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Greetings from MoDOT

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

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

How do I know we’re succeeding? Check out our report card on the next page. We’ve adapted the same grading system that most of us experienced when we were in school to find out where we stand against 49 other states in ten performance areas. For the most part, we did great and as I’ve said before, I think other states could use our results as a benchmark. In three areas we need improvement. We have to ask ourselves if we have the right strategies in place to improve our grades.

Our new governor has shown that he stands with us in challenging times. In speaking to a group of community leaders in Springfield this past June, Gov. Mike Parson said, "If we don't fix our roads, if we don't fix our bridges, and our airports, and our ports and our rail, we will not be able to grow and meet other demands. That is crucial for the state of Missouri." Support like that will be critical as we face a November vote on a proposed 10-cent gasoline tax increase that could provide Missouri with needed funds that would help us improve our lowest grades.

The performance measures documented on the following pages have been built around seven tangible results. These results are outcomes that you expect to see, and they guide us in making decisions every day. A companion feature to this edition focuses on our Strategic Initiative, which looks beyond our operation performance to see how we compare on a strategic level with other DOTs. We’re working on getting straight As.

Our new mission statement is printed on the lower left of this page. We feel it better fits our desire to provide exceptional service to all the citizens of the Show-Me State. Our progress toward that goal is a result of the dedicated service of the entire MoDOT team, repeatedly recognized as truly one of the best DOTs in the nation! We continue to be a great organization by focusing all of our efforts on our core values of safety, service and stability.

With warm regards,

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

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

**On-Time Projects**
**Current Performance** = 93 percent delivered on time
**National Ranking** = Not available.

**On-Budget Projects**
**Current Performance** = Missouri road and bridge projects were delivered within 0.8 percent of the award amount.
**National Ranking** = Not available.

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

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

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

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

**Bridge Conditions**
**Current Performance** = 8 percent of bridge decks in poor condition (24,487 total bridges)
**National Ranking** = Missouri ranked 38th for the most bridge deck area in poor condition. (FHWA Highway Statistics)

**Revenue**
**Current Performance** = $50,766 revenue per mile
**National Ranking** = Missouri has the 46th lowest revenue per mile. (FHWA Highway Statistics)
Keep Customers and Ourselves Safe

Provide Outstanding Customer Service

Deliver Transportation Solutions of Great Value

Use Resources Wisely

Keep Roads and Bridges in Good Condition

Operate a Reliable and Convenient Transportation System

Advance Economic Development

SAFETY
Be Safe

Be Accountable

SERVICE
Be Respectful
Be Inclusive

Be Bold
Be Better

STABILITY
Be One Team
So we can be a great organization

TANGIBLE RESULTS

STABILITY

Modot Values

SAFETY
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<thead>
<tr>
<th>Keep Customers and Ourselves Safe – Mark Shelton</th>
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<tr>
<td>Number and rate of fatalities and serious injuries</td>
<td>Quarterly</td>
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<tr>
<td>Number of vulnerable roadway user fatalities and serious injuries</td>
<td>July</td>
</tr>
<tr>
<td>Number of fatalities and serious injuries resulting from the most frequent crash causes</td>
<td>July</td>
</tr>
<tr>
<td>Number of fatalities and serious injuries in work zones</td>
<td>Quarterly</td>
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<tr>
<td>Percent of seat belt/passenger vehicle restraint use</td>
<td>October</td>
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<tr>
<td>Number and rate of fatality and serious injury involving commercial motor vehicles</td>
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<td>Total and rate of MoDOT recordable incidents</td>
<td>Quarterly</td>
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<td>General liability claims and costs</td>
<td>Quarterly</td>
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<thead>
<tr>
<th>Keep Roads and Bridges in Good Condition – Dennis Heckman</th>
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</thead>
<tbody>
<tr>
<td>Percent of major highways in good condition</td>
<td>July</td>
</tr>
<tr>
<td>Percent of minor highways in good condition</td>
<td>July</td>
</tr>
<tr>
<td>Condition of state bridges</td>
<td>July</td>
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<tr>
<td>Percent of structurally deficient deck area on National Highway System</td>
<td>July</td>
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<tr>
<th>Provide Outstanding Customer Service – Tom Blair</th>
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<tr>
<td>Percent of overall customer satisfaction</td>
<td>October</td>
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<tr>
<td>Percent of customers who view MoDOT as Missouri's transportation expert</td>
<td>October</td>
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<tr>
<td>Percent of customers who trust MoDOT to keep its commitments to the public</td>
<td>October</td>
</tr>
<tr>
<td>Percent of customers who feel MoDOT provides timely, accurate and understandable information</td>
<td>October</td>
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<tr>
<td>Percent of customers satisfied with MoDOT's customer service</td>
<td>Quarterly</td>
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<tr>
<td>Customer communication engagement</td>
<td>Quarterly</td>
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<tr>
<th>Deliver Transportation Solutions of Great Value – Eric Schroeter</th>
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<tr>
<td>Percent of programmed project cost as compared to final project cost</td>
<td>Quarterly</td>
</tr>
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<td>Percent of projects completed on time</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Percent of change for finalized contracts</td>
<td>Quarterly</td>
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<tr>
<td>Innovative contracting methods</td>
<td>July</td>
</tr>
<tr>
<td>Value engineering</td>
<td>January/July</td>
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<tr>
<td>Percent of customers who believe completed projects are the right transportation solutions</td>
<td>January</td>
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<thead>
<tr>
<th>Operate a Reliable and Convenient Transportation System – Becky Allmeroth</th>
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<td>Travel times and reliability on major routes</td>
<td>Quarterly</td>
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<tr>
<td>Cost and impact of traffic congestion</td>
<td>April</td>
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<td>Average time to clear traffic incident</td>
<td>Quarterly</td>
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<td>Traffic incident impacts on major interstate routes</td>
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<td>Work zone impacts to the traveling public</td>
<td>Quarterly</td>
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<td>Time to meet winter storm event performance objectives</td>
<td>January/April</td>
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<td>Bike/pedestrian and ADA transition plan improvements</td>
<td>Quarterly</td>
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<th>Use Resources Wisely – Brenda Morris</th>
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<td>Number of full-time equivalencies expended</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Rate of employee turnover</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Level of job satisfaction</td>
<td>October</td>
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<td>State and federal revenue budgets</td>
<td>Quarterly</td>
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<td>Number of dollars generated through cost-sharing and partnering agreements for transportation</td>
<td>October</td>
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<tr>
<td>Percent of state funds invested in non-highway modes of transportation</td>
<td>October</td>
</tr>
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<td>Percent of local program funds committed to projects</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Fleet usage and fuel efficiency</td>
<td>January/July</td>
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<td>Number of tons of recycled material</td>
<td>April</td>
</tr>
<tr>
<td>Number of environmental warnings and violations</td>
<td>Quarterly</td>
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<td>Number of stormwater violations</td>
<td>Quarterly</td>
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<td>Number of advanced computer security threats</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Economic return from transportation investment</td>
<td>October</td>
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<td>---------------------------------------------</td>
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<tr>
<td>Goods movement competitiveness</td>
<td>January</td>
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<tr>
<td>Freight tonnage by mode</td>
<td>April/October</td>
</tr>
<tr>
<td>Annual hours of truck delay</td>
<td>October</td>
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<td>Truck reliability index</td>
<td>October</td>
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<td>Jobs created by projects funded through the cost share program</td>
<td>April</td>
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<td>Percent of minorities and women employed</td>
<td>Quarterly</td>
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<tr>
<td>Percent of disadvantaged business enterprise participation on construction and engineering projects</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Expenditures made to certified minority, women and disadvantaged business enterprises</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Number of restrictive regulations eliminated</td>
<td>Quarterly</td>
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Measures of Departmental Performance

Tracker

Keep Customers and Ourselves Safe

Mark Shelton, District Engineer

Tracker
Measures of Departmental Performance
Safety is a daily commitment for all MoDOT employees. From design and construction to operations and maintenance of the state transportation system, the safety of our customers, partners, and employees is our top priority. We work with our safety partners to promote safe behavior for all users and modes of transportation so everyone goes home safe every day.
MoDOT wants everyone to reach their destination safely, so all can go home to their families each day. Missouri’s Blueprint – A Partnership Toward Zero Deaths is Missouri’s strategic highway safety plan designed to reduce the number and severity of traffic crashes using the four key disciplines of traffic safety: engineering, enforcement, education and emergency response.

MoDOT is improving safety culture through Statewide Strategic Initiatives such as Buckle Up Phone Down. This is an opportunity for citizens and businesses to commit to driving without distractions by putting the phone down and having all passengers use safety belts.

Additionally, MoDOT is using innovation to improve system-wide safety with a prioritized project list based on techniques offered in the Highway Safety Manual, analyzed with benefit cost ratios and implemented via a Design-Build program. The project provides impactful safety techniques such as: upgrading guardrails, applying high friction surface treatment, installing centerline and edge line rumble stripes, as well as adding roundabouts, intersection conflict warning systems and flashing beacons.

MoDOT is partnering with other agencies and the private sector through predictive analytics to optimize development of enforcement and winter operations resources.

In order to reach our Blueprint goal of 700 or fewer by 2020, new reduction targets have been established for 2018: reduce fatalities by 9 percent and serious injuries by 5 percent. Compared to 2017, fatalities are down 2 percent. Serious injuries have decreased by 10 percent. These targets may seem aggressive but are needed to work toward the ultimate goal of zero fatalities.

The targets are based on a 9 percent improvement rate from the immediate prior year fatalities and a 5 percent improvement in serious injuries from the immediate prior year.
Due to a backlog of crash reports into STARS, the serious injury measure only includes data derived from TMS. Second quarter 2018 data is not available on the MSHP radio reports and is incomplete in TMS.
In 2017, vulnerable roadway users were 24 percent of the total number of fatalities. Pedestrian fatalities remained almost unchanged from 2016 to 2017. Motorcycle and bicycle fatalities decreased, 7 percent and 1 percent, respectively.

