

# CAUSES OF INDIANA'S ROAD FUNDING GAP

## Inflation, Fuel Efficiency, and Inaction



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## **CAUSES OF INDIANA'S ROAD FUNDING GAP: INFLATION, FUEL EFFICIENCY, AND INACTION**

**MEPI Economic Commentary #29**

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### **Executive Summary**

This Midwest Economic Policy Institute Economic Commentary investigates the causes of the current road funding gap in Indiana. Note that this report only focuses on Indiana's state road system. Additional resources are needed at the local level.

Despite an 8.0 percent rise in usage of Indiana's highways, roads, and bridges from 2003 through 2013, total Fuel Tax revenues have only increased by 2.5 percent over the same time. If Fuel Tax revenues had kept up with the average fuel efficiency of automobiles on the road and the overall Consumer Price Index, the state would have had **\$1.56 billion** more in additional revenues over the past decade. Not pegging the Fuel Tax to overall inflation accounts for \$1.23 billion of this loss in potential revenue (79 percent), while not accounting for more environmentally-friendly cars accounts for \$336 million of the forgone funding (21 percent). Inaction by state lawmakers in addressing these trends has contributed to a deteriorating system of transportation infrastructure in Indiana.

To improve investment in road infrastructure, Indiana lawmakers could gradually raise the Fuel Tax to 28 cents per gallon by 2018 and index the tax to inflation while also phasing in a new \$100 vehicle registration fee. Increasing and indexing the Fuel Tax is a policy change [supported by the Indiana Chamber of Commerce](#). A 10-cent increase in the Fuel Tax to 28 cents per gallon would raise about \$420 million in new revenues by 2018, restoring Fuel Tax funding to its 2003 levels after accounting for inflation and the improved fuel efficiency of vehicles on the road. While this Fuel Tax increase restores funding to previous levels, a new \$100 fee on vehicle registrations would help to fix the presently inadequate condition of Indiana's roads by generating an additional \$586 million in annual transportation funding.

The projections come together to form a "One-Ten-One Hundred Rule" for Indiana by 2018: to generate an additional *1* billion dollars annually for infrastructure investment, Indiana lawmakers could pass a *10* cent increase in Fuel Taxes and a new *100* dollar registration charge on vehicles to use the roads.

An alternative option to fund transportation system improvements is a "mileage-based user fee," which charges those who use the roads at a rate equal to the damage caused by their vehicle plus the costs to invest in future needs. The Midwest Economic Policy Institute has previously proposed the [Indiana Road Infrastructure and Driver Enhancement \(IN-RIDE\) Program](#), a policy which uses public-private partnerships and allows individuals to choose their own pay-as-you-drive plan to fit their needs and concerns. The IN-RIDE would replace the Fuel Tax with a 2.5 to 3.5 cents-per-mile rate for most vehicles to conservatively generate \$855 million to \$1.5 billion in new annual funding. Mileage-based user fees like the IN-RIDE are innovative, comprehensive, fiscally-responsible alternatives which maintain adequate and sustainable revenue streams. The proposal also supports transit modernization, congestion alleviation, safety improvements, and economic development.

Indiana has reached a crossroads. The state can continue down the path of unsustainable funding in the face of rising costs and improved fuel economy, or it can be a national leader in paving the way for long-term revenue solutions.

## Introduction: The Indiana Road Funding Gap

Indiana is the “Crossroads of America.” The state’s 95,500 miles of highway, roads, and streets facilitate over 78 billion vehicle miles traveled by Hoosiers, visitors, and truckers. State-controlled roads account for 10 percent of the total road miles throughout the state (about 11,200 road miles) but service 54 percent of Indiana’s vehicle miles traveled each year. Additionally, the state has an inventory of 18,483 bridges ([ASCE, 2010](#)).

Indiana’s transportation system is in need of repair and investment for the future. Although the majority of the state’s public infrastructure was built over half a century ago, public use has risen substantially as the state’s population and economy have grown. With increasing demand, outdated and insufficient infrastructure has resulted in new public safety concerns. Fully 22.5 percent of all bridges in Indiana are considered “structurally deficient” or “functionally obsolete” and are in need of repair. Currently, the overall cost of driving on poor roads in Indiana is \$2 billion every year in extra vehicle repairs and operating costs, or \$391 per motorist. In total, the combined funding required to meet road maintenance *and* expansion goals in the long-range transportation plan of the Indiana Department of Transportation (INDOT) is estimated at \$23 billion from 2016 through 2030, or slightly **more than \$1.5 billion per year** in current dollars ([ASCE, 2010](#)). While this report only focuses on state-controlled highways, roads, and bridges, additional resources are needed at the local level as well.

