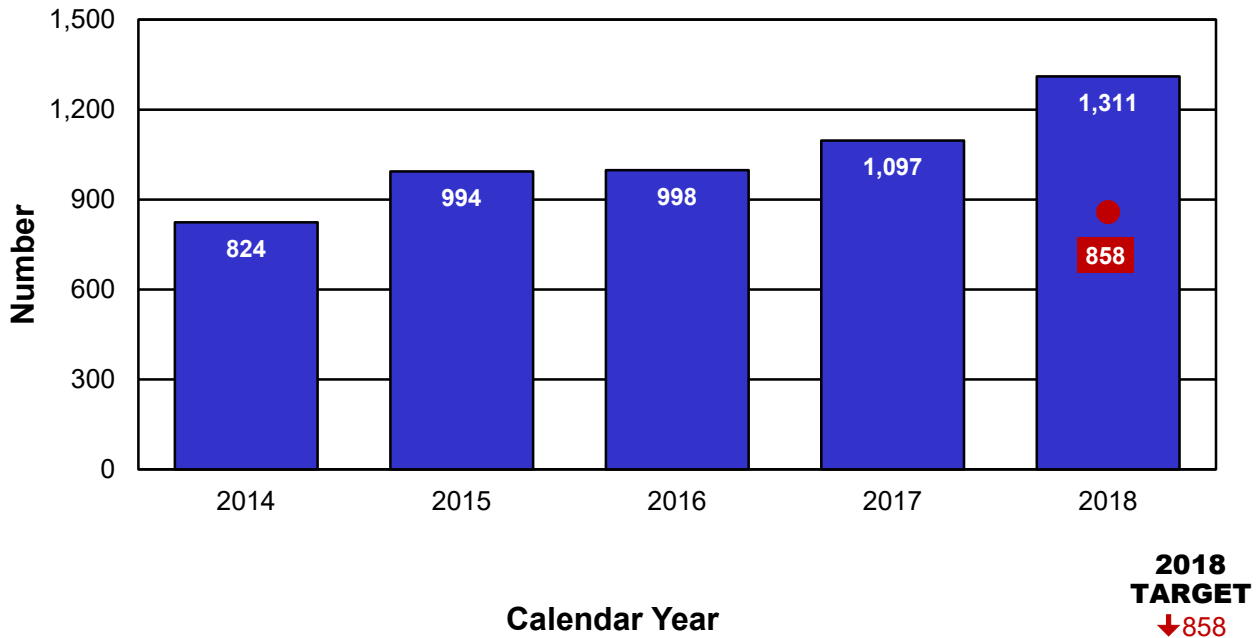
This quarter, payments were made on 92 claims against the department, totaling \$1,897,770.78. Four claims accounted for 59 percent of the fourth quarter's payments. The first claim occurred in 2010 where a vehicle lost control due to loose gravel on the roadway. The driver sustained serious injuries. This claim was settled for \$270,000. The second claim occurred in 2015 where a vehicle ran off the road and down an embankment in an area where it was alleged the embankment was too steep to be unprotected. The driver sustained serious injuries. This claim settled for \$350,000. The third claim occurred in 2015, where there was a collision between two vehicles. It was alleged a tree in the right of way and lack of a guardrail contributed to the accident. This accident also resulted in serious injuries. The claim was settled for \$200,000. The last claim occurred in 2016 which was a fatality accident where a vehicle pulled out of a private driveway in front of a motorcycle causing the collision. Inadequate sight distance was alleged. This claim was settled for \$300,000 based on poor sight distance and overgrown foliage.

In an effort to achieve the number of liability claims target, the focus needs to be on MoDOT's most common claims. For 2018, the top three claims types are attributed to potholes, chip seal operations and debris on roadway.

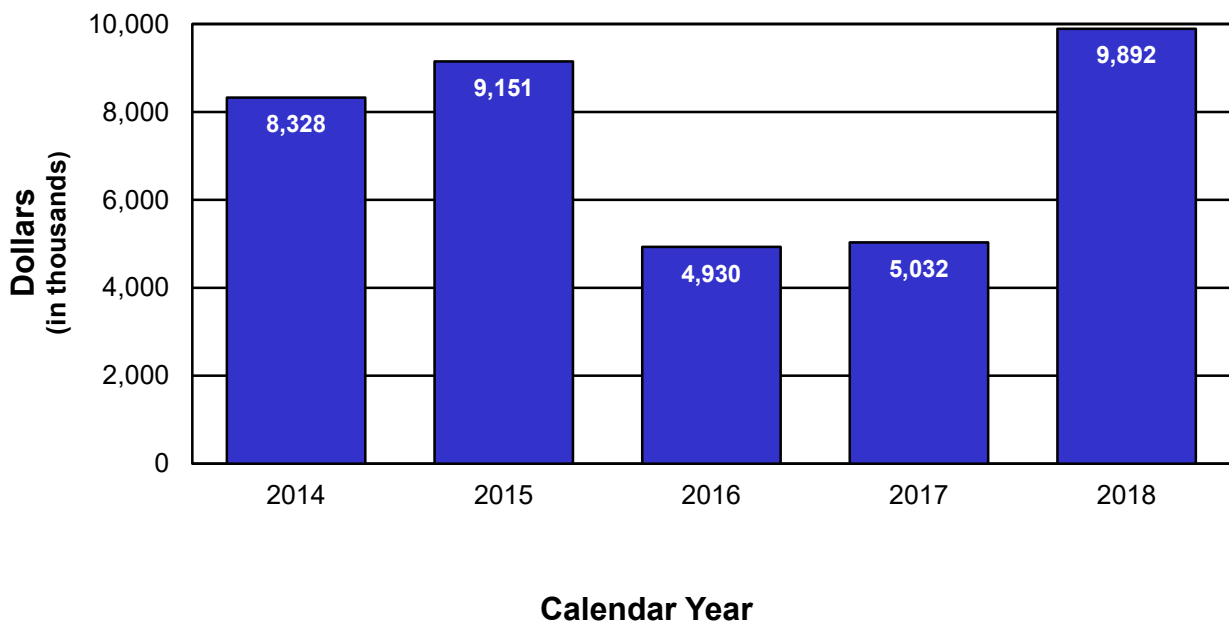


KEEP CUSTOMERS AND OURSELVES SAFE

Number of General Liability Claims



Amount Paid on General Liability Claims



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KEEP ROADS AND BRIDGES IN GOOD CONDITION

Dennis Heckman, State Bridge Engineer

The logo for 'Tracker' features a stylized circular graphic on the left, composed of a circle with a crosshair inside. The word 'Tracker' is written in a bold, green, sans-serif font to the right of the graphic.

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 33,859 miles of highway and 10,385 bridges on the state system, the challenges are great; however, we are focused on using our limited resources to keep Missouri's roads and bridges in good condition.

RESULT DRIVER:

Dennis Heckman
State Bridge Engineer

MEASUREMENT DRIVER:

Steve Engelbrecht
District Planning Manager

PURPOSE OF THE MEASURE:

This measure tracks the condition of Missouri's highways.

MEASUREMENT AND DATA COLLECTION:

Missouri's major highway system contains the state's busiest highways, including interstates and most U.S. routes. There are 5,546 total miles on the major highway system.

Missouri's minor highway system consists of its less-traveled state highways, including most lettered routes and routes that mainly serve local transportation needs. There are 17,166 miles of minor highways in Missouri.

Missouri's low volume highways are those state owned roads with less than 400 cars traveling on them per day. There are 11,147 miles of low volume roads in Missouri.

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

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

KEEP ROADS AND BRIDGES IN GOOD CONDITION

Percent of highways in good condition – 2a

Missourians have repeatedly told MoDOT that keeping roads smooth is a top priority. Over the years, MoDOT has been able to fund pavement improvement projects on thousands of miles of state highways.

MoDOT maintains 33,859 miles of highway. The percent of highways in good condition are: major--92 percent, minor-- 81 percent and low volume--73 percent. Major, minor and low volume highways have met the statewide target in the past five years. The target is based on the statewide asset management plan and represents MoDOT's goal of maintaining current condition.

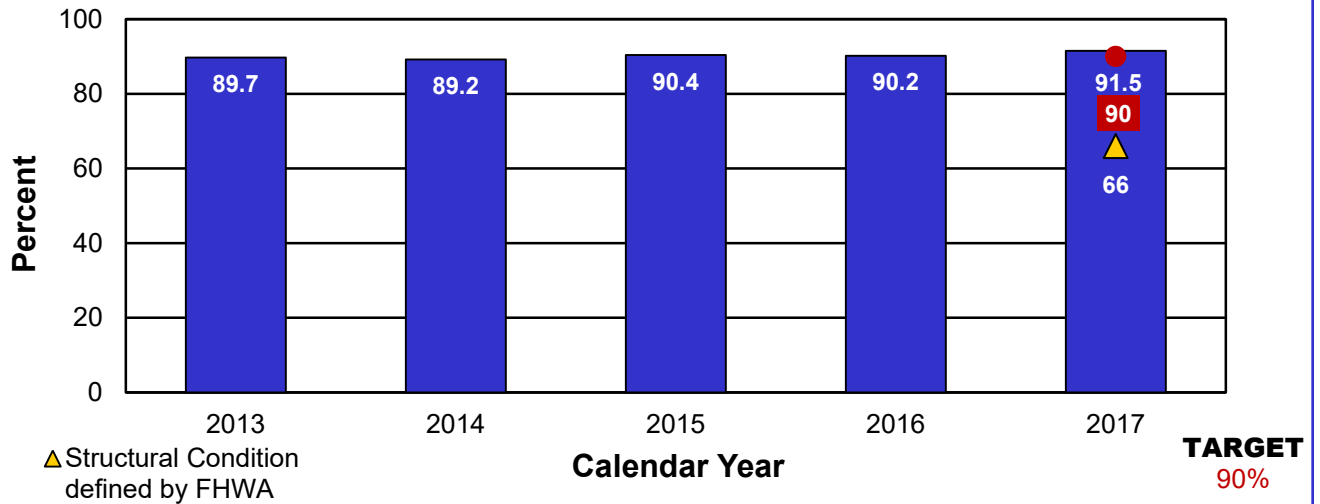
Beginning in 2018, the Federal Highway Administration required all Departments of Transportation to report pavement data related to the structural integrity of the pavement, which may not impact current pavement smoothness but may cause future pavement issues. The current percent of major highway pavements in good structural condition is 66 percent.

MoDOT has implemented asset management practices statewide to invest in transportation projects that will keep good roads in good condition.

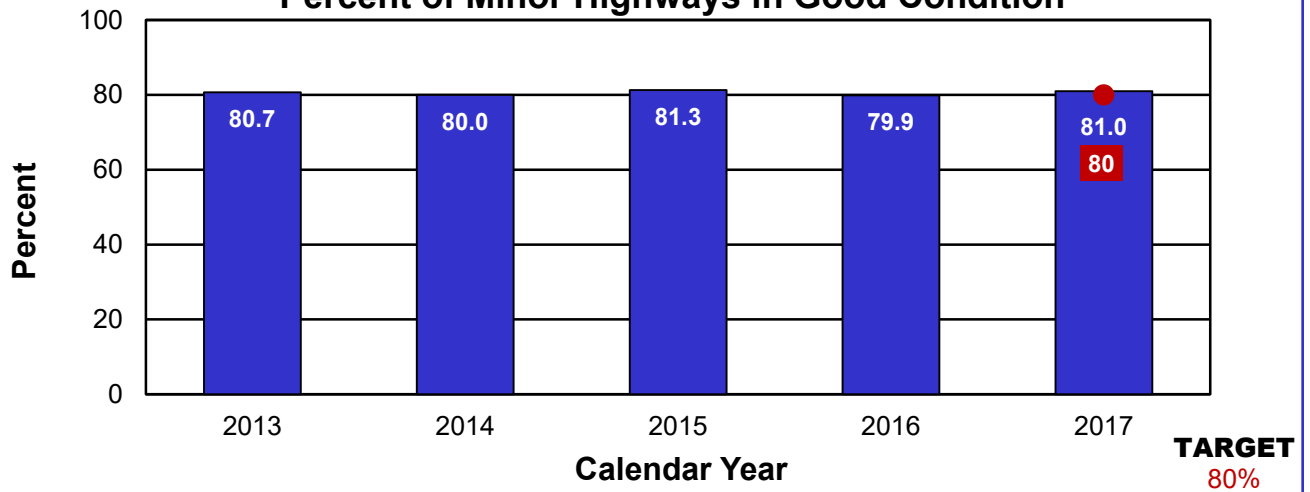


KEEP ROADS AND BRIDGES IN GOOD CONDITION

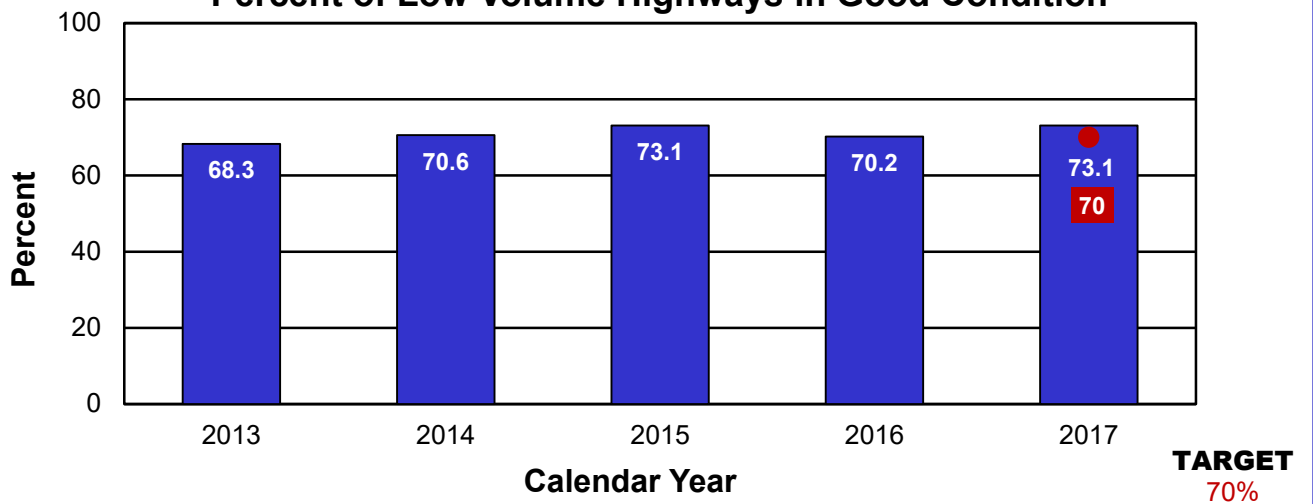
Percent of Major Highways in Good Condition



Percent of Minor Highways in Good Condition



Percent of Low Volume Highways in Good 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 10,385 bridges on state highways, 208 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.

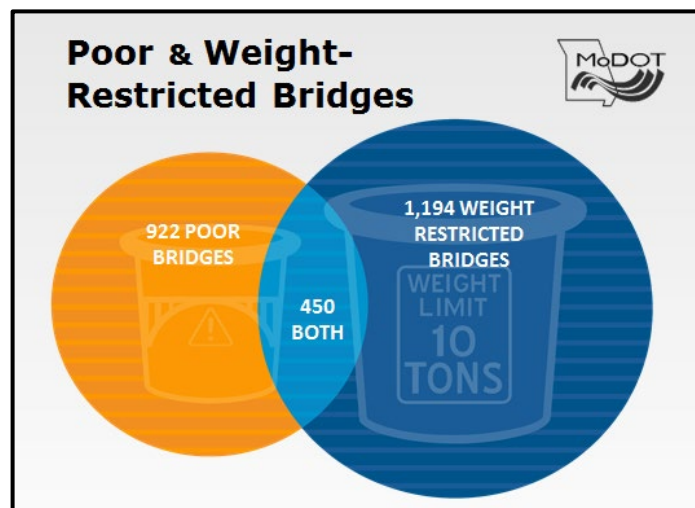
KEEP ROADS AND BRIDGES IN GOOD CONDITION

Condition of state bridges – 2b

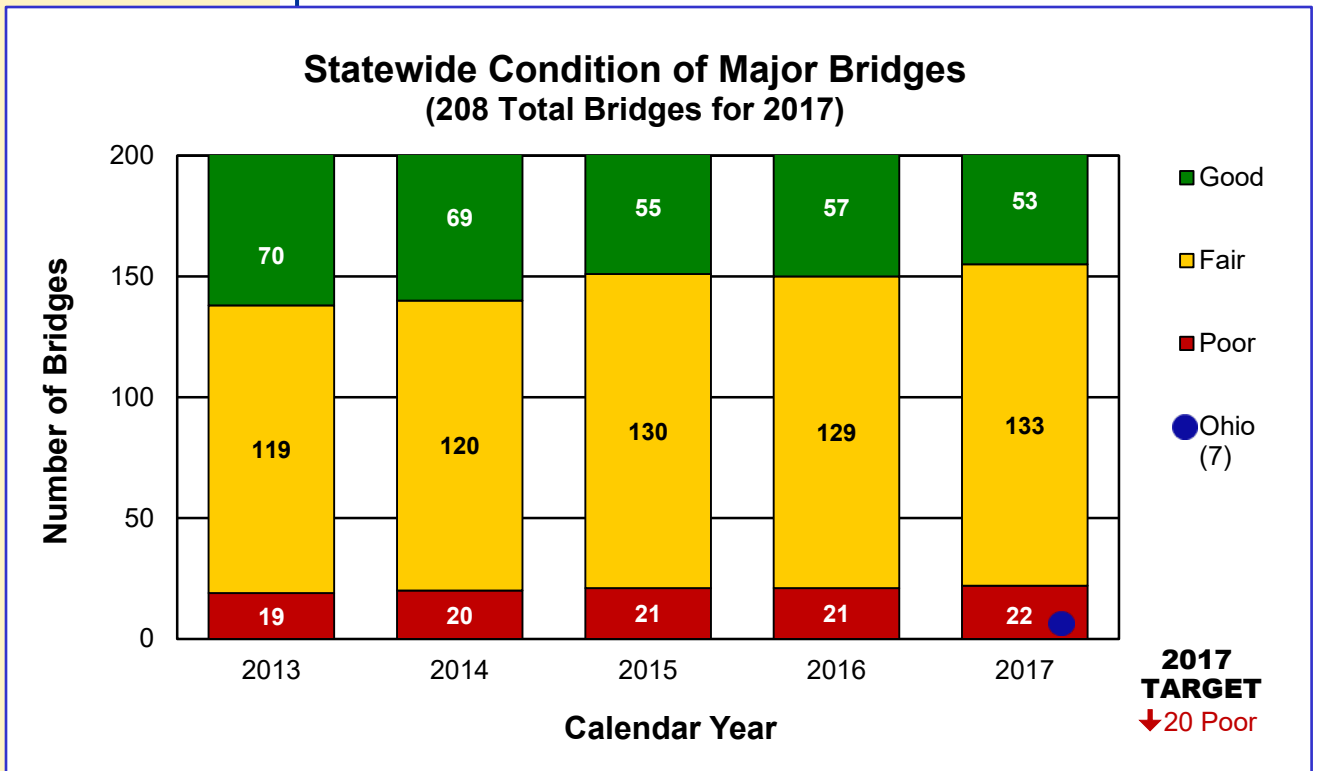
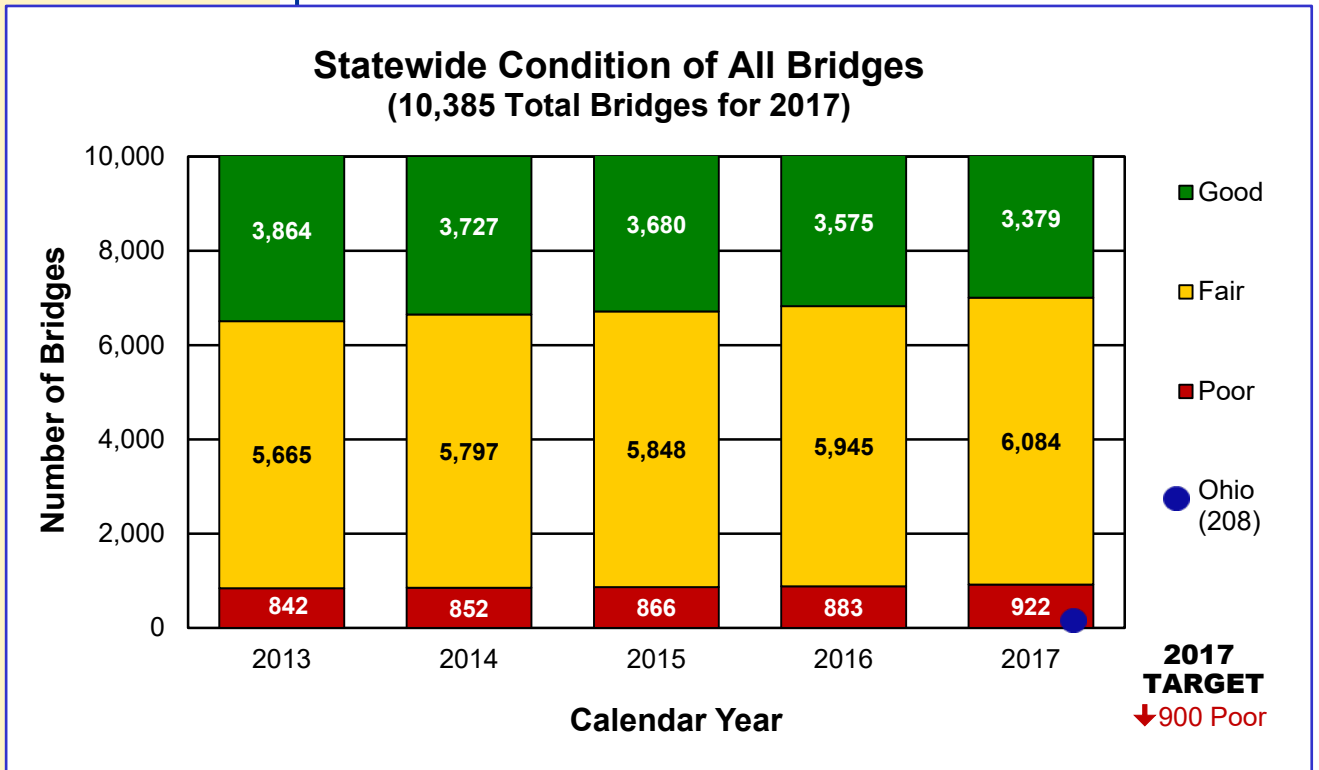
The public has indicated the condition of Missouri's existing roadway system should be one of the state's highest priorities. Currently, 922 (22 major) structures are in poor condition, 6,084 (133 major) structures are in fair condition and 3,379 (53 major) structures are in good condition.

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 data on poor condition structures reflects that even with the significant Statewide Transportation Improvement Program investments on bridges in recent years, the number is slowly increasing. The decline in good structures, as well as the increase in fair condition structures, is reflective of MoDOT's aging bridge inventory 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 been steady over the last five years. This is reflective of the significant focus on these structures. Even with the significant investment in the STIP, the number of structures in good condition has been dropping over the five-year period while the number in fair condition has been increasing. Work on major bridges is expensive with rehabilitations costing \$10 million to \$20 million and replacements ranging from \$20 million to \$200 million. Ohio has been selected for comparison as its total of 10,402 (129 major) state highway bridges is only 17 more 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:

Dave 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:

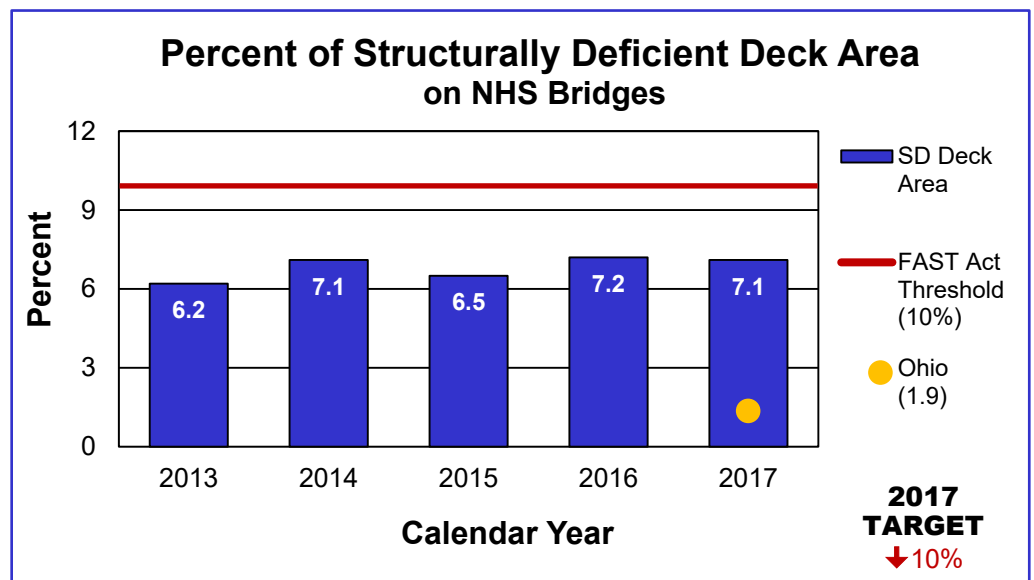
The NHS is defined by federal law and consists of all roadways functionally classified as principal arterials as well as some routes that serve as major connections to multimodal freight-type facilities and some locally owned roadways. Fixing Americas Surface Transportation Act requires states to track 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 the FAST Act, this definition has changed and this measure reflects those changes. The 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 keeping the percentage below 10 percent as the target.

KEEP ROADS AND BRIDGES IN GOOD CONDITION

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

The public has indicated that keeping Missouri's existing roads and bridges in good condition should be one of the state's highest priorities. The FAST Act established a 10 percent penalty threshold for states that, when exceeded, requires a state to focus money on bridges until they are back under 10 percent. The local system has 86 National Highway System structures (three structurally deficient) and the MoDOT system has 3,552 NHS structures (155 structurally deficient). Missouri currently falls below the penalty threshold with the statewide structurally deficient deck area at 7.1 percent. This is attributable to the continued effort to focus on major bridges when funding is available as well as the increased focus on dealing with the poor condition bridges in the STIP.

Statewide, this measure is also heavily influenced by major bridges with one structure having the ability to impact this measure +/-0.5 percent. From 2016 to 2017, there was a slight drop in the statewide percentage of structurally deficient deck area on the NHS. The number of bridges on the NHS has stabilized with very small changes from year to year. Ohio has been selected for comparison because it has similar demographics, geography and weather conditions. There are 10,402 total state highway bridges in Ohio with 5,067 structures on the NHS.



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PROVIDE OUTSTANDING CUSTOMER SERVICE

Tom Blair, 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
Communications Director

PURPOSE OF THE MEASURE:

This measure tracks the percent of overall customer service satisfaction. The role of customer service is to make sure the public's expectations are being met and that perceptions closely align with the reality of MoDOT's daily operations.

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

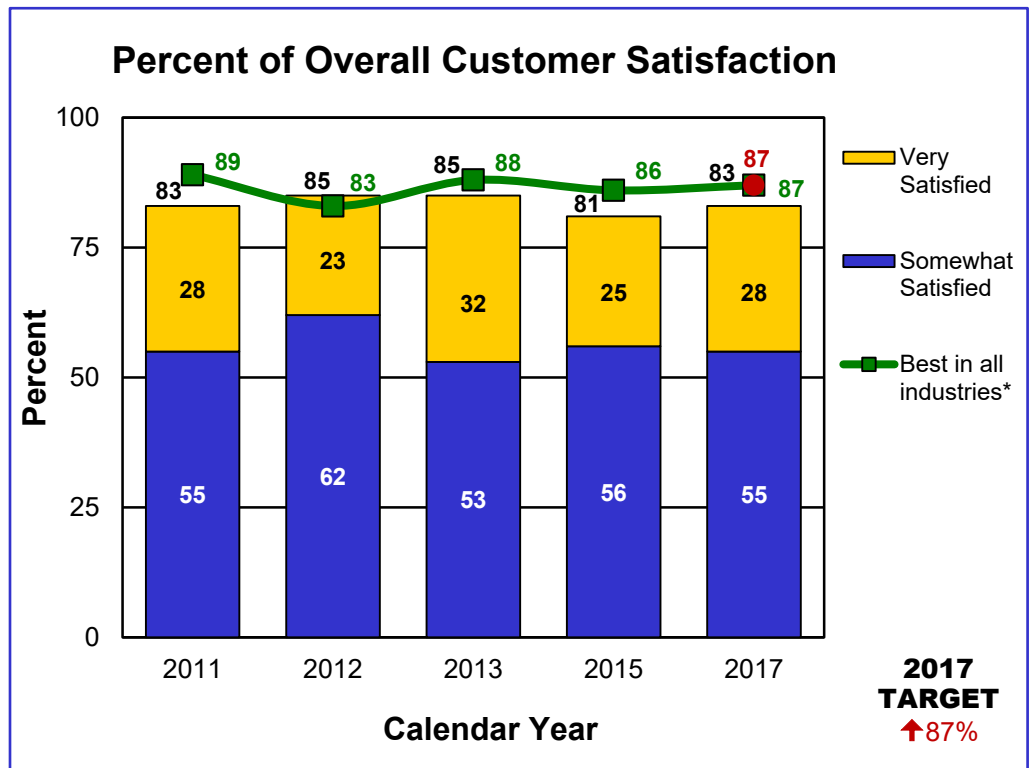
Percent of overall customer satisfaction – 3a

Customer satisfaction with MoDOT continues to remain high. Eighty-three percent of Missourians surveyed say they are 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.

This measure is linked to the Improve Communications strategy included in the Sharpening Our Strategic Vision initiative. The department has identified the Citizens Guide to Transportation Funding, the new department website and a better Traveler Information Map as strategies to improve performance.



*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.

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

PROVIDE OUTSTANDING CUSTOMER SERVICE

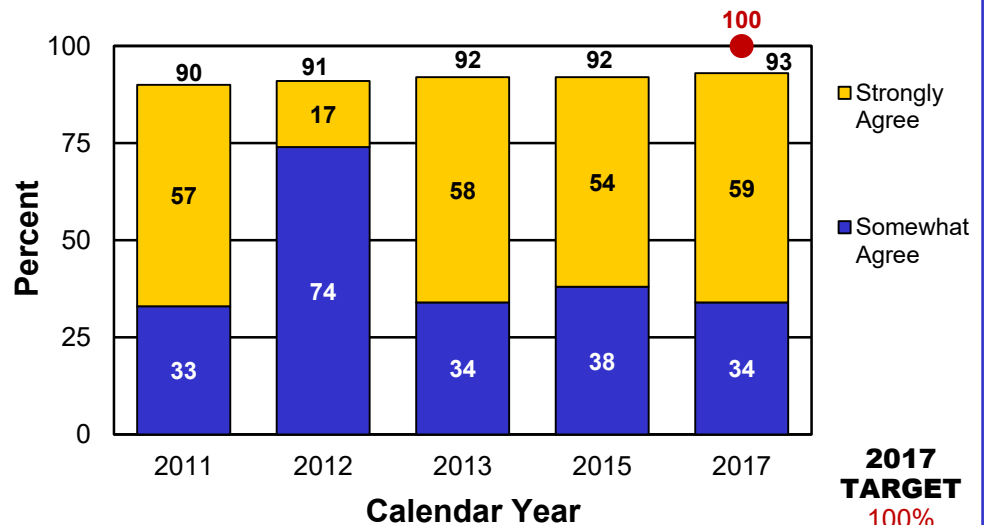
Percent of customers who view MoDOT as Missouri's transportation expert – 3b

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.

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



RESULT DRIVER:

Tom Blair
District Engineer

PROVIDE OUTSTANDING CUSTOMER SERVICE

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

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.

