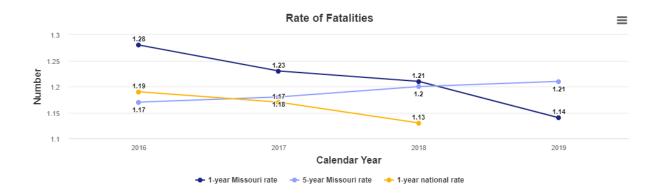


# Number and rate of fatalities - 1a



#### Write up:

Safety is MoDOT's number one priority, so much so that the Mission Statement was updated to include safety. A strategic planning framework called FOCUS that is based on Safety, Service and Stability was also created.

MoDOT supports Zero Fatalities by 2030 as part of our 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.

There were 167 fatalities in the first quarter of 2020. This is an increase over 2019 of three fatalities, fewer than other years represented. That target for 2020 is 836 fatalities or fewer.

Focusing on the Partnership Toward Zero Deaths, we currently have 52 counties with Zero Fatalities in the first three months of 2020.

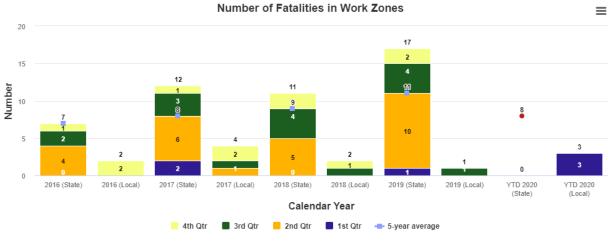
#### Purpose:

The fatal 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 crashes 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.

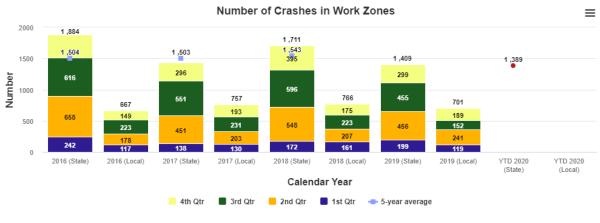
Targets are based on Zero by 2030 fatality reduction, 1% VMT increase, and non-motorized reduction based on overall fatality and reductions. An exception is made for instances where the baseline five-year rolling average is less than the calculated target using the parameters previously described. When this occurs, the baseline will be used as the target.



## Number of fatalities in work zones – 1b

Target: Below 8

\*2019 - Fatalities derived from TMS



Target: Below 1,389

\*2020 - First quarter 2020 data is unavailable through the MSHP radio reports and is incomplete in TMS

#### Write up:

Safe, efficient travel for the public through work zones is important. All crews working in work zones are expected to conduct operations safely. MoDOT makes every effort to ensure this is the case and asks motorists 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, the contracting industry and the driving public can that goal be accomplished. There will be continual improvement in planning, available strategies and technologies employed. It is up to MoDOT to deploy the proper tools in each of the work zones.

Based on information currently available, no fatal work zone crashes have occurred in calendar year 2020 on the state system. However, there were two fatal crashes in work zones on non-state system, local, roads. There were three fatalities in those crashes, only one of which was wearing a safety device. Neither crash occurred when workers were present, and neither were impacted by the presence of the work zone.

Poor driver behavior remains a primary factor in these fatal crashes which proves difficult for MoDOT to control. Community outreach and public awareness campaigns, such as Buckle Up Phone Down, are very helpful, but ultimately MoDOT is dependent upon the driving public to make good choices when driving in work zones. The challenges for MoDOT remain many, with changing driver behaviors at the top.

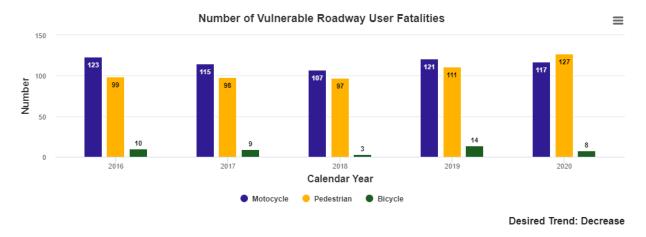
#### Purpose:

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

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



# Number of vulnerable roadway user fatalities - 1c

#### Write up:

In 2019 there was an increase in the number of vulnerable roadway users compared to 2018. Motorcycle fatalities increased 13%, pedestrian fatalities also increased 13%. Bicycle fatalities more than quadrupled in 2019 from 2018 and were one and a half times more than 2015-2017.

Reviewing the fatalities for vulnerable users in 2019, five incidents involved drivers not following the rules of the road (failing to yield, speeding, using the wrong lane) and five where the cyclist didn't follow the rules of the road. In addition, two fatalities involved alcohol, one by the vehicle driver and one by the cyclist. The others were a suspected suicide and equipment malfunction. Developing strategies to focus on rules of the road for vehicle drivers and cyclists seems prudent.

The locations of the fatalities also provide focus areas: the Kansas City area had four fatalities, St. Louis had three and two were in the Springfield area. The worst months for

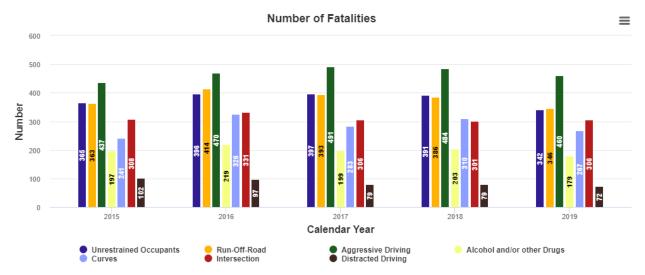
fatalities were in June, July and August - each of which saw three fatalities. With higher fatalities during the summer months, releasing campaigns during those months is crucial.

#### Purpose:

The vulnerable roadway user measure tracks annual trends in fatalities of motorcyclists, pedestrians and bicyclists. These roadway users are at risk for death 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.



## Most common characteristics of fatal crashes - 1d

#### Write up:

MoDOT's priority is to keep customers and employees safe. The greatest challenge to this is the recurring frequency of fatal crashes and serious injury crashes on Missouri roadways. In order to combat this, MoDOT utilizes crash data to identify the most common contributing circumstances of severe crashes. By identifying behaviors and characteristics most associated with these crashes, MoDOT can make more informed decisions to address the problem. While the most common causes are related to human behavior, MoDOT can help implement solutions through education, enforcement, engineering and emergency response to minimize poor decisions and their potential impact.

Missouri had 879 traffic fatalities in 2019. While nearly every category saw a decrease in 2019, aggressive driving continued to be the leading cause of fatal crashes in the state. Aggressive driving includes speeding, driving too fast for conditions, following too close and improper passing. These behaviors, along with impairment and distraction, account for most fatal

crashes in the state. When coupled with the decision to not buckle up, the results are even more deadly. On a positive note, seat belt use in Missouri reached an all-time high in 2019, and the number of unbuckled fatalities was down 13% for the year. That said, 64% of the vehicle occupants killed in 2019 were not wearing a seat belt. Distracted driving crashes were also down for the year, though it should be noted that this behavior is often difficult for officers to prove and reflect in the crash report. Both measures indicate positive progress in two of MoDOT's targeted behaviors, buckling up and putting the phone down.

Through the Statewide Transportation Improvement Program, MoDOT continues to program millions of dollars in safety improvements each year, including curve improvements, high friction surface treatment, paved shoulders, rumble strips and intersection improvements such as J-Turns, turn lanes and pedestrian accommodations. These improvements are being identified through a data-driven, benefit-cost analysis to maximize the return on investment. On average, the state sees a six to one return on investment with these improvements. In addition, MoDOT continues to take advantage of federal safety funds for educational and enforcement programs to reduce poor driving behaviors. These programs allow other safety partners in the state to get involved in effort to move Missouri toward zero deaths. MoDOT will continue evaluating and implementing programs that successfully reach new audiences and prioritize a culture of highway safety in Missouri.

#### Purpose:

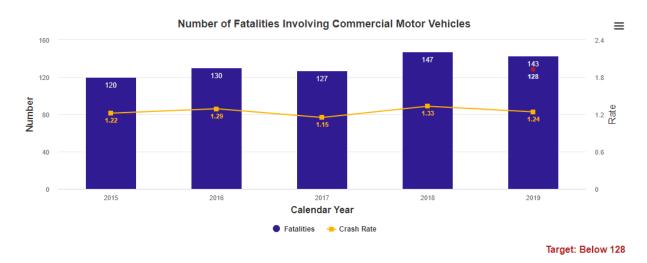
The measure tracks annual trends in motor-vehicle-related fatal resulting from the most common contributing factors or highway features. This data represents seven of the top focus areas presented in Missouri's Blueprint to Save More Lives.

#### 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, distracted 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.

# Number and rate of fatalities involving commercial motor vehicles – 1e



#### Write up:

Commercial Motor Vehicles play a vital role in our nation's economy by transporting the products we need. By tracking the number of CMV involved fatalities, MoDOT can target educational and enforcement efforts, as well as improve safety features along Missouri roadways. MoDOT partners with the Missouri State Highway Patrol, St. Louis Metropolitan Police Department, Kansas City Police Department and St. Louis County Police Department to keep people safe while traveling in and around CMVs.

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 involving CMVs. Between 2014 and 2018, fatalities involving a CMV increased by 29.2% and the fatality rate increased from 1.17 to 1.32 per 100 million CMV vehicle miles traveled. In 2018, Missouri experienced an increase of 19 fatalities involving a CMV as compared to 2017. This resulted in a 2018 fatality rate of 1.32 compared to 1.15 for 2017. The target for 2018 was 116 fatalities and unfortunately the goal was not met.

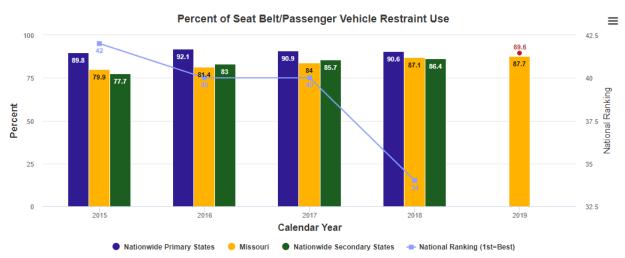
#### Purpose:

This measure tracks annual trends in fatalities 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 rates on the chart display the annual fatality rates per 100 million

vehicle miles traveled for commercial motor vehicles for these same crashes. The targets are based on a 9% improvement rate from the immediate prior year fatalities.



## Percent of seat belt/passenger vehicle restraint use - 1f

#### Write up:

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, along with legislation. 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 one county and 63 municipalities that have adopted primary seat belt ordinances, representing over 27% of the state's population.

Based on 119,413 observations, seat belt use in Missouri for 2019 was 87.7%, a 0.6% increase from 2018. Gasconade County was the lowest at 67.7% and Callaway County was the highest at 96.0% (weighted data). The national average for seat belt use in 2018 was 89.6% (2019 data is not yet available). Missouri's national ranking (including Washington DC) in 2018 was 34th, with 17 states ranking lower in seat belt use. States with a primary seat belt law generally rank highest on seat belt use nationwide, while states that have a secondary law continue to rate lowest in national rankings.

MoDOT is improving its safety culture through statewide strategic initiatives such as Buckle Up Phone Down and by coordinating 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.

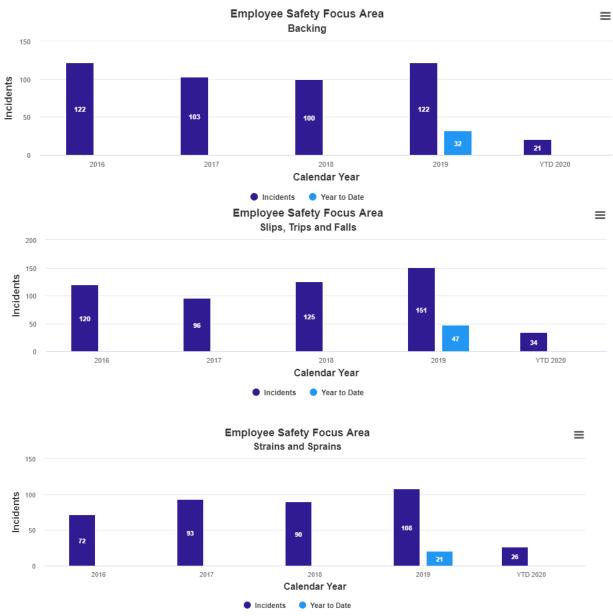
#### Purpose:

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.

# Employee safety focus areas - 1g



#### Write up:

MoDOT's number one value is safety. The purpose of this measure is for everyone to arrive at work safely and return home the same way. This includes all the preparation necessary for a safe day including planning the jobs, Risk Based Assessment review, morning safety briefings and stretching. This measure focuses on improving three high risk areas: backing; slips, trips and falls; and sprains and strains.

MoDOT had 21 backing incidents in the first quarter of 2020. While this is a 34% decrease from the same quarter in 2019, even one backing incident is too many. Backing incidents can cause property damage, injuries and death. Improvement strategies include parking to avoid backing, good planning, always using a spotter, and doing a thorough check of the area. If you are alone, you may need to check the area multiple times as you back up.

There were 34 employees who received medical attention for slips, trips and falls during the first quarter which is a 28% decrease from the same quarter in 2019. Improvement strategies include being aware of surroundings and keeping work areas organized.

