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POLICY BRIEF

The Road Usage Charge: to impose a tax on every mile you drive

Mariya Frost
Director, Coles Center for Transportation

June 2017

Key Findings

1. *Washingtonians are driving 21 percent more than they did in 1995 and paying more than double per gallon in gas tax.*
2. *Public officials say that increasing fuel efficiency means they are not collecting enough money from the gas tax. Yet over the last 20 years, average fuel efficiency increased only 12 percent, while the gas tax rate increased 115 percent.*
3. *Some public officials say the gas tax (and a future mileage tax) should be indexed to inflation to keep pace with construction costs; however, government construction costs are artificially high and increase much faster than inflation.*
4. *Under any scenario in which a mileage tax rate increases automatically every year with inflation, drivers pay more on a per mile basis, in their total bill to the state, or both.*
5. *Under a Road Usage Charge, drivers would pay both a gas and mileage tax, with a rebate for the state gas tax afterward. Officials say they want to keep the gas tax in place and impose it on out of state drivers to maximize the tax revenue they collect.*
6. *The state's 18th Amendment protects gas taxes paid by drivers for highway purposes only. Some public officials want drivers to pay more for services and programs drivers do not use, so there is no assurance that the mileage tax would be protected by the 18th Amendment.*
7. *Officials insist that drivers have a choice to use low-tech methods for reporting their mileage. However, more accurate RUC billing would likely require high-tech, invasive methods of collection, leaving drivers who do not want to be overcharged with very little choice.*
8. *The current gas tax is simple and cheap to collect, and administration costs less than one percent of collections. The cost of collecting and enforcing a new mileage tax is five to 13 percent of collections. Under a mileage tax, there either would be less funding going to roads or drivers would have to pay more to keep funding at the same level as the gas tax.*
9. *Transportation officials want to reduce the amount people drive to 1997 levels by 2042 and have codified driving reductions in state law. If they achieve their goal, any falling gas or mileage tax revenues become self-fulfilling, as one state policy goal works against another.*
10. *Public officials can increase public trust by reducing the artificial costs they have added to transportation projects and by stopping the practice of diverting money from drivers to non-highway purposes.*

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Executive Summary

Drivers pay most of the taxes and fees that fund the state's transportation programs. Nationally, and in Washington state, the highway system was constructed largely on the premise that users of roads should pay to build and maintain them.

Policymakers have used this user-fee principle successfully to build thousands of miles of all-weather roadway, which allows Washingtonians to drive more than 60 billion miles per year, producing industrial growth, mobility, economic freedom, and a higher quality of life for everyone.

With the rise in economic prosperity and population, traffic congestion has increased and reduced reliable commute times for many working families. Much of the region's crippling traffic congestion, however, is the result of policy choice. Over the last 30 years, the public demand for highway capacity has grown to exceed supply. As the public need for highway travel outpaces the supply of travel lanes provided by public officials, drivers experience decreased mobility, lost time, and lost productivity.

In the Central Puget Sound region, average weekday delay on major corridors (Interstate 5, Interstate 405, Interstate 90, State Route 520, and State Route 167) increased by 35.7 percent between 2013 and 2015 alone. This rises to 91.2 percent when viewed over the four-year period between 2011 and 2015.[1]

Public officials' preference for creating and managing congestion rather than providing congestion relief, coupled with government clean air and energy regulations, has pushed some people to consider fuel-efficient, alternative-fuel and electric vehicles.[2]

Government officials have even provided tax credits to incentivize drivers to purchase these types of vehicles, although electric vehicle sales remain low.[3] Now officials say increased fuel economy and lower gas consumption will result in slower

1 "2016 Corridor Capacity Report: The 15th edition of the annual Congestion Report," Washington State Department of Transportation, November 2016, at http://wsdot.wa.gov/publications/fulltext/graynotebook/CCR16.pdf.

2 "Timeline: History of the Electric Car," United States Department of Energy, September 15, 2014, at https://energy.gov/articles/history-electric-car.

3 "Demand for electric vehicles bucks low gas prices, says AAA," by Robert Ferris, CNBC News, April 18, 2017 at http://www.cnbc.com/2017/04/17/demand-for-electric-vehicles-bucks-low-gas-prices-says-aaa.html.

increases in gas tax revenues in the long-term. They rebuke drivers of fuel-efficient cars for paying "little to nothing in gas tax" and say this demonstrates that the gas tax is unsustainable and inequitable.[4]

Thus, officials now say they need more revenue. The Washington State Transportation Commission (WSTC) recently received a $3.8 million federal grant to explore the idea of imposing a mileage tax on Washington state residents. The grant-funded research is called the Road Usage Charge Pilot Project.[5] The project explores how to get the public to accept paying a mileage tax. A mileage tax would require drivers to pay a certain rate per mile traveled rather than per gallon purchased at the pump.[6]

This paper examines whether the mileage tax, as proposed, is a true replacement of the gas tax and whether predictions of a future revenue problem are well-founded. We evaluate the mileage tax in terms of:

- The state's 18th Amendment, which provides that gas tax revenue must be spent on highway purposes only;
- The threat to individual privacy;
- The higher cost of creating and administering a mileage tax compared to a gas tax;
- The transition period that would require drivers to pay twice, and receive a rebate for the state gas tax afterward;
- The unfair impact a mileage tax could have on certain groups of drivers.

We conclude that even if these problems were solved, the mileage tax still looks more attractive in theory than it would be in practice. Our state has a long history of officials diverting taxes and fees paid by drivers to non-highway purposes, as well as artificially inflating the cost of public road projects. State officials must first demonstrate they can be more honest with the money they already collect, before they consider imposing a new tax on the traveling public.

Additionally, the concerns of public officials about declining gas tax revenue seem to contradict their strong ideological preference for transit, promotion of fuel economy, and goals that mandate a 50 percent reduction in annual per capita vehicle miles traveled by 2050. This suggests that at least some of the so-called gas tax revenue crisis is a result of their own preferred policy.

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4 "State needs help testing road charge," by Reema Griffith, Daily Record News, at http://www.dailyrecordnews.com/opinion/guest-column-state-needs-help-testing-road-charge/article_1401830b-c4ad-5c6b-8d0a-02f1bf9ff215.html.

