



How Donald Trump's Infrastructure Plan Fails America

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"Wisdom, itself, is often an abstraction associated not with fact or reality but with the man who asserts it and the manner of its assertion."

— John Kenneth Galbraith¹

Throughout the 2016 presidential campaign, Donald Trump boasted frequently and with great vigor that he would rebuild America's crumbling infrastructure as part of his pledge to make America great again. This claim turns out to be as bankrupt as many of his businesses. In the place of actual federal spending on critical projects, President-elect Trump has pushed the idea of authorizing a pool of tax credits that would flow to equity investors in large public-private partnership, or P3, deals. These project debts would be repaid by tolls and other fees levied on the people and businesses that use the new facilities.²

The plan suffers from five fatal flaws:

1. The plan would push state and local governments to use equity capital that can cost 300 percent to 500 percent more than capital raised through traditional municipal bonds.
2. The plan would provide no support for thousands of critical maintenance and reconstruction projects.
3. The plan would raise taxes on middle-class Americans in the form of high-cost tolls and other user fees necessary to satisfy the 10 percent to 14 percent annual returns demanded by equity investors.³
4. The plan would leave behind rural communities and smaller cities and towns that are not large enough to generate sufficient toll or other user fee revenues to satisfy equity investors.
5. The plan would not meaningfully increase total economic activity, employment, or real wages.

Taken together, these defects make the Trump infrastructure plan a nonstarter. In the end, no rhetorical bluster or sleight of hand can obscure the fact that the Trump plan shovels money at wealthy investors instead of solving real infrastructure challenges.

Rather than enact this tax cut for Wall Street paid for by working families, Congress should pass a bill that provides states and local communities with funding to advance projects that provide a substantial economic, social, and environmental return on investment.

The high cost of equity capital

When purchasing an asset such as a new highway, a state department of transportation has a basic decision to make regarding which type of procurement to use. Historically, most facilities have been acquired through a procurement process known as design-bid-build.

Under this approach, the project is broken up into two independent phases. First, the state contracts with a private firm for all design and engineering work. With these specifications in hand, the state then develops a request for proposal for construction. Following construction, the state assumes responsibility for all aspects of the operation and maintenance of the highway. This includes everything from snow removal to repair and reconstruction over time. The design-bid-build approach allows the state to retain control over each aspect of the project.

In comparison, a public-private partnership model bundles the entire procurement process into one comprehensive contract that allows the private firm to exercise far greater control and decision-making authority over the final design and delivery of the project. One of the key benefits of using a P3 approach is the ability to transfer project development, design, construction, operations and maintenance, and revenue risk to a private entity. In exchange for accepting delivery or revenue risk, the private entity—also referred to as the concessionaire—requires a higher level of compensation. This additional compensation can come through an availability payment or revenue generated by user fees such as tolls.

Part of the reason that Wall Street is so eager to invest in public-private partnerships is that these deals offer a chance to earn high returns with relatively low risk. The global financial services firm UBS succinctly summarizes the benefits to elite investors:

The high barriers to entry and the monopoly-like characteristics of typical infrastructure assets mean their financial performance should not be as sensitive to the economic cycle as many other asset classes.⁴

Importantly, a P3 procurement model does not necessarily involve any equity financing. However, the Trump plan envisions P3 deals that rely on equity because their tax credit schemes have no value in projects without equity capital. In order to understand the role of equity financing, it helps to look at a hypothetical highway project.

Let's assume that a state department of transportation wants to build a new highway with a total cost of \$1 billion. Using a design-bid-build procurement approach along with \$450 million in state and federal funds and \$550 million in municipal bond debt issued at 3 percent over 30 years, the project would have a total nominal cost of \$1.495 billion.⁵ This model assumes that the state department of transportation, or DOT, would repay project debts using state gas taxes or general revenues. Finally, the DOT would retain responsibility for all operations and maintenance, and there would be no revenue risk since the facility does not include tolls.

Under a P3 procurement model, the financing and servicing of project debts would look quite different. In place of municipal bonds, the concessionaire would issue \$400 million in tax-exempt private activity bonds, or PABs, and combine this with \$150 million in private equity.⁶ The repayment of these project debts would come from tolls charged to highway users. As a result, the concessionaire would assume the risk that toll revenues could fall short. In exchange for taking on revenue risk, the concessionaire would demand a rate of return at the high end of the range at 14 percent.

