Introduction

The current and imminent revenue shortfall of the highway financing system, which is primarily based on motor fuel taxes, has been widely diagnosed both at the national and state levels. Under the current fuel-tax-based system, it is estimated that the shortfall would grow larger in the future, primarily because the current fuel tax rate is fixed per gallon while vehicle fuel economy is improving and the use of alternative fuels is increasing.

Findings

Models to estimate expected highway revenues from the existing sources, indicate that, if no change is made to the tax rate, fuel revenue will continue to decline.

The present study predicted fuel tax revenues from 2012 to 2025 under the existing fuel tax rate structure and also considered possible options for changes in fuel tax rates. Fuel tax revenue from existing rate structure indicated a continuous annual decrease from 2012 to 2025 by 2.96% to 3.49% in real terms. Adopting one of the four fuel tax rate modifications would provide additional short-term revenue for a variable number of years. A 1-cent increase would offset the decline in the total fuel tax revenue only for a year after which it will continually decline every year. A 3-cent increase would provide a substantial increase in revenue in the short term but will continually decline, however, the 2025 revenue from 3-cent increase would be a little higher than the 2012 revenue level. Both inflation indexing and an ad valorem tax would also provide substantial increase in fuel tax revenue.

Implementation

The study was conducted for the Finance Department of the Indiana Department of Transportation. It is expected that the results will be used for budgetary purposes.

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