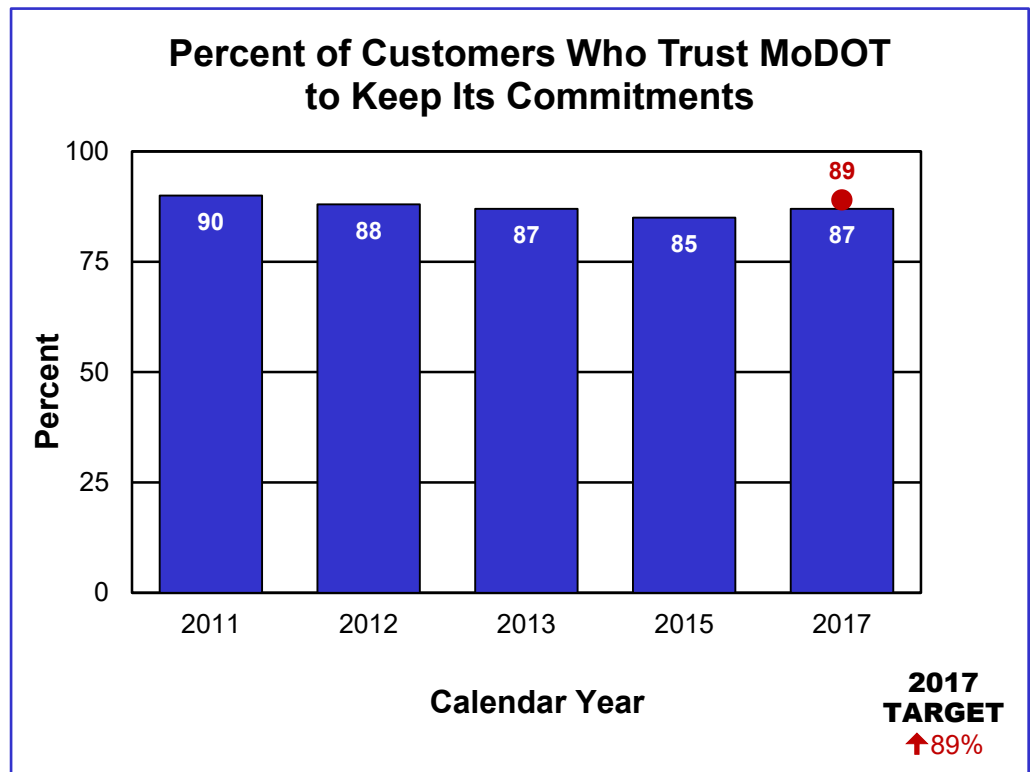
MEASUREMENT AND DATA COLLECTION:

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.

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

PROVIDE OUTSTANDING CUSTOMER SERVICE

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

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.

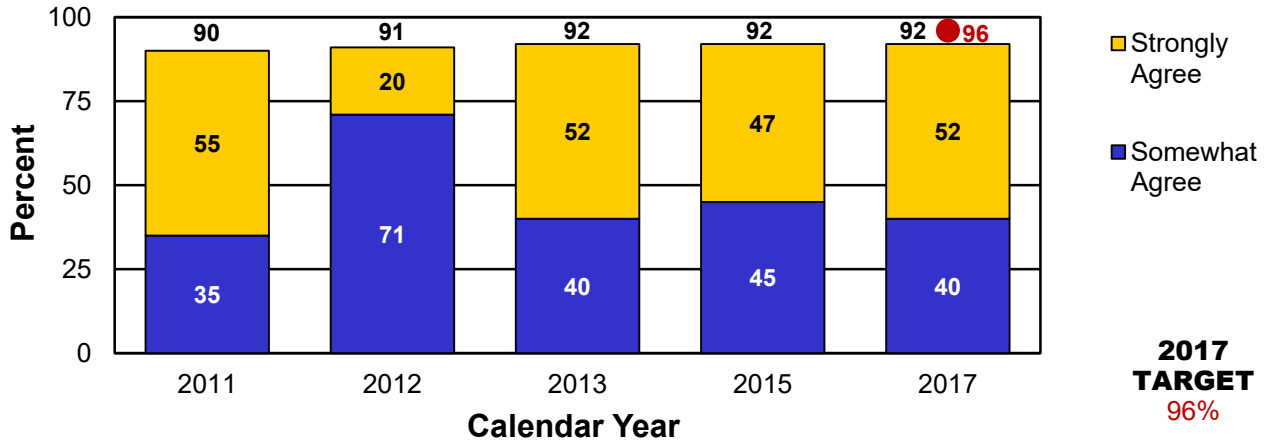
The target for this measure is updated annually in October for the next calendar year. The target for this measure was set by management directive.

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.

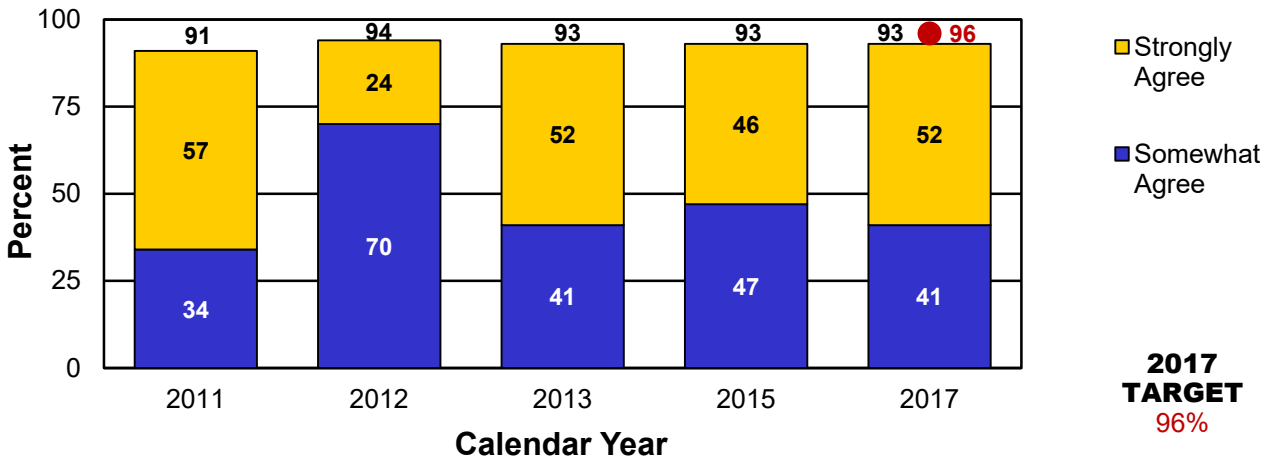


PROVIDE OUTSTANDING CUSTOMER SERVICE

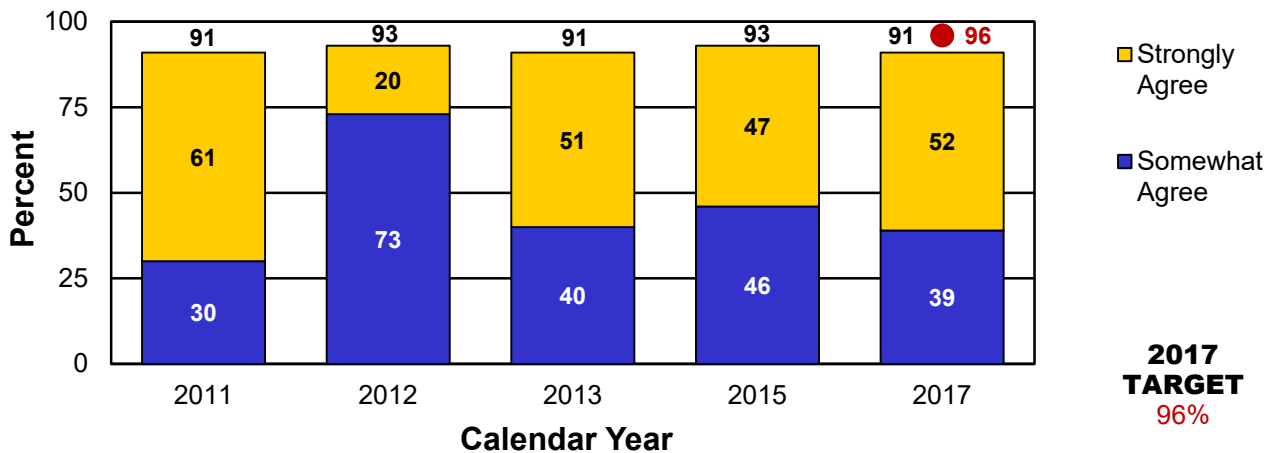
Percent of Customers Who Feel MoDOT Provides Timely Information



Percent of Customers Who Feel MoDOT Provides Accurate Information



Percent of Customers Who Feel MoDOT Provides Understandable Information



RESULT DRIVER:

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 email 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.

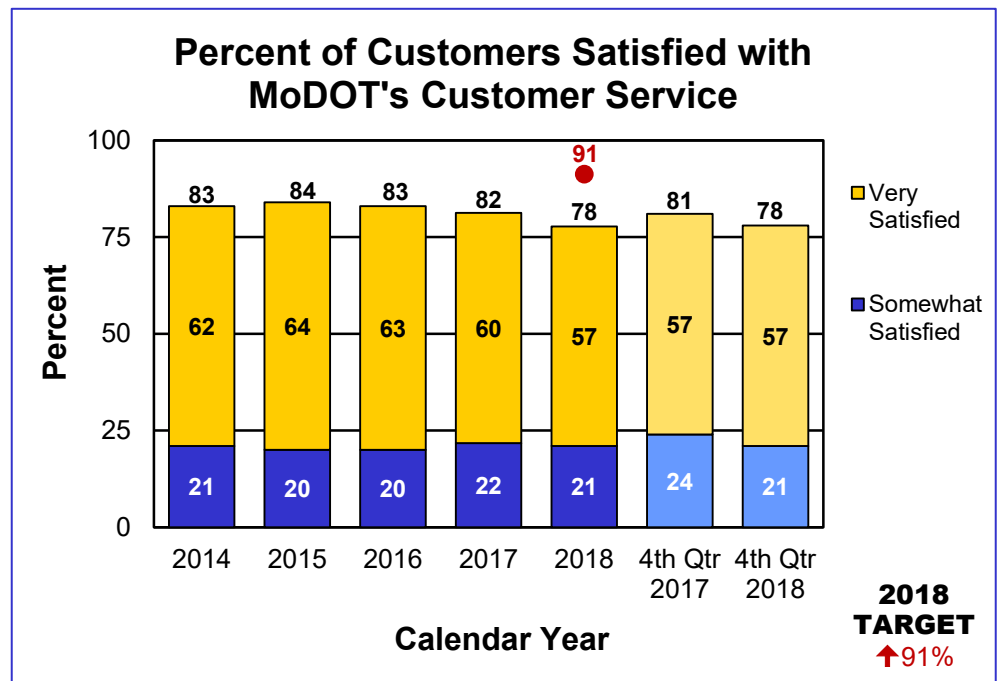
PROVIDE OUTSTANDING CUSTOMER SERVICE

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

To actively seek feedback from its customers, 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.

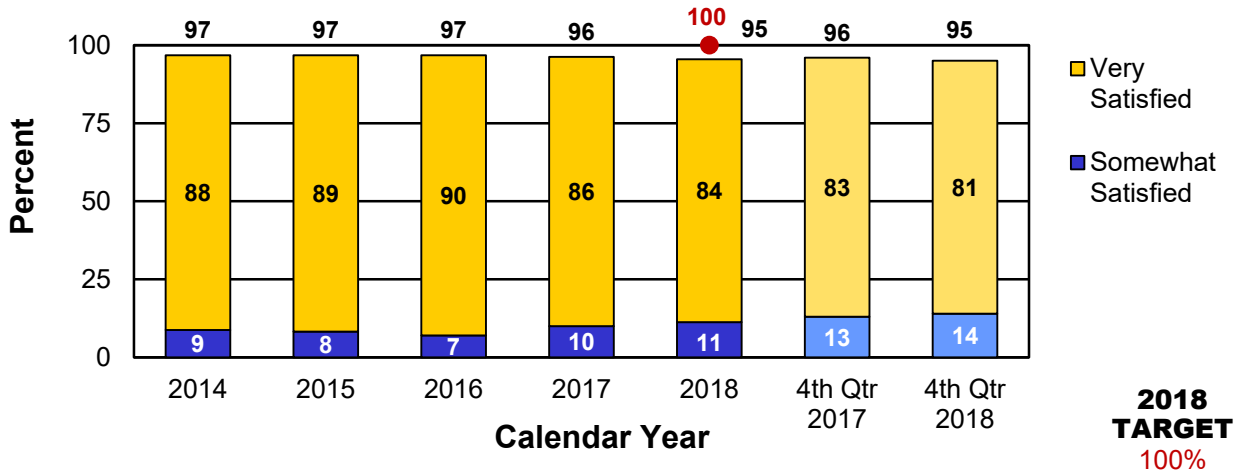
Overall customer satisfaction decreased from 81 percent to 78 percent. Politeness of response decreased slightly from 96 percent to 95 percent. Customers who were satisfied with the clarity of the response they received decreased from 86 percent to 84 percent and responsiveness increased slightly from 87 percent to 88 percent.

The average time to complete customer requests was two days.

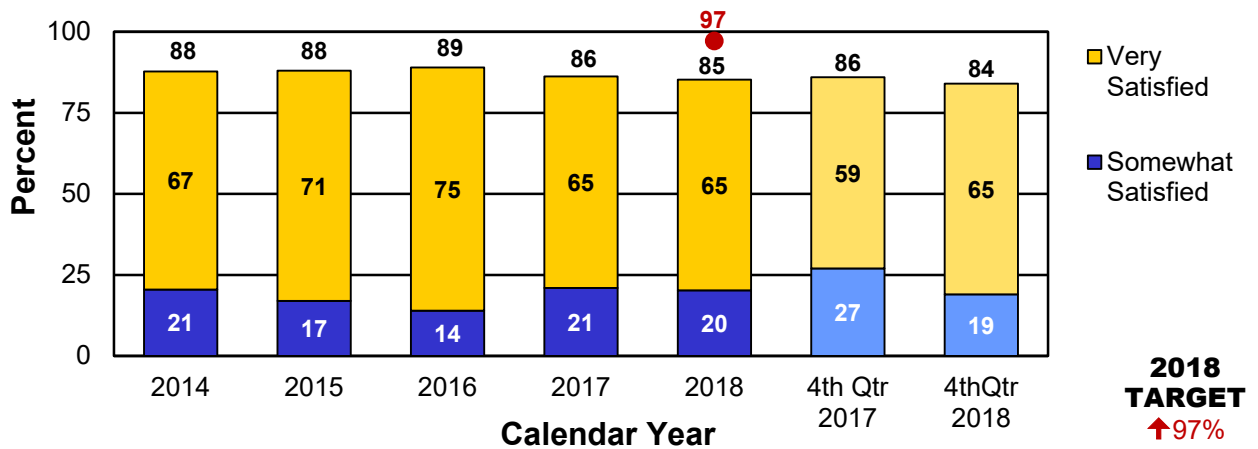


PROVIDE OUTSTANDING CUSTOMER SERVICE

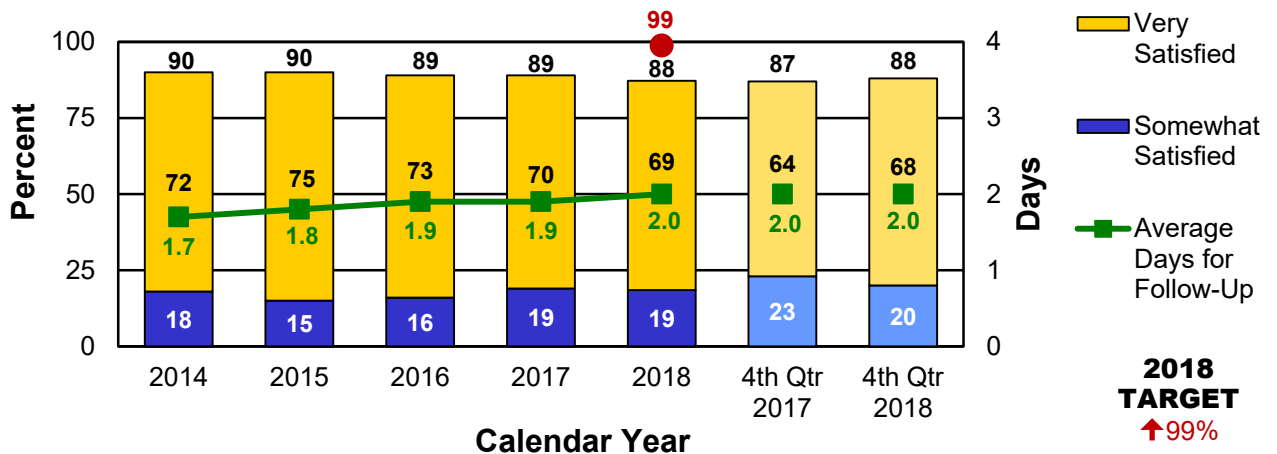
Customer Satisfaction with Politeness of Staff



Customer Satisfaction with Clarity of Response



Customer Satisfaction with Responsiveness



RESULT DRIVER:

Tom Blair
District Engineer

PROVIDE OUTSTANDING CUSTOMER SERVICE

Customer communication engagement – 3f

MEASUREMENT DRIVER:

Taylor Brune
Communications Specialist

PURPOSE OF THE MEASURE:

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

MEASUREMENT AND DATA COLLECTION:

MoDOT gathers information for 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.

Good organizations share information with the people they serve. The best, most-trusted organizations, engage customers in conversation. MoDOT interacts with its customers through social media networking websites and applications. MoDOT's social media accounts continue to attract followers. When comparing the second quarters of fiscal years 2018 and 2019, there was a growth of 28,381 followers on Facebook statewide and 15,480 on Twitter.

During the second quarter of FY 2019, MoDOT's most popular post on Facebook statewide urged drivers to avoid travel on I-70 west of Columbia during a winter weather event. The post reached 315,978 people with 9,136 engagements including post clicks, shares, comments and reactions.

MoDOT websites had 1,516,246 sessions during the second quarter of FY 2019, compared to 902,000 in the second quarter of FY 2018. Numbers in the second quarter tend to fluctuate depending on the severity of the start to winter. Typically, the more weather events that take place, the higher the traffic to the Traveler Information Map.

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

- Traveler Information Map – 421,370
- MoDOT Homepage – 288,272
- KC Scout Homepage – 252,358
- Ozarks Traffic – 152,675
- Job Listing – 48,231

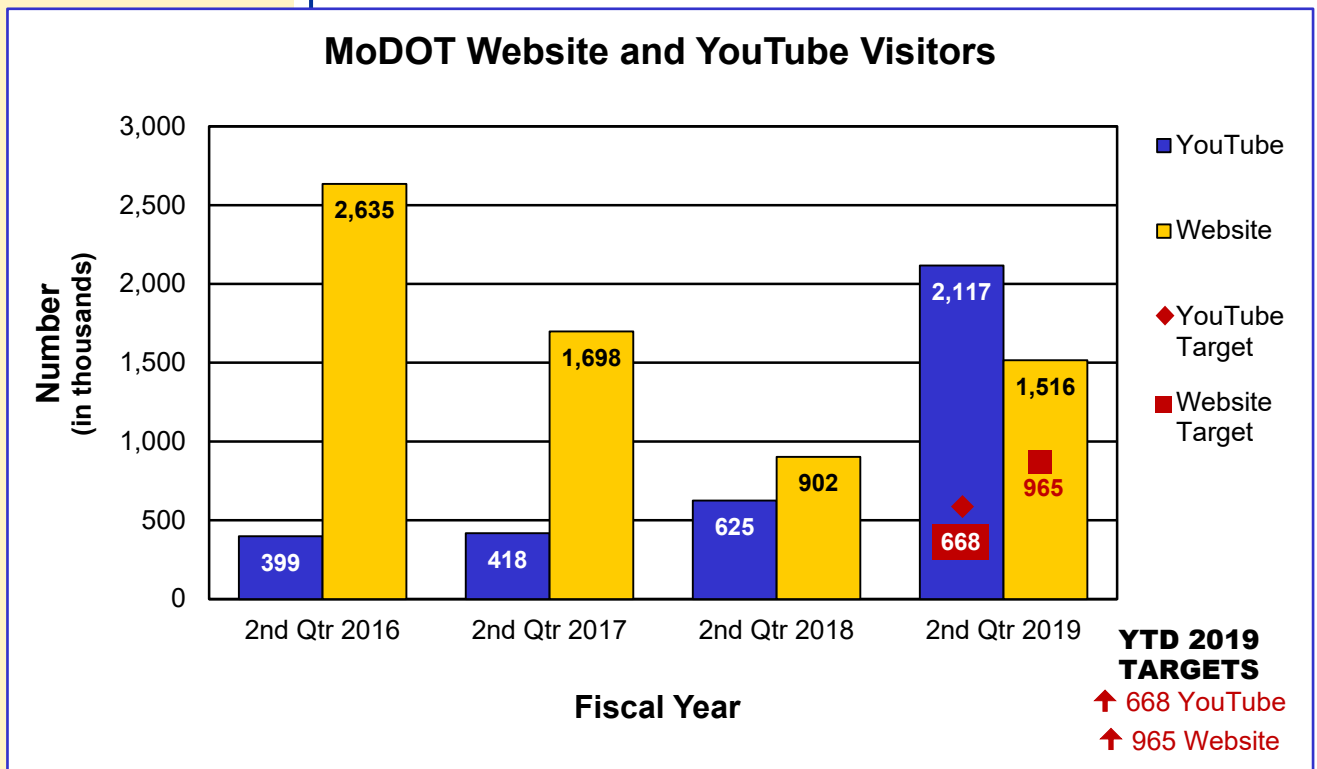
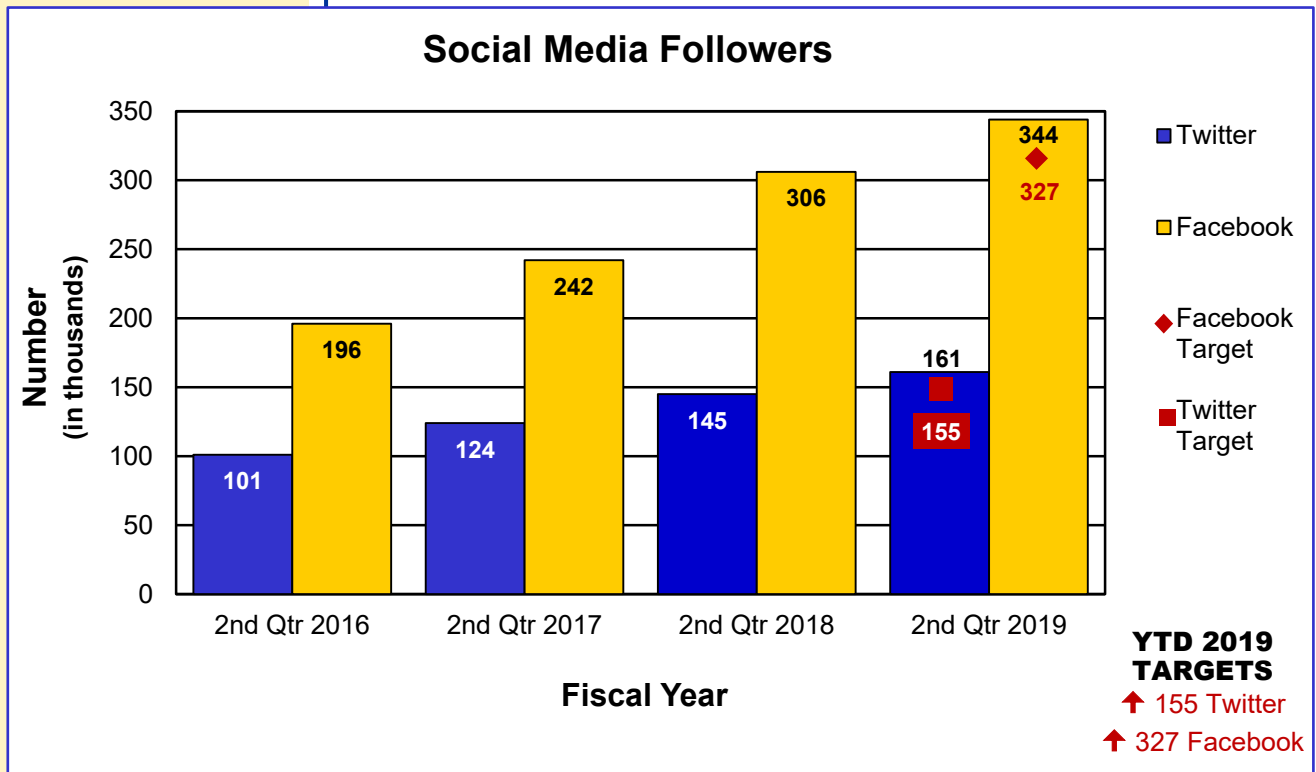
MoDOT videos on YouTube were viewed 2,117,916 times in the second quarter of FY 2019.

The top five videos viewed in the last quarter were:

- Destination Safe Holiday Impaired 2018 – 105,146 views
- MoDOT Holiday Impaired WWE 2018 – 84,944 views
- MoDOT BUPD Mizzou Coaches 2018 – 79,582 views
- MoDOT Northeast Coalition Non-Signal Intersections – 43,710 views
- Tow Plow Action Missouri – 38,238 views

This measure is linked to the Improve Communications strategy included in the Sharpening Our Strategic Vision initiative. The Citizen's Guide to Transportation Funding, the new department website and a better Traveler Information Map have been identified as strategies to improve performance.

PROVIDE OUTSTANDING CUSTOMER SERVICE



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DELIVER TRANSPORTATION SOLUTIONS OF GREAT VALUE

Eric Schroeter, Assistant Chief Engineer

Tracker

MEASURES OF DEPARTMENTAL PERFORMANCE



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

RESULT DRIVER:

Eric Schroeter
Assistant Chief 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.

DELIVER TRANSPORTATION SOLUTIONS OF GREAT VALUE

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

Accurate program cost estimates help MoDOT deliver more timely improvements for taxpayers. As of Dec. 31, 2018, 166 road and bridge projects were completed in fiscal year 2019 at a cost of \$359.3 million. This represents a deviation of 3.7 percent (or \$14 million) less than the programmed cost of \$373.3 million. Of the 166 road and bridge projects completed, 57 percent were completed within or below budget. In comparison, 58 percent were completed within or below budget as of the same date a year ago. Project savings were recognized in the engineering, miscellaneous and award phases, while construction phase saw project increases. There may be projects that have adjustments pending, which could cause a slight change in the final values.

In addition, 11 multimodal projects were completed at a cost of \$2.6 million, 11.9 percent (or \$349,000) less than the programmed cost of \$2.9 million. A total of 63 local public agency projects were completed at a cost of \$49 million, 7.5 percent (or \$4 million) less than the programmed cost of \$53 million.

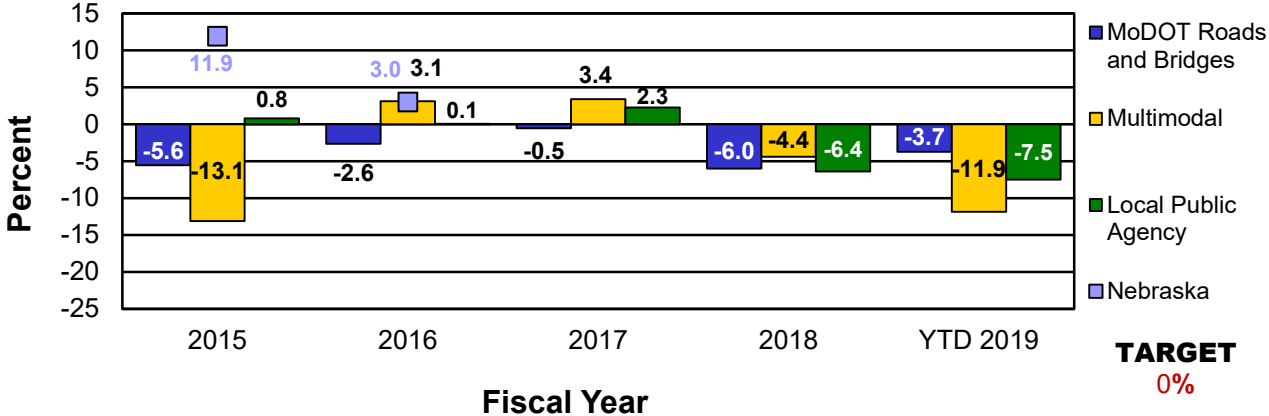
The target is zero percent difference, indicating MoDOT is making timely use of available funds. Road and bridge, multimodal and local public agency projects were within 4.3 percent of the target in second quarter of FY 2019.

MoDOT uses this historical data as a guide for programming future projects. Projects awarded in FY 2017 and FY 2018 were about 9 percent lower than programmed values. If FY 2019 projects also reflect significant award savings, MoDOT plans to accelerate projects from FY 2020 to FY 2019.



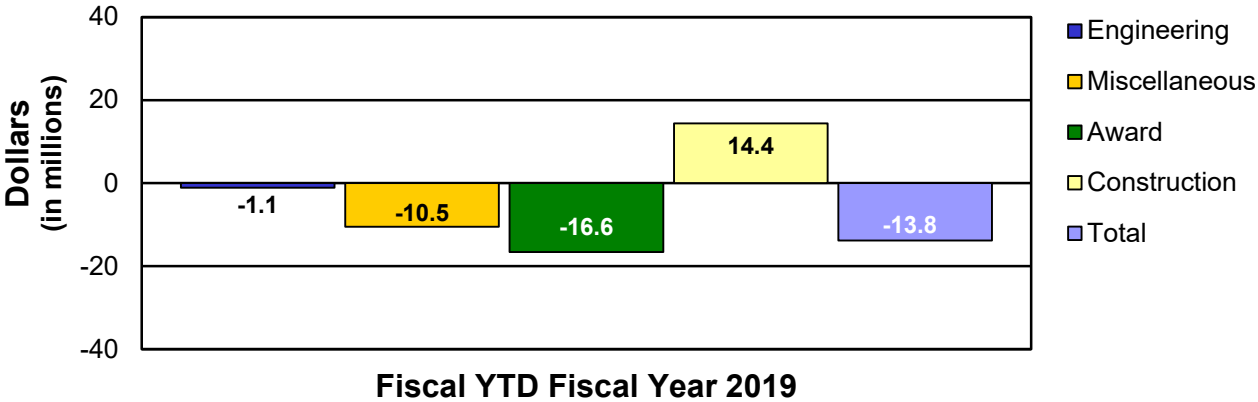
DELIVER TRANSPORTATION SOLUTIONS OF GREAT VALUE

Percent of Programmed Project Cost as Compared to Final Project Cost



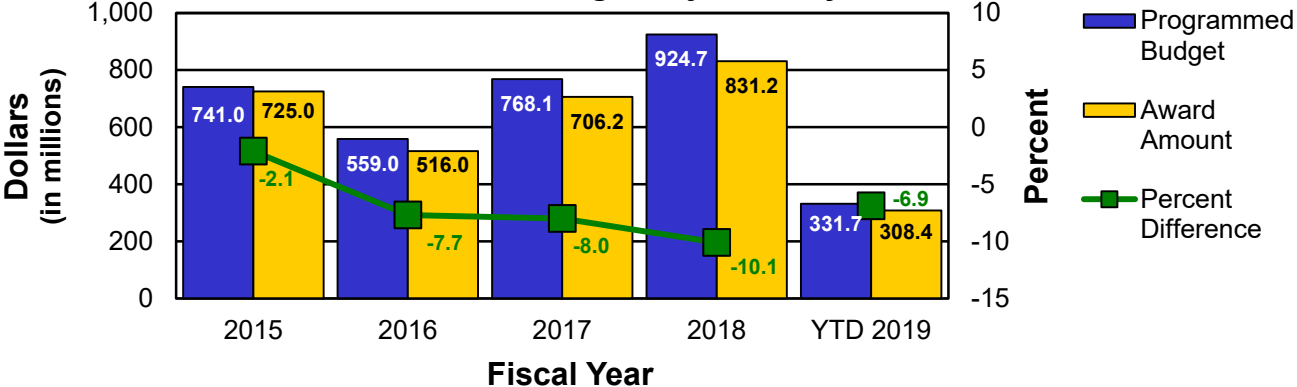
Positive numbers indicate the final (completed) cost was higher than the programmed cost.

**Final Project Cost Differences by Phase
STIP Road and Bridge Projects Only**



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

**Difference in Program vs. Award
STIP Road and Bridge Projects Only**



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

RESULT DRIVER:

Eric Schroeter
Assistant Chief Engineer

DELIVER TRANSPORTATION SOLUTIONS OF GREAT VALUE

Percent of projects completed on time – 4b

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.

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.