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

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

Motorcycle Fatalities & Serious Injuries

<table>
<thead>
<tr>
<th>Year</th>
<th>Fatalities</th>
<th>Serious Injuries</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>72</td>
<td>533</td>
</tr>
<tr>
<td>2014</td>
<td>87</td>
<td>545</td>
</tr>
<tr>
<td>2015</td>
<td>92</td>
<td>574</td>
</tr>
<tr>
<td>2016</td>
<td>123</td>
<td>573</td>
</tr>
<tr>
<td>2017</td>
<td>115</td>
<td>614</td>
</tr>
</tbody>
</table>

Pedestrian Fatalities & Serious Injuries

<table>
<thead>
<tr>
<th>Year</th>
<th>Fatalities</th>
<th>Serious Injuries</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>75</td>
<td>276</td>
</tr>
<tr>
<td>2014</td>
<td>69</td>
<td>252</td>
</tr>
<tr>
<td>2015</td>
<td>104</td>
<td>235</td>
</tr>
<tr>
<td>2016</td>
<td>99</td>
<td>268</td>
</tr>
<tr>
<td>2017</td>
<td>98</td>
<td>269</td>
</tr>
</tbody>
</table>

Bicycle Fatalities & Serious Injuries

<table>
<thead>
<tr>
<th>Year</th>
<th>Fatalities</th>
<th>Serious Injuries</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>4</td>
<td>66</td>
</tr>
<tr>
<td>2014</td>
<td>4</td>
<td>51</td>
</tr>
<tr>
<td>2015</td>
<td>9</td>
<td>56</td>
</tr>
<tr>
<td>2016</td>
<td>10</td>
<td>59</td>
</tr>
<tr>
<td>2017</td>
<td>9</td>
<td>51</td>
</tr>
</tbody>
</table>

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

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

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

Number of Fatalities

<table>
<thead>
<tr>
<th>Calendar Year</th>
<th>Unrestrained Occupants</th>
<th>Run-Off-Road</th>
<th>Aggressive Driving</th>
<th>Alcohol and/or Other Drugs</th>
<th>Curves</th>
<th>Intersection Crashes</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>1,240</td>
<td>1,922</td>
<td>2,264</td>
<td>787</td>
<td>1,173</td>
<td>1,129</td>
</tr>
<tr>
<td>2014</td>
<td>1,245</td>
<td>2,264</td>
<td>1,173</td>
<td>1,173</td>
<td>2,106</td>
<td>1,129</td>
</tr>
<tr>
<td>2015</td>
<td>1,264</td>
<td>1,179</td>
<td>1,123</td>
<td>1,123</td>
<td>1,802</td>
<td>1,129</td>
</tr>
<tr>
<td>2016</td>
<td>1,164</td>
<td>1,123</td>
<td>1,123</td>
<td>1,123</td>
<td>1,802</td>
<td>1,129</td>
</tr>
<tr>
<td>2017</td>
<td>1,164</td>
<td>1,123</td>
<td>1,123</td>
<td>1,123</td>
<td>1,802</td>
<td>1,129</td>
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</table>

Number of Serious Injuries

<table>
<thead>
<tr>
<th>Calendar Year</th>
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<th>Run-off-road</th>
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<td>1,129</td>
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Work zone safety is crucial. MoDOT crews are expected to be safe and visible and expect contractors and utility companies to do the same. Staying safe in work zones also is a partnership shared with the driving public. MoDOT wants everyone to get home safely. While MoDOT makes every effort to work safely, motorists need to pay attention, slow down, move over, buckle up and drive without distractions.

MoDOT’s ultimate goal is zero fatalities in work zones. Only through continual efforts from everyone will that happen. There must be constant improvement in both planning and technologies we employ in the field. Based on information currently available through the second quarter of 2018, work zone crashes have accounted for one fatality and five serious injuries.

The challenges for 2018 are many. Some of MoDOT’s strategic initiatives, such as the use of autonomous Truck Mounted Attenuators and TMA flagger vehicles, will help overcome some of the challenges. Continual monitoring of work zones and deployment of sound queue management strategies are imperative. The time of day and day of week should always be considered before working.

**Number of Fatalities in Work Zones**

<table>
<thead>
<tr>
<th>Calendar Year</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>YTD 2018*</th>
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<tr>
<td>1st Qtr</td>
<td>2</td>
<td>6</td>
<td>4</td>
<td>2</td>
<td>1</td>
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<tr>
<td>2nd Qtr</td>
<td>4</td>
<td>6</td>
<td>4</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>3rd Qtr</td>
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<td>4th Qtr</td>
<td>9</td>
<td>8</td>
<td>8</td>
<td>9</td>
<td>8</td>
</tr>
</tbody>
</table>

*YTD 2018 – Fatalities derived from TMS.
Due to a backlog of crash reports into STARS, serious injury and crash measures are not final and only illustrate data derived from TMS. Second quarter 2018 data is unavailable through the MSHP radio reports and is incomplete in TMS.
Seat belts save lives, but getting people to use them – even to protect their own lives – is a challenge. Public education is one way to keep the issue in front of motorists. Legislation is another. MoDOT supports each approach, attacking the problem with focused marketing campaigns and reinforcing it with hard facts to back legislative efforts. Several municipalities across the state are taking matters into their own hands, enacting primary ordinances within city limits. Missouri currently has 53 municipalities and two counties that have adopted primary seat belt ordinances, representing nearly one fourth of the state’s population.

Based on 115,902 observations, the seat belt use in Missouri for 2017 was 84 percent. Johnson County was the lowest at 57.2 percent and Callaway County was the highest at 95.1 percent. The national average for seat belt use in 2016 was 90.1 percent (2017 data is not yet available). Missouri’s national ranking in 2016 was 40th, with 10 states ranking lower in seat belt use.

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

MoDOT is improving safety culture through Statewide Strategic Initiatives such as Buckle Up Phone Down. This is an opportunity for citizens and businesses to commit to driving without distraction by putting the phone down and having all passengers use safety belts.
Missouri Department of Transportation

Commercial Motor Vehicles are essential to Missouri’s economy. They transport goods and products to keep the nation moving. MoDOT partners with the Missouri State Highway Patrol, St. Louis Metropolitan Police Department, Kansas City Police Department, St. Louis County Police Department and Franklin County’s Sheriff’s Office to keep people traveling safely in and around CMVs. By tracking the number of CMV involved fatalities and serious injuries, MoDOT can target educational and enforcement efforts, as well as improve safety features such as highway signs, reflective pavement markings, guard cables, rumble strips and incident management alert signs. Deploying a suite of these demonstrably impactful safety techniques through a design-build program structure is one of the Strategic Vision Initiatives that will help MoDOT use Innovation to improve work zone and system-side safety.

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

Between 2013 and 2017, serious injuries involving a CMV decreased by 3.5 percent and the serious injury rate decreased from 4.24 to 3.51 per 100 million CMV vehicle miles traveled. The 388 serious injuries experienced in 2017 is 27 less than reported for 2016. This resulted in a 2017 serious injury rate of 3.51 compared to 4.12 for 2016.
Due to a backlog of crash reports into STARS, these measures will only illustrate data derived from TMS.
The total and rate of recordable incidents are tracked to measure the Department’s performance in improving safety. Behavior Based Safety is a strategic initiative that has been implemented over the last two years to improve MoDOT’s safety culture. BBS is a concept that emphasizes employees’ actively caring about the safety of themselves and their co-workers. BBS training also involves instruction regarding the ability to understand human behavior. The objective of BBS is to eliminate or, at least, reduce the number of recordable incidents and injuries attributable to employees’ actions.

Additionally, the development of Statewide Safety Standard Operating Procedures will result in the clarification and union of MoDOT’s current safety practices and processes with the department’s strategic vision to “…provide a world-class transportation system that is safe…” Focus will be primarily in the updating of Safety Policies and Procedures and Risk-Based Assessments as well as incorporating BBS in the revisions. Excellent training is a cornerstone of a successful safety culture. Innovative initiatives such as Kansas City’s Training Academy will give employees the skills needed to progress in this measure. The marked success of this program is a welcome addition to the department’s safety culture. There has been an evident increase in both total and rate of recordable incidents. This is an anticipated result of employee acceptance of BBS and the maturing of safety culture. MoDOT is committed to improving this measure and recognizes that it takes time to move culture.
Missouri Department of Transportation

**Total of MoDOT Recordable Incidents**

<table>
<thead>
<tr>
<th>Calendar Year</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>286</td>
</tr>
<tr>
<td>2015</td>
<td>290</td>
</tr>
<tr>
<td>2016</td>
<td>282</td>
</tr>
<tr>
<td>2017</td>
<td>287</td>
</tr>
<tr>
<td>YTD 2017</td>
<td>136</td>
</tr>
<tr>
<td>YTD 2018</td>
<td>165</td>
</tr>
</tbody>
</table>

**Rate of MoDOT Recordable Incidents**

<table>
<thead>
<tr>
<th>Calendar Year</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>5.05</td>
</tr>
<tr>
<td>2015</td>
<td>5.30</td>
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<tr>
<td>2016</td>
<td>5.34</td>
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<tr>
<td>2017</td>
<td>5.18</td>
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<tr>
<td>YTD 2017</td>
<td>4.87</td>
</tr>
<tr>
<td>YTD 2018</td>
<td>6.40</td>
</tr>
</tbody>
</table>

*OSHA private industry data is not yet available for 2017.*
Keeping employees and the public safe is MoDOT’s highest value. Controlling damage to vehicles and reducing personal injury in work zones, on right-of-way and other areas under department control helps MoDOT accomplish this goal. Compared to the first two quarters of 2017, there was a 17 percent increase in the number of claims. The majority of claims in the first two quarters of 2018 were attributed to pavement defects. During the same timeframe, there was a 160 percent increase in the amount paid.

This quarter, payments were made on 104 claims against the department, totaling $1,656,564. Three claims accounted for 49 percent of the second quarter’s payments. The first claim occurred in 2015 when a motorcycle came over a slight hill and struck a stopped or slowed vehicle. This claim was settled for $200,000 based on the allegation of inadequate sight distance and lack of a warning sign which created a dangerous condition. The second claim occurred in 2006 where two vehicles collided in a curve. This claim was settled for $290,000 based on MHTC not installing a speed advisory sign timely. The third claim occurred in 2015 where the plaintiff on a bicycle was struck by a vehicle causing serious injuries. This claim was settled for $325,000 based on lighting at this location not being maintained.

