

Abstract

Transportation Financing in the COVID-19 Era: What's next?

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Executive Summary

So, what is next? With tolling revenues down, revenue shortfalls from the gasoline tax due to lower rates of consumption, and federal, state and local governments having already tight budgets, where does the future funding for transportation initiatives come from? **The following abstract touches on this challenging dilemma and addresses how State and Local Agencies can adopt new innovative policies to finance transportation initiatives both during and after the COVID-19 era** fades into memory. Many things in the world were disrupted in the past several months and transportation budgets are no different.

When the COVID-19 pandemic forced much of the United States into lockdown from March-June, highways that were often clogged with traffic were now sitting empty even during rush-hour. Because of the pandemic, it's estimated that the average vehicle miles traveled (VMT) in the U.S. for 2020 will be 1 billion miles less each day than in 2019. Dropping from 9 billion miles a day to 7.9 billion — an 11.4% decrease (1). The large decrease in the number of miles traveled leads to a decrease in toll revenue collected and a decrease in monies generated from the gas tax. In March, April, and May, the U.S. Department of Transportation lost \$43.5 million a day in federal gas tax revenues, according to Boston Consulting Group's Trip Reduction Index. Texas lost an estimated \$5.5 million a day in gas tax revenue.

Transportation departments must now navigate deep budget deficits while continuing to maintain and update critical infrastructure. With the federal election in the rearview mirror, a large economic stimulus package that could have passed with a majority in all three branches of government appears unlikely; as a consequence, states must now adopt new innovative technologies that can help shrink large budget deficits. By examining the economic impact that the lockdowns had on specific states, **A-to-Be can provide solutions by using the latest technology to help states maintain the high standards taxpayers all expect while saving agencies money.**

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Introduction

Many states are updating operating budgets and are now realizing the dramatic effects COVID-19 has had on transportation revenues. For example, at least 44 states, transportation authorities, and local governments have publicly projected declining revenues (2). For the 2020 budget, the Illinois Tollway originally budgeted \$1.49 billion in revenues from tolls but now expects the amount of toll revenue collected to fall to \$1.24 billion – a shortfall of \$255 million (3). The projected lost revenue could continue to grow and as America heads towards the winter when the virus could see a resurgence. Likewise, tolls collected across Massachusetts's state highway system declined by roughly 33.4% during the coronavirus pandemic compared to the first eight months of 2019, according to data from the Massachusetts Department of Transportation (4). Since the start of the pandemic, gas prices have fallen as the demand for fuel has decreased. The lower price at the pump has dramatically affected the amount of revenue collected from the gas tax and will continue to do so until state and local economies are fully opened for business once again. Additionally, in California, the state saw a \$556 million reduction in gas tax revenues compared to previous estimates (5). These three examples are a microcosm of what is taking place across the country when it comes to state transportation budgets. To solve budgeting difficulties state governments should look to innovative technologies such as All-Electronic Tolling (AET) and ATPMs, and even consider Road User Charging (RUC) options.

AET

The Maryland Transportation Authority (MDTA), Massachusetts DOT (MassDOT), and the Pennsylvania Turnpike Commission (PTC), have **implemented AET for a variety of reasons including saving commuters time, increasing safety by reducing crashes at traditional toll plazas that require dramatic decreases in speed and saving agencies millions in operational expense (OPEX). A traditional toll plaza has a higher operational expense than an AET options.** For instance, industry averages show that the typical cost to collect a cash toll is about three times that of electronic collection options (6). AET eliminates the need for toll booths and the labor costs needed to staff them at all hours of the day and night. By investing in AET, state governments can see significant savings and reinvest those savings in aging infrastructure.

To further ensure state agencies do not lose any additional funds innovative steps to prevent leakage must be taken. In some instances, AET has been blamed for increased levels of leakage compared to traditional tolling methods. However, according to KPMG's tolling benchmark study, the operators reporting the highest rates of leakage state this is due mainly to a high volume of out-of-jurisdiction users that are difficult to pursue for toll collection and/or collection of violation notices. In some instances, agencies choose not to pursue and prosecute violators at all (7).

