

Missouri
Department of
Transportation



Citizen's Guide to
**TRANSPORTATION
FUNDING**
in Missouri

November 2020



Missouri Department of Transportation
www.modot.org

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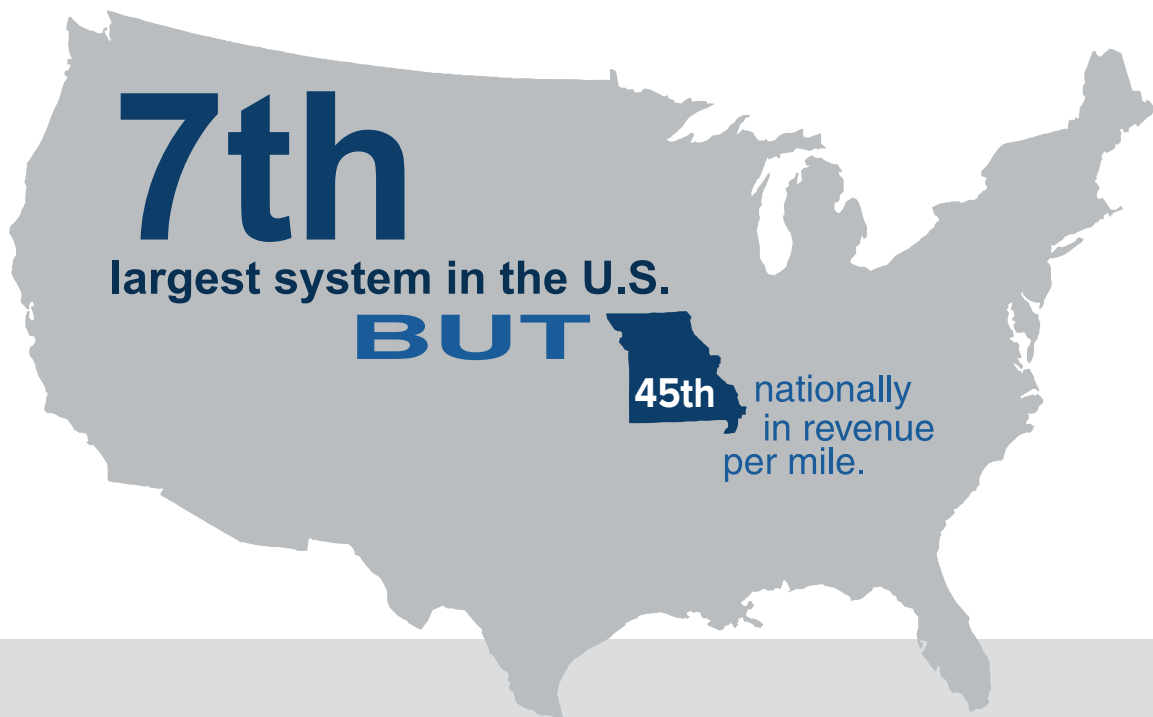
www.modot.org/guidetotransportation

CITIZEN'S GUIDE TO TRANSPORTATION FUNDING IN MISSOURI

How Transportation Funding Works

The citizens of the state of Missouri own a tremendous asset – the state transportation system.

Missouri's transportation system is a tremendous asset. Built by our parents and grandparents and funded by \$57 billion in user fees (it has a \$125 billion replacement value today), it is the nation's seventh largest state highway system – a system that is larger than neighboring states Kansas and Illinois combined. Missouri's transportation system plays a vital part in the lives of its citizens. It is counted on to safely and reliably connect people with family, jobs and services, businesses with suppliers and customers, students with schools and visitors with destinations.



How Transportation Funding WORKS

The Citizen's Guide to Transportation Funding in Missouri will further explain how transportation funding works, including how funds are distributed and invested across the state, and provide information on high-priority unfunded needs.

The primary sources of revenue provided to the Missouri Department of Transportation (MoDOT) to manage this system are **user fees: fuel taxes, registration and licensing fees and motor vehicle sales taxes.**

“When compared to other states, MoDOT ranks 45th in the nation in revenue per mile, which leads to **significant unfunded transportation needs** in the state.”

The average Missouri driver pays about \$30 per month in state and federal fuel taxes and fees. When commercial motor vehicle fees and federal general revenue transfers for transportation are included, the average climbs to \$51 per month. After distributions to other entities that are required by law, and payment of debt, MoDOT receives 63% of these funds to design, build, operate and maintain the system.

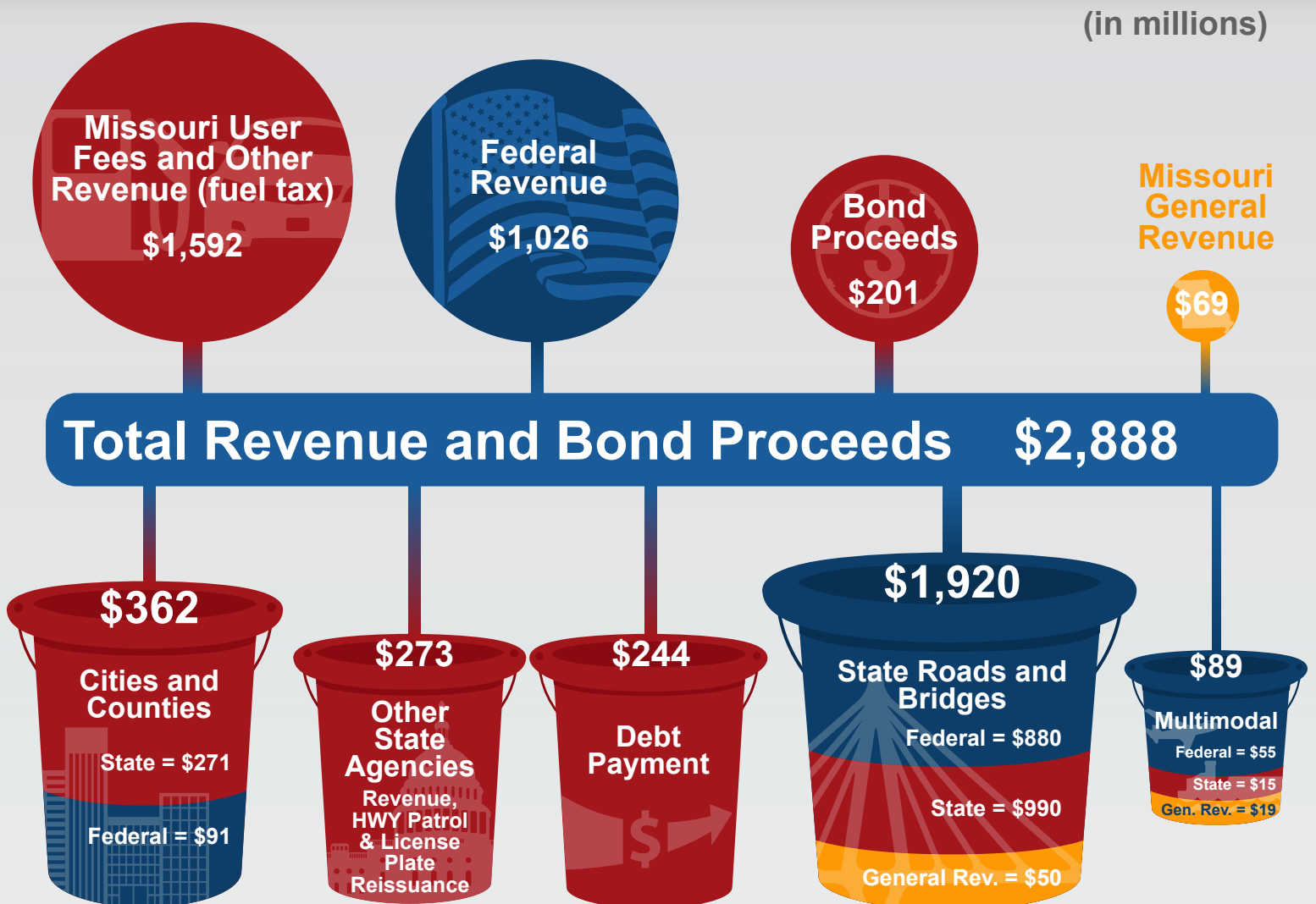
When compared to other states, MoDOT ranks 45th in the nation in revenue per mile, which leads to significant unfunded transportation needs across Missouri.

OVERVIEW

Missouri Transportation Funding – Overview

Missouri's transportation revenue, including bond proceeds, totaled nearly \$2.9 billion in fiscal year 2020. As shown below, 55% of the revenue, including bond proceeds, came from state user fees and 36% from federal revenue. A small fraction of funds came from issuance of bonds and from Missouri's General Revenue Fund, which receives revenue from the state income tax and the state's general sales tax.

The \$2.9 billion of revenue and bond proceeds is distributed into five "buckets" for various transportation purposes as determined by state and federal laws. Each bucket has a unique blend of state and federal revenue, as depicted by the red, blue and gold colors. The following pages provide a detailed look into each revenue source and funding bucket.



Transportation Funding IN MISSOURI

How Transportation is Funded in Missouri

The state transportation system is funded from four sources:

- Missouri User Fees and Other Revenue
- Federal Revenue
- Missouri General Revenue
- Bond Proceeds

Missouri User Fees and Other Revenue

\$1,592 million

Missouri user fees are paid by the users of the transportation system and are dedicated for transportation use in the state¹. They include fuel taxes, registration and licensing fees and motor vehicle sales taxes.

The largest source of revenue from Missouri user fees is the **state fuel tax**. The state fuel tax rate of 17 cents is paid for each gallon of gasoline and diesel fuel sold in Missouri.

¹ Missouri Constitution – Article IV, Section 30(b)

It is important to note that 17 cents per gallon is collected whether the price at the pump is \$1.99 or \$3.99. The state fuel tax was last increased in 1996 and today has the purchasing power of only 6 cents – **less than half of what it could purchase 24 years ago**. Due to inflation, MoDOT loses \$50-60 million in purchasing power each year.

Each year, about four billion gallons of fuel are sold – three billion gasoline and one billion diesel. In fiscal year 2020, Missouri travelers paid **\$692 million** of state fuel taxes – nearly one-half of all Missouri transportation user fees.

Transportation Funding IN MISSOURI

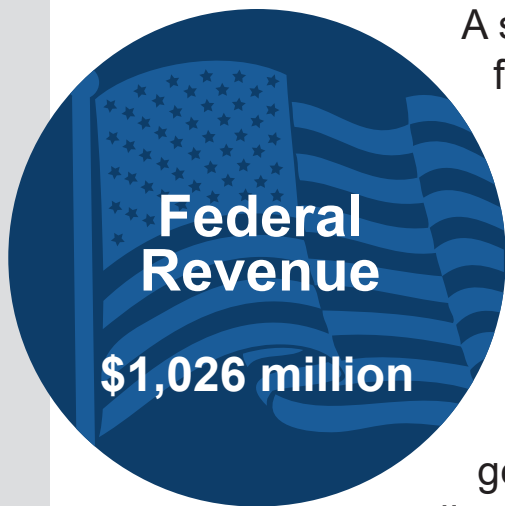
For Missourians who purchase or lease a **vehicle**, a 4.225% **state sales tax** is paid. State and local transportation receives revenue from 3.5% of the 4.225% state rate, which totaled **\$419 million** in fiscal year 2020. Revenue from the remaining 0.725% is dedicated to the School District Trust Fund, Department of Conservation and the Department of Natural Resources.

Missouri drivers also pay **vehicle registration and driver's licensing fees**. The fee amounts vary based on vehicle horsepower for passenger cars, vehicle weight for trucks and class of driver's license. Most of these fees were last increased in 1984, while some were last increased in 1969. In fiscal year 2020, Missourians paid **\$324 million** of vehicle registration and drivers licensing fees.

