Alternative Funding Approaches for Iowa Roads

Executive Summary

TR-790: Alternative Funding Approaches for Iowa Roads provides the Iowa Highway Research Board (IHRB) with near-term and long-range funding recommendations to address ongoing road and bridge needs across the State of Iowa (the State) based on transportation industry research, academic research, technical analyses, and feedback from the project's Technical Advisory Committee (TAC).

A review of the existing road and bridge funding sources identified several challenges that will continue to impact the State's ability to achieve near-term and long-range financial sustainability. The primary funding sustainable challenge is the continued reduction in revenue from the State's largest single funding source for transportation - the fuel tax. Three key factors are negatively impacting fuel tax revenues: 1) continued improvements in fuel economy of vehicles, 2) the accelerated growth in ownership of electric vehicles (EV) and plug-in hybrid vehicles (PHEV), and 3) slower growth of vehicle miles traveled (VMT) due to the COVID-19 pandemic, the increase in working remotely, and other cultural shifts.

Revenue from the State's second and third largest funding sources, annual registration fees, and fees for new registrations, are experiencing higher annual growth rates than the fuel tax. However, the combined annual revenue from these three sources is not keeping pace with annual increases in construction costs. Using data from Iowa DOT's Construction Cost Index (CCI), since Iowa's 2015 fuel tax rate increase, construction costs have experienced an average annual increase of approximately 11 percent. Meanwhile, revenue from the fuel tax has experienced a 1 percent average annual *reduction*, and revenue from the vehicle registration fees and fees on new vehicles has increased about 4 percent per year. The impact of costs increasing at a faster rate than revenues results in a significant decrease in purchasing power from the State's primary transportation revenue sources. The current funding structure has to be adjusted to combat the continued erosion in purchasing power.

According to the Iowa DOT's *2021 Road Use Tax Fund (RUTF) Study*, over the next 20-years, it is estimated that costs for administration, maintenance, and construction of city, county, and State roads and bridges will exceed federal, state, and local revenue sources by approximately $15.620 billion, with the counties experiencing the largest share of this shortfall at $9.629 billion. The 2021 RUTF Study also looked at the stewardship needs across the state which are the projects that would extend the life and modernize existing infrastructure without adding capacity.[1] The projected funding shortfall for the stewardship needs alone is approximately $5.754 billion. On an average annual basis, the funding shortfall for all road and bridge projects would be $781 million per year, and the average annual shortfall for stewardship projects would be $288 million.

[1] Capacity projects in the 2021 RUTF Study include projects that would add lane miles to the system-either additional lane capacity on existing roadways, or new roadways and roadway extensions.

With these projected shortfalls in mind, a variety of potential supplemental funding sources were identified and evaluated. The potential sources reflect a combination of research of what other states are doing to address similar issues and input received from the TAC. The evaluation process resulted in the following recommendations to gSenerate additional revenue to supplement the existing transportation funding sources in the short term and to transition away from the fuel tax in the long-term with an alternative source.

- **Short-Term Recommendation**: Implement the following package of fees to supplement the current funding structure.

    1. **Improve the Stability of Statewide Funding by Indexing and Increasing the Existing Fuel Tax Rate and Registration Fees:** The public is already familiar with the connection between paying these taxes and fees to use a vehicle and how the revenue generated is then invested to improve the transportation infrastructure. The recommendation is to adapt legacy rate structures for fuel tax and annual registration fees to increase annually so that revenue growth would better align with the annual construction cost increases. Specifically, the recommendation is to increase fuel tax and registration fees using a cost growth index. Ideally, the index would be tied directly to trends in construction cost growth alone or in combination with other growth indices. Additionally, it is recommended that the existing fee on new registration be increased from 5 percent to 6 percent to align with the existing state sales tax rate and provide additional support in addressing the funding shortfall. Because these are existing sources, the incremental revenue increases would be allocated to the Iowa DOT, counties and cities using the current RUTF and TIME-21 Fund distribution processes.

    2. **Increase Urban and Rural Funding by Implementing Transportation Network Company (TNC) Fees and E-commerce Delivery Fees:** With the increasing use of food and product delivery through services like Amazon and Grub Hub, not all those who benefit from the roadway system must use them or leave the comfort of their home. Product delivery services and rideshare services, like Uber or Lyft, are redefining how people are using the roadway system and governments are redefining fee structures to provide revenue to keeps pace with the new burdens these services place on the roadway network. While TNC and E-commerce delivery services may be a small portion of overall roadway traffic today, it is reasonable to assume that they will evolve and expand over time. The recommendation is to implement a TNC fee, either as a percentage of the total fare or a fee per trip, and a fee per E-commerce delivery. Additionally, revenue from these fees should be dedicated to the cities and counties since that is where much of the impact of these services will occur. It should be noted that the State currently collects a Personal Transportation Service sales tax on TNCs, however the revenue collected does not support investment in the transportation system. The existing sales tax legislation may need to be adjusted if the new TNC fee moves forward.