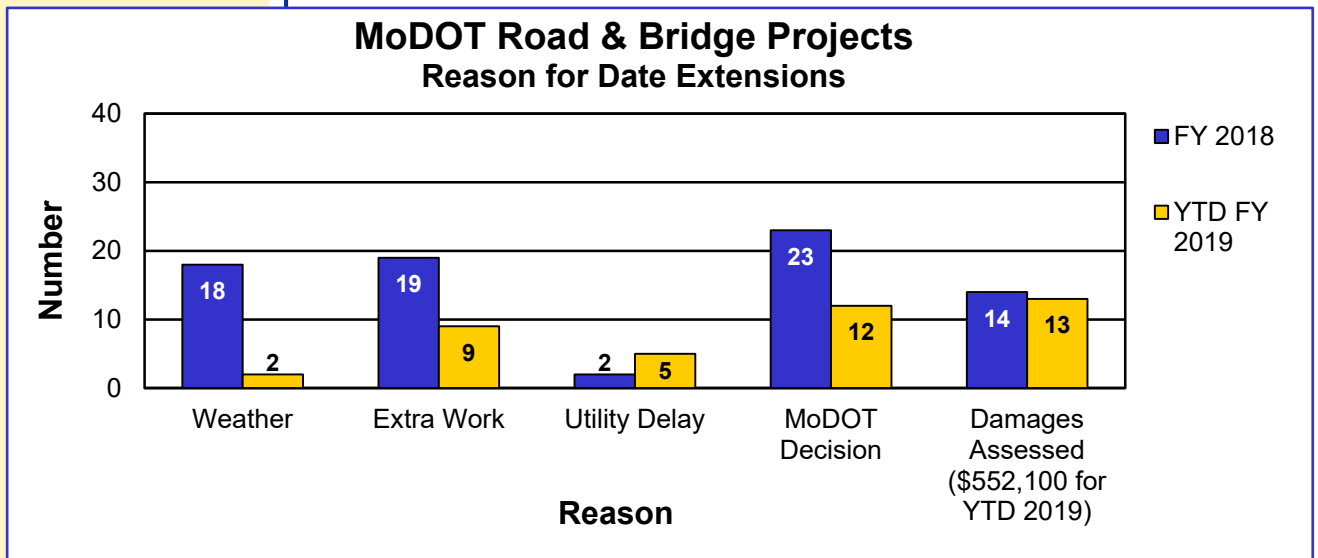
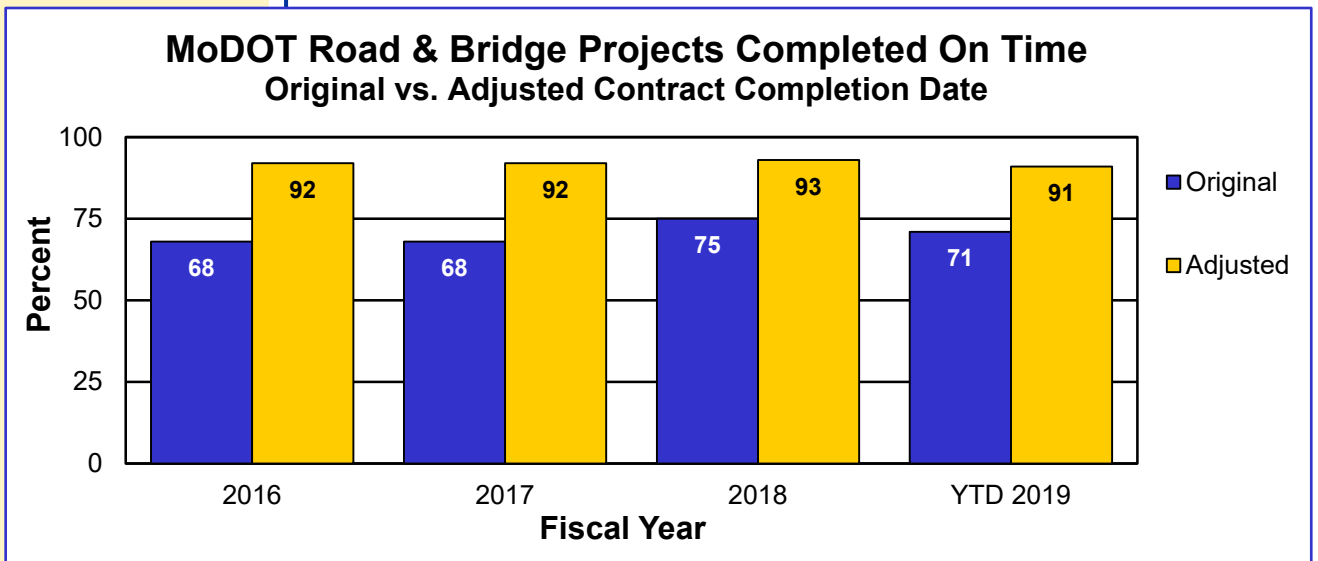
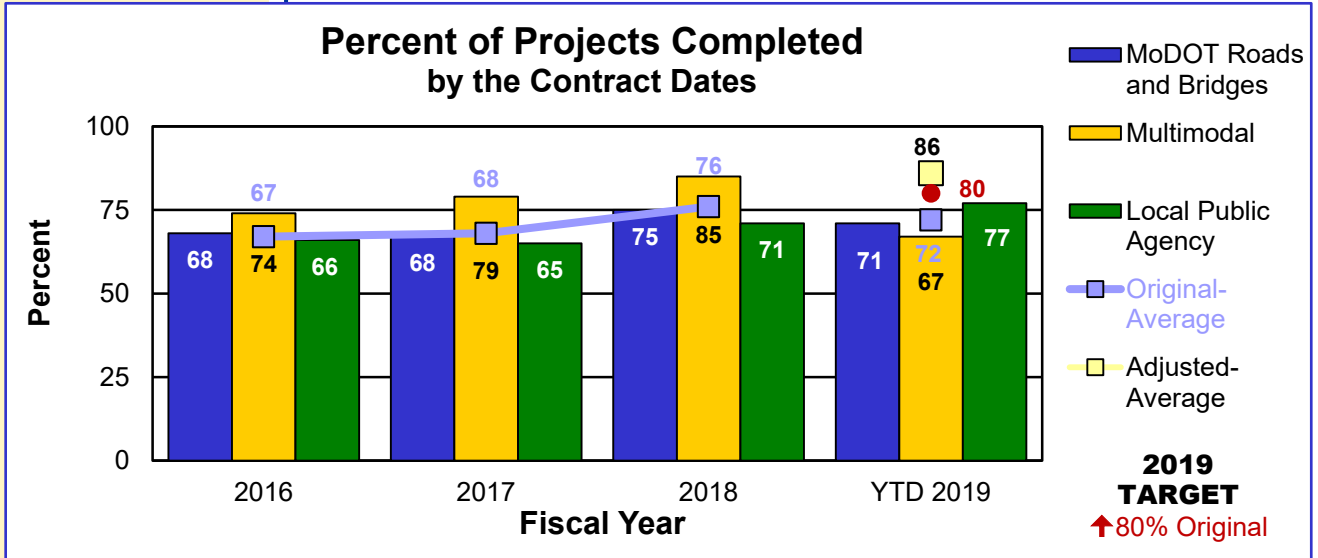
MoDOT works to meet the initial contract completion date by preparing accurate plans and quantities, setting aggressive but reasonable completion dates and setting liquidated damages to reinforce completion dates without undue bid risks. In the first two quarters of fiscal year 2019, 72 percent of all closed-out projects were completed by their planned completion dates.

Weather, additional work or a MoDOT directive, sometimes necessitates an authorized extension of the completion date without any financial assessment to the contractor. In the first two quarters of FY 2019, 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 two quarters of FY 2019 that did not meet the original contract date, 5 percent were extended due to weather delays, 22 percent were extended due to extra work, 12 percent experienced utility delays, 29 percent were extended by MoDOT and 32 percent missed the completion date with damages assessed totaling \$552,100.

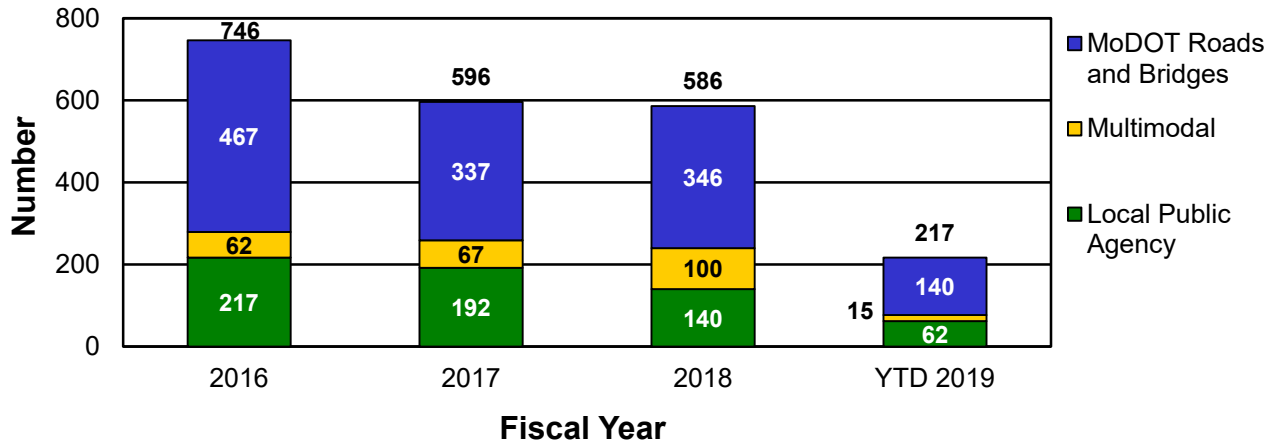
The target for this measure is to have at least 80 percent of projects completed by the original completion date. At the end of the second quarter of FY 2019, the average number of all contracts completed by the original completion date was 72 percent.

DELIVER TRANSPORTATION SOLUTIONS OF GREAT VALUE

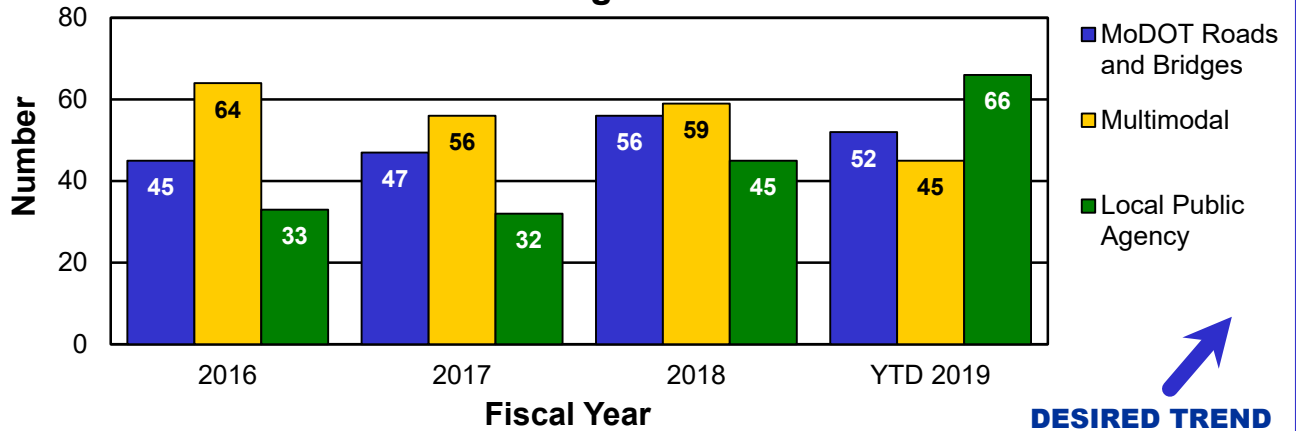


DELIVER TRANSPORTATION SOLUTIONS OF GREAT VALUE

Total Number of Projects Completed

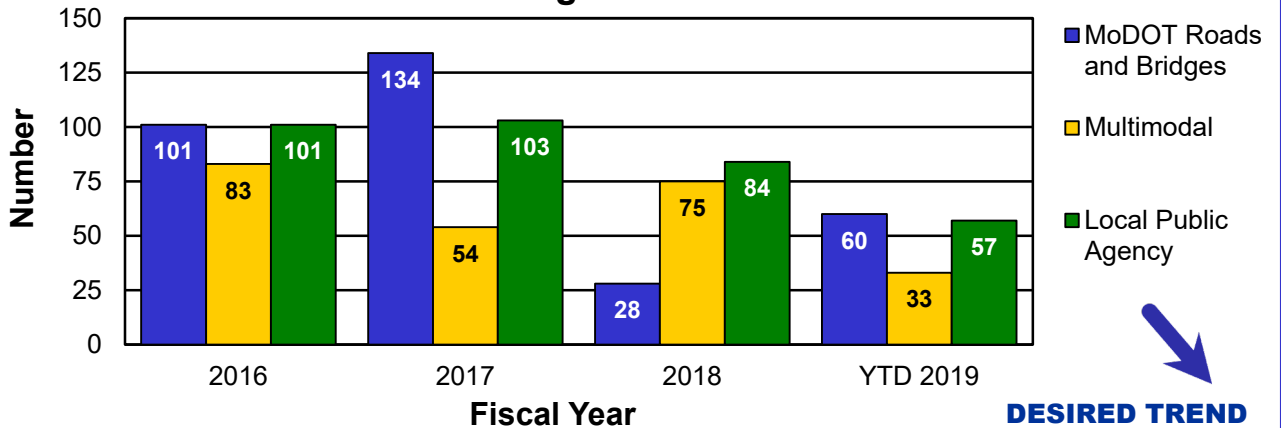


Average Number of Days Completed Before Original Date



DESIRED TREND 

Average Number of Days Completed After Original Date



DESIRED TREND 

RESULT DRIVER:

Eric Schroeter
Assistant Chief 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 – 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 two quarters of fiscal year 2019 is 0.5 percent over the award amount (\$1.3 million over the award amount of \$301 million worth of projects completed) with 47 percent of the projects being completed below the original award amount.

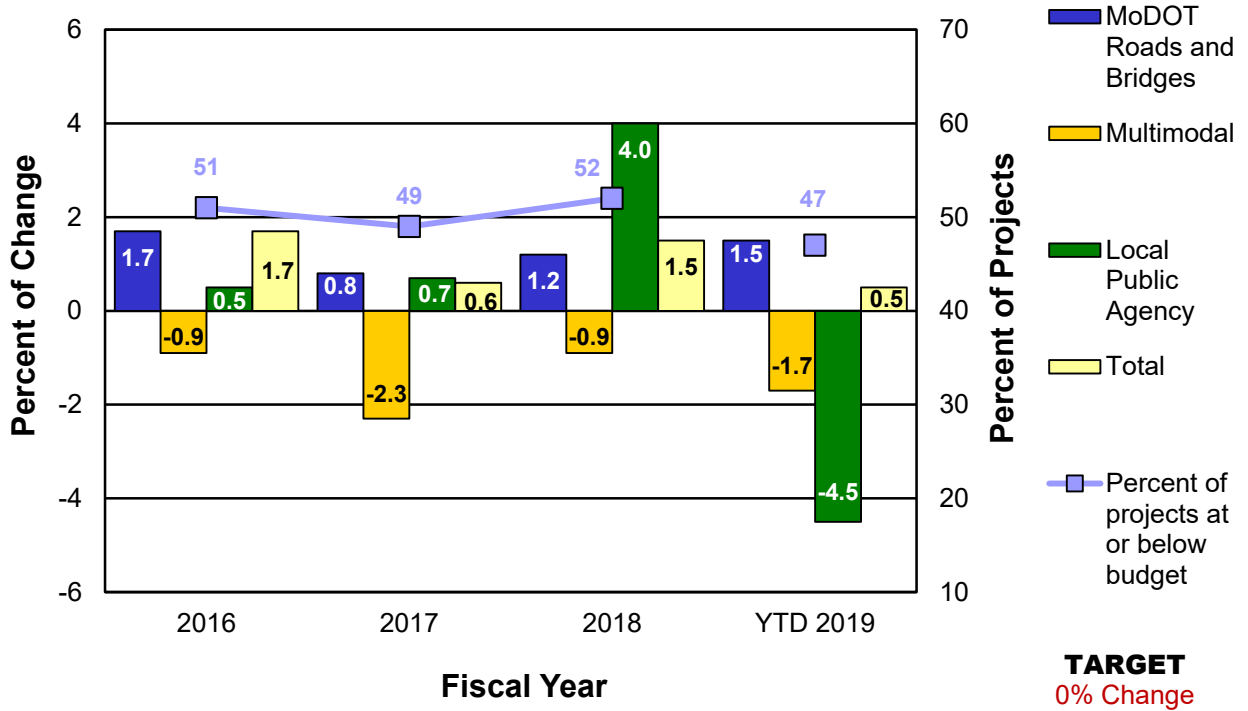
Many factors can affect the ability to complete a project within 2 percent of the award amount. These factors can include design changes, differing conditions, additional work items and administrative decisions.

For FY 2019, MoDOT road and bridge projects were completed 1.5 percent over budget; local public agency projects were completed 4.5 percent under budget and multimodal projects were completed 1.7 percent under budget.

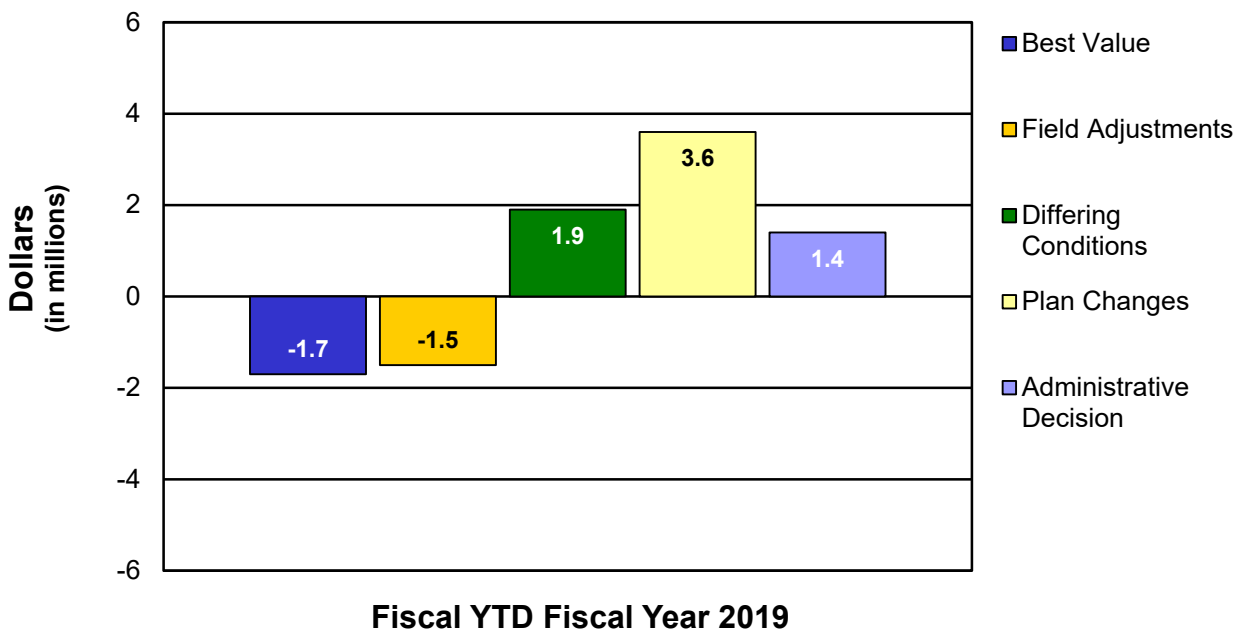


DELIVER TRANSPORTATION SOLUTIONS OF GREAT VALUE

**Percent of Change for Finalized Contracts
Total Contractor Payment vs. Award Amount**



**Change Order Value by Reason
(MoDOT Road and Bridge Projects Only)**



RESULT DRIVER:

Eric Schroeter
Assistant Chief 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 Statewide Transportation Improvement Program, 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 more than \$1.6 billion in Design-Build projects that have saved taxpayers over \$277 million. When combined, these projects were completed more than 65 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.

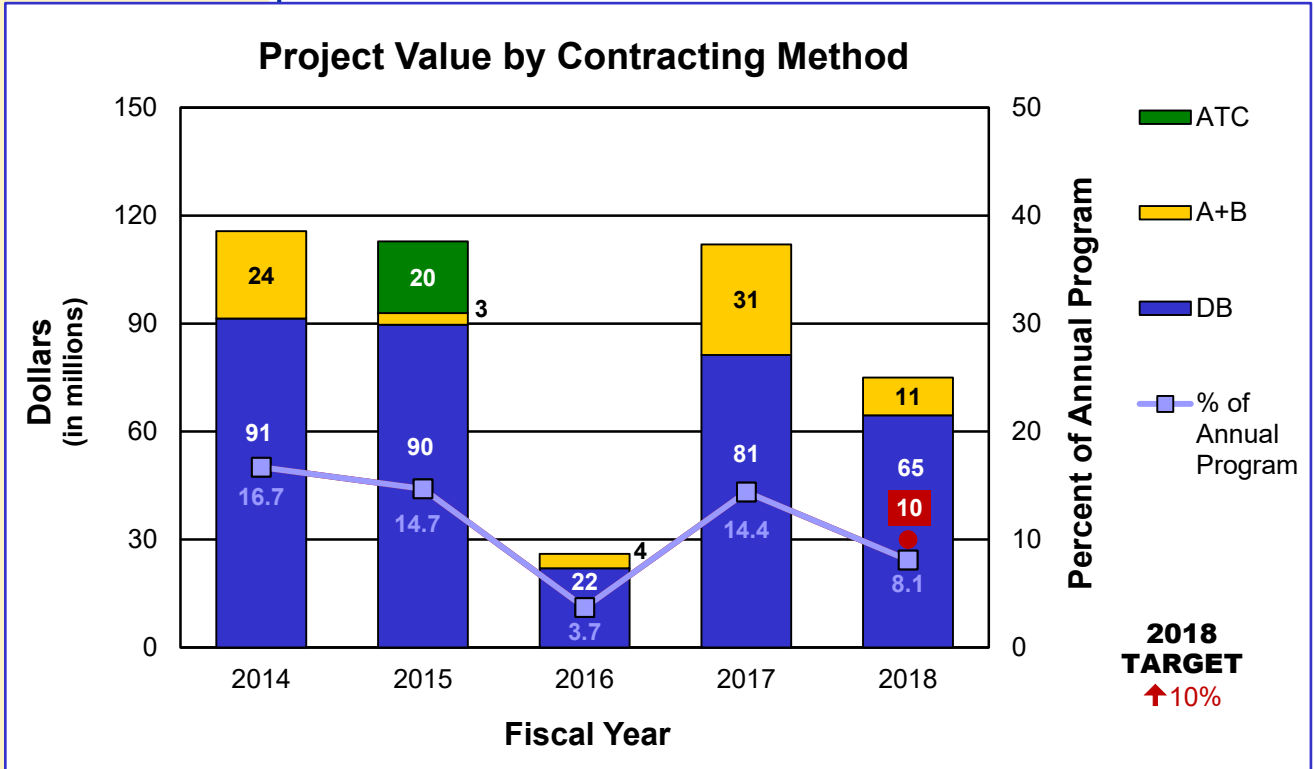
MoDOT evaluates project risks such as size (cost), type (preservation, rehabilitation or reconstruction) and complexity (opportunity for innovation and speed) when determining project delivery methods. The advantages of MoDOT's innovative contracting methods are as follows:

- 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 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.

In fiscal year 2018, one Design-Build project was awarded in the Kansas City District. The I-435 South Loop Link project will renovate a critical link in the south side of the metropolitan area while improving mobility and safety on the corridor as well as maintaining traffic during construction.

Based on the 2018 Statewide Transportation Improvement Program, MoDOT delivered three out of 461 projects statewide using innovative contracting methods. One was delivered using Design-Build and two were delivered using the A+B process. The DB project accounted for \$64.5 million and the two A+B projects accounted for \$10.5 million of the \$929.7 million programmed budget (8.1 percent). The target of two projects per year was met, but the percentage of programmed STIP dollars awarded was below the 10 percent target. MoDOT will continue to look for opportunities to further develop the innovative project delivery program as part of the Sharpening Our Strategic Vision initiative.

DELIVER TRANSPORTATION SOLUTIONS OF GREAT VALUE



RESULT DRIVER:

Eric Schroeter
Assistant Chief Engineer

DELIVER TRANSPORTATION SOLUTIONS OF GREAT VALUE

Value engineering – 4e

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.

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 target for this measure is updated annually in January for the next fiscal year. This target is established by projecting a 10 percent improvement over a five-year average.

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 fiscal year 2019, 42 percent of applicable projects underwent some form of value analysis during design, which is currently above the 26 percent target for design-phase value analyses. Value engineering is an important strategic initiative, and MoDOT is committed to adding value and identifying savings in every project possible.

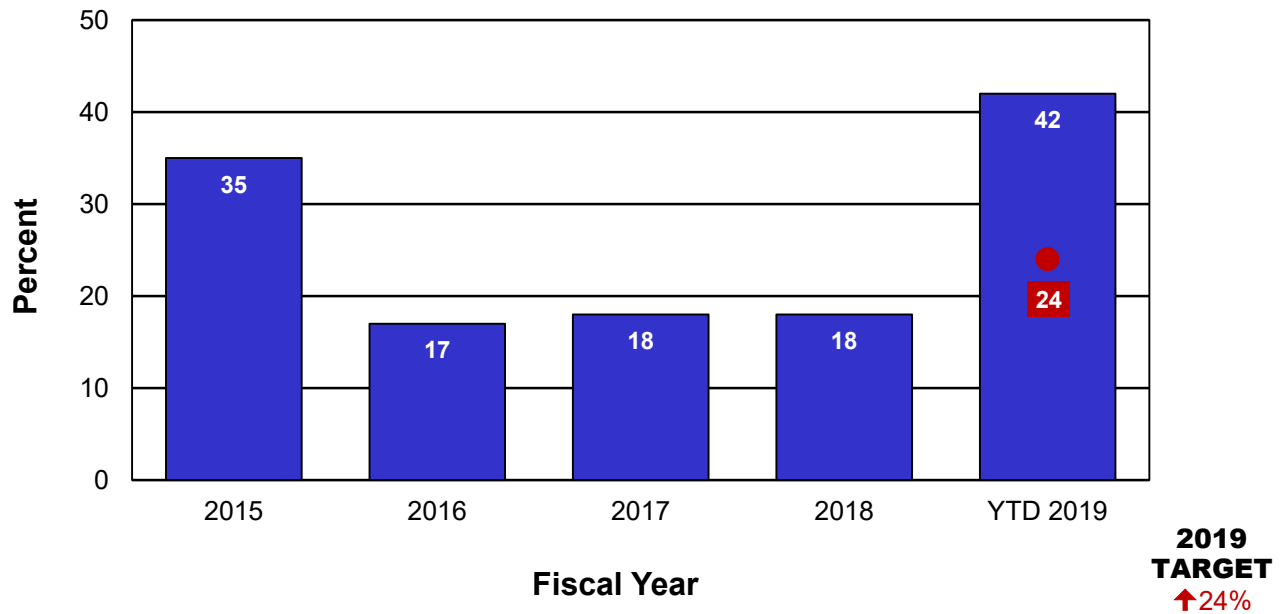
Programmatic value analysis studies associated with the level-course and seal coat programs continue to account for a large portion of this percentage. Two traditional design value engineering studies were completed in two districts this fiscal year. Districts continue to use the Practical Value Analysis 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 fiscal year 2019 year to date, 11 VECs were approved resulting in a MoDOT savings of \$451,000. This represents a 100 percent approval rate. Post-Award Value Engineering workshops have been held in two districts this fiscal year.

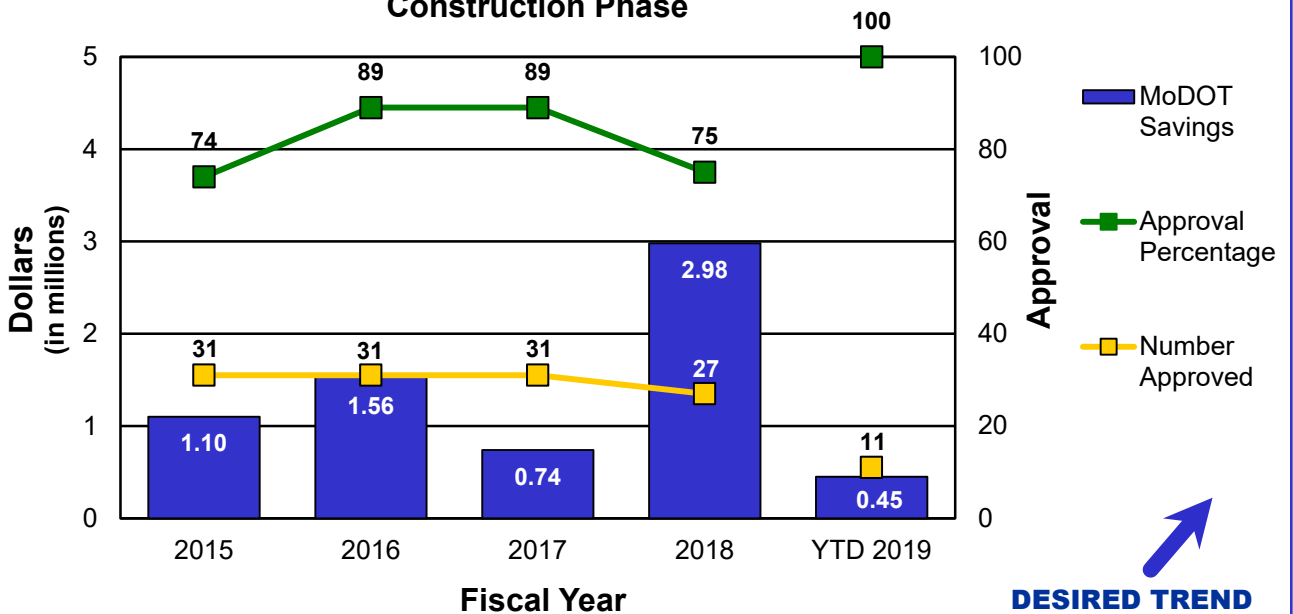
Nationally, VE studies save millions of dollars every year. In fiscal year 2017, state DOTs saved over \$1.08 billion through value engineering.

DELIVER TRANSPORTATION SOLUTIONS OF GREAT VALUE

Percent of Awarded Projects with Value Analysis Design Phase



Value Engineering Proposals by Dollar and Number Construction Phase



RESULT DRIVER:

Eric Schroeter
Assistant Chief Engineer

DELIVER TRANSPORTATION SOLUTIONS OF GREAT VALUE

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

MEASUREMENT DRIVER:

Brandi Baldwin
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.

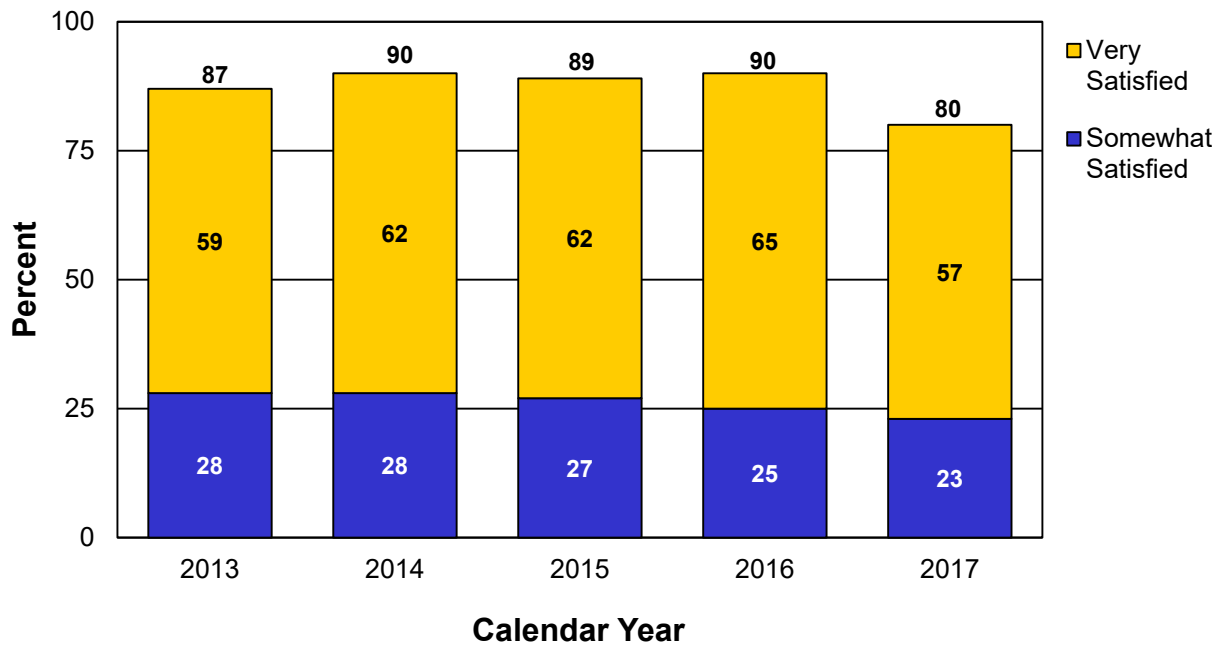
In 2017, nearly 4,900 surveys were submitted online showing Missourians are satisfied with the majority of local projects and believe MoDOT provides the right transportation solution. The respondents thought the projects made the roadway: safer (75 percent), more convenient (72 percent), less congested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

Percent of Customers Who Believe Completed Projects Are the Right Transportation Solutions



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OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

Becky Allmeroth, Chief Safety and Operations Officer

Tracker

MEASURES OF DEPARTMENTAL PERFORMANCE



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

RESULT DRIVER:

Becky Allmeroth
Chief Safety and Operations
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.

OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

Travel times and reliability on major routes – 5a

During the fourth quarter of 2018, average travel times in St. Louis and Kansas City were mostly longer compared to the same period last year. The average 10-mile travel time in St. Louis was 11 minutes, 4 seconds during the morning and 12 minutes, 46 seconds during the evening. For Kansas City, the average travel time was 11 minutes, 21 seconds during the morning and 11 minutes, 12 seconds during the evening. The average travel times for all rush periods were higher than the same quarter last year with the exception of the evening rush in Kansas City. Overall, average speeds ranged between 50 mph and 56 mph.

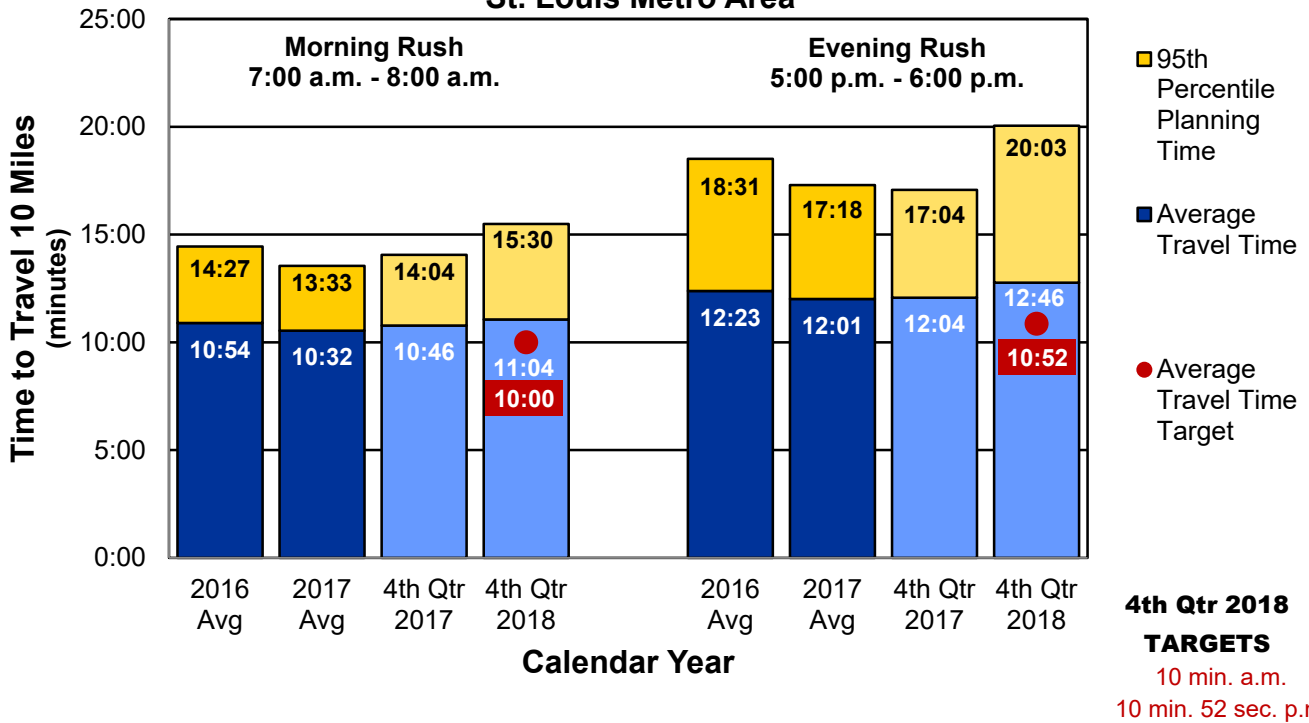
The planning times account for unexpected delays and indicate how long customers need to plan in order to arrive on time 95 percent of the time. In St. Louis, the average 10-mile planning times were 15 minutes, 30 seconds during the morning and 20 minutes, 3 seconds during the evening. This means customers in the St. Louis evening rush needed to plan 10 minutes, 3 seconds more for a 10-mile trip than they would need in free-flow conditions. In Kansas City, the average planning times were 15 minutes, 57 seconds during the morning and 15 minutes, 25 seconds during the evening. Customers in the Kansas City evening rush needed to plan 5 minutes, 25 seconds 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 30 and 44 mph. The planning times for all rush periods were higher than the previous year, with the exception of the evening rush in Kansas City.

The average travel times in both regions are higher than the target for the fourth quarter of 2018. The morning average travel times are both slightly more than a minute greater than the target. The evening average travel times are 57 seconds to 1 minute, 54 seconds greater than the target.

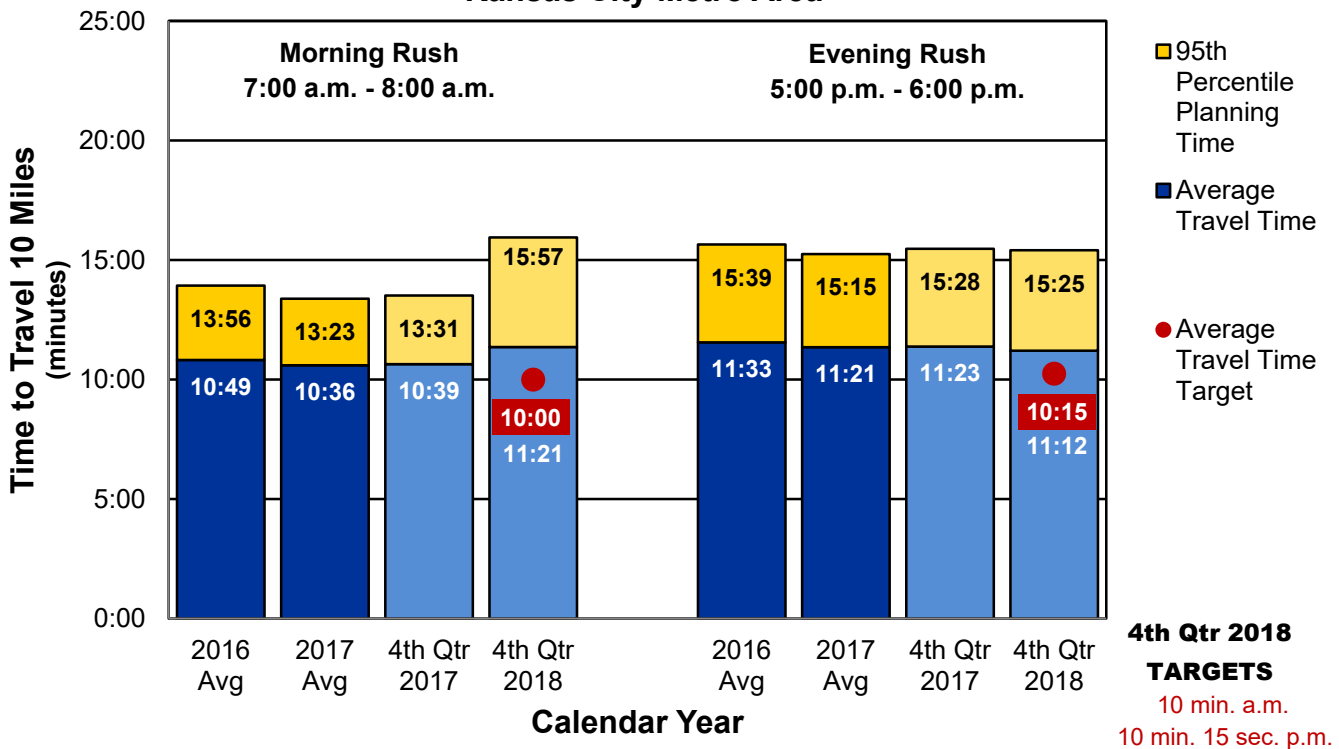
Individual freeway segments within the regions experienced longer travel times than the regional averages as depicted in the maps. The maps also depict rush-hour conditions on selected arterial routes compared to normal traffic flow during non-peak traffic conditions.

OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

Reliability of Travel Times for Freeways St. Louis Metro Area

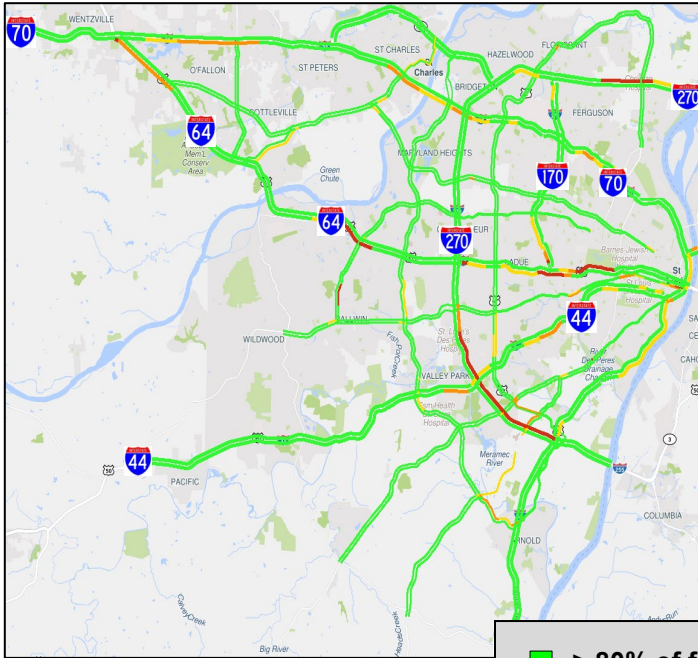


Reliability of Travel Times for Freeways Kansas City Metro Area

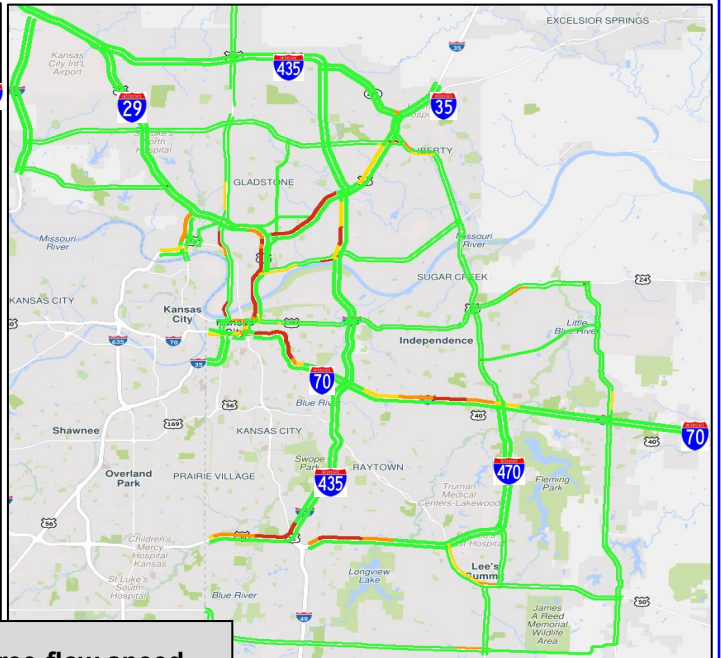


OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

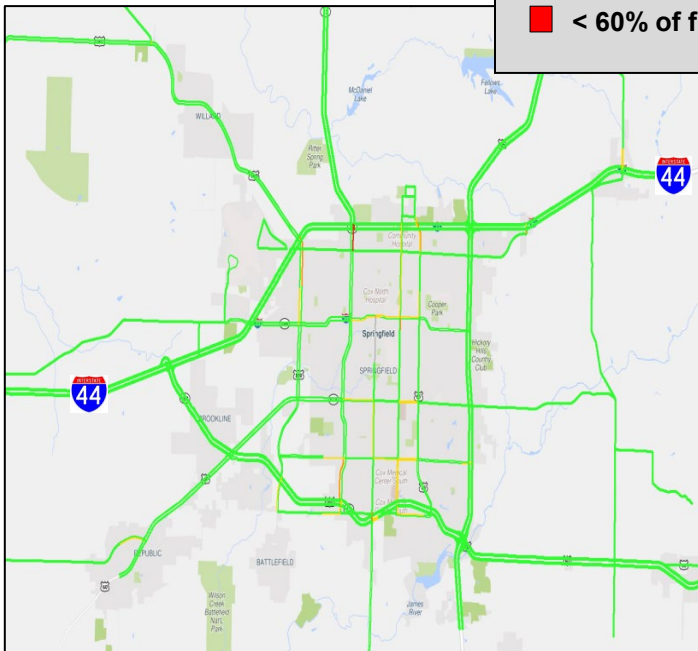
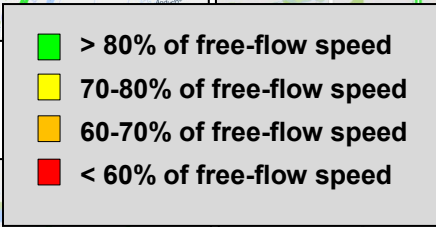
a.m. Mobility



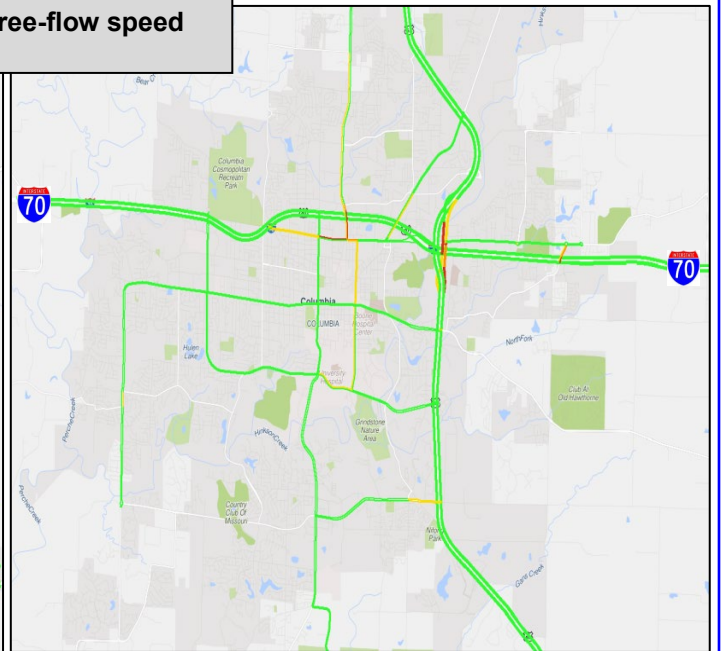
St. Louis Area



Kansas City Area



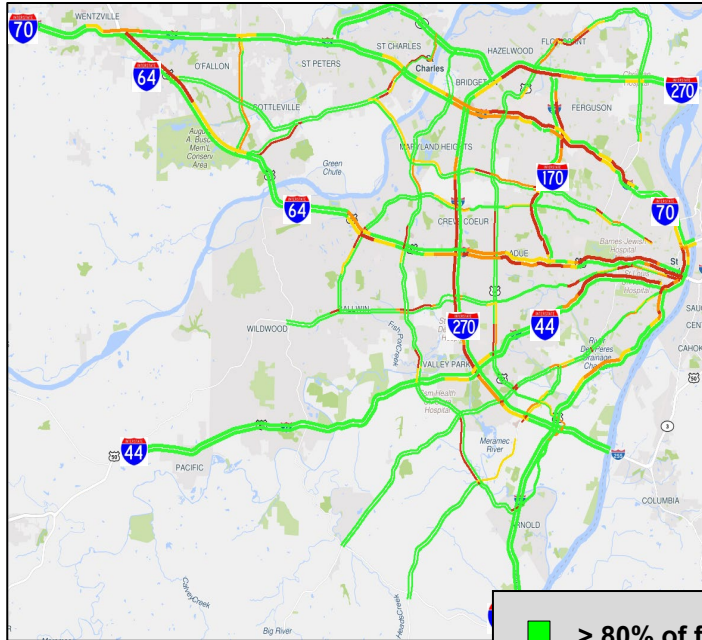
Springfield Area



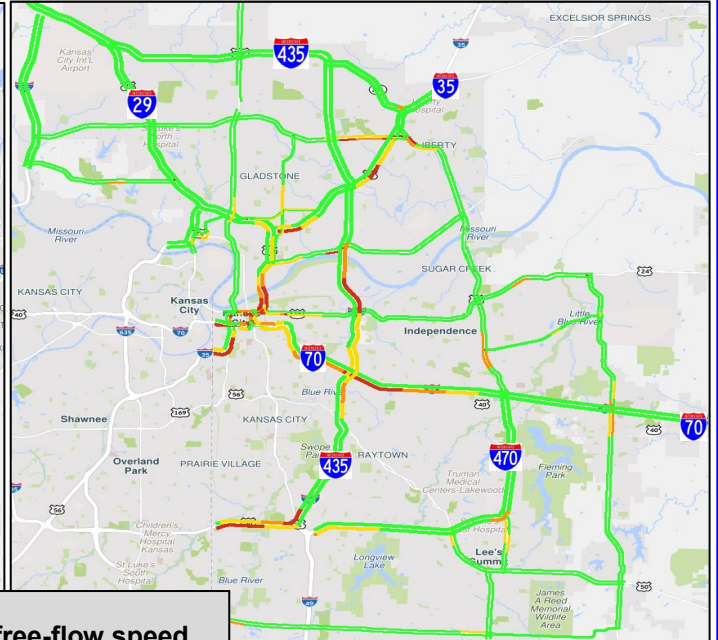
Columbia Area

OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

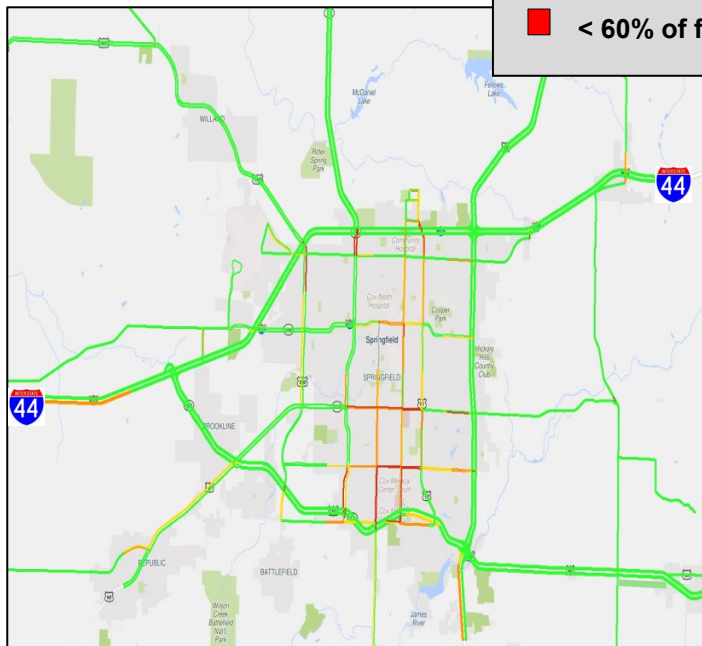
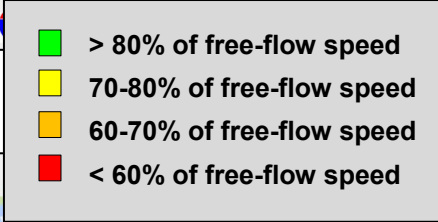
p.m. Mobility



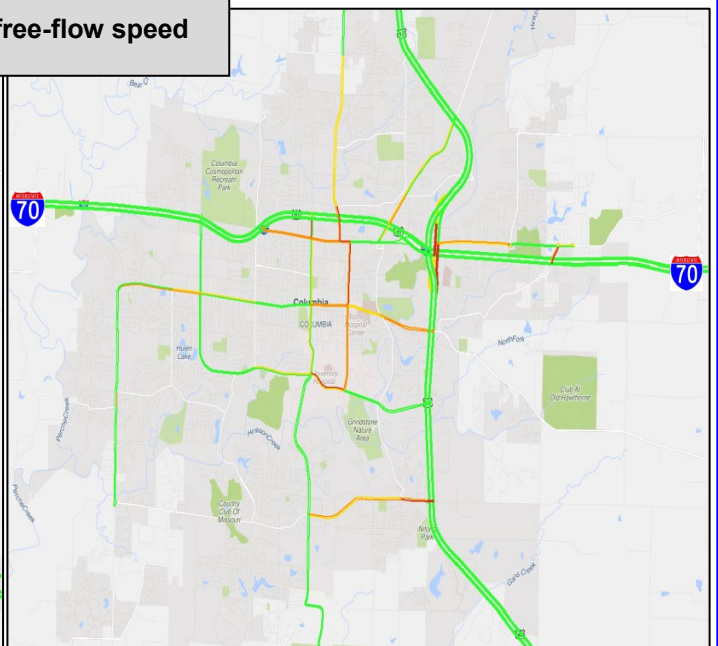
St. Louis Area



Kansas City Area



Springfield Area



Columbia Area

RESULT DRIVER:

Becky Allmeroth
Chief Safety and Operations
Engineer

MEASUREMENT DRIVER:

Brian Umfleet
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.

OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

Cost and impact of traffic congestion – 5b

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

While the desired trend for both costs is downward, challenges exist in Missouri's metropolitan regions to continue toward this desired outcome. A comprehensive look at congestion is needed, looking beyond typical solutions of adding capacity. 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 \$486 million. The actual calculation from the Regional Integrated Transportation Information System 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.

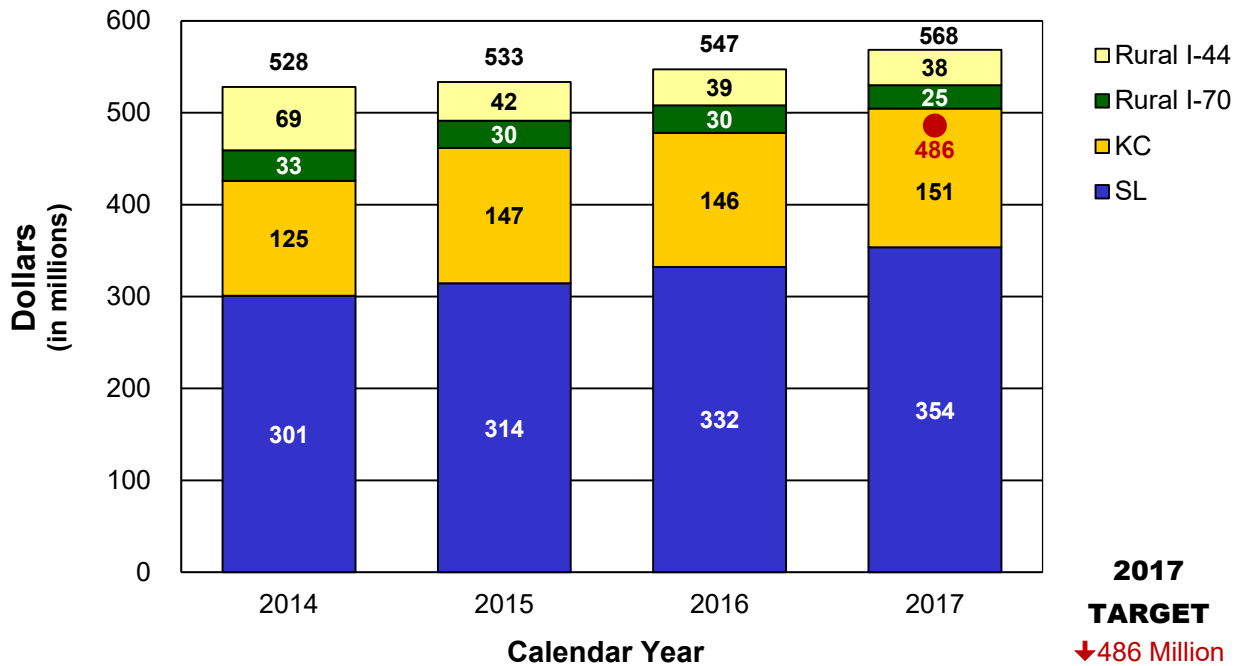
Volume growth is often seen when gas prices remain low. The average cost of gasoline in April 2014 was \$3.52 per gallon, while in April 2018 it was about \$2.45 per gallon. Since mid-2016, while gas prices have fluctuated a bit, the price has been fairly steady.

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 vehicle miles travelled) 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 departments of transportation, MoDOT puts forth great effort in incident clearance practices, work zone management and other factors that impact mobility.

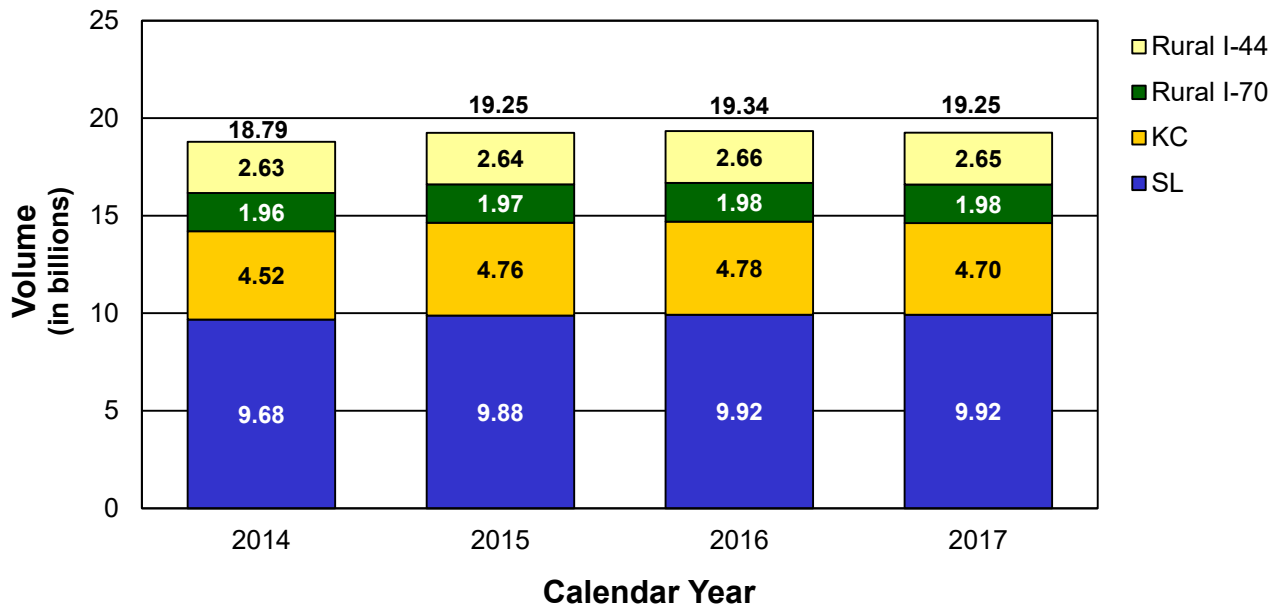
As a state and individual regions, a comprehensive look at all available means to reduce the cost of congestion is necessary.

OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

Cost of Congestion on Selected State Roads



Traffic Volume on Selected State Routes



RESULT DRIVER:

Becky Allmeroth
Chief Safety and Operations
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 St. Louis and Kansas City 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.

OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

Average time to clear traffic incident – 5c

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

St. Louis recorded 2,845 incidents in the fourth quarter of 2018. The average time to clear traffic incidents was 28.2 minutes, an increase of 9 percent from the fourth quarter of 2017.

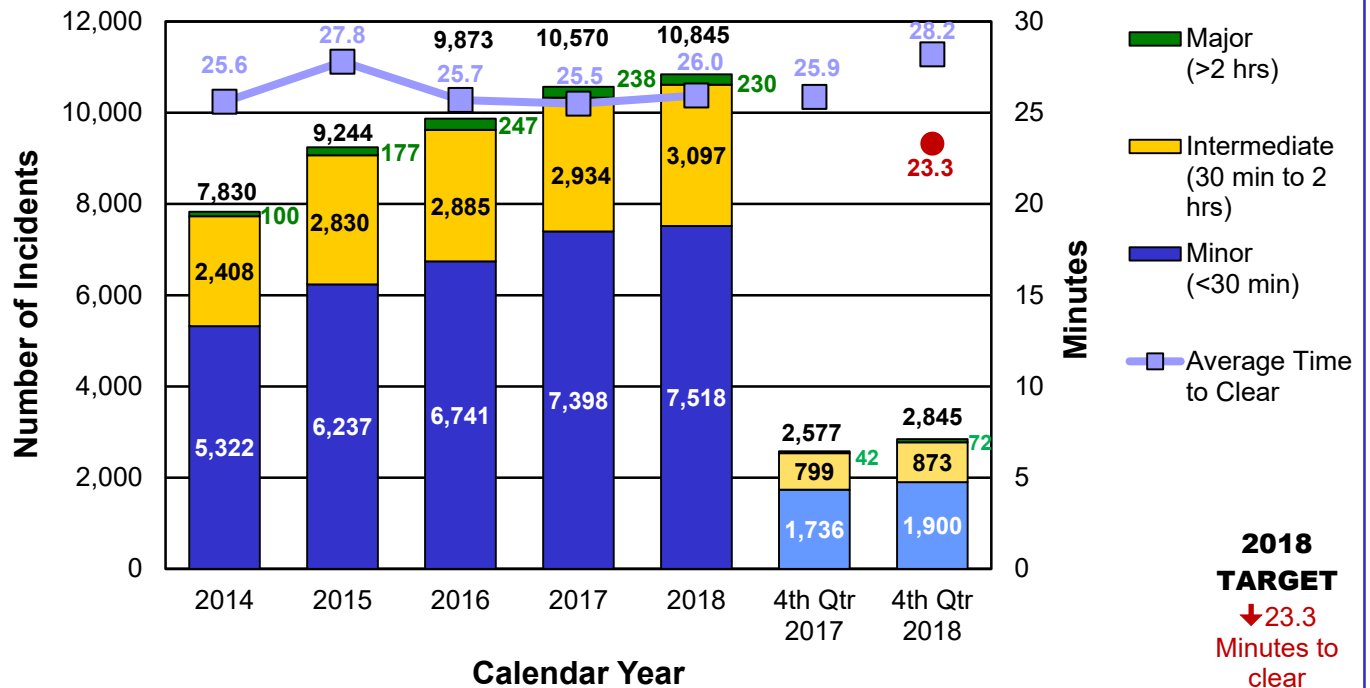
Kansas City recorded 2,333 incidents in the fourth quarter of 2018. The average time to clear traffic incidents was 25.4 minutes, an increase of 1.6 percent from the fourth quarter of 2017.

The fourth quarter for Kansas City and St. Louis revealed an array of incidents that included overturned tractor trailers, pedestrians, multi-vehicles and MoDOT fleet. St. Louis and Kansas City saw an increase in the number of incidents when compared to third quarter of 2017. Both continue to use communication, coordination and data to help reduce the average time to clear. An increase in the number of tractor trailer incidents has made it challenging to reduce average clearance times. This has led to statewide discussions and meetings to find best practices to reduce tractor trailer incidents and clearance times involving them.