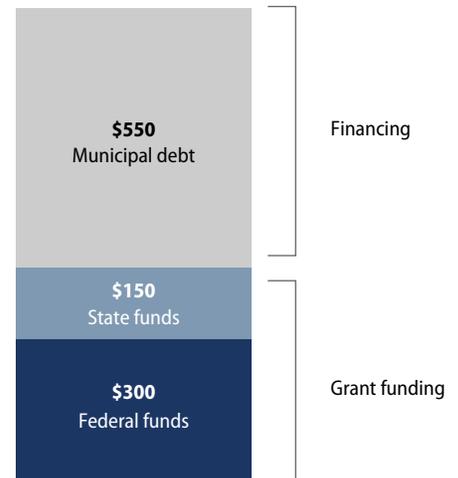
By using equity capital and a concession model based on tolling and revenue risk transference, the total cost of the project increases 32 percent to \$1.975 billion.⁷ In other words, the cost of providing annual equity returns of 14 percent increases the total cost of the project by \$480 million—money that must come from everyday Americans.

The Trump plan envisions providing investors with a tax credit valued at 82 percent of the total equity investment amount. In the above example, the investors that provide \$150 million in equity would receive a tax credit worth \$123 million.⁸ In theory, the tax credit would lower the cost of equity capital to a level that is roughly equivalent to municipal bond debt. The reason is that the investors only need to earn a return of 14 percent on the \$27 million in equity not covered by the tax credit.

To put that in perspective, the Trump plan calls for spending as much as \$137 billion from the federal treasury in the form of tax credits to wealthy Wall Street investors. This massive subsidy would lower the cost of equity capital to a level roughly equivalent to municipal bonds. However, in contrast to returns from the municipal bond market, equity investors under the Trump plan would earn returns that are as much as 500 percent higher.

FIGURE 1
Traditional financing with municipal bonds

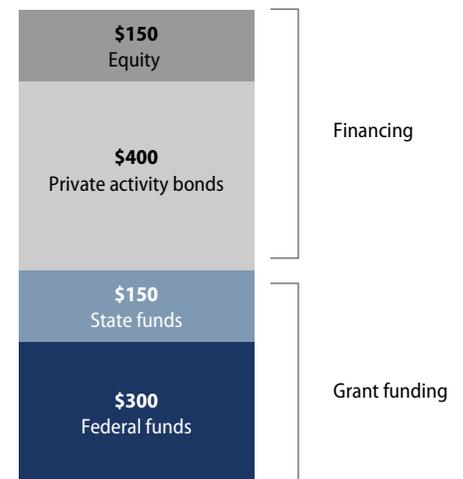
In millions



Note: Amounts are illustrative of a hypothetical \$1 billion highway project using traditional municipal bond financing.

FIGURE 2
Public-private partnership financing with equity

In millions



Note: Amounts are illustrative of a hypothetical \$1 billion highway project using equity financing and private activity bonds.

This raises an important question: Aside from enriching Wall Street, what does this federal subsidy buy? The answer is effectively nothing. The federal government would spend billions of dollars without producing any net increase in overall infrastructure investment because the fundamental constraint facing state and local governments is not access to credit but a lack of tax revenues to repay project debts. All the Trump plan does is subsidize the cost of equity capital, but this is not enough to move a stalled project to completion since project sponsors already have access to low-cost capital through the municipal bond market. Moreover, the municipal bond market is robust at \$3.7 trillion with strong investor demand for new issuances.

The only real beneficiaries of this plan are elite investors. Average Americans, on the other hand, would be faced with new highway and bridge tolls along with other user fee charges. Congress should not let the complexity of a tax credit financing mechanism obscure the fact that this plan massively shifts wealth upward to the top 1 percent.

Maintenance projects left out

Discussions about infrastructure policy often focus on megaprojects that spark the imagination due to their size and power to shape the future of an entire region. However, lost in the rush to discuss what is big and new is a more mundane reality: The vast majority of the critical infrastructure projects needed to move the country forward are a combination of repairs and incremental expansions. The United States has a massive existing capital stock that encompasses everything from levees and water treatment works to highways and airports. These facilities are the productive backbone of the economy and many of them have come to the end of their useful life. At the same time, the U.S. population will add another 100 million people over the next 50 years; this will require state and local governments to make thousands of targeted expansions.⁹

Unfortunately, the Trump infrastructure plan does nothing for these repair and incremental expansion projects. By focusing federal tax subsidies on revenue-generating megaprojects in large urban areas, the plan leaves the rest of America's infrastructure needs behind.