During the first quarter 2020, 26 MoDOT employees received medical attention for sprains and strains. This is a 24% increase from the same quarter in 2019. Improvement strategies include morning and afternoon stretching, asking for help when lifting and using proper lifting technique.

It is imperative employees focus on improvement strategies and put MoDOT's Behavior Based Safety and Actively Caring programs into action. At MoDOT, safety is everyone's responsibility.

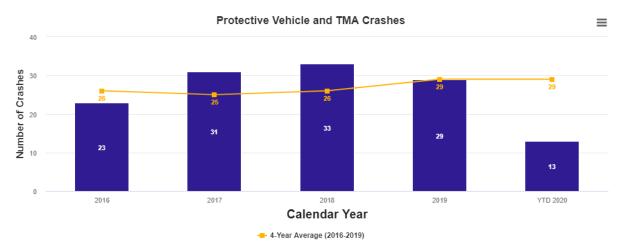
#### Purpose:

This measure tracks the department's most frequent incident types and highlights areas to focus on for improvement.

#### **Measurement and Data Collection:**

Data is collected through RiskMaster for each District going back three years on the number of backing incidents; slips, trips and falls; and strains and pulls. These are the three most common types of injuries at MoDOT.

# TMA crashes and associated employee injuries – 1h



Desired Trend: Decrease

#### Write up:

While the ultimate goal is to eliminate work zone crashes, the goal for this measure is to reduce the number of truck-mounted attenuator hits below the previous four-year average. In the first quarter of 2020, MoDOT had 13 reported TMA hits from which five MoDOT employees sought medical attention. This quarter is pot hole season with nine TMA hits for patching pot holes, one hit for sweeping, one hit for a sign crew, one hit helping police with an accident and one hit while the crew was on the shoulder before they even entered the roadway. Surprisingly half of the TMA hits were a hit and run, including some substantial collisions where the drivers get out to look, then jump back in their car and drive off. While the number of TMA hits was approximately double a typical first quarter, no serious injuries were noted in the police reports from these collisions. Erratic driving and speed appeared to be an issue throughout this quarter.

#### **Purpose:**

MoDOT owns more than 300 truck or trailer mounted attenuators that are used to save lives by absorbing the impact of a crash in a work zone. By measuring the number of TMA hits by types of operation, MoDOT is able to identify higher risk activities that could result in a crash and share this information to develop strategies to eliminate work zone crashes.

#### Measurement and Data Collection:

When a TMA incident occurs, a Claim Report is completed. The claim reports and any associated police reports are collected by Risk Management Technicians for review and interpretation. Only incidents where the TMA was involved are included in this data. This measure is reported based on quarters of a calendar year.

# Employee perception of safety program (UNDER CONSTRUCTION) – 1i

# Employee involvement in safety - 1j



#### Write up:

To be effective, any safety and health program needs the meaningful participation of its employees. They have much to gain from a successful program and the most to lose if the program fails. They also often know the most about potential hazards associated with their jobs. Additionally, involvement breeds acceptance as people support what they help create. Proactive measures such as Behavior Based Safety Observations and Good–Catches, are positive things employees can do rather than negative outcomes they should avoid. Safety happens before an incident and this measure gives employees the goal of elimination before mitigation. Conversely, learning from mistakes is a vital to a safety program. Near–Miss reporting is another piece of the puzzle that allows the department to continue the vision of zero injuries. Comparing first quarter 2019 to first quarter 2020, the department experienced a 52% increase in employee participation in observations, near-miss, and good-catch reporting.

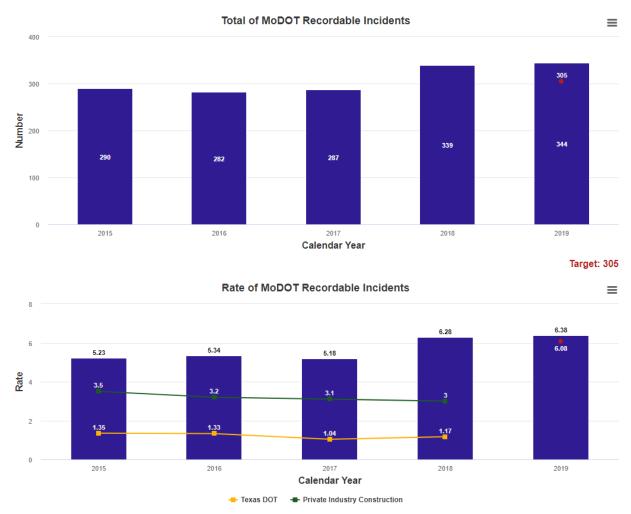
#### Purpose:

This measure tells us how much employees are involved in the department's safety program by tracking BBS observations, near-misses, and good-catches. This leading indicator allows us to look for trends and recognize employees practicing good hazard recognition

#### **Measurement and Data Collection:**

Employee involvement measure uses observation, near-miss, and good-catch data that is submitted by employee through <u>https://www.modotbbs.com/</u>

# Total and rate of MoDOT recordable incidents – 1k



Target: 6.08

#### Write up:

The total and rate of recordable incidents are tracked to measure the department's goal of fewer injuries. MoDOT's goal is for every employee to go home every night to their families unharmed. Reporting injuries allows the department to arrange for prompt treatment and to learn from mistakes or remediate hazards. The total number of recordables for 2019 has increased slightly compared to 2018. The rate of incidents has also increased slightly compared to last year. There was a 1% increase from 2018 for both the number of recordables as well as the rate of incidents.

Leading causes of injuries this year were slips, trips and falls (24%), strains (17%) and cut/punctured/scraped (13%). Based on the work activity being performed at the time of the incident, equipment use accounted for 30% of employee injuries, bridge work accounted for 11% and 9% were due to lifting or moving materials.

#### Purpose:

0

2016

2017

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% from the year-to-date comparison period.



2018

Calendar Year

216

YTD 2019

2019

YTD 2020

### **General liability claims and costs -11**

#### Write up:

Keeping employees and the public safe is the department's highest value. Controlling damage to vehicles and reducing personal injury in work zones, on right-of-way and other areas under department control helps MoDOT accomplish this goal. Compared to the first quarter of 2019, there was a 55% decrease in the number of claims. Most of the claims in the first quarter of 2020 were attributed to pavement defects. During the first quarter of 2020, there was a 734% increase in the amount paid.

This quarter, payments were made on 144 claims against the department, totaling \$1,791,840. Three claims accounted for 59% of the first quarter's payments. The department settled a 2015 claim where a collision occurred in a roundabout causing injuries. It was said to be confusing and pavement markers have since been added. This claim was settled for \$385,000 based on inadequate signing and extensive crash history. The second claim occurred in 2019 when the driver skidded through a T intersection and struck a tree resulting in severe injuries to the passenger. This claim was settled for \$300,000 based on an inadequate sign package for an intersection with poor sight distance due to a hill crest prior to it. The last claim occurred in 2016 where a vehicle jumped a curb and struck a fixed object in an intersection causing multiple fatalities. This claim was settled for \$375,000 based on a fixed concrete obstruction in the intersection.

To achieve the general liability number of claims target, the focus needs to be on the department's most common claims. Historically, the top five most frequent claim types during the second and third quarters are pavement defects, chip seal operations, debris on the roadway, mowing and striping operations.

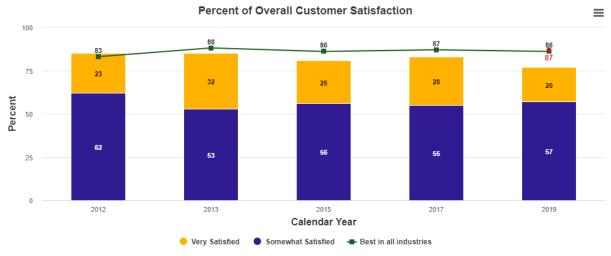
#### Purpose:

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.

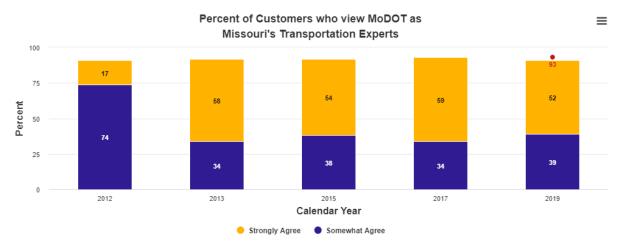
The target for this measure is updated annually. This target is calculated by determining a five-year average and subtracting 10%. (Exceptionally high or low years are excluded from the five-year average calculation to determine a practical target).



# Combined Customer Satisfaction Survey – 2a

Target: 87%

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



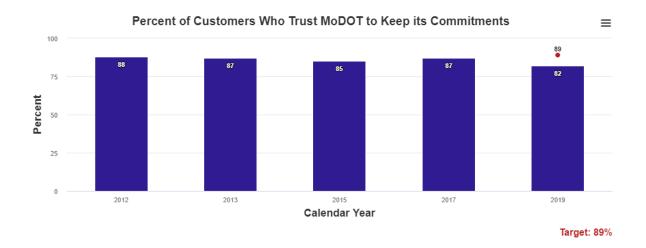
Target: 93%

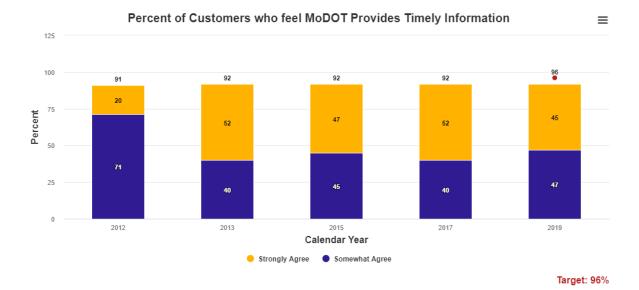
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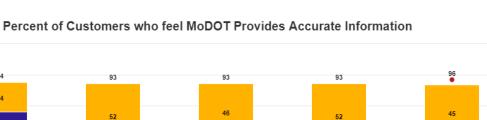
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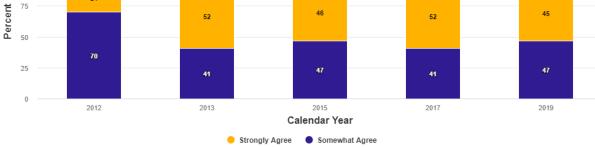
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24



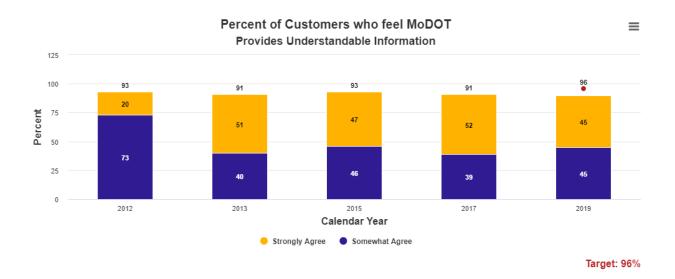






Target: 96%

≡



#### Write up:

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, social media post, 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% agreement for the past five surveys, this measure shows the department meets customers' high expectations.

While customer satisfaction with MoDOT remains relatively high, the percent of Missourians surveyed who says they are satisfied with the job MoDOT is doing dropped from 83% in 2017 to 77% in 2019, a 6% decline. In addition, those customers who reported they are very satisfied with MoDOT decreased from 28% to 20%.

Results have remained fairly steady, with some decreases. Possible reasons for the decreases seen in these measures could be related to stagnant funding and system condition, as well as a harsh winter and flooding.

As the agency responsible for transportation in Missouri, MoDOT must hold its lead as an expert in the field. 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. 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 2019 survey shows an overwhelming majority of customers perceive the department as Missouri's transportation expert. Ninety-one percent of those surveyed agreed MoDOT serves this role, a percentage the department has consistently maintained for more than 10 years. Of the 91%, 52% of respondents "strongly agreed" and 39% "somewhat agreed" MoDOT serves as the state's primary transportation expert.

The 2019 survey results indicate 82% of Missourians trust MoDOT to keep its commitments to the public, compared to 87% in the previous survey. While 82% is still a high measure of trust in a government agency, it reflects a 5% decrease from 2017, the lowest rating since before 2012.

#### Purpose:

This measure tracks the percent of customers who are satisfied with MoDOT as a leader and expert in transportation issues, how effectively MoDOT conveys its expertise to the traveling public and keeps its commitments, and also 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 bi-annually in October. MoDOT strives to reach and maintain 100% satisfaction across all aspects of customer satisfaction, based on standards in major global industries.



# Percent of customers satisfied with MoDOT's customer service – 2b

Target: 91%





Target: 96%



Target: 98%

#### Write up:

Providing outstanding customer service is one of MoDOT's core values and the responsibility of every employee in the organization. To actively seek feedback from 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. The data provided in the graphs reflects how those surveyed customers rated their interaction with MoDOT.

During the first quarter of 2020, compared to the first quarter of 2019, overall customer satisfaction decreased slightly from 82% to 81%. Politeness of response decreased slightly from 96% to 95%. Customers who were satisfied with the clarity of the response they received decreased slightly from 87% to 85%. Responsiveness remained the same at 87%.

The average time to complete customer requests was 2.5 days.