Other revenue sources include taxes on aviation fuel, railroad fees, interest earned on invested funds and highway construction cost reimbursement from local governments and surrounding states. In fiscal year 2020, Missouri received **\$157 million** in other revenue.

In FY 2020, Missourians Paid:

- **\$692 million** in state fuel taxes,
- **\$419 million** in taxes on vehicle sales, and
- **\$324 million** in vehicle registration and license fees.



A significant amount of transportation funding comes from the federal government. Federal funding is generated by the federal fuel tax – 18.4 cents per gallon for gasoline and 24.4 cents per gallon for diesel. Other sources include various taxes on tires, heavy truck and trailer sales, heavy vehicle use tax and general revenue. These revenues are distributed to the states based on formulas

prescribed by federal law through transportation funding acts. The current transportation funding act, Fixing America’s Surface Transportation (FAST) Act, authorized federal programs for the five-year period from 2016-2020. It expired Sept. 30, 2020, but was extended for another year by continuing resolution.

The majority of federal revenue is dedicated to pay for a share of eligible highway improvement costs. The federal share for the eligible costs is typically 80%, with the state or local government providing a 20% match. The amount of federal funding available is fixed, so some eligible costs may not receive reimbursement.

“The federal share for the eligible costs is typically **80%**, with the state or local government providing a **20% match**.”

Transportation Funding IN MISSOURI

Many operational costs for transportation, such as plowing snow and mowing right of way, are not eligible for federal reimbursement. In fiscal year 2020, Missouri received **\$861 million** of federal reimbursement for state highway improvements and **\$91 million** for cities and counties.

This revenue source also includes federal funding for multimodal grants totaling **\$55 million** in 2020. Transit (\$31 million), aviation (\$24 million) and rail (\$0.3 million) all receive federal funding. The remaining **\$19 million** is for highway safety grants to improve roadway safety.



In FY 2020,
Missouri received:

- **\$861 million** in federal reimbursements on state highways,
- **\$91 million** for cities & counties and
- **\$74 million** for federal safety programs and multimodal grants.

Missouri General Revenue

\$69 million



Missouri's General Revenue Fund provided **\$69 million** for transportation purposes in fiscal year 2020, or 2% of transportation revenue. The major sources of funding for Missouri's General Revenue Fund are the state income tax and general sales tax.

The Missouri General Assembly allocates these funds through the annual appropriations process during the state's legislative session. This annual process can be challenging for transportation funding as many projects require a multi-year funding commitment to go through planning, design and construction.

General Revenue Funds can be used for any transportation improvement as directed by the Missouri General Assembly. The \$69 million in fiscal year 2020 included \$19 million in multimodal funding and \$50 million for the Focus on Bridges program.

Focus on Bridges

In fiscal year 2020, MoDOT borrowed \$201 million as part of the Focus on Bridges Program. The Focus on Bridges Program provided \$351 million in funds to repair or replace 250 bridges on the state highway system. The Focus on Bridges Program provided \$50 million of General Revenue in fiscal year 2020 to fund approximately 45 bridge projects. The remaining \$301 million is funded by bond proceeds with General Revenue Fund monies being made available for debt service payments over the next seven years.

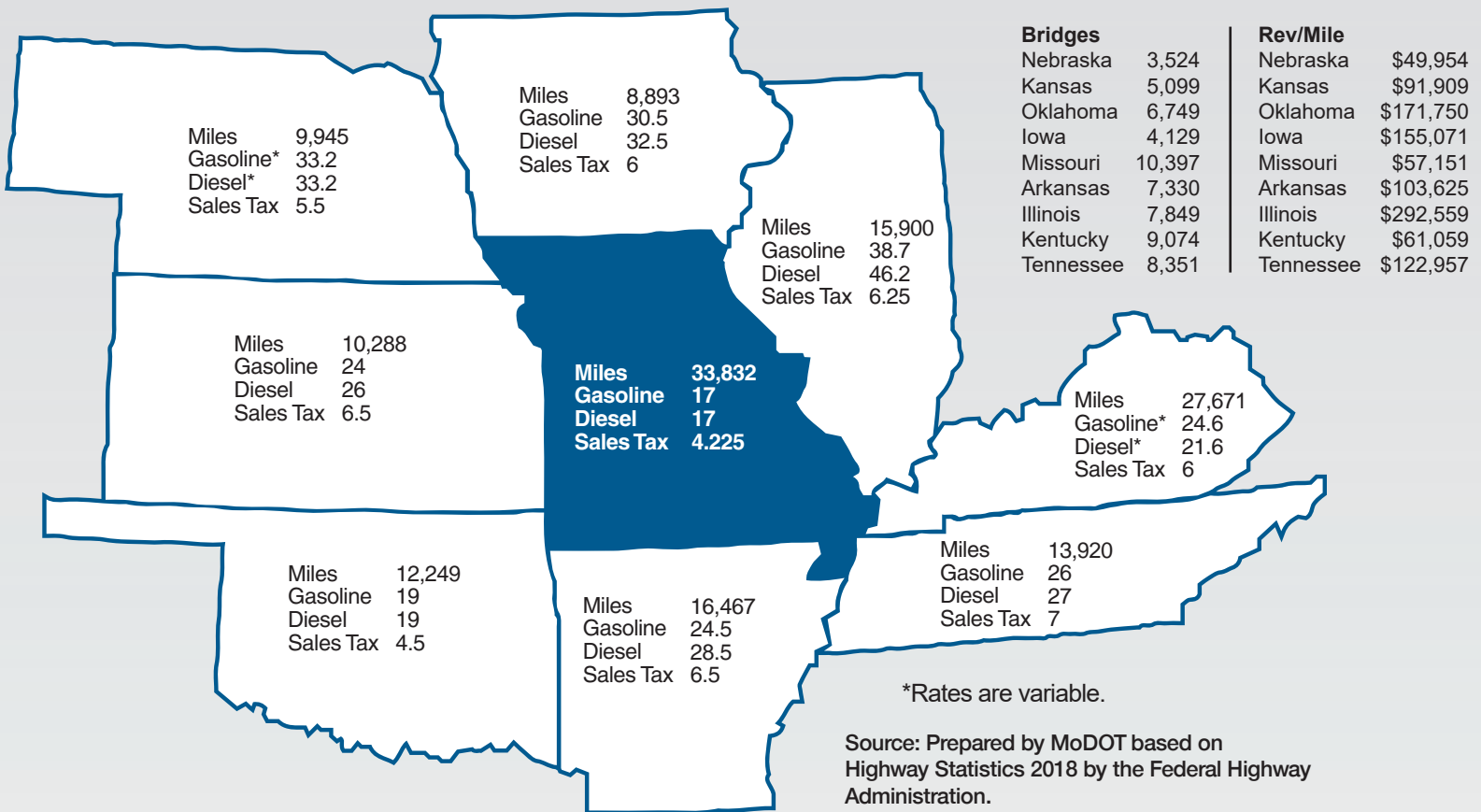
How Does Missouri COMPARE?

How Missouri Compares to the Nation and its Neighboring States

Missouri ranks 45th nationally in revenue per mile, primarily because the state's large system – the nation's seventh largest with 33,832 miles of highways – is funded with one of the lowest fuel taxes in the country: 17 cents per gallon. Missouri also ranks seventh nationally in the number of bridges with 10,397. This does not include the city and county system of roads and bridges, which includes an additional 97,000 miles of county roads and city streets, and nearly 14,000 bridges.

Missouri Lags Behind

Missouri has a lower fuel tax rate than any of its neighbors. Yet it has a larger state-maintained highway system than any of them.



*Rates are variable.

Source: Prepared by MoDOT based on Highway Statistics 2018 by the Federal Highway Administration.
State sales tax rates based on the Federal Tax Administration data.

Gasoline and diesel fuel tax rates are shown in cents per gallon.
Miles are shown in center line miles of the state maintained highway system.

Over the last 20 years, due to inflation and ever-improving vehicle fuel economy, the purchasing power of Missouri's state fuel tax has effectively dropped from 17 cents to 6 cents during a time when the cost of the primary road and bridge building materials of asphalt, concrete and steel have doubled. Labor costs have also significantly risen during that time frame.

Missouri's revenue per mile is \$57,151, while the national average is \$241,277. By contrast, New Jersey's revenue per mile of \$2,157,610 ranks first, although its state highway system includes only 2,334 miles and 2,393 bridges.

When compared to its eight surrounding states, Missouri has the largest state highway system and lowest fuel tax rate of 17 cents per gallon. Several of Missouri's surrounding states also benefit from additional revenue sources for transportation like tolling and general sales taxes.

**MISSOURI HAS MORE
MILES OF
STATE
HIGHWAYS**

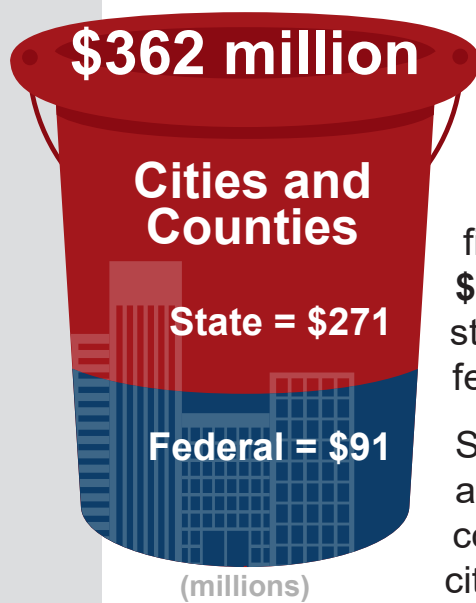


THAN IOWA, NEBRASKA AND KANSAS COMBINED

Where is the money INVESTED?

Where is the Money Invested?

MoDOT does not receive the entire \$2.9 billion of transportation revenue and bond proceeds, or the \$30 per month from the average Missouri driver. After allocations to cities, counties, other state agencies and debt payment, MoDOT received \$1.9 billion of transportation revenues in fiscal year 2020 to invest in the state transportation system. That equates to about \$20 of the \$30 per month Missouri drivers are paying.

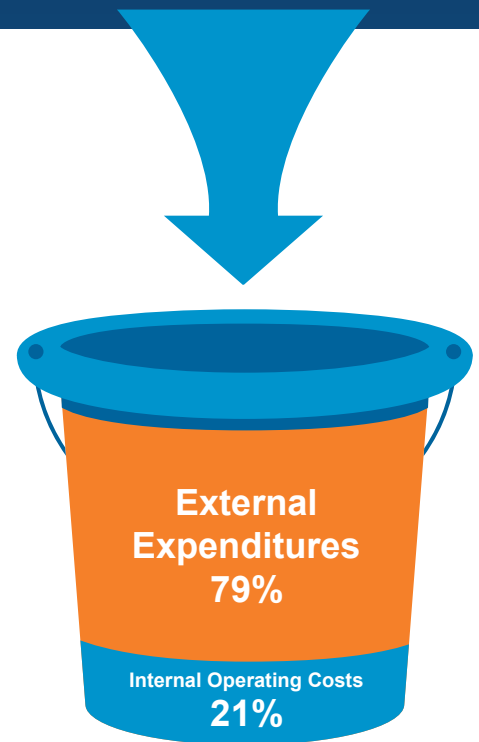


Cities and counties in Missouri receive a share of state and federal transportation revenues for projects of their choosing. In fiscal year 2020, that totaled **\$362 million** – \$271 million in state funds and \$91 million in federal funds.