The Harrisburg-Carlisle, Pennsylvania, region demonstrates the extent to which the Trump plan fails to deliver meaningful assistance to the communities that need it the most. Since 1966, the Tri-County Regional Planning Commission, or TCRPC, has developed both short- and long-range transportation plans for the Harrisburg-Carlisle region, which includes Cumberland, Dauphin, and Perry counties. The region has a population of approximately 555,000, and for all intents and purposes, none of the project needs in the region lend themselves to a public-private partnership with an equity financing model.¹⁰ Moreover, the region faces economic challenges that make adding costly tolls to satisfy Wall Street investors a real burden: 11 percent of adults between ages 18 and 64 live below the poverty line.¹¹

A review of the noninterstate highway and bridge projects for the period from fiscal year 2017 to fiscal year 2020 reveals \$235 million in projects that will be funded through a combination of federal, state, and local dollars.¹² The largest project has a total cost of less than \$10 million.¹³ The list is dominated by projects such as Number 18433, which would replace County Bridge Number 11 on Wolfs Bridge Road over Conodoguinet Creek in Middlesex Township at a cost of \$3.3 million. The two largest projects are on the interstate highway system with a cost of \$60 million and \$26.8 million, respectively. Putting aside the federal prohibition against tolling existing capacity of interstate highways, these projects still would not reach the size and complexity needed to fit a P3 procurement approach. According to the U.S. Department of Transportation, the benefits of P3s only occur on projects with a total cost of at least \$500 million.¹⁴ A review of 24 P3 projects financed with assistance from the U.S. Department of Transportation since 1998 shows an average total project cost of \$1.28 billion.¹⁵

Again, the Trump infrastructure plan would do nothing for Harrisburg and thousands of other communities with real needs. This includes everything from small towns and rural communities to many low-income communities and communities of color in large urban areas that would simply not be attractive to elite Wall Street investors. In reality, an infrastructure plan built on tax credits for Wall Street is not a plan for America; indeed, it would do nothing for the vast majority of Americans.

No real boost to economic activity

Well-designed infrastructure bills are often referred to as jobs bills. This is for a simple reason: Direct federal expenditures on the repair and expansion of infrastructure facilities increase direct employment in industries such as heavy construction and related professional services, as well as indirect employment when those workers spend their earnings—for example, on meals out and new cars. When state and local governments know they will receive a steady stream of federal grant dollars, they make long-range plans that provide a strong signal to private employers that they should engage in more hiring and job training.¹⁶

This process is often referred to as the economic multiplier, whereby \$1 from the federal government for infrastructure could reasonably lead to \$1.40 in additional economic output.¹⁷ The overall cycle is a virtuous one that delivers public goods that serve as the foundation for future economic growth while individuals workers and families earn higher wages and build wealth for the future.

The key to spurring a substantial increase in employment and economic output is the expenditure of federal funds in a way that leads to construction and other activity that would otherwise not occur. In contrast, the most likely outcome of Trump's infrastructure plan is little to no net increase in overall construction activity. Assuming the plan

passed in its current form, state and local leaders—who are responsible for planning and building infrastructure projects—would receive zero additional funding from Washington, while Wall Street would receive considerable tax breaks. The only real effect from the tax credits is to lower the cost of equity capital as a source of project financing while providing huge profits to investors. Yet government project sponsors already have access to low-cost financing through the municipal bond market. Thus, there is no reason to believe that the Trump plan would flip a project stuck in the limbo of slow-motion planning into a completed facility.