#### Purpose:

This measure shows how satisfied customers who contacted MoDOT were with the politeness, clarity and responsiveness they received, as well as their overall level of satisfaction.

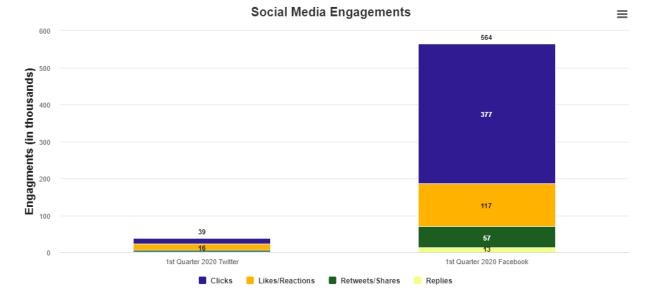
#### Measurement and Data Collection:

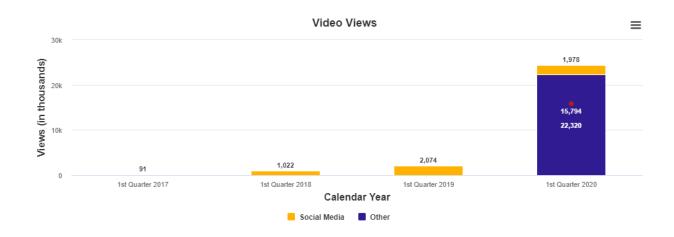
Data for this measure comes from a monthly telephone and email survey of 200 customers who contacted a MoDOT customer service center in the previous month. The customer contacts come from call reports logged into the customer service database. Survey participants are asked to respond on an agreement 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.

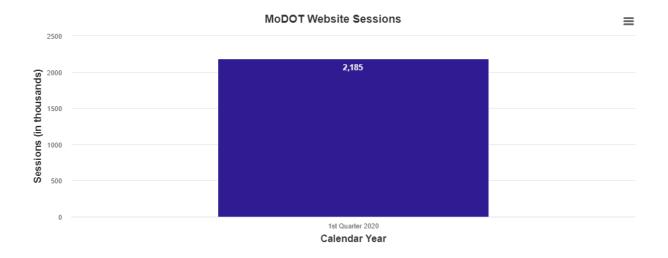
The target for this measure is updated quarterly. This target is established by projecting a 10% improvement over a five-year average.

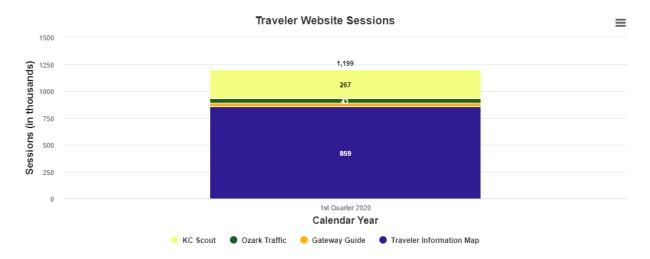
# Customer communication engagement – 2c











#### Write up:

#### SOCIAL MEDIA

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 first quarters of 2019 and 2020, there was a growth of 40,283 followers on Facebook statewide and 17,712 on Twitter.

During the first quarter of 2020, MoDOT's most popular post on Facebook statewide warned drivers of the complete closure of I-70 in Kansas City for construction. The post reached 91,503 people with 7,238 engagements including post clicks, shares, comments and reactions.

To better track how customers are interacting with MoDOT on these social media sites, engagements are being measured, as well. Engagements are customer interactions with MoDOT's posted content, including likes, shares, retweets, comments and replies. This quarter, MoDOT Facebook pages across the state had 563,281 engagements and Twitter pages had 39,350.

MoDOT websites had 2,185,303 sessions during the first quarter of 2020. This is the first measurement of this quarter during which internal filters were used to measure the data, meaning the data is the most reflective of customer visits. For this reason, the numbers cannot be accurately compared to previous quarters.

MoDOT videos on YouTube and social media were viewed 1,977,885 times in the first quarter of 2020. This is the first-time tracking video views outside of social media for this quarter, as well, including video advertisement placements. These additional video placements were viewed 22,319,515 times this past quarter.

#### **WEB PAGE VIEWS**

Traveler Information Map - 1,056,287 MoDOT Homepage - 340,689 KC Scout Homepage - 326,619 Ozarks Traffic - 227,984 Winter Road Conditions - 161,450

#### YOUTUBE VIDEO VIEWS

Teen Safety Belt 2020 - 729,978

March Impaired Bad Decisions - 429,784

TowPlow Action Missouri - 392,296

MoDOT Tow Plows In Action - 165,222

March Impaired Bad Decisions 2020 SPA - 50,500

#### Purpose:

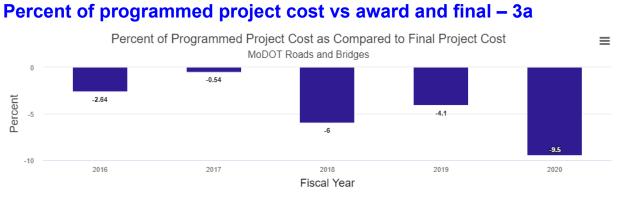
This measure tracks the number of MoDOT customers hitting the department's social media and website information.

#### 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

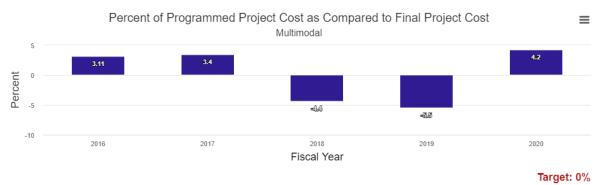
is updated quarterly. This target is established by projecting a 7% improvement over the same quarter in the previous year.

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.

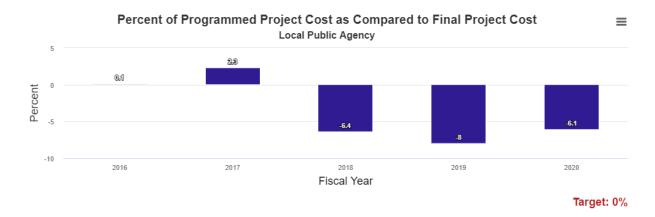


Target: 0%

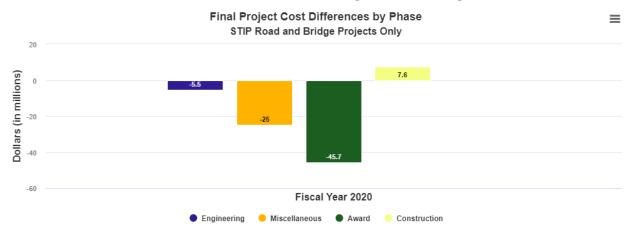
#### \*Positive numbers indicate the final (completed) cost was higher than the programmed cost



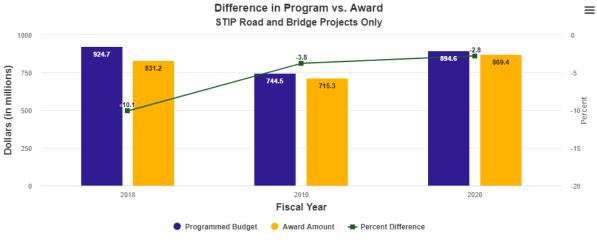
\*Positive numbers indicate the final (completed) cost was higher than the programmed cost



#### \*Positive numbers indicate the final (completed) cost was higher than the programmed cost



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



Target 0%

\*Amounts include STIP road and bridge projects with 2% construction contingency applied

#### Write up:

Accurate program cost estimates help MoDOT deliver more timely improvements for taxpayers. As of April 1, 2020, 339 road and bridge projects were completed in the third quarter of fiscal year 2020 at a cost of \$656.1 million. This represents a deviation of 9.5% (or \$69 million) less than the programmed cost of \$724.8 million. Of the 339 road and bridge projects completed, 59% were completed within or below budget. In comparison, 56% were completed within or below budget as of the same date a year ago. There may be projects that have adjustments pending, which could cause a slight change in the final values.

In addition, 36 multimodal projects were completed at a cost of \$17.4 million, 4.2% (or \$707 thousand) more than the programmed cost of \$16.7 million. A total of 97 local public agency projects were completed at a cost of \$79.8 million, 6.1% (or \$5.2 million) less than the programmed cost of \$84.9 million.

The target is a 0% difference, indicating MoDOT is making timely use of available funds. Road and bridge, multimodal and local public agency projects were within -8.9% of the target in FY 2020.

MoDOT uses this historical data as a guide for programming future projects. Final project costs in FY 2018 and FY 2019 were about 5% lower than programmed values. If FY 2020 projects also reflect significant award savings, MoDOT plans to accelerate projects from FY 2021 to FY 2020.

#### Purpose:

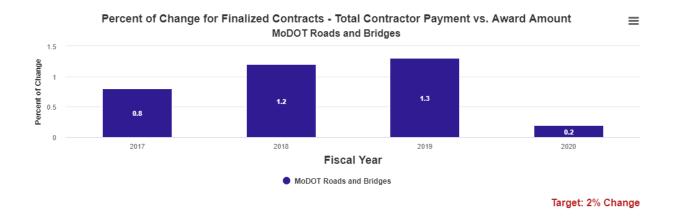
The measure determines how closely total project costs are compared to the programmed costs. The programmed cost is considered the project budget.

#### Measurement and Data Collection:

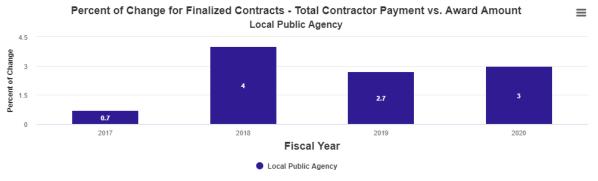
Completed project costs are reported during the fiscal year in which a project is completed. Road and bridge project costs include design, right-of-way purchases, utilities, construction, inspection and other miscellaneous costs. The programmed cost is based on the amount included in the most recently approved STIP. 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.

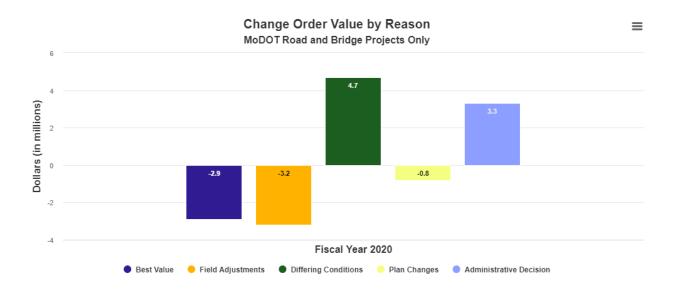
# Change order report – 3b



Percent of Change for Finalized Contracts - Total Contractor Payment vs. Award Amount ≡ Multimodal 2.4 Percent of Change 0 -0.9 -1.2 -2.3 -2.4 -4.8 2017 2018 2019 2020 **Fiscal Year** Multimodal Target: 2% Change



Target: 2% Change



#### Write up:

By limiting overruns on contracts, MoDOT can continue to keep its maintenance and construction commitments. This emphasis, combined with the use of practical design and value engineering, has contributed to limiting overruns on contracts. MoDOT's performance in the first three quarters of fiscal year 2020 is 0.6% over the award amount (\$3,384,394 over the award amount of \$564 million worth of projects completed) with 56% of the projects being completed below the original award amount.

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

For year to date 2020, MoDOT road and bridge projects were completed 0.2% over budget, multimodal projects were completed 1.0% under budget and local public agency projects were completed 3.0% over budget.

#### Purpose:

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 underrun/overrun of the original contract cost. Local public

agencies and multimodal agencies use staff or consultant resources to set contract completion dates and track performance.

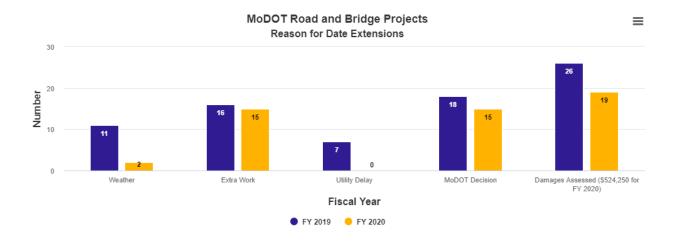
The target for this measure is set by internal policy and will not change unless policy changes.