State funds are distributed as specified in the state constitution². For fuel taxes, cities and counties receive 4.55 cents of the 17 cents per gallon rate, or about 27%. In fiscal year 2020, this totaled **\$186 million**. For vehicle registration and driver’s licensing fees, cities and counties received **\$28 million**, or about 9%. For motor vehicle sales tax, cities and counties received **\$57 million**, or about 14%.

² Missouri Constitution – Article IV, Sections 30(a) and 30(b)

How much of MoDOT investment flows directly to the private sector?



The distribution of federal funds is prescribed by federal law through transportation funding acts. The majority of federal revenue is dedicated to reimburse a share of eligible costs, which is typically 80%.

The federal transportation programs for cities and counties include:

- Off-System Bridge,
- Congestion Mitigation and Air Quality,
- Surface Transportation Block Grant Programs and
- Transportation Alternatives Programs – these funds encompass a variety of smaller-scale transportation projects such as pedestrian and bicycle facilities, recreational trails and other community improvements.

The majority of cities and counties also receive additional local revenues – most often from additional sales and property taxes – to build and maintain city streets and county roads. These amounts are not included in the totals discussed here.

The Missouri Constitution and state and federal laws determine how transportation funds are allocated to states, cities and counties.

Where is the money INVESTED?



Per the Missouri Constitution³, the Missouri Department of Revenue (DOR) and the Missouri State Highway Patrol (MSHP) also receive transportation revenue. In fiscal year 2020, the amount totaled \$273 million.

The Highway Patrol receives funding for administering and enforcing state motor vehicle laws and traffic regulations. The Missouri General Assembly determines the amount available to the MSHP each year – \$245 million was spent in fiscal year 2020.

The Department of Revenue receives funding for the cost to collect transportation taxes and fees. The cost of collection cannot exceed 3% of the particular tax or fee collected. In fiscal year 2020, the DOR received \$22 million. Also in fiscal year 2020, \$6 million was spent on the bicentennial license plate reissuance.

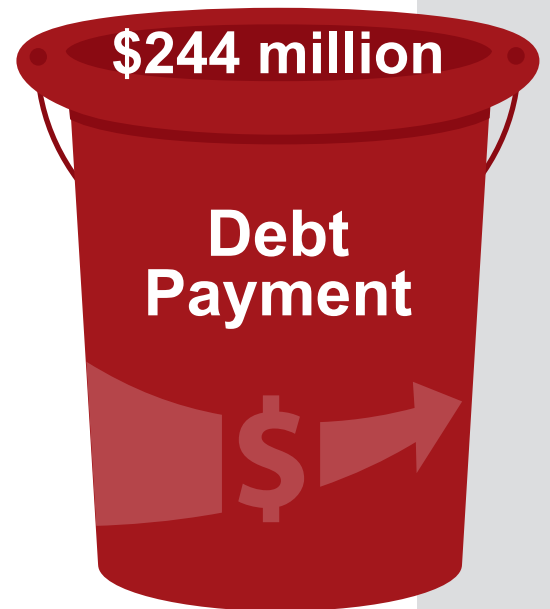
³ Missouri Constitution – Article IV, Section 30(b)

MoDOT, the Highway Patrol and the Department of Revenue are the only state agencies that may receive transportation dollars.

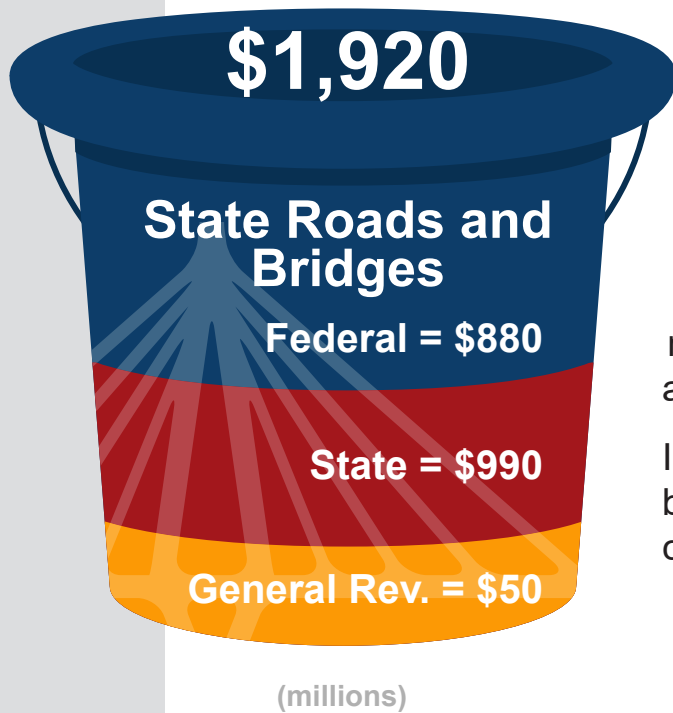
From 2000-2010, and again in 2019, MoDOT sold bonds that provided additional resources for highway improvements. Bonds are debt and similar to a home mortgage – this debt must be repaid over time. The total debt payment in fiscal year 2020 totaled \$244 million.

MoDOT has four kinds of bonds: senior bonds that were authorized by the Missouri General Assembly in 2000; Amendment 3 bonds that were authorized by Missouri voters in 2004; bonds authorized by the Missouri General Assembly in 2019 to finance the Focus on Bridges program with debt service from General Revenue over the next seven years; and federal GARVEE (Grant Anticipation Revenue Vehicle) bonds that financed specific projects. Borrowing advanced construction and allowed Missouri to avoid inflation in labor and materials costs; however, borrowed money must be repaid and new borrowing should be enabled with dedicated and reliable additional revenue to cover repayment and maintain credit ratings.

Senior bonds will be paid off by 2023, Amendment 3 bonds will be paid off by 2029 and GARVEE bonds will be paid off by 2033. Focus on Bridges bonds will be paid off in 2027. The average interest rate on all outstanding debt combined is 2.62%.



Where is the money INVESTED?



After distributions to cities and counties, other state agencies and the debt payment, 66% of transportation revenue is available for state roads and bridges. These are the funds that enable MoDOT to design, construct, operate and maintain a network of 33,832 miles of highways and 10,397 bridges.

Investments for state roads and bridges are summarized into five categories:

- Construction Program
- Maintenance
- Fleet, Facilities and Information Systems
- Administration
- Highway Safety Programs

The majority of MoDOT's expenditures are payments to vendors. The payments are for goods and services needed to build and maintain Missouri's transportation infrastructure. Whether it be payments to contractors, the purchase of equipment and supplies, design services or travel costs, these outward focused expenditures are an investment in Missouri's economy, and drive economic opportunity in the state.



The construction program is the largest area of investment in MoDOT’s budget, totaling **\$1.093 billion** in fiscal year 2020. It includes payments to contractors to build projects that maintain and improve the system (\$921 million), MoDOT engineering costs associated with administering and monitoring the construction program – including salaries, wages and fringe benefits (\$125 million), payments to engineering design consultants (\$37 million) and the cost of acquiring right of way (\$10 million).

The **maintenance** expenditures, totaling **\$472 million** in fiscal year 2020, pay for the services performed by MoDOT employees like plowing snow and mowing. But it also includes maintaining the pavements on the state’s lower-volume routes, many of which are not eligible for federal reimbursement. It covers utilities, tools and materials needed in maintenance buildings across the state, bridge maintenance, signing, striping, sweeping, rumble stripes, lighting, etc. The maintenance budget also allows for traveler information and incident management services.

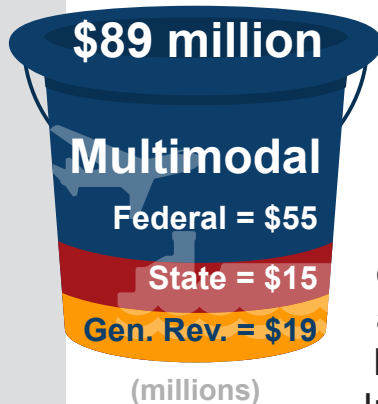
Fleet, facilities and information systems investments, totaling **\$76 million** in fiscal year 2020, cover the costs of purchasing MoDOT’s fleet of trucks, constructing and maintaining MoDOT buildings and providing information technology that is needed for MoDOT to perform maintenance and engineering functions.

Where is the money INVESTED?

MoDOT's **administrative** costs – the fourth lowest in the nation – were **\$52 million** in fiscal year 2020. That includes salaries, wages and fringe benefits to provide support services like human resources, accounting, legal, executive management, customer service, etc. Administration also includes medical insurance costs for MoDOT retirees.

Road and bridge investments include **\$19 million** for **highway safety** programs that reduce fatalities and serious injuries, which includes salaries, wages and fringe benefits.

In total, MoDOT invested **\$1.712 billion** on state roads and bridges in fiscal year 2020.



Multimodal includes non-highway modes of transportation such as transit, aviation, railroads and waterways. The majority of transportation revenue is legally required to be spent on state roads and bridges, leaving only \$89 million, or about 4% of total revenue, available for multimodal needs. Unlike highways, MoDOT does not own multimodal facilities.

Instead, MoDOT's role is to administer funding and provide an oversight role for multimodal improvements. Many of the multimodal entities receive local tax revenue and direct federal funding, which are not included in these amounts.

In fiscal year 2020, MoDOT administered \$37 million of **transit** funds. The majority of these funds are from federal programs that support operating costs and bus purchases for transit agencies across the state. There is a small amount of state and General Revenue funding to support operating costs for transit agencies.

MoDOT administered \$29 million of **aviation** funds in fiscal year 2020. Missouri has dedicated taxes on aviation fuel to fund improvements to public use airports in Missouri. MoDOT also administers federal funding to improve airfield pavement conditions and lighting systems, eliminate obstructions and for expansion projects.

MoDOT administered \$10 million of **rail** funds in fiscal year 2020. These funds are used to support two programs – the Amtrak passenger rail service between St. Louis and Kansas City, and safety improvements at railroad crossings. The Amtrak funding is from General Revenue, and safety improvements at railroad crossings are from state and federal sources.

Waterways funding totaled \$9 million in fiscal year 2020. These funds provided operating and capital assistance to Missouri’s river ports and ferry boat operators.

MoDOT also administers a \$1 million **freight** enhancement program that provides assistance to public, private or not-for-profit entities for non-highway capital projects that improve the efficient flow of freight in Missouri.

Internal operating costs to administer the various multimodal programs totaled \$2 million, including salaries, wages and fringe benefits.

In fiscal year 2020, MoDOT administered \$88 million for multimodal needs.

