THE HIGHWAY TRUST FUND
A History, Analysis, Discussion, and Assessment for Improving Solvency
May 2015

Public Institute for Facility Safety
This report was developed by the Public Institute for Facility Safety (PIFS).
INTRODUCTION

America’s crumbling roads, bridges, and highways are far more than an eyesore – they are a safety hazard and a detriment to the economy. In 2013, The Road Information Program (TRIP), a national transportation research group, estimated the average driver spends roughly $377 per year in additional vehicle repairs and operating costs because of poor conditions of the roads.\(^{1}\) The American Society of Civil Engineers (ASCE) estimated in 2010 that, “deficiencies in America’s surface transportation systems cost households and business nearly $130 billion\(^{2}\) in 2010.

ASCE’s 2013 report card gave America’s infrastructure a D+, including a D for roads and a C+ for bridges.\(^{3}\) However, these grades may have been generous, as a White House report released in July 2014 stated, “65 percent of America’s major roads are rated in less than good condition,” and, “25 percent of our bridges require significant repair or can’t handle today’s traffic.”\(^{4}\)

There is no debate that America has a surface infrastructure problem. The Highway Trust Fund (HTF), which is used to fund the federal share of surface transportation costs, allocates more than it brings in – an unsustainable model. Recent gaps between what the HTF allocates and transfers have filled what it collects from the Treasury’s General Fund. These transfers to the HTF mask the problem in the short term, and hide deficiencies in the current, so called, user fee model.

At the end of May 2015, the current surface transportation authorization and funding bill expires, presenting an opportunity for a long-term solution to the HTF’s solvency. Finding a long-term solution to maintain and improve the nation’s road infrastructure is essential to safeguarding the future of the economy and safety of the nation’s road network.

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This paper provides a background on the origin of the HTF, explores causes for the current funding gap, discusses several frequently recommended solutions, and introduces new ideas for consideration. While the paper aims to acknowledge the benefits and shortcomings of numerous proposals, it also presents a new fix. However, it is not meant to endorse any particular proposal. Rather, this paper is intended to add ideas to the debate and stimulate further discussion.

**HISTORY OF THE HIGHWAY TRUST FUND**

As a part of the Federal Aid Highway Act and the Highway Revenue Act, the HTF was created in 1956 and signified a major overhaul of the nation’s highway program. The Federal Aid Highway Act of 1956 provided for a large expansion of the nation’s highway program, and authorized thirteen years of appropriations, covering the period ranging from 1957-1969. Consequently, the Highway Revenue Act of 1956 increased some highway related taxes and created others with the intention of covering the costs of the large expansion.

Through this program, the HTF received funds from the Treasury’s General Fund and some of the receipts collected from various highway related taxes, including all of the motor fuel taxes. As new authorizations were enacted there were numerous modifications to the fuel tax, but no groundbreaking systematic changes were made – until 1982. In the same year, the Mass Transit Fund was created and one-cent of the per-gallon motor fuel tax was diverted from building and restoring roads to supporting the mass transit network.

In the following years, there were additional changes to the fund, including increased diversions to mass transit, and the authorization of numerous other diversions, including helping reduce the national deficit. The Taxpayer Relief Act of 1997 reversed course, and required that all motor fuel taxes be dedicated to the HTF and eliminated most of the diversions, except to mass transit.

Enacting this law means of the 18.4 cents collected for each gallon of gasoline sold, 15.44 cents would go to the Highway Account and 2.86 cents would go to the Mass Transit account (the remaining one tenth of a cent goes to the Leaking Underground Storage Tank (LUST) fund). This was widely viewed as a return to the “user fee” model, but the diversion of motor fuel taxes to Mass Transit, is by definition not a pure user fee.

Based on proposed federal spending, the HTF now faces a significant shortfall. The Congressional Budget Office (CBO) estimated in 2015, the HTF will collect $39 billion (including receipts and interest) and will spend $53 billion, a $14 billion difference.

**WHAT CAUSED THE SHORTFALL?**

Numerous factors led to the failure of the HTF’s ability to fully meet its obligations, including: the diversion of receipts to the Mass Transit Account, increased spending on items not directly related to motor transportation, the static nature of the excise tax (not pegged to inflation), and increased fuel efficiency across the motor fleet; including the introduction of electric cars.

Many of these factors can be viewed as having a positive impact on the public. Without assessing the policy merits of these options, the fact remains that several have led to a shortfall, and the continued improvements in fuel efficiency, reduced fuel consumption for any number of reasons (economic circumstances, urbanization, etc.), and a wider acceptance of electric vehicles will continue to increase this gap.