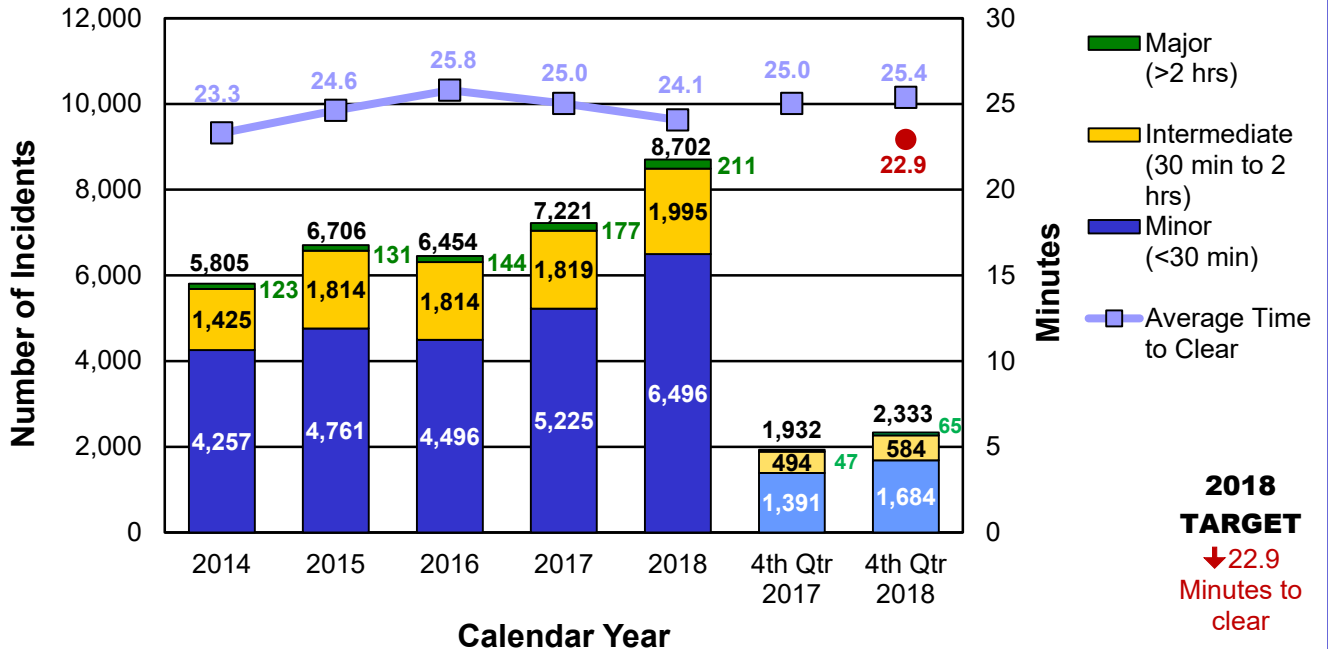


OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

Average Time to Clear Traffic Incident St. Louis



Average Time to Clear Traffic Incident Kansas City



RESULT DRIVER:

Becky Allmeroth
Chief Safety and Operations
Engineer

OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

Unplanned incident impacts on major interstate routes – 5d

MEASUREMENT DRIVER:

Laurel McKean
Assistant District Engineer

PURPOSE OF THE MEASURE:

This measure tracks the number of and delay caused by unplanned incidents on the divided four-lane section of Interstate 44 and Interstate 70.

MEASUREMENT AND DATA COLLECTION:

Crash data is received from MoDOT's Transportation Management System. The total crashes are for both directions of I-44 and include all crash severity classes.

Incidents were input by the St. Louis and Springfield Transportation Management Operators in Transuite and then collected in Regional Integrated Transportation Information System.

Interstates are the arteries that connect the nation and keep people and commerce flowing. When interstates shut down in Missouri, the country is cut in half. Keeping interstates free-flowing is a top priority for MoDOT, but sometimes unplanned incidents affect the department's ability to keep the interstates moving. An unplanned incident can be weather related, emergency road and bridge repair, traffic crash and others. Traffic crashes and delay are two ways MoDOT can track incidents and develop strategies to reduce the impact to the traveling public.

On Sept. 7, 2018, Regional Integrated Transportation Information System, (a third party vendor) began collecting incident data from MoDOT's St. Louis and Springfield Transportation Management Centers. The information from Kansas City is in development. Since there is no data being received from Kansas City, which covers most of I-70, this quarter's information will be focused on I-44.

Of the types of unplanned incidents that can occur, traffic crashes create the majority of the impacts. Utilizing data from MoDOT's Transportation Management System, calendar year 2017 trended downward in total crashes along the divided four-lane portion of I-44 (Oklahoma state line to Gray Summit). Webster, Phelps and Franklin counties had noticeable reductions and Phelps had an increase with all others remaining consistent. Notice to proceed was provided to Jacobs Consulting, LLC on Jan. 7, 2019 to start analyzing I-44 and I-70 to provide an expected crash rate that can be used to locate areas of potential improvement.

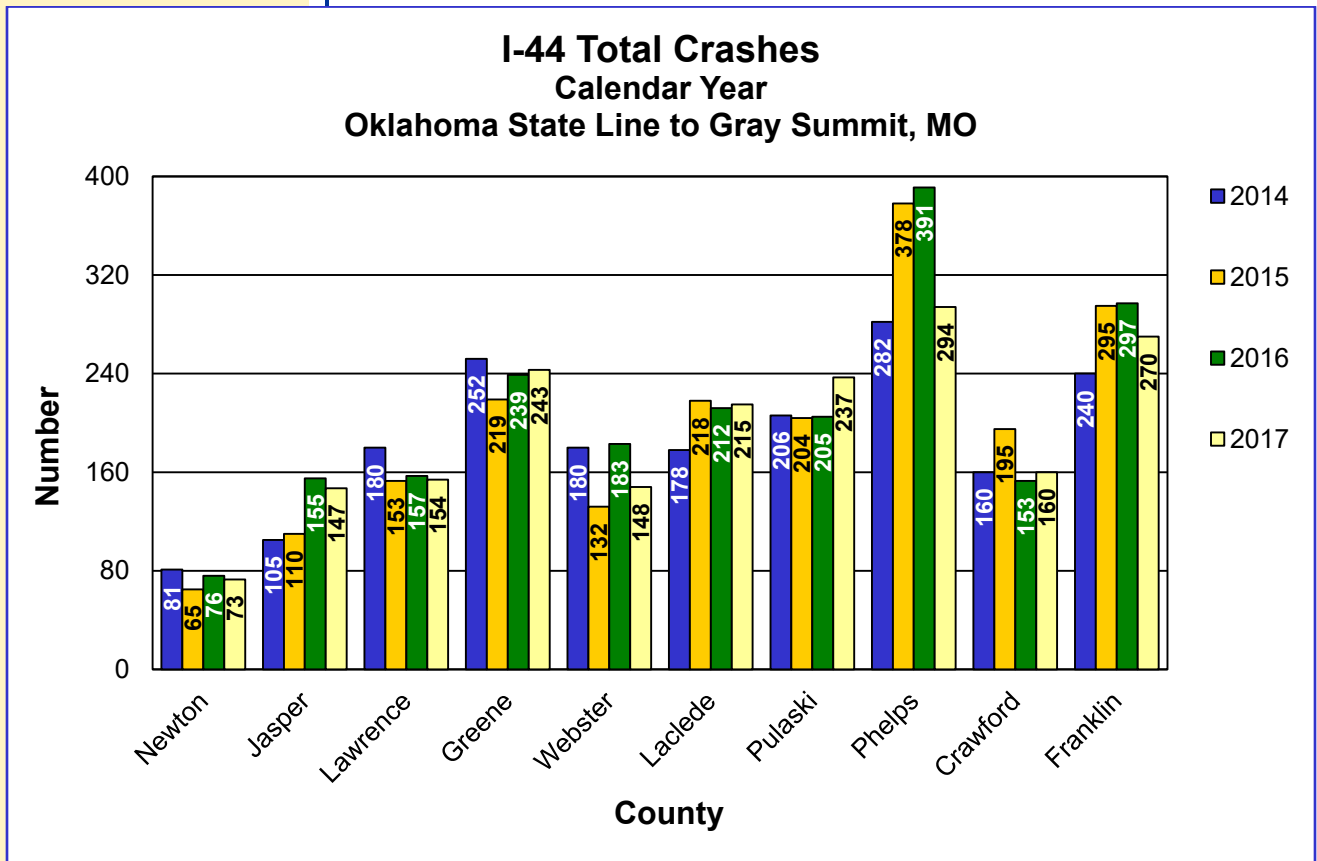
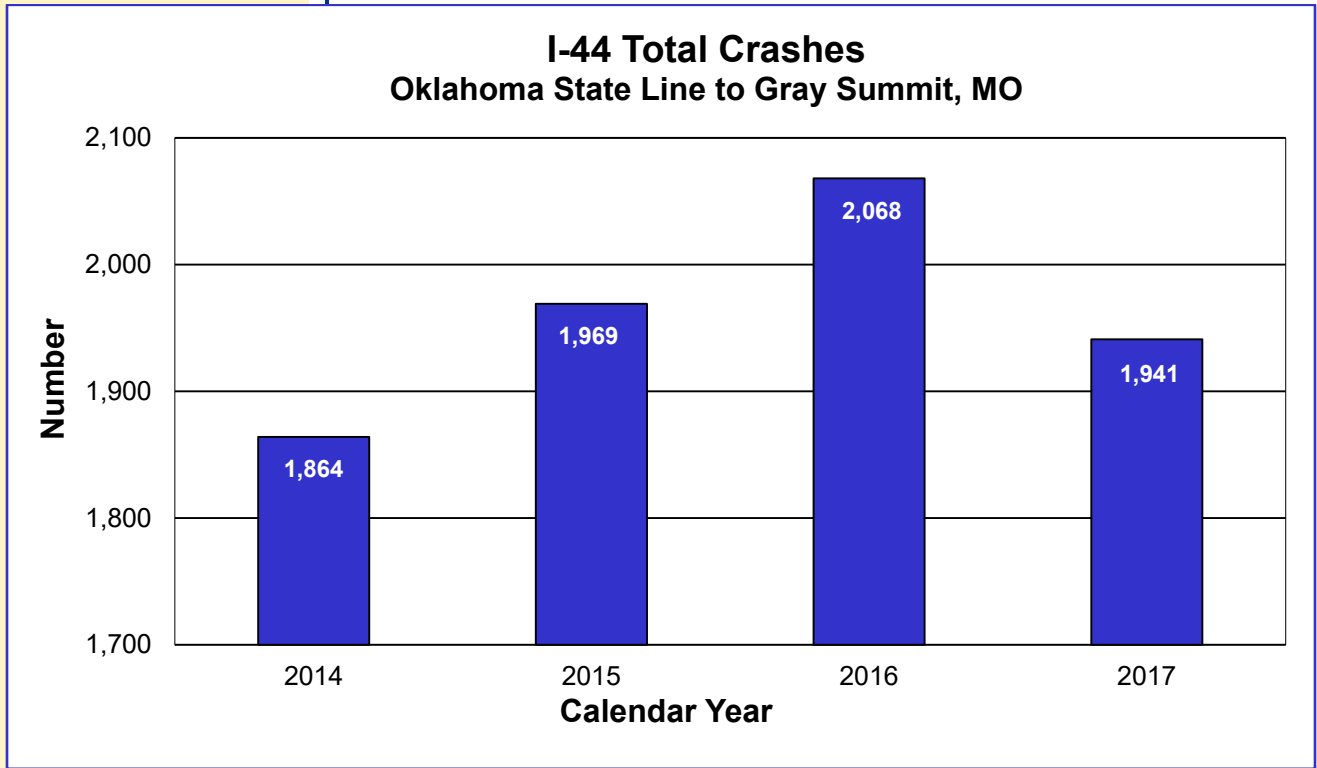
The heat map included in this measure indicates where incidents were logged along I-44 from Oct. 1, 2018 through Nov. 19, 2018. Every incident is shown regardless of duration. Incidents can be anything from a stalled car on the shoulder to a crash blocking lanes. The next step in the development of the measure is to display the delay to the traveling public due to incidents.

The longest major impact incident was 12 hours and 30 minutes in Lawrence County. The incident involved two tractor trailers, occurred at 6:30 p.m., was cleared the following morning and required off-loading of glass bottles by hand. Throughout the duration of the incident there was a maximum delay of 4 minutes and 39 seconds to the traveling public. Of the 26 major impact incidents, 17 are known to have involved at least one tractor trailer.

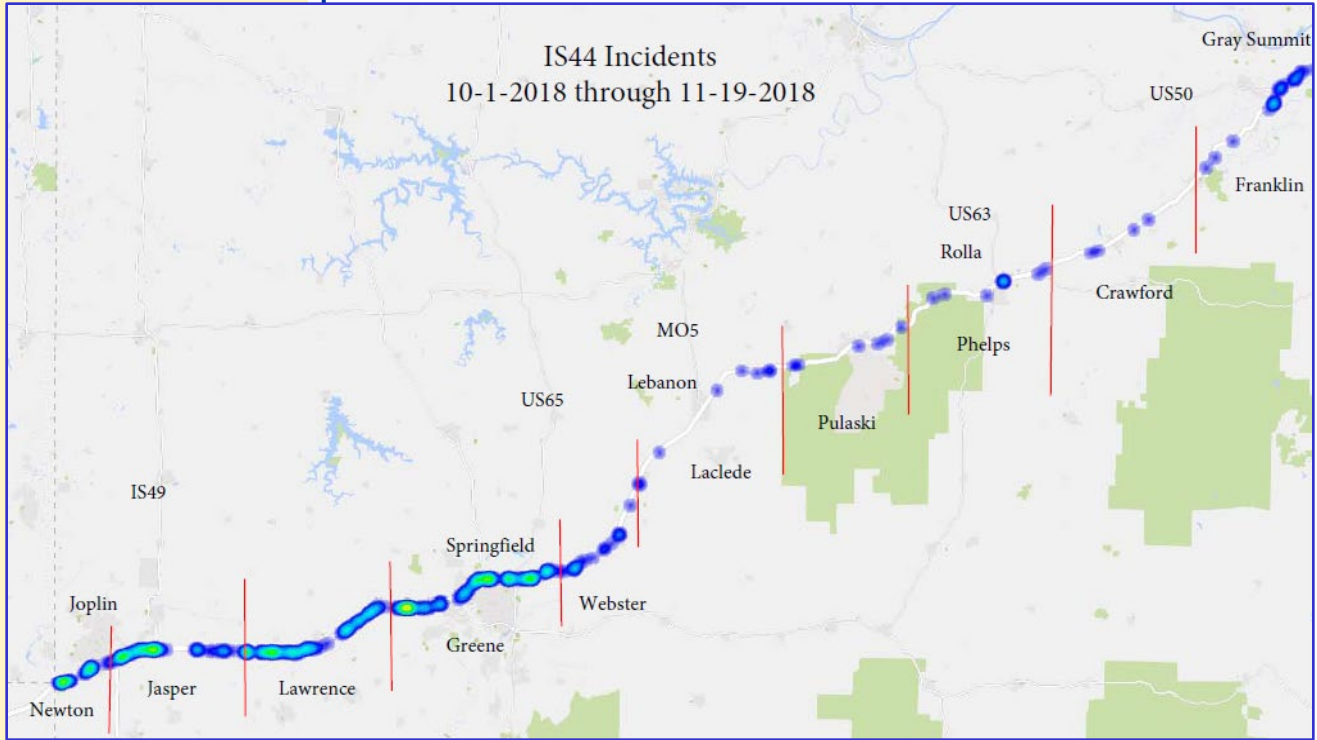
I-44 Incidents from Oct. 1 – Nov. 19, 2018

Incident Impact Category	Number	Average Duration (minutes)
Minor (<= 30 Minutes)	166	10
Intermediate (>30 and <=120 minutes)	103	61
Major (>120 minutes)	26	261

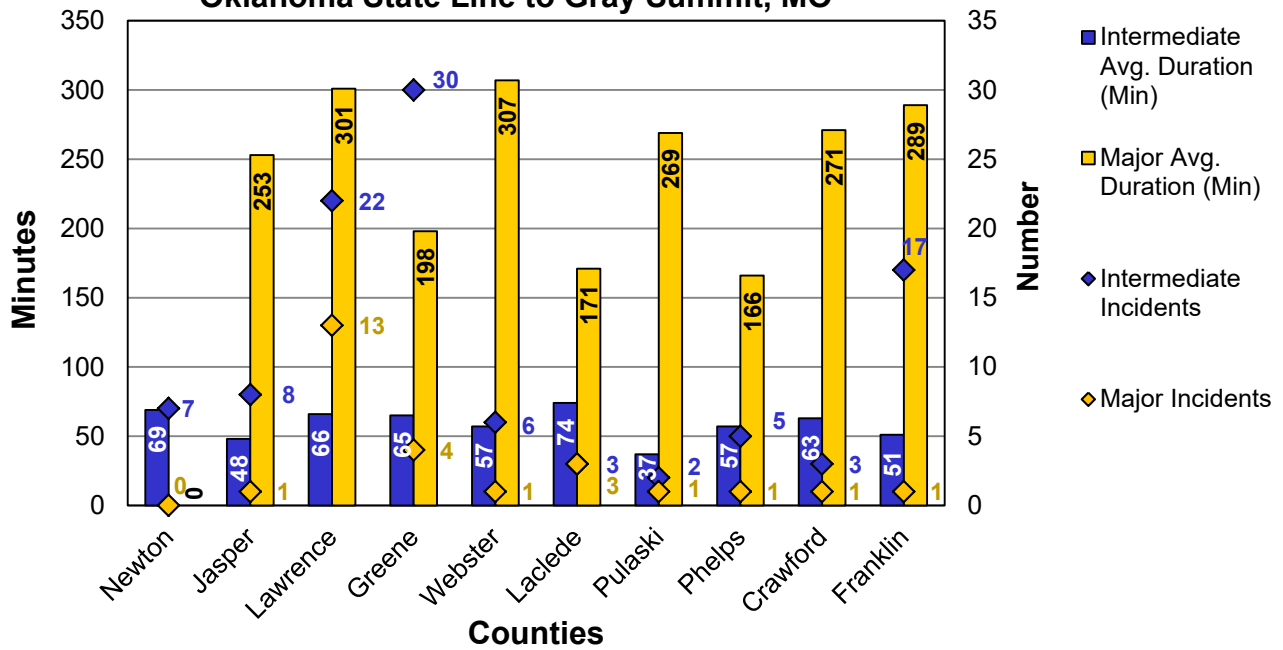
OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM



OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM



I-44 Intermediate and Major Incidents
Oct. 1 through Nov. 19, 2018
Oklahoma State Line to Gray Summit, MO



RESULT DRIVER:

Becky Allmeroth
Chief Safety and Operations
Engineer

MEASUREMENT DRIVER:

Troy Hughes
Design Liaison Engineer

PURPOSE OF THE MEASURE:

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

MEASUREMENT AND DATA COLLECTION:

Work zone impacts are 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.

OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

Work zone delays to the traveling public – 5e

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, MoDOT monitors the performance of work zones with the greatest potential to impact traffic each quarter. The goal is to minimize the number of times a work zone creates a traffic delay of 10 minutes or more.

During fourth quarter 2018, MoDOT monitored 317 work zones, which brings the 2018 total to 1,125. There were 117 instances in which traffic was delayed for at least 10 minutes. These instances occurred in 19 work zones and accounted for 5,537 total minutes (92.3 hours) of congestion. The total congestion for the year was 202.7 hours. The biggest contributor to the congestion was bridge projects which accounted for 88 percent of the total congestion.

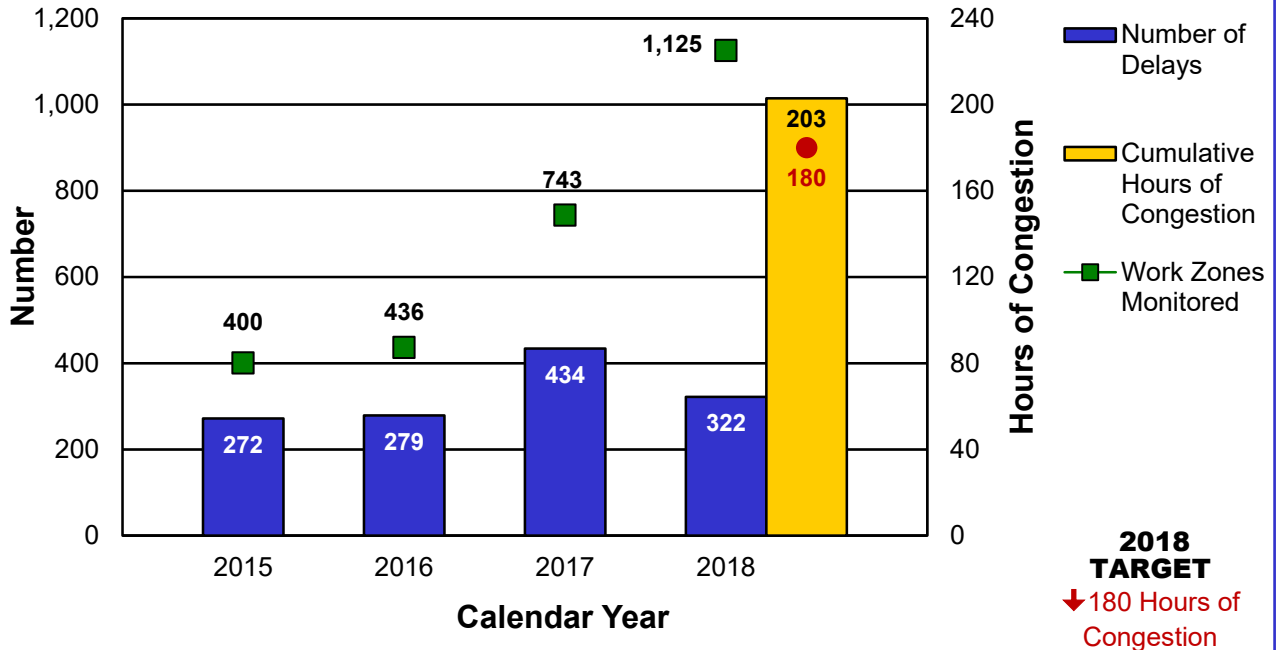
This quarter, three projects along I-44 between Route 270 and Grand Blvd. in St. Louis County contributed 60 hours of the congestion. In the Kansas City district, the Clay County Route 210/435 project contributed eight hours of congestion and the Lafayette County I-70 project added five hours.

An initial target for the cumulative work zone congestion statewide had 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.

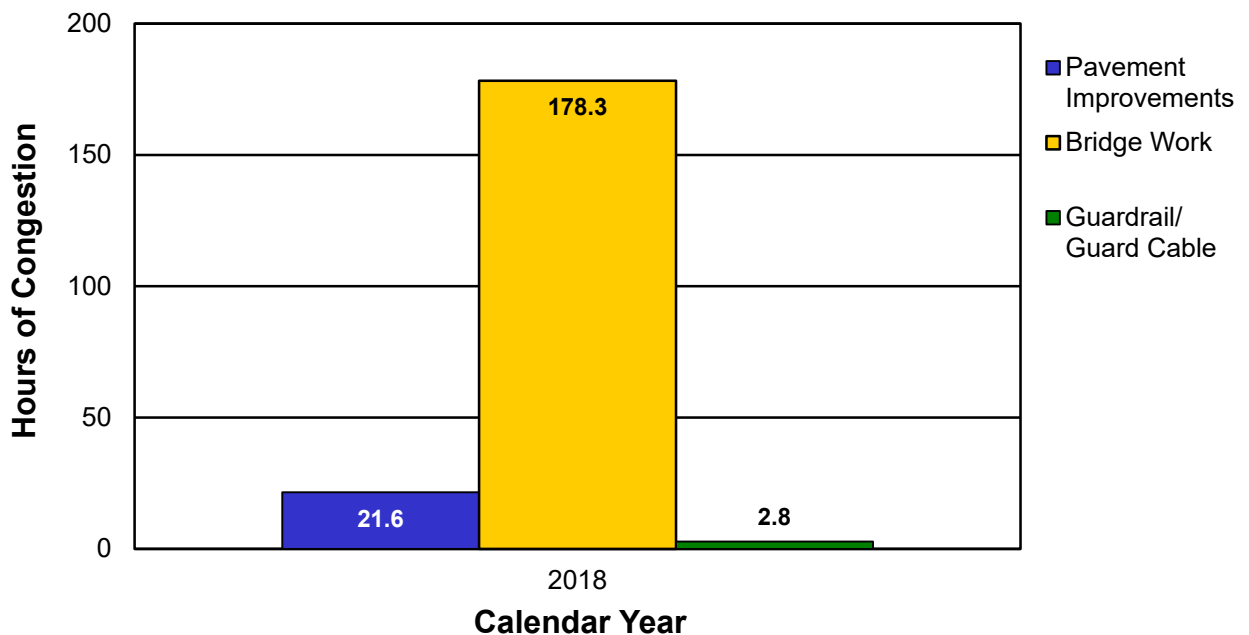


OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

Work Zone Delays Greater than 10 Minutes



Hours of Congestion by Work Type



RESULT DRIVER:

Becky Allmeroth
Chief Safety and Operation
Officer

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.

OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

Time to meet winter storm event performance objectives – 5f

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. In addition, one of MoDOT's Strategic Initiatives is working toward predictive analytics to optimize winter operations resources.

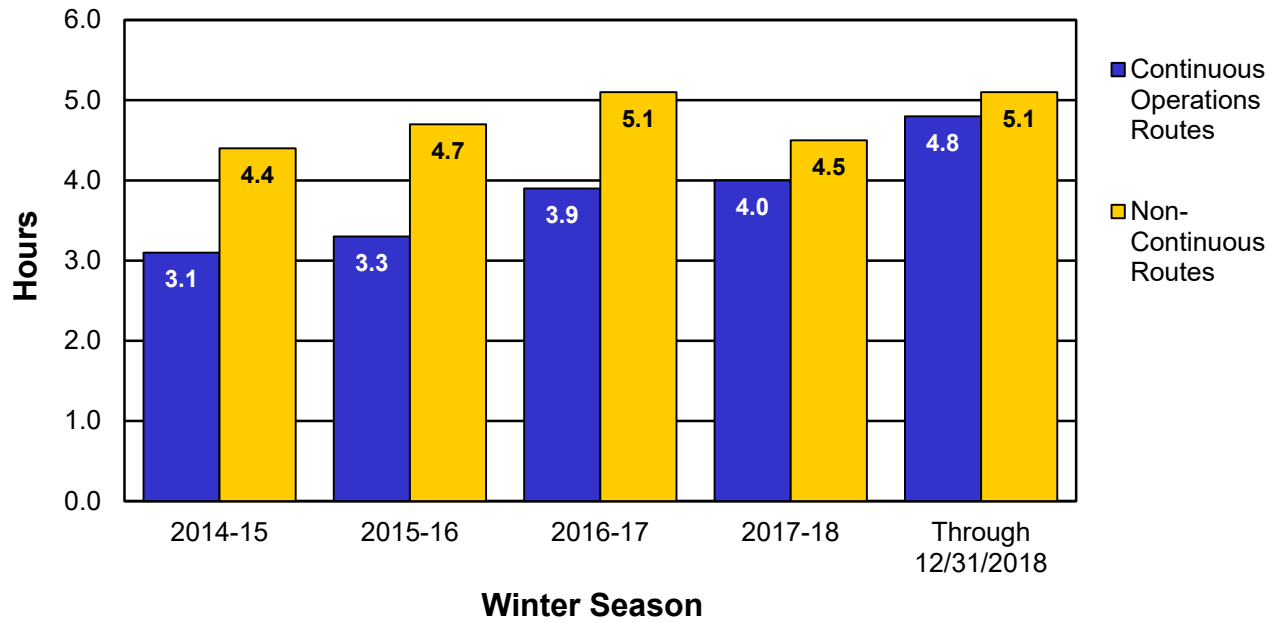
The 2018-2019 winter season began early with several winter events occurring in November including a named winter storm over the Thanksgiving weekend. Winter storm Bruce had blizzard conditions in the northwest part of the state and caused the closure of Interstate 29. The impact from winter storm Bruce was measured from a vehicle delay perspective. The major routes statewide during this winter storm were measured using cell phone data. The measurement was motorist delay costs which were over \$3 million. December was relatively mild and the resulting average time to meet MoDOT's objective for continuous operations routes was 4.8 hours, and 5.1 hours for non-continuous routes. These response times are higher than previous years which is due in large part to the impacts of winter storm Bruce.

On average, winter operations cost about \$45 million per year. MoDOT expended \$11.1 million through Dec. 31, 2018. This is higher than the last two seasons which were mild, but is on track for an average winter.

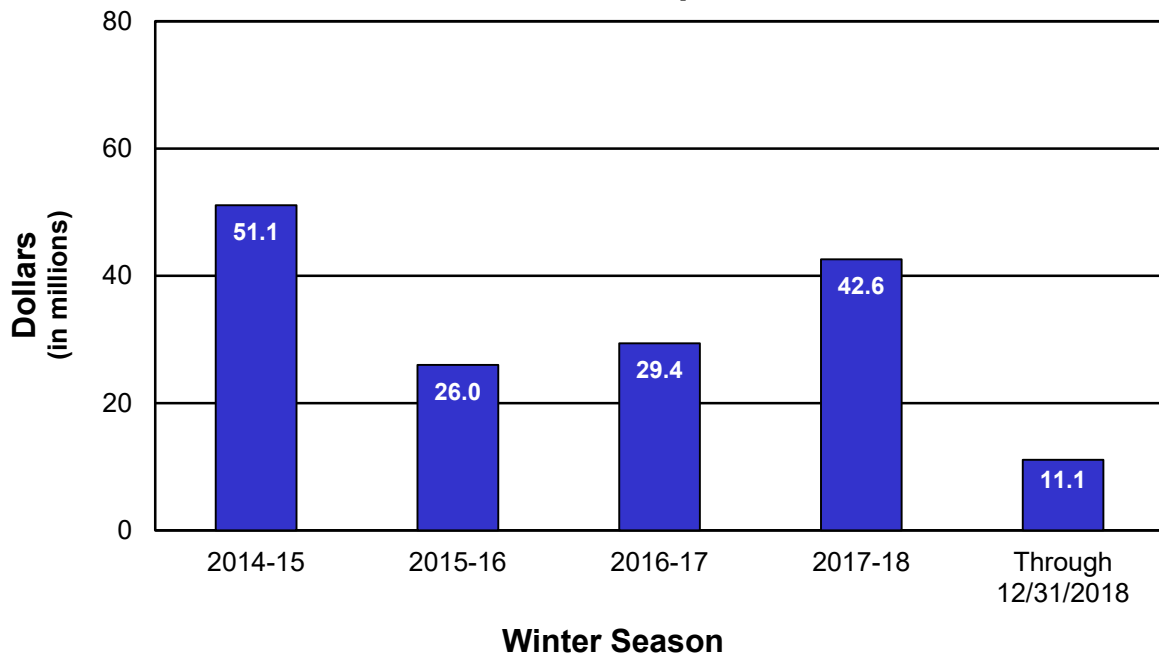


OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

Average Time to Meet Winter Storm Event Performance Objectives



Cost of Winter Operations



RESULT DRIVER:

Becky Allmeroth
Chief Safety and Operations
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.

OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

Bike/pedestrian and ADA transition plan improvements – 5g

MoDOT has improved more than \$30.3 million of deficient Americans with Disabilities Act facilities in the right of way since 2008. However, additional work totaling more than \$120.9 million of the 2010 ADA Transition Plan inventory needs to be completed before August 2027. To meet the commitment of the Missouri Highways and Transportation Commission, MoDOT needs to complete more than \$13.9 million in improvements each year from now through 2027.

Since fiscal year 2016, the MHTC has retained half of the Transportation Alternatives Program funding it receives to be used toward MoDOT's ADA Transition Plan activities. The 2018 Statewide Transportation Improvement Program estimates the annual TAP funds retained for MoDOT ADA projects at approximately \$8.6 million per year. Additional investments by the districts are required to complete the ADA Transition Plan by August 2027.

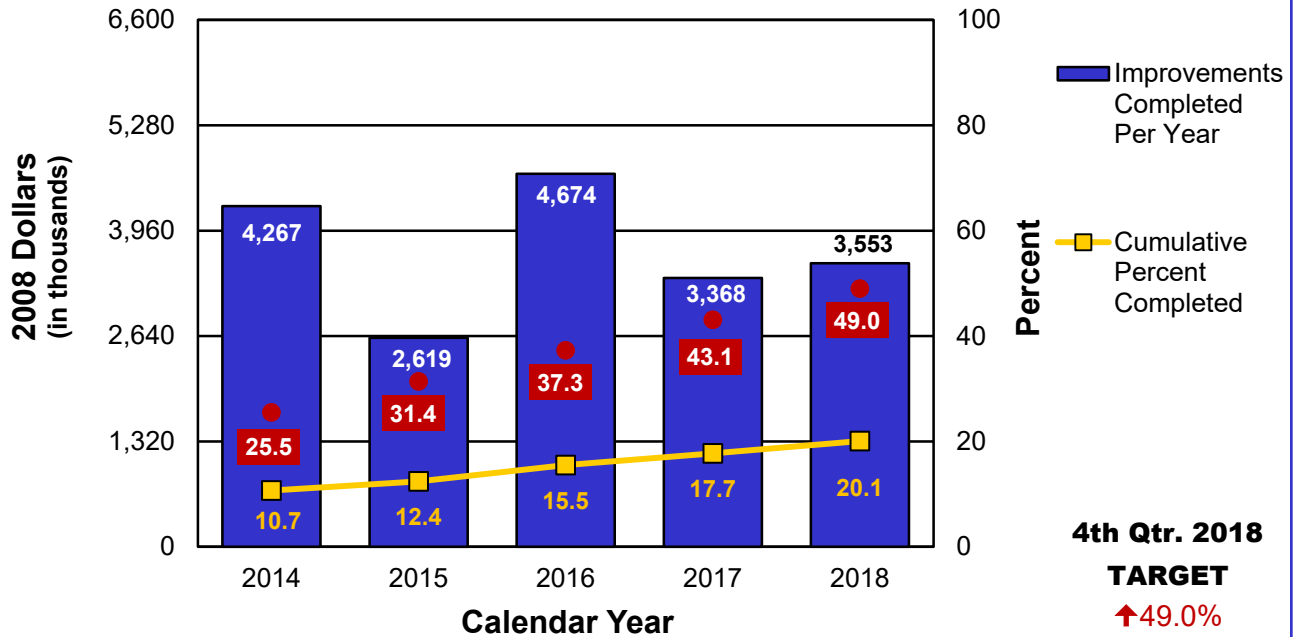
For 2018, MoDOT has completed only \$3.55 million in ADA improvements. In 2017, MoDOT completed \$3.37 million in ADA improvements. These amounts are well below the \$13.5 million annual pace needed to complete the required ADA improvements by 2027. Current reporting of Transition Plan Completion at 20.1 percent complete is significantly behind the 49.0 percent 2018 target. Only one of the seven districts reported ADA Transition Plan progress this quarter. The Northeast District did not report any completed ADA improvements in 2018. Northeast was also the only district that failed to report any completed ADA improvements in 2017.