5 "State Transportation Commission advances a road usage charging pilot projects in 2017," Washington State Transportation Commission, December 13, 2016, at http://wstc.wa.gov/news/2016/WSTCadvancesaroadusagechargepilotprojectin2017.htm.

6 This idea has been referred to as a Vehicle Miles Traveled (VMT) tax, Road Usage Charge (RUC), and Mileage-Based User Fee (MBUF). For the purposes of this paper, we refer to it as a mileage tax.

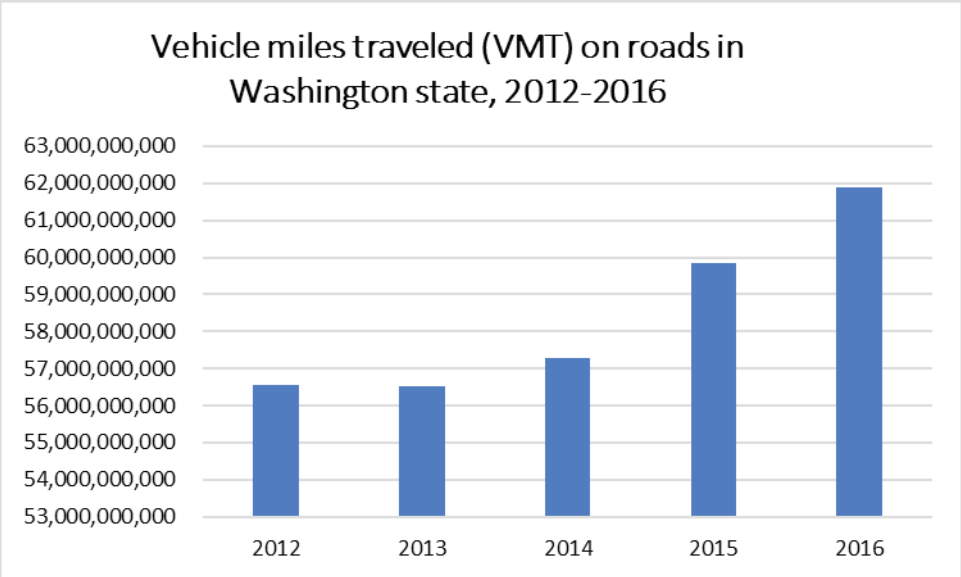
If their goal is to collect more revenue for highways while advancing the state's clean transportation goals, public officials should tax fuel consumption rather than driving itself, while working to reduce congestion and increase mobility for everyone.

Introduction

In 1921, officials imposed Washington's first gas tax of one cent per gallon. With this new revenue stream, state leaders were able to build, maintain, and expand Washington's highway network.

As the state's transportation infrastructure needs increased, so did the gas tax rate. Today, Washington's gas tax rate of 49.4 cents, coupled with the federal gas tax rate of 18.4 cents, is 67.8 cents per gallon, the second highest in the nation.

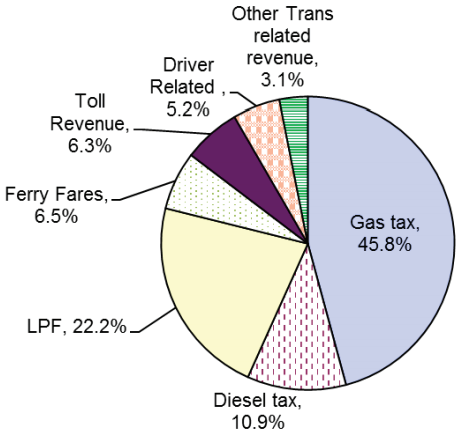
Additionally, people are driving now more than ever. In 2016, Washingtonians drove a total of 61.8 billion miles, an increase of 9.4 percent from 2012, as shown in the chart below.[7]



Analysts at the Washington State Office of Financial Management (OFM) report that state transportation revenue has a positive trajectory, especially with the passage of the $16 billion Connecting Washington transportation plan. Connecting Washington included a fuel tax increase of 11.9 cents per gallon, the highest gas tax increase in state history.

7 Traffic Volume Trends, US Department of Transportation Federal Highway Administration, December 2016, at https://www.fhwa.dot.gov/policyinformation/travel_monitoring/tvt.cfm.

Figure 2: Revenue by Source
2015-17 biennium ($5.82 billion)



Overall transportation revenue is expected to rise 10.5 percent to $6.43 billion next biennium, up from $5.82 billion for the current biennium.[8] Over half of that money will come from fuel taxes collected from drivers, as depicted in OFM's Figure 2. Fuel tax revenue is expected to rise 11.3 percent to $3.65 billion next biennium, up from $3.28 billion for the current biennium.

Toll revenue, ferry fares, and licenses/permits/fees (LPFs) are also largely paid by drivers. The only vehicles that do not pay for road use are public transit systems, emergency vehicles, state/local/federal vehicles, and nonprofit transportation providers for people with disabilities and special needs – all of which are exempt from paying a fuel tax.[9]

Looking at the next 10 years (2016 to 2025), OFM officials project total revenues will rise to $32.56 billion, with an average annual growth of 1.3 percent after the 2017 fiscal year.[10] The overall fuel tax revenue for the same 10-year period amounts to $18.3 billion, more than half of all revenue. For licenses, permits and fees, OFM projects the state will collect $7.57 billion. State officials attribute the increased revenue to growth in non-agricultural employment and lower gas prices, which encourage people to drive and consume more fuel.

Despite increased transportation revenue, public officials claim the state's transportation system is underfunded and that they cannot maintain the road

8 Transportation Revenue Forecast Council: March 2017 Transportation Economic and Revenue Forecasts, Volume I: Summary, Washington State Office of Financial Management, March 16, 2017, at http://www.ofm.wa.gov/budget/info/March17transposummary.pdf.

9 "2016 Tax Exemption Study: Fuel Tax," Washington State Department of Revenue, July 2016, at http://dor.wa.gov/docs/reports/2016/Tax_Exemption_Study_2016/07_Fuel_Tax.pdf.