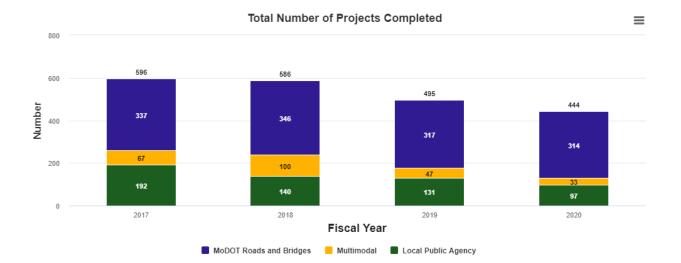


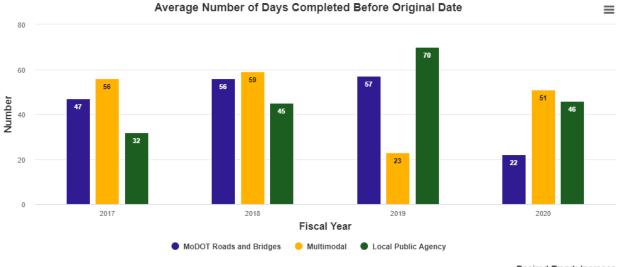
#### MoDOT Road and Bridge Projects Completed on Time $\equiv$ Original vs. Adjusted Contract Completion Date 100 93 92 92 89 75 Percent 50 25 2018 2019 2017 2020 Fiscal Year 🔵 Original 🛛 😑 Adjusted

## Projects schedule report – 3c

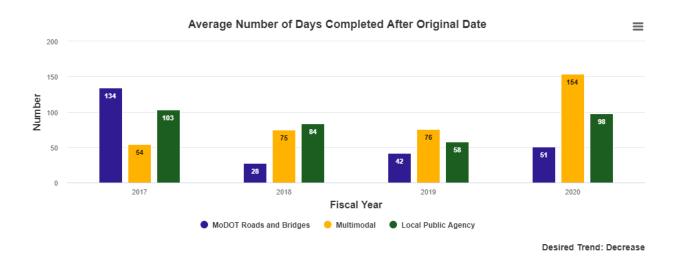
<sup>2020</sup> Target: Above 80% Original







Desired Trend: Increase



#### Write up:

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

MoDOT works to meet the initial contract completion date by preparing accurate plans and quantities, setting aggressive but reasonable completion dates and setting liquidated damages to reinforce completion dates without undue bid risks. In the first three quarters of

fiscal year 2020, 76% 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 FY 2020, 88% 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 FY 2020 that did not meet the original contract date, 4% were extended due to weather delays, 29% were extended due to extra work, 0% experienced utility delays, 30% were extended by MoDOT and 37% missed the completion date with damages assessed totaling \$524,250.

The target for this measure is to have at least 80% of projects completed by the original completion date. At the end of the second quarter of FY 2020, the average number of all contracts completed by the original completion date was 76%.

#### Purpose:

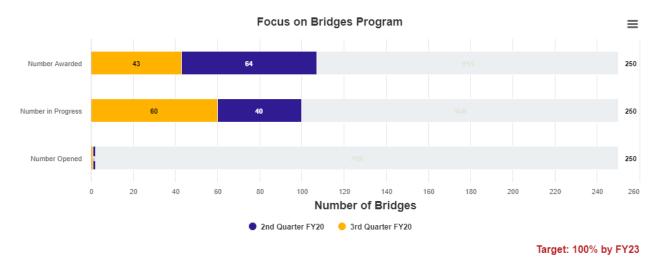
This measure tracks the percentage of road and bridge projects opened by the commitment date established in the contract. This commitment also includes local public agency projects and multimodal projects (rail, aviation, waterway and transit).

#### 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.

# Focus on bridges program – 3d



#### Write up:

This measure tracks the progress made on the Governor's Focus on Bridges Program. This program was initiated by Gov. Mike Parson to address 250 poor bridges in the state. The overall program will repair or replace 250 bridges across the state.

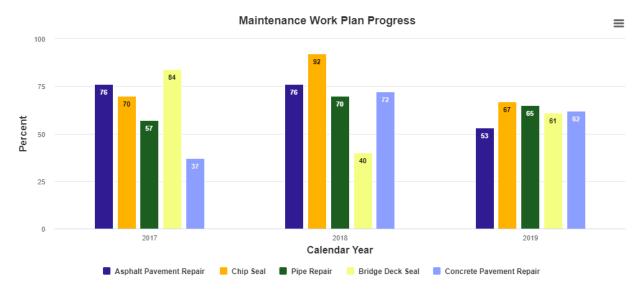
The Focus on Bridges Program began in fiscal year 2020. However, this is the second quarter where the status of the program is being tracked. The program will be complete when all 250 bridges have been awarded and opened. The number in progress will vary as new projects are started and others are completed.

#### Purpose:

The purpose of this measure is to track the progress made on the Governor's Focus on Bridges Program. Two hundred fifty bridges will be awarded to be repaired or replaced by the end of fiscal year 2023. The measure will track quarterly progress on the number of bridges awarded, bridges in progress and opened bridges.

#### **Measurement and Data Collection:**

The data for this Tracker measure is collected after each Missouri Highway and Transportation Commission meeting where Statewide Transportation Improvement Program projects are awarded. Award dates and notice to proceed dates are entered in a list that includes all 250 Focus on Bridges structures. The Construction and Materials Division provides the date when each structure is opened to traffic.



#### Maintenance work plan progress- 3e

#### Write up:

This measure tracks how much of the planned maintenance operations work in the STIP is accomplished each year. The measure includes location-specific work such as bridge deck seals and comprehensive statewide work such as striping. Since 2017, location-specific work in the STIP has been tracked and the percent of locations accomplished has been recorded. This did not take into consideration changes in work plans due to unavoidable events such as flooding and material shortages. This measure will track the quantities of the various planned work activities, compare them to the estimated quantities and report that progress as well as the location-specific progress. This will address the needs to modify plans due to unavoidable events and will be reported moving forward. Due to concerns with the newly developed striping database, striping progress will not be reported until 2021.

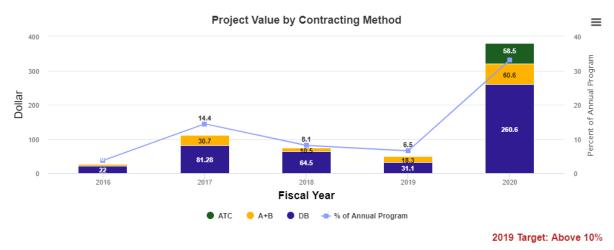
#### Purpose:

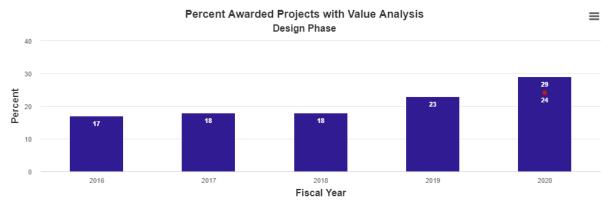
MoDOT publishes the maintenance and operations work plans every year in the STIP for the first three years. This measure is done to determine how each district adheres to the planned work activities in the STIP from a location specific standpoint and an overall performance level regardless of location.

#### Measurement and Data Collection:

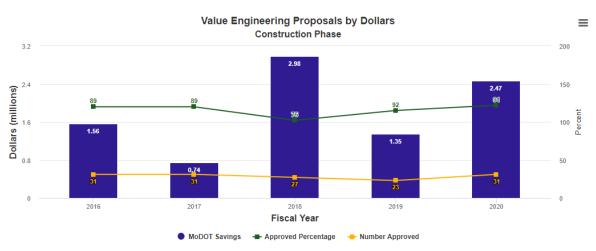
The location specific activities planned in the STIP, such as bridge deck seals, are mapped and their financial job number information is stored for future expenditure tracking. At the end of the calendar year, the location specific planned STIP activities have financial reports run to determine if expenditures were applied to them. The percent of locations with pertinent activity expenditures charged to them is determined and provided in this measure.

## Innovative contracting and value engineering – 3f









Desired Trend: Increase

#### Write up:

MoDOT has delivered more than \$1.7 billion in Design-Build projects that saved taxpayers over \$277 million. When combined, these projects were completed more than 74 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 driven by innovation, speed and efficiency. MoDOT pushes the boundaries to execute projects delivering amazing results

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:

• Design-Build 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 costeffective alternative design prior to the bid. Alternate Technical Concept discussions are held in a confidential environment which maximizes competitive bidding. The low bid is awarded the contract.

In fiscal year 2019, one Design-Build project was awarded in the Southwest District. The I-44 Project Bridge Rebuild will repair critical bridge assets on I-44 between Springfield and Joplin while improving safety on the corridor. This approach to bundle 19 bridge improvement projects into one streamlined Design-Build Project allows for efficient delivery that saves MoDOT's resources by allowing the contracting partner to deliver incredible results.

Based on the 2019 Statewide Transportation Improvement Program, MoDOT delivered three out of 434 projects statewide using innovative contracting methods. One was delivered using Design-Build and two were delivered using the A+B process. The Design-Build project accounted for \$31.1 million and the two A+B projects accounted for \$18.3 million of the \$758.6 million programmed budget (6.5%). The target of two projects per year was met, but the percentage of programmed STIP dollars awarded was below the 10% target. MoDOT will continue to look for opportunities to further develop the innovative project delivery program as part of a FOCUS strategic initiative.

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 its value engineering 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, 23% of applicable projects underwent some form of value analysis during design, which is currently just below the 24% 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 and one practical analysis value engineering study 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 FY 2019 there were 23 VECPs approved resulting in a MoDOT savings of \$1.35 million. This represents a 92% 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 FY 2017, state Departments of Transportation saved over \$1.08 billion through value engineering.

#### Purpose:

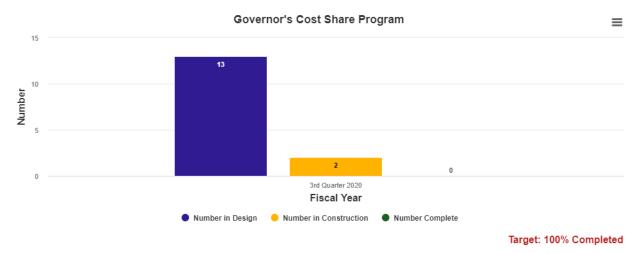
This measure tracks the use of innovative contracting methods on MoDOT projects including: Design-Build Contracts, A+B contracts, Alternate Technical Concept contracts. This measure also tracks the use of value engineering during design and construction on traditional MoDOT projects including value analysis during the design phase and construction value engineering proposals.

#### 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.

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 through MoDOT's Value Engineering Proposal database. The target for this measure is updated annually in July at the end of the fiscal year.

## Governor's Cost Share Program – 3g



#### Write up:

This measure tracks the progress made on the Governor's Transportation Cost Share Program. This program was initiated by Gov. Mike Parson to build partnerships with local communities to pool efforts and resources to deliver road and bridge projects. The overall program will deliver 19 projects across the state.

The Governor's Cost Share Program started in fiscal year 2020. However, this is the first quarter where the status of the program is being tracked. The program will be complete when all 19 projects have been constructed. The number in progress will vary as new projects are started and others are completed.

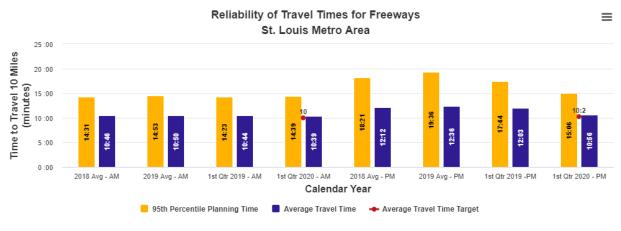
#### Purpose:

The purpose of this measure is to track the progress made on the Governor's Transportation Cost Share Program. Nineteen projects will be completed by the end of fiscal year 2023. The measure will track the quarterly progress of projects based on their stage of project delivery: design, construction and completion.

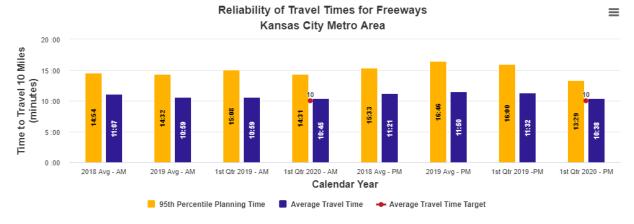
#### Measurement and Data Collection:

The data for this Tracker measure is collected from district staff that are responsible for oversight of the projects. Project delivery milestones are entered into a list that tracks the status of all 19 Governor's Transportation Cost Share projects.

## Travel times and reliability on major routes - 4a



1st Quarter Target: 10 min. a.m. - 10 min. 20 sec. p.m.

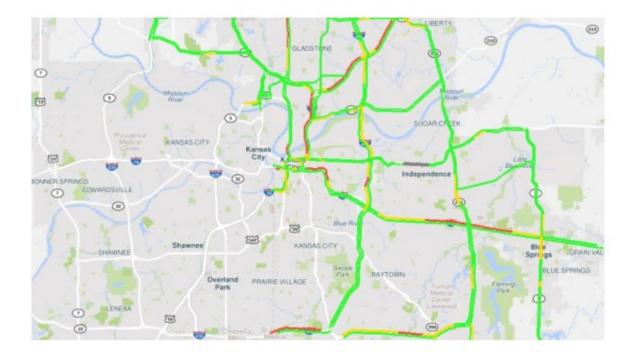


1st Quarter Target: 10 min. a.m. - 10 min. p.m.





