



TESTIMONY

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PUBLIC COMMENTS REGARDING FUNDING HIGH- PRIORITY TRANSPORTATION NEEDS

By Jakob Puckett

Testimony before the Missouri Department of Transportation

My name is Jakob Puckett, and I am a policy analyst for the Show-Me Institute, a nonprofit, nonpartisan Missouri-based think tank that supports free-market solutions for state and local policy. The ideas presented here are my own. These comments are intended to provide relevant information regarding the funding of high-priority transportation projects in Missouri.

The Missouri Department of Transportation (MoDOT) estimates that \$745 million of high-priority road and bridge transportation needs go unfunded each year. These projects include road and bridge reconstruction, safety improvements, and projects aimed at increasing economic growth.¹ While the recently passed federal Infrastructure Investment and Jobs Act will contribute to funding some of MoDOT's high-priority projects,²

any effort to raise an additional \$745 million annually would involve an increase in taxes and fees or a restructuring of the way MoDOT raises money. If funding for MoDOT is to be increased, the additional revenue should be generated in a way that is fair to drivers; that is, the amount an individual pays should be in proportion to the amount of damage their vehicle does to the roads.

Damage from vehicles is what makes road maintenance necessary, and trucks cause much more damage to Missouri's roads than cars do. However, trucks do not pay in proportion to the damage they cause. According to my research for the Show-Me Institute, when all taxes and fees are considered, trucks pay 1.26 times as much as cars for road maintenance in Missouri yet cause overall 18 times more road damage

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than cars.³ These findings are consistent with prior research on this issue.⁴

Some of the largest looming transportation projects are the rebuilding of Missouri's interstate highways. Specifically, Interstate 70 has already exceeded its projected lifespan, and Interstates 44 and 55 will pass theirs as well in the near future.⁵ MoDOT has estimated the cost of rebuilding I-70 to be between \$2 and \$4 billion, depending on the scope of the rebuild.⁶ There are several ways that MoDOT could raise this money over 30 years. For instance, if officials are concerned about tolling urban areas, then tolling the rural parts of I-70—from Wentzville to Independence and excluding Columbia—at 3.25 cents per mile for cars and 13.5 cents per mile for trucks (both close to the national average for toll rates) could raise \$2 billion over 30 years.⁷ Tolling could both raise money for needed road upkeep and also ensure that trucks pay an amount that is fair considering the damage they cause to the highways. Federal approval would be needed to toll interstate highways, but the sooner MoDOT expresses interest in this option, the sooner Missouri's federal delegation could act.⁸ The same principle of generating a fairly allocated, recurring revenue stream through tolling also applies to highly traveled state highways. Several legal challenges face any potential state-run toll road,⁹ so MoDOT could lobby for allowing state highways to be tolled through public-private partnerships (P3s). Several states have successfully used P3s to toll their highways, but it is currently against Missouri law to do so.¹⁰

Additionally, MoDOT should consider how future technology changes will affect its main source of funding—fuel taxes. As gasoline-powered vehicles have become more fuel efficient and alternative-fuel vehicles have become more prevalent, road usage in Missouri has increased while fuel tax revenue has decreased. Miles traveled on Missouri's roads increased by 16 percent from 2008 to 2019,¹¹ while fuel tax revenue decreased 1 percent nominally, or 16 percent when taking inflation into account.¹² To maintain revenue levels the Missouri legislature passed SB 262, which will increase Missouri's tax rates on gasoline and diesel fuel to 29.5 cents per gallon within four years. After municipalities receive their share of state fuel taxes, MoDOT expects the increased fuel taxes to result in an additional \$330 million annually to the State Road Fund.¹³ (Looking forward, if MoDOT

wants to double down on gasoline and diesel fuel taxes, it would be fairer to have trucks shoulder a larger portion of road maintenance funding through higher diesel taxes, because large trucks cause several times the amount road damage that cars do, as mentioned earlier). Fees will also increase for owning an electric vehicle, but at a flat rate rather than in proportion to how much EV owners drive.¹⁴ This will provide a fast cash infusion into MoDOT's coffers, but the underlying problem of the declining efficacy of fuel taxes remains.

