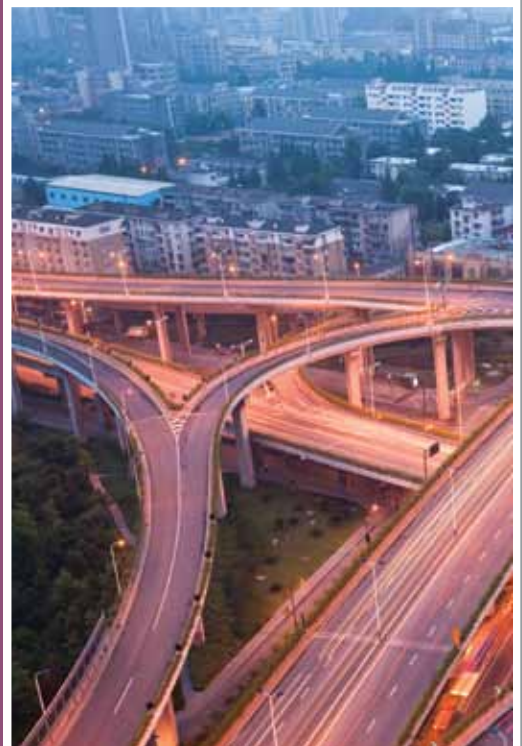




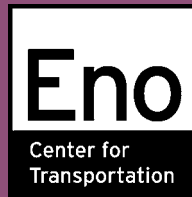
Energy & Infrastructure Program
National Transportation Policy Project

The Consequences of Reduced Federal Transportation Investment



September 2012





A REPORT OF THE BIPARTISAN POLICY CENTER, WRITTEN IN COLLABORATION WITH THE ENO CENTER FOR TRANSPORTATION

ABOUT BPC

Founded in 2007 by former Senate Majority Leaders Howard Baker, Tom Daschle, Bob Dole and George Mitchell, Bipartisan Policy Center (BPC) is a non-profit organization that drives principled solutions through rigorous analysis, reasoned negotiation and respectful dialogue. With projects in multiple issue areas, BPC combines politically balanced policymaking with strong, proactive advocacy and outreach.

ABOUT THE ENO CENTER FOR TRANSPORTATION

The Eno Center for Transportation (Eno) is a neutral, non-partisan think-tank that promotes policy innovation and leads professional development in the transportation industry. As part of its mission, Eno seeks continuous improvement in transportation and its public and private leadership in order to increase the system's mobility, safety and sustainability.

The leader in its field for nearly a century, Eno provides government and industry leaders with timely research and a neutral voice on policy issues. Eno's Center for Transportation Policy (CTP) publishes rigorous, objective analyses of the problems facing transportation and provides ideas for and a clear path towards possible solutions. CTP also publishes a monthly transportation newsletter that reaches 2,000 individuals directly plus another 40,000 through the Transportation Research Board (TRB). CTP's policy forums bring together industry leaders to discuss pressing issues and hear from top researchers in the field.

Through its professional development programs, the Center for Transportation Leadership (CTL), Eno cultivates creative and visionary leadership by giving public and private transportation leaders the tools and training they need to succeed together. CTL's Leadership Development Conference (LDC) brings the nation's top transportation students to Washington, DC every year to meet with top practitioners in the field, while other CTL programs give transportation executives the tools they need to be successful as leaders. Since its inception CTL has instructed over 3,000 transportation professionals.

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DISCLAIMER

This white paper is the product of the Bipartisan Policy Center's National Transportation Policy Project. The findings and recommendations expressed herein do not necessarily represent the views or opinions of the Bipartisan Policy Center, its founders, or its board of directors.

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Energy & Infrastructure Program
National Transportation Policy Project



Executive Summary

The Bipartisan Policy Center's (BPC's) National Transportation Policy Project (NTPP) has consistently made the case that no matter how much the federal government spends on surface transportation, that spending should be focused on national goals and outcomes. We have defined the national goals and performance measures that we believe to be appropriate for a federal surface transportation program, and suggested a consolidated and reformed federal program structure to ensure that remaining funds are used with maximum effectiveness in the pursuit of national priorities.

The recent enactment of Moving Ahead for Progress in the 21st Century (MAP-21) heralds the beginning of a reform process for federal transportation policy towards a more performance-based program, and it represents a major step forward from the previous law, the Safe, Accountable, Efficient, Transportation Equity Act – A Legacy for Users (SAFETEA-LU). Unfortunately, MAP-21 does not resolve the long-term funding issues surrounding the federal program and instead uses additional general fund revenues to support the program over the next two years. This leaves open the distinct possibility that Congress could choose to resolve the funding issue by shrinking the size of the federal program.

In our most recent report, *Performance Driven: Achieving Wiser Investment in Transportation*, we outlined a reformed federal transportation program that could be implemented assuming a 35 percent cut in federal funding (sufficient to bring spending in line with current revenues to the Highway Trust Fund). We did not recommend a cut of this magnitude, but rather recognized that it was becoming a more likely probability. Now we seek to better understand the consequences of likely budget cuts absent reforms to the federal program that go beyond MAP-21, including clearer definition of the federal role. Specifically, this paper explores the consequences of a 35 percent cut in federal funding under the existing program structure.

Such an analysis is inherently speculative. It is impossible to know exactly how states and transit authorities will react to a cut in federal funds. In particular, it is very difficult to know how the politics will play out in individual states with respect to raising additional revenues for transportation. However, the analysis presented in this paper is a plausible scenario given what is known about past actions by federal grantees, and will hopefully stimulate further discussion and better understanding of the impacts of declining federal funding.

Our interest lies primarily in understanding how these funding cuts could impact what we have defined as national goals for transportation investment. In previous reports, BPC proposed five high-level goals for national transportation policy and investment:

1. Economic Growth
2. National Connectivity
3. Metropolitan Accessibility
4. Energy Security and Environmental Protection
5. Safety

Our analysis suggests that cutting federal funds for transportation, without more extensively reforming the existing surface transportation program and without making those cuts in a thoughtful manner that allows for careful consideration of the federal role, would be potentially devastating in terms of progress toward the national goals BPC has articulated. The most dramatic effects would be economic. In metropolitan regions especially, congestion would increase and transit service would decline. And adverse impacts in these regions would reverberate nationally because the same regions likely to be most affected account for a substantial percentage of national economic activity and growth.

At the same time, some of the states likely to be hardest hit by federal budget cuts will be small population states

that depend on the federal government for a substantial percentage of their highway spending. These may be the states with the most to lose from a diminished federal program. Cuts in transit funding could be particularly far-reaching, potentially affecting operations for agencies of all sizes.

Environmental, energy and safety goals would not be as likely to suffer under a reduced federal program, at least in the short term. This is not to say that progress in these areas is immune from federal budget cuts, but the calculation has to take into account some perverse effects, such as the environmental benefits of crowded transit vehicles and the safety benefits of slower traffic speeds. It is important to recognize, however, that the fact that these perverse effects exist in the first place is in large part because the federal program under SAFETEA-LU was not performance based, and even MAP-21 scarcely targets environmental or energy performance goals at all.

The most striking aspect of our analysis is that, while some states might be able to increase revenues in order to compensate for as much as half of lost federal highway funding, it is much less likely that transit agencies will be able to replace a large portion of lost federal transit

funding. Raising additional highway funds at the state level is not trivial, but it is more likely because a number of user-fee mechanisms, such as gas taxes and tolls, are typically already in place. If the political will exists, these mechanisms can be used to generate more funds. By contrast, transit fares at any level rarely cover the cost of operations and the transit industry is unlikely to be able to use fare increases to substitute for a shortfall in funds available for capital expenditures. The alternative – raising transit revenues through broad-based taxes or higher fees on auto drivers – can be politically very challenging, to say the least.

Reduced funding for transit nationally has substantial consequences in terms of achieving our national transportation goals. It also has serious consequences for the places where the vast majority of Americans live (over 80 percent live in metropolitan regions), and for some of the most disadvantaged populations in America, many of which are concentrated in these large metropolitan areas.

Based in part on these likely consequences, and on the previous work of NTPP, we also propose four policy recommendations. These are summarized on the next page.