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

<table>
<thead>
<tr>
<th>Calendar Year</th>
<th>Number of General Liability Claims</th>
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<tbody>
<tr>
<td>2014</td>
<td>824</td>
</tr>
<tr>
<td>2015</td>
<td>994</td>
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<td>2016</td>
<td>998</td>
</tr>
<tr>
<td>2017</td>
<td>1,097</td>
</tr>
<tr>
<td>YTD 2017</td>
<td>568</td>
</tr>
<tr>
<td>YTD 2018</td>
<td>663</td>
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</tbody>
</table>

Amount Paid on General Liability Claims

<table>
<thead>
<tr>
<th>Calendar Year</th>
<th>Amount Paid on General Liability Claims (in thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>8,328</td>
</tr>
<tr>
<td>2015</td>
<td>9,151</td>
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<tr>
<td>2016</td>
<td>4,930</td>
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<td>2017</td>
<td>5,032</td>
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<td>YTD 2017</td>
<td>2,224</td>
</tr>
<tr>
<td>YTD 2018</td>
<td>5,793</td>
</tr>
</tbody>
</table>

2018 TARGET: 858
KEEP ROADS AND BRIDGES IN GOOD CONDITION

Dennis Heckman, State Bridge Engineer

Tracker
MEASURES OF DEPARTMENTAL PERFORMANCE
Missourians have said they want MoDOT to keep roads and bridges in good condition. Customers are looking for smooth pavements and bridges that can safely handle growing traffic demands. With 33,856 miles of highway and 10,385 bridges on the state system, the challenges are great; however, we are focused on using our limited resources to keep Missouri’s roads and bridges in good condition.
Missourians have repeatedly told MoDOT that keeping roads smooth is a top priority. Over the years, MoDOT has been able to fund pavement improvement programs on thousands of miles of state highways. Currently, more than 90 percent of Missouri major highways are rated in good condition. A statewide target for both major highways and interstate highways has been set. The target for Missouri major highways is 90 percent and the target for interstates is 92 percent. These targets are based on the statewide asset management plan and represent MoDOT’s goal of maintaining current conditions.

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

MoDOT has implemented asset management practices statewide to invest in transportation projects that will keep good roads in good condition.
Although minor roads are less traveled, Missourians still say keeping them in good condition is a priority. During the early 2000s, MoDOT’s focus was on improving major highways. This resulted in less work being done on minor roads leading to declining condition ratings. However, over the past few years, success on major highways has allowed the department to focus more time and funding on improving minor highways.

Currently, almost 78 percent of Missouri’s minor highways are in good condition, which is slightly above the percentage for 2016 and slightly less than each of the three years prior to 2016. A target of 78 percent of minor highways has been established. The target is based on the statewide asset management plan and represents MoDOT’s goal of maintaining current condition.

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

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

The target for this measure is set by internal policy and will not change unless policy changes.
The public has indicated the condition of Missouri’s existing roadway system should be one of the state’s highest priorities. Currently, 922 (22 major) structures are in poor condition, 6,084 (133 major) structures are in fair condition and 3,379 (53 major) structures are in good condition.

Statewide, the number of structures in poor condition has been slowly increasing over the last five years. The number of structures in good condition peaked in 2012 and has been steadily declining since then, while the number of structures in fair condition has significantly increased. The data on poor condition structures reflects that even with the significant STIP investments on bridges in recent years, the number is slowly increasing. The decline in good structures, as well as the increase in fair condition structures, is reflective of MoDOT’s aging bridge inventory with many structures at the point where they need minor maintenance or rehabilitation.

For major bridges, the number of structures in the poor category has generally been steady over the last five years. This is reflective of the significant focus on these structures in the STIP. Even with the significant investment in the STIP, the number of structures in good condition has been generally dropping over the five-year period while the number in fair condition has generally been increasing. Work on major bridges is expensive with rehabilitations costing $10 to $20 million and replacements ranging from $20 million to $200 million. Ohio has been selected for comparison as its total of 10,402 (129 major) state highway bridges is only 17 more than Missouri, as well as having similar demographics, geography and weather conditions.
The public has indicated that keeping Missouri’s existing roads and bridges in good condition should be one of the state’s highest priorities. The FAST Act established a 10 percent penalty threshold for states that, when exceeded, requires a state to focus money on bridges until they are back under 10 percent. The local system has 86 NHS structures (3 SD) and the MoDOT system has 3,552 NHS structures (155 SD). Missouri currently falls below the penalty threshold with the statewide SD deck area at 7.1 percent. This is attributable to the continued effort to focus on major bridges when funding is available as well as the increased focus on dealing with the poor condition bridges in the STIP.

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

Tom Blair, St. Louis District Engineer

Tracker

MEASURES OF DEPARTMENTAL PERFORMANCE
Every MoDOT employee is responsible for delivering outstanding customer service. We strive to be respectful, responsive, and clear in all our communication. We want to build strong relationships with our transportation partners, our customers and each other.
Customer satisfaction with MoDOT continues to remain high. Eighty-three percent of Missourians surveyed said they were satisfied with the job MoDOT is doing, up from 81 percent in 2015. In addition, those customers reporting they are very satisfied with MoDOT increased from 25 percent to 28 percent.

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

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

This measure is linked to the Improve Communications strategy included in the Sharpening Our Strategic Vision initiative. We have identified the Citizens Guide to Transportation Funding, the new department website and a better Traveler Information Map as efforts to measure our progress.
As the agency responsible for transportation in Missouri, MoDOT must hold its lead as an expert in the field. The department should serve as the frontrunner – representing the best transportation options for Missouri and partnering with state and national organizations and others to deliver a strong transportation system.

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

The department continues to work on improving partnerships with all Missourians, including local government, elected officials and transportation-related groups and organizations in order to deliver the very best possible transportation system with the resources available.
Gaining and keeping the public’s trust is critical to MoDOT’s overall success. The best way MoDOT can accomplish this is to deliver on the commitments it makes.

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

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

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

RESULT DRIVER:
Tom Blair
District Engineer

MEASUREMENT DRIVER:
Jennifer Williams
Communications Manager

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

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

Missouri Department of Transportation 3d
Provide outstanding customer service

**Percent of Customers Who Feel MoDOT Provides Timely Information**

- **2017 Target:** 96%

**Percent of Customers Who Feel MoDOT Provides Accurate Information**

- **2017 Target:** 96%

**Percent of Customers Who Feel MoDOT Provides Understandable Information**

- **2017 Target:** 96%
MoDOT actively seeks feedback from the customers it serves. MoDOT uses a statewide call system and an enhanced online call report system that enables customer service representatives to work across seven district boundaries in a one-team approach. Since its implementation, customer perceptions of MoDOT’s politeness, responsiveness and clarity increased, resulting in improved customer satisfaction.

There was movement in the numbers comparing second quarter 2017 to second quarter 2018. Overall customer satisfaction decreased to 76 percent from 82 percent. Politeness of response remained the same at 96 percent. Customers who were satisfied with the clarity of the response they received was down from 87 percent to 83 percent and responsiveness was down from 90 percent to 86 percent.

The average time to complete customer requests was just under two days.
PROVIDE OUTSTANDING CUSTOMER SERVICE

### Customer Satisfaction with Politeness of Staff

<table>
<thead>
<tr>
<th>Calendar Year</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2nd Qtr 2017</th>
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<tr>
<td>Percent</td>
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<td>97</td>
<td>97</td>
<td>96</td>
<td>96</td>
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</tr>
<tr>
<td>Very Satisfied</td>
<td>88</td>
<td>89</td>
<td>90</td>
<td>86</td>
<td>87</td>
<td>84</td>
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<tr>
<td>Somewhat Satisfied</td>
<td>9</td>
<td>8</td>
<td>7</td>
<td>10</td>
<td>9</td>
<td>12</td>
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</table>

**2018 TARGET** 100%

### Customer Satisfaction with Clarity of Response

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<thead>
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<th>Calendar Year</th>
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<tr>
<td>Percent</td>
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<td>88</td>
<td>89</td>
<td>86</td>
<td>87</td>
<td>83</td>
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<tr>
<td>Very Satisfied</td>
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<td>71</td>
<td>75</td>
<td>65</td>
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<td>63</td>
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<tr>
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<td>17</td>
<td>14</td>
<td>21</td>
<td>18</td>
<td>20</td>
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</tbody>
</table>

**2018 TARGET** 97%

### Customer Satisfaction with Responsiveness

<table>
<thead>
<tr>
<th>Calendar Year</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2nd Qtr 2017</th>
<th>2nd Qtr 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent</td>
<td>90</td>
<td>90</td>
<td>89</td>
<td>89</td>
<td>90</td>
<td>86</td>
</tr>
<tr>
<td>Very Satisfied</td>
<td>72</td>
<td>75</td>
<td>73</td>
<td>70</td>
<td>74</td>
<td>69</td>
</tr>
<tr>
<td>Somewhat Satisfied</td>
<td>1.7</td>
<td>1.8</td>
<td>1.9</td>
<td>1.9</td>
<td>1.8</td>
<td>1.9</td>
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<tr>
<td>Average Days for Follow-Up</td>
<td>18</td>
<td>15</td>
<td>16</td>
<td>19</td>
<td>16</td>
<td>17</td>
</tr>
</tbody>
</table>

**2018 TARGET** 99%
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 fourth quarters of fiscal years 2017 and 2018, there was a growth of 26,093 followers on Facebook statewide and 18,192 to Twitter.

During the fourth quarter of FY 2018, MoDOT’s most popular post on Facebook statewide alerted drivers of the complete closure of I-70 in the Kansas City area from June 8-11. The post reached 371,362 people with 8,542 engagements including post clicks, shares, comments and reactions.

MoDOT websites had 1,144,180 sessions during the fourth quarter of FY 2018, compared to 3,117,670 in the fourth quarter of FY 2017. The numbers from the fourth quarter of FY 2017 were skewed favorably due to flooding throughout the state, which closed a major interstate and likely pushed more customers to the website. Additionally, this quarter lacked any significant weather events that would draw users to MoDOT’s websites.

The top five pages on MoDOT’s website for this quarter were:
- Traveler Information Map – 232,140
- KC Scout Homepage – 197,073
- MoDOT Homepage – 159,272
- Gateway Guide Homepage – 46,260
- Job Listings – 36,077

MoDOT videos on YouTube were viewed 1,629,578 times in the fourth quarter of FY 2018. Numbers now include views through SaveMOLives YouTube account.