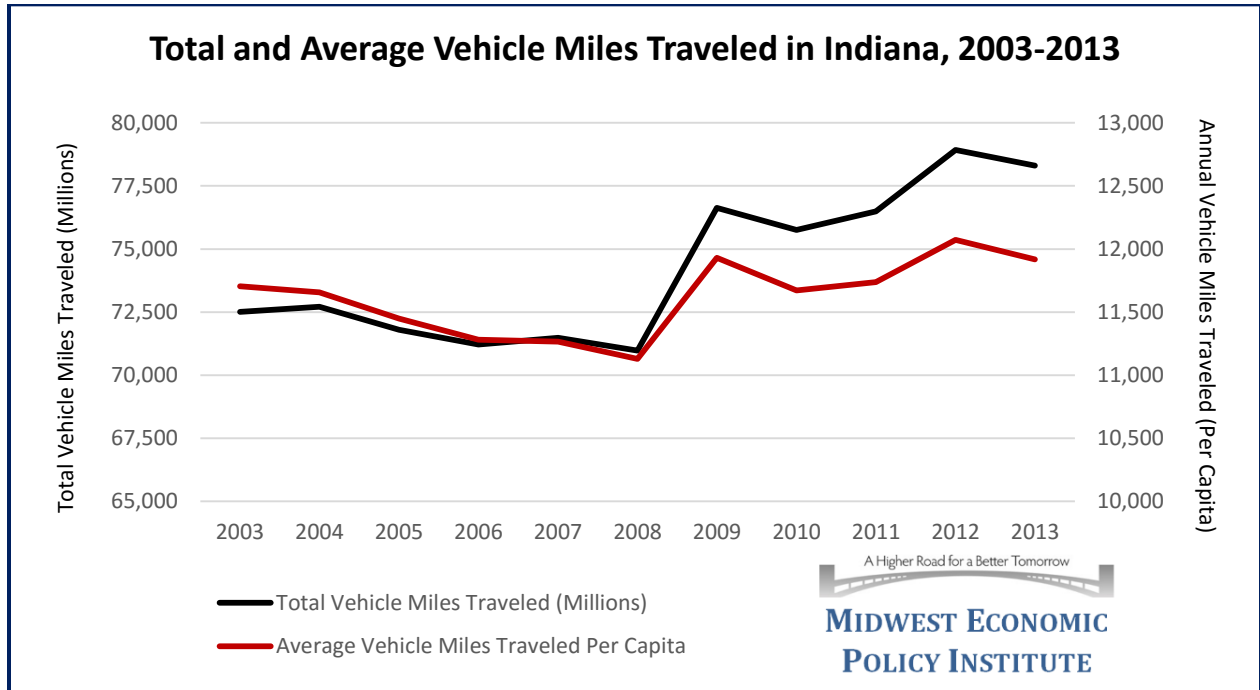
The future population of Indiana deserves better, higher-quality infrastructure. By 2030, Indiana is expected to have a population of 6.8 million residents, an increase of over 700,000 people ([Barrella & Beck, 2009](#)). Additional services and system expansions are necessary to support this growth, alleviate accompanying effects on congestion, and ensure that firms in Indiana are able to efficiently transport their products to the market.

## Today’s Economic Facts Compared to the Market in 2003

What caused this significant road funding gap in Indiana?

Total vehicle miles traveled are rising in Indiana. In 2003, the average annual vehicle miles traveled per capita in Indiana was 11,704 in the state. Despite a brief decline to 11,130 vehicle miles traveled in 2008 as families cut back on travel during the Great Recession, per-capita vehicle miles traveled has since increased to 11,918 (in 2013). A growing population, combined with this rise in vehicle miles traveled per person, has contributed to a surge in total vehicle miles traveled throughout the state: In 2003, motorists traveled 72.5 billion vehicle miles. By 2013, usage of the state’s highways, roads, and bridges expanded to 78.3 billion vehicle miles traveled – an 8.0 percent increase in overall demand (Figure 1).

FIGURE 1: TOTAL AND AVERAGE VEHICLE MILES TRAVELED IN INDIANA, 2003-2013



Source(s): BTS, 2015: [State Transportation Statistics](#).

But funding has not kept pace with the increased demand. Figure 2 provides background information on the reasons for the gap. In 2002, Indiana hiked its Fuel Tax from 15 cents per gallon to 18 cents per gallon to help address needs at the time. The first fiscal year with full economic data under an 18 cents-per-gallon Fuel Tax was 2003. The Fuel Tax has remained unchanged, at 18 cents per gallon, for over a decade (Figure 2).