10 Transportation Revenue Forecast Council: March 2017 Transportation Economic and Revenue Forecasts, Volume I: Summary, Washington State Office of Financial Management, March 16, 2017, at http://www.ofm.wa.gov/budget/info/March17transposummary.pdf.

system into the future. They offer two primary reasons why. First, they say that current rising revenues will not cover construction costs, in part because the gas tax is not indexed to inflation. Second, they say more people are driving fuel-efficient, alternative fuel and electric vehicles. As a solution, officials present the Road Usage Charge, a tax based on mileage rather than fuel consumption.

The Road Usage Charge (RUC)

Under a Road Usage Charge (RUC), drivers would pay a tax based on per mile travel rather than on each gallon they purchase at the pump. The initial rate state officials propose is 2.5 cents per mile, based on the average Washington driver getting 20 miles per gallon. Although mileage-tax boosters today say they do not want to alter this rate based on traffic congestion levels, lawmakers could make these changes in the future. Drivers would continue to pay the federal gas tax, which is currently 18.4 cents per gallon, in either scenario.

Under the Transportation Commission's plan, the public would have four options for reporting mileage.

The two lump sum options would be the Mileage Permit and the Odometer Charge.

- A Mileage Permit would allow drivers to pre-purchase miles they predict they will drive and pay a flat fee (5,000 miles x $0.025/mile = $125). A sticker on the vehicle would indicate how many miles the state has authorized that car to be driven.

- An Odometer Charge would be paid by drivers who report to the state the number of miles their odometer indicates they have driven. This method raises concerns about payment evasion and problems accounting for out-of-state, private farm, and ranch travel. An Odometer Charge would be difficult to enforce – and the more it is disliked by the public the more likely that drivers would violate it.

The two more invasive options for paying a mileage tax are the Automated Distance Charge and the Smart Phone Application.

- The Automated Distance Charge is a GPS mileage tracking device, which the state would install under the vehicle dashboard. Miles driven outside the state or on private land would be automatically deducted, an option that neither the Mileage Permit or Odometer Charge options would allow. The detailed GPS data "would be transmitted to a central processing office…to prepare the user's invoice."[11] This option could allow variable charges, depending on whether a driver is on a city, county, or state road, and whether he is driving during peak or off peak commuting hours.

- A Smart Phone Application option would use a driver's smart phone to record and report miles driven. This is a smart phone version of the Automated

11 "Mileage-Based Road User Charges," by Robert S. Kirk and Marc Levinson, Congressional Research Service, June 22, 2016, at https://fas.org/sgp/crs/misc/R44540.pdf.

Distance Charge, but uses a mobile device to collect travel data. This is still being developed.

Although these four choices are presented to drivers, it seems unlikely officials would allow drivers to submit mileage through so many reporting routes in the long-term. Having multiple methods of tax collection would increase administrative costs and complications, and reduce revenue for the state.

There is also a pay-at-the-pump option not included in this pilot, in which an installed transponder could transmit mileage information at the pump, and the data would then be sent to a central office. This system would track how much a person drives, but it would not report where or when the vehicle was driven. This system may allow drivers to pay a mileage tax at the pump. However, according to the Congressional Research Service, this option could be even more administratively complicated because it would require "government to establish thousands of new collection points."[12]

The RUC pilot would only apply to light-duty vehicles weighing less than 10,000 pounds. Should a mileage tax be enacted, the legislature would have to decide whether to apply the tax to heavy duty trucks, which already pay a diesel tax and a vehicle weight fee.

The Transportation Commission wants to start the RUC pilot project in Washington in early 2018. The transition to a full mileage tax, if approved by lawmakers, would begin in 2019.[13]

Policy Analysis

The concept of imposing a mileage tax in Washington state poses several practical problems and policy conflicts.

Problem 1: 18th Amendment protection

In Washington state, gas tax revenue and state vehicle license fees are legally protected by the 18th Amendment to the Washington State Constitution, which states:

> *"All fees collected by the State of Washington as license fees for motor vehicles and all excise taxes collected by the State of Washington on the sale, distribution or use of motor vehicle fuel and all other state revenue intended to be used for highway purposes, shall be paid into the state treasury and placed into a special fund to be used exclusively for highway purposes."*[14]

Under this provision, state gas taxes and vehicle license fees paid by drivers cannot be used for non-highway purposes.

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12 Ibid.

13 Washington State Road Usage Charge presentation before the House Transportation Committee, January 14, 2016, at http://wstc.wa.gov/StudiesSurveys/RoadUsage/RUC2013/documents/2016_0112_RUC_Dec_presentation.pdf.

14 "18th Amendment to the Constitution," Washington State Legislature, at http://leg.wa.gov/JTC/trm/Documents/TRM_1315Update/6%20-%2018th%20Amendment.pdf.

Before people passed the 18th Amendment, gas tax diversion was a serious and costly problem. Politicians began to spend gas tax money on programs not related to roads and highways. More than $10 million in gas taxes were diverted to other purposes in the 10 years between 1933 and 1943.[15] Washington voters saw this diversion as unfair and added the 18th Amendment to the state constitution in 1944 to fix the problem.

Although the gas tax is currently protected for highway purposes, the mileage tax would be a new source of revenue that may not be protected due to public officials' overwhelming preference for expanding public transportation. It may be difficult for the public to believe 18th Amendment protections would be respected because officials often find ways to divert money from drivers to non-highway purposes. This includes diversion of transportation-related fees, motor vehicle excise taxes, and roadway tolls, all to subsidize other travel modes.

For example, in fiscal year 2010, $2.88 billion in state transportation spending was funded by the major state and federal taxes and fees imposed on drivers. Yet state officials shifted over $200 million to non-highway purposes, when this money could have been spent on building better roads and bridges. These non-highway expenditures included $19.8 million to Indian tribes for fuel tax refunds and $127.2 million to the state Multimodal Account (walking, biking, transit, and other public transportation options).[16] An additional $62 million in sales taxes on state road projects was diverted to the general fund.[17]

In fiscal year 2015, $3.33 billion in state transportation spending was funded by the major state and federal taxes and fees imposed on drivers. This time, officials transferred $34.1 million to Indian tribes and $294.9 million to the state Multimodal Account.[18] In other words, the state collected nearly 16 percent more in transportation funding in 2015 than in 2010, and officials diverted 72 percent more to Indian tribes and 132 percent more to the state Multimodal Account.

This does not include the billions that drivers pay in local taxes on car tab renewals each year, including transportation benefit district fees and motor vehicle excise taxes, also directed towards public transportation.