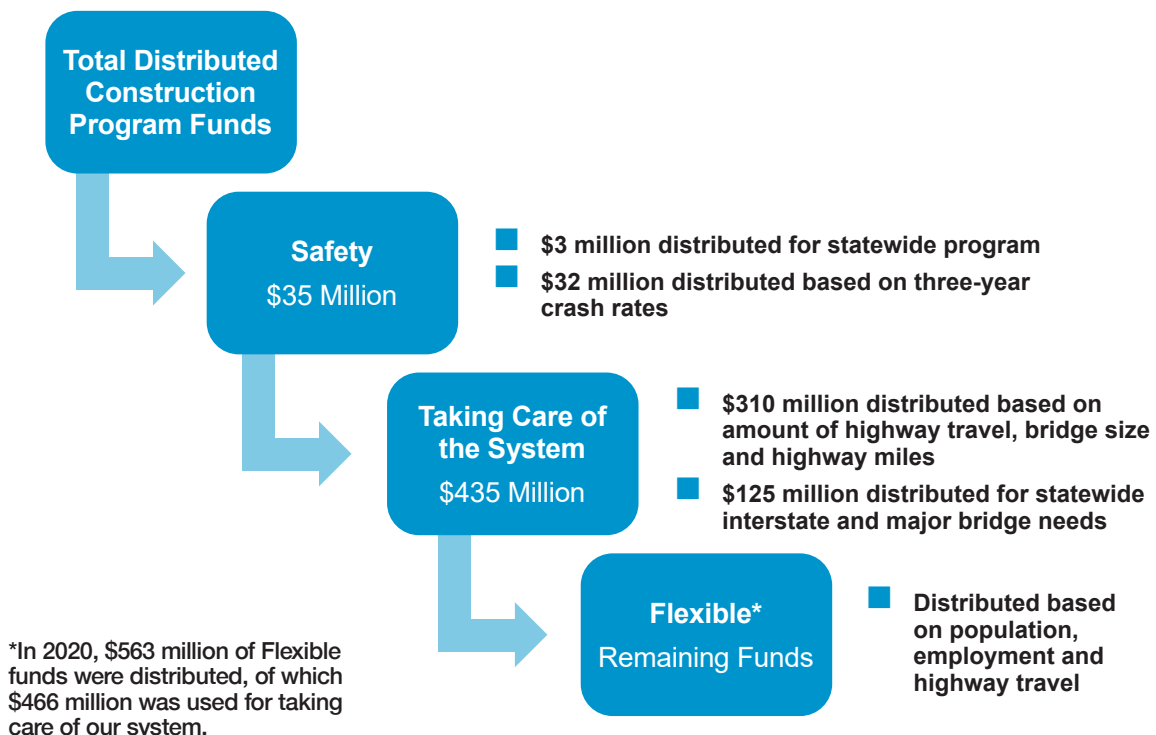


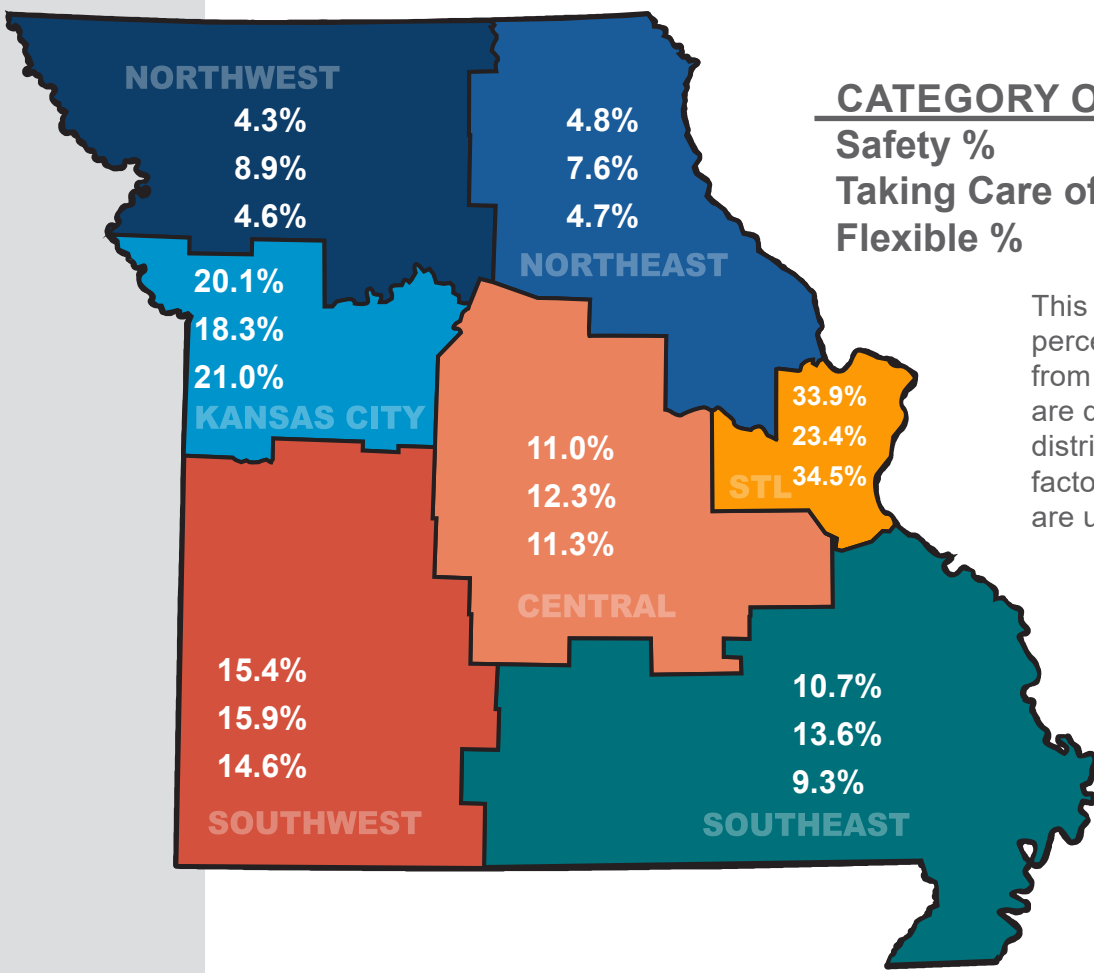
MoDOT Funding DISTRIBUTION

How is MoDOT's Funding Distributed Across the State?

Since 2003, the Missouri Highways and Transportation Commission has used a formula to distribute construction program funds for road and bridge improvements to each of its seven districts. This is the largest area of MoDOT's budget that provides funding for safety improvements, taking care of the system and flexible funds that districts can use to take care of the system or invest in major projects that relieve congestion and spur economic growth. In many districts, taking care of the system funds are not sufficient to maintain current system conditions. Districts use flexible funds to make up the difference.

Construction program funds are allocated annually to districts using the following formula:





CATEGORY ORDER:

- Safety %
- Taking Care of the System %
- Flexible %

This map shows the percentage of funds from each category that are distributed to each district, based on 2020 factors. Those factors are updated annually.

Once construction program funds are distributed to districts, MoDOT collaborates with regional planning groups to identify local priorities based on projected available funding. The regional transportation improvement plans are brought together to form the department's Statewide Transportation Improvement Program, which outlines five years of transportation improvements. As one year of the plan is accomplished, another year is added.

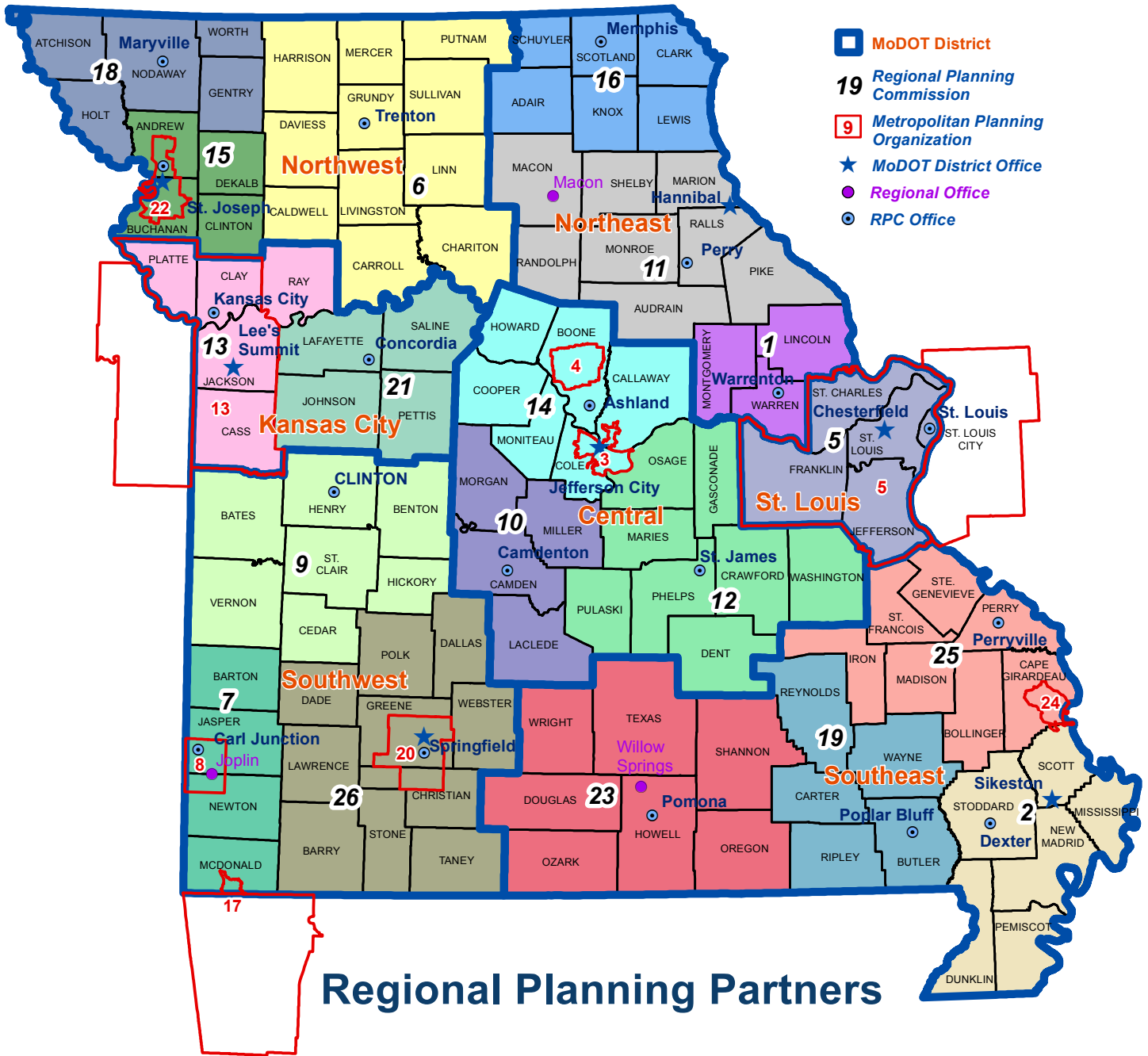
MoDOT Funding DISTRIBUTION

There are two types of regional planning groups in the state: urban areas have Metropolitan Planning Organizations, and rural areas have Regional Planning Commissions. Board members for each of these groups are typically city and county leadership, elected officials and local business owners.

The regional planning groups reach out to local citizens to identify transportation needs. MoDOT staff assists regions to prioritize those needs based on road and bridge conditions, traffic safety data and overall mobility. The prioritization process also includes balancing priorities with available funds.

MoDOT's planning framework involves local citizens from start to finish – an approach that has earned MoDOT recognition as a national leader in public involvement.

Funding for MoDOT operations consists of costs for staff and expenses for maintenance, fleet, facilities and information systems activities. The funding distribution for MoDOT staff costs is based on the number of personnel needed in each district to provide the services to the public, including snow removal, mowing right of way and maintaining roadsides. The budget for expenses, such as salt, paint and fuel, are distributed to districts based on the number of highway miles, highway travel and minor roads that are in poor condition.



