

Article – July 2019

## Transforming Transportation – USA viewpoint

Compiled by: [A-to-Be®](#) | [Mobility-Beyond](#)

Today's transportation policy environment is strapped with declining revenues and increasing service and capital costs. Yet, National, State and Local jurisdictions are faced with a plethora of transportation policy choices. As the tool box has grown with these options, policy makers and transportation planners struggle to plot out a future course of action to meet their growing revenue and transportation needs.

The current choices, options or "tools" in the policy decision set are numerous and far ranging. They span a wide range of diverse options – increases in the fuels excise taxes; employ "Express Lanes" to generate revenue lanes for the maintenance or expansion of an existing facility; expand or introduce tolling on new and old facilities; create low emission zones that allow the polluters to pay; implement a congestion charge, or levy a special congestion charge on specific links in the network or the entire central business district; introduce a distance based charge within an entire jurisdiction for all vehicles on all roads; divert revenue for transportation from other taxes; or, do nothing. Each of these options or choices have their pros and cons although many would point out that doing nothing is not an option considering the increases in registered vehicles, light, and heavy commercial vehicles, trip generation, and age of the bespoke infrastructure. The continuing decline of fuels tax revenue due to increased fuel economy of existing gas or petrol driven vehicles, increased numbers of hybrids and plug-in hybrids, and the growth of electric vehicles is shrinking the gas tax revenues by an increasing percentage year-on-year. Despite the growing gap between needs and funding, the choices of actions are paralyzing rather than energizing.

Some policy makers are studying the entire spectrum of revenue generating options to best suit their constituents. Others are eliminating certain choices based on their interpretation of constituent sentiments or limiting their options to a preferred or select few. Many are simply frozen with indecision or fear of taking any decision and being held accountable for possibly making the wrong policy decision. Faced with such complex policy decisions, many transportation professionals and lawmakers are unable to determine a clear direction for future transportation policy. The "do nothing" option prevails, right or wrong. Examples of policy struggles across the USA are numerous for each of the above stated policy choices.

A good example of such inaction is the long-standing environment in the USA senior levels of The Administration and Congress being unable to even raise the gas tax which was last increased in 1993. During multiple bi-partisan meetings with Congressional leadership and the White House, a renewed glimmer of hope for funding infrastructure was reached earlier this year. This hope faded quickly as the lack of funding or funding source for such a program. The lack of clarity of what projects or how the money could be spent were cited. Current levels of the national debt, and a general lack of priority amongst competing demands for health, education, immigration, defense and other priorities make a turbulent environment for resolving transportation policy. Adding to the confusion is judging which transportation options should be pursued – raising the gas tax, tolling, Public Private Partnerships, increasing funding for Public Transportation, finding an alternate to the gas tax with options such as road usage charging. In effect, the current policy environment to rebuild American Infrastructure and the USA transportation network is struggling to find the right blend of policies for the future. Consequently, one can view the current environment is to do nothing.

In the meantime, US States are not standing still. US States have an advantage over most similar international jurisdictions because under the US Federated divisions of powers, they have the right to raise their own fuels excise taxes. The tax paid per gallon has both a federal component and a state tax component, in addition to some local jurisdictional taxes added to the price per gallon consumed. Due to the above federal or national inaction, States are increasingly taking their own steps to be more self-sufficient by raising vehicle registration fees, licensing fees, gas/petrol taxes and diesel fuel taxes to fund their necessary transportation and infrastructure projects.