Summary of Policy Recommendations

Based on the analysis in this and previous BPC reports, we recommend that Congress consider the following actions:

1) Expand federal revenues while providing a framework for increased state and local investment. Continued underinvestment in our nation's transportation system will have substantial detrimental impacts in areas of national interest, for which the federal government should take responsibility. The short-term solution is the politically challenging but logistically simple action of increasing the federal gas tax. However, regardless of whether that can be achieved, Congress must provide states and metropolitan areas with better financing tools and assistance with their efforts to raise revenue.

2) If expenditures must be cut, programmatic reform is even more essential. When resources are severely constrained, the argument for undertaking greater programmatic reforms to better focus transportation spending on national goals becomes more, not less, compelling. Our report shows that without more programmatic reform, the consequences of cutting federal transportation funding could have substantial negative consequences.

3) Programmatic reform should include competitive grant programs. Competitive discretionary grant programs, particularly for clear national priorities such as freight and goods movement, allow for a bottom-up approach that encourages innovation while still providing states with substantial flexibility and control over how they achieve national goals.

4) Metropolitan transportation should have a prominent role in federal legislation. The report finds that a diminished federal role in transit programs could potentially be damaging to the nation's economic growth. BPC has long advocated a "mode-neutral" approach where the federal government gives flexibility for grantees with respect to mode choice, but demands accountability with respect to outcomes.



Energy & Infrastructure Program
National Transportation Policy Project



The Consequences of Reduced Federal Transportation Investment

Where We Are Today

Until recently, U.S. transportation policy was defined by growth – driving increased (more vehicle miles were traveled), system capacity expanded (through the creation of the Interstate Highway System and new transit lines), and federal funding grew (with rising gas tax contributions). This growth not only allowed for sustained investment levels and long-term funding commitments, it also provided the basis for a political consensus on transportation funding that enabled many highway bills to pass through Congress with the support of large bipartisan majorities. As federal transportation funding increased, the federal role in transportation policy and investment also grew. The result was a steady broadening of the federal transportation program, along with a steady broadening of the range of its beneficiaries.

That growth paradigm now appears to be over, temporarily if not permanently. Vehicle miles traveled (VMT) peaked in 2007, prior to the recession, and VMT per capita is at approximately the same level now as it was in 2000.¹ The Interstate Highway System is complete, and it has become increasingly challenging to construct new capacity in a developed environment. In addition, gas tax revenues have leveled off thanks to flat or declining VMT, improvements in vehicle fuel efficiency, and the stagnation in real terms of the fuel tax, which has stayed at 18.4 cents per gallon without any adjustment for inflation since 1993.

Declining revenues have thrown federal transportation policy into a tailspin. There is little appetite for raising the fuel tax, but also little incentive for Congress to cut funding. The federal highway program continues to operate without long-term funding sustainability. The enactment of Moving Ahead for Progress in the 21st Century (MAP-21) was made possible by an additional infusion of almost \$20 billion in general fund revenues. Before that, the Highway Trust Fund (HTF) had already been bailed out with approximately \$35 billion in general fund revenues. Almost certainly,

Congress will be forced to confront this issue once more, as soon as 2014, when the HTF will again face insolvency.

If Congress is eventually able to confront this fundamental funding issue, it may be that cutting the program is easier than increasing revenues or continuing to borrow money to fund it. Without additional funds, any new bill that limits federal transportation funding to current gas tax revenues would compel a reduction in federal resources of at least 35 percent. In order to put together a sustainable long-term federal transportation program, Congress will most likely have to choose between raising additional revenues and cutting spending.

All of this is happening in the context of a growing sense of crisis about the U.S. government's annual budget deficits and long-term debt. There is broad agreement that the nation is on a dangerous and ultimately unsustainable fiscal trajectory as federal spending continues to consume an ever-larger portion of Gross Domestic Product (GDP). The U.S. public debt now exceeds \$10 trillion² and Congress has not yet proved equal to the politically difficult task of addressing the long-term structural issues that have created it. Fair or not, this means it will be extremely difficult, if not impossible, to increase federal spending on transportation as has been done in the past. Elected officials are showing reluctance to increase deficit spending or raise taxes to pay for programs, no matter how important or economically justified they might be. Overall, transportation is likely to face cuts, or stagnant funding levels, in the foreseeable future.

Defining the Federal Role

The Bipartisan Policy Center's (BPC's) National Transportation Policy Project (NTPP) has consistently made the case that no matter how much the federal government spends on surface transportation, that spending should be focused on national goals and outcomes.² We have defined the national goals and performance measures that we believe to be appropriate for a federal surface transportation program. We have also

suggested a consolidated and reformed federal program structure to ensure that remaining funds are used with maximum effectiveness in the pursuit of national priorities.

The federal role in transportation is defined by two components – outcomes and eligibility. Outcomes are the national goals the federal government intends to advance through its transportation investments and programs, along with the performance measures it uses to track progress. These do not yet exist in federal law, but are central to the performance-based approach that BPC has proposed. Eligibility defines where federal funds can be used and is extensively addressed in federal law. The kinds of projects and programs that are eligible for federal transportation funding have grown increasingly broad over the last several decades. This has led to a more diffuse definition of the federal role. In previous reports, BPC has proposed maintaining broad eligibility for discretionary grant programs that should be focused on system expansion, but we have also stressed the importance of better defining eligibility for formula programs that should be focused on system preservation.

Congress has made some progress toward defining the federal role in transportation, thanks to the adoption of MAP-21, which articulates a number of specific national goals. But formulating national goals, while a worthwhile and essential first step, is not the same as clarifying the federal role. MAP-21 does not define exactly what the federal responsibilities are as compared to state and local ones, nor does it tie the specified national goals to performance measures or funding.

If Congress were to cut and consolidate the federal program in a way that focuses existing federal resources on specific national goals, that would be very different from a simple across-the-board cut. However, given the continued lack of productive conversation on the federal role, and continuing constraints on federal funding, we could be headed for exactly the latter, simpler scenario.

Policy Recommendations

MAP-21 will expire on September 30 2014, which means that Congress should begin working on the next surface transportation authorization bill in 2013. Since 2007, NTPP has conducted extensive research and produced several reports providing both a long-term vision for the future of surface transportation, and specific recommendations for this reauthorization. Based on the analysis in this and previous BPC reports, we recommend that Congress consider the following actions:

1) Expand federal revenues while also providing a framework for increased state and local investment. This report further underscores the point that continued underinvestment in our nation's transportation system will have substantial detrimental impacts in areas of national interest and importance, for which the federal government should take responsibility. Numerous reports from other transportation stakeholders have detailed some of these consequences, but the usual stakeholders are not issuing this report. We are a group of former elected officials, transportation experts and business executives who have consistently emphasized the need for programmatic reform, regardless of how much money is being spent. But we also believe that diminished federal investment will have serious consequences for the important goals we have outlined. The fiscally and economically responsible thing to do is to increase the fuel tax to cover existing and expected federal transportation investment needs, and to index the tax to an appropriate indicator of need in order to prevent the further and continuing erosion of federal resources. However, increased federal investment is only part of the need – the federal government also needs to better assist states in developing their own revenue sources. For one, the ban on tolling the interstate highway system remains a substantial barrier to revenue-raising efforts by states and metropolitan areas. For another, the federal government could play a leadership

MAP-21 will expire on September 30 2014, which means that Congress should begin working on the next surface transportation authorization bill in 2013.

role in assisting states that are interested in exploring new funding mechanisms, such as tolling or VMT fees.

2) If expenditures must be cut, programmatic reform is even more essential. BPC recognizes that we are in an era of fiscal austerity, where a fuel tax increase is unlikely and there is strong opposition to additional deficit expenditures. However, this should not be used as an excuse to falter in our efforts to advance national transportation goals or consider the appropriate federal role. In fact, the current budget situation creates opportunities as well as challenges. When resources are severely constrained, the argument for undertaking programmatic reforms to better focus transportation spending on national goals becomes more, not less, compelling. We believe the worst possible scenario would be if Congress simply reauthorizes the existing program at lower levels of funding without serious reforms. Unfortunately, this is also the path of least resistance in many ways. Our national interest in having a strong, safe and efficient transportation system demands that Congress either raise additional revenues or reform the federal program. Ideally, Congress would do both.