In fact, one could plausibly argue that the Trump plan could actually cause the economy to shrink slightly, assuming that P3s with equity capital replace conventionally funded projects. The issue comes down to investors' responses to additional earnings and middle-class families' responses to additional costs in the form of tolls and other user fees. Wealthy investors, in particular, have a low marginal propensity to consume. This means that when investors earn another dollar through a transaction such as a P3 deal, they are much less likely to spend that dollar elsewhere in the economy. In comparison, when a middle-class family is forced to pay higher user fees and tolls, this takes money out of their pockets that would very likely have been spent on other goods and services. As a result, the economy may shrink because the plan's tax credit scheme does not produce any additional construction or related activity while at the same time subtracting from consumer expenditures on the other side of the economic ledger.

Climate, equity, and distribution

Unlike traditional federal grant programs that provide funds in order to advance clearly defined policy objectives, the only imperative associated with tax credits is boosting private returns on equity capital. Stated differently, the Trump infrastructure plan calls for the federal government to spend as much as \$137 billion without any identifiable goal.

This is especially troubling given four key infrastructure challenges facing the nation. First, rising income inequality and the destructive legacy of urban renewal and the early years of the interstate highway construction era mean that certain communities have greater infrastructure needs than others.¹⁸ Second, large metropolitan regions face rapidly growing roadway congestion and a lack of safe and affordable transportation options capable of serving the needs of all residents regardless of age, income, or physical ability.¹⁹ Third, many critical infrastructure facilities need major repairs or reconstruction.²⁰ And fourth, the U.S. economy and transportation sector must transition to a sustainable path fueled by clean, renewable energy.²¹ The Trump plan would address none of these challenges.

In the absence of any coherent rationale for distributing federal assistance, the Trump plan would haphazardly spray tax credits around the country. In effect, the controlling criterion for selection would be profitability not public benefit. With an eye to pecuniary gain as opposed to addressing real needs, federal assistance would likely flow to the wealthiest

communities. This is the definition of ill-conceived infrastructure policy. Instead, federal funds should be targeted to the communities most in need and to projects that truly advance an equitable, sustainable, and efficient economy.

Toward a better plan

Americans overwhelmingly want the federal government to increase investment in infrastructure. In fact, survey research by the Center for American Progress shows that 88 percent of voters who supported Trump and 87 percent of voters who supported Hillary Clinton want to see at least \$1 trillion spent on infrastructure over baseline levels in the next five years.²² The desire for more investment is supported by research by the American Society of Civil Engineers, which estimates that the United States needs to invest more than \$3 trillion across infrastructure sectors in the coming years.²³

In July, the Center for American Progress published “An Infrastructure Plan for America,” which detailed a vision for spending \$500 billion above baseline levels over 10 years.²⁴ The CAP plan would create 3.6 million new jobs by 2026 and push the unemployment rate down 1 percent.²⁵

TABLE 1
CAP infrastructure plan expenditures over baseline, by sector

Infrastructure sector	Outlays over baseline, in billions
Highways and public transportation	\$259.17
Aviation	\$25.60
Inland waterways	\$0.63
Ports	\$11.10
Flood control	\$3.50
Drinking water and clean water	\$25.00
Passenger and freight rail	\$50.00
National investment authority	\$125.00
Total	\$500.00

Source: Kevin DeGood, Christian E. Weller, and Andrew Schwartz, “An Infrastructure Plan for America” (Washington: Center for American Progress, 2016), available at <https://www.americanprogress.org/issues/economy/reports/2016/07/14/141157/an-infrastructure-plan-for-america/>.

In the place of tax cut for elite Wall Street investors, the CAP plan calls for investments across infrastructure sectors that would deliver real economic, social, and environmental benefits. Moreover, the plan places an emphasis on using competitive, merit-based selection processes to distribute federal funds to infrastructure projects that improve economic efficiency, promote economic mobility, and facilitate access to opportunities, people, and ideas.

Another key to the CAP plan is a focus on accountability. In exchange for assistance from Washington, state and local communities must demonstrate how their projects support core policy goals such as reducing economic inequality and hazards to public health such as lead in drinking water and unsafe discharges into source waters, among others. When it comes to transportation, local officials would be required to prioritize projects that provide people with safe and affordable transportation options, including public transportation, biking, and walking.

Beyond traditional infrastructure assets such as highways and airports, any comprehensive infrastructure plan must make investments that help the country transition to a clean energy economy. This should include increasing federal funding for renewable energy production, distribution, and storage. Furthermore, the federal government has a critical role to play in advancing basic and applied research, including updated flood plain mapping to ensure that infrastructure planning is not rendered useless by a changing climate. These investments are essential to guaranteeing that the United States meets its long-term climate commitments, including the recent Paris Agreement. Beyond the direct benefits produced by federal clean energy and research funding, these investments would continue to send a clear and powerful signal to both markets and governments around the world that the threat of climate change demands bold action.