In 2018, MoDOT has invested \$10.7 million toward improvements in pedestrian facilities. For 2018, MoDOT utilized 1.35 percent of the total 2018 STIP awards toward pedestrian facilities – a substantial increase over the record low rate of 0.72 percent in 2017. In 2017, MoDOT invested a total of \$5.38 million in pedestrian facility improvements.

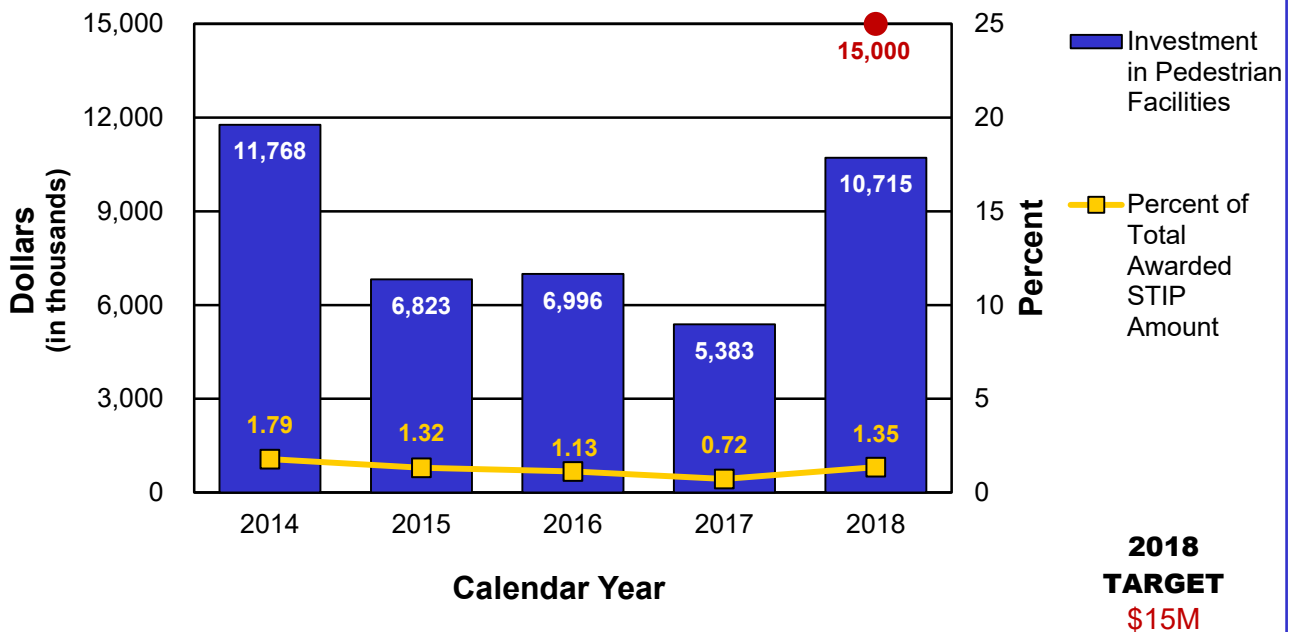
The annual investment target for this measure has been set at \$15 million. A significant increase in ADA Transition Plan progress is necessary for MoDOT to be able to complete the ADA Transition Plan by August 2027.

OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

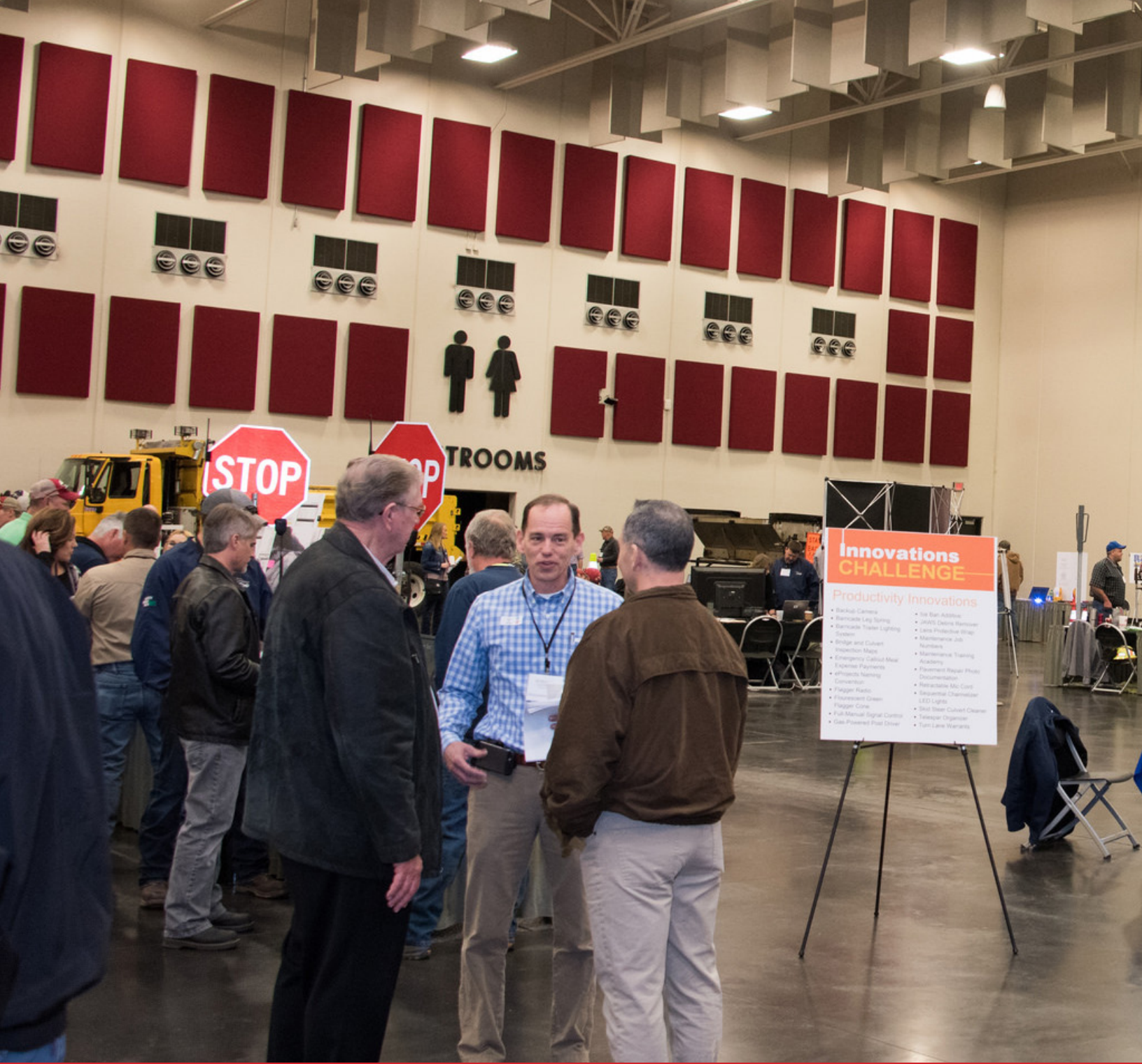
Progress Toward Completion of Transition Plan Right of Way



Investment in Non-Motorized Facilities Based on Contract Awards



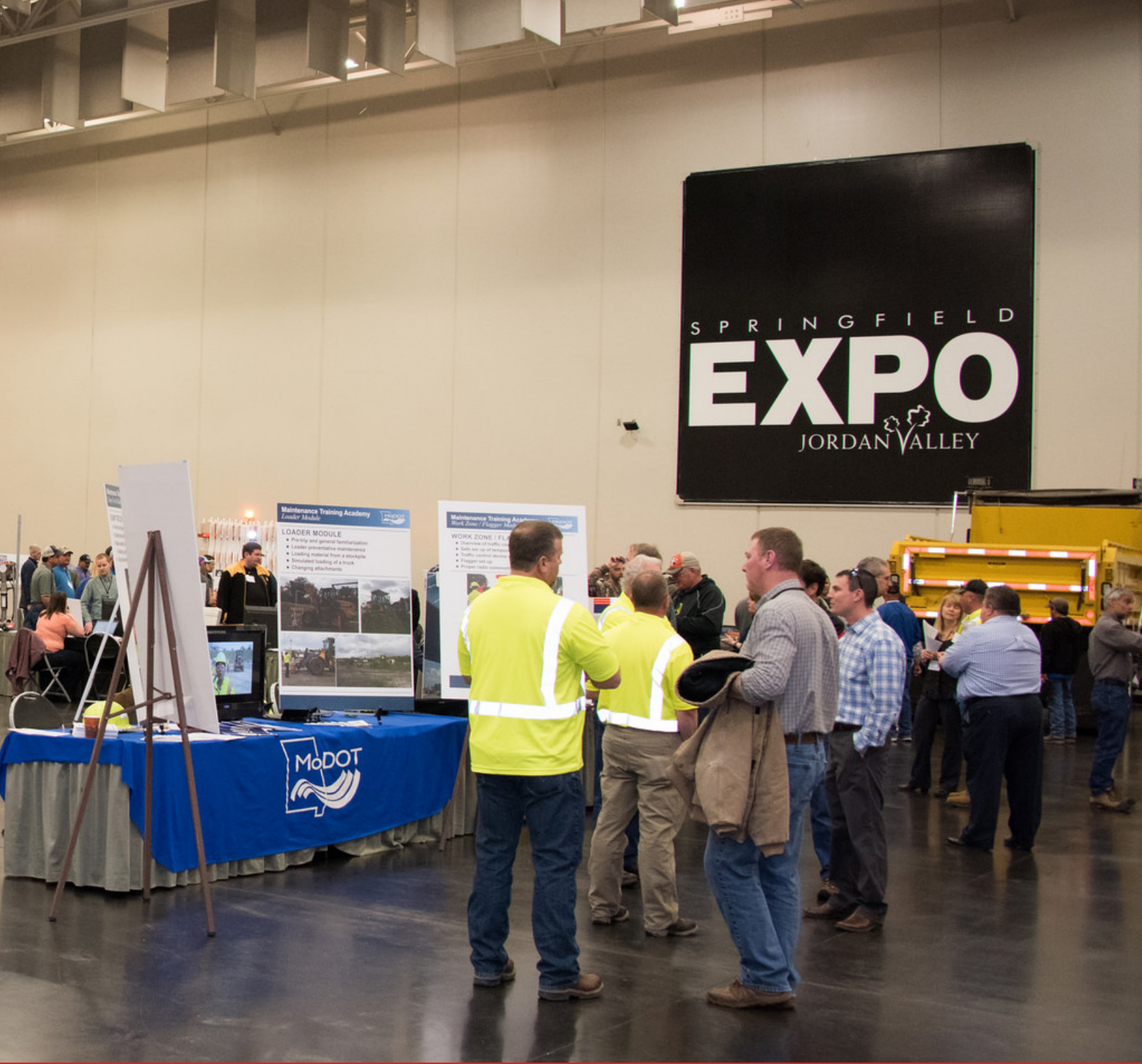
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USE RESOURCES WISELY
Brenda Morris, Chief Financial Officer

Tracker

MEASURES OF DEPARTMENTAL PERFORMANCE



SPRINGFIELD
EXPO
JORDAN VALLEY

Maintenance Training Academy
Loader Module

LOADER MODULE

- Pre-trip and general familiarization
- Loader preventative maintenance
- Loading material from a stockpile
- Simulated loading of a truck
- Changing attachments

Maintenance Training Academy
Work Zone / Flagging Module

WORK ZONE / FLAGGING MODULE

- Overview of traffic control
- Safe set up of work zone
- Traffic control equipment
- Flagger set up
- Proper lane closures



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
Chief Financial Officer

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.

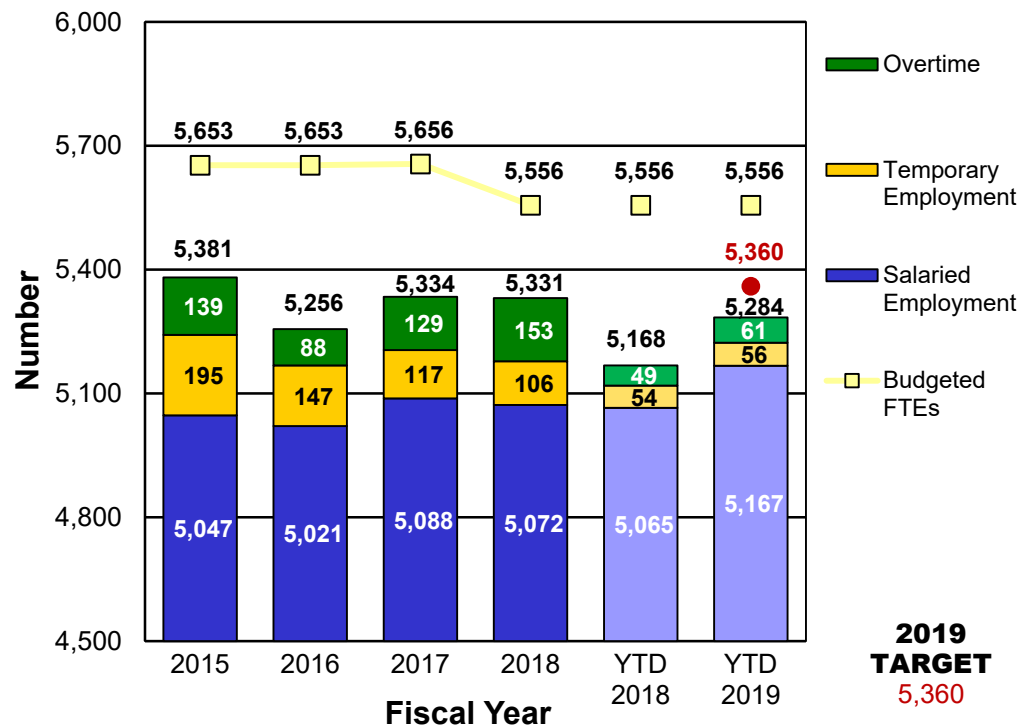
USE RESOURCES WISELY

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 second quarter of fiscal year 2019, the number of Full-Time Equivalencies expended increased by 116, or 2.2 percent, compared to the same time in FY 2018. This increase came from an increase in both salaried employment and overtime FTEs. These increases can be attributed in part to the introduction of the Emergency Operations Stabilization and Market Adjustment, which contributed to successful early season maintenance overstaffing and retention. Fluctuations in temporary employment FTEs were smaller, which is consistent with FY 2018.

Number of Full-Time Equivalencies Expended



RESULT DRIVER:

Brenda Morris
Chief Financial Officer

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 the 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

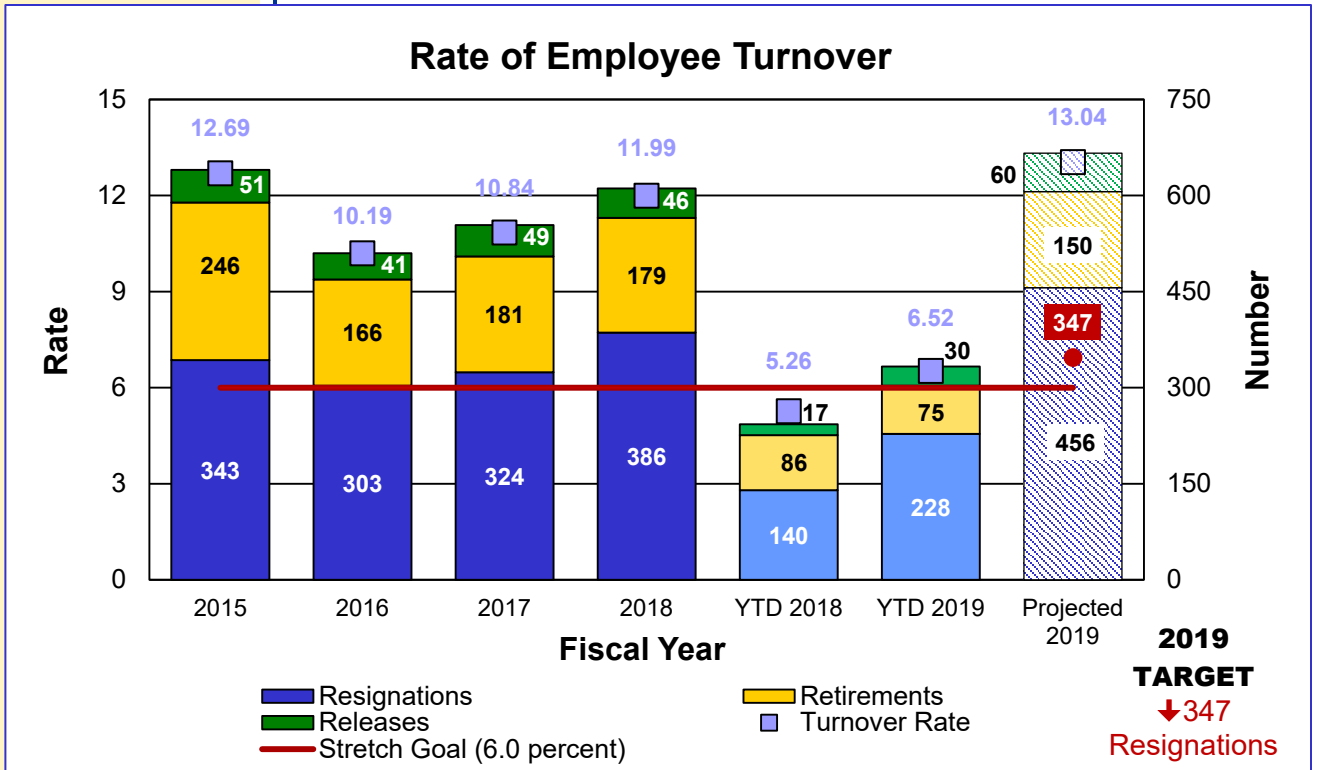
When employees leave MoDOT, the department loses a large investment in recruiting, hiring and training its workforce. While some turnover is appropriate, MoDOT needs to retain a great workforce that has the knowledge and specialized skills to deliver the department's commitments and provide outstanding customer service.

The overall turnover rate has risen from 5.26 percent in the first two quarters of fiscal year 2018 to 6.52 percent in the first two quarters of FY 2019. During the first two quarters of FY 2019, resignations showed an upward trend and retirements decreased. Releases increased from 17 during the first two quarters of FY 2018 to 30 during the first two quarters of FY 2019. The FY 2019 target is to have 347 or fewer resignations. As part of MoDOT's strategic initiatives, MoDOT will continue to look for opportunities to reduce the rate of employee turnover.

Efforts to improve turnover rates are planned for FY 2019, and have been underway since FY 2018, but they have not been in effect long enough to fully determine impact.

- The Emergency Operations Stabilization and Market Adjustment was implemented to aid in both the recruitment and retention of salaried and wage emergency operators.
- The five-year pay strategy was partially implemented on January 1, 2019, in the form of a Cost of Living Adjustment. The pay increase will be \$708 annually for full-time and permanent part-time employees earning less than \$70,000 per year, and 1 percent increase for employees earning \$70,000 or more.
- A Registered Apprenticeship Program will be made available to maintenance career ladder employees beginning January 2019. This program provides an opportunity for eligible veteran employees to use government-issued benefits to receive an additional monthly stipend. In the future, the program will provide non-veteran, maintenance career ladder employees the potential to earn college credit through on-the-job training.
- The *Leadership in Action* recognition coin-passing program has been in effect since September 2017. There are 160 coins in circulation or retired that have been passed more than 485 times.

USE RESOURCES WISELY



RESULT DRIVER:

Brenda Morris
Chief Financial Officer

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.

USE RESOURCES WISELY

Level of job satisfaction – 6c

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.

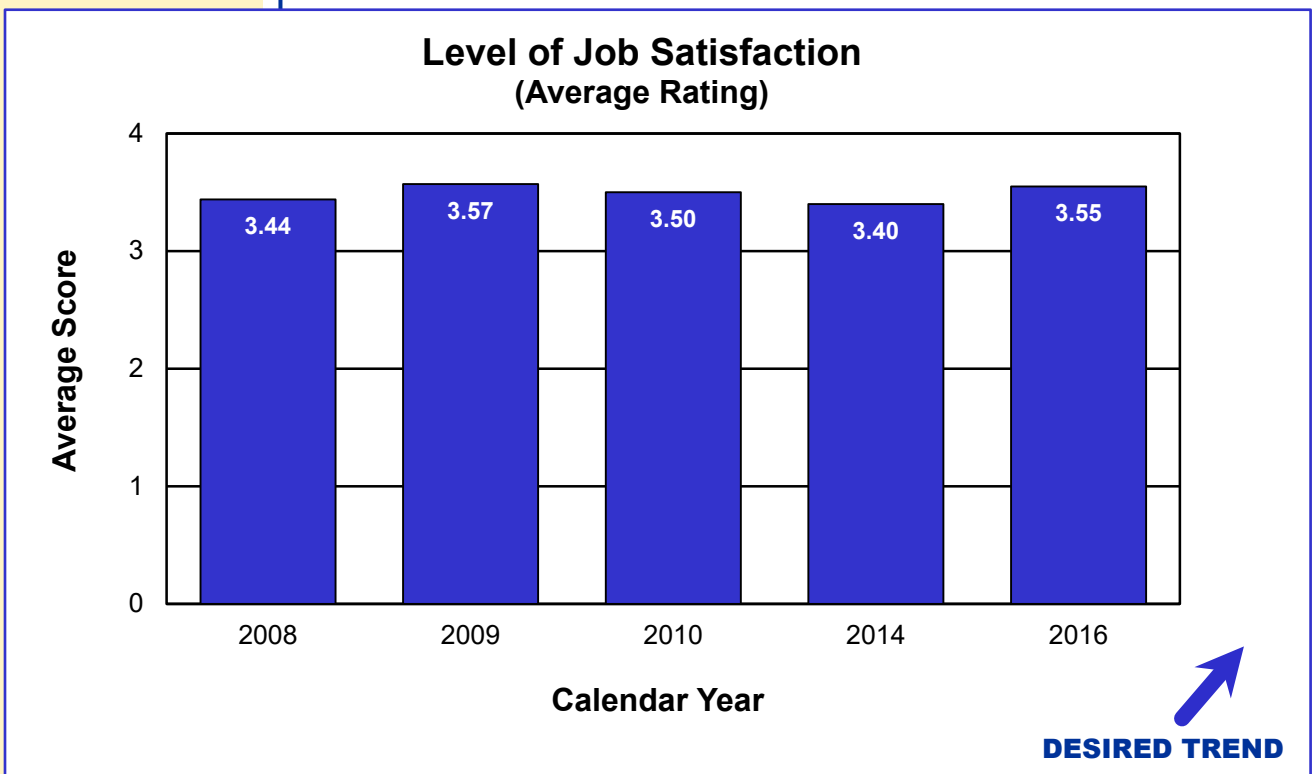
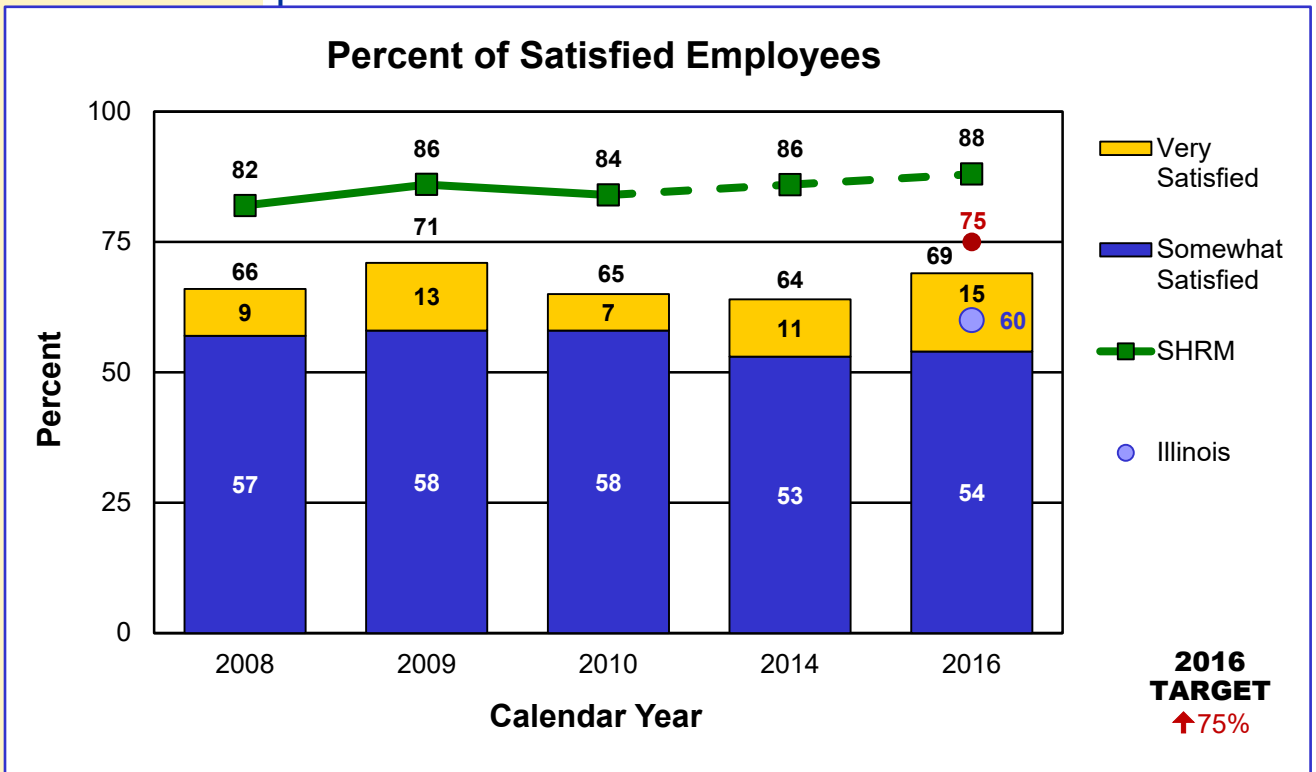
Between 2005 and 2010, the average employee satisfaction ratings and percent of satisfied employees both showed upward trends with peaks in 2009. Following a four-year break, the employee survey was conducted in the spring of 2014 and showed little change from the 2010 survey. Given the major organizational 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 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. One of MoDOT's strategic initiatives is working toward predictive analytics to optimize job satisfaction.

USE RESOURCES WISELY



RESULT DRIVER:

Brenda Morris
Chief Financial Officer

MEASUREMENT DRIVER:

Janel Lueckenotte
Financial Services
Administrator

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 3.1 percent less than budgeted for the second quarter of fiscal year 2019. The majority of variance is related to the timing of miscellaneous revenue deposits from the locals for partnering projects and lower than projected revenue from motor vehicle sales taxes. The negative variance of 1.7 percent for non-highway modes is mostly attributable to lower than projected revenue from motor vehicle sales taxes.

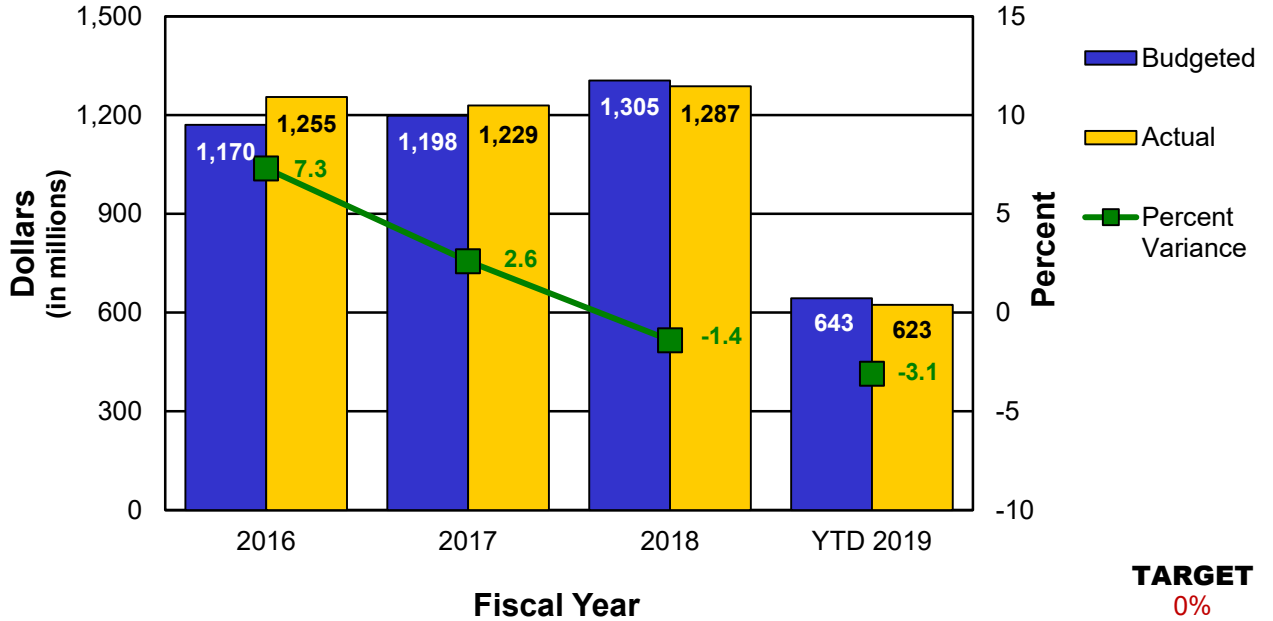
The actual federal revenue for road and bridge was 0.8 percent more than budgeted for federal FY 2018. The negative variance of 31.2 percent for non-highway modes is attributable to the timing of project expenditures.

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.

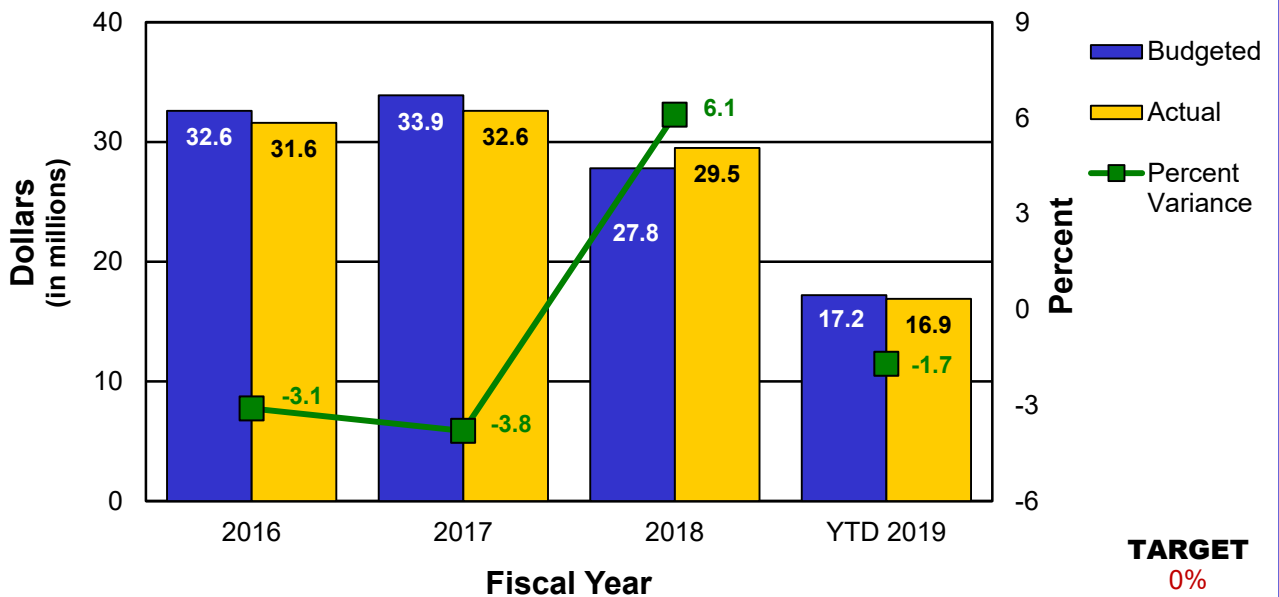
The primary source of federal and state revenue is motor fuel tax. The motor fuel tax rates have not changed in more than 20 years, while the costs for materials and labor have doubled or even tripled in the same timeframe.