Transit boosters frequently advocate for increasing the gas tax to incentivize more people to use transit, as well as using gas tax money paid by drivers to fund

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15 Washington State Voter's Pamphlet, Washington Secretary of State's Office, November 1944, p. 47, at www.sos.wa.gov/library/docs/OSOS/voterspamphlet/voterspamphlet_1944_2006_002278. pdf.

16 "Transportation Revenue Forecast Council: March 2017 Transportation Economic and Revenue Forecasts Volume II: Detailed Forecast Tables," Washington State Office of Financial Management, March 16, 2017, at http://www.ofm.wa.gov/budget/info/March17transpovol2.pdf.

17 "Policy Brief: A Roadmap for Mobility," by Michael Ennis, Washington Policy Center, May 2012, at https://www.washingtonpolicy.org/library/doclib/A-Roadmap-For-Mobility.pdf.

18 "Transportation Revenue Forecast Council: March 2017 Transportation Economic and Revenue Forecasts Volume II: Detailed Forecast Tables," Washington State Office of Financial Management, March 16, 2017, at http://www.ofm.wa.gov/budget/info/March17transpovol2.pdf.

"sustainable transportation."[19] As a part of its legislative agenda, the political transit advocacy group, Transportation Choices Coalition, advocates for a "pay-as-you-drive system" that "will provide the level and flexibility of revenues to ensure our transportation system is well maintained and that Washington can pursue a wide variety of transportation choices."[20]

This language suggests that money collected from drivers in a mileage tax system should benefit other modes of travel, like public transportation. One of Transportation Choices Coalition's employees has been appointed as a commissioner on the WSTC, which is leading the Road Usage Charge Pilot Project.

While public transportation is important, especially in dense urban areas, it is not a highway purpose and should not be funded with vehicle-related taxes and fees paid by drivers. This includes sales and property taxes that fund local transit systems, which are collected as subsidies with no direct relationship to mass transit use.

Problem 2: Threat to privacy

The 4th Amendment of the United States Constitution protects "the right of people to be secure in their persons, houses, papers, and effects against unreasonable searches or seizures." This includes personal information.

Courts have ruled that when people travel on public thoroughfares, they do not have a reasonable expectation of privacy. People do, however, have a reasonable expectation of privacy regarding "long-term movements," which mileage tax data collected by a GPS tracking device could demonstrate over time. Information collected over time "can create a very detailed picture of things people do have a right of privacy in such as civic, professional, religious, and sexual associations."[21] If people consent to the release of information, including information related to their movements over time, they lose their right to that privacy.

In the eyes of the law, when we waive our right to privacy, the information we release with regard to when, where, and how far we travel "is [then] free to be used by any government branch, including law enforcement, because it was voluntarily transmitted by the user."[22] In Oregon's implementation of a limited mileage tax, lawmakers had to enact laws that specifically prevent law enforcement and other state agencies from accessing the travel information that was sent to the Department of Transportation. In Washington state, however, the WSTC lists the Washington State Patrol as an agency that may have an interest in the results of the pilot or a future RUC system. The Washington State Patrol could provide input on "detecting

19 "Just Read It: The 18th Amendment," by Alex Broner, Seattle Transit Blog, December 19, 2012, at https://www.seattletransitblog.com/2012/12/19/just-read-it-the-18th-amendment/.

20 "2017 Legislative Agenda," Transportation Choices Coalition, January 2017, at https://transportationchoices.org/policy/TCC_leghandout_2017.pdf.

21 "Consent: A VMT Fee Program's Best Friend," by Patrick Brady, Eno Center for Transportation, January 2015, at https://www.enotrans.org/eno-brief/consent-a-vmt-fee-programs-best-friend.

22 Ibid.

and deterring vehicle licensing fraud" and "roadside enforcement approaches and activities."[23]

With any new technology, there is always the risk of data being stolen, which is both a breach of privacy and law. In 2015, "Chrysler announced a recall for 1.4 million vehicles after a pair of hackers demonstrated…that they could remotely hijack a Jeep's digital systems over the internet."[24] The hackers could control air-conditioning, radio, and windshield wipers. They could also target transmission and braking systems. As technology advances, so do methods of cyber-attacks. These are all serious concerns that apply to a GPS-dependent mileage tax, as well as any system that allows vehicles to communicate with one another.

Officials insist that drivers would have a choice to use low-tech methods for reporting their mileage. However, more accurate billing would likely require less private methods of collection. If drivers do not want to be overcharged, they would have to choose high-tech, invasive options of travel data collection, which is not much of a choice at all.

While it is true that we give away our privacy every day through our smart phones, those smart phones can be turned off. If we consent to have GPS tracking devices installed in our vehicles for the collection of travel data and subsequent tax, turning those devices off could be made illegal, unless exceptions are established in law.

In general, the instinct of government officials is to keep and use personal data they have collected, not delete it. Government may initially promise not to track vehicles and travel patterns, but officials could shift their position in the future to permit such behavior for what they determine is the good of the public.[25] Despite government promises that this would never happen, drivers have very little assurance that information collected will not be stored, used, or transmitted to a third party.

Problem 3: Administrative cost

The current gas tax is simple and cheap to collect, and administration costs less than one percent of collections. This is because the gas tax is collected at different points in the supply chain, rather than from millions of drivers individually.

The administrative cost of collecting and enforcing a new mileage tax is estimated to be between five and 13 percent of collections, because each user has to

23 "Washington State Road Usage Charge Assessment: Pilot Project Implementation Plan Final Report," Washington State Transportation Commission, January 31, 2017, at http://wstc.wa.gov/StudiesSurveys/RoadUsage/RUC2013/documents/2017_0131_RUC_AssessmentRpt.pdf.

24 "The Jeep hackers are back to prove car hacking can get much worse," by Andy Greenberg, *Wired*, August 1, 2016, at https://www.wired.com/2016/08/jeep-hackers-return-high-speed-steering-acceleration-hacks/.