The top five videos viewed in the last quarter were:
- Buckle Up Phone Down – Coach – 421,242 views
- Work Zone Awareness 2018 – 311,184 views
- MoDOT Click It or Ticket 2018 – 199,489 views
- MoDOT Youth Alcohol 2018 – 126,049 views
- MoDOT Motorcycle Awareness 2018 – 120,881 views

This measure is linked to the Improve Communications strategy included in the Sharpening Our Strategic Vision initiative. We have identified the Citizens Guide to Transportation Funding, the new department website and a better Traveler Information Map as efforts to measure our progress.

Missouri Department of Transportation 3f
MoDOT customers expect transportation solutions delivered on time and within budget. We manage our projects to get them completed quickly and at the best possible value. We work with our transportation partners to leverage innovation in improving our products and how we work. We pledge to honor our commitments and deliver the best, most cost-effective solutions.
Accurate program cost estimates help MoDOT deliver more timely improvements for taxpayers. As of June 29, 2018, 381 road and bridge projects were completed in fiscal year 2018 at a cost of $844 million. This represents a deviation of 6 percent (or $53 million) less than the programmed cost of $897 million. Of the 381 road and bridge projects completed, 62 percent were completed within or below budget. In comparison, 62 percent of projects were completed within or below budget as of the same date a year ago. The largest component of project savings came from awards at $49.9 million. Miscellaneous savings (right-of-way purchases, utilities and other costs) were $17.9 million. There may be projects that have adjustments pending, which could cause a slight change in the final values.

In addition, 101 multimodal projects were completed at a cost of $45.3 million, 4.4 percent (or $2.1 million) less than the programmed cost of $47.4 million. A total of 145 local public agency projects were completed at a cost of $142.5 million, 6.4 percent (or $9.7 million) less than the programmed cost of $152.2 million.

The target is zero percent difference, indicating MoDOT is making timely use of available funds. Road and bridge, multimodal and local public agency projects were within 5.9 percent of the target in FY 2018.

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

MoDOT uses this historical data as a guide for programming future projects. Projects awarded in FY 2017 and FY 2018 were about 9 percent lower than programmed values. If FY 2019 projects also reflect significant award savings, MoDOT plans to accelerate projects from FY 2020 to FY 2019.
Positive numbers indicate the final (completed) cost was higher than the programmed cost.

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

Amounts include STIP road and bridge projects with two percent construction contingency applied.
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 fiscal year 2018, 76 percent of all closed-out projects were completed by their planned completion dates.

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

There are times when a contractor misses the contract completion date and the contractor is assessed damages. Of the road and bridge projects completed in FY 2018 that did not meet the original contract date, 18 percent were extended due to weather delays, 19 percent were extended due to extra work, 2 percent experienced utility delays, 23 percent were extended by MoDOT and 14 percent missed the completion date with damages assessed totaling $455,800.

The target for this measure is to have at least 80 percent of projects completed by the original completion date. At the end of FY 2018, the average number of all contracts completed by the original completion date was 76 percent which is an 8 percent improvement from the previous year.
MoDOT Road & Bridge Projects Completed On Time
Original vs. Adjusted Contract Completion Date

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Original</td>
<td>67</td>
<td>68</td>
<td>68</td>
<td>75</td>
</tr>
<tr>
<td>Adjusted</td>
<td>71</td>
<td>74</td>
<td>68</td>
<td>80</td>
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</table>

MoDOT Road & Bridge Projects
Reason for Date Extensions

<table>
<thead>
<tr>
<th>Reason</th>
<th>FY 2017</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Weather</td>
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<tr>
<td>Extra Work</td>
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<tr>
<td>Utility Delay</td>
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<td>2</td>
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<tr>
<td>MoDOT Decision</td>
<td>28</td>
<td>23</td>
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<tr>
<td>Damages Assessed</td>
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</table>

TARGET 80% Original
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 fiscal year 2018 is 1.5 percent over the award amount ($12.5 million over the award amount of $815 million worth of projects completed) with 52 percent of the projects being completed below the original award amount.

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

For FY 2018, MoDOT road and bridge projects were completed 1.2 percent over budget; local public agency projects were completed 4 percent over budget and multimodal projects were completed 0.9 percent under budget.
MoDOT has delivered more than $1.6 billion in Design-Build projects that have saved taxpayers over $277 million. When combined, these projects were completed more than 65 months ahead of schedule. MoDOT partners with the public and private sectors to deliver projects that maximize available resources into collaborative solutions that achieve goals. This effort challenges the way projects are delivered with innovation, speed and efficiency as driving forces. MoDOT pushes the boundaries to execute projects using innovative data-driven processes and a wide range of partnerships.

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

- DB contracts include design and construction under one contract, procured using a two-phased selection process. MoDOT scores proposals using a best-value or “build-to-budget” selection.
- Cost-plus-time bidding (A + B) aims to expedite project completion through competitive bidding on construction time (days).
- Alternate Technical Concepts give the contractor the opportunity to provide a more cost-effective alternative design prior to the bid. ATC discussions are held in a confidential environment which maximizes competitive bidding. The low bid is awarded the contract.

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

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

Fiscal Year

2014 2015 2016 2017 2018

Dollars (in millions)

2014 2015 2016 2017 2018

ATC

A+B

DB

% of Annual Program

2018 TARGET ↑10%
The goal of value engineering is to build the right project at the right time, meeting the project need with the appropriate project scope. MoDOT uses the VE program to ensure the public receives great value for every tax dollar invested in Missouri’s transportation system. MoDOT has been increasingly focused on smaller, maintenance-type projects that are not traditionally targeted by the VE program. Still, MoDOT must be innovative in using the VE process to search for solutions to reduce project costs and provide additional value.

MoDOT uses design-phase value analysis to remove unnecessary scope, reduce project costs and improve project flexibility. For fiscal year 2018, 18 percent of applicable projects underwent some form of value analysis during design, which is below target for design-phase value analyses. The percentage of projects with value analysis will improve with increased engagement with district design personnel. Value engineering is an important initiative in Sharpening Our Strategic Vision, 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. Three traditional value engineering studies were completed in two districts this fiscal year. Two of those three will potentially save $3.1 million. The third study has not been finalized as of this printing. Districts continue to use the Practical Review Tool to add value and cost savings to projects.

MoDOT partners with industry to find more cost-effective solutions during the construction phase. Value Engineering Change Proposals engage contractor ideas to deliver improved projects. For FY 2018, 27 VECPs were approved resulting in a MoDOT savings of $2.98 million. This represents a 75 percent approval rate. One Post-Award Value Engineering change proposal has resulted in a MoDOT cost savings of $20,220.

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

**Value engineering – 4e**

**RESULT DRIVER:**
Eric Schroeter  
State Design Engineer

**MEASUREMENT DRIVER:**
Sarah Kleinschmit  
Policy and Innovations Engineer

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

**MEASUREMENT AND DATA COLLECTION:**
Information on value analysis during design is gathered from MoDOT’s Statewide Transportation Improvement Program information management system.

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

The target for this measure is updated annually in October for the next fiscal year. This target is established by projecting a 10 percent improvement over a five-year average.
Percent of Awarded Projects with Value Analysis

Design Phase

Fiscal Year

Percent

2014 2015 2016 2017 2018

23 35 17 18 18

2018 Target 26%

Value Engineering Proposals by Dollar and Number

Construction Phase

Fiscal Year

MoDOT Savings

Approval Percentage

Number Approved

Dollars (in millions)

2014 2015 2016 2017 2018

1.25 1.10 1.56 0.74 2.98

1 2 3 4 5

0 10 20 30 40 50 60 70 80 90 100

Desired Trend
One of the most prominent products MoDOT delivers to its customers is a highway construction project. While the department tries to involve local residents in planning and designing local projects, the real impact of the project isn’t known until people actually use the results of the project.

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

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

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

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

<table>
<thead>
<tr>
<th>Calendar Year</th>
<th>Very Much (%)</th>
<th>Somewhat (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>87</td>
<td>28</td>
</tr>
<tr>
<td>2014</td>
<td>90</td>
<td>28</td>
</tr>
<tr>
<td>2015</td>
<td>89</td>
<td>27</td>
</tr>
<tr>
<td>2016</td>
<td>90</td>
<td>25</td>
</tr>
<tr>
<td>2017</td>
<td>80</td>
<td>23</td>
</tr>
</tbody>
</table>

Missouri Department of Transportation 4f2
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OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

Becky Allmeroth, State Maintenance Engineer
Missourians expect to get to their destinations on time, without delay regardless of their choice of travel mode. We coordinate and collaborate with our transportation partners throughout the state to keep people and goods moving freely and efficiently. We also maintain and operate the transportation system in a manner to minimize the impact to our customers and partners.
During the second quarter of 2018, average travel times in St. Louis and Kansas City were generally longer compared to the same period last year. In the second quarter of 2018, the average 10-mile travel time in St. Louis was 10 minutes, 40 seconds during the morning and 12 minutes, 13 seconds during the evening. For Kansas City, the average travel time was 11 minutes, 7 seconds during the morning and 11 minutes, 25 seconds during the evening. The average travel time for the morning rush period were both slightly higher than the same quarter last year. Both evening rush periods experienced slightly lower average travel times than the previous year. Overall, average speeds ranged between 50 mph and 56 mph.

The planning times account for unexpected delays and indicate how long customers need to plan in order to arrive on time 95 percent of the time. In St. Louis, the average 10-mile planning times were 13 minutes, 53 seconds during the morning and 18 minutes, 3 seconds during the evening. This means customers in the St. Louis evening rush needed to plan 8 minutes, 3 seconds more for a 10-mile trip than they would need in free-flow conditions. In Kansas City, the average planning times were 14 minutes, 30 seconds during the morning and 15 minutes, 32 seconds during the evening. Customers in the Kansas City evening rush needed to plan 5 minutes and 32 seconds more for a 10-mile trip than they would need in free-flow conditions. The planning times in St. Louis and Kansas City represent average rush-hour speeds between 33 and 43 mph. The planning times for morning rushes in both regions were higher than the previous year, while the planning times for evening rushes were less than the previous year.

The average travel times in both regions are higher than the target for the second quarter of 2018. The morning average travel times are 40 seconds to 1 minute, 7 seconds greater than the target, while the evening travel times are 50 seconds to 1 minute, 6 seconds greater than the target.