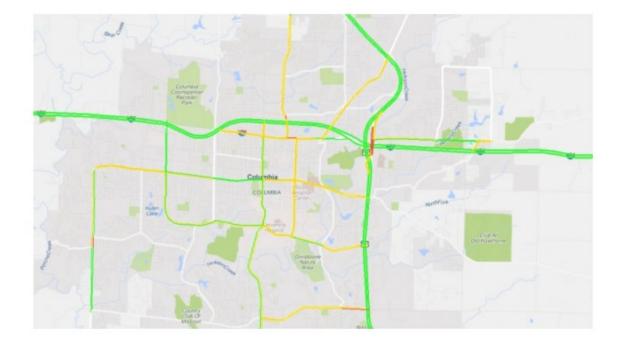
AM Kansas City



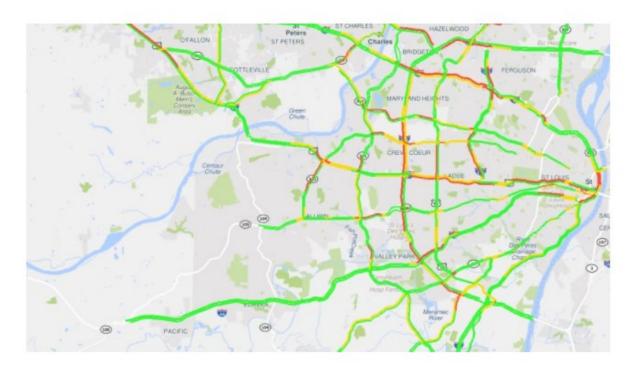
AM Springfield



#### AM Columbia



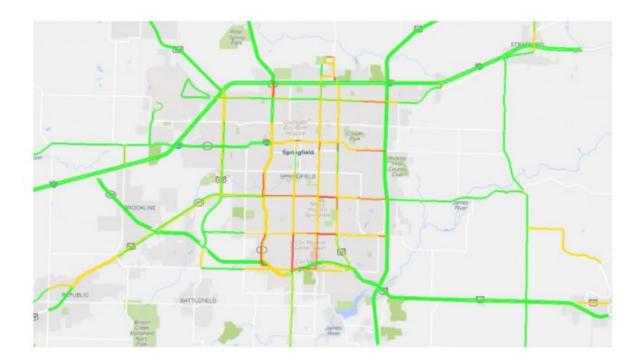




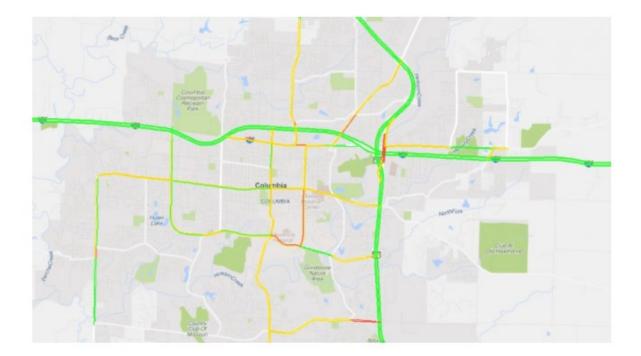
PM Kansas City



PM Springfield



#### PM Columbia



#### Write up:

During the first quarter of 2020, average travel times during morning rush and evening rush in St. Louis decreased compared to the first quarter of 2019. In Kansas City, average travel times also decreased during both the morning and evening rush. Average speeds across both regions ranged from 55 to 56 miles per hour. The morning average travel times in St. Louis and Kansas City are, respectively, 39 seconds and 45 seconds higher than the target. The evening average travel times were higher than the targets by 36 seconds in St. Louis and 38 seconds in Kansas City.

Planning time accounts for unexpected delays and indicates how much time customers need to plan for their trip in order to arrive on time 95% of the time. In St. Louis, customers traveling during morning rush needed to plan 4 minutes, 39 seconds more for a ten-mile trip than they would otherwise need in free-flow conditions. During the evening rush period, customers needed to plan for an additional 5 minutes, 6 seconds for a 10-mile trip. Customers traveling during the Kansas City morning rush needed to plan an additional 4 minutes, 31 seconds more for a 10-mile trip than they would need in free-flow conditions. During the evening rush customers needed to plan for an additional 3 minutes, 29 seconds of travel. The planning times were less than the first quarter of 2019 in all rush periods other than the morning rush in St. Louis. The planning times for both regions represent average rush-hour speeds between 40 and 45 mph.

#### Purpose:

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

#### Measurement and Data Collection:

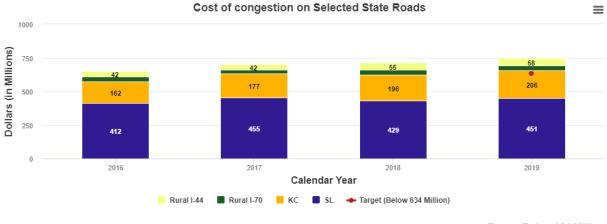
Travel time data is collected continuously via wireless technology. To assess mobility, MoDOT compares travel times during rush hour to free-flow conditions where vehicles can travel at the posted speed limit. This measure also assesses reliability, an indicator of how variable those travel times are 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 timely 95% of the time.

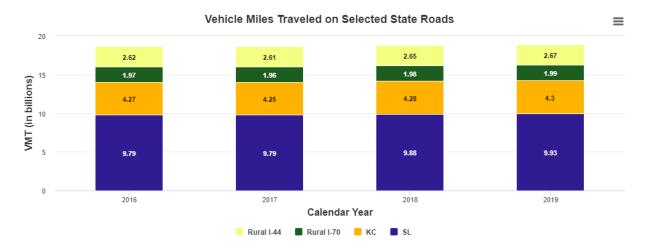
The maps display the mobility of specific sections of roadways during rush hour.

The targets for average travel time are updated quarterly. The targets are established by projecting a 10% improvement over the average of the same quarter over the previous two years. 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.

## Cost & impact of traffic congestion - 4b



Target: Below 634 Million



#### Write up:

Recurring congestion comes 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 and major truck freight corridors that continue to threaten this positive outcome. A comprehensive look at congestion that goes beyond typical solutions of adding capacity is needed. Using smarter technology to help guide motorists is a must. Still, the desired outcome is to lower congestion costs and demonstrate that traffic is moving more efficiently.

This report looks at the 2016 to 2019 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. The 2019 target for statewide congestion cost was \$494 million. The actual calculation from the Regional Integrated Transportation Information System data for 2019 was \$750 million.

Congestion costs in Kansas City rose each year from 2016 to 2019. St. Louis congestion costs peaked in 2017 and dropped in 2018, rebounding in 2019 but remained below the 2017 peak. Vehicle miles travelled statewide have continued to increase over the time period reflecting a 1.3% increase between 2016 and 2019. Statewide congestion costs rose 15% between 2016 and 2019.

Traffic congestion is widely viewed as a growing problem in many urban areas because the overall volume of vehicular traffic in those locations (based on vehicle miles travelled) continues to grow faster than the overall capacity of the transportation system. Increased truck freight volumes continue to impact the rural interstate system as well.

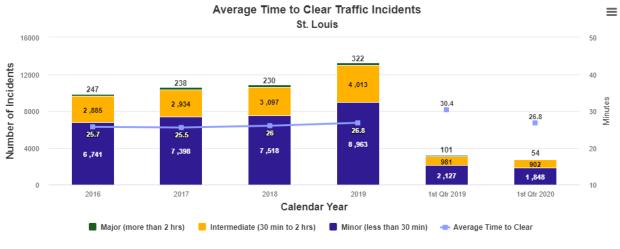
#### Purpose:

This measure tracks the annual cost and impact of traffic congestion to motorists for user delays and vehicle miles traveled on select routes in the St. Louis and Kansas City regions as well as rural sections of Interstates 44 & 70.

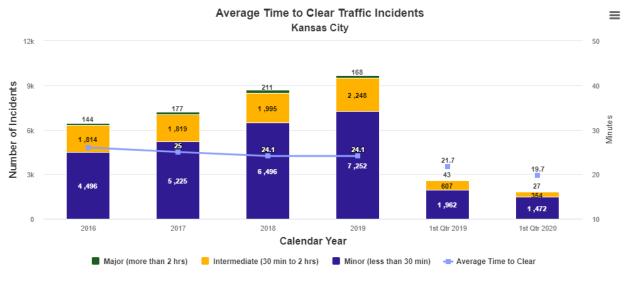
#### Measurement and Data Collection:

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 \$19.14 per hour and is obtained from the US Bureau of Labor Statistics. The unit cost per truck is \$71.78 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% improvement over a four-year average.

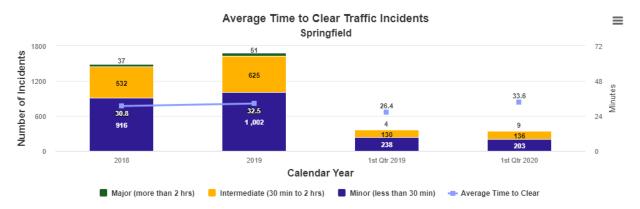
## Average time to clear traffic incident – 4c



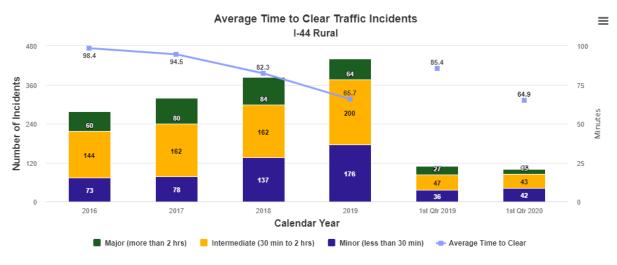
2020 Target: Below 23.9 Minutes to clear



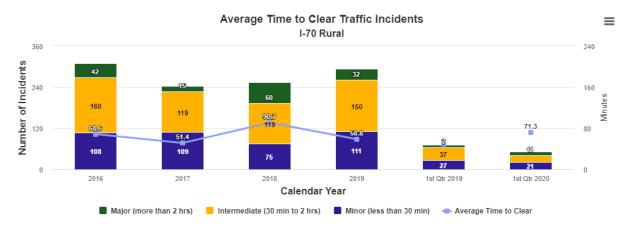
2020 Target: Below 22.1 Minutes to clear



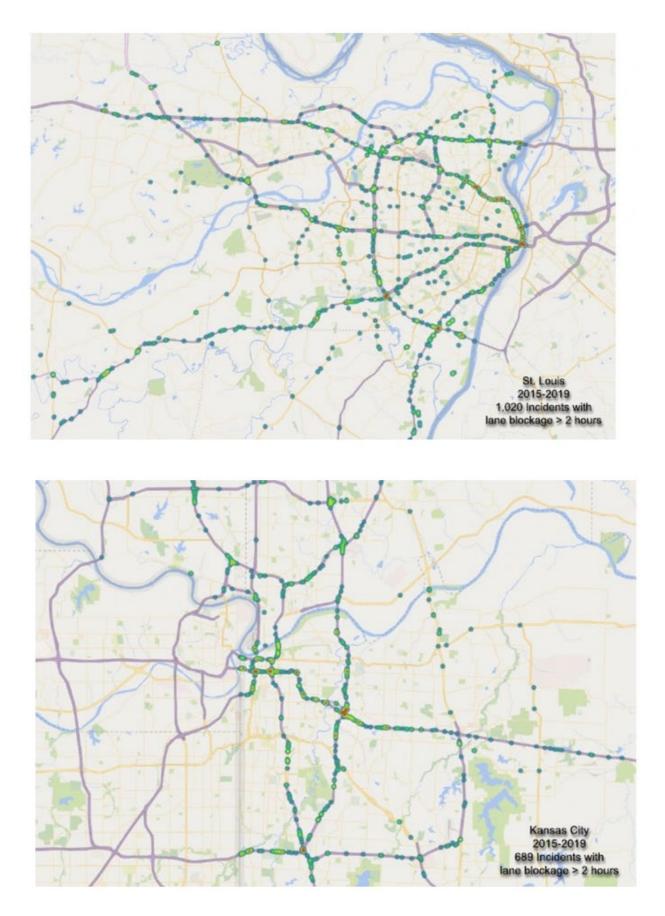




<sup>2020</sup> Target: Below 76.7 Minutes to clear



<sup>2020</sup> Target: Below 60.6 Minutes to clear



#### Write up:

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 to normal conditions. Responding to and quickly addressing the incident (crashes, debris and stalled vehicles) improves system performance.

St. Louis recorded 2,804 incidents in the first quarter of 2020. The average time to clear traffic incidents was 26.8 minutes, a decrease of 11.8% from the first quarter of 2019.

Kansas City recorded 1,853 incidents in the first quarter of 2020. The average time to clear traffic incidents was 19.7 minutes, a decrease of 9.7% from the first quarter of 2019.

Springfield recorded 348 incidents in the first quarter of 2020. The average time to clear traffic incidents was 33.6 minutes, an increase of 27.3% from the first quarter of 2019.

Rural counties of I-70 between MM 28 (Oak Grove) to MM 203 (Foristell) recorded 52 incidents in the first quarter of 2020. The average time to clear traffic incidents was 71.3 minutes, an increase of 46.1% from the first quarter of 2019.

Rural counties of I-44 between MM 0 (Oklahoma) to MM 69 (Springfield) and MM 91 (Strafford) to MM 224 (Sullivan) recorded 100 incidents in the first quarter of 2020. The average time to clear traffic incidents was 64.9 minutes, a decrease of 24% from the first quarter of 2019.