25 "NCHRP Synthesis 487: Public Perception of Mileage-Based User Fees," Transportation Research Board – National Cooperative Highway Research Program, 2016, at https://www.nap.edu/download/23401.

be taxed individually.[26] In 2010, USDOT's Chief Economist reported that for a 10-mile corridor, a mileage tax using GPS would cost four to five percent of collections, Automatic Vehicle ID (transponders) would cost 16 to 25 percent, and video tolling would cost 33 to 50 percent. In theory, as the corridor gets longer and there are more users, the per-unit costs would decrease.[27]

This is a problem that the WSTC admits is difficult to overcome. Electronic toll collection, which is a similar collection method, loses about seven to 12 percent of revenue to transaction costs, not including credit and bank card fees.[28]

Part of the cost includes the creation of more bureaucracy, including employment and benefit coverage of more government employees to manage data and issue tax bills. There would also be the initial costs of equipment. For businesses, any additional "cost of compliance will likely be passed on to consumers through higher prices."[29]

The high administrative cost of a mileage tax is an important consideration because a mileage tax that raises the same amount of money as the gas tax, but is more expensive to administer, will result in less money overall for the state. To raise the same amount of money as the gas tax, which is what officials say they want, a mileage tax would have to be higher and generate "greater gross revenue" that makes up for the money spent on administration.[30] The mileage tax could be less expensive for some than others, but it would likely be more expensive overall if the state intends to collect equal or more revenue than it does with the current gas tax.

Problem 4: Transition period

Officials say that "during the transition period of moving from the gas tax to a road usage charge, drivers would pay one or the other, but never both."[31] This claim is misleading.

If by "transition period" officials mean the decades it would take for current gas tax bonds to expire, drivers would pay both the state gas tax and a mileage tax up front until bonds are paid off and the state gas tax is removed. During that time,

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26 "Mileage-Based Road User Charges," by Robert S. Kirk and Mark Levinson, Congressional Research Service, June 22, 2016, at https://fas.org/sgp/crs/misc/R44540.pdf.

27 "Administrative Costs of Road User Charges," by Jack Wells, U.S. Department of Transportation, April 21, 2010, at http://utcm.tamu.edu/mbuf/2010/presentations/pdfs/Wells.pdf.

28 Ibid.

29 "NCHRP Synthesis 487: Public Perception of Mileage-Based User Fees," Transportation Research Board – National Cooperative Highway Research Program, 2016, at https://www.nap.edu/download/23401.

30 Ibid.

31 Washington State Road Usage Charge, Presentation to the Washington State Transportation Commission, by Jeff Doyle, March 21, 2017, at http://wstc.wa.gov/Meetings/AgendasMinutes/agendas/2017/March21/documents/2017_0321_BP4_RUC.pdf.

officials say drivers would receive a rebate for the state gas tax after it is paid, and would continue to pay the federal gas tax.[32]

However, public officials admit that they will likely keep the gas tax in place to ensure that out-of-state drivers pay for their use of roads. They reason that they benefit from charging a gas tax and a mileage tax, as it allows them to keep tax revenues flowing to the state. Therefore, it seems the "transition period" is more likely how public officials define the time it would take for the public to accept the social and financial costs attached to a mileage tax.

During the "transition," public officials could choose to lock up future mileage taxes through bonding as they have with the gas tax. If this choice is made, the public will have no recourse should they not like the new tax plan and will be forced to pay an additional new tax for decades into the future.

This means that, in total, public officials would continue to impose the state and federal gas tax, a brand new mileage tax, and unpopular tolls. These payments do not include the rising costs of state vehicle fees, car tabs, and other transportation-related fees that are also paid by drivers. Should public officials get what they want, there will be an increase in the cost of living for households that have already faced the largest gas tax increase in state history.

Problem 5: Treating people fairly

State transportation officials have reported in the past that a tax-per-mile system would have a negative impact on low-income people and working families.[33] A mileage tax would also be costly to those who drive fuel-efficient and electric vehicles.

For families, budgeting to pay a lump sum for miles driven would be difficult. People drive when they are able to pay for fuel. If officials later add on congestion pricing (higher prices to commute during peak hours) or variable pricing for different types of roads (city, county, state), budgeting becomes nearly impossible. As families budget for each month, they would have to predict not only how many miles they would drive in each vehicle, but when and where they will drive them.

Low-income workers often have several jobs, or jobs that do not have flexible schedules that allow them to drive during off-peak hours. A mileage tax that also incorporates congestion pricing would have a regressive impact on people who often have no choice but to drive long distances to and from work each day during peak hours. The impact would be felt even more by those living in small towns in distressed rural counties, where there is little or no traffic congestion, but where transit and ridesharing are not practical options.

Proponents of a mileage tax extend the issue of fairness to owners of fuel-efficient or electric vehicles, and say they pay little or no gas tax for their use of roads.

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32 In Oregon, information is sent to a private sector contractor, which bills monthly and refunds drivers for the gas taxes they have accrued.

33 "Impacts of VMT Reduction Strategies on Selected Areas and Groups," by Daniel Carlson and Zachary Howard, Washington State Department of Transportation Office of Research and Library Services, December 2010, at https://www.wsdot.wa.gov/research/reports/fullreports/751.1.pdf.

While it is true that all cars impact roads and contribute to traffic congestion, it is difficult to measure what a "fair" payment for impact on roads should be. This is because the cost of transportation infrastructure is distorted, and distorted costs cannot accurately inform the "fair" contribution drivers should make. Moreover, incentivizing people to purchase fuel-efficient vehicles only to punish them later for doing so reveals that public officials are advancing conflicting policy goals.

Officials' justification for the mileage tax: fuel efficiency and inflation

Over the last two decades (1995 to 2015), average fuel efficiency has increased only 12 percent, from 19.6 to 22 miles per gallon.[34] According to the Institute on Taxation and Economic Policy (ITEP), this means that "for a vehicle with a 15-gallon tank…the average driver is able to wear down the roadways with 35 extra miles of driving before they have to stop, refuel, and pay anything in gas taxes."[35]

Large automakers are under pressure from the government to increase fuel economy on all new cars to over 50 miles per gallon by 2025, although this goal is controversial and has been called unrealistic and "out of step with consumer preferences."[36]

During those same two decades, the amount people drove in Washington state increased 21 percent, from 49.3 to 59.8 billion miles annually.[37] The state gas tax rate increased nearly 115 percent, from 23 cents per gallon in 1995 to 49.4 cents per gallon in 2015. Meanwhile, inflation over this same period was 56 percent.