While the revenue source has stayed constant in Indiana, the costs of constructing and maintaining roads and bridges (i.e., what the revenue is used for) have not. Prior to the burst of the housing bubble, road construction inflation had also ballooned in 2007, to 34 percent higher than in 2003. Today, the National Highway Construction Cost Index (NHCCI) is 13 percent higher than in 2003, a more moderate increase in costs (FHWA, 2015). However, without a comparable increase in the Fuel Tax, this inflation in construction costs has meant that a dollar of road funding does not go as far today as it did in 2003 (Figure 2).

As Figure 2 demonstrates, the NHCCI has experienced considerable fluctuation in recent years. Prior to 2007, construction costs were a significant contributor to overall inflation in the economy; since then, rising health care and education costs have been larger culprits of overall price increases. The Consumer Price Index for All Urban

Consumers (CPI-U)— the standard measure of overall inflation in the U.S. economy— has risen more steadily ([BLS, 2015](#)). Since 2003, national prices have gone up by 29 percent (Figure 2).

Overall inflation may be a better measure of the loss in purchasing power of the 18-cent Fuel Tax for two reasons. First, the relatively consistent growth of the Consumer Price Index due to annual targets established by the Federal Reserve provides a degree of predictability for workers, businesses, and units of governments. Second, both the contractors who are awarded jobs and their workers who are employed to construct the projects are affected more by overall prices than by the costs of materials, equipment, and fuels. In order to be “just as well off” as they were in the previous year, firm profits and wage growth need to keep up with the CPI-U. A constant Fuel Tax means either: less work or lower relative earnings for Hoosier contractors and construction workers, or both.

FIGURE 2: INDIANA FUEL TAX, INFLATION, AND FUEL EFFICIENCY STATISTICS, 2003-2013

Year	Fuel Tax	National Highway Construction Cost Index (NHCCI)	Overall Consumer Price Index (CPI-U)	National Fuel Efficiency of Cars on the Road (Average MPG)
2003	\$0.18	1.00	1.00	22.2
2004	\$0.18	1.03	1.03	22.5
2005	\$0.18	1.12	1.06	22.1
2006	\$0.18	1.27	1.10	22.5
2007	\$0.18	1.34	1.13	22.9
2008	\$0.18	1.25	1.17	23.7
2009	\$0.18	1.18	1.17	23.5
2010	\$0.18	1.07	1.19	23.3
2011	\$0.18	1.05	1.22	23.2
2012	\$0.18	1.11	1.25	23.3
2013	\$0.18	1.10	1.27	23.4
2014	\$0.18	1.09	1.29	(Not yet available)
2015	\$0.18	1.13	1.29	(Not yet available)

Source(s): FHWA, 2015: [National Highway Construction Cost Index \(NHCCI\)](#); BLS, 2015: [CPI Inflation Calculator](#); BTS, 2015: [State Transportation Statistics](#); BTS, 2014: [Table 4-23: Average Fuel Efficiency of U.S. Light Duty Vehicles](#).

Finally, cars are becoming more fuel efficient. Corporate Average Fuel Economy (CAFE) Standards are rising. In 2011, CAFE Standards went from 27.5 miles per gallon (mpg) for new cars up to 30.2 mpg. By 2025, CAFE Standards are to be increased significantly, to between 46 mpg and 61 mpg depending on the size of the passenger car. However, CAFE Standards only affect *new* vehicle models, and old cars often remain on the roads for years. The final column of Figure 2, therefore, considers only the national average fuel economy of all cars on the road— both new and old— by year. Since 2003, the fuel efficiency of the average passenger car has increased by 1.2 miles per gallon, from 22.2 mpg to 23.4 mpg (in 2013).