Incidents during the first quarter for Kansas City, St. Louis and Springfield consisted of law enforcement investigations for shootings, weather events, pedestrian fatalities, work zone crashes and a multitude of tractor trailer crashes. This quarter there was a decrease in the total number of traffic incidents across all measured areas, especially in Kansas City, St. Louis and along Rural I-44 that experienced significant reductions in major incidents. Incident clearance times went up in Springfield and Rural I-70 as a result of an increase in major incidents. A contributing factor in the overall reduction in incidents is the decreased traffic volumes attributed to the COVID-19 pandemic that began mid-March. With the reduction of total traffic incidents, there was a comparable reduction in assists performed by our Motorist Assist Operators in Kansas City and St Louis. MoDOT continues to participate in and integrate more Federal Highway Every Day Counts Round 5 (EDC-5) crowdsourcing initiatives into Transportation Management Center operations and Motorist Assist programs.

#### Purpose:

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

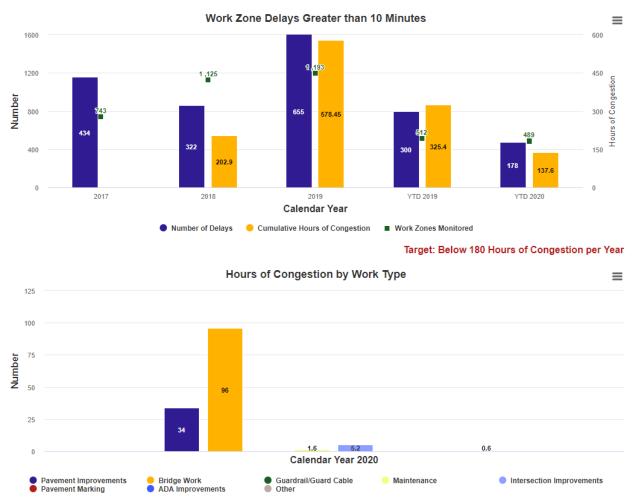
#### Measurement and Data Collection:

Advanced transportation management systems are used by the St. Louis, Kansas City and Springfield 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 incidents. Each class has unique traffic control characteristics and needs.

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

## Unplanned incident impacts on major interstate routes (UNDER CONSTRUCTION) - 4d



## Work zone delays to the traveling public – 4e

#### Write up:

Motorists want to get through work zones with as little inconvenience as possible. MoDOT tries to minimize travel impacts by shifting work to night time 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.

MoDOT has monitored 868 work zones so far this year with 356 work zones being monitored this quarter. For 2019, there have been 546 work zone delays of at least 10 minutes compared to 207 work zones delays for the same period in 2018. The total congestion for 2019 to date is 492 hours. This quarter there were 246 work zone delays that occurred in 36 work zones and accounted for 167 hours of congestion.

This quarter, projects along I-44 between Route 270 and Grand Blvd. in St. Louis County contributed 100 hours of the congestion. Another contributor to delay was emergency repairs to the Jefferson Barracks Bridge (I-255 EB) which contributed 15.6 hours of congestion. These projects alone contributed to a total of 116 hours of the 167 hours (70%) of congestion for this quarter. Bridge improvement projects continue to be the largest contributor of delay at 84% of the total delay.

The target for the cumulative work zone congestion statewide has been set at 180 hours for the year (45 hours per quarter). This target translates to approximately 30 minutes of work zone congestion per day statewide.

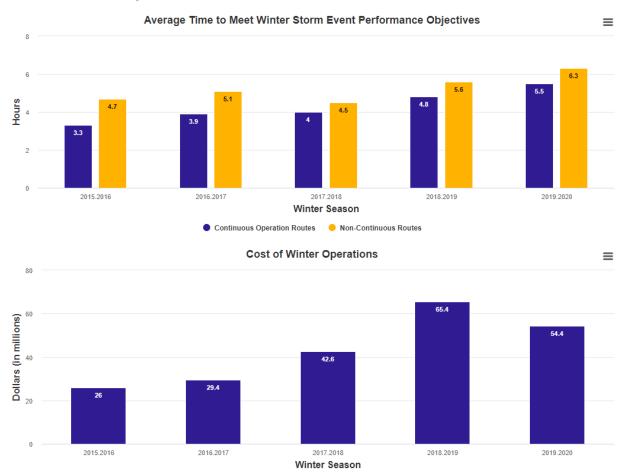
#### Purpose:

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

### Winter storm operations - 4f



#### Write up:

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. These efforts result in reduced traffic delays due to winter events and, more importantly, safer travel during these events. In recent years, MoDOT has been more aggressive in messaging the public urging them to travel only if necessary, during winter events. This messaging is in the form of social media pushes and media releases. In addition, one of MoDOT's Strategic Initiatives is working toward predictive analytics to optimize winter operations resources.

The 2019-2020 winter season had its first significant impact on Veterans Day, Nov. 11, 2019. The winter precipitation and rapidly decreasing temperatures went from the west side of the state in the morning to the east side of the state in the afternoon drastically impacting the St. Louis District's evening rush hour. MoDOT's trucks were treating roads all day. The November 11th event had warm enough ground temperatures to melt the initial snowfall, however most of the salt that was applied early in the day washed off. Although the weather

forecasts said it would end midday, an additional wave of snow came around 2 p.m. With the winds brought a significant drop in temperature, all routes across St. Louis started freezing at the same time which coincided with the start of evening rush hour. In addition, there were a couple of significant incidents on the highways that resulted in MoDOT plow trucks being stuck in traffic, limiting MoDOT's ability to continue treating roads. The cost incurred on the major roads throughout Missouri was measured from a vehicle delay perspective. The major routes statewide during this winter storm were measured using cellphone data. The measurement was motorist delay costs which were over \$3 million. After action meetings and reports identified challenges and opportunities for improvement to assure best possible responses moving forward. This event and another challenging event on Dec. 15, 2019 resulted in an average time to meet MoDOT's objective for continuous operations routes of 5.5 hours and 6.3 hours for non-continuous routes through March 31, 2020. These response times are higher than previous years which is due in large part to the impacts of the Veterans Day storm and another exceptionally challenging winter in the northwest portion of the state. On average, winter operations cost about \$43 million per year. MoDOT expended \$54.4 million so far this season. This is higher than Missouri's average winter over the last five years, due to the various challenges faced this season.

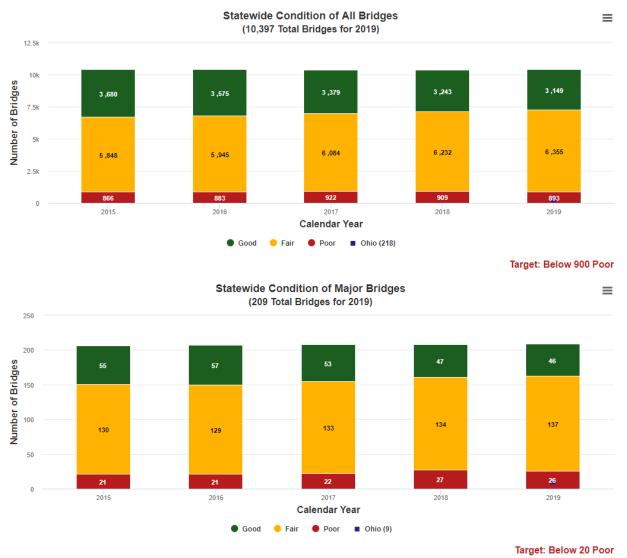
#### Purpose:

This measure tracks the amount of time needed to perform MoDOT's snow and ice removal efforts. It also reviews the impacts of significant events and the measures taken to minimize these impacts.

#### 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. For significant events, the Regional Integrated Transportation Information System is used to determine traveler delays and the associated costs in order to determine the magnitude of the impacts of these significant winter events.

## Condition of state bridges (all and major) - 5a



#### Write up:

The public has indicated the condition of Missouri's existing roadway system should be one of the state's highest priorities. Currently, 909 (27 major) structures are in poor condition, 6,232 (134 major) structures are in fair condition and 3,243 (47 major) structures are in good condition.

Although the number of structures in poor condition has been generally increasing over the last five years, there was a drop in the number from 2017 to 2018. The number of structures in good condition peaked in 2012 and has been steadily declining since, while the number of structures in fair condition has significantly increased. Even with the significant Statewide Transportation Improvement Program investments on bridges in recent years, the number of poor condition structures 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 poor condition significantly increased from 2017 to 2018 with a net increase of five structures. Even with the significant investment in the STIP, the number of structures in good condition has been dropping over a three-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 10,427 (158 major) state highway bridges is only 43 more than Missouri, as well as having similar demographics, geography and weather conditions.

MoDOT's asset management goal for bridges is to keep the statewide total number of poor bridges at 900 or less and the number of poor major bridges at 20 or less.

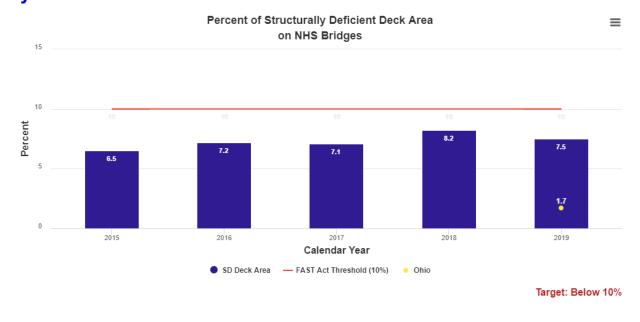
#### Purpose:

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 10,384 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.



## Percent of structurally deficient deck area on National Highway System – 5b

#### Write up:

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 Fixing Americas Surface Transportation Act established a 10% penalty threshold for states that, when exceeded, requires a state to focus money on bridges until they are back under 10%. The local system has 83 National Highway System structures (three structurally deficient) and the MoDOT system has 3,569 NHS structures (163 structurally deficient). Missouri currently falls below the penalty threshold with the statewide structurally deficient deck area at 8.2%. This is attributable to the continued effort to focus on major bridges when funding is available as well as increasing focus on 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%. From 2017 to 2018, there was an increase in the statewide percentage of structurally deficient deck area on the NHS due to the addition of five major bridges representing 1.4% of the total NHS deck area. 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 10,427 total state highway bridges in Ohio with 4,855 structures on the NHS.

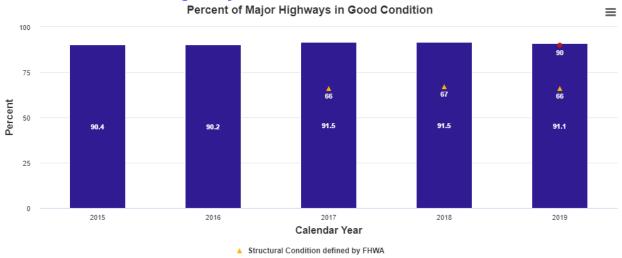
#### Purpose:

This measure tracks the percent of structurally deficient deck area for bridges on the NHS.

#### Measurement and Data Collection:

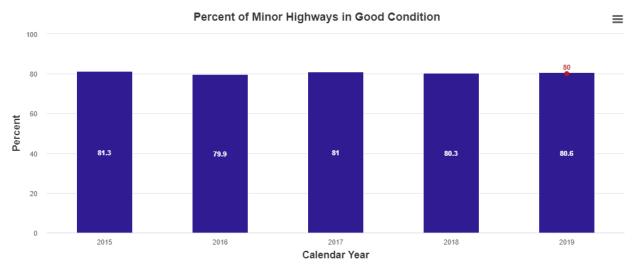
The NHS is defined by federal law and consists of all roadways functionally classified as principal arterials as well as some routes that serve as major connections to multimodal freight-type facilities

and some locally owned roadways. FAST Act requires states to track the structurally deficient deck area on the NHS. Historically, the term structurally deficient defined a group 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.

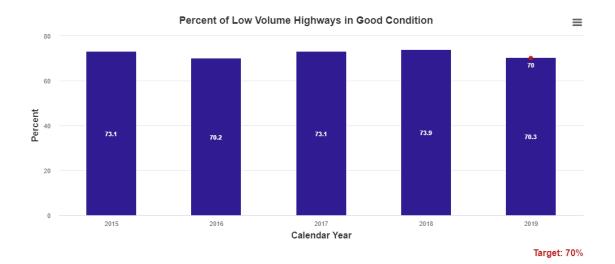


#### Condition of state highways – 5c

Target: 90%



Target: 80%



#### Write up:

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 roads at 92%, minor roads at 80% and low volume roads at 74%. Major, minor and low volume highways have met the statewide target in the past five years. As defined by FHWA, 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 67%.

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

#### Purpose:

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.

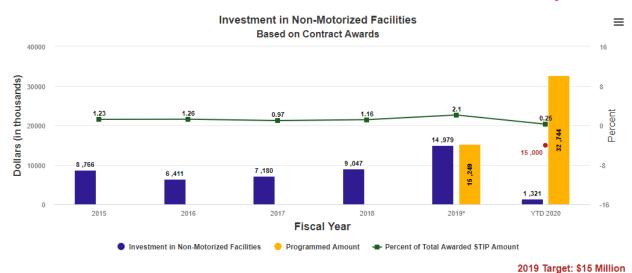
The targets for this measure are set by internal policy and will not change unless policy changes, regardless of performance.