3. **Increase Rural Funding by Implementing One or More Agricultural Fees:** The State currently has no weight limits for agricultural vehicles and County Engineers are concerned about accelerated road and bridge deterioration caused by these unregulated heavy loads. Agricultural equipment is also currently exempt from paying vehicle registration fees even though some of the equipment is being driven on-road. The intent of this recommendation is to offset the impact of this equipment on Iowa's rural roads and bridges by implementing one of more fees associated with the shipping requirements to raise and sell livestock and crops, the on-road use of tractors and heavy equipment, and the diesel fuel used by the agricultural industry. The agricultural fees considered included implementing a per bushel fee, a per livestock head fee, a registration fee for tractors and other farm equipment, and/or a fuel tax on red dyed diesel. Further it is recommended that the revenue collected from these fees would be returned to the county where it was generated

If the entire package of fees were implemented, conceptual estimates developed for this report indicate total annual revenue could range from $155 million to $290 million. While these conceptual estimates would significantly close the average annual funding shortfall for stewardship projects defined in the 2021 RUFT Study, it may be a challenge to obtain political and public support to move all fees forward at the same time, and therefore annual revenue would not reach these levels. However, this recommendation provides a blueprint to start discussions with potential partners, stakeholders, and elected officials to supplement the current funding structure and offset the ongoing reduction in purchasing power.

- **Long Term Recommendation:** Continue research and analysis associated with the implementation of a mileage-based user fee incorporating vehicle weight and distance driven, and incrementally implement the fee over time as a replacement for the fuel tax. There is recognition at both the state and nationally level that the fuel tax, which has historically been the primary funding source for transportation infrastructure, is not a sustainable source due to the continued improvements in vehicle fuel economy and the growth in EV sales. Industry and academic research have reached the same conclusion that implementation of a fee based on miles driven provides the best option to generate revenue equivalent to the fuel tax. Additionally, a mileage-based user fee would be more sustainable than the fuel tax since it would not be negatively impacted by vehicle efficiency or technology improvements.

  In the past, implementation of a mileage-based user fee may have been perceived as funding source option that was many years away. However, based on research and pilot programs conducted around the country, it is likely a large-scale implementation will occur soon as the ongoing research is generating answers to the data collection, technology, policy, and equity challenges that would be associated with the transition from the fuel tax to a mileage-based user fee. At the federal level, this is reinforced by direction from Congress to the USDOT in the IIJA as part of the Strategic Innovation for Revenue Collection Program. Specifically, the USDOT must submit a report to Congress in 2024 with recommendations on a national alternative revenue mechanism based on results from previously completed state pilot projects. The IIJA also includes a new $50 million program, the National Motor Vehicle Per-Mile User Fee Pilot Program that directs the USDOT implement a nationwide pilot project that will solicit volunteer participants from all 50 states, including commercial and passenger vehicles. The legislation requires the pilot program to offer different methods for participants to track their mileage and directs USDOT to set annual per-mile fees for different types of vehicles.

This report evaluated two mileage-based user fee options: a flat fee per mile approach and an approach that would incorporate weight along with distance (weight and distance fee or per ton-mile fee) to help account for the effect of heavy loads on the longevity of pavements and bridges relative to the impact of passenger vehicles. The revenue estimates indicate that depending on the fee structure; either option has the potential to generate revenue that would match or exceed the FY 2023 budget estimate for fuel tax ($669 million). These estimates assume all vehicles in operation today would be paying the mileage-based user fee. It is possible that for a transitional period, the weight-and-distance fee would apply only to electric vehicles, with conventional vehicles continuing to pay their share of roadway costs through fuel taxes.

The State may want to consider implementing a pilot mileage-based user fee program for EV and PHEV which would provide data to compare the State's current registration fee approach for these vehicles with a fee per mile or fee per ton-mile approach and designed to generate revenue in line with historical fuel tax revenue levels. Federal funding for this pilot project is available through the Surface Transportation System Funding Alternatives Program. The IIJA include $75 million over the next five year for this program to test the feasibility of a road usage fee and other user-based alternative revenue mechanisms. The grant award could cover up to 80 percent of the total project.

In addition to the programs mentioned above, the IIJA will provide a significant increase in federal funding to the State over the federal fiscal year (FFY) 2022 to FFY 2026 period. This includes increased levels of annual formula funding and new and expanded discretionary grant opportunities. While this infusion of federal funds will benefit state and local roads over the next five years, there is no guarantee that the level of annual federal formula funding or the potential availability of discretionary grant programs included in the IIJA will continue beyond 2026. More specifically, funding from the IIJA will not address the long-term financial sustainability needs of the State.

Finally, the discretionary grant program opportunities included in the IIJA will be highly competitive. A potential option to improve Iowa's competitiveness for these programs over the next five years would be for the State to consider passing a one-time appropriation to provide a local match pool for potential project sponsors. As an example, in January 2022, the Governor of Colorado asked the State Legislature to appropriate $100 million in the FY 2023 budget to be used as local matching funds for future IIJA federal discretionary grant applications.