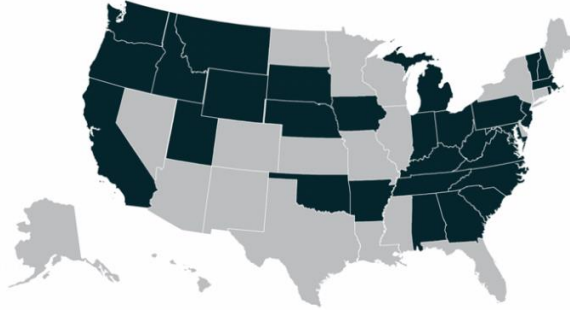
Recently, the state of Ohio became the 30th state to raise or reform its gas tax. Despite all studies and data to indicate a declining revenue base and increased inequity of the fuel taxes, there is a remarkable level of agreement across all states that the immediate cure for the lack of transportation revenue is raising the gas/petrol and diesel taxes. Many states are implementing the short-term fix of reversing transportation revenue losses caused by rising construction costs and improvements in vehicle fuel economy, as well as the rising percentage of hybrids, improved plug-in hybrids, and battery or electric vehicles in their vehicle fleets. Maybe the most detrimental impact to such fuel tax increases is the growing efficiency of medium and heavy vehicle truck fleets. This trend towards alternate fuels such a liquid natural gas will have a much higher detrimental effect on fuels tax revenues than those evidenced in the personal car fleets.

The negatives of raising the fuels excise taxes is the continuing decrease in this consumption tax due to the changing nature of the vehicle fleet. As addressed above, fuel economy, hybrid vehicle efficiency, and battery/electric vehicles are gutting this revenue source. While the collection costs are typically inexpensive (at or less than 1%) gas tax is a longtime favorite source for State Treasuries.



## Recent State Gasoline Tax Increases and Reforms

*Includes Laws Enacted Between 2013 and 2019*



Source: Institute on Taxation and Economic Policy. Reflects laws enacted through April 4, 2019.

ITEP.org

Another policy option is the adding of Express Lanes or Managed Lanes where motorists have the option to pay a fee to bypass local congestion on general purpose lanes or collector highways leading into major urban centers. States of Minnesota, Texas, California, Florida are leading examples of this transportation policy, but many more states such as Maryland, Colorado, Georgia, Washington State are also keen on using Express/Managed Lanes. The major success of these unique projects is their popularity with both lawmakers and the local populations. Part of that popularity is that general purpose lanes are not being converted to create these Express/Managed Lanes, but new infrastructure or lanes are added to expand the capacity of these highways and interstate infrastructure. Hence, the general public is not impacted, and the general or un-tolled lanes become less congested. The Express/Managed Lanes take a percentage of the traffic volume thus freeing space on the general roadways. Aside from the popularity of these lanes, the counterpoint to them is the low-fees and revenue generated. In Minnesota, one of the first states to use this policy tool, little to no profit has been generated for anything more than off-setting existing maintenance costs of the specific road and Express/Managed Lanes.

A step up from Express/Managed Lanes is new or expanded Tolling in a State. Existing states with tolling, such as California, Florida, Kentucky, Colorado, Washington State are addressing new toll roads or expanding existing toll roads with new extensions or connectors. Interestingly, these existing toll states are more and more looking to use these toll revenues for funding new infrastructure or off-setting other transportation budget deficits. Interesting that states that do not have tolling or previously had toll roads but removed the tolls such as the current underway in the State of Connecticut.

While most toll roads generate a profit or surplus beyond its own needs (e.g. maintenance, upkeep, regeneration of the facility, etc.), many opponents of the toll road approach cite the high collection costs. There are no definitive or consistent source for these overheads. Each toll agency or independent source toll overhead costs range between 18% to 39%. Compared to gas tax collection rate, these high overhead costs tend to scare off economists and Treasury staffs.

Urban centers or local jurisdictions are also active in looking for new sources to generate revenue. Many of these urban centers or local jurisdictions receive existing funding as part of the States Gas Tax revenues. These allocations are pro-rated based on existing formulas. Due to the decline of the revenue base for these fuels excise taxes, State Department of Transportations and these Local Authorities are both being squeezed. As a result, these urban centers are creating Low Emission Zones, Congestion Charging Zones and other tools such as parking fees and taxes on private parking spaces in their jurisdictions. As noted above, the multi-tiered gas tax sources also include

local authority stipends on top of the Federal and State Taxes which is collected and paid directly to the local authority in some states that allow it.