In other words, we are driving 21 percent more than in 1995, and paying more than double per gallon in gas tax - yet vehicles are only 12 percent more fuel-efficient. Any significant gas tax revenue losses are not the result of improved fuel economy.

This conclusion is summarized in the chart below.

MPG, VMT, Tax Comparison 1995-2015 (Source: FHWA, USDOT)

Category	1995	2015	% Increase
National Fuel Efficiency (MPG)	19.6	22.0	12%
WA Vehicle Miles Traveled (VMT)	49.250 billion	59.832 billion[1]	21%
Inflation (relative to 1995)	1.00	1.56	56%
State Fuel Tax/Gallon	$0.23	$0.494	115%

34 "Table 4-23: Average Fuel Efficiency of U.S. Light Duty Vehicles, Bureau of Transportation Statistics," United States Department of Transportation, 2015, at https://www.rita.dot.gov/bts/sites/rita.dot.gov.bts/files/publications/national_transportation_statistics/html/table_04_23.html.

35 "Pay-Per-Mile Tax is Only a Partial Fix," Institute on Taxation and Economic Policy, June 24, 2015, at http://itep.org/itep_reports/2015/06/pay-per-mile-tax-is-only-a-partial-fix-1.php#.WO6ea2QrLoy.

36 "EPA locks in 2025 fuel efficiency rules," by David Shepardson, *Reuters,* January 13, 2017, at http://www.reuters.com/article/us-usa-automakers-idUSKBN14X1Q6.

37 Annual Vehicle-Miles of Travel – 1995 – by Functional System, Federal Highway Administration, October 1996, at https://www.fhwa.dot.gov/ohim/1995/vm2.pdf.

The Institute argues that gas tax revenue losses should, instead, be attributed to inflation. They state that for "every $1 that fuel-efficiency gains drained from the purchasing power of the nation's transportation funds over the last 20 years, inflation has taken a much larger $3.50." The Institute concludes that a mileage tax, if not indexed to inflation, would experience the same revenue problems that a gas tax does in failing to keep up with construction costs.

While inflation has had a greater impact on the spending power of gas tax revenue than fuel economy, indexing the gas tax or a future mileage tax to inflation to keep up with artificially high costs of construction is not the right solution.

Additionally, an indexed gas tax that fluctuates each year with the rate of inflation might seem favorable for politicians who dislike voting for gas tax increases, but is not favorable for taxpayers, who would automatically pay more for higher construction costs, even if those costs increase faster than inflation. Taxpayers are better off when lawmakers must vote on tax increases. This is shown by the last three state gas tax increases, which came with specific project lists, allowing the public to hold their representatives accountable to spend tax dollars as promised.

Despite the greater impact of inflation (56 percent) than fuel economy (12 percent) over the last 20 years, public officials who advocate for a mileage tax identify fuel economy as the greater culprit. When public officials want more money from taxpayers, they like to appeal to principles of equity, livability, economic vitality, and other vague concepts that feel good but are difficult to measure. These concepts are easier to connect to fuel economy, rather than inflation, in persuading the public to accept a mileage tax. A moral claim that owners of fuel-efficient and electric vehicles are not paying their fair share appeals to the public's sense of justice, and it has been a prominent talking point in the mileage tax debate.

Vehicle miles traveled are increasing

It is difficult to project how much vehicle miles traveled (VMT) will grow in the future. There are too many variable factors to make extended predictions about any existing trends. However, current data shows that people have been driving more, not less. In 2016, Washingtonians drove a total of 61.8 billion miles, an increase of 9.4 percent from 2012.[38] Since 1995, VMT in Washington increased 21 percent.

Despite driving data, public officials say that VMT will drop to 1997 levels by 2042.[39] Washington State Department of Transportation (WSDOT) officials claim VMT will experience "low short-term growth, then a year over year decline in the

38 Traffic Volume Trends, U.S. Department of Transportation Federal Highway Administration, December 2016, at https://www.fhwa.dot.gov/policyinformation/travel_monitoring/tvt.cfm.

39 Transportation Revenue Forecast Council, September 2016 Transportation Economic and Revenue Forecasts: Volume III – Alternate Forecast Tables, Washington State Office of Financial Management, February 1, 2017, at http://www.ofm.wa.gov/budget/info/Sept16transpovol3.pdf.

long-term." They say this will happen because more people will telecommute and take transit, reducing total miles driven.[40]

These projections reveal a bias, as public officials have a strong preference for expanding public transportation and managing, rather than reducing, traffic congestion. This is shown by WSDOT measuring transit use as vehicle miles that are avoided on highways.[41] Reducing vehicle miles traveled through the use of public transportation as a stated WSDOT goal is concerning, since public transportation does not serve the purpose of reducing traffic congestion in any significant way.[42]

If VMT were to decrease due to transit use in WSDOT's scenario, we would see transit mode share increase substantially. However, both Sound Transit and Puget Sound Regional Council (PSRC) data shows only a small increase in transit use over the last decade. The PSRC reports that transit mode share in the Puget Sound has remained at a steady four percent over the last decade; 96 percent of the traveling public prefer to use other modes despite Sound Transit, King County Metro, Community Transit, and Pierce Transit having spent billions on operations and expansion over the last two decades.[43]

More importantly, long-term VMT projections are more likely to have a great deal of variation in data, and cannot be said to be accurate. Still, public officials project VMT out to 2043 and estimate that people will drive less as gas prices increase to $7 per gallon.[44] This is a bit like predicting the weather two decades into the future and does not provide reliable data for setting transportation policy in Washington state.

Other potential reasons given for why people could drive less include: aging populations, advances in technology, and more people working from home.[45] Yet there have also been forecasts that autonomous vehicles will result in more people on roads who previously could not be. No one can speak conclusively about what the future of highway travel will look like.

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40 Modifications to the Vehicle Miles Travelled (VMT) Statewide Forecast Model, Washington State Department of Transportation, October 2014, at http://www.ofm.wa.gov/budget/info/Sept14VMT_forecast_changes.pdf.

41 "2016 Biennial Transportation Attainment Report," Washington State Department of Transportation, October 2016, at http://wsdot.wa.gov/publications/fulltext/graynotebook/AR2016.pdf.