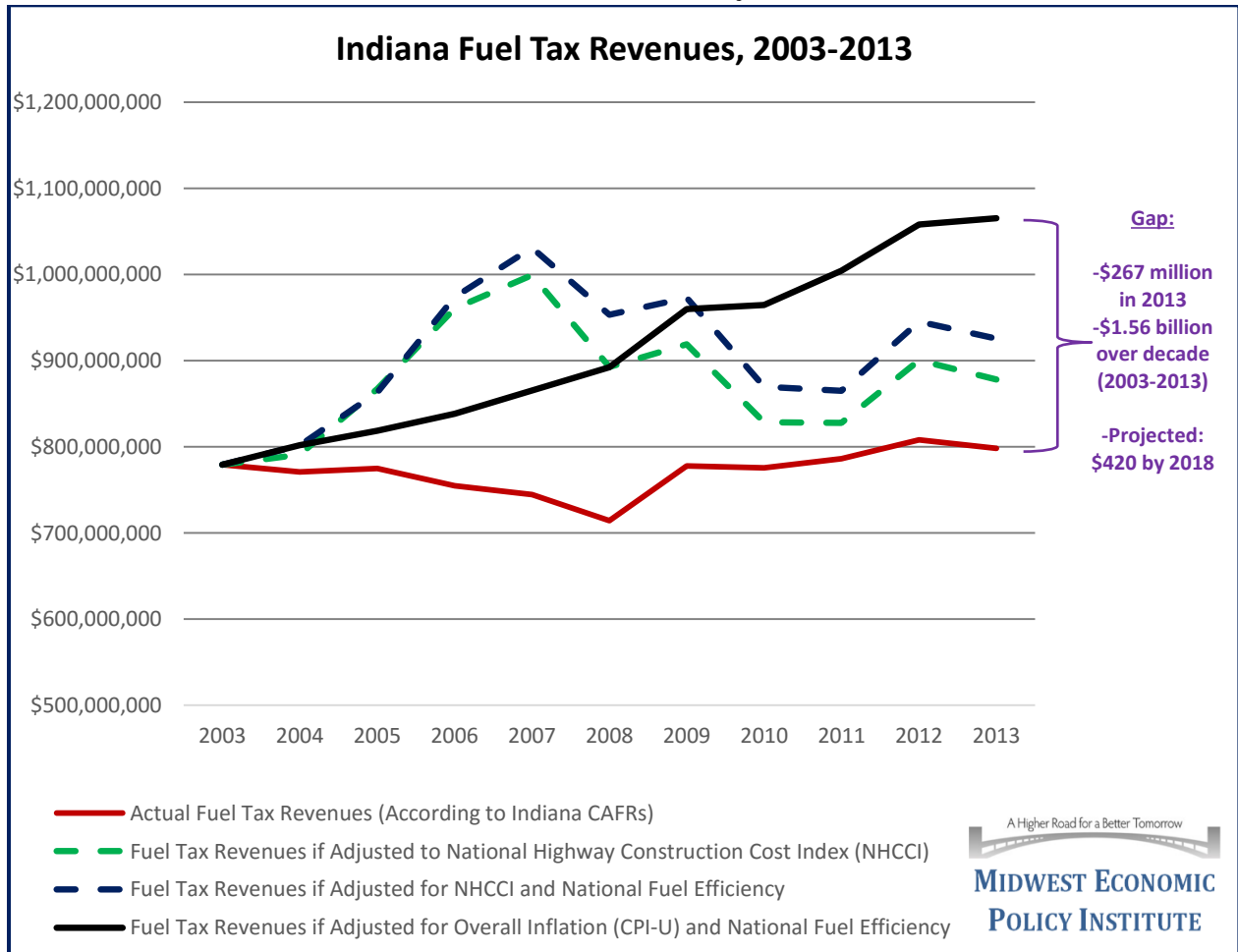
Thus, on average, motorists fill up fewer times at the pump even though they are driving more and their vehicles are causing the same amount of wear-and-tear damage to the roads. This is the cause of the funding gap.

## Indiana Revenues Today Compared to Indiana Revenues in 2003

Figure 3 presents actual Indiana Fuel Tax revenues compared to what they would have been if the tax was adjusted for these important trends from 2003 through 2013. Actual Fuel Tax revenues are represented by a **bolded red** line. These factual, historical revenues are then contrasted with three alternatives:

1. Fuel Tax revenues if they were adjusted only to the National Highway Construction Cost Index (NHCCI), represented by a *dashed green* line;
2. Fuel Tax revenues if they were adjusted to both the NHCCI and the rise in average national fuel efficiency, represented by a *dashed blue* line; and
3. Fuel Tax revenues if they were adjusted to the rise in national fuel efficiency and the more consistent increase in overall inflation (CPI-U) instead of the NHCCI, represented by a **bolded black** line.

FIGURE 3: INDIANA FUEL TAX REVENUES, ACTUAL VS. ADJUSTED ESTIMATES, 2003-2013



Source(s): Indiana Auditor, 2015: [Comprehensive Annual Financial Reports \(CAFRs\) for FY2003-FY2014](#); FHWA, 2015: [National Highway Construction Cost Index \(NHCCI\)](#); BLS, 2015: [CPI Inflation Calculator](#); BTS, 2015: [State Transportation Statistics](#); BTS, 2014: [Table 4-23: Average Fuel Efficiency of U.S. Light Duty Vehicles](#).