3) Programmatic reform should include competitive grant programs. One of the key takeaways from our analysis is that much of the reason federal funding cuts would be so damaging to national goals is that so much federal funding is allocated by formula. States faced with a loss of federal funds are likely to use their remaining funds, including any additional funds they raise, to address their most immediate priorities. These priorities may or may not coincide with national goals. But if federal grant money were available on a competitive basis, states and metropolitan regions would want to compete for it regardless of the size of the federal program. This would enable the federal government to support projects or programs that advance national goals regardless of the size of the federal pie. Formula programs with large flexibility – which is what we have now – provide

little assurance that scarce federal funds will be spent in accordance with national goals. Competitive discretionary grant programs, particularly for clear national priorities such as freight and goods movement, should be an essential component of any federal program. They allow for a bottom-up approach that encourages innovation while still providing states with substantial flexibility and control over how they achieve national goals. Implemented using a transparent process that includes both the legislative and executive branches, such grants can be the most powerful component of the federal transportation program.

4) Metropolitan transportation should have a prominent role in federal legislation. The role of metropolitan regions in federal transportation policy continues to be called into question, most recently when the U.S. House of Representatives proposed eliminating dedicated funding for mass transit. Senators from “rural” states have been resistant to metropolitan transit programs because they perceive them as hostile to rural interests. It is time we moved beyond these simplistic debates to a more honest and meaningful discussion about the role of the federal government in transportation generally, and metropolitan transportation specifically. This report indicates that a diminished federal role in transit programs could potentially be damaging to the nation’s economic growth. BPC has long advocated a “mode-neutral” approach where the federal government gives flexibility for grantees with respect to mode choice, but demands accountability with respect to outcomes. This approach can help us move beyond the issue of dedicated funding for mass transit, as all modes would be equal. Similarly, there is no reason we cannot adequately fund rural transportation needs while also supporting metropolitan transportation. False distinctions between different transportation modes and between the interests of different regions should not be allowed to divide us and thwart progress toward the achievement of national goals.

Warnings that the United States is under-investing in infrastructure, including transportation, have been sounded for decades despite continuous growth in overall funding levels.

Understanding the Consequences

It will be very challenging for Congress to implement the recommendations listed above, particularly with respect to raising additional revenues. Recognizing this reality in our most recent report, *Performance Driven: Achieving Wiser Investment in Transportation*, we outlined a federal transportation program that could be implemented assuming a 35 percent cut in federal funding (sufficient to bring spending in line with current revenues to the HTF). We did not recommend a cut of this magnitude, but rather recognized that it was becoming a more likely probability.

We still believe that the federal transportation program could face major funding cuts in the years ahead. Our last report focused on how to make the best of this potential future by focusing the federal role on national interests. Now we seek to better understand the consequences of likely budget cuts absent a clearer definition of the federal role. Specifically, this paper explores the consequences of a potential sea change in our nation's commitment to transportation investment. Warnings that the United States is under-investing in infrastructure, including transportation, have been sounded for decades despite continuous growth in overall funding levels. Now we face a drop in overall funding in the context of a federal program that is not necessarily any more focused than it has been in the past. The question is, does this lack of focus mean that anticipated budget cuts will be even more damaging in their consequences than they need to be?

To answer this question, we must first define what we mean by consequences. Many other reports have examined the potential costs of underinvestment in transportation. These costs are typically described in terms of increased congestion, crumbling infrastructure, and lost jobs. Usually, the implicit assumption is that any federal spending cuts translate directly to a reduction in overall spending. There has been little analysis of how state and local governments

might realistically react to a reduction in federal transportation funding and only limited consideration of how those funds that are still available might be spent differently. Our interest lies primarily in understanding how these funding cuts could impact what we have defined as national goals for transportation investment.

In previous reports, BPC proposed five high-level goals for national transportation policy and investment:

1. Economic Growth
2. National Connectivity
3. Metropolitan Accessibility
4. Energy Security and Environmental Protection
5. Safety

This report examines several distinct issues, including the likely impact of a significant cut in federal funding for highways and transit, probable responses from existing grantees, and whether or not funding shortfalls will shift investment away from projects that advance these national goals as state and local transport agencies focus more on local concerns. To simplify the analysis, we assume a 35 percent across-the-board cut in federal highway and transit funding. This assumption is identical to the one made in our most recent report,⁴ and reflects the level of spending that could likely be supported through existing revenues to the HTF (i.e., without further general fund transfers) over a six-year timeframe. It is, of course, impossible to predict exactly what will happen with federal transportation funding. Accordingly, our aim is merely to explore one plausible scenario: namely that Congress decides to spend only what is available from existing revenue sources.

This report describes the results of two overarching analyses. The initial analysis attempts to determine how grantees are likely to react to a 35 percent cut in federal funding. It relies on the following data:

- Existing data on state and local spending patterns;
- Different grantees' relative dependence on federal funds;
- Characteristics of existing state and local governments including their ability to raise additional revenues for transportation through various means; and
- Interviews with industry leaders, including current or recent heads of transportation agencies.

The second analysis looks at how state and local reactions to a reduction in federal transportation funding are likely to affect progress toward national goals. In other words, given that states and transit agencies will face a funding shortfall, how will they prioritize their remaining funds? And if they do re-prioritize, what is the impact in terms of national goals?

While both analyses provide useful insights, any discussion of possible outcomes is bound to be speculative. Our conclusions should be viewed as informed judgments based on the data examined rather than definitive predictive outcomes. They are based on the most plausible scenario we can determine based on available data, and they will serve as a guide for policymakers and leaders to understand that simply reducing federal funds for transportation, without also undertaking to better focus federal resources, has consequences for the entire nation. Anticipating these consequences will hopefully help the government focus on clarifying the federal role, regardless of whether they are able to raise additional revenues for transportation.

Reactions to Federal Funding Cuts

State transportation programs do not operate in a vacuum. While many analyses of diminished federal spending assume that states would not make up for the federal shortfall, a more realistic scenario is that some funding would be replaced and some would not. Faced with a sharp drop in federal highway funds, states must either raise

revenue, cut spending or both. In this analysis we attempt to estimate what fraction of existing federal spending states and transit agencies would realistically be able to replace with new revenue. We then make some informed judgments about how they would make up the remaining gap with spending cuts.

From the inception of its transportation project, BPC has taken a “mode-neutral” perspective on transportation funding and investment decisions. We have recommended that the federal government move toward a system that focuses on performance and outcomes but leaves decisions about modes to states and localities.

The current federal program, however, does not function this way. Resource allocations are mode-specific, with a large portion of funds dedicated to highways, a smaller portion dedicated to transit, and then even smaller portions dedicated to pedestrians and bicyclists. For purposes of this analysis, which examines the impacts of budget cuts in the context of the existing program and not the one BPC recommended, we had to abandon our usual mode-neutral approach. Therefore the first part of this section analyzes the impacts of cuts in highway funding (including funds for bicycles and pedestrians), while the second examines the impact of transit cuts.

Highway Funding

States vary widely in their reliance on federal funds, in the type of highway programs they manage, and in the options available to them for generating additional resources. The states likely to be most affected by a reduction in federal funding may be considered in two categories: (1) states that depend on federal funds for a large share of their budget and (2) states that depend on a large amount of federal funds in absolute dollar terms.

Table 1: Federal Percentage of State Capital Highway Programs, 2009

STATE	FEDERAL SHARE	TOTAL FEDERAL APPORTIONMENT (MILLIONS)
Rhode Island	115%	\$176
South Carolina	93%	\$599
Virginia	86%	\$936
Arkansas	80%	\$447
Montana	79%	\$345
Vermont	75%	\$144
Tennessee	74%	\$767
North Dakota	71%	\$224
Connecticut	70%	\$460
New Hampshire	69%	\$158
South Dakota	68%	\$236
Minnesota	67%	\$569

Table 1 shows the 12 states most dependent on federal funds as a percentage of their transportation expenditures. The figure for Rhode Island is greater than 100 percent because some federal capital money actually goes toward paying off GARVEE bonds⁵ (for this reason some of the percentages shown for other states are also slightly inflated). Note that of these states, all but Virginia could be characterized as relatively small in terms of population. In fact, none of the states in the top 10 for population is on the list. This implies that smaller states could face larger percentage gaps in their highway budgets if the federal contribution declines.