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

St. Louis Area

Kansas City Area

Springfield Area

Columbia Area

- > 80% of free-flow speed
- 70-80% of free-flow speed
- 60-70% of free-flow speed
- < 60% of free-flow speed
OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

P.M. Mobility

St. Louis Area
- > 80% of free-flow speed
- 70-80% of free-flow speed
- 60-70% of free-flow speed
- < 60% of free-flow speed

Kansas City Area

Springfield Area

Columbia Area

Missouri Department of Transportation 5a4
Recurring congestion occurs at regular times, although the traffic jams are not necessarily consistent day-to-day. Nonrecurring congestion is an unexpected traffic crash or natural disaster that affects traffic flow. When either occurs, the time required for a given trip becomes unpredictable. This unreliability is costly for commuters and truck drivers moving goods, which results in higher prices to consumers.

While the desired trend for both costs is downward, challenges exist in Missouri’s metropolitan regions to continue toward this desired outcome. A comprehensive look at congestion is needed, looking beyond typical solutions of adding capacity. Using smarter technology to help guide motorists is a must. Still, the desired outcome is lower congestion costs and an indication that traffic is moving more efficiently.

The 2017 target was $486 million. The actual calculation from the RITIS data is $568 million. This report looks at the 2014 to 2017 cost of congestion in the urban areas of Kansas City and St. Louis, as well as rural I-44 and I-70 across the state.

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

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

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

As a state and individual regions, a comprehensive look at all available means to reduce the cost of congestion is necessary.
Cost of Congestion on Selected State Roads

<table>
<thead>
<tr>
<th>Calendar Year</th>
<th>Rural I-44</th>
<th>Rural I-70</th>
<th>KC</th>
<th>SL</th>
<th>Overall Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>528</td>
<td>69</td>
<td>33</td>
<td>125</td>
<td>301</td>
</tr>
<tr>
<td>2015</td>
<td>533</td>
<td>42</td>
<td>30</td>
<td>147</td>
<td>314</td>
</tr>
<tr>
<td>2016</td>
<td>547</td>
<td>39</td>
<td>30</td>
<td>146</td>
<td>332</td>
</tr>
<tr>
<td>2017</td>
<td>568</td>
<td>38</td>
<td>25</td>
<td>151</td>
<td>354</td>
</tr>
</tbody>
</table>

Traffic Volume on Selected State Routes

<table>
<thead>
<tr>
<th>Calendar Year</th>
<th>Rural I-44</th>
<th>Rural I-70</th>
<th>KC</th>
<th>SL</th>
<th>Volume (in millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>18,784</td>
<td>2,627</td>
<td>1,959</td>
<td>4,518</td>
<td>9,680</td>
</tr>
<tr>
<td>2015</td>
<td>19,251</td>
<td>2,643</td>
<td>1,971</td>
<td>4,757</td>
<td>9,880</td>
</tr>
<tr>
<td>2016</td>
<td>19,340</td>
<td>2,658</td>
<td>1,983</td>
<td>4,781</td>
<td>9,918</td>
</tr>
<tr>
<td>2017</td>
<td>19,240</td>
<td>2,647</td>
<td>1,976</td>
<td>4,702</td>
<td>9,915</td>
</tr>
</tbody>
</table>
A traffic incident is an unplanned event that blocks travel lanes and temporarily reduces the number of vehicles that can travel on the road. The speed of incident clearance is essential to the highway system returning back to normal conditions. Responding to and quickly addressing the incident (crashes, debris and stalled vehicles) improves system performance.

St. Louis recorded 2,814 incidents in the second quarter of 2018. The average time to clear traffic incidents was 24.1 minutes, an increase of 2.5 percent from the second quarter of 2017.

Kansas City recorded 2,205 incidents in the second quarter of 2018. The average time to clear traffic incidents was 23.6 minutes, a decrease of 7.4 percent from the second quarter of 2017.

The second quarter for Kansas City and St. Louis revealed an array of incidents that included overturned tractor trailers, school bus, multi-vehicles and MoDOT fleet. Kansas City saw an increase in the number of incidents when compared to second quarter of 2017, while St. Louis saw a minimal decrease. Both continue to use communication, coordination and data to reduce the average time to clear. Continuous traffic incident management training has helped with quick clearance of incidents. Communication between the Traffic Management Center and Emergency Response team is vital for quick and safe responses. St. Louis had a slight increase of 2.5 percent due to several major crashes involving tractor trailers, fuel spills and pedestrian strikes. Kansas City had a reduction of 7.4 percent with significant credit again going to increased push/pulls and quicker debris removal.
OPERATE A RELIABLE AND CONVENIENT TRANSPORTATION SYSTEM

Average Time to Clear Traffic Incident
St. Louis

<table>
<thead>
<tr>
<th>Calendar Year</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2nd Qtr 2017</th>
<th>2nd Qtr 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>St. Louis</td>
<td>7,830</td>
<td>9,244</td>
<td>9,873</td>
<td>10,570</td>
<td>7,398</td>
<td>7,194</td>
</tr>
<tr>
<td>Major (&gt;2 hrs)</td>
<td>2,408</td>
<td>6,237</td>
<td>6,741</td>
<td>2,934</td>
<td>2,860</td>
<td>2,814</td>
</tr>
<tr>
<td>Intermediate (30 min to 2 hrs)</td>
<td>5,322</td>
<td>2,830</td>
<td>2,885</td>
<td>7,398</td>
<td>7,678</td>
<td>7,380</td>
</tr>
<tr>
<td>Minor (&lt;30 min)</td>
<td>2,035</td>
<td>2,010</td>
<td>2,830</td>
<td>2,885</td>
<td>2,035</td>
<td>2,010</td>
</tr>
<tr>
<td>Average Time to Clear</td>
<td>25.6</td>
<td>25.7</td>
<td>25.5</td>
<td>23.5</td>
<td>23.3</td>
<td>23.3</td>
</tr>
</tbody>
</table>

Target: 2018

Minutes: 23.3

Average Time to Clear Traffic Incident
Kansas City

<table>
<thead>
<tr>
<th>Calendar Year</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2nd Qtr 2017</th>
<th>2nd Qtr 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kansas City</td>
<td>5,805</td>
<td>6,706</td>
<td>6,454</td>
<td>5,225</td>
<td>1,828</td>
<td>1,862</td>
</tr>
<tr>
<td>Major (&gt;2 hrs)</td>
<td>1,425</td>
<td>1,814</td>
<td>1,814</td>
<td>1,819</td>
<td>1,781</td>
<td>1,781</td>
</tr>
<tr>
<td>Intermediate (30 min to 2 hrs)</td>
<td>4,257</td>
<td>4,761</td>
<td>4,496</td>
<td>5,225</td>
<td>1,781</td>
<td>1,781</td>
</tr>
<tr>
<td>Minor (&lt;30 min)</td>
<td>1,270</td>
<td>1,674</td>
<td>2,205</td>
<td>474</td>
<td>474</td>
<td>474</td>
</tr>
<tr>
<td>Average Time to Clear</td>
<td>23.3</td>
<td>24.6</td>
<td>25.8</td>
<td>25.9</td>
<td>22.9</td>
<td>22.9</td>
</tr>
</tbody>
</table>

Target: 2018

Minutes: 22.9
RESULT DRIVER: Becky Allmeroth
State Maintenance Engineer

MEASUREMENT DRIVER: Laurel McKean
Assistant District Engineer

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

MEASUREMENT AND DATA COLLECTION: Interstate route closures having an actual or expected duration of 30 minutes or more are entered into MoDOT’s Transportation Management System for display on the Traveler Information Map. By using the incident locations identified from the Traveler Information Map data along with the Regional Integrated Transportation Information System, real-time durations and delays for these incidents can be identified. The impact duration is the total amount of time that there was a noticeable impact on traffic speeds as a result of the incident regardless of how long the actual incident closure lasted. The maximum delay is the longest delay that an individual traveler would have experienced as a result of the incident. What is important about these measurements is that they represent the impacts that are “felt” by our customers resulting from incident closures.
Motorists want to get through work zones with as little inconvenience as possible. MoDOT tries to minimize travel impacts by shifting work to nighttime hours or during times when there are fewer impacts to the traveling public. Other strategies include using technology in work zones, providing valuable information to customers and innovative uses of traffic control devices to promote efficient traffic flow. To measure the effectiveness of these strategies, MoDOT monitors the performance of work zones with the greatest potential to impact traffic each quarter. The goal is to minimize the number of times a work zone creates a traffic delay of 10 minutes or more.

During the second quarter 2018, MoDOT monitored 286 work zones, which brings the year-to-date 2018 total to 548. There were 43 instances in which traffic was delayed for at least 10 minutes. These 43 instances occurred in 18 work zones and accounted for 2,650 total minutes (44.1 hours) of congestion. Most of the congestion was experienced in four work zones: Poplar Street Bridge (I-64) and the Jefferson Barracks Bridge in the St. Louis District and two projects on I-70 in the Kansas City District. This quarter, the Poplar Street Bridge work zone was congested for a total of 3.6 hours, and the Jefferson Barracks Bridge was congested for a total of 8.3 hours. Also this quarter, the I-70 project in Lafayette County was congested for a total of 8.8 hours and the I-70 project in Jackson County was congested for a total of 8.3 hours.

An initial target for the cumulative work zone congestion statewide has been set at 180 hours for the year (45 hours per quarter). This target translates to approximately 30 minutes of work zone congestion per day statewide. Since this is a new measure, MoDOT will evaluate the identified target after the first year and adjust accordingly.
Missouri Department of Transportation 5e2

Operate a reliable and convenient transportation system.

Work Zone Delays Greater than 10 Minutes

Calendar Year

Hours of Congestion

Number


Hours of Congestion by Work Type

Calendar Year

2018

Hours of Congestion

Pavement Improvements

Bridge Work

2018 TARGET

180 Hours of Congestion
Knowing the time it takes to clear roads after a winter storm can help the department better analyze the costs associated with that work. MoDOT’s response rate to winter events provides good customer service for the traveling public while keeping costs as low as possible. In addition, one of MoDOT’s Strategic Initiatives is working toward predictive analytics to optimize winter operations resources.

The 2017-2018 winter season was relatively light in accumulation of snow and ice, but was still challenging. Most of the winter events were freezing rain and ice events requiring significant treatment which was costly. Responding to the high number of freezing rain and ice events resulted in the average time of 3.9 hours to meet MoDOT’s objective for continuous operations routes, and 4.5 hours for non-continuous routes. These response times are consistent with response times from previous winters and this winter should result in typical expenditure levels.