The findings are glaring (Figure 3). Despite the presence of more individuals on Indiana’s roadways who are, in turn, traveling more miles every year, Fuel Tax revenues have been relatively stable over the decade. Hoosier motorists paid \$779 million in Fuel Taxes in 2003. By 2013, total Fuel Tax receipts amounted to just \$798 million— only a 2.5 percent increase compared to the 8.0 percent rise in usage of the system.

1. If Fuel Tax revenues kept up with the *National Highway Construction Cost Index*, revenues would have been higher every year. Receipts would have gone up substantially from 2005 to 2007, fallen during the recession, and then increased again from 2010 to 2013. Instead of a \$798 million intake in 2013, total revenue would have been \$878 million – a revenue gap of \$80 million for the year.
2. If Fuel Tax revenues kept up with the *National Highway Construction Cost Index and the average fuel efficiency of automobiles on the road*, revenues would have been better every year. Receipts would have ballooned between 2005 and 2007, shrunk during the recession, and then experienced an uptick again from 2010 to 2013. Instead of a \$798 million intake in 2013, total revenue would have been \$926 million – a revenue gap of \$127 million for the year (due to rounding).
3. If Fuel Tax revenues kept up with **the average fuel efficiency of automobiles on the road and the overall Consumer Price Index**, the state would have had more revenues every year. Receipts would have improved gradually over the decade. Instead of a \$798 million intake in 2013, total revenue would have been \$1.07 billion – a revenue gap of \$267 million for the year.

Figure 4 translates the previous graph into a numerical table. Both figures illustrate that the largest contributor to revenue shortfalls is inflation. Indiana has inadequate infrastructure simply because policymakers did not– and have not– changed the revenue source to account for rising construction costs. However, improvements in fuel efficiency still account for a sizeable loss of potential revenues.

Over the decade, the ten-year loss in potential revenue from *not* adjusting for both overall inflation and fuel efficiency totals **\$1.56 billion** (Figure 4). That is, if relative funding had been the same over the decade as it was in 2003, Indiana would have had \$1.56 billion more in Fuel Tax revenues for additional infrastructure investments. Not pegging the Fuel Tax to overall inflation accounts for \$1.23 billion of this loss (79 percent), while not adjusting for more environmentally-friendly cars accounts for \$336 million of the loss (21 percent).

FIGURE 4: ACTUAL VS. ADJUSTED INDIANA FUEL TAX REVENUES, WITH REVENUE LOSS WITHOUT ADJUSTMENTS, 2003-2013

Year	Actual Fuel Tax Revenues	Fuel Tax Revenues If Adjusted to: NHCCI	Fuel Tax Revenues If Adjusted to: NHCCI & Fuel Efficiency	Fuel Tax Revenues If Adjusted to: Overall Inflation & Fuel Efficiency	Revenue Loss from Not Adjusting to: Overall Inflation & Fuel Efficiency
2003	\$779,087,000	\$779,087,000	\$779,087,000	\$779,087,000	\$0
2004	\$770,840,603	\$790,882,459	\$801,570,060	\$802,038,814	-\$31,198,211
2005	\$774,927,654	\$867,066,552	\$863,160,847	\$818,803,220	-\$43,875,566
2006	\$754,960,097	\$960,837,716	\$973,822,010	\$838,388,289	-\$83,428,192
2007	\$744,512,421	\$999,507,925	\$1,031,023,940	\$865,445,719	-\$120,933,299
2008	\$714,298,692	\$892,873,365	\$953,202,646	\$892,273,933	-\$177,975,241
2009	\$777,776,229	\$919,175,948	\$973,001,566	\$959,993,084	-\$182,216,854
2010	\$775,576,810	\$828,548,706	\$869,602,921	\$964,678,856	-\$189,102,046
2011	\$786,363,458	\$827,647,539	\$864,928,960	\$1,004,632,450	-\$218,268,992
2012	\$807,946,682	\$900,618,166	\$945,243,391	\$1,058,109,539	-\$250,162,857
2013	\$798,255,556	\$878,240,763	\$925,713,236	\$1,065,302,244	-\$267,046,688
<b>Totals</b>	<b>\$8,484,545,202</b>	<b>\$9,644,486,139</b>	<b>\$9,980,356,578</b>	<b>\$10,048,753,149</b>	<b>-\$1,564,207,946</b>

Source(s): Indiana Auditor, 2015: [Comprehensive Annual Financial Reports \(CAFRs\)](#) for FY2003-FY2014; FHWA, 2015: [National Highway Construction Cost Index \(NHCCI\)](#); BLS, 2015: [CPI Inflation Calculator](#); BTS, 2015: [State Transportation Statistics](#); BTS, 2014: [Table 4-23: Average Fuel Efficiency of U.S. Light Duty Vehicles](#).