#### Progress Toward Completion of Transition Plan $\equiv$ **Right of Way** 2000 100 1500 75 1 ,535 1.395 Number 55 Percent 1 ,275 1000 1.065 27 500 25 57 25 22 15 18 2015 2017 2019 2016 2018 Calendar Year

## Bike/pedestrian and ADA transition plan improvements - 5d

Improvements Completed Per Caledar Year 🛛 🕂 Cumulative Percent Completed

2019 Target: Above 55%



\*Starting with FY19, ADA program data will be included in the measure

#### Write up:

MoDOT has identified 44,611 barriers within its right of way needing repaired or constructed to meet the requirements of the American with Disabilities Act. A transition plan was established to correct these barriers by August 2027. To meet the August 2027 transition plan deadline, a target of 55% was established for calendar year 2019. To date, MoDOT has completed 12,112 or 27% of the identified barriers.

In order to complete the transition plan at a steady pace, an annual investment target is approximately \$15 million. Since 2009, the Missouri Highways and Transportation Commission has retained half of the Transportation Alternatives Program funding it receives each year. Approximately \$9 million is reserved for the completion of the transition plan.

Since 2008, MoDOT has invested nearly \$68.5 million towards the completion of the transition plan. The districts have projected to invest over \$133 million towards the remainder of the ADA facility improvements over the next five years in the Statewide Transportation Improvement Program. That amount is expected to cover transition plan improvements and other ADA needs across the state.

#### Purpose:

This measure tracks MoDOT's investment in non-motorized 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 ADA.

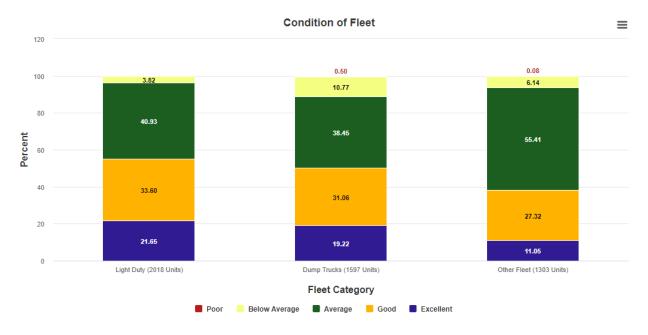
#### Measurement and Data Collection:

MoDOT's investment in non-motorized facilities is determined from the awarded contract amounts for the 20 most common construction elements used on projects each year.

ADA Transition Plan progress is based upon completed work to correct deficient barriers identified in the ADA Transition Plan inventory.

A progress target line is included indicating MoDOT's progress towards completing the transition plan by 2027. Annual funding levels necessary to complete the transition plan by 2027 determine the target, which is set in April of each year.

## ADA compliance of facilities (UNDER CONSTRUCTION) – 5e



## Condition of fleet – 5f

#### Write up:

MoDOT's fleet equipment, with a replacement value of \$467 million, is necessary to maintain roads and bridges to meet customers' needs. As the department's fleet ages due to limited funds for fleet investment, monitoring the condition helps assess resources and guide the department in making good purchasing decisions. Per recommendation of the statewide Comprehensive Fleet and Equipment Team, MoDOT began compiling this information in 2018 and statewide data was first available in 2019. The majority of fleet is rated at or above average. However, 11.27% of MoDOT dump trucks are rated below average or poor which equates to 180 trucks.

#### Purpose:

This measure tracks the condition of MoDOT's diverse fleet. This includes all classes of fleet broken down by Light Duty, Dump Trucks and Other Fleet. Light Duty fleet contains cars, pickups, utility trucks, vans and 1-ton trucks. Other Fleet contains heavy equipment such as tractors, loaders, distributors and aerial trucks.

#### Measurement and Data Collection:

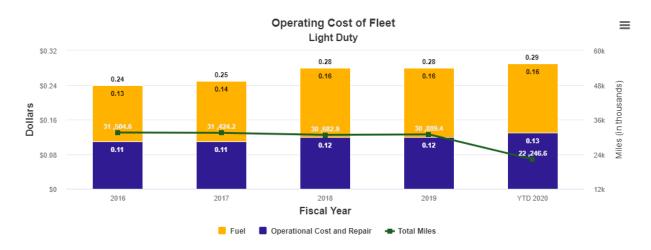
Data is obtained from MoDOT's fleet management system, FASTER and is updated by fleet personnel involved in the inspection process. Central Office Equipment Technician Support Specialists perform onsite quality assurance reviews on fleet ratings throughout the year. The general guidelines for establishing overall condition are based on the criteria of safety, functionality, repairability and appearance.

In summary, the ratings are: Excellent – unit is fully operable and capable of full performance functionality; Good – unit is operable and safe with signs of normal use; Average – unit is generally operable but may have minor component failure or damage needing repair; Below average – unit has major component failure or damage preventing performing all functions and Poor – unit is not safe or inoperable with component failure or damage beyond repair.

Data is as of December 31st, 2019; however, moving forward this information will be as of October 31st to coincide as the basis for the fleet data used in the fleet asset management model.



## **Operating cost of fleet – 5g**







#### Write up:

MoDOT's fleet equipment, with a replacement value of \$467 million, is necessary to maintain roads and bridges in order to meet customers' needs. The total miles/hours increased from \$47.8 million in fiscal year 2016 to \$50.4 million in FY 2019. The Missouri Highways and Transportation Commission approved appropriation allocation base of \$22.8 million continues to remain the same. As the department's fleet ages due to limited funds for fleet investment, monitoring the operational costs ensures the department is making good repair decisions.

Through the first two quarters in FY 2020, Dump Trucks and Light Duty costs are comparable to FY 2019 with Other Fleet slightly lower. Stripers are trending slightly higher in operational costs than previous years with repairs made over the winter off season. From FY 2016 to 2019, operational costs, not factoring fuel cost, have increased: Dump Trucks increased 12%, Light Duty and Other Equipment increased 9% and Stripers increased 7% per mile. During this

period, the consumer price index inflation factor increased by 7% according to the Bureau of Labor Statistics.

MoDOT focused on fleet replacements in 2019 using an asset management approach based on equipment age and miles/hours.

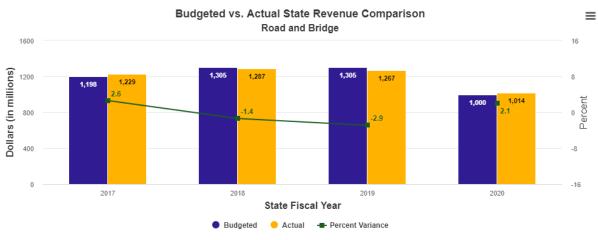
#### Purpose:

Data reflects the operating cost of MoDOT units in fuel, repairs, labor, benefits and miscellaneous costs. The cost data is collected in the statewide financial system. Fleet data is collected from MoDOT's fleet management system, FASTER.

#### Measurement and Data Collection:

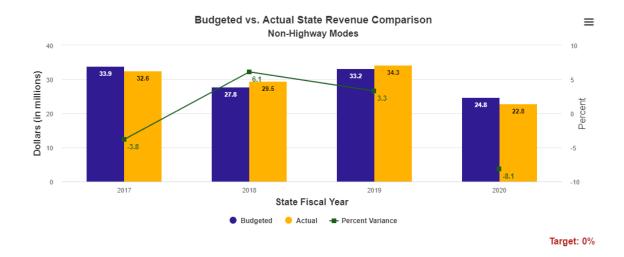
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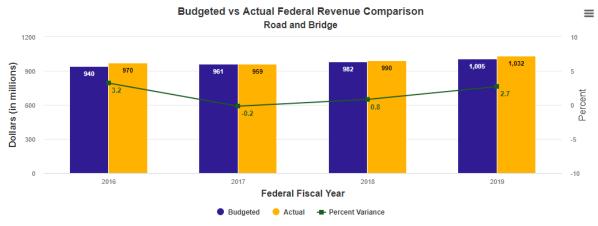
## Condition of facilities (UNDER CONSTRUCTION) – 5h



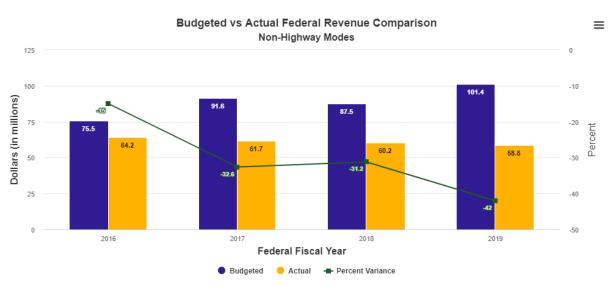
## State and federal revenue budgets - 6a

Target: 0%









Target: 0%

#### Write up:

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

The actual state revenue for roads and bridges from motor fuel taxes, motor vehicle sales taxes, motor vehicle driver's licensing fees and miscellaneous fees was 1.4% more than budgeted through the third quarter of fiscal year 2020. Most of the variance is related to higher-than-projected revenue from cost reimbursements and incidentals. The negative variance of -8.1% for non-highway modes is attributed to lower than projected revenue from jet fuel sales tax.

The actual federal revenue for roads and bridges was 2.7% more than budgeted for federal FY 2019. The negative variance of 42% 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 cost for materials and labor have doubled or even tripled in the same time frame.

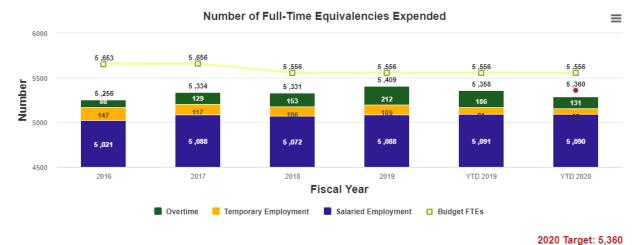
#### Purpose:

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, 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 in accordance with 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.



## Number of full-time equivalencies expended – 6b

#### Write up:

Having the right number of employees to provide outstanding customer service and respond 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 third quarter of fiscal year 2020, the total number of full-time equivalencies expended decreased by 72, compared to FY 2019. Salaried FTEs stayed consistent over that time, with moderate decreases in temporary and overtime FTEs.

A target of 5,360 FTEs has been set for FY 2020 to reflect the average number of hours required to provide outstanding customer service, perform our work safely and to fully respond to the state's transportation needs.

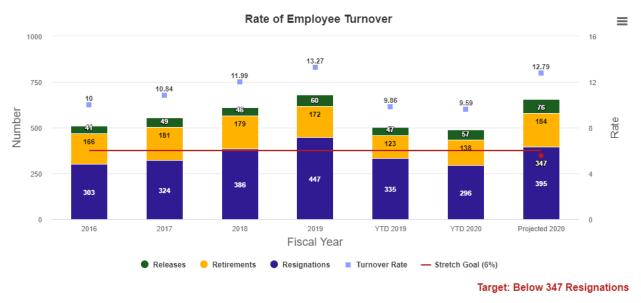
#### Purpose:

This measure tracks the change in the number of full-time equivalencies (a calculation of 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.



## Rate of employee turnover - 6c

#### Write up:

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 an engaged workforce that has the knowledge and specialized skills to deliver the department's commitments and provide outstanding customer service.

The overall turnover rate has decreased from 9.86% in the first three quarters of fiscal year 2019 to 9.59% in the first three quarters of FY 2020. During the first three quarters of FY 2020, resignations decreased, and retirements increased. Releases increased from 47 during the first three quarters of FY 2019 to 57 during FY 2020. The FY 2020 target is to have 347 or fewer resignations. As part of MoDOT's strategic initiatives and pay strategy, MoDOT will continue to look for opportunities to reduce the rate of employee turnover.

During the 2019-2020 winter operations season, MoDOT continues to utilize two programs to improve recruitment and retention of winter operators. The Emergency Operations Stabilization and Market Adjustment provides an hourly increase for operators performing emergency operations duties. The Winter Operations Referral Program provides current eligible employees an incentive for referring new maintenance, bridge maintenance, emergency and seasonal employees.

#### Purpose:

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

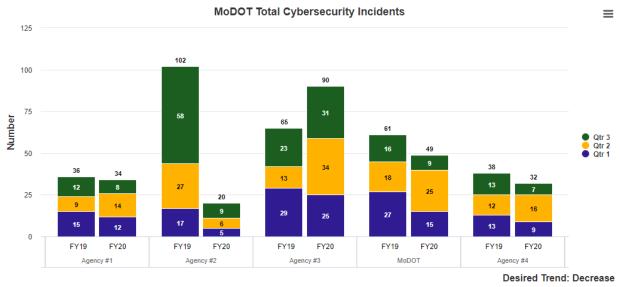
#### Measurement and Data Collection:

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.

## Level of job satisfaction (UNDER CONSTRUCTION) – 6d



## Reduce number of cybersecurity incidents – 6e

#### Write up:

MoDOT uses thousands of computer devices to get work completed from multiple locations around the state. Keeping those computers safe from outside computer threats is a 24-hour job using the latest security measures.

During this past reporting period, MoDOT reported nine cybersecurity incidents, which is a decrease of 16 incidents from the previous quarter. There was a total of 49 incidents for FY 2020 compared to 61 incidents for the same reporting timeframe in FY 2019. All nine incidents are related to users accessing or attempting to access sites with malicious content, with two of the nine incidents related to mobile devices.

New technology products, as well as the addition of some policy changes, are aiding in helping to reduce the number of cybersecurity incidents. The new technology consists of a more robust tool to target and trap malicious email phishing campaigns. Along with this new tool, new policy changes to increase the length and strength of user passwords have also been implemented.