On average, winter operations, cost about $45 million per year. MoDOT expended $42.6 million for the 2017-2018 winter season. This was slightly less than average, due to the lighter accumulating, although still challenging winter events.

Division and district maintenance leadership has held meetings on regional and statewide levels to investigate the development of possibly two new performance measures for winter operations. One is based on direct MoDOT costs associated with the winter events and the other is based on indirect costs or impacts from congestion during winter events using the Regional Integrated Transportation Information System or RITIS. Proposals for these new measures are currently under development.
Average Time to Meet Winter Storm Event Performance Objectives

<table>
<thead>
<tr>
<th>Winter Season</th>
<th>Continuous Operations Routes</th>
<th>Non-Continuous Routes</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013-14</td>
<td>4.2</td>
<td>74.6</td>
</tr>
<tr>
<td>2014-15</td>
<td>3.1</td>
<td>51.1</td>
</tr>
<tr>
<td>2015-16</td>
<td>3.3</td>
<td>26.0</td>
</tr>
<tr>
<td>2016-17</td>
<td>3.9</td>
<td>29.4</td>
</tr>
<tr>
<td>2017-18</td>
<td>4.5</td>
<td>42.6</td>
</tr>
</tbody>
</table>

Average Cost of Winter Operations

<table>
<thead>
<tr>
<th>Winter Season</th>
<th>Dollars (in millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013-14</td>
<td>74.6</td>
</tr>
<tr>
<td>2014-15</td>
<td>51.1</td>
</tr>
<tr>
<td>2015-16</td>
<td>26.0</td>
</tr>
<tr>
<td>2016-17</td>
<td>29.4</td>
</tr>
<tr>
<td>2017-18</td>
<td>42.6</td>
</tr>
</tbody>
</table>
MoDOT has improved more than $28.5 million of deficient Americans with Disabilities Act facilities in the right of way since 2008. However, additional work totaling more than $122.8 million of the 2010 ADA Transition Plan inventory needs to be completed before August 2027. To meet the commitment of the Missouri Highways and Transportation Commission, MoDOT needs to complete more than $12.2 million in improvements each year until 2027.

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

So far in 2018, MoDOT has completed $1.3 million in ADA improvements in two districts. In 2017, MoDOT completed a total of $3.51 million in ADA improvements. These amounts are well below the annual pace needed to complete the required ADA improvements by 2027. Current reporting of Transition Plan Completion at 18.8 percent complete is significantly behind the 46.1 percent target for the second quarter of 2018. Only three districts reported any ADA Transition Plan progress this quarter: Central, St. Louis and Southwest.

In the first half of 2018, MoDOT invested $7.89 million toward improvements in pedestrian facilities. In the second quarter of 2018, MoDOT has utilized 1.63 percent of the 2018 STIP award – a substantial increase over the record low rate of 0.72 percent posted in 2017. In all of 2017, MoDOT invested a total of $5.38 million in pedestrian facility improvements.

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

**Progress Toward Completion of Transition Plan**

*Right of Way*

- **Percent Completed Per Year**: 2014 - 10.6%, 2015 - 12.3%, 2016 - 15.6%, 2017 - 18.0%, 2nd Qtr 2018 - 18.8%
- **Cumulative Percent Completed**: 2014 - 25.5%, 2015 - 31.4%, 2016 - 37.3%, 2017 - 43.1%, 2nd Qtr 2018 - 46.1%

**Investment in Non-Motorized Facilities**

*Based on Contract Awards*

- **Dollars (in thousands)**: 2014 - 11,768, 2015 - 6,823, 2016 - 6,996, 2017 - 5,383, 2nd Qtr 2018 - 7,894
- **Percent of Total Awarded STIP Amount**: 2014 - 1.79, 2015 - 1.32, 2016 - 1.13, 2017 - 0.72, 2nd Qtr 2018 - 1.63

**2018 TARGET**

- **Right of Way**: $15M
- **Investment in Pedestrian Facilities**: $15M
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USE RESOURCES WISELY

Brenda Morris, Financial Services Director

Tracker
MEASURES OF DEPARTMENTAL PERFORMANCE
MoDOT has access to many resources including people, funding, supplies and equipment. Taxpayers trust MoDOT is a good steward of these limited resources while limiting the impact on our environment. We are accountable for everything we do.
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 fiscal year 2018, the number of FTEs decreased by three, or 0.06 percent, compared to FY 2017. The number of salaried FTEs decreased slightly. This was mainly due to a decrease of maintenance employees in a few areas. The increase in overtime FTEs can be attributed to overtime hours worked during snow fight events in January, February and March. FTEs for temporary employment decreased slightly compared to last year as most districts continue to hire fewer seasonal maintenance workers and focus on filling more full-time maintenance positions.
When employees leave MoDOT, the department loses a large investment in recruiting, hiring and training its workforce. While some turnover is appropriate, MoDOT needs to retain a great workforce that has the knowledge and specialized skills to deliver the department’s commitments and provide outstanding customer service.

The overall turnover rate has risen from 10.84 percent in fiscal year 2017 to 11.99 percent in FY 2018. During FY 2018, resignations showed an upward trend and retirements decreased slightly. Releases have also decreased slightly from 49 during FY 2017 to 38 during FY 2018. The 2018 target was to have 292 or fewer resignations, with actual resignations coming in at 386. MoDOT will continue to look for opportunities to control the rate of employee turnover as part of the Sharpening Our Strategic Vision initiative.

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

- The five-year pay strategy will be partially implemented on January 1, 2019, in the form of a COLA. The pay increase will be $700 annually for full-time and permanent part-time employees earning less than $70,000 per year, and 1 percent increase for employees earning $70,000 or more.
- Performance development training has occurred statewide, and Situational Leadership training is being made available to supervisors in the second half of calendar year 2018.
- A Registered Apprenticeship Program will be made available to maintenance career ladder employees in January 2019. This program provides an opportunity for eligible veteran employees to use GI benefits to receive an additional monthly stipend. In the future, the program will provide non-veteran, maintenance career ladder employees the potential to earn college credit through on-the-job training.
- The Leadership in Action recognition coin passing program has been in effect since September 2017. There are 159 coins in circulation that have been passed more than 440 times.
- The draft results of the external organizational assessment and succession planning study are being reviewed for information that could aid MoDOT in making improvements to help sustain its current high performance well into the future.
USE RESOURCES WISELY

Rate of Employee Turnover

Fiscal Year

2014 2015 2016 2017 2018

Resignations  Retirements  Releases

Turnover Rate  Stretch Goal (6.0 percent)

2018 TARGET ➣ 292 Resignations

Missouri Department of Transportation  6b2
MoDOT wants employees to be satisfied with their work and workplace and feel like they are a good fit for their jobs. Employee satisfaction can be a driver of overall organizational performance. The more satisfied and engaged employees are with the workplace, the more discretionary effort they are willing to put forth on the job.

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

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

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

Areas of low satisfaction centered on not having acceptable opportunities for professional growth and not making MoDOT employees feel valued. The lack of salary increases was scored low on most surveys and dominated written comments as well. Areas of high satisfaction revolved around having a cooperative work unit and having supervisors support needs to balance work and family. One of MoDOT’s Strategic Initiatives is working towards predictive analytics to optimize job satisfaction.
USE RESOURCES WISELY

Percent of Satisfied Employees

Calendar Year

Percent


Very Satisfied
Somewhat Satisfied
SHRM
Illinois 60

2016 TARGET ➔ 75%

Level of Job Satisfaction
(Average Rating)

Calendar Year

Average Score


3.44 3.57 3.50 3.40 3.55

DESIRED TREND
State and federal revenue budgets – 6d

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

The actual state revenue for road and bridge from motor fuel taxes, motor vehicle sales taxes, motor vehicle and driver licensing fees and miscellaneous was 1.4 percent less than budgeted for fiscal year 2018. The majority of the variance is related to motor fuel taxes and motor vehicle sales taxes. The positive variance of 6.1 percent for non-highway modes is mostly attributable to the jet fuel sales tax.

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

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

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

Road and Bridge

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Budgeted</th>
<th>Actual</th>
<th>Percent</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>1,194</td>
<td>1,200</td>
<td>0.5</td>
<td>7.3</td>
</tr>
<tr>
<td>2016</td>
<td>1,179</td>
<td>1,255</td>
<td>7.3</td>
<td>2.6</td>
</tr>
<tr>
<td>2017</td>
<td>1,198</td>
<td>1,229</td>
<td>2.6</td>
<td>-1.4</td>
</tr>
<tr>
<td>2018</td>
<td>1,305</td>
<td>1,287</td>
<td>-1.4</td>
<td></td>
</tr>
</tbody>
</table>

TARGET 0%

Budgeted vs. Actual State Revenue Comparison

Non-highway Modes

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Budgeted</th>
<th>Actual</th>
<th>Percent</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>28.7</td>
<td>29.4</td>
<td>6.7</td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>32.6</td>
<td>31.6</td>
<td>2.4</td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td>33.9</td>
<td>32.6</td>
<td>-3.1</td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td>27.8</td>
<td>29.5</td>
<td>6.1</td>
<td></td>
</tr>
</tbody>
</table>

TARGET 0%
MoDOT works with public agencies to leverage its limited resources to implement projects that might not otherwise be built. Cost-share projects are transportation improvements in which costs are shared by MoDOT and other public agencies such as cities and counties. After a temporary suspension of the Cost Share Program through fiscal year 2017, the Missouri Highways and Transportation Commission reactivated the Cost Share Program with the adoption of the 2018-2022 Statewide Transportation Improvement Program. In addition, MoDOT partners with cities and counties for projects not part of the formal Cost Share Program, with other states for projects of mutual interest such as border bridges and with federal agencies through competitive discretionary programs. MoDOT also partners with developers and other private entities to make improvements to the state transportation system through the permitting process. In addition, as a part of the Sharpening Our Strategic Vision Initiatives, MoDOT plans to research and deploy alternative funding solutions through cross-cabinet collaboration.

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

While the amount of partnership funding declined, the percent of projects in the STIP with partnership funding increased from 9.4 percent in FY 2016 to 12.2 percent in FY 2017. However, the total number of projects in the STIP decreased in FY 2017 with the number of projects with partnership contributions being down. In FY 2016, there were 66 projects with funds from partnership agencies, but in FY 2017 that number decreased to 44.