USE RESOURCES WISELY

Budgeted vs. Actual State Revenue Comparison Road and Bridge

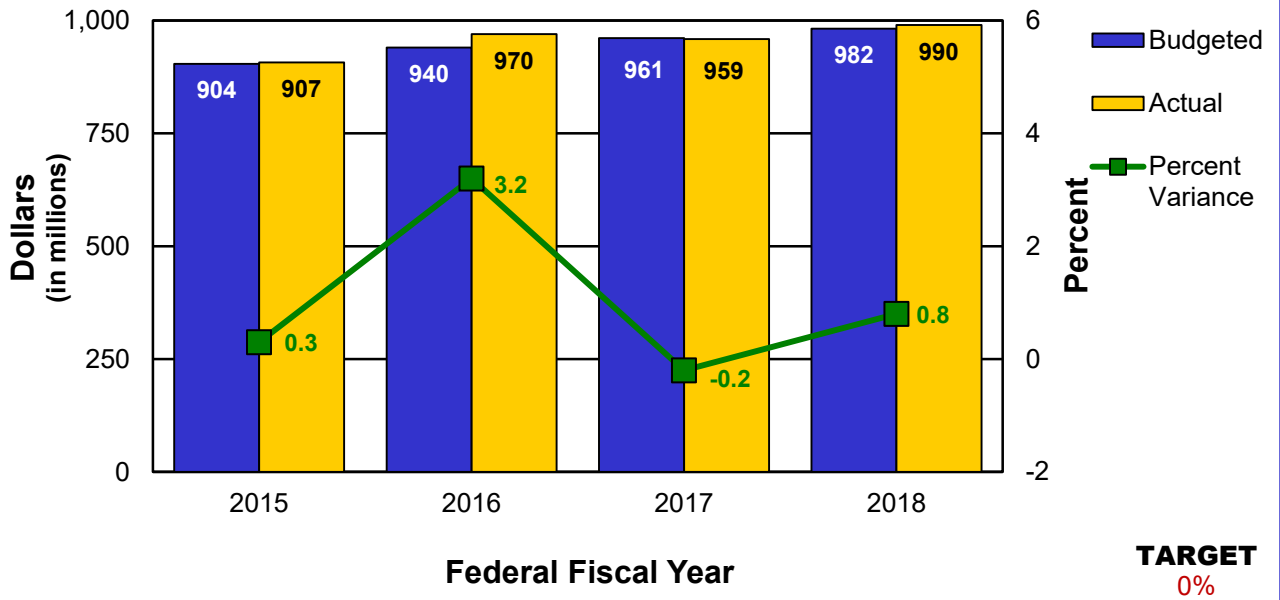


Budgeted vs. Actual State Revenue Comparison Non-highway Modes

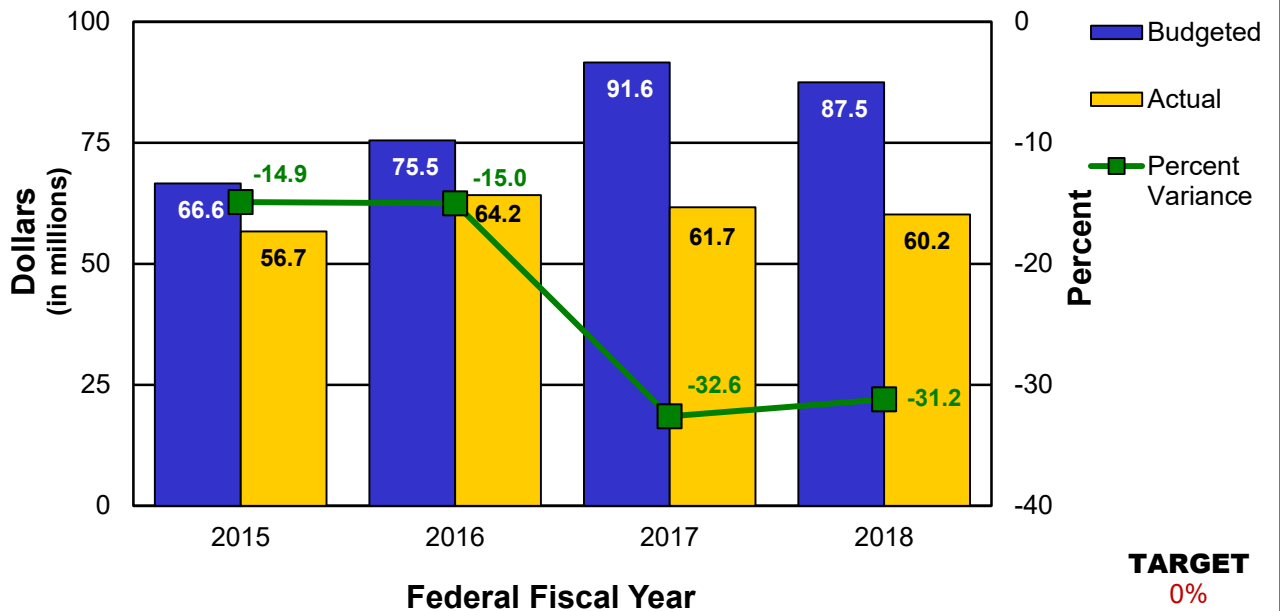


USE RESOURCES WISELY

Budgeted vs. Actual Federal Revenue Comparison Road and Bridge



Budgeted vs. Actual Federal Revenue Comparison Non-highway Modes



RESULT DRIVER:

Brenda Morris
Chief Financial Officer

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, with the size of the program increasing annually from \$10 million in FY 2018 to \$45 million by FY 2024.

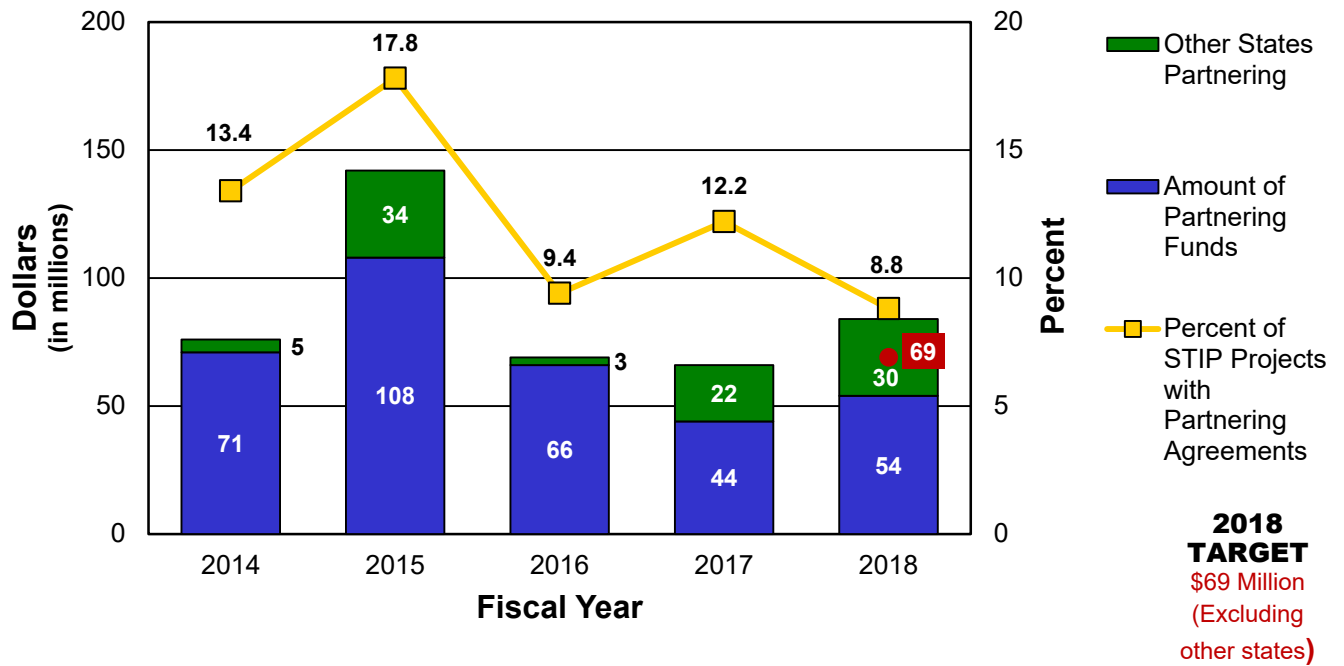
In addition, MoDOT partners with cities and counties for projects not part of the formal Cost Share Program with other states for projects of mutual interest such as border bridges and with federal agencies through competitive discretionary programs. MoDOT also partners with developers and other private entities to make improvements to the state transportation system through the permitting process. As a part of MoDOT's strategic initiatives, the department plans to research and deploy alternative funding solutions through cross-cabinet collaboration.

The number of dollars generated through cost-sharing and partnering agreements for transportation increased in FY 2018, with \$54 million in partnerships on the MoDOT system and \$30 million in partnerships with other states for jointly-owned facilities. This reflects the reinstatement of the Cost Share Program in FY 2018. Because funding allocated to the program will increase annually through 2024, more partnering opportunities will be available. MoDOT is on track to achieve the target of \$69 million in partnering funding by FY 2020.

Even though there were fewer partnership projects in FY 2018, the projects brought a higher average partner contribution. The percentage of partnering projects in the STIP for FY 2018 was only 8.8 percent, the lowest percentage since FY 2013. In FY 2018, 41 projects involved partnerships, with 53 projects in FY 2017. However, the average partner contribution was \$1.31 million, the highest average contribution in the past five years.

USE RESOURCES WISELY

Number of Dollars Generated Through Cost-sharing and Partnering Agreements for Transportation



RESULT DRIVER:

Brenda Morris
Chief Financial Officer

MEASUREMENT DRIVER:

Joni Roeseler
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 transportation planning process, *A Citizen's Guide to Missouri Transportation – Long Range Plan Update*, 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 2018, state and federal expenditures for non-highway modes of transportation decreased \$1 million and \$1.7 million, respectively.

Aviation – FY 2018 state expenditures of \$9.3 million represent 24 percent of funds invested. Federal Aviation Administration and State Aviation Trust funds require a minimum local match of 10 percent.

Rail – FY 2018 state expenditures of \$10.7 million represent 78 percent of funds invested.

Transit – FY 2018 state expenditures of \$7.7 million represent 22 percent of funds invested.

Waterways – FY 2018 state expenditures of \$2.2 million represent 100 percent of funds invested.

Freight – FY 2018 state expenditures of \$1 million represent 100 percent of funds invested.

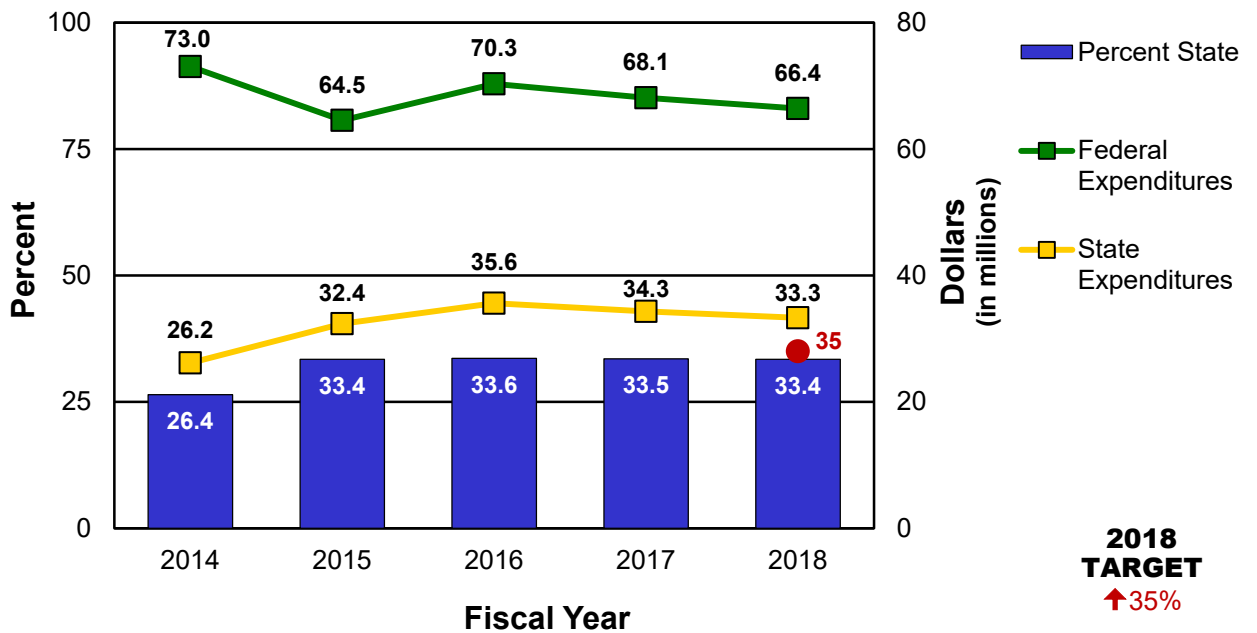
Statewide Transportation Assistance Revolving Fund – FY 2018 state expenditures of \$0.8 million represent 100 percent of funds invested.

Bike/Pedestrian – FY 2018 state expenditures of \$1.6 million represent 20 percent of funds invested.

USE RESOURCES WISELY



Percent of State Funds Invested in Non-Highway Modes of Transportation



RESULT DRIVER:

Brenda Morris
Chief Financial Officer

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. 1 through Sept. 30. The committed amounts represent what FHWA will reimburse for the project. The available amounts represent the federal program funds distributed to local sponsors. The goal of this measure is to commit all federal funds available to local public projects.

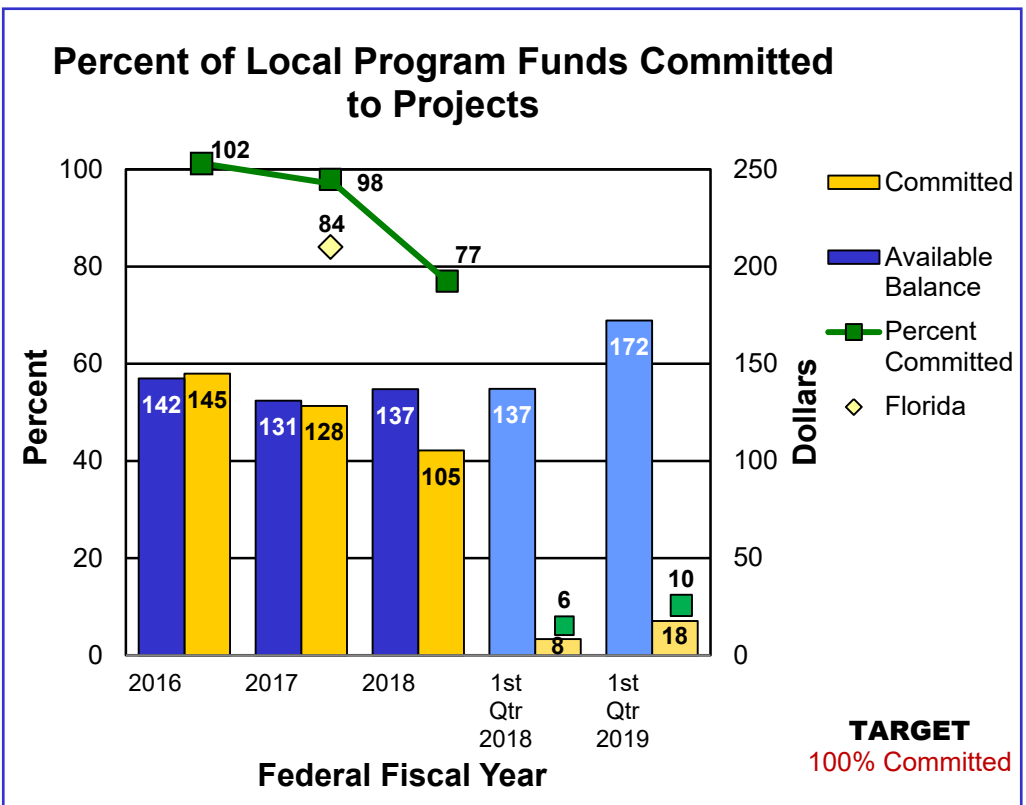
The target for this measure is set by internal policy and will not change unless policy changes, regardless of performance.

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. For the first quarter of federal fiscal year 2019, 10 percent (\$17.7 million) of the \$172 million in available funds has been committed to local projects. This represents a 4 percent increase in commitments compared to first quarter federal fiscal year 2018.



RESULT DRIVER:

Brenda Morris
Chief Financial Officer

MEASUREMENT DRIVER:

Kevin James
Assistant District Engineer

PURPOSE OF THE MEASURE:

This measure tracks progress of our fleet age for light duty, dump trucks and other fleet. 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 average age of units. The goal is for the average age to be half the department's age threshold. The data is obtained from MoDOT's fleet management system, FASTER. 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 fleet average age targets are set by internal policy and will not change unless policy changes. The fuel efficiency target was established by projecting a 3 percent improvement over a five-year average.

USE RESOURCES WISELY

Fleet age and fuel efficiency – 6h

MoDOT must keep a dependable fleet to meet customers' needs. Fleet age is the best indication of fleet condition. The large investment in fleet, with a replacement value over \$475 million, emphasizes the importance.

Optimization of fleet is identified as one of MoDOT's strategic initiatives. MoDOT is moving toward an asset management approach for fleet using data to plan fleet purchases over the next several years. MoDOT also strives to use resources wisely by improving fuel efficiency. This is critical since MoDOT budgeted more than \$25 million for fuel in fiscal year 2018.

For the first six months of FY 2019, the average age for Light Duty fleet, Dump Truck fleet, and Other fleet (includes equipment such as backhoes, loaders, tractors and specialty items like under bridge inspection units and stripers) showed gradual decreases. This is attributed to purchasing equipment based on the asset management approach. The goal is for the average age to be half the department's age threshold.

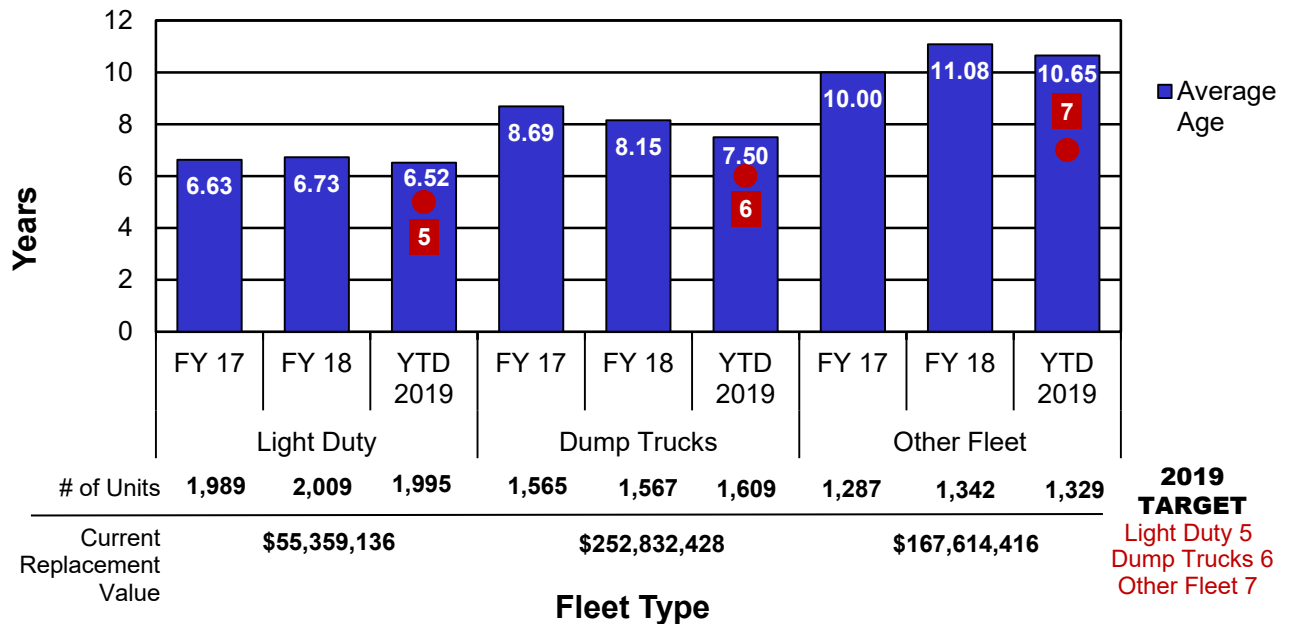
The fuel efficiency and the fuel consumption measures are updated annually at the end of each Fiscal Year.

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.

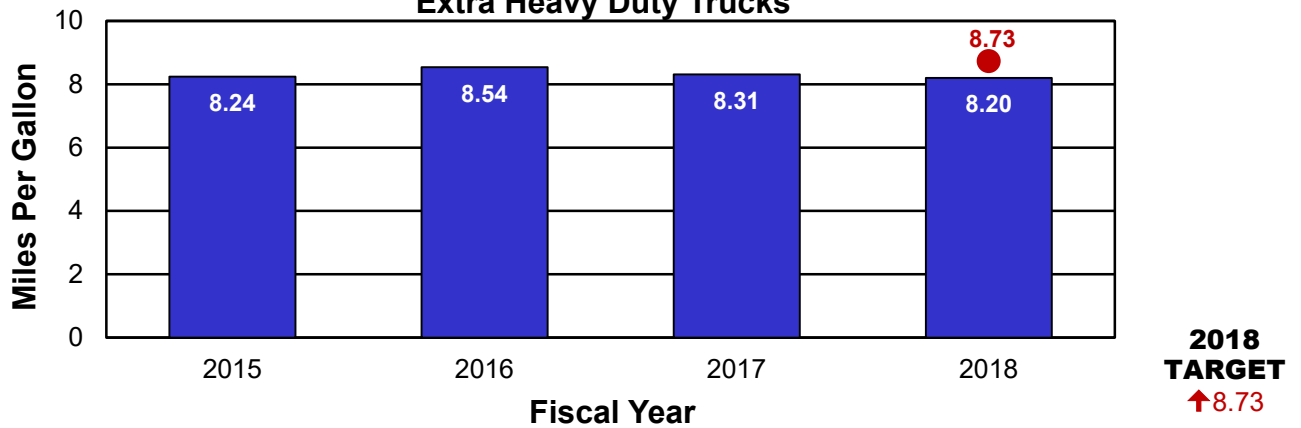


USE RESOURCES WISELY

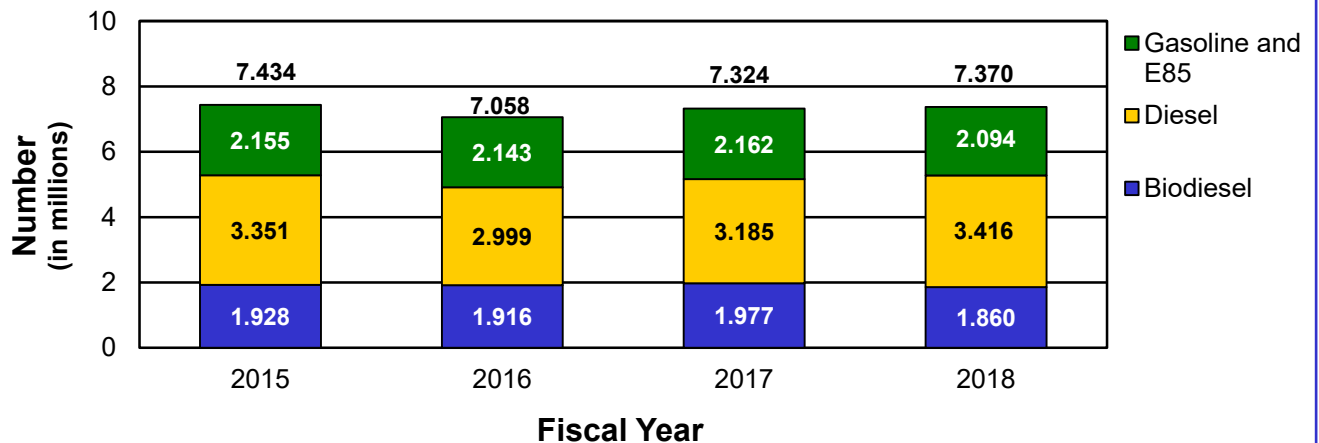
Fleet Average Age by Fiscal Year



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



Gallons of Fuel Consumed



RESULT DRIVER:

Brenda Morris
Chief Financial Officer

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.

USE RESOURCES WISELY

Number of tons of recycled material – 6i

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 is 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.

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.

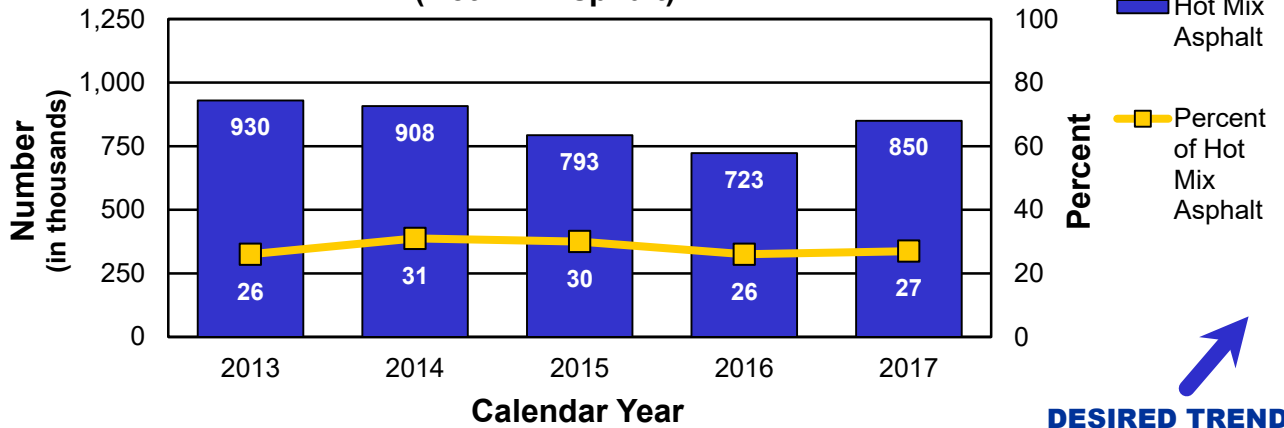


Roofs to Roads

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

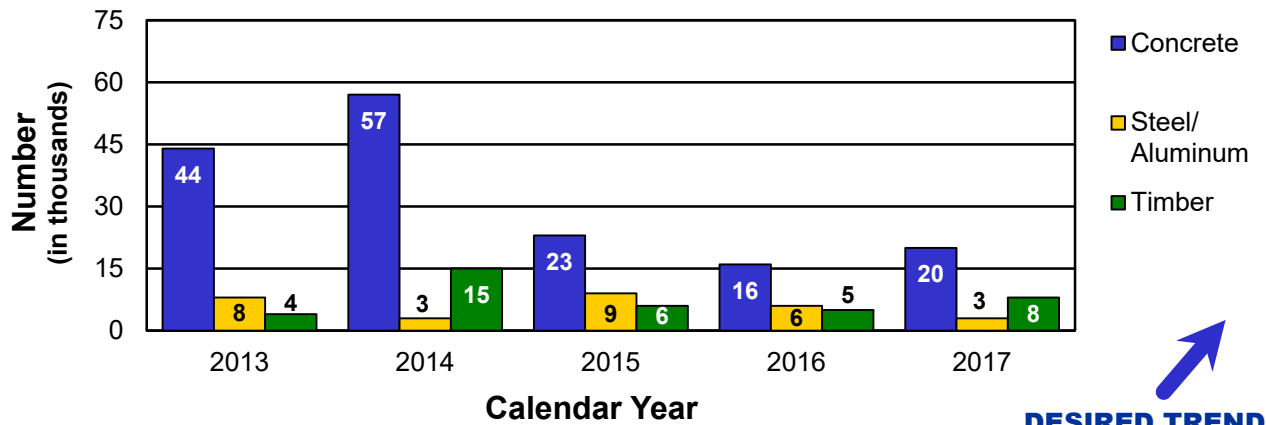
USE RESOURCES WISELY

Tons of Recycled Materials Used in Roadway Projects (Hot Mix Asphalt)



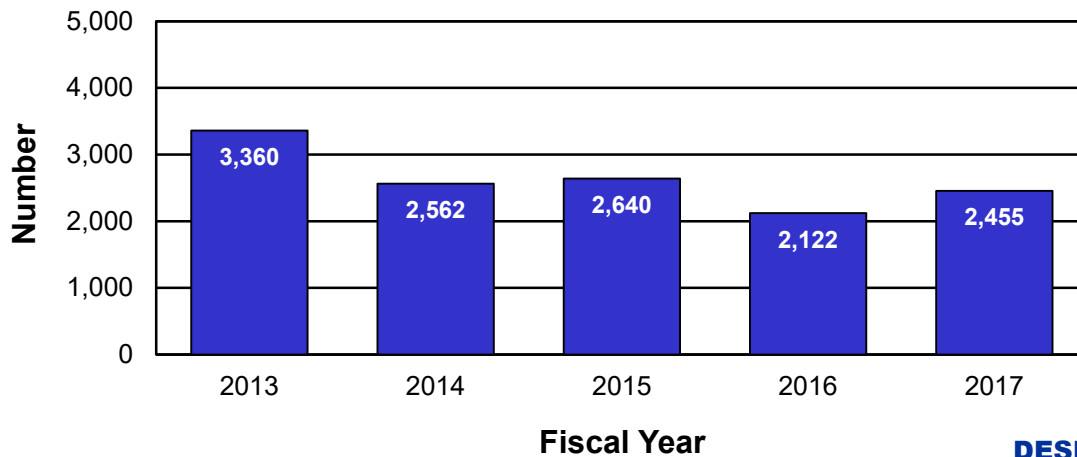
DESIRED TREND

Tons of Recycled Materials Used in Roadway Projects (Materials other than Hot Mix Asphalt)



DESIRED TREND

Tons of Recycled Material by MoDOT



DESIRED TREND

RESULT DRIVER:

Brenda Morris
Chief Financial Officer

MEASUREMENT DRIVER:

Melissa Schepeler
Environmental Compliance
Manager

PURPOSE OF THE MEASURE:

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

MEASUREMENT AND DATA COLLECTION:

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

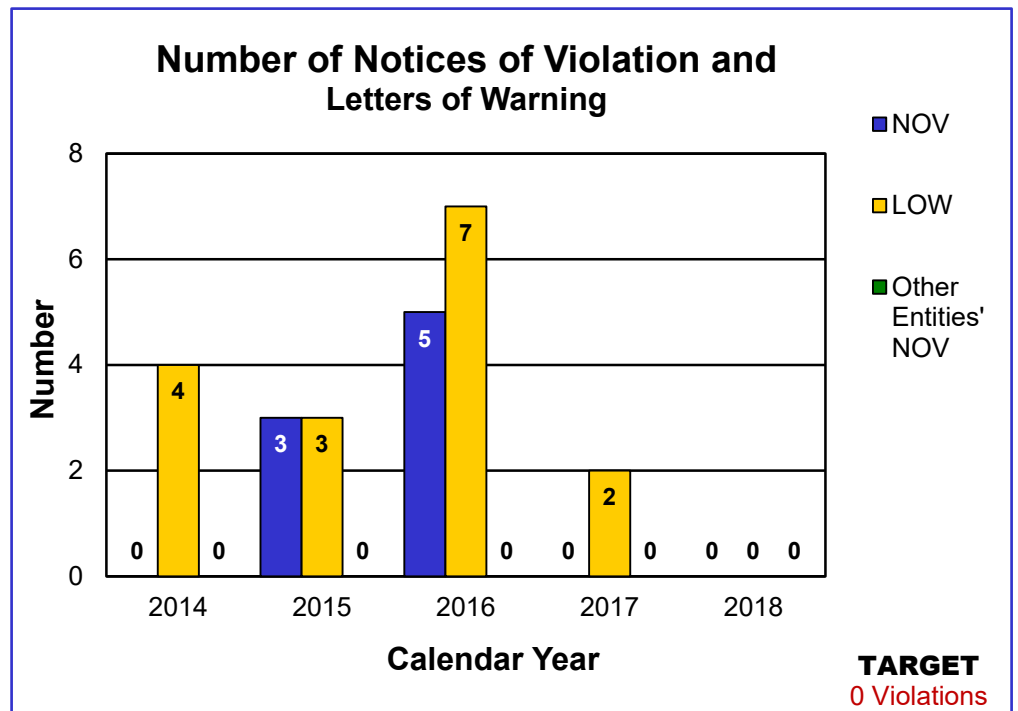
Number of environmental warnings and violations – 6j

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 situations that lead to NOV and Letters of Warning then take action to prevent future occurrences.