42 "Transit Utilization and Traffic Congestion: Is there a connection?" by Thomas A. Rubin and Fatma Mansour, Reason Foundation, December 2013, at http://reason.org/files/transit_utilization_traffic_congestion.pdf.

43 "Puget Sound Trends," Puget Sound Regional Council, April 2015, at https://www.psrc.org/sites/default/files/trend-t8.pdf.

44 Transportation Revenue Forecast Council, September 2016 – Transportation Economic and Revenue Forecasts Volume III: Alternate Forecast Tables, Office of Financial Management, February 1, 2017, at http://www.ofm.wa.gov/budget/info/Sept16transpovol3.pdf.

45 "Vehicle Miles Traveled: Another Look at Our Evolving Behavior," by Jill Mislinski, Advisor Perspectives, April 14, 2017, at https://www.advisorperspectives.com/dshort/updates/2017/04/14/vehicle-miles-traveled-another-look-at-our-evolving-behavior.

The more likely and honest reason state officials insist that people will drive less and gas tax revenue will decrease is because they have explicitly codified VMT reductions in state law. In other words, they predict that people will drive less because they will encourage them to do so. These travel behavior projections reflect desired policy goals rather than reality.

The state's conflicting mandate to reduce vehicle miles traveled

In February 2007, Governor Christine Gregoire signed an Executive Order mandating the reduction of Green House Gas (GHG) emissions in Washington.[46] Within a month, the state created the Climate Advisory Team (CAT), and by January 2008, CAT issued recommendations to accomplish the required reductions. Among the more controversial recommendations is for the state government to reduce how much people drive.

The advisory team recommended that the government reduce per capita VMT by 18 percent by 2020, 30 percent by 2035, and 50 percent by 2050, compared to what it would be with no state restrictions. These recommendations were adopted and signed into law.[47]

The plan also recommended a variety of strategies to make people reduce their daily VMT, including expanding public transit, forcing compact development into specific crowded corridors, and creating disincentives for drivers through tolling.[48] This policy represents an unprecedented level of government regulation and restrictions on personal mobility. It also highlights public officials' insistence on making people drive less, so much that they have generated data showing that they will.

If state officials meet their extreme VMT targets, revenue tied to fuel consumption or mileage will decrease. This could jeopardize the funding officials say they need for transportation infrastructure. Therefore, continuing a gas tax or advancing a tax-per-mile system that relies on driving, while mandating that people drive less, is contradictory. If successful, the VMT policy would artificially reduce revenues over time.[49]

One way public officials want to get around this dilemma is by indexing the mileage tax to inflation. If VMT decreases, which is the explicit goal of the state, drivers would still pay more. If VMT continues to increase as it has been and traffic congestion worsens, people will pay more even if they individually choose to drive

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46 Executive Order 07-02, Washington Climate Change Challenge, Office of the Governor, February 7, 2007, at http://www.governor.wa.gov/sites/default/files/exe_order/eo_07-02.pdf.

47 "RCW 47.01.440 – Adoption of statewide goals to reduce annual per capita vehicle miles traveled by 2050 – Department's Duties – Reports to the legislature," Washington State Legislature, 2008, at http://app.leg.wa.gov/rcw/default.aspx?cite=47.01.440

48 Transportation Implementation Working Group, 2008 Climate Action Team, November 2008.

49 "Policy Note: State's Mandate to Reduce Driver Mobility Threatens Revenue for Transportation Projects," by Michael Ennis, Washington Policy Center, January 2009, at http://www.washingtonpolicy.org/library/docLib/vmtgastaxpn_0.pdf.

less. Under any scenario in which the tax rate increases automatically every year, drivers pay more on a per mile basis, in their total bill to the state, or both.

Policy Recommendations

1. State officials should reduce the cost of public road projects

Government often demands efficiency, compliance, and accountability from taxpayers yet does not hold itself to the same standard. As a result, taxpayers are being asked to financially "keep pace" with a broken, artificially expensive system.

One simple comparison that illustrates these exorbitantly high costs is the new 520 bridge. The original bridge was built in 1963 and cost $192 million in 2015 dollars. The new bridge costs $4.56 billion, a 2,275 percent increase in a little over 50 years. The new bridge is larger, has a longer service life, but also includes highway lids over certain segments and is engineered to support future light capacity rail (a non-highway purpose). These extra features elevate costs significantly. Even with the added features, a 2,275 percent increase is alarming given that the cumulative rate of inflation since the original bridge was built is about 697 percent, or one third as much.

Statewide and municipal data reflects skyrocketing costs as well. Officials like to argue that indexing taxes to inflation will allow revenue to keep pace with the rising costs of construction, yet costs are soaring beyond inflation. According to transportation researcher Dr. Bill Eager, between 2003 and 2007, WSDOT's Construction Cost Index (CCI) rose over 12 percent, nearly twice the national rate. Looking at just the City of Seattle's CCI, between December 1995 and July 2015, construction costs increased by 75.5 percent.[50] This is over six times higher than fuel efficiency (12 percent) and 1.3 times higher than inflation (56 percent) over the same time period.

Public officials have two options when construction costs surpass inflation. First, if the rate of inflation is three percent and construction costs artificially increase six percent, officials could increase taxes beyond inflation to cover the higher costs. Second, public officials could reduce costs by three percent, so the inflation adjustment will meet the cost increase. The third and better option is to reduce costs the full six percent, so that adjusting to inflation is no longer necessary. Reducing artificially high costs and eliminating the adjustment to inflation is the best option for taxpayers.

Multiple cost reduction recommendations have been provided by the Washington State Auditor. In 2007, the auditor issued 22 recommendations that encourage congestion relief performance measures and would reform the way

50 "City Cost Index – Seattle – As of October 2015," Engineering News-Record, 2016, at http://www.enr.com/economics.

transportation projects are evaluated.[51] The auditor estimated that implementing these recommendations would save state government $110 million.

The auditor's office produced additional reports as well. The Washington State Ferries audit contained 10 recommendations and identified $50 million in cost savings over five years; the WSDOT Administration and Overhead audit contained 11 recommendations and identified up to $23.6 million in cost savings over five years; and the WSDOT Highway Maintenance and Construction Management audit contained 34 recommendations and identified $41.9 million in cost savings.[52]

Washington Policy Center has provided policy recommendations over the years as well. As previously stated, public officials can bridge the gap in trust their inefficiencies have created by reducing artificial cost drivers in highway projects before they press the legislature to approve an entirely new revenue stream.