However, America's infrastructure needs are not just limited to physical assets. Even after more than 70 months of continuous economic growth, millions of Americans are still struggling to find employment or advance to a high-quality job that allows for greater stability and the chance to save for the future.²⁶ In order to unlock the full economic productivity of the United States, an infrastructure bill should include funding for programs that build skills and remove barriers to employment. This should include money to reduce the high cost of child care, paid sick leave, and paid family leave.

Additionally, a federal bill should focus special attention on disadvantaged workers—including the long-term unemployed, young people ages 16 to 24 who are not currently working or in school, people with criminal records, and individuals with disabilities—by providing pathways to good jobs.²⁷ This could include additional job training support and apprenticeships, expanded national service jobs through AmeriCorps, and subsidized employment.

Finally, any federal infrastructure bill must include high labor standards. This means requiring any company that receives support from the federal government in the form of contracts, loans, or grants to pay workers fair hourly wages, to respect worker voice, and to provide essential benefits such as paid sick leave, among others. The U.S. Department of Labor should be empowered to engage in robust oversight of these companies to safeguard workers and ensure that they are playing by the rules.

Conclusion

A central theme of the 2016 election was economic anxiety and the fear that the political and economic system favors elites at the expense of average Americans. Rather than addressing these concerns with federal funding for projects that would help revitalize communities facing economic hardship, the Trump plan doubles down on crony capitalism with a cynical push for tax credits to Wall Street investors.

The time has come for Congress to pass a comprehensive infrastructure bill that would build an economy that works for everyone and not just the wealthy few. A robust package of federal workforce, clean energy, and infrastructure investments would raise real wages, create millions of new jobs, and lay the foundation for America's continued prosperity and leadership in the world.