Regional Planning Partners

1. Boonslick Regional Planning Commission	14. Mid-Missouri Regional Planning Commission
2. Bootheel Regional Planning & Economic Development Commission	15. Mo-Kan Regional Council
3. Capital Area Metropolitan Planning Organization	16. Northeast Missouri Regional Planning Commission
4. Columbia Area Transportation Study Organization	17. Northwest Arkansas Regional Planning Commission
5. East West Gateway Council of Governments	18. Northwest Missouri Regional Council of Governments
6. Green Hills Regional Planning Commission	19. Ozark Foothills Regional Planning Commission
7. Harry S. Truman Coordinating Council	20. Ozarks Transportation Organization
8. Joplin Area Transportation Study Organization	21. Pioneer Trails Regional Planning Commission
9. Kaysinger Basin Regional Planning Commission	22. St. Joseph Area Transportation Study Organization
10. Lake of the Ozarks Council of Local Governments	23. South Central Ozark Council of Governments
11. Mark Twain Regional Council of Governments	24. Southeast Metropolitan Planning Organization
12. Meramec Regional Planning Commission	25. Southeast Missouri Regional Planning and Economic Development Commission
13. Mid America Regional Council	26. Southwest Missouri Council of Governments

MoDOT Funding DISTRIBUTION

When adding the construction program, operations, administration and highway safety programs together, the following amounts were spent in districts for fiscal year 2020:

(\$ Millions)

District	Construction Program	Operations*	Admin**	HWY Safety Programs	Total
Northwest	\$126	\$63	\$2	-	\$191
Northeast	\$89	\$52	\$2	-	\$143
Kansas City	\$193	\$64	\$3	3	\$263
Central	\$112	\$69	\$2	-	\$183
St. Louis	\$241	\$69	\$3	3	\$316
Southwest	\$179	\$82	\$2	1	\$264
Southeast	\$115	\$80	\$2	-	\$197
Statewide***	\$38	\$69	\$36	\$12	\$155
Total	\$1,093	\$548	\$52	\$19	\$1,712

*Includes \$472 million of maintenance expenditures and \$76 million of fleet, facilities and information system expenditures.

**According to the Reason Foundation, MoDOT's administrative costs are 4th lowest in the nation for state departments of transportation.

***Statewide administrative costs include \$18 million for medical insurance costs for MoDOT retirees.

Since spending can fluctuate from year to year, the table below provides the amounts based on the three-year average from fiscal years 2018 through 2020:

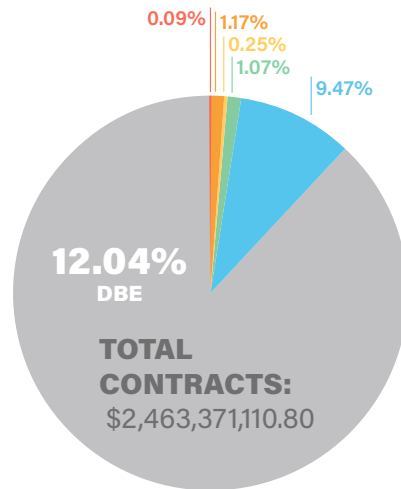
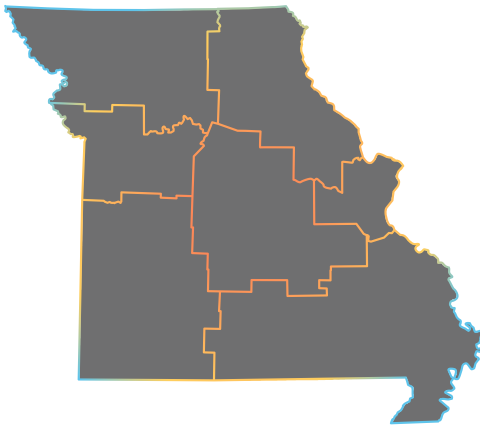
(\$ Millions)

District	Construction Program	Operations	Admin	HWY Safety Programs	Total
Northwest	\$86	\$61	\$2	-	\$149
Northeast	\$83	\$53	\$2	-	\$138
Kansas City	\$199	\$60	\$3	3	\$265
Central	\$108	\$69	\$2	-	\$179
St. Louis	\$235	\$66	\$3	3	\$307
Southwest	\$145	\$81	\$2	1	\$229
Southeast	\$104	\$81	\$2	-	\$187
Statewide	\$37	\$73	\$36	\$11	\$157
Total	\$997	\$544	\$52	\$18	\$1,611

Disadvantaged Business Enterprises

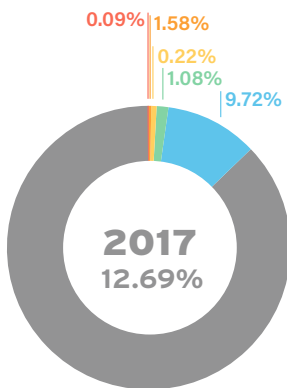
The Disadvantaged Business Enterprise program is a federally mandated program administered by MoDOT's External Civil Rights Division. The program's overall goal is to provide opportunities to participate in the economic benefits of highway construction to small businesses owned and operated by disadvantaged individuals.

Statewide TOTAL FFY 17-19

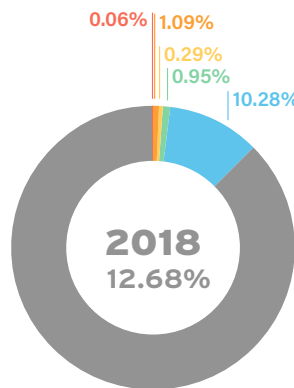


TOTAL DBE PARTICIPATION COMMITTED:
\$296,624,225.53

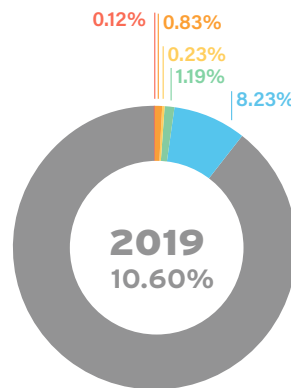
ASIAN AMERICAN	\$2,160,834.60
BLACK AMERICAN	\$28,882,597.52
HISPANIC/LATINO AMERICAN	\$6,106,784.39
NATIVE AMERICAN	\$26,251,878.19
NON-MINORITY (Female & Male)	\$233,222,130.83



TOTAL: \$825,032,846.27
DBE: \$104,717,721.89



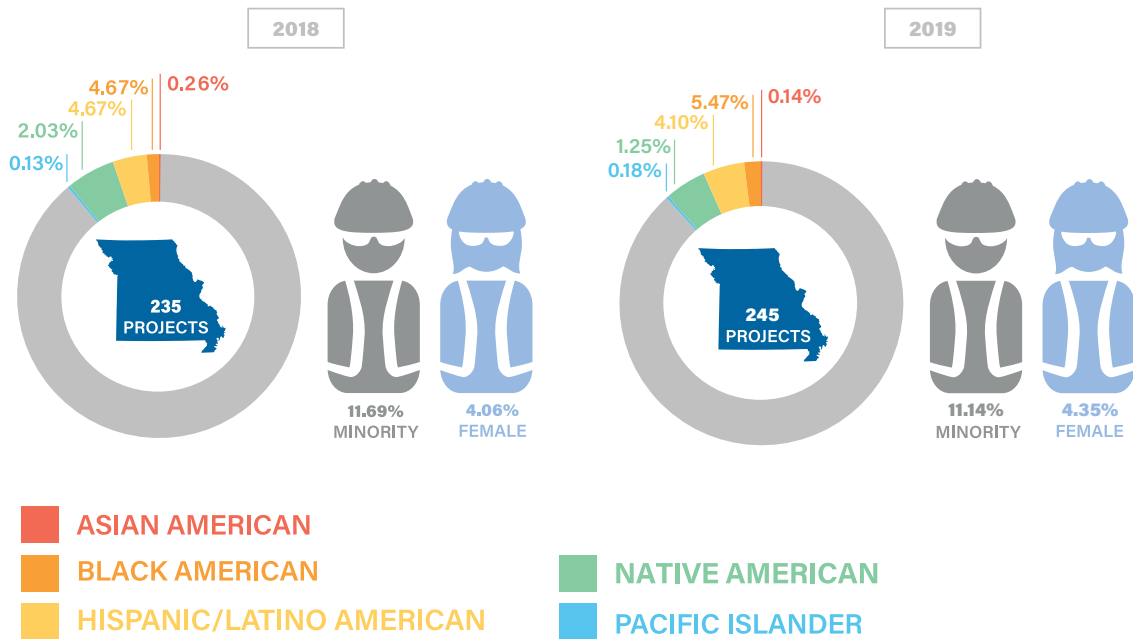
TOTAL: \$879,901,545.81
DBE: \$111,536,461.15



TOTAL: \$758,436,718.72
DBE: \$80,370,042.49

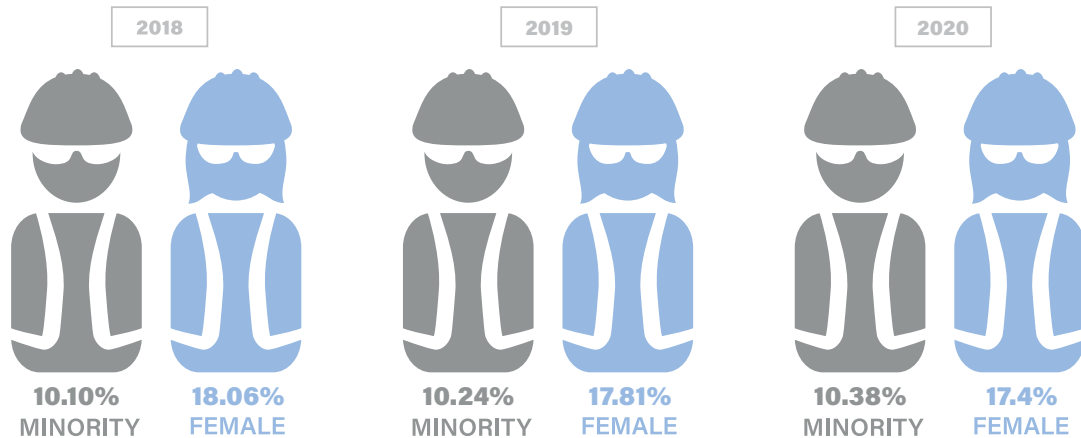
MoDOT Workforce Analysis

CONTRACTOR



MoDOT STAFF

Minorities and women employed



Sources: MoDOT Tracker, Annual Federal Highway Report by percentage of employees
www.modot.org/welcome-external-civil-rights

The Cost of OPERATIONS

How Much Does It Cost to Operate the Transportation System?

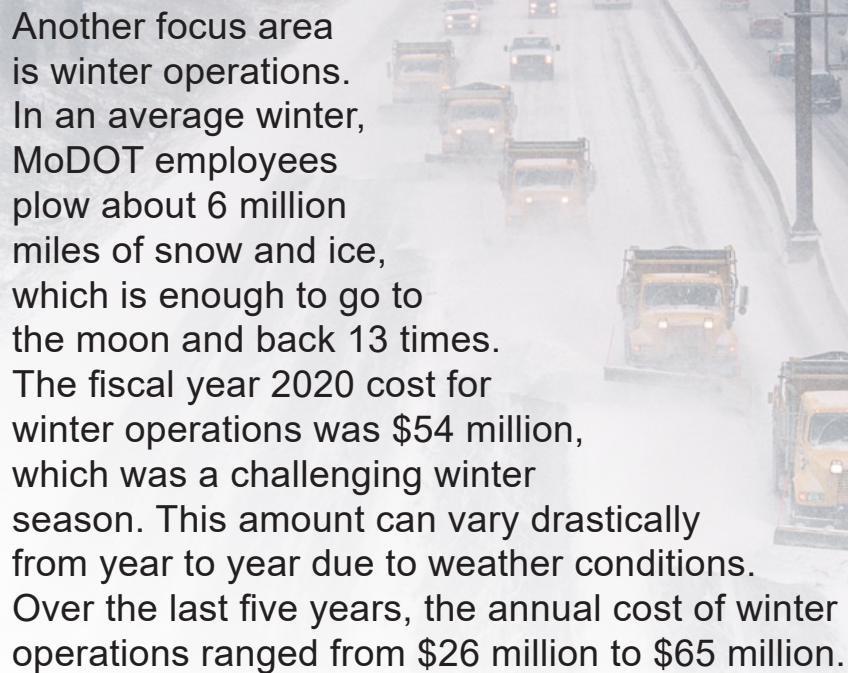
MoDOT employs 3,000+ field employees throughout the state to operate and maintain the transportation system. In fiscal year 2020, MoDOT invested **\$548 million**, or about \$10.61 per month from Missouri drivers, to provide the following services:

- Pavement repairs and sealing
- Winter operations
- Bridge maintenance
- Striping
- Traffic signs and signals
- Mowing
- Flood/road closures
- Ditches/Drainage
- Litter and debris removal
- Incident response
- Customer calls
- Dead animal removal
- Driveway maintenance
- Permits
- Vegetation control

The number one focus of operations is roadway maintenance. In fiscal year 2020, \$222 million of MoDOT's operating budget was spent on roadways for repairs, sealing and striping. Each year, MoDOT crews place enough asphalt to do a 1-inch overlay and sealing from Los Angeles to Washington D.C. – about 2,300 miles. The repair work from MoDOT operations is focused on roads that do not carry a lot of traffic. Funding from the construction program pays for pavement improvements for heavily traveled roads, like interstates and U.S. highways.