**Diversion of Receipts to Mass Transit**

In 2016, motor fuel excise taxes are estimated to collect $39 billion in revenue. However, the Highway Account is expected to spend $45 billion in the same year. Additionally, the Mass Transit Account is expected to spend $8 billion. This creates a $14 billion dollar shortfall (not accounting for funds carried over). If these taxes were dedicated solely to the Highway Account, the shortfall would be reduced to $6 billion in 2016. As time goes on, the problem compounds.

For example, CBO estimates excise tax collections in 2024 will hold steady at $39 billion, but spending will increase to $59 billion annually, between the Highway Account and the Mass Transit Account. The cumulative shortfall from 2015-2024 will reach an expected $164 billion. Halting the diversion of funds to the Mass Transit Account would create a gap of $75 billion over the same time period.

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7 Ibid.

8 Ibid.


11 Ibid.


13 All numbers cited in this subsection were extracted from the same table in a Congressional Budget Office report, or derived using simple addition and subtraction of those numbers. Citation: Congressional Budget Office, “The Highway Trust Fund and the Treatment of Surface Transportation Programs in the Federal Budget,” (Congressional Budget Office, June 2014), Table 1.
Excise Tax Hasn’t Increased Since 1993

Since 1993, the buying power of a dollar has changed significantly. According to the Bureau of Labor Statistics (BLS), it costs $1.62 to equal the buying power of $1 in 1993.14 Meaning the 18.4 cents allocated the HTF for each gallon of gasoline sold would need to be increased to 29.9 cents to have kept pace. A similar adjustment is necessary in the diesel fuel tax, which is currently 24.4 cents per gallon.

Lack of Continued Growth in Fuel Consumption

Gasoline consumption has not increased as quickly as expected over time. In fact, consumption has declined since 2007. Reasons for the decline include: increased fuel efficiency across the fleet, the advent of electric cars, poor economic conditions, and increased urbanization of the U.S. population. Regardless of the reason, a decrease in gasoline sales corresponds directly with a decrease in gasoline excise tax revenue.

According to the Department of Energy’s Energy Information Administration, total gasoline sales by refiners in the U.S. equaled 346.7 million gallons per day in 2014.15 This is down from 348.6 million gallons the year before, and 378.5 million gallons in 2005.16 In fact, there was less gasoline sold in 2014 than in any year since 1997.17

The economic recession, which officially lasted from December 2007 until June 2009,18 likely contributed to reduced gasoline consumption. But, since the most recent gasoline excise tax increased in 1993, the average passenger car has increased fuel efficiency significantly, from 28.4 miles per gallon (mpg) to 36 mpg in 2013.19 Similarly, light trucks have increased average fuel economy from 21 mpg to 25.3 mpg over the same period.20 Add to this, the introduction of 67,295 electric vehicles on the road as of 2011 and fuel consumption, and the corresponding excise tax collections will decrease.21

Finally, the urbanization of America has led to fewer people commuting to and from work or driving on a daily basis. As of 2010, approximately 249.3 million people, or 80.7 percent of the U.S. population lived in urban areas.22 This is a significant increase

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14 Ibid.
15 Ibid.
16 Ibid.
17 Ibid.
20 Ibid.
21 Ibid.
22 U.S. Census Bureau, (Web).
from 1990, when 79.8 percent of Americans, or 198.4 million people lived in urban areas.23 Over the same time period, the U.S. population has increased by approximately 60 million people, from 248.7 million to 309 million.24 Meaning the U.S. population grew by 60 million people over the same time period, and an additional 51 million people were either born or moved into urban areas – representing a massive demographic shift.

Spending on Non-Motor Transit

In addition to funds used for Mass Transit, which account for roughly 14-17 percent of HTF spending annually, another 2 percent is sent to the Federal Motor Carrier Safety Administration and the National Highway Traffic Safety Administration.25 The remaining funds, usually between 81-84 percent are apportioned to states to meet the federal share of highway project through the Federal Highway Administration (FHWA).

These funds are, “available for states to obligate for construction, reconstruction, and improvement of highways and bridges on eligible federal-aid highway routes, as well as for other purposes authorized in law.”26 Some of these funds are also allocated to the Federal Lands Highway Program, which provides various types of assistance – financial, engineering, research, and educational – to some Federal and Indian Lands.27

In 2013, the FHWA obligated $39 billion in HTF funds to states. Of this amount, roughly 64 percent of funds were used for roads and bridges, 20 percent for project development activities, another 9 percent was used for safety improvements, sidewalks, bike trails, and other enhancements, and 7 percent was tagged for “other.”28

PROS AND CONS OF PROPOSED APPROACHES TO CLOSING THE FUNDING GAP

There are a number of ways to approach eliminating the highway-funding shortfall in the upcoming highway reauthorization legislation, ranging from a large reduction in authorized spending to foregoing the user fee model completely by funding the federal share of highway projects through the appropriations process. This section identifies some of the more frequently discussed options, pointing out several of the pros and cons of each.