For calendar year 2018, MoDOT received no NOV or LOWs.

MoDOT did receive findings of compliance on three projects, one in Greene County, one in Franklin County and one in Warren County. The land disturbance projects were found to be in compliance with the Clean Water Act and the Missouri state operating permit.



RESULT DRIVER:

Brenda Morris
Chief Financial Officer

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 – 6k

MoDOT uses thousands of computer devices to get 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.

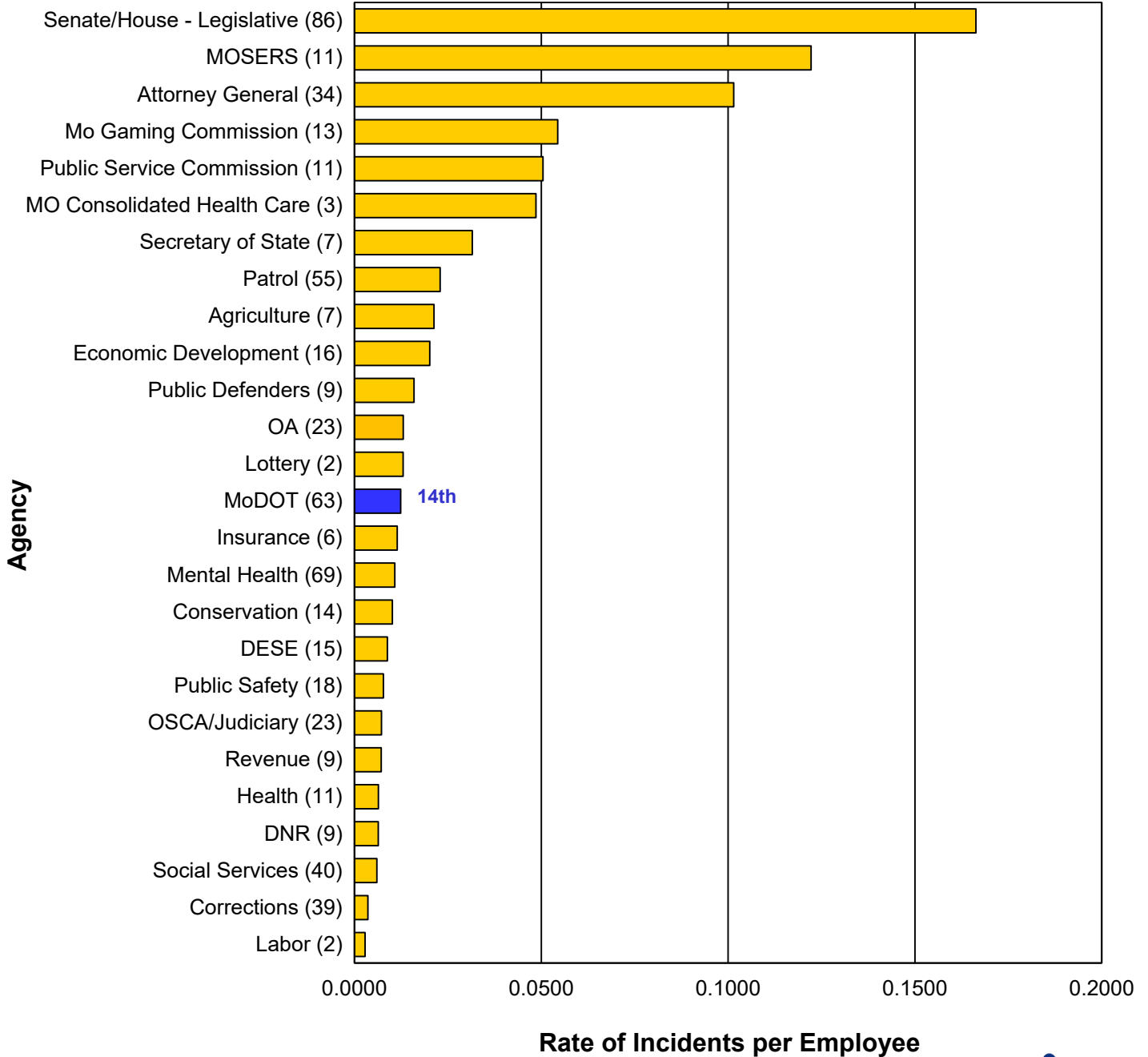
During this past reporting period, MoDOT ranked 14th compared to all other state agencies in terms of cybersecurity incidents per employee. MoDOT's total of 63 cybersecurity incidents equated to a rate of 0.0124 incidents per employee, an increase from last quarter. However, while the number of incidents increased this quarter, MoDOT's ranking remained the same. Incidents included infected phishing emails, fake anti-virus exploits 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. In addition, MoDOT utilizes the Office of Administration's network firewall service, as well as OA's endpoint cybersecurity detection and remediation services to provide increased cyber protection.



USE RESOURCES WISELY

**MoDOT State Ranking in Cybersecurity Incidents per Employee
(January 1, 2018 - December 31, 2018)**



*Number inside the parentheses indicates the number of incidents

DESIRED TREND

RESULT DRIVER:

Brenda Morris
Chief Financial Officer

USE RESOURCES WISELY

Local entity cash leveraged for cost share program – 6l

MEASUREMENT DRIVER:

Sunny Wilde
Financial Services
Administrator

PURPOSE OF THE MEASURE:

This measure tracks local entity cash leveraged from the Cost Share Program.

MEASUREMENT AND DATA COLLECTION:

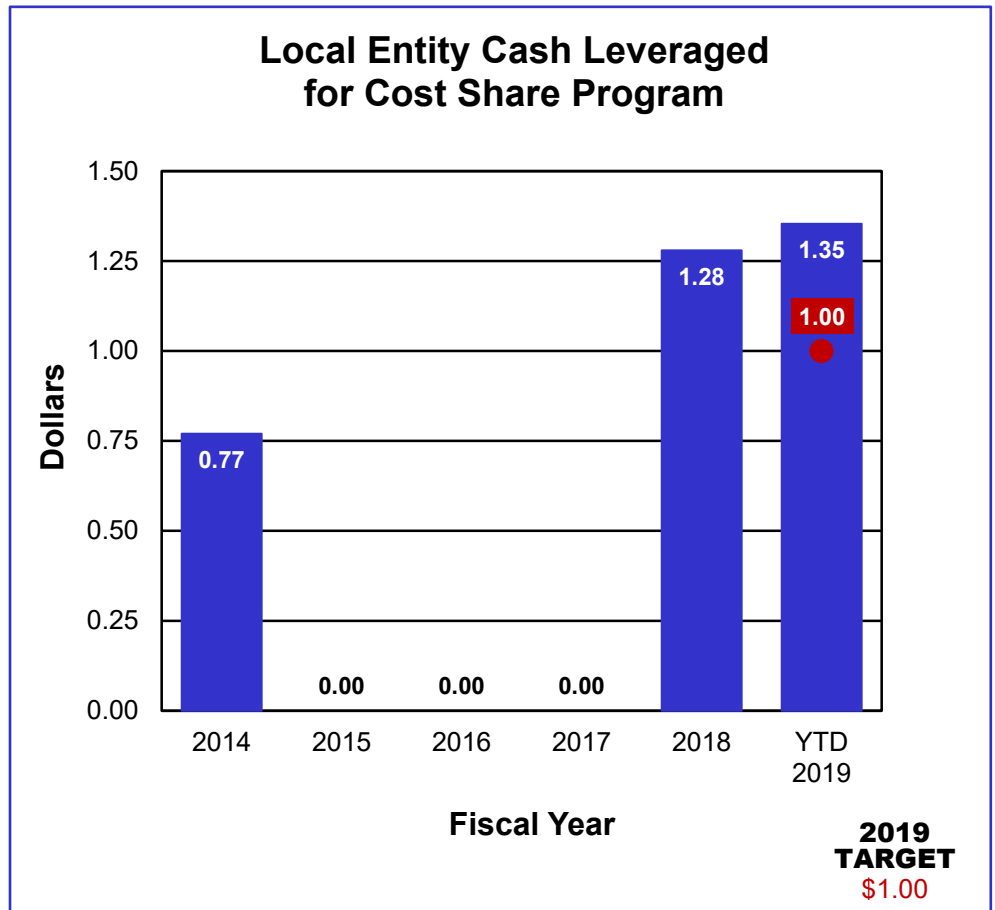
Data for this measure is collected from a partnership database. This measure is based on the state fiscal year.

The target for this measure was set by management directive.

The Cost Share Program builds partnerships with local entities to pool efforts and resources to deliver state highway and bridge projects. When local entities are willing to partner with MoDOT, MoDOT matches their investment up to 50 percent of the project cost. MoDOT works in cooperation with the Missouri Department of Economic Development with local entities to determine when targeted investments can be made to create jobs and may provide up to 100 percent of the project cost.

On Jan. 8, 2014, the Missouri Highways and Transportation Commission suspended the Cost Share Program due to declining transportation funding. On Jan. 4, 2017, the Missouri Highways and Transportation Commission reactivated the Cost Share Program for fiscal year 2018.

During the second quarter of FY 2019, Cost Share Program funds of \$3.3 million were approved for three additional projects for a fiscal year total of nine projects totaling at \$12.4 million. For every \$1 of Cost Share Program funds, local entities provided \$1.35 of cash, which is \$0.35 above the target.



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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 of \$3.62 which is consistent with what was achieved in the 2014-2018 Statewide Transportation Improvement Program 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.

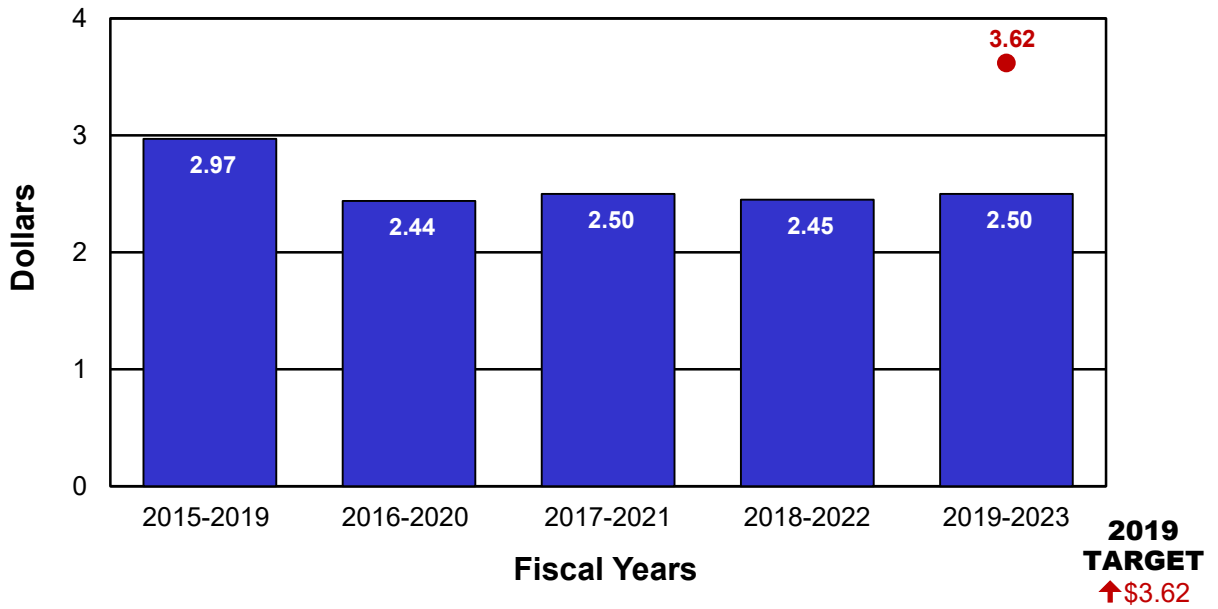
Based on MoDOT's 2019-2023 Statewide Transportation Improvement Program investment of \$5.9 billion, the program is estimated to create 4,746 jobs – a 4 percent increase when compared to MoDOT's 2018-2022 STIP. Transportation investments are expected to contribute \$15 billion of economic output during the next 20 years, resulting in a \$2.50 return on every \$1 invested in transportation which is fairly consistent with the last four years of STIP analyses.

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 the current transportation system rather than new major projects that offer a larger economic return.



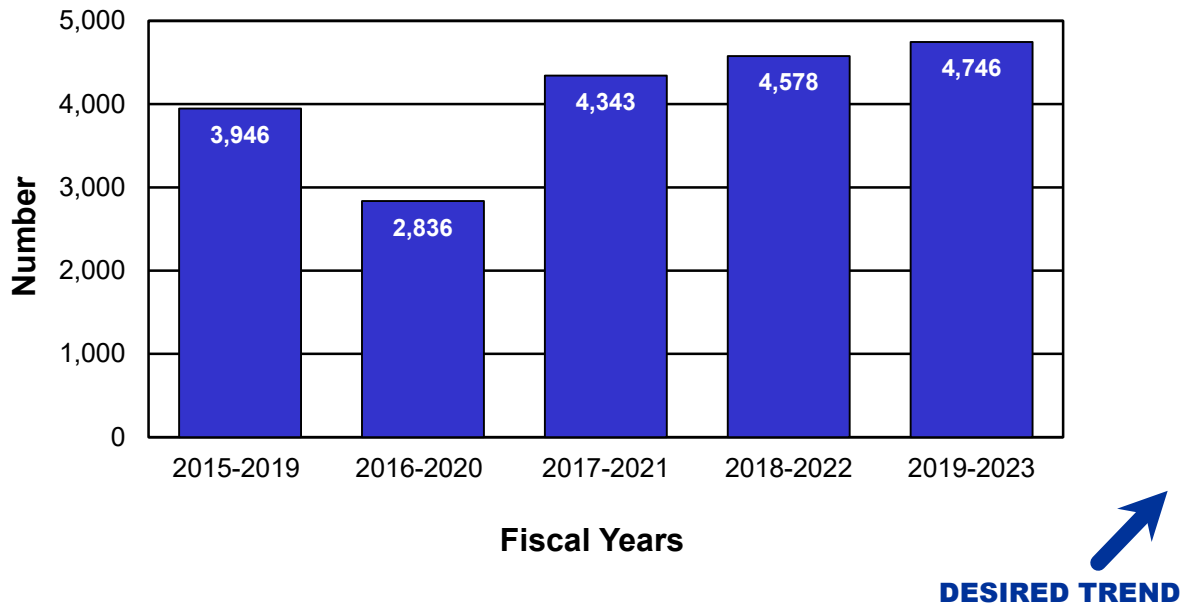
ADVANCE ECONOMIC DEVELOPMENT

Economic Return from Transportation Investments 20-Year Benefit Ratio for Every Dollar Invested



Note: STIP 2018-2022 rate of return has been revised from \$2.52 to \$2.45.

Economic Return from Transportation Investments Jobs Created Annually



Note: STIP 2018-2022 annual number of jobs has been revised from 4,577 to 4,578.

RESULT DRIVER:

Lester Woods
External Civil Rights Director

ADVANCE ECONOMIC DEVELOPMENT

Freight investment effectiveness – 7b

MEASUREMENT DRIVER:

Cheryl Ball
Administrator of Freight and Waterways

PURPOSE OF THE MEASURE:

MEASUREMENT AND DATA COLLECTION:

DATA COMING IN 2019

RESULT DRIVER:

Lester Woods
External Civil Rights Director

ADVANCE ECONOMIC DEVELOPMENT

MEASUREMENT DRIVER:

Bryan Ross
Railroad Operations Manager

PURPOSE OF THE MEASURE:

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

MEASUREMENT AND DATA COLLECTION:

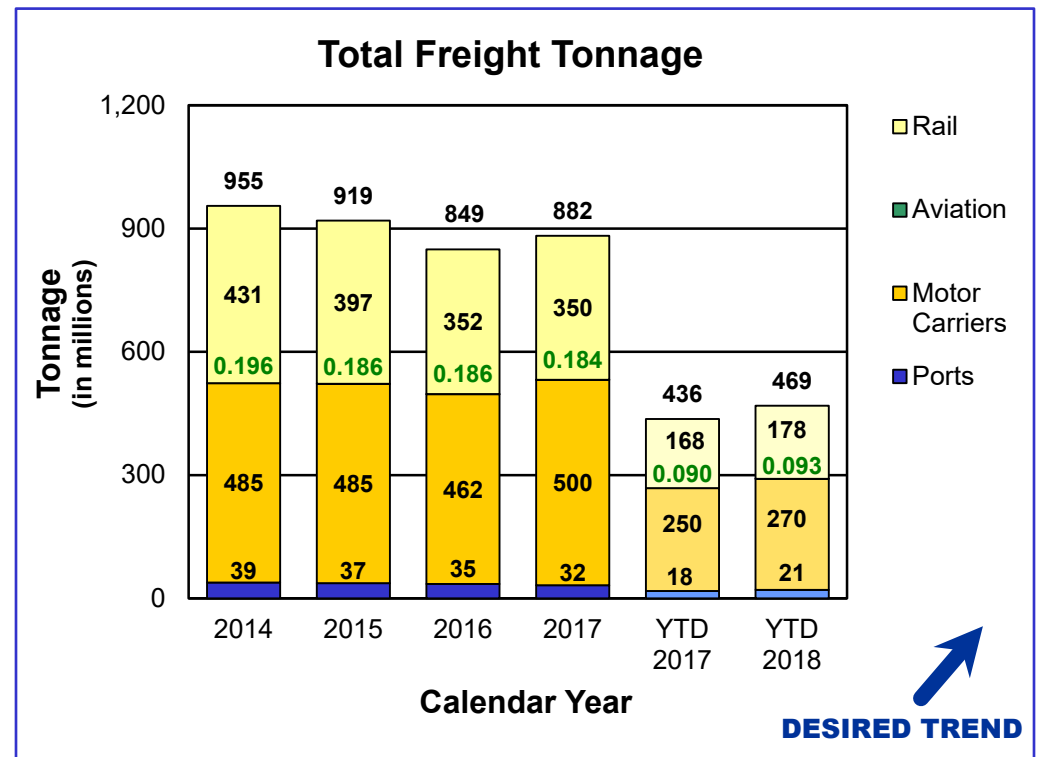
Twice a year, a freight tonnage estimator is used to calculate the amount of freight moved by railroads and highways. The estimator provides timely information for Missouri's primary freight movers. Freight data for aviation and waterways is a combination of direct surveys and trend analysis. This measure's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

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

In the first six months of 2018, Missouri experienced a 7.5 percent increase in freight movements as compared to the same period in 2017. All modes experienced year-to-year increases in freight movements. These numbers can be attributed to the national trend of increasing employment, exports and gross domestic product.



RESULT DRIVER:

Lester Woods
External Civil Rights Director

ADVANCE ECONOMIC DEVELOPMENT

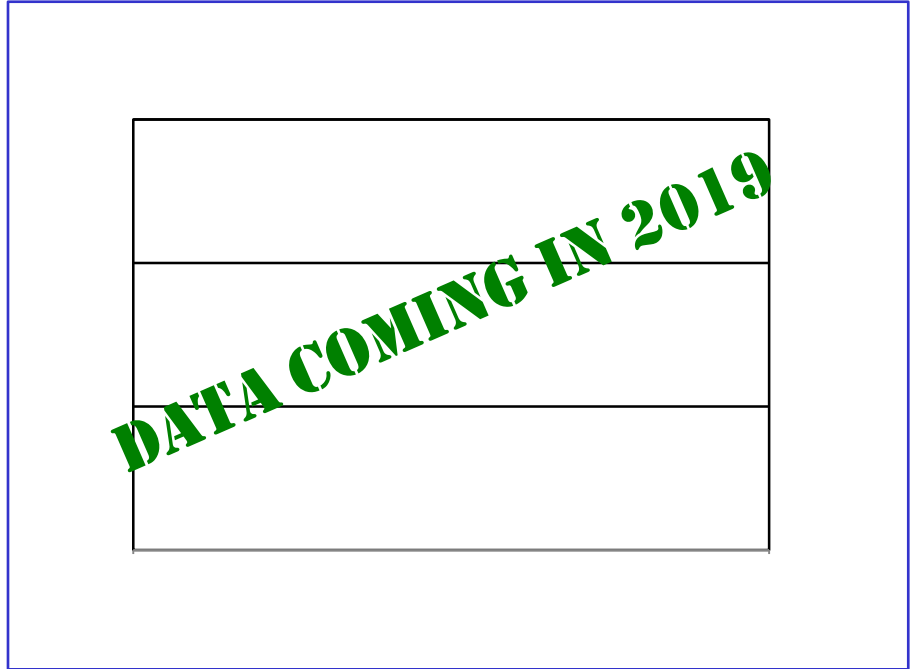
Truck travel time reliability index – 7d

MEASUREMENT DRIVER:

Brian Reagan
Transportation System
Analysis Engineer

PURPOSE OF THE MEASURE:

MEASUREMENT AND DATA COLLECTION:



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 minorities and women 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 – 7e

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

The number of minority employees decreased about 3.7 percent (525 to 506) from second quarter fiscal year 2018 to second quarter FY 2019.

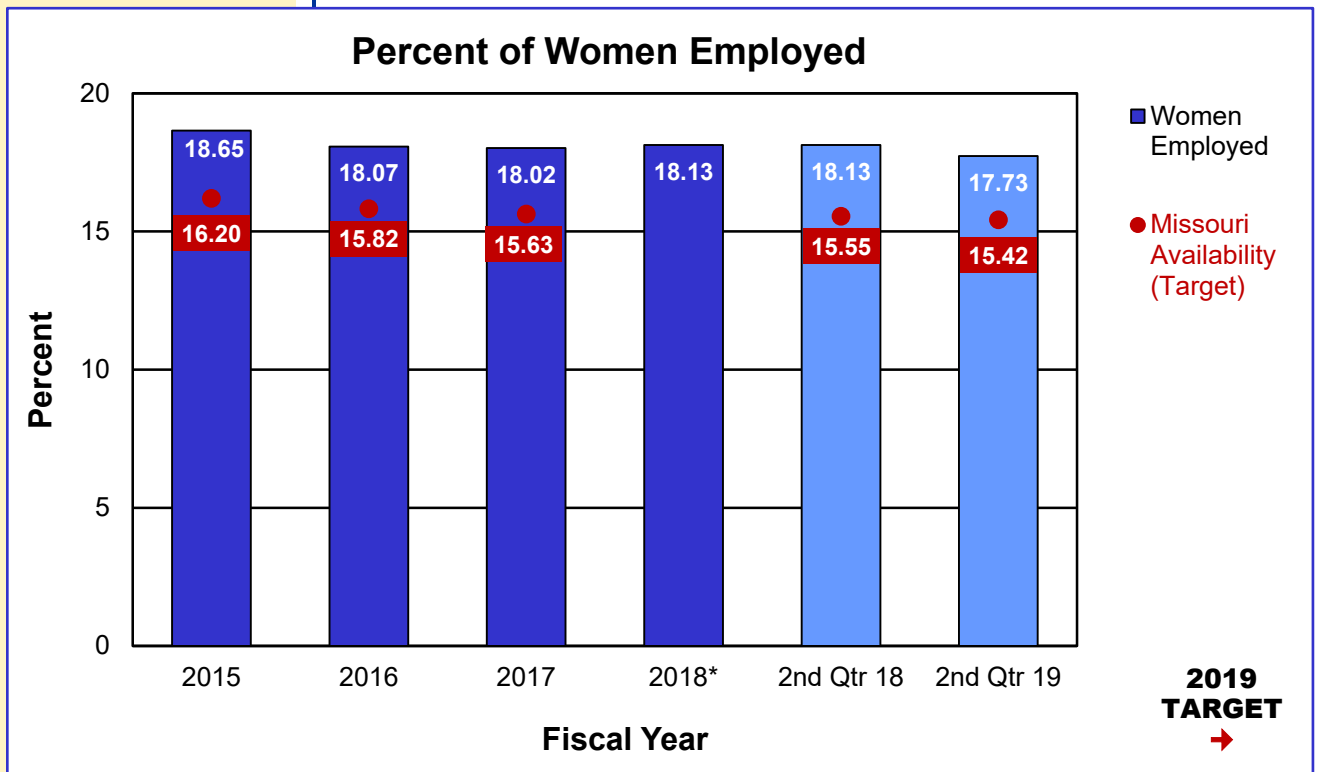
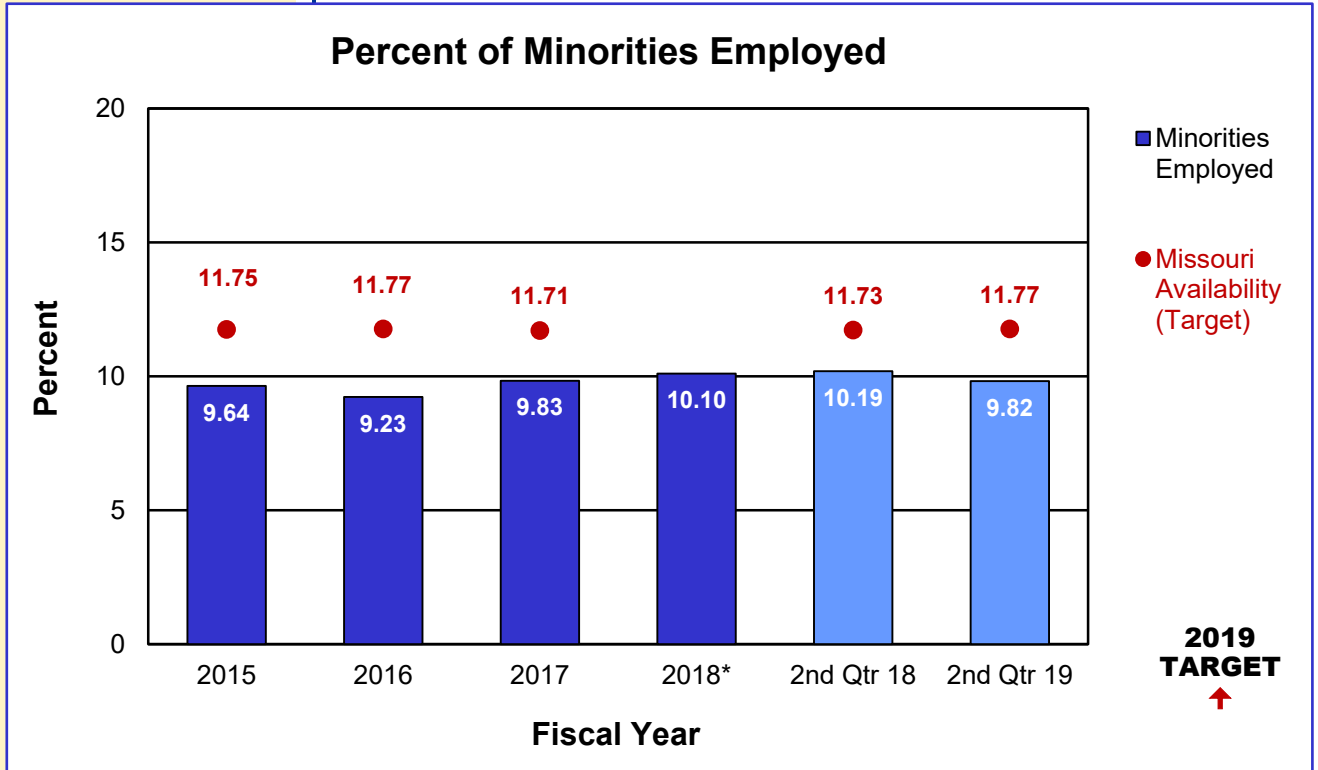
The number of women employees decreased about 0.9 percent from second quarter FY 2018 to second quarter FY 2019 (918 to 910).

Total full-time employment between second quarter FY 2018 and second quarter FY 2019 increased from 5,153 to 5,162 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



*Data for Missouri Availability was not available for fiscal year of 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 federal fiscal year 2012.

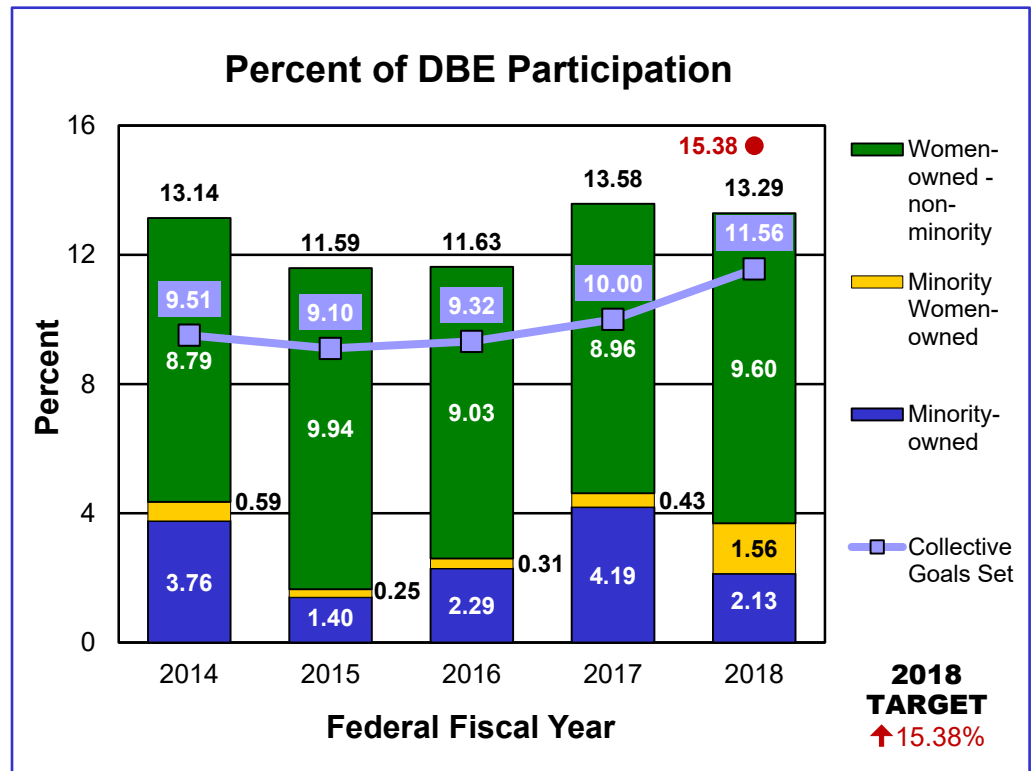
The target for this measure is set by FHWA policy and is updated every three years.

ADVANCE ECONOMIC DEVELOPMENT

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

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 disadvantaged business enterprises 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 FFY 2018 is 13.29 percent. This is a 0.29 percent decrease from FFY 2017. Of the 13.29 percent utilization, 2.13 percent was participation from minority-owned DBE firms, 1.56 percent was participation from minority women-owned DBE firms and 9.60 percent was participation from women-owned DBE firms. The collective goals set for projects closed during this period amounted to 11.56 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:

Debbie Rickard
General Services Director

PURPOSE OF THE MEASURE:

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

MEASUREMENT AND DATA COLLECTION:

Data is obtained from the statewide financial accounting system expenditure reports and United Missouri Bank purchasing card reports. Certified vendors are maintained in a statewide procurement vendor database. Vendors may be certified through the Office of Administration as well as the Missouri Regional Certification Committee. Included in these expenditures are items such as materials, equipment, tools and supplies. Program spending, including construction, design consultants, local agencies, highway safety and multimodal programs and exempted activities such as utilities, postage, organizational memberships, conferences and travel, 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 – 7g

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 minority, women, and disadvantaged business enterprises vendors in order to encourage them to become certified and focused inclusion efforts.

Fiscal year 2019 second quarter results show the same MWDBE disbursements as in the second quarter of FY 2018. Compared to second quarter FY 2018, the FY 2019 percentage of MWDBE expenditures decreased by 0.4 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.