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Endnotes

- 1 John Kenneth Galbraith, *The Great Crash 1929* (New York: Houghton Mifflin Harcourt, 1954).
- 2 Wilbur Ross and Peter Navarro, "Trump Versus Clinton on Infrastructure," available at <http://www.peternavarro.com/sitebuildercontent/sitebuilderfiles/infrastructurereport.pdf> (last accessed November 2016).
- 3 Federal Highway Administration, *Financial Structuring and Assessment for Public-Private Partnerships: A Primer* (U.S. Department of Transportation, 2013), available at http://www.fhwa.dot.gov/ipd/pdfs/p3/p3_financial_assessment_primer_122612.pdf.
- 4 UBS, "All You Need to Know: Infrastructure Update 2015" (2015), available at https://www.static-ubs.com/global/en/asset-management/investment-solutions/infrastructure-and-private-equity/_jcr_content/par/linklist/link.1537540991.file/bGluay9wYXR0PS9jb250Z-W50L2Rh5S91YnMvZ2xvYmFsL2Fzc2V0X21hbm-FnZWV1bnQvcGRmL2ludmVzdG1lbnQtchJvZHVjdHMtc-29sdXRpb25zL2luZnJhc3RydWN0dXJlLWVfbc15b3Utb-mVlZC10by1rbm93LW92Z2J2aWV3LTlwMTUucGRm/infrastructure-all-you-need-to-know-overview-2015.pdf.
- 5 Result based on author's calculation from FMS Bonds Inc. "Municipal Market Yields," available at <https://www.fms-bonds.com/market-yields/> (last accessed November 2016). Calculation based on an average yield of 3 percent as not all municipal debt receive a AAA rating. Municipal bond yields change over time.
- 6 In this case, equity does not indicate that private investors are part owners of the highway. The state retains full ownership of the asset. Instead, equity investors acquire the right to collect toll revenues for the life of the concession contract. In order to simplify the comparison of financing, this example assumes a 30-year concession. In practice, concession contracts often run longer than 30 years.
- 7 Result based on author's calculation from Federal Highway Administration, *Financial Structuring and Assessment for Public-Private Partnerships*. The exact rate of return on any given project is the result of a negotiation between the state and the concessionaire regarding toll rates over time. This calculation assumes a 14 percent annual return as the concessionaire would demand a rate at the high end as compensation for taking on toll revenue risk. Actual equity returns vary depending on travel demand.
- 8 The tax credit scheme has another downside. Namely, it effectively returns the super majority of equity capital back to investors after the transaction closes. Given that one of the purposes of including equity capital in a long-term P3 concession is to ensure that the private entity has a financial incentive to fulfill its contractual obligations, returning 82 percent of equity right away greatly undermines this potential financial penalty for nonperformance.
- 9 Bureau of the Census, *Table 1. Projections of the Population and Components of Change for the United States: 2015 to 2060* (U.S. Department of Commerce, 2012), available at <http://www.census.gov/population/projections/files/summary/NP2012-T1.xls>.
- 10 Bureau of the Census, "2010-2014 American Community Survey 5-Year Estimates: Table B01003, Total Population."
- 11 Bureau of the Census, "2010-2014 American Community Survey 5-Year Estimates: Table S1701, Poverty Status in the Past 12 Months."
- 12 Tri-County Regional Planning Commission, "FFY 2017 Harrisburg TIP" (2016), available at <https://static1.squarespace.com/static/56dc3f9cb654f9876576bab7/t/58222935b8a79be5877ca504/1478633781551/HATS2017-20HwyBrTIP.pdf>.
- 13 Ibid.
- 14 Federal Highway Administration, *Financial Structuring and Assessment for Public-Private Partnerships*.
- 15 Results based on author's calculation from Federal Highway Administration, "Project Profiles," available at http://www.fhwa.dot.gov/ipd/project_profiles/ (last accessed November 2016).
- 16 When an economy is running at what is considered long-run full employment, a major injection of infrastructure or other federal spending could have the effect of pushing up inflation. The U.S. economy is not at that stage.
- 17 Charles J. Whalen and Felix Reichling, "The Fiscal Multiplier and Economic Policy Analysis in the United States." Working Paper 2015-02 (Congressional Budget Office, 2015), available at <https://www.cbo.gov/publication/49925>.
- 18 Ashley Halsey III, "A crusade to defeat the legacy of highways rammed through poor neighborhoods," *The Washington Post*, March 29, 2016, available at https://www.washingtonpost.com/local/trafficandcommuting/defeating-the-legacy-of-highways-rammed-through-poor-neighborhoods/2016/03/28/ffcfb5ae-f2a1-11e5-a61f-e9c95c06edca_story.html.
- 19 David Schrank and others, "2015 Urban Mobility Scorecard" (College Station, TX: Texas A&M University, 2015), available at <http://d2dtl5nnpfr0.cloudfront.net/tti.tamu.edu/documents/mobility-scorecard-2015.pdf>.
- 20 American Society of Civil Engineers, "2013 Report Card for America's Infrastructure," available at <http://www.infrastructurereportcard.org/> (last accessed November 2016).
- 21 U.S. Environmental Protection Agency, "Sources of Greenhouse Gas Emissions," available at <https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions> (last accessed November 2016).
- 22 John Halpin and Karl Agne, "American Voters Did Not Endorse Trump's Extremist Policy Agenda in 2016 Election" (Washington: Center for American Progress, 2016), available at <https://cdn.americanprogress.org/content/uploads/2016/11/21072333/CAP-2016PostelectionPolling-Memo-Final.pdf>.
- 23 American Society of Civil Engineers, "2013 Report Card for America's Infrastructure."
- 24 Kevin DeGood, Christian E. Weller, and Andrew Schwartz, "An Infrastructure Plan for America" (Washington: Center for American Progress, 2016), available at <https://www.americanprogress.org/issues/economy/reports/2016/07/14/141157/an-infrastructure-plan-for-america/>.
- 25 Ibid.
- 26 The National Bureau of Economic Research, "US Business Cycle Expansions and Contractions," September 20, 2010, available at <http://www.nber.org/cycles.html>.
- 27 Tracey Ross, Shirley Sagawa, and Melissa Boteach, "Utilizing National Service as a 21st Century Workforce Strategy for Opportunity Youth" (Washington: Center for American Progress, 2016), available at <https://cdn.americanprogress.org/wp-content/uploads/2016/02/29105313/NatlServiceReport.pdf>.