## Potential Ways to Solve the Funding Gap

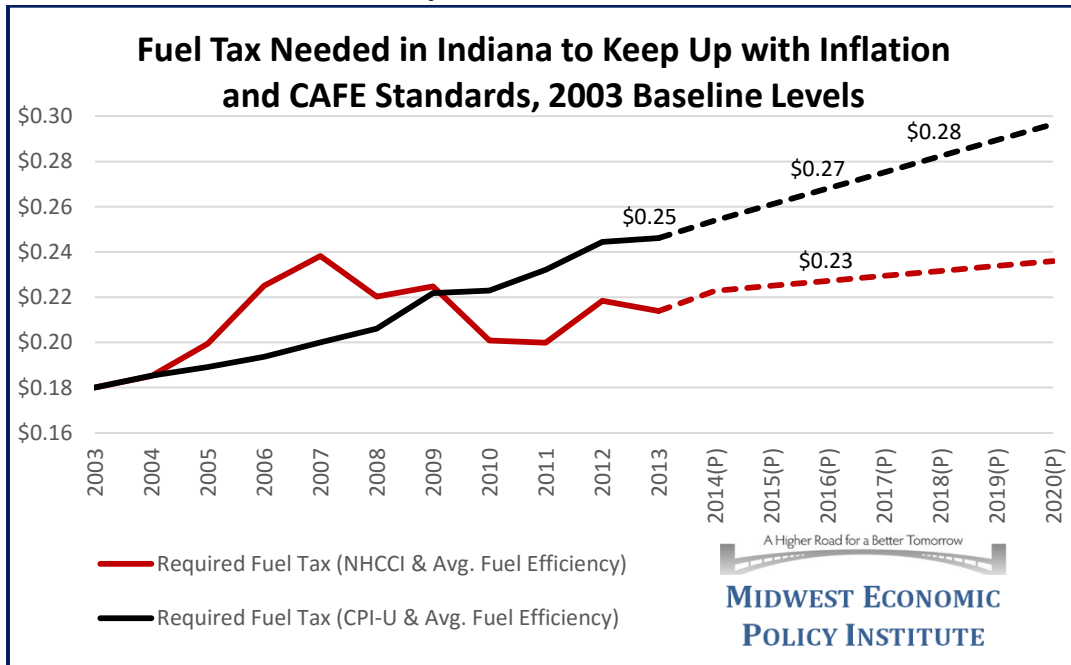
If Indiana lawmakers wish to improve investment in road infrastructure, steps must be taken to address these trends and close the revenue gap. In this section, the Midwest Economic Policy Institute outlines possible approaches to achieve this goal. While the first two steps would help to eliminate the road funding gap, the alternative policy solution is the most innovative and appropriate for a technologically-advanced modern economy.

### **Step #1: Raise the Fuel Tax to 28 Cents Per Gallon by 2018 and Index for Inflation**

One way to help restore 2003 levels of road construction funding could be through a Fuel Tax hike. This approach has broad support. In fact, first among the Indiana Chamber of Commerce’s six “top priorities” for 2016 is to “support an array of strategies to establish a sustainable funding stream for the state’s roads, highways, bridges and other transportation infrastructure” through “increasing fuel excise taxes [and] indexation” to inflation ([Indiana Chamber, 2015](#)).

Figure 5 uses estimates from the previous section to determine what the per-gallon Fuel Tax would have been from 2003 through 2013 if it was adjusted for inflation and average fuel efficiency. If Indiana lawmakers had increased the Fuel Tax to keep up with overall inflation and the average fuel efficiency of cars on the road, the rate would have been about 25 cents per gallon in 2013, nearly 7 cents higher than the current 18 cents per gallon. Projecting out the need based on the average annual trend, the Fuel Tax required to achieve the same relative funding levels as 2003 will be 28 cents per gallon by 2018, a 10-cent increase over the current rate. The annual funding gap will reach \$420 million by 2018 in lost revenues just to keep up with 2003 levels. As possible solution to close the current funding gap, Indiana could gradually increase the Fuel Tax over the next three years by 3 or 4 cents annually until 28 cents per gallon is reached in 2018. The fee per gallon could then be indexed to inflation using the Consumer Price Index reported by the Bureau of Labor Statistics at the U.S. Department of Labor ([BLS, 2015](#)) and adjusted for average fuel efficiency reported by the Bureau of Transportation Statistics at the U.S. Department of Labor ([BTS, 2014](#)).