Table 2: Projected Annual Funding Loss Under 35% Cut, 2007-2009

STATE	PROJECTED FUNDING LOSS (BILLIONS)
Texas	\$3.0
California	\$2.9
Florida	\$2.2
New York	\$1.8
Pennsylvania	\$1.5
Georgia	\$1.3
Ohio	\$1.3
Illinois	\$1.2
Indiana	\$1.0

Table 2 shows the estimated loss in federal funds – assuming a 35 percent overall reduction in federal transportation spending between 2007 and 2009 – for states that would be expected to lose at least \$1 billion in annual funding. Note that there are no states that appear on both tables. Taken together, these two tables indicate that the states likely to be hardest hit by federal funding cuts will be the smallest (least populous) and largest (most populous) states. The smallest states will face large percentage cuts in funding, while the largest states will find themselves facing large gaps in dollar terms. In many states, these gaps will have to be filled one way or another.

An important question then centers on whether the states facing the brunt of the larger cuts would be able to replace some or all of the federal money. The structural problems of our current highway finance system are well known and most states lack the resources to simply plug the gap with existing funds. Raising additional revenue through tax increases is also politically difficult, to say the least. Nonetheless, in the last few years a small number of states have been able to increase their motor fuel tax rates. Indeed, state motor fuel taxes increased by nine percent

between fiscal year 2009 (ending June 30) and 2010. Eleven states have been able to increase their motor fuel taxes within the past two years, although a few of these increases were tied to inflation or were otherwise automatic. Table 3 summarizes these state tax changes.

Table 3: Recent Fuel Tax Increases

STATE	YEAR OF INCREASE	AMOUNT (CENTS)
District of Columbia	2009	3.5
Florida	2011	0.4
Georgia	2011	3.0
Hawaii	2010	3.0
Kentucky	2011	1.9
Maine	2011	0.5
Minnesota	2011	5.0
Nebraska	2010	indexed
North Carolina	2011	2.5
Oregon	2011	6.0
Vermont	2009	2.0

Table 3 indicates that increasing state fuel taxes is by no means impossible or even uncommon. If states recognize that the federal government is unlikely to increase the federal gas tax and that spending cuts are inevitable, they may be spurred into action. It is fair to say that, at a minimum, some states would be able to replace at least some of the federal dollars lost under the scenario we are examining.

Likely State Reactions

To estimate states' ability to make up federal funding cuts, we evaluated each state's situation in terms of the following criteria:

- Percentage of federal funds relative to total state transportation expenditures;

- The absolute dollar amount of federal funds apportioned;
- The climate for tolling within the state, including the climate for increasing tolls on existing facilities and the propensity to toll new facilities;
- Any recent discussions to raise state revenues for transportation via taxes and fees;
- Legislation for regional mobility, regional toll, or regional taxation initiatives, either in place or under consideration at the state level; and
- Whether the state has already increased taxes, fees or tolls in the last five years.

The first of these criteria is of primary importance. The more a state depends on federal money, the more it will be impacted by potential cuts. We divided states into three categories:

1. States that rely on federal funds for less than 25 percent of their total transportation expenditures;
2. States that rely on federal funds for between 25 and 40 percent of their total transportation expenditures; and
3. States that rely on federal funds for more than 40 percent of their total transportation expenditures.

Our estimate of the potential substitution of state and local funds for federal funding shortfalls is described below.

Overall, we assume that annual federal highway spending drops from \$39.4 billion to \$25.6 billion (consistent with a 35 percent cut).

LESS THAN 25 PERCENT FEDERAL SHARE

Only 10 states rely on federal funds for less than 25 percent of their overall transportation spending; however, the annual federal disbursement to these 10 states is more than \$9 billion, or 23 percent of the federal highway budget. Based on a state-by-state analysis using the criteria previously

Most states (27) rely on federal funds for 25 to 40 percent of their transportation budget.

described, four of these 10 states are likely to make up a portion of the shortfall if federal funding is cut. States in this category include California, which receives \$3 billion annually in federal highway funds. Pennsylvania, which is also in this category, is actively pursuing increased state funding through a recent finance commission. Seven states in this category have toll facilities and/or legislation to establish toll facilities and have expressed interest in public-private partnerships. However, at least one state of these seven is likely “maxed out” in terms of alternative project delivery, with recent investment in mega-projects.

If all states likely to increase state/local revenues do so and make up 100 percent of their lost federal funds, \$2.33 billion could be substituted annually. This compares to an assumed loss of \$3.45 billion in federal funding for all states in this category.

BETWEEN 25 PERCENT AND 40 PERCENT FEDERAL SHARE

Most states (27) rely on federal funds for 25 to 40 percent of their transportation budget. Current federal disbursements to states in this category total more than \$20 billion. Looking at these states we noted that three of them have already increased revenues within the past five years. We assume these states are unlikely to raise revenues again in the near future, due to the political hurdles involved. Only nine of these states have toll roads or are actively pursuing tolled facilities, and only one is actively pursuing regional taxation to support transportation investments.

If all states likely to increase revenues did so and raised sufficient funds to make up 100 percent of their lost federal funding, \$4.27 billion in annual spending would be substituted. This compares to a loss of \$7.91 billion if there is no response to federal cuts from states in this category.

GREATER THAN 40 PERCENT FEDERAL SHARE

Regardless of the political climate for increasing state taxes

and fees, states that rely on federal funds for 40 percent or more of their transportation programs are more likely to take significant action in response to federal cuts. No states in this group have had a recent state or local transportation tax or fee increase.

For purposes of this analysis, we assume that the 10 states in this category most likely to be able to raise revenue compensate 100 percent for any cuts in the highway funding they receive from the federal government. In that case, new revenues from these states substitute \$1.56 billion of the total \$2.43 billion estimated reduction in federal funding for all states in this category.

In sum, an across-the-board cut to the federal program to bring expenditures in line with current revenues to the HTF means an overall reduction of \$13.8 billion in annual disbursements to the states. By analyzing each state individually based on the criteria previously noted, we find that there is a reasonable opportunity for 60 percent of that funding, or approximately \$8.16 billion, to be replaced in the short term by state revenue sources. A more conservative assumption is that approximately 50 percent of the expected cut in federal funding is likely to be replaced by states. This is in part because there will be timing delays – no state will increase fees exactly in time to offset federal cuts. As a result, even states that are aggressive about raising revenues will face some near-term budget shortfalls. But it is also because the current political environment makes it unlikely that even these states will be able to raise enough revenues to fully replace a reduction in federal funds.

The analysis above suggests that in the aggregate some of the lost federal funding will be replaced. But as mentioned earlier, the impacts of the cuts will disproportionately affect different states. In particular, many of the smaller population states are more dependent on federal funding, and are

Table 4: Summary of Likely State Reactions

FEDERAL FUNDING SHARE	NUMBER OF STATES	STATES LIKELY TO RAISE REVENUES	TOTAL AMOUNT LIKELY TO BE RAISED (BILLIONS)	TOTAL AMOUNT CUT	PERCENTAGE SUBSTITUTION
Less than 25%	10	4	\$2.33	\$3.45	68%
Between 25% and 40%	27	10	\$4.27	\$7.91	54%
Greater than 40%	14	10	\$1.56	\$2.43	80%
Total	51	24	\$8.16	\$13.79	60%

likely to face greater challenges in replacing those funds. Meanwhile the very largest states, though dependent on federal funds for a smaller portion of their spending, will still face massive budget shortfalls. The states that fare the best are likely to be those with low dependence on federal funding, mid-sized populations, and existing options for increasing revenues for transportation investment.

Transit Funding

Federal funding for mass transit typically flows directly to transit agencies. Our analysis, therefore, focuses on these agencies, since they will be directly responsible for implementing responses to any reductions in federal transit funding. For simplicity, we assume that state DOTs will not increase transit funding to offset reductions in federal highway funding, recognizing that this assumption may not be completely accurate in reality depending on budget priorities in individual states. However, unlike state DOTs, transit agencies are not necessarily state agencies. This tends to create more challenges for them as compared to state DOTs when it comes to asking their states for additional funding.