The average partner contribution to partnership projects decreased in FY 2017. In FY 2017, the average partner contribution per project was $824,000, compared to the five-year average of $1,161,000.
Number of Dollars Generated Through Cost-sharing and Partnering Agreements for Transportation

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Dollars (in millions)</th>
<th>Other States Partnering</th>
<th>Amount of Partnering Funds</th>
<th>Percent of STIP Projects with Partnering Agreements</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>0</td>
<td>76</td>
<td>7.9</td>
<td>0%</td>
</tr>
<tr>
<td>2014</td>
<td>5</td>
<td>71</td>
<td>13.4</td>
<td>5%</td>
</tr>
<tr>
<td>2015</td>
<td>108</td>
<td>34</td>
<td>17.8</td>
<td>108%</td>
</tr>
<tr>
<td>2016</td>
<td>66</td>
<td>22</td>
<td>9.4</td>
<td>66%</td>
</tr>
<tr>
<td>2017</td>
<td>44</td>
<td>69</td>
<td>12.2</td>
<td>44%</td>
</tr>
</tbody>
</table>

2017 TARGET: $69 Million (Excluding Other States)
During the long-range planning process, “On the Move,” Missourians chose more transportation choices as a top priority. MoDOT works closely with its multimodal partners to provide more choices within the available funding amounts. In fiscal year 2017, state and federal expenditures for non-highway modes of transportation decreased $1.3 million and $2.2 million, respectively.

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

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

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

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

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

Bike/Pedestrian – Fiscal year 2017 state expenditures of $1.6 million represent 20 percent of funds invested. 
Percent of State Funds Invested in Non-Highway Modes of Transportation

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Percent State</th>
<th>Federal Expenditures</th>
<th>State Expenditures</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>66.5</td>
<td>73.0</td>
<td>64.5</td>
</tr>
<tr>
<td>2014</td>
<td>70.3</td>
<td>68.1</td>
<td></td>
</tr>
</tbody>
</table>

Target: 2017

USE RESOURCES WISELY

Missouri Department of Transportation  6f2
Some of the federal funds MoDOT receives are required to be passed through to local entities, such as cities and counties. Available funds for local entities include those that are allocated this year and those that have not been committed in prior years. When local entities use federal funds, they provide the matching funds. Matching funds provided by local entities help MoDOT use all the transportation federal funding available to Missouri.

MoDOT has set a target of committing 100 percent of local program funds to projects each year. In the third quarter of federal fiscal year 2018, 37 percent ($51.1 million) of the $137 million in available funds has been committed to local projects. This represents a 7 percent decrease in commitments compared to third quarter FFY 2017. Since FFY 2015, the percent of local program funds committed to projects has increased from 92 percent to 98 percent.

**Percent of Local Program Funds Committed to Projects**

The data is obtained from the Federal Highway Administration’s Fiscal Management Information System and based on the federal fiscal year from Oct. 1st through Sept. 30th. The committed amounts represent what FHWA will reimburse for the project. The available amounts represent the federal program funds distributed to local sponsors. The goal of this measure is to commit all federal funds available to local public projects.

The target for this measure is set by internal policy and will not change unless policy changes, regardless of performance.
MoDOT must keep a dependable fleet to meet customer’s needs. The fleet age is the best indication of fleet condition. The large investment in fleet, with a replacement value over $450 million, emphasizes the importance. Optimization of fleet is identified as one of MoDOT’s Sharpening our Strategic Vision Initiatives. MoDOT is moving toward an asset management approach for fleet using data to plan fleet purchases over the next several years. MoDOT also strives to use resources wisely by improving fuel efficiency. This is critical since MoDOT budgeted over $25 million for fuel in FY18.

In FY 2018, the average age for Light Duty fleet and Other fleet (includes equipment such as backhoes, loaders, tractors and specialty items like under bridge inspection units and stripers) shows gradual increase each year. The Dump Truck fleet units show gradual decreases in the average age which has been attributed to purchasing more dump trucks versus other fleet in recent years. The goal is for the average age to be half the department’s age threshold.

The fuel efficiency measure shows a decrease for the fourth quarter of FY 2018, compared to the fourth quarter of FY 2017, while the fuel consumption shows a slight increase for FY 2018 compared to FY 2017. Fuel consumption in FY 2018 has increased by 0.62 percent (45,992 gallons) compared to FY 2017. During the fourth quarter of FY 2018, fewer gallons were used for flood response and restoration compared to the fourth quarter of FY 2017. For the same period, increases in gallons used for snow and ice prevention/removal and asphalt pavement repairs were recorded. Changes in fuel use by activity resulted in a decrease in fuel efficiency of 0.25 miles per gallon compared to the same period last year.

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

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Light Duty</th>
<th>Dump Trucks</th>
<th>Other Fleet</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY 16</td>
<td>6.39</td>
<td>9.01</td>
<td>10.00</td>
</tr>
<tr>
<td>FY 17</td>
<td>6.63</td>
<td>8.69</td>
<td>10.00</td>
</tr>
<tr>
<td>FY 18</td>
<td>6.73</td>
<td>8.15</td>
<td>11.08</td>
</tr>
</tbody>
</table>

#### Average Age
- Light Duty: 6.73 years
- Dump Trucks: 8.15 years
- Other Fleet: 11.08 years

### Average Miles Per Gallon

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

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>4th Qtr 2017</th>
<th>4th Qtr 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Miles Per Gallon</td>
<td>8.24</td>
<td>8.54</td>
<td>8.31</td>
<td>8.20</td>
<td>8.82</td>
<td>8.57</td>
</tr>
</tbody>
</table>

#### 2018 TARGET
- Light Duty 5
- Dump Trucks 6
- Other Fleet 7

### Gallons of Fuel Consumed

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Gasoline &amp; E85</th>
<th>Diesel</th>
<th>Biodiesel</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>2.155</td>
<td>3.351</td>
<td>1.928</td>
</tr>
<tr>
<td>2016</td>
<td>2.143</td>
<td>2.999</td>
<td>1.916</td>
</tr>
<tr>
<td>2017</td>
<td>2.162</td>
<td>3.185</td>
<td>1.977</td>
</tr>
<tr>
<td>2018</td>
<td>2.094</td>
<td>3.416</td>
<td>1.860</td>
</tr>
</tbody>
</table>

#### 2018 TARGET
- Light Duty 5
- Dump Trucks 6
- Other Fleet 7

---

**Missouri Department of Transportation** 6h2
For more than a decade, MoDOT has incorporated recycled asphalt pavements and roof shingles into new asphalt pavements to help offset increasing costs. While the cost of rock, sand, liquid asphalt, labor, fuel and equipment have increased, recycling efforts have helped offset the cost increases. In 2017, 27 percent of the 3.2 million tons of new asphalt pavement constructed came from recycled components. Based on tonnage bids in 2017, this saved taxpayers about $5.46 per ton, or $17.5 million overall. The $17.5 million savings would be equivalent to improving more than 384 miles of a two-lane roadway with a thin overlay.

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

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

Recycling is good for the environment and helps continue to stretch available funds.
Missouri Department of Transportation 6i2

USE RESOURCES WISELY

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

Calendar Year

2013 2014 2015 2016 2017

Percent of Hot Mix Asphalt

Percent

Number (in thousands)

1,250 1,000 750 500 250 0

10 0

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

Calendar Year

2013 2014 2015 2016 2017

Concrete

Steel/Aluminum

Timber

Number (in thousands)

75 60 45 30 15 0

Tons of Recycled Material by MoDOT

Fiscal Year

2013 2014 2015 2016 2017

Number

5,000 4,000 3,000 2,000 1,000 0

Desired Trend

Missouri Department of Transportation 6i2
MoDOT seeks to reduce its impact on Missouri’s natural resources by complying with environmental laws and regulations. The department is serious about protecting human health, air, water, wildlife and ecosystems. Compliance with environmental laws and regulations helps to prevent and counteract possible damage from MoDOT activities.

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

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

MoDOT did receive findings of compliance on two projects, one in Greene County and one in Warren County. Both land disturbance projects were found to be in compliance with the clean water act and the Missouri state operating permit.

**Number of environmental warnings and violations – 6j**

The target for this measure is set by internal policy and will not change unless policy changes, regardless of performance.
MoDOT is committed to ensuring all land disturbance projects are in compliance with environmental laws through the use of adequate erosion and sediment control practices.

There were seven consent decree violations that occurred in the second quarter of 2018 with two being self-reported violations for failure to conduct post-runoff inspections in accordance with MoDOT’s land disturbance permit or Storm Water Pollution Prevention Plan. The permit requires rain event totals be documented in each post-runoff inspection. These two projects conducted weekly inspections after a rain event, which does not allow for documentation of rain event totals. These violations totaled $2,000.

Three of the violations were from contractors failing to comply with the Consent Decree. On two separate inspections for one project, the contractor’s water pollution control manager failed to certify inspection reports within the three days allowed by the decree. These two violations carry a total penalty of $500. The third violation resulted from a contractor failing to correct a deficiency identified on an inspection report within seven days from the inspection date. This violation carries a penalty of $1,000.

The final two violations resulted from a failure to document the Water Pollution Control Manager and the Inspector in the Stormwater Database before entering the date ground was broken. The decree requires these two parties be identified before any work begins. These violations carry a total penalty of $1,500.

The target for this measure is no violations and no penalties paid. The accumulated total consent decree violations are now at 14 and no penalties have been paid. The Environmental Protection Agency has not commented on MoDOT’s 2016 or 2017 annual reports.

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

Continued communication with the field staff and district contacts to keep everyone engaged and focused will assist MoDOT in keeping on track and meeting the target.
MoDOT uses thousands of computer devices to get work completed from thousands of locations around the state. Keeping those computers safe from outside computer threats is a 24-hour job using the latest security measures. Still, it’s a responsibility all department computer users must share.

During the fiscal year 2018, MoDOT ranked 15th compared to all other state agencies in terms of cybersecurity incidents per employee. MoDOT’s total of 36 cybersecurity incidents equated to a rate of .0071 incidents per employee. This is an increase from the last reporting period. Incidents included infected phishing emails, fake anti-virus exploits, an infected weather radar site and other targeted technology exploits.