Devolution – the concept of limiting the federal government’s role in surface transportation funding, and giving more responsibility and control to states – is often discussed as a way to remedy the shortfalls of the current system. In fact, multiple bills seeking partial devolution have been introduced in Congress over the past several years.29
As the PEW Charitable Trust points out, “[t]he purpose and role of federal transportation funding have not been clearly defined since completion of the interstate highway in the early 1990s.” Devolution would certainly reallocate the roles and responsibilities of different levels of government and allow states to serve as laboratories of democracy by freeing them up to try new things, and eliminate federal interventions into unrelated policy by attaching conditions to federal funding.31

It would also allow states to determine how dollars collected from their drivers are allocated based on their specific needs. For example, drivers in rural areas of Idaho, Montana, and Wisconsin, would not be forced to carry part of the load for public transit systems in New York City and Washington, DC. Further, it will help eliminate the redistribution of funds from one state to another and eliminate what some view as wasteful federal spending on unrelated projects.

However, devolution also raises a number of concerns. The entire transportation network could potentially suffer if any particular state chose not to invest sufficient funds into highway maintenance and repair. Interstate movement of commercial goods requires not just getting from state to state, but also getting through states and to final destinations within each state. There is some evidence to support the notion that states may be unable to fill the funding gaps.

Between 2002 and 2012, state gas tax revenue fell by 19 percent. Similarly, from 2002 to 2011, state investment in surface transportation fell by 20 percent. States would always have the option of increasing their gas tax, but to date, most states have not shown a true desire to do this, as evidenced by the rejection of a recent initiative in Michigan. Additionally, overall revenues in 26 states currently remain below their prerecession peaks, further straining state budgets.35

Increasing Excise Taxes Without Any Spending Changes or Structural Reforms

The gasoline and diesel fuel excise taxes are the primary source of funding for the HTF. Closing the HTF spending and revenue gap solely by increasing these taxes without implementing any other structural reforms would require an immediate increase of approximately 11 cents per gallon coupled with a provision for indexing the tax to inflation.36

This method has several merits – the federal excise tax has not increased since 1993, while the costs of performing the work has tracked with inflation. Some also have argued that increasing the tax serves multiple public policy purposes in addition to fixing crumbling roads and bridges. There is no doubt that increasing revenue dedicated to building, rebuilding, and maintaining highways would improve the imbalance and the nation’s infrastructure, but many doubt this is the best, fairest, or even most efficient way to address the problem.

For example, a no-strings-attached gasoline tax increase is difficult to justify since the excise tax is no longer a user fee. An ever-increasing amount of the collected revenue is diverted to other projects, such as transit, nature paths, and even squirrel sanctuaries. Such an increase is also regressive – it has a disproportionate impact on low-income households.39

Mandatory Repatriation

Mandatory repatriation – requiring multinational corporations to bring overseas earnings back into the U.S. for taxation purposes – has also been discussed as a revenue stream to shore up highway funding. Most recently, the Obama administration proposed mandatory repatriation, with all earnings currently held overseas being returned to the U.S., and taxed at a rate of 14%.40

Repatriation, under the parameters proposed by the administration, would generate $238 billion in revenue.41 These new revenues combined with revenues derived under the current excise tax regime would provide enough funding to reauthorize the surface transportation bill for a number of years. This alone has been sufficient to generate some bipartisan support.

These proposals, however, have their own shortcomings. First, the increased revenue is completely unrelated to highway funding. It is a one-time patch that cannot be reused, eliminating its ability to provide a long-term solution to our infrastructure funding shortfall. Moreover, it does not include any reforms to the current program, meaning that when the new revenue is exhausted, funding is left right back where it started in several years.

A NEW APPROACH

A series of short-term, stopgap highway fund-

way Trust Fund.” (Committee for a Responsible Federal Budget, June 2014).


Economic and Budget Issue Brief, “Spending and Funding for Highways,” (Congressional Budget Office, January 2011).


36 Committee for a Responsible Federal Budget, “Trust or Bust: Fixing the High-
ing bills indicates a lack of consensus among policymakers on the best way to address the issue. Thus, it may be worth considering a different approach. One new option to consider is a hybrid of the traditional user fee program, modified to keep pace with emerging electric vehicle technologies and inflation, while also building in protections for consumers by eliminating a costly mandate – the Renewable Fuel Standard – and adjusting when oil prices spike.

Innovative Restoration of the User Fee Model

Based on estimated excise tax collections and HTF spending, the current model is not a pure user fee, nor is it able to meet its obligations in the short or long-term. In order to create a pure nexus between those who drive and those who pay for the roads, policymakers could eliminate all authorized uses of the HTF with the exception of construction, reconstruction, and improvement of eligible highways and bridges.