MoDOT could consider applying for a pilot program from the recently passed Infrastructure Investment and Jobs Act to test alternative methods of charging drivers for road usage.¹⁵ Several states are already experimenting with replacing a per-gallon tax on gasoline with a per-mile charge so that drivers adequately pay for road upkeep.¹⁶ Given the challenge that increasing fuel efficiency and alternative-fuel vehicles pose to states that rely heavily on fuel taxes, it may be wise for MoDOT to consider its long-term funding options. The Electric Vehicle Task Force established by SB 262 is charged with studying how to ensure EV drivers pay fairly for road usage despite not paying gasoline taxes. But studying how drivers of gasoline-powered cars pay fairly for road usage as fuel efficiency increases seems prudent as well.¹⁷ Additionally, driver privacy is key concern when enacting a per-mile charge on road usage, and MoDOT could experiment with methods that have worked well in other states, such as how Oregon allows drivers in its road usage charge program several options for reporting mileage.

MoDOT has options when looking for ways to increase revenue streams to fund high-priority transportation projects. Tolling can generate a recurring revenue stream to fund maintenance for highly traveled roads. Additionally, MoDOT can study new ways to fund transportation maintenance while keeping pace with technological advances. Both options are worthwhile for MoDOT to consider as ways to tie revenues to usage.

Jakob Puckett is a policy analyst at the Show-Me Institute.

ENDNOTES

1. Missouri Department of Transportation. Citizen's Guide to Transportation Funding in Missouri, p. 39. Accessed 23 March 2020 at https://www.modot.org/sites/default/files/documents/2019%20MoDOT%20Citizens%20Guide%20to%20Transportation%20Funding_Final.pdf; Missouri Department of Transportation. High-Priority Unfunded Needs. 2019, p. 2. Accessed 13 January 2021 at https://www.modot.org/sites/default/files/documents/High_Priority_Unfunded%20Needs.pdf.
2. Coronel, Justina. What the Infrastructure Bill Will Do for Missouri and Illinois. KSDK. 8 November 2021. Accessed 2 December 2021 at <https://www.ksdk.com/article/news/politics/national-politics/infrastructure-bill-will-do-missouri-illinois/63-2974da5a-2121-4971-be22-79d3ca2aeb19>.
3. Puckett, Jakob. Who Pays for Which Roads? Understanding Which Vehicles Pay Their Fair Share for Road Maintenance in Missouri. Show-Me Institute. Forthcoming 2022.
4. Federal Highway Administration. Trucks Cause between 94 and 98 Percent of Damage on Missouri's Roads yet Drive Only One-Sixth of the Miles that Cars Do: Federal Highway Administration. Percentage Distribution of Traffic Volumes and Loadings on the Interstate System. 2014. Accessed 27 March 2020 at <https://www.fhwa.dot.gov/policyinformation/statistics/2014/tc203.cfm>; Federal Highway Administration. Distribution of Annual Vehicle Distance Traveled. 2018. Accessed 27 March 2020 at <https://www.fhwa.dot.gov/policyinformation/statistics/2014/vm4.cfm>; Puckett, Jakob. Improving Missouri's Transportation System Through Tolling. Page 12. Show-Me Institute. June 2021. Accessed 2 December 2021 at <https://showmeinstitute.org/wp-content/uploads/2021/06/2021211-Tolling-Puckett.pdf>; Pavement Interactive. Equivalent Single Axle Load. Accessed 24 March 2021 at <https://pavementinteractive.org/reference-desk/design/design-parameters/equivalent-single-axle-load/>. A study from California found that the damage caused by each mile driven by a large truck cost 90 times more to repair than a mile driven by a car: Gibby, R., Kitamura, R., and Zhao, H. Evaluation of Truck Impacts on Pavement Maintenance Costs. Transportation Research Record 1262, 48-56. 1990. Accessed 29 March 2021 at <http://onlinepubs.trb.org/Onlinepubs/trr/1990/1262/1262-006.pdf>.
5. Miller, Joseph. Funding the Department of Transportation and the State Highway System. Page 18. Show-Me Institute. February 2016. Accessed 2 December 2021 at <https://showmeinstitute.org/wp-content/uploads/2016/02/Funding%20MoDOT-%20Miller.pdf>.
6. Missouri Department of Transportation. Tolling Options for I-70, Independence to Wentzville. 2014. Accessed 2 December 2021 at https://spexternal.modot.mo.gov/sites/cm/CORDT/I-70TollingOptions_WhitePaper.pdf.
7. Puckett, Jakob. Improving Missouri's Transportation System Through Tolling. Page 7-8. Show-Me Institute. June 2021. Accessed 2 December 2021 at <https://showmeinstitute.org/wp-content/uploads/2021/06/2021211-Tolling-Puckett.pdf>.
8. Puckett, Jakob. Improving Missouri's Transportation System Through Tolling. Page 10-12. Show-Me Institute. June 2021. Accessed 2 December 2021 at <https://showmeinstitute.org/wp-content/uploads/2021/06/2021211-Tolling-Puckett.pdf>.
9. Puckett, Jakob. Improving Missouri's Transportation System Through Tolling. Page 10-12. Show-Me Institute. June 2021. Accessed 2 December 2021 at <https://showmeinstitute.org/wp-content/uploads/2021/06/2021211-Tolling-Puckett.pdf>.
10. Missouri Public-Private Transportation Partnership Act, Revised Statutes of Missouri §227.600—§227.601; Puckett, Jakob. Improving Missouri's Transportation System Through Tolling. Page 11. Show-Me Institute. June 2021. Accessed 2 December 2021 at <https://showmeinstitute.org/wp-content/uploads/2021/06/2021211-Tolling-Puckett.pdf>; Puckett, Jakob. Should Drivers Fear Privately Operated Toll Roads? Show-Me Institute. 17 September 2020. Accessed 2 December 2021 at <https://showmeinstitute.org/blog/state-and-local-government/should-drivers-fear-privately-operated-toll-roads/>.
11. Functional System Travel – 2019. Annual Vehicle – Miles. Federal Highway Administration. 30 September 2020. Accessed 2 December 2021 at <https://www.fhwa.dot.gov/policyinformation/statistics/2019/vm2.cfm>; Functional System Travel – 2008. Annual Vehicle