Transit agencies across the country have already been hit hard by a series of financial and economic crises. High oil

prices have increased the cost of providing transit services, since most transit systems rely heavily on buses that use petroleum-based fuels (typically diesel). Of course, the same high oil prices have also stimulated increased demand for transit services, and while more riders mean more revenues they also mean higher operating costs that often offset any revenue gains. An initial burst of increased transit ridership earlier this decade was followed by the financial crisis of 2008-2009 and the current economic recession, both of which resulted in severe funding shortfalls for state and local governments – shortfalls that were only partly (and temporarily) offset by federal stimulus funding. Now transit agencies may confront a sustained reduction in traditional federal transit funds. While the term “death spiral” may be too strong to describe the cumulative effect of these recent crises, it is nonetheless important to start any discussion of the impact of future federal cuts by recognizing that most transit agencies are already in poor financial shape.

The largest impact of a reduction in federal transit funding will be in the area of capital spending. Federal funds cover approximately six percent of transit operating costs but nearly 40 percent of capital costs, in part due to restrictions on the use of federal funds for operations. These restrictions are necessarily stringent, and sometimes money can be shifted between the two categories. Thus, transit agencies

Table 5: Average Impact across Top 50 Transit Agencies

FUNDING TYPE	PERCENT FEDERAL SHARE	PERCENTAGE IMPACT OF 35% CUT IN FUNDS	ABSOLUTE IMPACT OF 35% CUT IN FUNDS FOR EACH AGENCY (MILLIONS)
Operating	6.4	2.2%	\$13
Capital	39.6	13.9%	\$40

could potentially cope with a reduction in federal capital funds by cutting funding for either capital or operations. Both types of cuts could be damaging, albeit in different ways, to metropolitan regions and economies.

A common reaction for transit agencies faced with a funding shortfall is to delay capital investments, even if those investments are needed to maintain the system in a state of good repair. It is generally much easier in the short term to delay such investments – certainly compared to, for example, cutting service or raising fares. Unfortunately, such delays have hidden costs that are much more consequential than might first appear. They not only increase the cost of future maintenance, they are also likely to create operating problems as equipment breakdowns begin to increase. Thus, deferring maintenance can have a strong negative impact, both on long-term costs and even short-term operations.

Transit Agency Level Analysis

For this analysis we used 2009 data from the National Transit Database to identify the top 50 transit agencies around the country in terms of numbers of unlinked trips. We then assessed the potential impact of a 35 percent reduction in federal funding, both in terms of operations and capital investment.

Table 5 shows the average impact of a 35 percent cut in federal funds on the top 50 transit agencies. The greatest impact for the average agency would be in capital funding, since currently almost 40 percent of capital funds come from the federal government. A 35 percent cut there would leave an average gap of \$40 million for each transit agency to fill. The cut to operating funds would also be serious at \$13 million per year for the average transit agency, particularly since a reduction in operating funds would have a more immediate impact on employment and transit services. More detailed estimates of the potential impact on capital versus operating budgets for specific agencies are shown in Table 6.

As Table 6 indicates, a 35 percent cut in federal funding for operations would have a dramatic impact across a wide range of transit agencies. Although federal law typically restricts large agencies from using federal funds for operations, in practice this does not appear to be the case as several large agencies appear on this list. While larger transit agencies such as Los Angeles and New Jersey would face large absolute cuts that would be challenging to replace, some of the mid-size agencies would also be hit hard. For example, Orange County would need to replace 7.4 percent of its operating funds, or cut the equivalent in service.

Table 6: Agencies Most Impacted by Operating Cuts

AGENCY	ANNUAL UNLINKED TRIPS (MILLIONS)	PERCENT FEDERAL SHARE OF OPERATING COSTS	PERCENTAGE IMPACT OF 35% CUT IN OPERATING FUNDS	ABSOLUTE IMPACT OF 35% CUT IN FEDERAL OPERATING FUNDS (MILLIONS)
Los Angeles County Metropolitan Transportation Authority	481	16%	5.6	\$76
New Jersey Transit Corporation	281	21%	7.4	\$144
King County Department of Transportation – Metro Transit Division	115	15%	5.3	\$30
Tri-County Metropolitan Transportation District of Oregon	109	16%	5.6	\$22
Orange County Transportation Authority	66	21%	7.4	\$20
Alameda Contra-Costa Transit District	61	18%	6.3	\$21

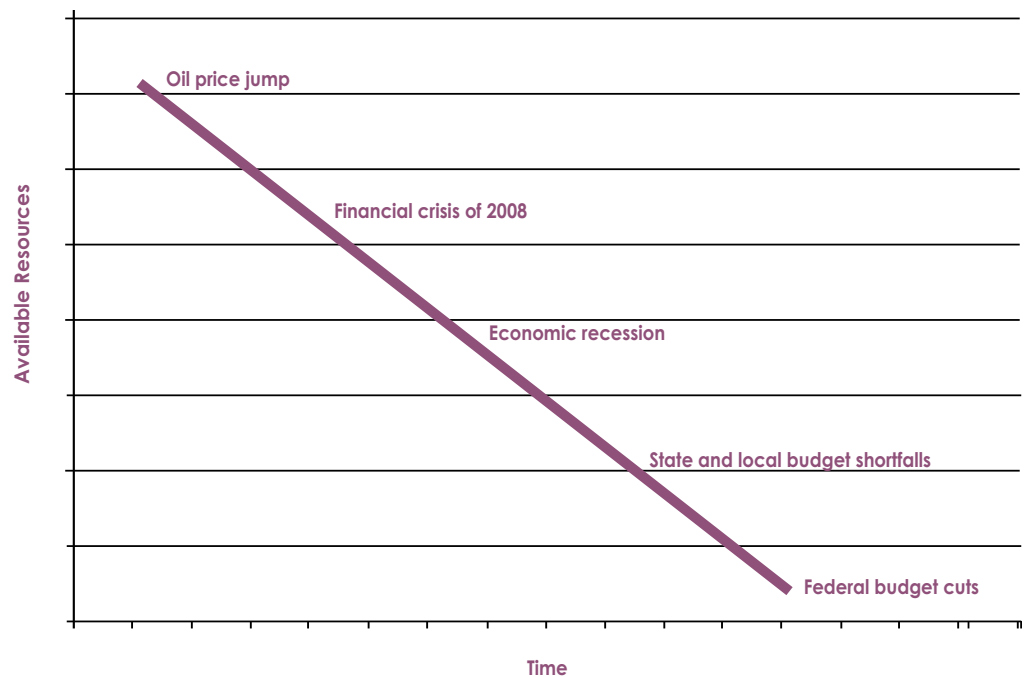
Figure 1

Table 7a: Agencies Most Affected by Capital Cuts – Percentage

	ANNUAL UNLINKED TRIPS (MILLIONS)	PERCENT FEDERAL SHARE OF CAPITAL COSTS	PERCENTAGE IMPACT OF 35% CUT IN CAPITAL FUNDS	ABSOLUTE IMPACT OF 35% CUT IN CAPITAL FUNDS (MILLIONS)
Regional Transportation Commission of Southern Nevada	67	100%	35%	\$44
MTA Long Island Bus	31	100%	35%	\$13
Pace Suburban Bus	3	100%	35%	\$4
Milwaukee County Transit System	48	100%	35%	\$0.5
Westchester Bee-Line System	32	94%	32.9%	\$16
Detroit DOT	39	81%	28.4%	\$9

Table 7a shows the transit systems that would be most affected, on a percentage basis, by cuts in federal capital funding. Note that there are four agencies that depend on federal funding for 100 percent of their capital needs; these agencies and the metropolitan regions they serve would be hit particularly hard if the federal funds could not be replaced. Notably, three of the agencies listed in Table 7a are suburban bus systems in New York and Chicago. The others are mid-size transit agencies.

Table 7b summarizes estimated impacts on the agencies that are most dependent on federal funding in absolute dollar terms. These tend to be the largest transit agencies – in fact, two are in the New York metropolitan region. Notably, there is little overlap between Tables 7a and 7b – that is, between the agencies that are most dependent on federal capital funding in percentage vs. absolute terms.