Singapore, London, Stockholm, Gothenburg, Milan, Tehran are the best example of Congestion Charging (CC) working internationally. Maybe the most interesting and evolving is London's Congestion Charging project. This scheme initiated with an area charge for a portion of central London's financial district. It was later expanded, and this expansion withdrawn for political reasons. More recent studies indicate that a distance-based charge in the area would be more beneficial and reduce the current inequities of the charge. Furthermore, issues on the edges of the zone would be resolved for parking. Along with this fundamental change is the idea of setting the charge based on emissions. This "polluter pays" concept appears to have greater acceptance but is not as certain reduce congestion. While the Greater London Low Emission Zone has done much to eliminate heavy commercial diesel vehicles, much like the "Maut" system on the German Autobahns, fleet managers are quick to turn over fleets faster than the average private car fleets that turnover in decades, not years. London's "Ultra Low emission zone also appears to be reducing traffic in central London and joins Milan as an example of the "Polluter Pays" policy. USA major cities of New York City, Washington DC, Los Angeles, San Francisco, and Boston are addressing or studying their options.

Distance based charging, or Mileage Based User Fees (MBUF), or Road Usage Charging (RUC) are various references for the same user pays policy. States such as Oregon and Utah have implemented policy legislation. Others such as California, Colorado, Minnesota, Missouri, Hawaii, and Washington State have received US Federal Funding matched with State Funding to study distance-based charging. Results of published studies are encouraging and indicate that there is a growing familiarity with RUC. Participant surveys suggest that RUC is an acceptable concept in Pilot Tests. The suggested results from these studies reflect that a distance-based charge is a fairer revenue generation policy than the gas tax. However, State and Federal decision makers are still skeptical or undecided. In the case of California, legislators passed SB1, a state policy to endorse and support tolling before the results of the Road Charge study were published.

States such as Texas, Florida, Indiana, Kentucky, Massachusetts, and North Carolina are continuing their history of endorsing tolling as a means to raise more revenues. These states are actively expanding their tolling facilities. Connecticut is a state that is currently developing legislation to create toll facilities in the state while Rhode Island has implemented a special toll policy to charge Heavy Commercial Vehicles to cross the state's bridges. In the case of Connecticut, Legislators in State Congress banned RUC as a consideration when their Department of Transportation stated it was to participate in a RUC pilot test as part of the I-95 Coalition. In all cases, the familiarity and acceptance of tolling appears to be greater than other revenue generating measures listed above despite its high overheads to collect tolls and the resulting lower net revenue.

Finally, some states are investigating the transfers of revenue from other taxes to shore-up the States decreases in transportation revenues. Indiana is one such state where one percent of General State Sales Taxes were obligated to its transportation funding. At the time, such a contribution was seen to stabilize the gas tax decreases and establish a satisfactory level of transportation funding. Unfortunately, by the third year of its establishment, the acceleration of the gas tax decrease put the state in the same position as before the addition of the state sales tax. When a higher percentage of the sales tax was suggested, the state legislators flatly dismissed any further consideration of cross-supporting transportation funding with its state sales tax.

Coming to grips with the reality that over the next 25 to 50 years, automotive technology, electrification, and supply/demand for petrol-based energy will change dramatically. As the industry and fleet changes, new thinking of transportation policy must follow. Policy makers will need to address the continuing decline in revenues and recognize that fuels excise taxes, congestion, growing vehicle fleets, and increased trip generation, will adversely impact local and national competitiveness. While we will find new ways to deliver goods and personal services, delivery will be dependent on the health and well-being of our roads and bridges. Even new technologies such as autonomous vehicles will demand good infrastructure to succeed. Despite the wide array of tools in our transportation policy tool box, action must be taken if a “User Pays” principle is to survive. Dithering and half measures dealing with a meaningful transportation policy are no longer acceptable. Right or wrong, some or various combinations of the policy options are necessary to address congestion, improve the environment, and generate sufficient revenue to invest and maintain our transportation infrastructure to match our economic goals and livable communities.



#### Contact Information

Luís Nunes, CSO  
[Luis.Nunes@a-to-be.com](mailto:Luis.Nunes@a-to-be.com)

A-to-Be, Powered by Brisa  
a-to-be.com