The Cost of OPERATIONS



Another focus area is winter operations. In an average winter, MoDOT employees plow about 6 million miles of snow and ice, which is enough to go to the moon and back 13 times. The fiscal year 2020 cost for winter operations was \$54 million, which was a challenging winter season. This amount can vary drastically from year to year due to weather conditions. Over the last five years, the annual cost of winter operations ranged from \$26 million to \$65 million.

Maintaining roadsides costs about \$38 million each year for crews to mow grass and remove litter, debris and dead animals. MoDOT mows about 400,000 acres of grass each year, which is equivalent to 300,000 football fields.



Operating funds do more than just maintain the system. They also provide funds to operate the system so people get where they want to go. MoDOT manages over 2,600 traffic signals, 250 dynamic message signs, 1,100 traffic cameras and traffic management centers in Kansas City, St. Louis and Springfield. The average annual cost for these operations is \$15 million.

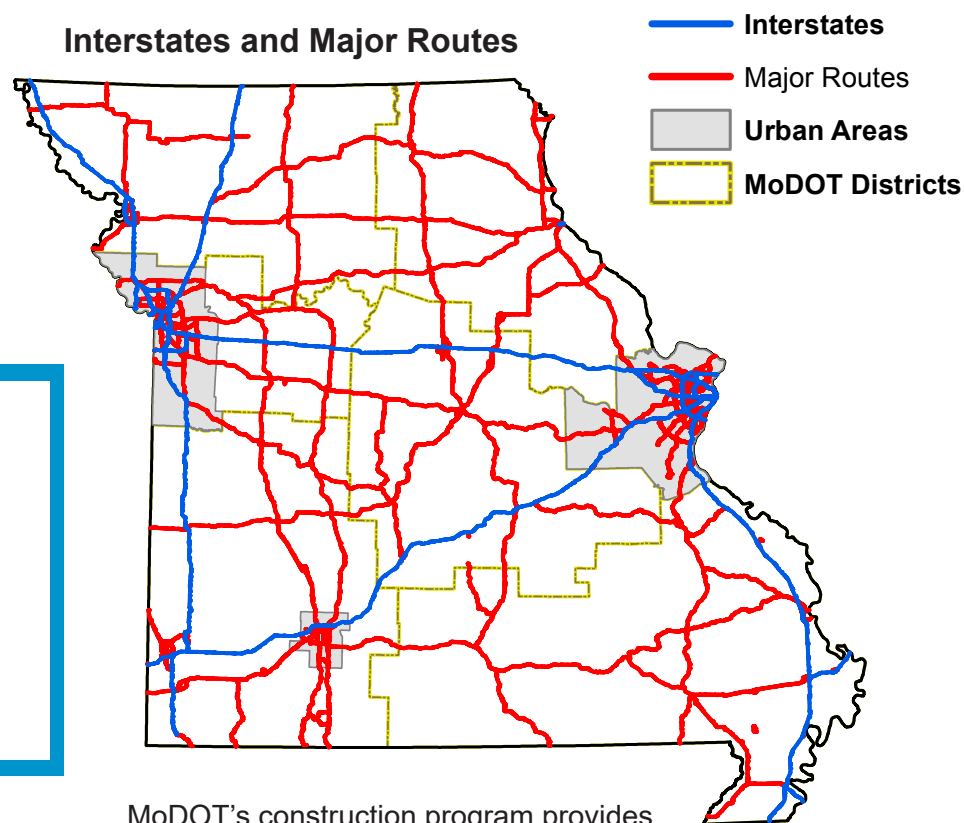
In addition, MoDOT crews are able to respond quickly to incidents ranging from traffic crashes to flooding to make sure Missourians arrive safely at their destination.



The Current Condition of MISSOURI TRANSPORTATION

What is the Current Condition of Missouri Transportation?

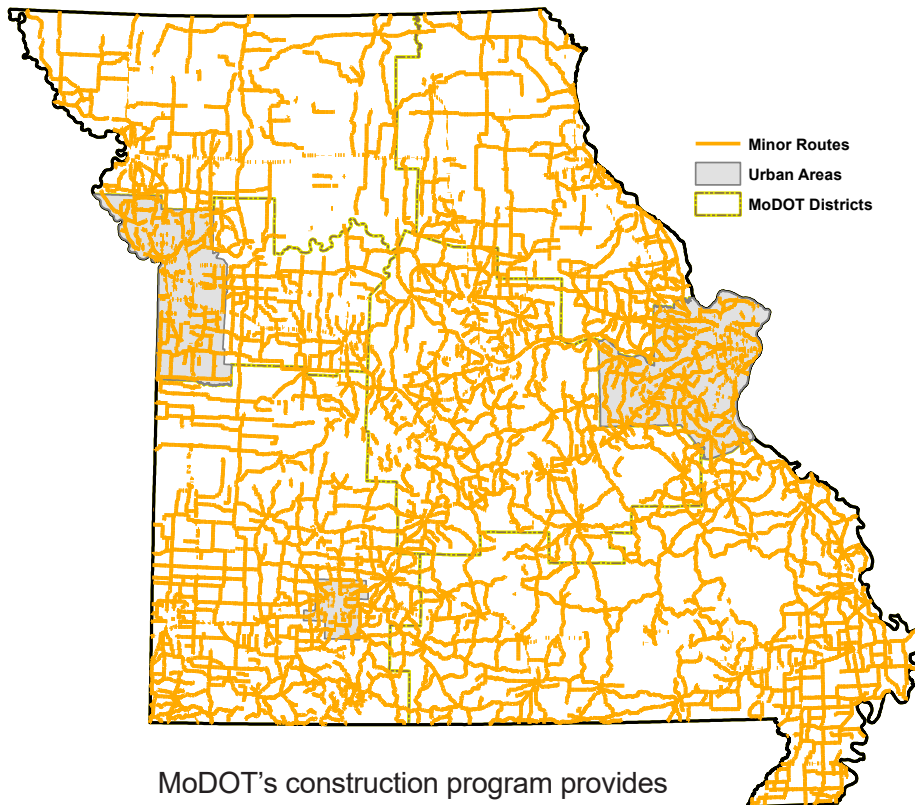
Last year, 51.8 billion miles were traveled on the state highway system. The majority of travel occurs on interstates and major routes. Interstates and major routes include just 5,542 miles of the 33,832 miles of highway in Missouri, but account for 77% of the travel. Currently, 91% of these routes are in good condition as MoDOT has focused on improving and maintaining these routes over the last decade.



39.8 billion miles were driven on interstates and major routes; therefore, on average 7.2 million vehicles traveled each mile.

Missouri's minor routes make up the largest group of state highways, accounting for 17,333 miles – just over one-half of the entire state highway system. About 22% of all state travel occurs on these routes. Currently, 81% of these routes are in good condition.

Minor Routes



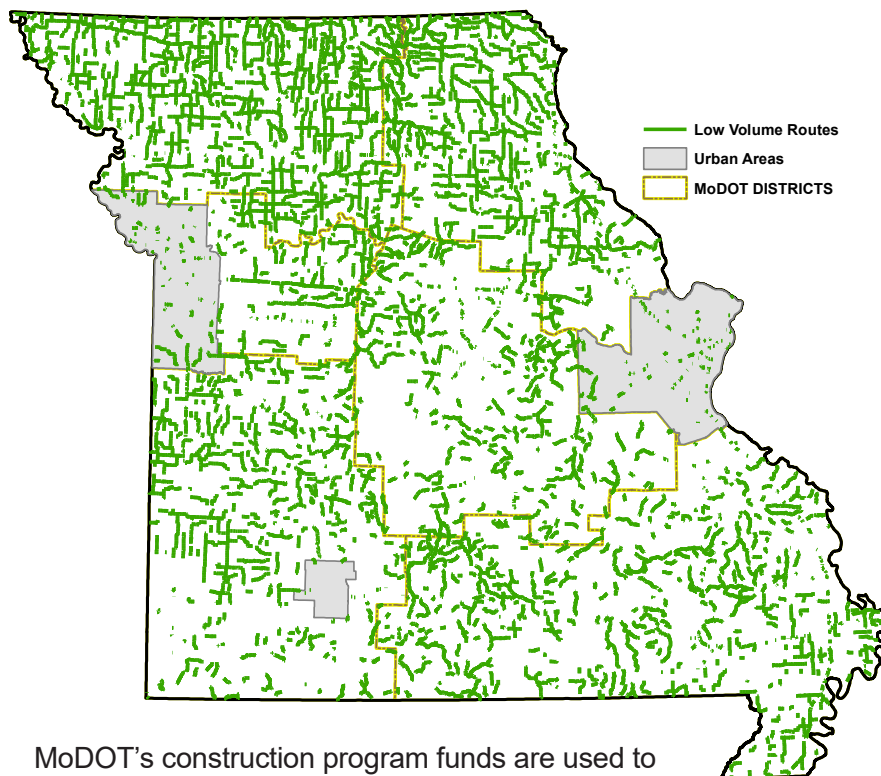
MoDOT's construction program provides the funding to maintain these routes.

11.3 billion miles were driven on minor routes; therefore, on average 652,000 vehicles traveled each mile.

The Current Condition of MISSOURI TRANSPORTATION

The final tier of Missouri highways is low volume routes. Each of these routes carry less than 400 vehicles per day and primarily serve local transportation needs. Missouri has 10,957 miles of low volume routes, accounting for about one-third of the state system. Travel on these routes is less than 2% of all state highway travel. Currently, 70% of these routes are in good condition.

Low Volume Routes

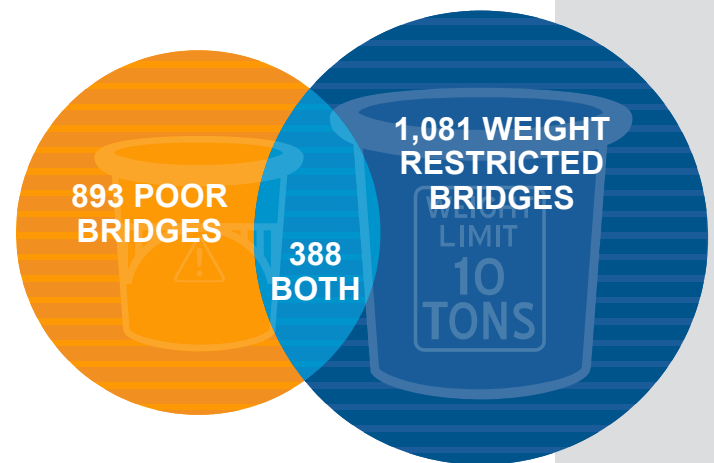


MoDOT's construction program funds are used to maintain the bridges on these routes; however, the pavements on these routes are maintained using MoDOT's maintenance funds.