These results suggest that the impact of federal transit cuts would be wide and deep. Moreover, those impacts would not be confined to any specific size agency or any particular region of the country, aside from the fact that the New York metropolitan region, due to its unusually heavy reliance on transit, would be substantially affected in every way.

Likely Reactions in Transit

As we noted in an earlier section, transit agencies have faced a series of difficult challenges since the ramp-up in fuel costs during the summer of 2008 and the subsequent financial crash and recession. The loss of tax revenues to fund federal, state and local agencies has led to service cuts and fare increases at a time when ridership levels have been increasing. In fact, ridership levels from 2006 through 2009 were the highest since 1956.⁶

The best indicator of how transit agencies might respond to a big cut in federal funding may be found by looking at their reactions to current and recent challenges. In August 2011, the American Public Transportation Association (APTA) published an update on how its members were responding to the impacts of the recession. Several highlights from this survey are revealing:⁷

- 85 percent of agencies reported flat or decreased capital funding;
- 83 percent saw flat or decreased state funding;

Table 7b: Agencies Most Affected by Capital Cuts – Absolute Dollars

AGENCY	ANNUAL UNLINKED TRIPS (MILLIONS)	PERCENT FEDERAL SHARE OF CAPITAL COSTS	PERCENT IMPACT OF 35% CUT IN CAPITAL FUNDS	ABSOLUTE IMPACT OF 35% CUT IN CAPITAL FUNDS (MILLIONS)
MTA New York City Transit	3,207	38%	13.3%	\$511
Chicago Transit Authority	521	61%	21.4%	\$131
Port Authority Trans-Hudson	82	38%	13.3%	\$99
Washington Metropolitan Area Transit Authority	436	63%	22.1%	\$98
Dallas Area Rapid Transit	65	32%	11.2%	\$93
Southeastern Pennsylvania Transportation Authority	348	51%	17.9%	\$86

- 79 percent have cut service or raised fares, or are considering either of those actions;
- 75 percent of large agencies reduced the number of staff positions and 46 percent furloughed employees;
- 71 percent of public transportation agencies saw flat or decreased local funding;
- 71 percent of large agencies cut service in the past year compared to 41 percent of other agencies;
- 51 percent have already cut service or raised fares; and
- 50 percent of large agencies raised fares in the last year compared to 30 percent of other agencies.

Not surprisingly, 85 percent of respondents reported flat or declining capital funding. In response, many agencies delayed spending:

- 31 percent of agencies said that they delayed vehicle acquisitions due to capital budget issues;
- 20 percent reported that they had delayed capital maintenance; and

- 21 percent reported that they had delayed capital construction.

It is reasonable to expect that these numbers would increase given a substantial cut in federal funding. The deferral of maintenance expenses, in particular, is a real concern because it points to the likelihood of higher maintenance costs in the long run and a higher probability of system breakdowns and poor service in the near term.

In fact, APTA has asked its members how they would likely respond to a 30 percent cut in federal transit funding.⁸ Recognizing that the responses are likely to be somewhat biased (in the sense that it would be in the interests of a transit agency to exaggerate, if anything, the impacts of a potential cut), the responses are nonetheless informative and point to fairly significant impacts. For example, a spokesperson for the Center Area Transportation Authority in State College, Pennsylvania offered this scenario:

“A 30 percent cut in federal funding would mean that we would have to cut up to five of our 17 community routes. Our funding situation is already so precarious that our ‘neighborhood’ routes only run four or five trips a day, Monday through Friday, so any further cutbacks would mean elimination of all service on these routes.”

Of course, for the reasons discussed previously, federal funding cuts would be expected to have an even greater impact on capital programs than on transit operations. According to Sound Transit in Seattle, Washington, loss of federal funds would substantially delay a planned system expansion:

“We would have to delay completion of light rail segments to the University of Washington, Northgate and Lynnwood if 30 percent of the executed grants and assumed grant funds were moved beyond the current six-year period. If six years of federal grants were reduced by 30 percent, the construction periods would have to be extended by an additional two years beyond the current project schedule.”

Note that even without a reduction in federal funding, the nation’s largest transit agency – the New York Metropolitan Transit Authority (MTA) – faces major challenges over the next three years. The MTA’s recently published financial plan for 2012-2015 projects a 2015 cash deficit of \$206 million (compared to a cash surplus of \$179 million in 2011):⁹

“Out-year deficits are largely driven by costs outside of our control that increase at a rate greater than inflation. For example, while CPI [Consumer Price Index] is projected to grow at two percent annually over the plan period, retiree and employee health care costs will each increase 10 percent annually and

pension costs will increase by seven percent annually. By 2015, the budget for these three categories of expenses will grow by \$880 million – consuming more than 90 percent of the increase in revenue from the proposed 2013 and 2015 fare and toll changes.”

Cuts in federal funding would be especially difficult to absorb in New York, where the economic value of public transit is perhaps higher than anywhere else in the country. Most likely, the New York MTA would have to curtail expansion and defer capital maintenance. This actually happened to New York before, in the 1970s, and it took decades of dedicated capital funding programs to restore the system to anything close to a state of good repair. Those costs could have been prevented had maintenance not been deferred.

The main responses available to states and transit agencies fall into four categories:

1. Increase revenue through fares, taxes or other arrangements;
2. Reduce costs through service cuts, deferral of investments or employee furloughs;
3. Improve productivity through technology, better scheduling or fuel efficiency; and
4. Implement alternative strategies such as outsourcing or transferring capital funds to operations.

How agencies respond to federal funding cuts will depend on, and in some cases be limited by, a variety of factors, including:

- Size of the agency and the primary modes of transportation it operates;
- Scale and proportion of current federal funding;
- Potential availability of alternative funding/financing sources;
- Concern about the potential for a downgrade by ratings agencies that could result in higher borrowing costs;



- Competing local funding priorities;
- Ease of implementation for different responses;
- Operational restrictions on service changes or fare reductions; and
- Legal/compliance issues (e.g., Title VI of the Civil Rights Act of 1964 regarding discrimination and Section 13c of the Transit Act regarding mass transit employee protections).

Though transit agencies may deploy a variety of strategies when confronted with a shortfall in federal funding, the options available to them generally run counter to attracting new riders or retaining customers who have a choice of

travel modes. Such customers may be more sensitive to comfort, convenience or cost compared to those who are more dependent on transit. Even among customers who lack other transportation options, reduced service or higher fares may cause hardships that result in decreased ridership. These effects can add to a downward spiral in fare box revenues, thus exacerbating the situation (among the top 50 transit agencies, fare box revenues cover, on average, 34 percent of operating costs).

The APTA survey is helpful in identifying the most likely responses to a reduction in federal transit funding. Several general observations may be ventured:

The largest transit agencies will most likely defer maintenance cycles. Large transit agencies, which rely on federal funding more for capital needs, will feel pressure to maintain their service levels and full workforce. Politically, it is easier to defer maintenance than to cut service, raise fares or furlough employees and because maintenance is a substantial component of large agencies' budgets, such deferrals can produce significant savings. Over an extended period of time, of course, they can also affect service and reliability but for many large agencies, deferring maintenance is likely to be viewed as the best option, at least in the near term.

Mid-sized agencies will most likely reduce service levels. Mid-sized agencies have fewer options with respect to deferring maintenance and are more likely to need to cut service. In many cases, service cuts will be accompanied by employee furloughs. Agencies are more likely to begin by reducing the frequency of service and then progress to cutting entire routes. These steps can be expected to reduce ridership among customers with a choice of travel modes; other customers who have no choice but to rely on transit will have to absorb a substantial decline in service.

Small agencies will most likely implement substantial service reductions.

Small transit agencies are likely to be more dependent on federal operating subsidies and to have more riders, proportionately, who are entirely transit-dependent. For these agencies, federal cuts are likely to necessitate service reductions, which in turn may impose significant disruption and hardship on a customer base that is highly dependent on transit services.

New infrastructure investments will be halted across the country.