This would mean eliminating all diversions to the Mass Transit Account, the Federal Motor Carrier Safety Administration, and the National Highway Traffic Safety Administration. It would also mean limiting the use of the Highway Account to only roads and bridges, foregoing spending on project development, safety improvements, sidewalks, bike trails, and any other activities.

Based on numbers provided by GAO – 64 percent of funds spent from the Highway Account are used on roads and bridges – and according to the CBO – the HTF will spend $45 billion from the Highway Account in 2016 – this approach would limit obligations from the HTF to $28.8 billion in 2016, far less than the $53 billion projected by CBO.

Another step toward using a pure user fee model, which would also improve the HTF’s solvency, is to enact a mechanism that brings electric vehicles into the fold. This could be done using a so-called vehicle miles travelled (VMT) excise tax, or a flat annual fee on all electric vehicles, calculated considering average miles travelled by U.S. drivers, average weight of electric vehicles, and average fuel economy statistics.

In order to ensure no one overpaid, the system could allow a driver to choose whether to pay a fixed annual fee, or submit proof (via odometer reading) of actual miles travelled in the year.

Finally, while this model would ensure HTF solvency in the short-term, it is unclear how long the surplus would last due to constantly changing conditions, i.e. state of the economy, introduction of new technologies and etc. To ensure the pure user fee model lasts, a conditional excise tax increase should be automatic in the case that future projected spending exceeds projected receipts. The automatic increase should be no more than what is required to balance receipts and spending.

Protecting Consumers

A gasoline excise tax increase has a definite and direct impact on the average driver’s wallet on a day-to-day basis. Any increase needed to fill the shortfall should incorporate consumer protections. This policy proposal creates space for an increase by removing a hidden tax which currently increases the price of gasoline, and a phase-in, phase-out mechanism to ensure new taxes are not piled on top of increases in gasoline prices.

First, eliminating the renewable fuel standard (RFS) could have an immediate and long-term direct impact on gasoline prices. CBO estimates that by 2017, the statutorily required volumes in the RFS would increase the price of the standard gasoline blend by between 13 and 26 cents per gallon.

This means that if the RFS is repealed, and the low end of CBO’s estimate is correct, the excise tax could be increased by 13 cents without impacting consumers. In context, a 13-cent per gallon increase would account for the entirety of the inflationary impacts occurring since 1993. However, the effects of the RFS may be even more pronounced in the future.

Another way to protect consumers from the economic pain of a gasoline excise tax increase is to phase the tax in and out as gasoline prices increase and decline. This will help stabilize gasoline prices and provide increased predictability and certainty (though not complete certainty).

The current 18.4 cents per gallon could be used as a baseline. No increase from the baseline would ever occur if the price of gasoline met or exceeded the five-year average retail price. For every five-cent margin below the baseline price, a maximum increase of one cent would be permitted, if the HTF were running a projected deficit for the year. Additionally, the increase could not be more than what is required to balance the deficit, even if a larger amount would be allowed under the 5 to 1 formula.

For example, the average price of gasoline, in real terms, over the five-year period from 2010-2014 was $3.46. The average price of retail fuel on May 8, 2015 is $2.66. Because the price today is 80 cents lower than the five-year average, the federal excise tax could increase no more than 16 cents on every gallon of fuel sold today (bringing the average retail price to $2.82).

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42 This Calculation was made using CBO’s projection that the Highway Account of the HTF would spend $45 billion in 2016 and GAO’s finding that 64 percent of funds spent from the Highway Account are used on roads and bridges, with the remainder allocated to other activities.
This is meant only as an illustration, as implementation of such a program would require a plan for when and how to make the excise tax adjustments. It is also important, while reviewing this illustration, to keep in mind that a hike of any size is only available if the modified program (removing diversions to transit, etc.) is still running a shortfall. Under this modified program, there would not have been a shortfall this year; hence no increase would have been allowed.

CONCLUSION

The motor fuel excise taxes no longer collect enough revenue to meet HTF spending obligations. The system is in desperate need of repair. Short-term authorizations and transfers from the general fund are a Band-Aid solution at best, and do nothing to improve the status of the nation's highways or the overall solvency of the HTF. Congress needs to break the gridlock and find a long-term solution.

There are a number of promising ideas being discussed, but none have gathered sufficient support to break through the noise. Each of these approaches have many strengths and weaknesses, and it is important to acknowledge both when working towards an agreeable solution. It may be prudent to look at some of the benefits of past proposals and adopt some of the more agreeable elements of each.

It is also worthwhile to consider new approaches, like the one proposed in this paper. Many in Congress and the general public support user fees when they are actually designated to their intended purpose. The Public Institute for Facility Safety (PIFS) is not endorsing this idea as the best solution, but rather offering a new idea in hopes of spurring some more creative thought and debate. There is undoubtedly room to think outside the box, and it is time for policy-makers to begin the process in earnest.

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