FIGURE 5: FUEL TAX NEEDED IN INDIANA TO ADJUST FOR INFLATION AND FUEL EFFICIENCY, USING 2003 AS A BASELINE



Source(s): Indiana Auditor, 2015: [Comprehensive Annual Financial Reports \(CAFRs\)](#) for FY2003-FY2014; FHWA, 2015: [National Highway Construction Cost Index \(NHCCI\)](#); BLS, 2015: [CPI Inflation Calculator](#); BTS, 2015: [State Transportation Statistics](#); BTS, 2014: [Table 4-23: Average Fuel Efficiency of U.S. Light Duty Vehicles](#).



Figure 6 breaks down revenue projections assuming various Fuel Tax hikes for all motorists, including both Hoosiers and out-of-state travelers. Each 5-cent increase is accompanied by a minor drop in proportional revenues as some Hoosiers would elect to drive less frequently. That is, the 5-cent gain of \$212 million is not simply multiplied by two to predict revenues generated by a 10-cent tax hike, although the estimates are close. As previously noted, a 10-cent increase by 2018 would generate enough revenue to close the projected funding gap due to both inflation and better fuel economy.<sup>1</sup>

However, the current condition of Indiana’s infrastructure already requires far more revenues than just the \$425 million from restoring the Fuel Tax to its relative 2003 level. At least \$1.5 billion per year is required to meet the road maintenance and expansion goals in INDOT’s long-range transportation plan ([ASCE, 2010](#)). Figure 6 may help policymakers determine if a Fuel Tax increase of *more* than 10 cents per gallon may be necessary to resolve the problem.

FIGURE 6: ANNUAL STATE REVENUE GAIN FROM A FUEL TAX INCREASE, BY RATE HIKE, 2016

Indiana Fuel Tax Increase	Annual Revenue Gain
+\$0.05	\$212,084,794
+\$0.10	\$419,841,328
+\$0.15	\$623,269,600
+\$0.20	\$822,369,611
+\$0.25	\$1,027,962,014

Source(s): Indiana Auditor, 2015: [Comprehensive Annual Financial Reports \(CAFRs\)](#) for FY2003-FY2014; BTS, 2015: [State Transportation Statistics](#).

## **Step #2: Implement New Registration Fees of \$100 Per Vehicle**

If Indiana lawmakers wish to raise enough funds to ensure that investments create one of the best transportation networks in the entire country, additional actions should be considered. One potential policy change is the implementation of new vehicle registration fees. A \$100 additional charge for each vehicle to use the roads would generate an estimated \$586 million in new revenue.

FIGURE 7: FIVE-YEAR AVERAGE NUMBER OF VEHICLE REGISTRATIONS IN INDIANA, 2009-2013

Year	Registrations (Automobiles, Motorcycles, Buses, and Trucks)
2009	5,956,000
2010	5,806,000
2011	6,052,000
2012	5,950,000
2013	5,559,000
<i>Average</i>	<i>5,864,600</i>

Source(s): BTS, 2015: [State Transportation Statistics](#).

Figure 7 presents data from the Bureau of Transportation Statistics on total vehicle registrations in Indiana for automobiles, motorcycles, buses, and trucks from 2009 through 2013. Over these five years, the average number of registrations was 5.86 million vehicles. Indiana could phase in an additional \$100 vehicle registration fee over three years through increments of \$50, \$25, and \$25 to eventually generate another \$586 million in transportation

<sup>1</sup> Technically, a 10.2-cent increase to \$0.282 would completely close the projected gap. Figure 5 rounds to the nearest penny (\$0.28).

investment funds by 2018. Note that this estimate— from Figure 8— is a *conservative* projection because it assumes no increase in motor vehicle registrations even though the state population is expected to continue growing. If new residents bring or purchase vehicles, projected revenues from these added registration fees would be even higher.

FIGURE 8: PROJECTED REVENUE INCREASES FROM NEW REGISTRATION FEES, BY FEE HIKE, 2016-2018

Year	New Registration Fees	Projected Revenues
<i>Average Registrations: 5,864,600</i>		
2017	\$50	\$293,230,000
2018	\$75	\$439,845,000
2019	\$100	\$586,460,000

Source(s): Indiana Auditor, 2015: [Comprehensive Annual Financial Reports \(CAFRs\)](#) for FY2003-FY2014; BTS, 2015: [State Transportation Statistics](#).

For simplicity, remember a “One-Ten-One Hundred Rule” on projections from the Midwest Economic Policy Institute, found in Figure 9. To generate an additional 1 billion dollars per year for infrastructure investment, Indiana lawmakers could pass a 10 cent increase in Fuel Taxes and a new 100 dollar registration charge on vehicles to use the roads. Following the One-Ten-One Hundred Rule would significantly enhance the funding available to invest in critical infrastructure improvements.