Because most federal transit dollars are used to cover capital costs rather than operational costs, a cut in federal funding is likely to translate into an across-the-board decline in the capital investments needed to keep transit infrastructure in a state of good repair. This not only means that service expansions are likely to stop, but also that the purchase of new vehicles will be delayed. Over time, the practice of deferring maintenance will lead to higher breakdown rates and lower service levels.

Few additional tax revenues for investments to keep transit systems in a state of good repair.

While some areas have been able to implement new taxes to support transit expansion, there is little evidence to suggest that transit agencies will be successful in securing new tax revenue to cover the cost of capital maintenance. It is challenging to get new taxes approved only to maintain existing levels of transit service and avoid the need to defer maintenance because the benefits are often not as clear to voters.

The bottom line is that most transit agencies will respond to funding cuts by shifting remaining resources to operations and reducing capital maintenance expenditures. While this may be feasible for a year or two without serious consequences, particularly for transit agencies that are in good shape to start with, it will eventually lead to more and more problems. And many of these problems will ultimately lead to higher operating costs. Three years after the financial crash and recession of 2008-2009, the prospect of substantial further funding

reductions in a context of continued high unemployment and a still-fragile economy creates almost insurmountable challenges for the transit industry. In short, a 35 percent cut in federal funds could be disastrous.

Impacts on National Goals

This section discusses the impact of federal funding cuts in terms of progress toward national transportation goals, keeping in mind that a given reduction in federal dollars is unlikely to lead to an equal and corresponding reduction in overall transportation spending.

In the case of highways, for example, we estimate that approximately half of our assumed 35 percent across-the-board cut in federal funds will be made up either in higher user fees or increased use of tolls. Highway agencies are likely to focus on rehabilitation and maintenance, and raise most of the funds needed to build new capacity through the increased use of tolls. Transit agencies will have a much harder time filling the federal aid gap because they are not necessarily state agencies, and they have already been hit hard by higher costs and by the recent economic recession, which diminishes their prospects for raising additional revenues through taxes or higher fares. Thus, a 35 percent cut in federal transit funds will likely force transit agencies to cut programs, reduce service and/or delay upgrades to rolling stock or infrastructure. There will be fewer new transit starts as monies slated for this purpose are shifted to meet current commitments. In sum, the combination of sharp cuts in federal aid and no change in program structure imply a system that looks inward, with reduced transit services and little if any new highway capacity.

A substantial cut in federal transportation funding will have ramifications for America that go beyond the direct impacts of deferred capital expenditures. Our interest in this paper is to explore likely implications for the national transportation goals BPC has articulated. When states and localities raise

Even among customers who lack other transportation options, reduced service or higher fares may cause hardships that result in decreased ridership.



their own funds to make up for a shortfall in the federal contribution, how will their priorities change? And how will that affect the way they use remaining federal funds?

In previous reports, BPC articulated five national transportation objectives that we recommend should guide the use of federal funding:

- **Economic Growth** – producing maximum economic growth per dollar of investment;
- **National Connectivity** – connecting people and goods across the nation with effective surface transportation;
- **Metropolitan Accessibility** – providing efficient access to jobs, labor and other activities throughout metropolitan areas;
- **Energy Security and Environmental Protection** – integrating energy security and environmental protection objectives with transportation policies and programs; and
- **Safety** – improving safety by reducing the number of accidents, injuries and fatalities associated with transportation.

This section compares possible impacts on these five national objectives assuming a 35 percent across-the-board cut in federal funding with little change to the program structure we have in place today. This is not how BPC has proposed absorbing likely cuts; the approach we have recommended would revise and refocus the existing program on national goals and thus avoid some of the potential negative impacts described below. But so far Congress has not put forward serious efforts to consider the appropriate federal role, agree on national goals, and refocus the program along these lines no matter the overall size of the funding pot. Moreover, Congress seems unwilling to acknowledge the need for additional revenue or substantial cuts; instead, it seems intent on postponing a real decision and then proposing the next temporary emergency stopgap measure. Absent more thoughtful measures to address revenues or spending or both, a blunt across-the-board cut – implemented in a way that is not at all strategic – may be inevitable.

Over a longer period of time, cuts in transit funding will limit the ability of cities, counties and states to expand transit networks.

Economic Growth

BPC has consistently argued that economic growth depends on access – access to labor and jobs as well as markets, goods and raw materials. A reduced federal transportation program will likely mean a continued decline in overall system capacity as the population grows but the transportation system remains relatively stagnant. Accessibility will diminish, generally, and transportation will play a smaller role in assisting economic growth. Where there are exceptions, they will occur in states that are willing and able to increase their own spending, or in places that have attractive tolling or public-private partnership opportunities.

For highways, the clear emphasis will be on maintenance with some investment in reconstruction. Exceptions may occur in places with a more aggressive program to expand toll roads, such as Texas and the Puget Sound region of Washington State. Most states, however, will struggle to preserve what they have. For transit, the consequences could be even more dire. It is highly likely that cuts in transit funding will translate directly into lost jobs.¹⁰ The majority of these jobs would be in the private sector, including jobs in manufacturing, construction, operations, and parts supply and services. Funding cuts will also create indirect job losses in the broader economy as lost jobs and income among transportation sector workers translate to reduced demand for other goods and services. Besides affecting employment within the transit industry, transit service reductions could make it more difficult for workers in other sectors – particularly those lacking other transportation options – to access employment opportunities.

National Connectivity

If funding constraints prevent further highway expansion despite continued growth in demand for goods and services, it is reasonable to assume that national connectivity will suffer. Freight connectivity will increasingly depend on

private investments, including investments by railroads and maritime shippers. Admittedly, increased highway congestion could create incentives to add railway capacity in certain areas. However, allowing one system to deteriorate because it might spur greater investment in a competing mode is not a sound public policy solution.

Where new highways are built, they are likely to be built with an eye towards local, rather than national, connectivity interests. For example, some regions might look to toll roads as a way to expand capacity. However, interest in toll roads is likely to focus on urban corridors and projects that generate financial resources rather than projects that advance national connectivity per se. Investments in national connectivity are more complex, require greater cooperation across political boundaries, and often provide benefits that are mostly outside of where the investment is being made. This makes them less likely candidates for investment when revenue is scarce and locally generated.

While transit has no significant role in providing national-level connectivity for the movement of freight, it does play an important role in providing national-level connectivity for the movement of passengers. This is because travelers often rely on transit services to provide local connections at each end of a trip. Transit services not only bring airport and rail passengers to terminals, they often also play a large role in bringing airport and rail station employees to work. If these services deteriorate as a result of transit cutbacks, the cost of providing some intercity passenger services is likely to increase.

Metropolitan Accessibility

Faced with substantial budget cuts, some metropolitan regions will likely turn to their roads as potential sources of revenue. Some regions might even be successful in raising funds from new tolling or pricing schemes and then using some of these revenues to expand capacity across multiple modes. But while impacts will vary widely, there is



likely to be a net loss of accessibility in most metropolitan areas, particularly as the economy begins to grow again and demand for travel increases. Even where it is possible to raise them, new revenues are likely to be insufficient to replace federal revenues, and priority will need to be given to maintaining existing infrastructure. Overall, metropolitan accessibility will suffer.

The main impact on metropolitan accessibility will come from cuts in transit. These cuts will lead to service reductions and slow new capacity expansion. It is unclear how large cities, particularly in the Northeast (e.g., New York City, Washington, D.C.), would function with major reductions in transit service; given their disproportionate contribution to the national economy, adverse impacts could extend well beyond these large metropolitan areas. To a lesser extent, the same could be true for transit service reductions in medium and small cities. Such reductions will have an especially large impact on low-income people, particularly those who are unemployed. Expanded telecommuting and carpooling could mitigate some of the loss of accessibility for commuters, but there are limits to the effectiveness of these strategies, particularly for the unemployed and for low-income segments of the population.

Over a longer period of time, cuts in transit funding will limit the ability of cities, counties and states to expand transit networks. The most economically powerful and mature urban areas have little political appetite and very limited space for undertaking major highway expansions. This leaves mass transit, bicycling and walking as some of the most viable options for improving accessibility in these regions. Diminished resources to expand these alternatives, such as bus rapid transit, ridesharing and bike paths, will mean a decline in accessibility.