0.8 billion miles were driven on low volume routes; therefore, on average 73,000 vehicles traveled each mile.

The Current Condition of MISSOURI TRANSPORTATION

In addition to the huge network of highways, Missouri has 10,397 bridges of varying sizes, including 209 major bridges that are longer than 1,000 feet, or about the length of three football fields. Currently, 893 bridges are in poor condition. MoDOT inspects these bridges on a regular basis to ensure they are safe for travelers. If a bridge is unsafe, it is closed until repairs can be made. Missouri also has 1,081 weight-restricted bridges, with 388 of them also in poor condition.



Totals	Typical Bridges	Major Bridges	All Bridges
Number	10,188	209	10,397
Area (square feet)	64,429,779	23,231,398	87,661,177
Average Age (years)	49.4	37.7	48.4
Weight Restricted	1,041	40	1,081
Area of Weight Restricted	6,964,669	5,655,748	12,620,417
Poor	867	26	893
Area of Poor	4,924,096	2,677,582	7,601,678
Both Poor and Weight Restricted	378	10	388
Area Both Poor and Weight Restricted	1,563,090	1,166,795	2,729,885
Only Poor and Only Weight Restricted	1,530	56	1,586
Area of Only Poor or Only Weight Restricted	10,325,675	7,166,536	17,492,211

Approximate vehicle weights

Lower weight limits for about 1,300 load-posted state bridges:



AVERAGE STANDARD CAR: **1.5 TONS**



AVERAGE PICKUP TRUCK: **3 TONS**



AVERAGE AMBULANCE: **5 TONS**



AVERAGE DELIVERY TRUCK: **6 TONS**



AVERAGE LOADED SCHOOL BUS: **17 TONS**



AVERAGE LOADED GARBAGE TRUCK: **25 TONS**



AVERAGE LOADED CHARTER BUS: **20 TONS**



AVERAGE FIRE TRUCK: **19-30 TONS**



AVERAGE LOADED COMBINE HARVESTER: **30 TONS**



AVERAGE LOADED PLOW TRUCK: **28 TONS**



AVERAGE LOADED CONCRETE TRUCK: **33 TONS**



AVERAGE LOADED DUMP TRUCK: **36 TONS**

AVERAGE LOADED TRACTOR TRAILER:

40 TONS



Source: PennDOT

James Hilston/Post-Gazette

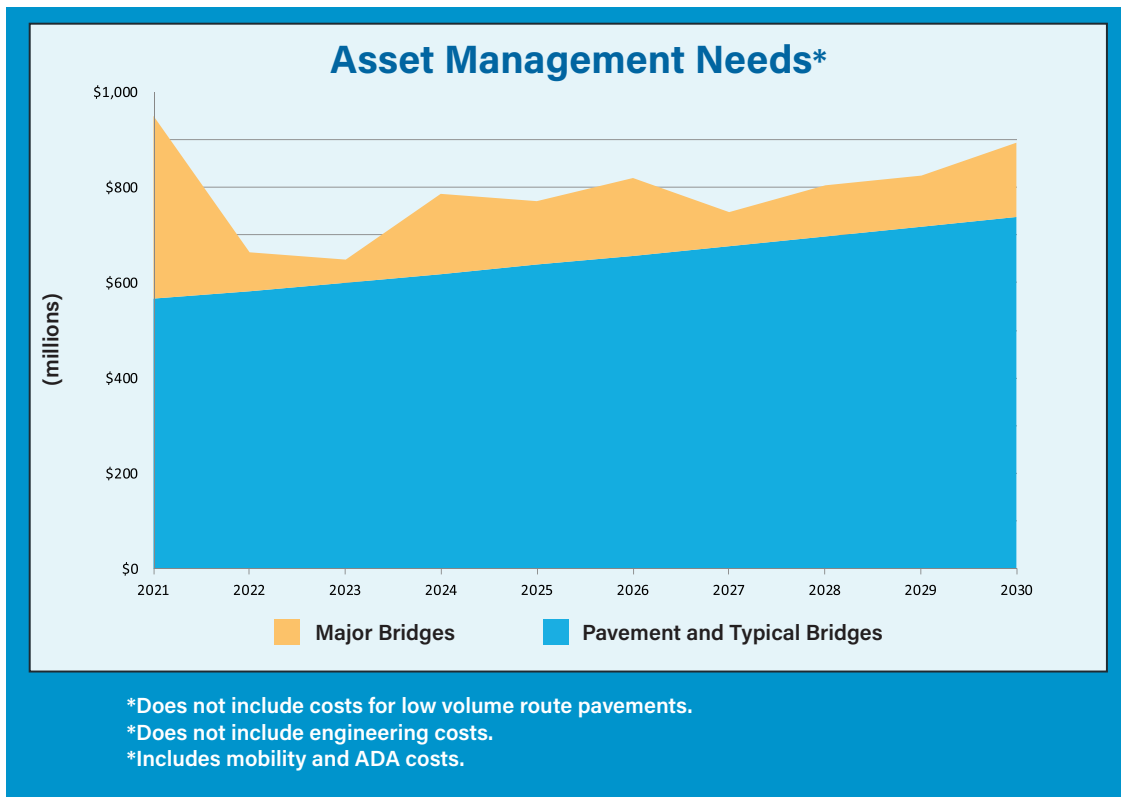


ASSET Management

MoDOT has adopted an asset management approach to make the best decisions with transportation investments. The goal of the plan is to keep roads and bridges in good condition for as long as possible given current funding levels. The plan also demonstrates the investment level needed in order to maintain the system at its current condition.

Asset	Asset Management Goal Based on Current Funding
Interstates and Major Routes	90% Good Condition
Minor Routes	80% Good Condition
Low Volume Routes	70% Good Condition
Bridges	Less Than 900 Poor Condition

The asset management 10-year funding needs are shown in the chart below:



What is THE COST?

How Much Do Current Roadway Conditions Cost Missourians?

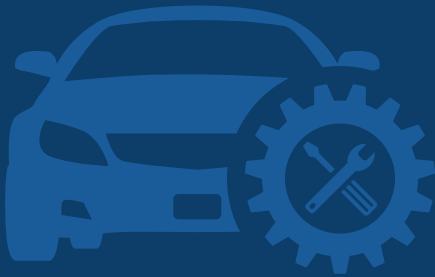
Missourians pay a relatively small amount per month to use the state system of roads and bridges. The average Missouri driver pays about \$30 per month in state and federal transportation taxes and fees. That's far less than what the average Missourian pays for cell phone service, cable television or internet service.

But there are also hidden transportation costs that Missourians may not realize they are absorbing when they sit on congested highways, drive on rough roads or experience vehicle crashes.

Monthly Cost Per Driver



What is THE COST?



System condition costs Missouri drivers about \$199 per month.

According to the Texas Transportation Institute's 2019 Urban Mobility Scorecard, Missourians who commute to work by car spend many hours in congestion, ranging from 19 hours per year in Cape Girardeau and 14 hours in St. Joseph, to 47 hours per year in Kansas City and 46 hours in St. Louis. That means gallons of fuel wasted, a loss of productivity and hours lost that have an adverse effect on a person's quality of life. The associated cost of congestion translates to an average of \$46 per month for Missouri drivers.

There are also hidden costs in operating and maintaining a vehicle on rough roads due to:

- Accelerated vehicle depreciation,
- Additional vehicle repair costs,
- Increased fuel consumption, and
- Increased tire wear.

The Road Information Program's 2018 "Missouri Transportation by the Numbers" report calculated those costs to be \$59 per month for Missouri drivers, or a total of \$3 billion each year to the state of Missouri.

Motor vehicle crashes cost Missourians \$4.8 billion each year⁴. This equates to \$94 per month for each Missouri driver. This amount includes medical costs, lost workplace and household productivity, property damage, congestion costs and legal costs.

When combined, congestion, additional vehicle operating costs and roadway crashes cost each Missouri driver about \$199 per month. Additional investments in congestion relief, improving system conditions and safety can reduce these costs for Missourians.

4 The Economic and Societal Impact of Motor Vehicle Crashes, 2010 (Revised 2015), National Highway Traffic Safety Administration



High-Priority Unfunded TRANSPORTATION NEEDS

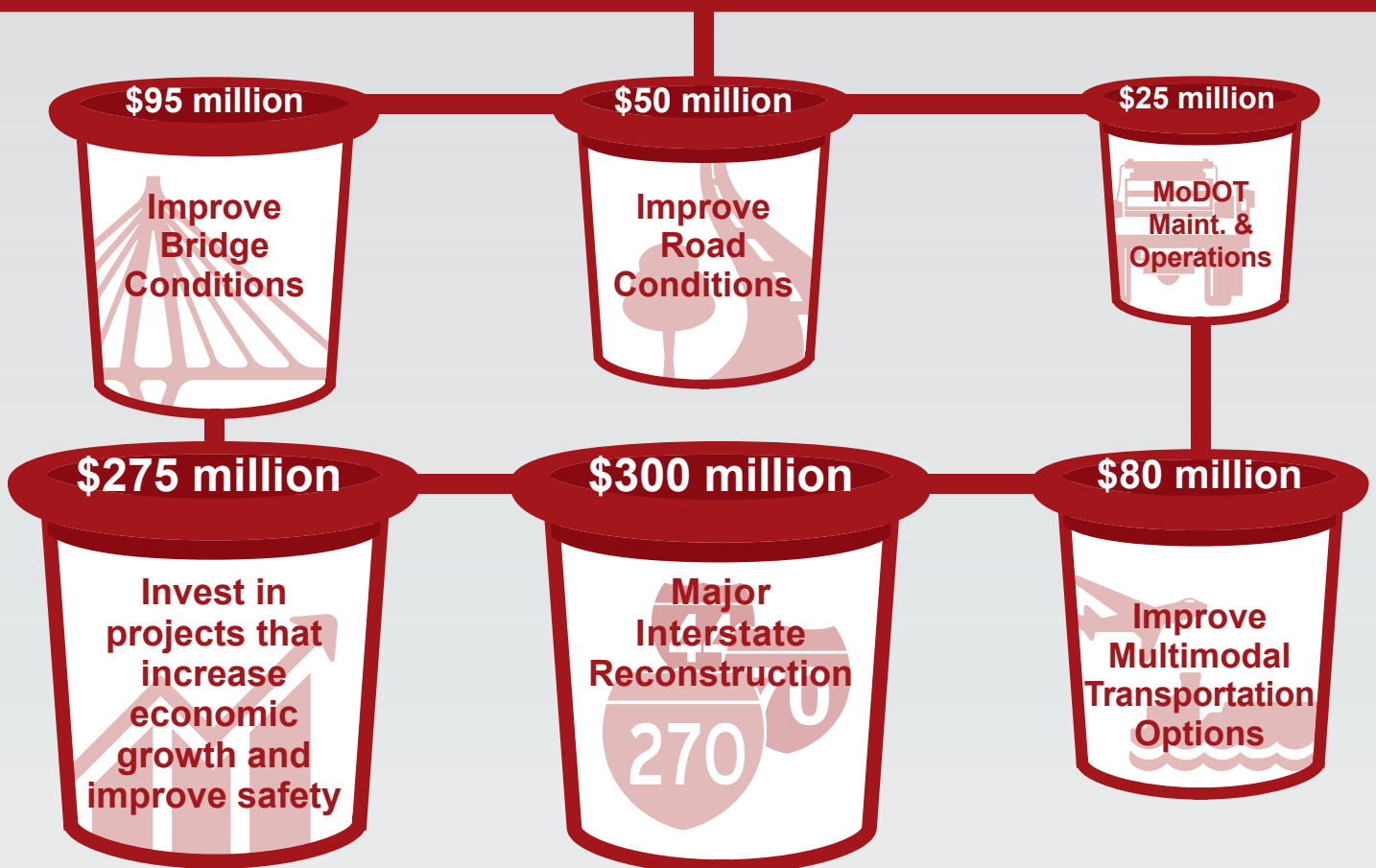
What are Missouri's Transportation Needs?