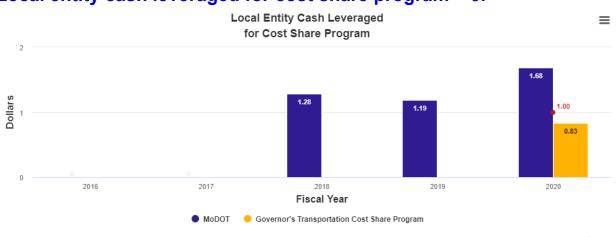
MoDOT continues to emphasize cybersecurity and provides cybersecurity training for all department computer users. The department's cybersecurity oversite team works to define areas of vulnerability and deploy solutions to address those risks. In addition, MoDOT utilizes the Office of Administration's network firewall service, as well as endpoint cybersecurity detection and remediation services to provide increased cyber protection.

#### **Purpose:**

This measure reports the number of MoDOT cybersecurity incidents compared to 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 OA Office of Cybersecurity. The target for this measure is zero.



## Local entity cash leveraged for cost share program – 6f

#### Write up:

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% of the project cost. MoDOT works in cooperation with the Missouri Department of Economic Development and local entities to determine when targeted investments can be made to generate economic development and may provide up to 100% 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 MHTC reactivated the Cost Share Program for fiscal year 2018.

<sup>2020</sup> Target: \$1.00

During the third quarter of FY 2020, no new Cost Share Program projects were approved. For every \$1 of Cost Share Program funds awarded in FY 2020, \$1.68 of funds were leveraged, which is above the target. This includes the leveraging of an \$81.2 million federal Infrastructure for Rebuilding America grant for the Rocheport Bridge/Mineola Hill project.

In addition, the Missouri General Assembly appropriated \$50 million to MoDOT and the Missouri Department of Economic Development to create the Governor's Transportation Cost Share Program to build partnerships with local entities to deliver public road and bridge projects in FY 2020. Initially, the Governor's Transportation Cost Share Program funds of \$50 million were approved for 20 projects. In the third quarter of FY 2020, an entity declined their award; therefore, returning \$2 million to the Governor's Transportation Cost Share Program funds of \$48 million have been awarded for 19 projects. For every \$1 of the Governor's Transportation Cost Share Program funds of \$48 million have been awarded for 19 projects. For every \$1 of the Governor's Transportation Cost Share Program funds, local entities provided \$0.83 of cash.

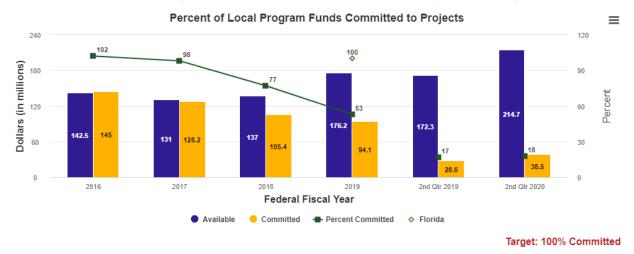
#### **Purpose:**

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.

The target for this measure was set by management directive.



## Percent of local program funds committed to projects - 6g

#### Write up:

Local agencies receive federal funds to invest in improving the local infrastructure and share in the cost of those projects by providing a 20% local match. To keep federal funds coming to Missouri, all federal funds received each year must be committed to projects. If the available

funds are not fully committed, then the funds are at risk of being rescinded, which jeopardizes the ability to receive more federal funds to deliver more projects.

For federal fiscal year 2020, local agencies received \$126 million for local transportation projects bringing their total balance available to invest to \$214.7 million. In second quarter FFY 2020, 18% (\$38.5 million) of the available funds has been committed to local projects. This is a 1% increase in commitments compared to second quarter FFY 2019.

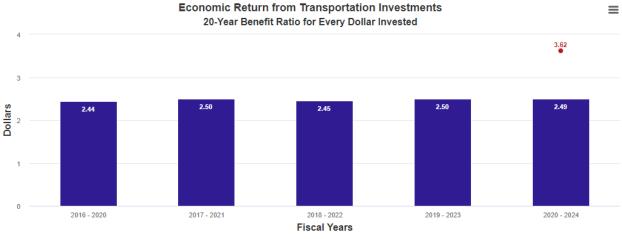
#### Purpose:

MoDOT is required to share federal funds with local agencies for transportation projects. This measure tracks the percent of available local program funds committed to projects.

#### Measurement and Data Collection:

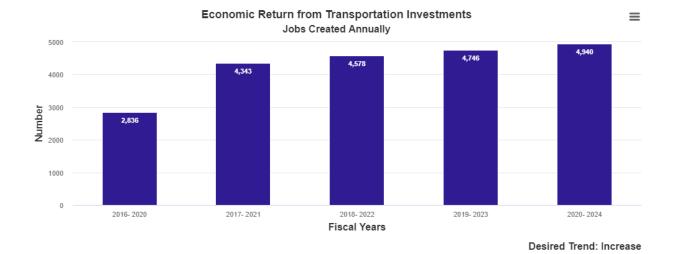
The data is obtained from the Federal Highway Administration's Fiscal Management Information System and based on the federal fiscal year from Oct. 1 through Sept. 30. The committed amounts represent federal funds obligated for projects. The available amounts represent the federal program funds distributed to local sponsors plus any previous year balance. The desire is to invest all federal funds available to local public projects each year.

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



## Economic return from transportation investment – 7a

<sup>2020</sup> Target: Above \$3.62



#### Write up:

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 2020-2024 Statewide Transportation Improvement Program investment of \$6.2 billion, the program is estimated to create 4,940 jobs – a 4% increase when compared to MoDOT's 2019-2023 STIP. The average number of jobs created increased in line with the increase in expenditures.

Transportation investments are expected to contribute \$15 billion of economic output during the next 20 years, resulting in a \$2.49 return on every \$1 invested in transportation, which is fairly consistent with the last four years of STIP analyses. The slight decrease in economic return is due to the larger percentage of highway and bridge preservation expenditures compared to the previous year. Current funding levels are only sufficient to maintain the current transportation system in its current condition rather than new major projects that offer a larger economic return. Missourians have consistently said they want us to take care of the existing system first, a \$55 billion value that carries a \$125 billion replacement cost.

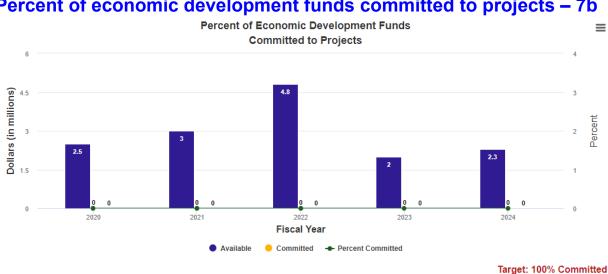
#### Purpose:

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

#### Measurement and Data Collection:

MoDOT works with the HDR, Inc. to perform economic impact analyses for the state's transportation investments. The analyses are performed using a model called the Impact Analysis for Planning. The IMPLAN 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.



Percent of economic development funds committed to projects – 7b

#### Write up:

The Cost Share Program builds partnerships with local entities to pool efforts and resources to deliver state highway and bridge projects. Ten percent of the funds are set aside for projects that demonstrate economic development through job creation. MoDOT works in cooperation with the Department of Economic Development and local entities to determine when targeted investments can be made on projects that produce the most economic impact for Missouri. Projects selected for the 10% set aside may be funded up to 100% of the project cost. Tracking this data ensures economic development funds are being utilized.

For fiscal years 2020-2024, \$14,557,653 is available for eligible projects. Fiscal year 2022 includes savings from prior years (\$1.3 million). For FY 2023 and FY 2024 only 50% of funding allocation is available. For the third guarter of state FY 2020, no economic developments funds have been committed to projects. MoDOT will continue to work with DED to identify projects that demonstrate economic development.

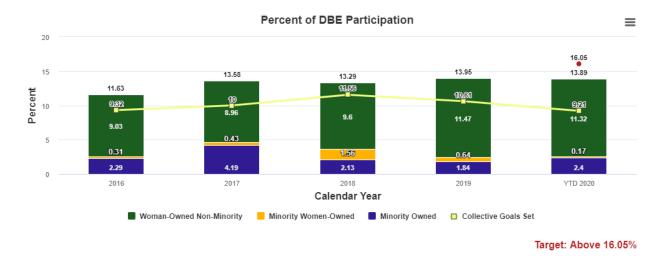
#### Purpose:

This measure tracks the percent of economic development funds committed to projects.

#### Measurement and Data Collection:

Data for this measure is collected from a partnership database.

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



#### Write up:

MoDOT believes it is good business to support diversity among its contractors, subcontractors and suppliers. 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 and participate in project contracts and subcontracts.

The overall Disadvantaged Business Enterprise target for federal fiscal year 2020 is 16.05%. The year-to-date DBE participation for FFY 2020 is 13.89%. This is a 0.06% decrease from FFY 2019. Of the 13.89% utilization, 2.4% was participation from minority-owned DBE firms, 0.17% was participation from minority women-owned DBE firms and 11.32% was participation from women-owned DBE firms. The collective goals set for projects closed during this period amounted to 9.21%. The DBE goals set for projects awarded during this period had committed DBE participation of 10.39%. 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.

#### Purpose:

This measure tracks the percent of DBE used on construction and engineering projects.

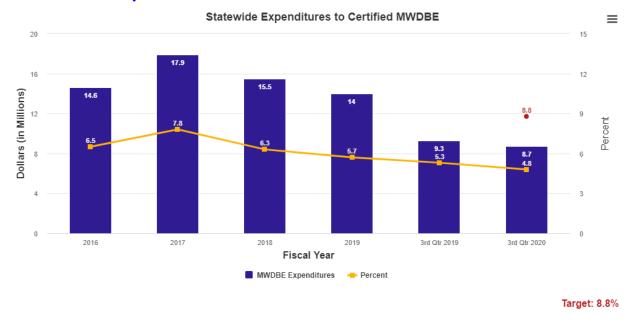
#### Measurement and Data Collection:

Data is collected through AASHTOWare Projects for each construction and consultant 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 and consultant 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 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 all data in this system began in April of 2014.

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

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



#### Write up:

Ensuring MoDOT spending is reflected in all Missouri communities helps to advance economic development for all business enterprises. Historical data helps identify opportunities for improvement. Improvement efforts include training staff who have procurement authority as well as reaching out to minority, women and disadvantaged business enterprises to encourage them to become certified as well as focus on inclusion efforts.

Results from third quarter fiscal year 2020 show a decrease of \$600,000 in MWDBE disbursements compared to the third quarter of FY 2019. Compared to the third quarter of FY 2019, the FY 2020 percentage of MWDBE expenditures decreased by 0.5% 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.

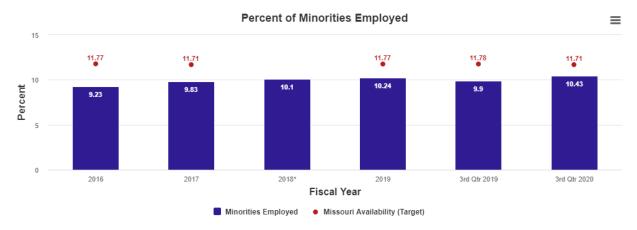
#### Purpose:

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

#### Measurement and Data Collection:

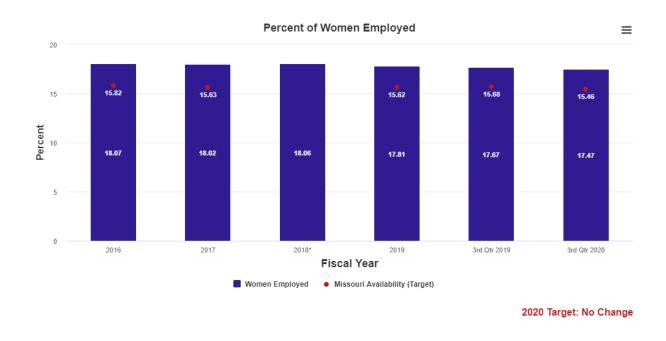
Data is obtained from the statewide financial accounting system expenditure reports and United Missouri Bank purchasing card reports. Certified vendors are maintained in a statewide procurement vendor database. Vendors may be certified through the Office of Administration as well as the Missouri Regional 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.



## Percent of minorities and women employed – 7e

2020 Target: Increase



#### \*Data for Missouri Availability is not available for fiscal year 2018

#### Write up:

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 increased 3.8% from third quarter fiscal year 2019 to third quarter FY 2020 (513 to 534).

The number of women employees decreased about 1.5% from third quarter FY 2019 to third quarter FY 2020 (908 to 895).

Total full-time employment between third quarter FY 2019 and third quarter FY 2020 decreased from 5,140 to 5,122 employees.

New retention efforts have been put into place including new employee resource groups and diversity trainings. These good-faith efforts aid in increasing an applicant pool of qualified minorities and women, which may ultimately help narrow the gap between actual employment and target employment of minorities and women.

The target for this measure is the Missouri availability, determined by the 2010 census, for both demographics tracked. MoDOT has surpassed the target for women employment and is making incremental progress toward meeting the target for minority employment.

#### Purpose:

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 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.