ATPMs

The best way for states to provide citizens with the latest in AET technology and the cost savings it provides is to marry AET with Automatic Toll Payment Machines (ATPM). **Placing ATPMs in strategic roadway locations, coupled with AET, allows for individuals to pay by cash, credit card, debit card, or smartphone interface if they choose to pass through a tolling point. Moreover, this solution allows for contactless payments – either through card or smartphones –, an adaptation in consideration of the present public health conditions.**

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As electronic transactions across multiple industries become more relevant, ATPMs are the logical bridge between humans and machines as an intermediate technology. ATPMs provide another option for tolling agencies to reduce leakage and collect the needed revenue to pay for necessary upgrades to roads. Further, ATPMs create a more socially equitable situation for individuals who need to drive on the toll road and who don't have the means or choose not to participate in AET.

RUC

The Highway Trust Fund (HTF) finances most federal government spending on highways and mass transit. The HTF is funded by taxes on gasoline and diesel fuel. In recent years, the Fund has been depleted as revenues from the gas tax have declined. One reason for the large decline in revenue collected from the gas tax is that more electric cars and fuel-efficient cars are now on the road. While 36 states have increased motor fuel tax rates over the last decade, the federal government has not updated the gas tax since 1993 (8). One possible solution to the declining revenue from the gas tax is updating it with a road usage charge (RUC).

RUC has already been explored in states across the country through pilot projects and many important lessons have been learned along the way. **One of the many benefits of RUC programs is that they are designed to be more equitable across the board as everyone is charged the same fee. RUC programs can help to change human behavior by encouraging users to take trips during off-peak hours through financial incentives.** A RUC program would lead to additional new technologies adopted by state and local governments. These new technologies would bring efficiency for the Government and for the user. To make up for the declining revenue, a federal RUC tax rate must average 1.7 cents per mile to cover the highway fund's expenditures (9)

Conclusions

As a new Congress and a new Administration comes to Washington D.C. and as new state legislatures take up the task in their respective capitals, the financial impact COVID-19 will continue to be addressed. Transportation funding should not be overlooked or pushed aside. If transportation and infrastructure issues are ignored, state governments and ultimately taxpayers will suffer the consequences. To address the significant gaps in state transportation budgets across the country, governors and agency heads must look to the latest technology to achieve savings. The future of transportation financing runs through All-Electronic-Tolling, ATPMs, and RUC to help these various agencies provide the best services for their constituents.



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Works Cited

1. "U.S. Macroeconomic Indicators and CO2 Emissions." U.S. Energy Information Administration, 2020, www.eia.gov/outlooks/steo/tables/pdf/9atab.pdf.
2. Premo Black, Alison. "IMPACTS OF COVID-19 ON STATE & LOCAL TRANSPORTATION REVENUES & CONSTRUCTION PROGRAMS." *American Road and Transportation Builders Association*, 2020, www.artba.org/wp-content/uploads/2020/08/2020.07.28_ARTBA_COVID19RevImpact_v18_Public.pdf.
3. Pyke, Marni. "Tollway Revenue Drop Reflects How Many Staying at Home during COVID-19." *Daily Herald*, Daily Herald, 16 Oct. 2020, www.dailyherald.com/news/20201015/tollway-revenue-drop-reflects-how-many-staying-at-home-during-covid-19.
4. Stening I, Tanner. "Mass. Toll Revenue Declined by 33.4% and It Could Impact Much Needed Repairs." *Masslive*, 9 Oct. 2020, www.masslive.com/coronavirus/2020/10/massdot-toll-revenue-declined-by-334-amid-coronavirus-pandemic-that-could-impact-much-needed-repairs-or-create-an-opportunity.html.
5. Jimenez, Frank. "Impact of COVID-19 on State Transportation Revenues." *California Legislative Analyst's Office*, 17 Sept. 2020, lao.ca.gov/Publications/Report/4268.
6. Cantelli, Mark. "All Electronic Tolling Speeds to the Forefront." *IBTTA.org*, The International Bridge, Tunnel and Turnpike Association, 2009, www.ibtta.org/sites/default/files/ACSwp%20all%20electronic%20tolling.pdf.
7. Beatty, Stephen. Open Opportunity *KPMG*. [Online] 2019. <https://assets.kpmg/content/dam/kpmg/xx/pdf/2019/07/toll-benchmarking-study-2019.pdf>.
8. Boesen, Ulrik. "Gas Tax Revenue to Decline as Traffic Drops 38 Percent." *Tax Foundation*, 31 Mar. 2020, taxfoundation.org/gas-tax-revenue-decline-as-traffic-drops/.
9. <https://taxfoundation.org/road-funding-vehicle-miles-traveled-tax/#:~:text=A%20federal%20VMT%20tax%20rate,based%20on%20weight%20per%20axle>.