When MoDOT completed its long-range transportation plan in 2014, and refreshed it in 2018, extensive input from Missourians resulted in five goals for the state's transportation system over the next 20 years:

1. Take care of the transportation system and services we enjoy today.
2. Keep all travelers safe – no matter the mode of transportation.
3. Invest in projects that spur economic growth and create jobs.
4. Give Missourians better transportation choices.
5. Improve reliability and reduce congestion on Missouri's transportation system.

HIGH-PRIORITY UNFUNDED ANNUAL TRANSPORTATION NEEDS

\$825 million



With MoDOT's current available resources, the reality is that the department must focus its attention on keeping the existing system in the condition that it is in today. To do that, some MoDOT districts must devote every available dollar to maintaining the condition of their roads and bridges, and they are still going to lose ground over time. That leaves a number of unfunded transportation needs.

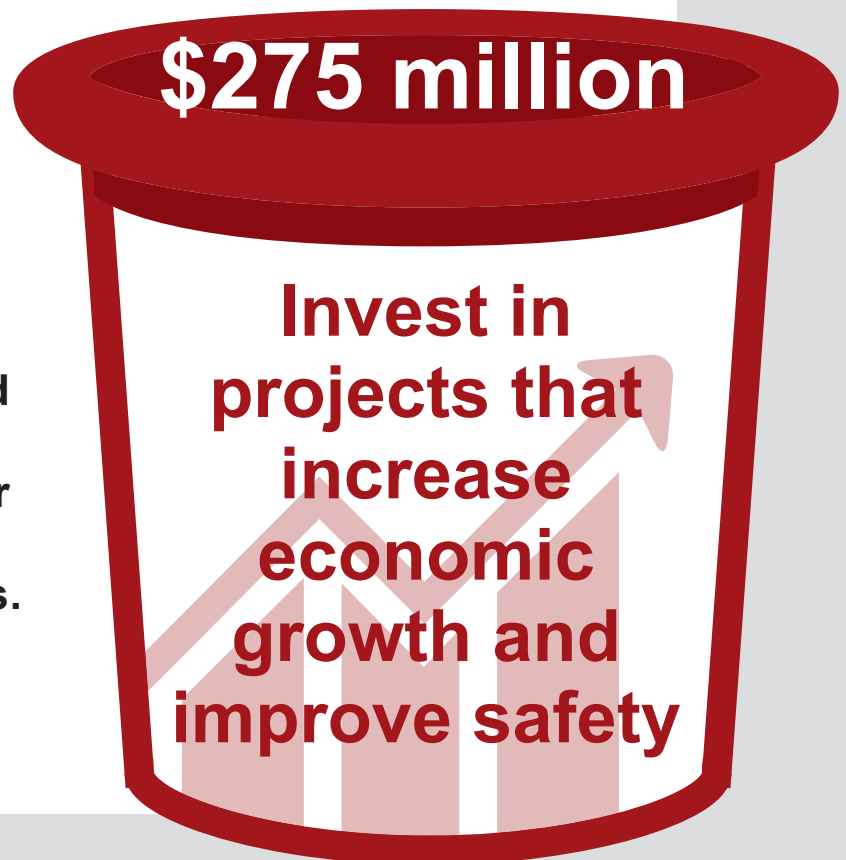


Improve road and bridge conditions – Investing an additional \$170 million per year would enable all of MoDOT's districts to adequately maintain their existing system, begin driving down the state's number of poor bridges, improve the condition of the state's roads and stabilize the level of MoDOT's maintenance and operations efforts to keep pace with inflationary cost increases. **The required investment equates to an average of \$3.32 per month by each of the state's licensed drivers.**

High-Priority Unfunded TRANSPORTATION NEEDS

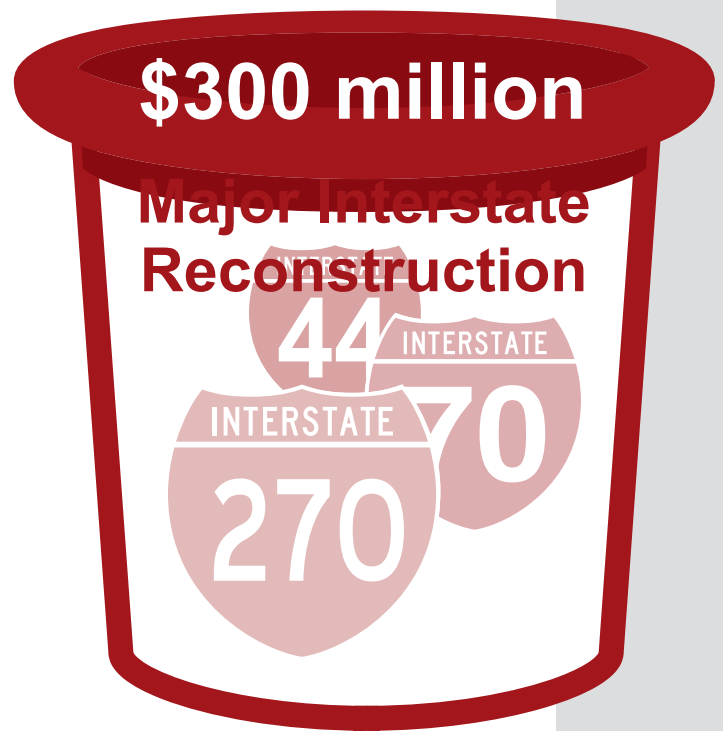
Invest in projects that increase economic growth and improve safety – These are the projects that local communities across the state are clamoring for but which are unaffordable in today's financial environment. Projects include new interchanges, adding shoulders with rumble stripes and adding lanes to the current system. In addition to congestion reduction and economic growth benefits, all of these projects would improve safety so fewer fatalities and serious injuries occur.

An additional investment of \$275 million per year would allow MoDOT to begin meeting those needs. MoDOT would work with its regional planning partners to ensure the highest priorities would be funded. **The required investment equates to an average of \$5.36 per month by each of the state's licensed drivers.**



Major interstate highway reconstruction – The nation’s interstate system is now 64 years old, and Missouri’s interstates were built with a 20-year life expectancy. They need attention. The poster child for Missouri’s interstate needs is Interstate 70 – the nation’s oldest interstate. MoDOT has known for years that it needs to be reconstructed with added capacity to reliably handle mounting levels of traffic, especially long-haul trucks. The project, though, has been and continues to be unaffordable.

The state’s other six interstates will also be facing improvement/preservation needs in the coming years. An additional \$300 million per year would allow MoDOT to begin tackling this long overdue improvement. **The required investment equates to an average of \$5.85 per month by each of the state’s licensed drivers.**



Please visit www.modot.org/planning-and-performance-support-0 for a list of specific unfunded needs for each region of the state.

High-Priority Unfunded TRANSPORTATION NEEDS

\$80 million

Improve Multimodal Transportation Options

Many Missourians depend on non-highway modes of transportation; however, the state currently invests very little money towards those needs.

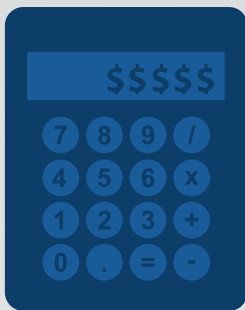
Improve multimodal transportation options – Missouri’s transit systems, railroads, ports, waterways, airports and bicycle/pedestrian facilities could begin to see much needed improvements with an annual investment of \$80 million. MoDOT would work with the owners and stakeholders of these transportation systems, along with our regional planning partners, to identify and fund the highest priority needs. **The required investment equates to an average of \$1.56 per month by each of the state’s licensed drivers.**



CITIZEN'S GUIDE TO TRANSPORTATION FUNDING IN MISSOURI

In summary, Missourians enjoy access to a large transportation system that keeps us connected. Maintaining and improving the transportation system is expensive, but is a worthwhile investment. The average Missouri driver contributes about \$30 per month to fund their access to the transportation system and the services MoDOT provides.

Incremental increases in funding for improving road and bridge conditions, investing in projects that increase economic growth and safety, reconstructing major interstates and improving multimodal transportation options can offset the \$199 of hidden costs drivers are paying each month due to congestion, rough roads and traffic crashes.

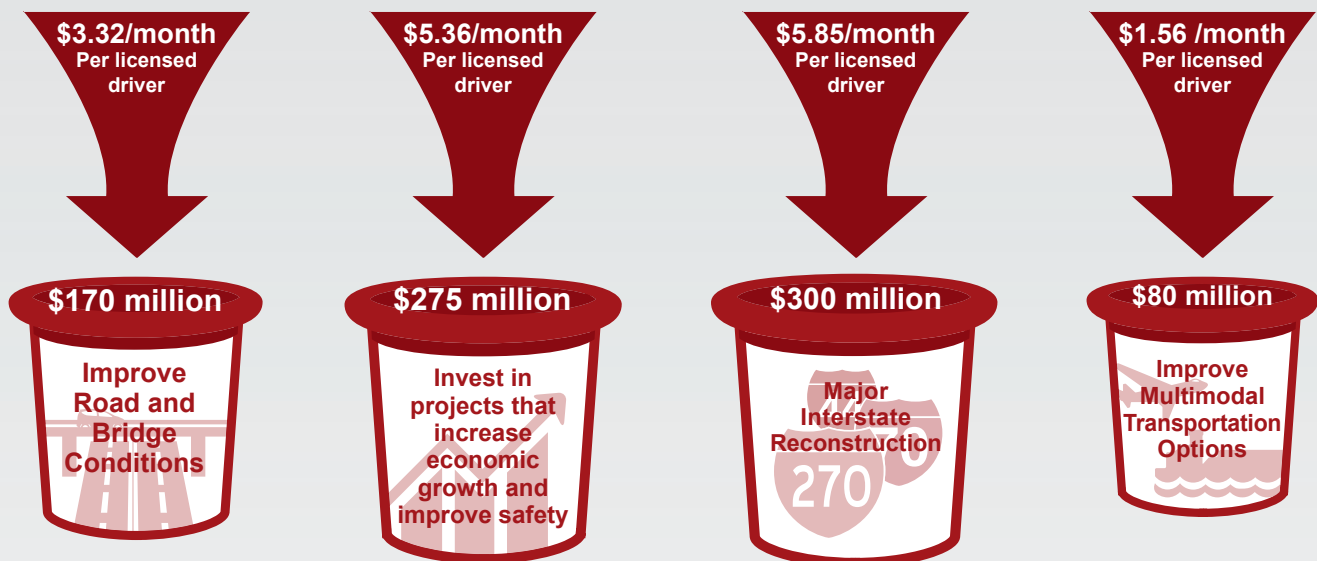


MONTHLY COSTS OF ADDITIONAL BENEFITS

The average driver in Missouri pays \$30 per month in federal and state taxes/fees to support Missouri's system of roads and bridges.

Based on 13,476 miles driven per year at 22.3 mpg, plus the average motor vehicle sales tax per driver.

Additional Investments Needed to Improve Missouri's Transportation System



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