Artificial costs result from policies created by government officials that needlessly inflate expenses on public works projects. These policies are implemented for reasons unrelated to actually building a project. Artificial cost drivers include prevailing wage rules, the state charging itself sales tax on some transportation projects, apprenticeship requirements, inefficient permitting, environmental compliance, money for public art, and requiring mass transit to be included in highway projects (like light rail on State Route 520).[53]

Here are a few examples of reforms that can reduce costs:

- Public officials can save 15 percent or more on transportation projects by using market-based labor pricing, rather than the political prevailing wage system that artificially inflates wages for workers. In Washington state, prevailing wage rates are 54.6 percent higher than market wages.[54] Using competitive market wages would stretch transportation dollars and show respect for the financial sacrifice people make when they pay for public roads.[55]

- Officials at all levels of government should review permitting and regulatory mandates on transportation projects to reduce costs and shorten planning and construction time. The Federal Highway Administration (FHWA) estimates

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51 Performance Audit Report: WSDOT Managing and Reducing Congestion in Puget Sound, Washington State Auditor's Office, October 10, 2007, at *http://portal.sao.wa.gov/ReportSearch/Home/ViewReportFile?isFinding=false&arn=1000006.*

52 "Policy Note: Reforming State Transportation Policy - Washington State's Efforts to Implement Performance-Based Policies," by Michael Ennis, Washington Policy Center, September 29, 2008, at http://www.heritage.org/transportation/report/reforming-state-transportation-policy-washington-states-efforts-implement#_ftn4.

53 "Legislative Memo: How to Reduce the Cost of Highway Projects," by Bob Pishue, Washington Policy Center, February 2014, at http://www.washingtonpolicy.org/library/docLib/Pishue_-_Reduce_Artificial_Cost_Drivers.pdf.

54 "ABC leads the fight on issues important to you," Associated Builders and Contractors Inc., 2017, at http://www.abcwestwa.org/en-us/politicsandpolicy/governmentlaboraffairs.aspx.

55 If federal dollars are spent on a project, the federal Davis-Bacon requirements apply. If state "Little Davis-Bacon" requirements were eliminated, federal funds could be concentrated on only certain projects, generating significant savings on projects that do not use federal funds.

that a typical Environmental Impact Statement took an average of 2.5 years to complete in the 1970s. Today, it takes a tedious 6.5 years. According to the FHWA, complex highway projects take an average of 13 years to complete, with only a fraction of that time spent on construction.[56]

- The state should use public-private partnerships to construct and manage highways, especially in highly congested corridors, where toll revenue could cover highway costs. Allowing private investment would attract private dollars for public use, shift risk away from taxpayers, use competition to lower capital and operating costs, and gain a more efficient distribution of transportation resources.[57]

Regulatory efficiencies like these and others result in projects being built at less cost to the taxpayer and in record time. Take, for example, the I-5 Skagit Bridge collapse in 2013. A section of the bridge fell into the Skagit River when its overhead structure was hit by a truck. The Governor issued a state of emergency to speed rebuilding efforts, and in less than 24 hours, WSDOT officials began their work. About a month later, the bridge re-opened. Applying the lessons learned during this expedited bridge building process would benefit future transportation projects that are normally delayed by unnecessary regulations.

2. Tie public spending to public market demand, not government ideology

To restore public trust, officials should prioritize transportation projects to achieve traffic congestion relief rather than ideological agendas.

In 2007, the state auditor found that "while WSDOT does not control the level of highway taxes available for transportation, WSDOT does influence whether available funds are used to add additional capacity." The auditor also recognized that the highly political nature of transportation policies in the Puget Sound region have resulted in "investments in transit, HOV, and general purpose infrastructure… inconsistent with historic and forecast modal usage… [and are] disproportionate with the present shares of travel by mode and any reasonable forecast of future expected shares obtainable by these modes."[58]

Transportation spending is not an investment if it fails to increase mobility for families in the region. Instead, as the state auditor noted, these investments represent disproportionate spending of public money for the satisfaction of political interests.

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56 "Legislative Memo: How to reduce the cost of highway projects," by Bob Pishue, Washington Policy Center, February 12, 2014, at http://www.washingtonpolicy.org/publications/detail/how-to-reduce-the-cost-of-highway-projects.

57 Washington state does allow public-private partnerships in law, but the law contains provisions that effectively prevent them from forming. Reform would be required if lawmakers want to take full advantage of public-private partnerships to help fund projects, rather than laying the entire burden on taxpayers.

58 Performance Audit Report: WSDOT Managing and Reducing Congestion in Puget Sound, Washington State Auditor's Office, October 10, 2007, at http://portal.sao.wa.gov/ReportSearch/Home/ViewReportFile?isFinding=false&arn=1000006.

Furthermore, when public officials prioritize transportation projects, it is difficult for citizens to engage in that process with a full understanding of what the trade-offs are for each proposal. Public money belongs to citizens, so lawmakers have an obligation to make this process more transparent and accountable. Taxpayers should be told what any new revenue would be dedicated to and how much the specific projects will cost.

Instead of telling taxpayers billions are needed for unmet transportation needs and a maintenance backlog, government officials should list specific projects and costs and engage with taxpayers about whether a mileage tax would generate the money officials claim they need.

Conclusion

Most people recognize and agree that mobility, and the road construction and maintenance that it requires, is the key to economic strength and security. People are willing to pay gas taxes and fees if they trust the public will receive a real benefit in return. In Washington, this public-trust model has not worked, as taxpayers have been told repeatedly to pay more and more into a system that fails to improve their mobility. The Road Usage Charge is yet another one of those requests.

A better approach would be for public officials to solve the problem of policies that add artificial costs to transportation projects. Only after transportation spending is consistently devoted to congestion relief, and construction costs have been contained, would it make any sense for public officials to seek additional revenue.

If transportation officials reduce costs and stop diverting much of the money they collect from drivers to non-highway purposes, public confidence would grow, allowing bold policy initiatives and infrastructure that improves mobility for everyone.

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