

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.



USE RESOURCES WISELY Brenda Morris, Financial Services Director



MEASURES OF DEPARTMENTAL PERFORMANCE

MEASUREMENT DRIVER:

Paul Imhoff Special Projects Coordinator

PURPOSE OF THE MEASURE:

This measure tracks the change in the number of fulltime equivalencies (a calculation of hours) expended within the department and compares it to the number of FTEs in the legislative budget.

MEASUREMENT AND DATA COLLECTION:

This measure converts the regular hours worked or on paid leave of temporary and salaried employees, as well as overtime worked (minus any hours that are flexed during the workweek), to FTEs. In order to calculate FTEs, the total number of hours worked or on paid leave is divided by 2,080. For comparison purposes, data for salaried employment is annualized, whereas temporary employment and overtime data represent actual year-to-date calculations. This measure does not represent salaried headcount.

The target for this measure was set by management directive.

USE RESOURCES WISELY

Number of full-time equivalencies expended – 6a

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

During 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.



MEASUREMENT DRIVER:

Paul Imhoff Special Projects Coordinator

PURPOSE OF THE MEASURE:

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

MEASUREMENT AND DATA COLLECTION:

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

The target for this measure was set by management directive.

USE RESOURCES WISELY

Rate of employee turnover - 6b

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

The overall turnover rate has risen from 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.



MEASUREMENT DRIVER:

Elizabeth Reed Special Projects Coordinator

PURPOSE OF THE MEASURE:

This measure tracks the level of employee satisfaction throughout the department at specific points in time.

MEASUREMENT AND DATA COLLECTION:

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

The target for this measure was set by management directive.

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

USE RESOURCES WISELY

Level of job satisfaction - 6c

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

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

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

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

Areas of low satisfaction centered on not having acceptable opportunities for professional growth and not making MoDOT employees feel valued. The lack of salary increases 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.





Missouri Department of Transportation 6c2

MEASUREMENT DRIVER:

Todd Grosvenor Assistant Financial Services Director

PURPOSE OF THE MEASURE:

This measure shows the precision of state and federal revenue budgets.

MEASUREMENT AND DATA COLLECTION:

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

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

USE RESOURCES WISELY

State and federal revenue budgets - 6d

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

The actual state revenue for road and bridge from motor fuel taxes, motor vehicle sales taxes, motor vehicle and driver licensing fees and miscellaneous was 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.



Missouri Department of Transportation 6d





Missouri Department of Transportation 6d2





Missouri Department of Transportation 6d3

MEASUREMENT DRIVER:

Frank Miller District Planning Manager

PURPOSE OF THE MEASURE:

This measurement monitors the effectiveness of MoDOT's cost-sharing and partnering programs.

MEASUREMENT AND DATA COLLECTION:

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

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

USE RESOURCES WISELY

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

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

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



MEASUREMENT DRIVER: Dion Knipp

Administrator of Transit

PURPOSE OF THE MEASURE:

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

MEASUREMENT AND DATA COLLECTION:

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

The target for this measure was set by management directive.

USE RESOURCES WISELY

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

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

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

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

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

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

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

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





Missouri Department of Transportation 6f2

MEASUREMENT DRIVER:

Julie Stotlemeyer Assistant State Design Engineer

PURPOSE OF THE MEASURE:

This measure tracks the percent of available local program funds committed to projects.

MEASUREMENT AND DATA COLLECTION:

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

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

USE RESOURCES WISELY

Percent of local program funds committed to projects – 6g

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

MoDOT has set a target of committing 100 percent of local program funds to projects each year. In the 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.



MEASUREMENT DRIVER:

Kevin James Assistant District Engineer

PURPOSE OF THE MEASURE:

This measure tracks progress of our fleet age for light duty, dump trucks, and other fleet. The measure also tracks fuel efficiency for five vehicle classes: cars, pickups, lightduty trucks, heavy duty trucks and extra-heavy duty trucks. These classes represent the majority of fleet expenditures and miles driven.

MEASUREMENT AND DATA COLLECTION:

Data reflects average age of units. The goal is for the average age to be half the department's age threshold. The data is obtained from MoDOT's fleet management system, FASTER. This measure also reports MoDOT's total fuel consumed and shows how fleet choices can affect fuel economy. The fuel data is collected in the statewide financial system. Mileage data is obtained from MoDOT's fleet management system, FASTER.

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

USE RESOURCES WISELY

Fleet age and fuel efficiency – 6h

MoDOT must keep a dependable fleet to meet 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 fiveyear 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.







Missouri Department of Transportation 6h2

MEASUREMENT DRIVER:

Jonathan Varner Intermediate Materials Specialist

PURPOSE OF THE MEASURE:

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

MEASUREMENT AND DATA COLLECTION:

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

USE RESOURCES WISELY

Number of tons of recycled material – 6i

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





Roofs to Roads

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







Missouri Department of Transportation 6i2

MEASUREMENT DRIVER:

Mary Miller District Construction and Materials Engineer

PURPOSE OF THE MEASURE:

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

MEASUREMENT AND DATA COLLECTION:

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

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

USE RESOURCES WISELY

Number of environmental warnings and violations – 6j

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

MoDOT has a zero-tolerance policy toward any Notices of Violation from regulating agencies, such as the Missouri Department of Natural Resources or the Environmental Protection Agency. Department employees study 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.



MEASUREMENT DRIVER:

Brian Williams Stormwater Compliance Coordinator

PURPOSE OF THE MEASURE:

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

MEASUREMENT AND DATA COLLECTION:

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

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

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

USE RESOURCES WISELY

Number of stormwater violations – 6k

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

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.





Missouri Department of Transportation 6k2

MEASUREMENT DRIVER:

Amy Wilson Assistant Information Systems Director

PURPOSE OF THE MEASURE:

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

MEASUREMENT AND DATA COLLECTION:

Data for this measure is captured from the Office of Administration reporting and individual agency websites.

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

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

USE RESOURCES WISELY

MoDOT state ranking in cybersecurity incidents per employee – 6l

MoDOT uses thousands of computer devices to get 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.