FIGURE 9: THE MIDWEST ECONOMIC POLICY INSTITUTE’S “ONE-TEN-ONE HUNDRED RULE” FOR INDIANA

The “One-Ten-One Hundred Rule” for Indiana	
Change in Revenue Source	Projected Revenues
1 Billion Dollars =	\$1,006,301,328 =
10 Cent Fuel Increase	\$419,841,328
+\$100 Vehicle Registration Fees	+\$586,460,000

Source(s): Figure 5, Figure 6, and Figure 8.

**Alternative: Replace the Fuel Tax with the IN-RIDE, Policy Using a Mileage-Based User Fee**

The “One-Ten-One Hundred Rule” is based on traditional methods of funding transportation infrastructure. However, in recent years, a smart, modern, and fiscally-responsible mechanism to fund transportation system improvements called a “mileage-based user fee” has become feasible. Mileage-based user fees charge motorists based on the “user pays” principle: Those who drive more, pay more. Using modern technologies, transponders and mobile apps, or a set rate, a mileage-based user fee charges a motorist based on his or her vehicle miles traveled.

The Midwest Economic Policy Institute has proposed the Indiana Road Infrastructure and Driver Enhancement (IN-RIDE) Program ([Manzo & Poulos, 2014](#)). The IN-RIDE is a vehicle-miles-traveled charge that is equal to the damage caused by the vehicle to the infrastructure plus the costs to invest in future needs. Utilizing a public-private partnership (P3) to administer the program, the IN-RIDE allows individuals to choose their own pay-as-you-drive plan personalized to fit their needs and concerns. The IN-RIDE would *replace* the Fuel Tax with a 2.5 to 3.5 cents-per-mile rate for passenger vehicles and single-unit trucks to improve Indiana’s infrastructure. Under the “full capacity” rate of 3.5 cents per mile, Indiana would conservatively generate \$1.5 billion in new funding at an additional cost of just \$50 per month to the average household.

The IN-RIDE is an innovative, comprehensive policy that would maintain an adequate, predictable, and sustainable revenue stream every year. By making those who actually drive on the roads pay for their usage, the IN-RIDE would promote taxpayer fairness. The proposal would also support transit modernization, congestion alleviation, safety improvements, and economic development. Therefore, although new revenues on traditional funding sources may be the most plausible method to resolve the road construction funding gap, the benefits of the Indiana Road Infrastructure and Driver Enhancement program should be deliberated as a viable alternative.

## Conclusion

This Midwest Economic Policy Institute Economic Commentary has investigated the causes of the current road funding gap in Indiana. Note that this report only focused on Indiana's state road system. Additional resources are needed at the local level.

Despite an 8.0 percent rise in usage of Indiana's highways, roads, and bridges from 2003 through 2013, total Fuel Tax revenues have only increased by 2.5 percent over the same time. If Fuel Tax revenues had kept up with the average fuel efficiency of automobiles on the road and the overall Consumer Price Index, the state would have had **\$1.56 billion** more in additional revenues over the past decade. Not pegging the Fuel Tax to overall inflation accounts for \$1.23 billion of this loss in potential revenue (79 percent), while not accounting for more environmentally-friendly cars accounts for \$336 million of the forgone funding (21 percent). Inaction by state lawmakers in addressing these trends has contributed to a deteriorating system of transportation infrastructure in Indiana.

To improve investment in road infrastructure, Indiana lawmakers could gradually raise the Fuel Tax to 28 cents per gallon by 2018 and index the tax to inflation while also phasing in a new \$100 vehicle registration fee. Increasing and indexing the Fuel Tax is a policy change [supported by the Indiana Chamber of Commerce](#). A 10-cent increase in the Fuel Tax to 28 cents per gallon would raise about \$420 million in new revenues by 2018, restoring Fuel Tax funding to its 2003 levels after accounting for inflation and the improved fuel efficiency of vehicles on the road. While this Fuel Tax increase restores funding to previous levels, a new \$100 fee on vehicle registrations would help to fix the presently inadequate condition of Indiana's roads by generating an additional \$586 million in annual transportation funding.

The projections come together to form a "One-Ten-One Hundred Rule" for Indiana by 2018: to generate an additional *1* billion dollars annually for infrastructure investment, Indiana lawmakers could pass a *10* cent increase in Fuel Taxes and a new *100* dollar registration charge on vehicles to use the roads.

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Indiana has reached a crossroads. The state can continue down the path of unsustainable funding in the face of rising costs and improved fuel economy, or it can be a national leader in paving the way for long-term revenue solutions.

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