Energy Security and Environmental Protection

Higher Corporate Average Fuel Economy (CAFE) standards for new automobiles offer substantial benefits in terms of energy security and environmental protection because they reduce gasoline consumption. An unintended consequence of higher CAFE standards, however, is a reduction in revenues to the HTF and, therefore, a potential decline in future infrastructure investment, assuming nothing is done to fill the gap. In that case, increased traffic congestion and reduced transit service could offset some of the fuel savings

from improved vehicle efficiency. Reduced investment in the transportation system, in other words, has downsides from an environmental and energy security perspective because it makes the system as a whole less efficient. In previous reports, BPC recommended transitioning away from the fuel tax as a means of funding the HTF, in part to ensure that the public policy goal of reducing fuel consumption through improved vehicle efficiency is not in conflict with the policy goal of assuring adequate resources to maintain a world-class transportation system.

Transit can play a positive role in energy security and environmental protection, especially in transit systems that operate with sufficiently high load factors, and where a substantial number of transit riders also have the option to travel by private auto. Operating near-empty buses, however, is not efficient and probably has negative energy security and environmental impacts. Consequently the net effect of federal transit cuts from an energy and climate perspective will depend on whether, and to what extent, transit agencies manage budget cuts and implement service reductions in ways that maximize transit ridership, especially among groups with modal choices. Presumably, most agencies will respond by first cutting those services or routes that are least utilized. This could include cutting services that provide vital links to specific communities, but that are not well patronized. Such service reductions might produce fuel savings as well as cost savings and, in that way, provide some environmental and energy security benefits. They

could also reduce accessibility, however, in many cases with disproportionate impacts on low-income communities.

Safety

Transportation safety in the United States is likely to continue to improve, if only because historic gains in this area have primarily been tied to advances in vehicle technology rather than infrastructure improvements. To the extent that reduced funding for highways leads to increased congestion and slower traffic it could potentially reduce fatal crashes – although, perhaps, causing a greater number of crashes overall. While budget constraints may force some deferral of safety-related infrastructure improvements, there is not much evidence to suggest that federal funding cuts will lead to a substantial decline in highway safety.

Funding cuts are more likely to have safety implications for mass transit systems, which are subject to federal safety regulations. If the ability to meet or enforce these regulations is weakened by a reduction in federal transit funding, it is possible that the industry's safety record might suffer, particularly in situations where transit agencies cut back on maintenance and operate vehicles that are less safe (or unsafe) to provide revenue service. Maintaining rail systems in a state of good repair is particularly important given the greater extent and complexity of safety-critical infrastructure in these systems (e.g., signaling and control systems, track, power supply systems, stations, bridges, and tunnels).

Energy & Infrastructure Program
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Conclusions

The analysis presented in this report is inherently speculative. However, we believe that it is a plausible examination of possible outcomes based on the available data. The analysis suggests that cutting federal funds for transportation, without more extensively reforming the existing surface transportation program and without making those cuts in a thoughtful manner that allows for careful consideration of the federal role, would be potentially devastating in terms of progress toward the national goals BPC has articulated. The most dramatic effects would be economic. In metropolitan regions especially, congestion would increase and transit service would decline. Adverse impacts in these regions would reverberate nationally because the same regions that are likely to be most affected account for a substantial percentage of national economic activity and growth.

At the same time, some of the states likely to be hit hardest by federal budget cuts will be small population states that depend on the federal government for a substantial percentage of their highway spending. These may be the states with the most to lose from a diminished federal program. Cuts in transit funding could be particularly far-reaching, potentially affecting operations for agencies of all sizes. Notably, suburban bus companies in the larger metropolitan regions would see substantial reductions in capital funding. This would likely lead to more breakdowns, poorer service quality, reduced frequencies and, ultimately,

more people driving on the same highways that are already strained to capacity.

Environmental, energy and safety goals would not be as likely to suffer under a reduced federal program, at least in the short term. This is not to say that progress in these areas is immune from federal budget cuts, but the calculation has to take into account some perverse effects, such as the environmental benefits of crowded transit vehicles and the safety benefits of slower traffic speeds. It is important to recognize, however, that the fact that these perverse effects exist in the first place is in large part because the federal program under SAFETEA-LU was not performance based, and even MAP-21 scarcely targets environmental or energy performance goals. .

The most striking aspect of our analysis is that while some states might be able to increase revenues in order to compensate for as much as half of lost federal highway funding, it is much less likely that states will be able to replace a large portion of lost federal transit funding. Raising additional highway funds at the state level is not trivial, but it is more likely because a number of user-fee mechanisms, such as gas taxes and tolls, are typically already in place. If the political will exists, these mechanisms can be used to generate additional funds. By contrast, transit fares at any level rarely cover the cost of operations, and the transit industry is unlikely to be able to use fare increases to substitute for a shortfall in federal funds. The alternative – raising transit revenues through broad-based taxes or higher fees on auto drivers – can be politically very challenging, to say the least.

Reduced national funding for transit has substantial consequences in terms of achieving our national transportation goals. It also has serious consequences for the places where the vast majority of Americans live (over 80 percent live in metropolitan regions), and for some of the most disadvantaged populations in America, many of which are concentrated in these large metropolitan areas.

The economic and social benefits of investing in America's transportation infrastructure, particularly at a time of slow economic growth and persistent long-term unemployment, are clear.

The consequences of under-investing in the nation's transportation assets would seem to be severe. The economic and social benefits of investing in America's transportation infrastructure, particularly at a time of slow economic growth and persistent long-term unemployment, are clear. However, political and fiscal realities make dramatic increases in these investments increasingly unlikely.

This paper demonstrates that, under such circumstances, we cannot afford to make the additional mistake of cutting spending AND failing to reform how we invest the resources that are available. Spending cuts in the absence of programmatic reform and wiser investment decisions would put the nation's economic future at risk. Alternatively, with appropriate policy changes to ensure targeted investment in national priorities, we can at least partially overcome the consequences of under-investing, while also setting the nation's transportation policy on a better course for the future.



Endnotes

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1. Historical Monthly VMT Report. Retrieved May 2012 from Federal Highway Administration website <http://www.fhwa.dot.gov/policyinformation/travel/tvt/history>
 2. While the national debt exceeds \$15 trillion, this number includes money that the government essentially owes to itself. The “publicly-held” number of \$10 trillion is a more accurate reflection of the problem.
 3. *Performance Driven: A New Vision for U.S. Transportation Policy*. Bipartisan Policy Center. National Transportation Policy Project. 2009.
 4. *Performance Driven: Achieving Wiser Investment in Transportation*. Bipartisan Policy Center. National Transportation Policy Project. 2011.
 5. GARVEE bonds are Grant Anticipation Revenue Vehicles, wherein states issue bonds that they plan to repay with future federal funds. In a given year, states using GARVEES may need to spend a portion of their federal apportionment paying back these bonds instead of building capital projects. If, as a result, they actually wind up receiving more in federal apportionment than the cost of their entire capital program that year, as Rhode Island did in 2009, then the federal funds can appear to account for more than 100% of the state's capital program.
 6. *2011 Public Transportation Fact Book*. American Public Transportation Association. 62nd edition. 2011. Retrieved from http://www.apta.com/resources/statistics/Documents/FactBook/APTA_2011_Fact_Book.pdf
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 8. *An Analysis of Proposed U.S. House of Representatives Actions and Their Impact on Public Transportation*. American Public Transportation Association. Sept. 20, 2011. Retrieved from <http://www.apta.com/resources/reportsandpublications/Documents/APTA-Impact-House-Cuts-2011.pdf>
 9. *MTA 2012 Final Proposed Budget; November Financial Plan 2012-2015*. Metropolitan Transportation Authority. Vol. 1. Nov. 2011. Retrieved from <http://mta.info/mta/budget/nov2011/NovemberFinancialPlan2012-2015Vol1.pdf>
 10. APTA has estimated that a 30 percent reduction in transit funding would result in nearly 620,000 lost jobs in the public and private sectors over six years. Even if this figure overstates actual job losses by a factor of two, it implies that the broader economic impact of a cut of this magnitude would be quite substantial.

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