



A comprehensive analysis of alternative funding options from across the country helps Iowa DOT consider new ways to address shortfalls due to rising costs and shrinking revenue.

# RESEARCH SOLUTIONS

## Alternative solutions to fund Iowa's highway maintenance and construction projects

Maintaining a safe and efficient transportation network can be resource intensive. However, as fuels, vehicles, and driving behaviors change, the viability of traditional funding sources becomes uncertain. To address projected shortfalls, Iowa DOT has been seeking alternative funding solutions. After a detailed review of Iowa's transportation funding landscape, researchers assessed the viability of funding mechanisms used by state departments of transportation nationwide. The result was a set of recommendations for novel revenue-generation methods in Iowa, and practical strategies for adopting them.

### THE NEED

Transportation construction and maintenance costs continue to increase in Iowa as they do across the country. The state's revenue, however, is declining. Fuel taxes, which currently serve as Iowa DOT's largest financing source for improving transportation infrastructure, are bringing in less

due to gains in fuel efficiency, more hybrid and electric vehicles, and many people simply driving less. While revenues from some funding sources are rising, such as Iowa's vehicle registration fees, construction costs continue to outpace these gains.

With recent shortfall estimates of more than \$15 billion over the next 20 years, Iowa DOT wanted new ideas to fund building and upkeep of the state's roads and bridges. A comprehensive understanding of revenue-producing programs and tools across the country could generate new funding ideas to help Iowa reduce its reliance on fuel tax.

(continued)



**“We have significant needs for infrastructure upgrades and ongoing maintenance. This independent analysis gives us a holistic view of the revenue landscape and potential funding options as vehicles, fuel use, and driving behaviors evolve.”**

**— BRIAN MOORE,**  
Iowa DOT Secondary Roads Research Engineer

## RESEARCH APPROACH

An analysis of Iowa’s existing transportation funding processes, revenue sources, and investment needs framed an exploration of alternative solutions. As other states are facing the same shortfalls as Iowa, an in-depth 50-state review of a range of potential funding mechanisms targeted programs in four areas for further review:

- Changes to existing fees or taxes.
- Mileage-based user fees.
- Rideshare or delivery service fees.
- Agriculture-related fees.

Researchers evaluated these source categories against financial criteria, including short-term revenue and long-term sustainability. The administrative challenges of establishing, collecting, and auditing revenue from each source, as well as the likelihood of political and public support, were also investigated. Finally, an in-depth analysis of equity considerations explored potential disproportional impacts on certain populations or geographic areas.

## WHAT IOWA LEARNED

While no single funding source can replace declining fuel tax revenues, a holistic analysis of several alternatives led researchers to identify the most promising short- and long-term options for Iowa DOT to continue to maintain and improve the state’s roads and bridges.

In the short term, the most promising options include increasing the existing fuel tax and registration fees. An alternative is indexing these taxes and fees, or periodically increasing them based on annual construction cost increases or other growth indexes. However, these methods are likely less sustainable in the long-term due to the proliferation of electric cars and increasing fuel efficiency.

In addition, ridesharing and e-commerce are growing rapidly, and implementing fees on these activities will potentially benefit both the short- and long-term revenue streams. Iowa DOT, however, would need to put significant effort into building relationships with providers such as Amazon and Uber Eats.

A similar use-based recommended funding source is the agricultural industry. Options include initiating registration fees for farm equipment, a tax on red-dyed diesel fuel, and weight-based fees on transported crops or livestock. Funding generated from these methods would be dedicated to roads in agricultural areas.

In the long term, Iowa DOT could explore mileage-based user fees such as a flat fee per mile or a vehicle weight and distance-driven approach. Universal and equitable implementation, as well as privacy concerns, are important considerations for these measures.

## PUTTING IT TO WORK

Regardless of the course it pursues, Iowa DOT will work closely with all stakeholders to establish a clear connection between users and investments, ensure fee burdens are equitably distributed, and build coalitions early to increase Iowa DOT’s chances of successfully implementing new funding mechanisms.

## ABOUT THIS PROJECT

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