MoDOT continues to emphasize cybersecurity with users and provides cybersecurity training for all department computer users. The department’s cybersecurity oversight team works to define areas of vulnerability and deploy solutions to address those risks.
MoDOT State Ranking in Cybersecurity Incidents per Employee
(July 1, 2017 - June 30, 2018)

*Number inside the parentheses indicates the number of incidents
ADVANCE ECONOMIC DEVELOPMENT

Lester Woods, External Civil Rights Director

Tracker

MEASURES OF DEPARTMENTAL PERFORMANCE
Missouri’s transportation system has a direct impact on the state’s economy. Missouri businesses depend on our roadways, rail, waterways and airports to move their products and services both nationally and globally. An efficient, well-connected transportation system helps attract new businesses to our communities and helps existing businesses maintain a competitive edge with easy customer access, minimal shipping costs and strong links to a diverse workforce. We believe investments in transportation should create jobs and provide opportunities for advancement to all Missouri citizens. An investment in transportation should provide a positive economic impact on both the citizens we serve and the communities in which they live.
Investment in transportation improvements has long been held as a major economic engine that drives growth in job creation, personal income and new value added to Missouri’s economy.

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

The increase in economic return is due to the increasing construction investment of highway and bridge improvements. Though these figures tell a powerful economic story, they are also a sign of missed opportunity. Current investments must focus on maintaining current transportation system rather than new major projects that offer a larger economic return.
Product transportation costs vary depending on the efficiency, reliability, safety and modal options in a state’s transportation system. Accumulation of costs to transport, starting at product origination through travel to the production facility and finally to market, directly impact the final cost of a product as well as how competitive the product is in the global market. Transportation costs account for 9 - 14 percent of a product’s market price. Therefore, maintaining low transportation costs is critical to retain and expand current businesses in Missouri as well as attracting new businesses to create new employment.

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

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

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

**Freight Cost Per Ton**

<table>
<thead>
<tr>
<th>Calendar Year</th>
<th>Soybeans</th>
<th>Finished Motor Vehicles</th>
<th>Farm Chemicals</th>
<th>Soybeans National Ranking</th>
<th>Finished Motor Vehicles National Ranking</th>
<th>Farm Chemicals National Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>12</td>
<td>290</td>
<td>167</td>
<td>2</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2015</td>
<td>10</td>
<td>291</td>
<td>155</td>
<td>1</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2016</td>
<td>15</td>
<td>366</td>
<td>163</td>
<td>2</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>2017</td>
<td>10</td>
<td>408</td>
<td>158</td>
<td>4</td>
<td>2</td>
<td>5</td>
</tr>
</tbody>
</table>

**TARGET**
Top Five National Ranking

**STRETCH TARGET**
Top Two National Ranking
Everything comes from somewhere. How it gets from place to place depends on a number of factors. The different transportation modes experience volume shifts from year to year often based on the health of the national economy and shifts in consumer preferences. A key element to a healthy economy is a robust transportation system.

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

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

### Freight tonnage by mode – 7c

<table>
<thead>
<tr>
<th>Calendar Year</th>
<th>Rail</th>
<th>Aviation</th>
<th>Motor Carriers</th>
<th>Ports</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>37</td>
<td>0.198</td>
<td>464</td>
<td>500</td>
</tr>
<tr>
<td>2014</td>
<td>39</td>
<td>0.196</td>
<td>485</td>
<td>32</td>
</tr>
<tr>
<td>2015</td>
<td>37</td>
<td>0.186</td>
<td>485</td>
<td>35</td>
</tr>
<tr>
<td>2016</td>
<td>35</td>
<td>0.186</td>
<td>462</td>
<td>0.184</td>
</tr>
<tr>
<td>2017</td>
<td>32</td>
<td>0.184</td>
<td>500</td>
<td>0.184</td>
</tr>
</tbody>
</table>

**Total Freight Tonnage**

- **Rail**
- **Aviation**
- **Motor Carriers**
- **Ports**

**DESIRABLE TREND**

Missouri Department of Transportation 7c
Time is money. Delay impacts the cost of goods and reduces an organization’s ability to compete on a global basis. American businesses require more operators and equipment to deliver goods when delays lengthen shipping time. Businesses must hold more inventories in more distribution centers to deliver products quickly when lengthier trips are unreliable and slow. Slow traffic also affects the local economy by reducing the number of workers and job sites within easy reach of a location.

Growth in freight volumes is a major contributor to congestion in urban areas and on intercity routes. Long-distance freight movements are often a significant contributor to local congestion, and local congestion typically impedes freight to the detriment of local and distant economic activity.

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

**Annual Hours of Truck Delay**

<table>
<thead>
<tr>
<th>Calendar Year</th>
<th>I-35</th>
<th>I-55</th>
<th>I-44</th>
<th>I-70</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>656</td>
<td>391</td>
<td>869</td>
<td>261</td>
</tr>
<tr>
<td>2014</td>
<td>850</td>
<td>460</td>
<td>1,212</td>
<td>325</td>
</tr>
<tr>
<td>2015</td>
<td>391</td>
<td>1,981</td>
<td>460</td>
<td>246</td>
</tr>
</tbody>
</table>

*2013 data contains only July through December.*
The reliable movement of goods by truck is critical to Missouri’s economy. Travel time reliability is the variation of travel time for the same trip from day to day. When the variability is large, the travel time is unreliable; and, vice versa, when there is little to no variability, the travel time is reliable. Variable or unpredictable travel times make it more difficult for motor carriers and shippers to plan their travel, often forcing them to add extra time to protect themselves against the uncertainty of arrival times. This uncertainty can lead to unproductive travel decisions that waste time and money. The map includes four freight-significant corridors: I-70, I-44, I-55, and I-35. The color green indicates the most reliable travel times; yellow slightly less reliable; and red the least reliable of travel times.

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

MoDOT continually seeks ways to deliver the infrastructure to support reliable trips for drivers and to help keep costs down and improve travel-time reliability.
The Cost Share Program builds partnerships with local entities to pool efforts and limited resources in order to deliver state highway and bridge projects. MoDOT allocates Cost Share funds annually based on the funding distribution formula set by the Missouri Highways and Transportation Commission. Ten percent of the Cost Share Program funds are set aside for projects that demonstrate economic development through job creation. MoDOT works in cooperation with the Department of Economic Development with project sponsors to determine when targeted investments can be made to create jobs and may provide up to 100 percent of participation costs. Retail development projects do not qualify as economic development projects that create jobs. One of MoDOT’s Strategic Initiatives is working towards predictive analytics to optimize the cost share program.

Projects approved in FY 2018:

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

The Cost Share Program was suspended in Fiscal Years 2015, 2016 and 2017.
By placing the right people in the right position, MoDOT can better serve its customers and help fulfill its responsibilities to taxpayers.

The number of minority employees decreased about 1.4 percent (518 to 511) from fourth quarter fiscal year 2017 to fourth quarter FY 2018.

The number of women employees decreased slightly from fourth quarter FY 2017 to fourth quarter FY 2018 (919 to 918).

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

Total full-time employment between fourth quarter FY 2017 and fourth quarter FY 2018 decreased from 5,101 to 5,084 employees.

Recently, MoDOT has developed new relationships with organizations and universities that are geared toward minorities and women. MoDOT has expanded its partnership with Lincoln University to include employment preparedness training opportunities and increased presence in discipline-specific classrooms. These good-faith efforts aid in increasing an applicant pool of qualified minorities and women, which ultimately helps narrow the gap between actual employment and target employment of minorities and women.
Note: Missouri availability data is not available for 4th quarter 2018
MoDOT believes it is good business to support diversity among its contractors, subcontractors and suppliers. Contractors, subcontractors and suppliers working on construction projects that receive federal aid or federal financial participation are required to take reasonable steps to ensure DBEs have an opportunity to compete for and participate in project contracts and subcontracts.

The overall DBE target for federal fiscal year 2018 is 15.38 percent. The DBE participation for first two quarters of FFY 2018 is 13.33 percent. This is a 0.25 percent decrease from FFY 2017. Of the 13.33 percent utilization, 2.38 percent was participation from minority-owned DBE firms, 2.25 percent was participation from minority women-owned DBE firms and 8.70 percent was participation from women-owned DBE firms. The collective goals set for projects closed during this period amounted to 11.54 percent. To narrow the gap between the target and performance, MoDOT is conducting outreach meetings to encourage new firms to apply for DBE certification and using DBE supportive services funding to expand the capacity of certified DBE firms.

**Missouri Department of Transportation 7h**
Ensuring MoDOT spending is reflected in all Missouri communities advances economic development for all business enterprises. Historical data helps identify opportunities for improvement. Improvement efforts include training staff who have procurement authority, outreach to MWDBE vendors in order to encourage them to become certified and focused inclusion efforts.

Fiscal year 2018 results show a decrease of $2.4 million in MWDBE disbursements compared to the FY 2017. Compared to FY 2017, the FY 2018 percentage of MWDBE expenditures decreased by 1.5 percent of total expenditures.

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

**Statewide Expenditures to Certified MWDBE**

![Statewide Expenditures to Certified MWDBE](chart)

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Dollars (in millions)</th>
<th>Percent</th>
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</thead>
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<tr>
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<td>2016</td>
<td>14.6</td>
<td>6.5</td>
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<tr>
<td>2017</td>
<td>17.9</td>
<td>7.8</td>
</tr>
<tr>
<td>2018</td>
<td>15.5</td>
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</table>

**2018 TARGET**

| 8.78 |

**Missouri Department of Transportation 7i**
Being a business-friendly state can be a big plus in attracting and retaining business investments. A major decision point for many businesses is the amount of red tape or restrictive government rules they will encounter doing business in a state. Restrictive government rules can also mean lost time and revenue for existing businesses.

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

As a result from this review process, MoDOT has eliminated 1,545 restrictions representing 57 percent of the 2,694 restrictions within its administrative rules. These changes resulted in 118 regulations being amended, 39 being rescinded and 8 being readopted. MoDOT has now reviewed 100 percent of its 214 administrative rules containing restrictive language.
Restrictive Regulatory Language Eliminated

<table>
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<th>Fiscal Year</th>
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<th>2nd Qtr 2018</th>
<th>3rd Qtr 2018</th>
<th>4th Qtr 2018</th>
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<td>Number</td>
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<td>509</td>
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</table>

As of June 30, 2018

Action Taken on 214 Rules Reviewed

- Rescinded: 49
- Rescinded & Readopted: 8
- Amended: 39
- Unchanged: 118

As of June 30, 2018