- Miles. Federal Highway Administration. November 2009. Accessed 2 December 2021 at <https://www.fhwa.dot.gov/policyinformation/statistics/2008/vm2.cfm>.
12. Missouri Department of Transportation Financial Snapshot 2020. Page 4. November 2020. Accessed 2 December 2021 at https://www.modot.org/sites/default/files/documents/2020%20Financial%20Snapshot_FINAL.pdf; Missouri Department of Transportation Financial Snapshot 2008. Page 5. September 2008. Accessed 2 December 2021 at <https://archive.org/details/2008FinSnapshot/page/n5/mode/2up>.
 13. Box, Mallory. Governor Parson Signs SB 262: First Increase in MO Gas Tax in Decades. Citizens for Modern Transit. 13 July 2021. Accessed 29 November 2021 at <https://cmt-stl.org/governor-parson-signs-sb-262-first-increase-in-mo-gas-tax-in-decades/>; Committee on Legislative Research Oversight Division. SB 262 Fiscal Note. 17 June 2021. Accessed 29 November 2021 at <https://www.senate.mo.gov/FiscalNotes/2021-1/1143S.11T.ORG.pdf>.
 14. Puckett, Jakob. Electric Vehicle Policy Changes Coming Soon. Show-Me Institute. 9 September 2021. Accessed 2 December 2021 at <https://showmeinstitute.org/blog/transportation/electric-vehicle-policy-changes-coming-soon/>.
 15. Infrastructure Investment and Jobs Act. Section 13001. Strategic innovation for revenue collection. Accessed 2 December 2021 at https://www.govtrack.us/congress/bills/117/hr3684/text/enr#link=A_III_13001_a&nearest=HA78BC286598F4BA79197590BAEB737EE; Infrastructure Investment and Jobs Act. National Conference of State Legislatures. 8 November 2021. Accessed 2 December 2021 at <https://www.ncsl.org/ncsl-in-dc/publications-and-resources/infrastructure-investment-and-jobs-act.aspx>.
 16. Puckett, Jakob. Think Miles, Not Gallons, to Fund Missouri's Roads. Show-Me Institute. 21 October 2020. Accessed 2 December 2021 at <https://showmeinstitute.org/blog/state-and-local-government/think-miles-not-gallons-to-fund-missouris-roads/>; Puckett, Jakob. Funding Roads by Miles Traveled—There's an App for That. Show-Me Institute. 22 October 2020. Accessed 2 December 2021 at <https://showmeinstitute.org/blog/state-and-local-government/funding-roads-by-miles-traveledtheres-an-app-for-that/>; Puckett, Jakob. Driver Privacy and Electronic Tolling. Show-Me Institute. 29 October 2020. Accessed 2 December 2021 at <https://showmeinstitute.org/blog/state-and-local-government/driver-privacy-and-electronic-tolling/>.
 17. Puckett, Jakob. Electric Vehicle Policy Changes Coming Soon. Show-Me Institute. 9 September 2021. Accessed 2 December 2021 at <https://showmeinstitute.org/blog/transportation/electric-vehicle-policy-changes-coming-soon/>.



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