CITIZENS *for* REGIONAL TRANSIT
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July 27, 2021

Transportation Infrastructure Funding Policy Recommendations

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Summary

Federal transportation funding policies established in the 1950's are still in effect today. Extremely lopsided proportions of the transportation budget were devoted to road construction to create the Interstate Highway System, which was completed long ago. Now it's time to reformulate spending policy to address the urgent need to reduce greenhouse gas emissions, provide equitable access to employment, education, and other essential destinations, and do so while facilitating sustainable transit-oriented development and ending wasteful spending practices.

For 67 years, federal spending policy required that for every dollar spent on transit projects, at least four dollars had to be spent on Interstates and highway projects. Under current policy, if the US were to triple its spending on transit, spending on Interstates and highways would automatically go up by a factor of 12 times current levels. Such an enormous increase in highway spending would be ridiculous.

Introduction and Background

There are two funding considerations important for surface transportation policy:

Highway spending vs transportation spending

Today, 80% of the federal transportation budget is allocated to roads and highways. The remaining 20% goes to other transportation projects, mostly public transit. Public transit agencies compete for the slim 20% of the entire transportation budget.

Project funding rates

The federal government via the US Department of Transportation (US DOT) and the Federal Transit Administration (FTA) covers 80% or more of highway project costs. The remaining 20% is paid by state and local sources. Public transit costs are covered only up to 50% by the federal government. Fully half the funding for transit projects comes from state and local sources.

In 1952 President Dwight Eisenhower signed The Federal-Aid Highway Act.[1] The act established a 50/50 Federal/Local & State funding ratio. Two years later, Eisenhower signed a revised Federal-Aid Highway Act which provided a huge influx of money setting the USA on its way to build the Interstate Highway System. The 1954 law changed the funding ratio for highways to 90/10 with the Federal Government funding 90% of Interstates and highway costs with 10% state and local contributions.

[1] Celebrating 50 Years: The Eisenhower Interstate Highway System | US Department of Transportation

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Local Control Established

The 1954 bill created what we now call Metropolitan Planning Organizations (MPOs) which give local areas having 1 million or more residents decision-making control over transportation spending. MPO membership consists of representatives of state, county, parish, city, town, and transit organizations. MPOs vote to approve transportation improvement projects and other transportation related expenditures. These policies have remained largely untouched since 1954.

Success in Achieving Initial Goals

These funding ratios worked as expected and resulted in a robust Interstate Highway System within a short period of time. But President Eisenhower was dismayed that the means devised to fund his interstate highway vision were also used to create urban expressways.[2] These funding abuses led to the construction of many urban highways that negatively impacted inner cities and the people who lived there, leading to today's resounding calls for their removal.[3]

These funding ratios, while appropriate for the 1950's, have long outlived their usefulness and need to be changed. The ratios also hamstring MPOs, often forcing them to make non-optimal decisions that cost federal taxpayers more money in certain scenarios, an example of which is provided below.

In addition to transportation funding ratios, certain IRS rules described later also work against the public interest regarding transportation.

How do Today's National Goals Differ from the 1950's?

In the 1950's the goal was to move cars as quickly and efficiently as possible. The Interstate Highway System was built to rival the German Autobahn as a civilian highway system with potential military use, connecting military bases throughout the USA.

Today, climate change due to global warming requires rethinking the mid-Twentieth Century approach to transportation. The U.S. Environmental Protection Agency attributes 29% of greenhouse gas emissions to transportation, mostly from automobiles.

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[2] Federal Highway Policy Under President Eisenhower, 1957-1961 – The Eno Center for Transportation (enotrans.org)

[3] Is It Time To Take Highways Out Of Cities? (forbes.com)

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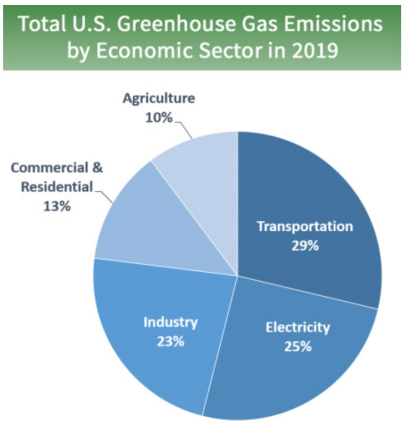

Footnote [4]

A Dubious Solution: Electrifying the US Fleet

A common approach to solving automobile greenhouse gas emissions problems is to replace fossil-fuel burning vehicles, automobiles and buses in particular, with battery-powered electric vehicles. In order for such an approach to have an appreciable effect on reduction of total greenhouse gas emissions, de-fossilization of U.S. electricity production would have to occur. There is little indication that such de-fossilization is imminent. Indeed, since 2019, fossil-fuel burning electric plants that were mothballed have returned to production.

In 2020 the largest share of the nation's electricity grid supply, 65%, came from burning fossil fuels: natural gas and coal. Nuclear energy was the next largest source, accounting for about 20% of electricity generation. A mere 18.5% of electricity generated for the grid in the USA was the result of non-greenhouse gas emitting sources, of which only 1% is solar.[5]

Bill Gates' recent book, How to Avoid a Climate Disaster: The Solutions We Have and the Breakthroughs We Need points out that cars are 50% plastic and that every pound of concrete needed for roads generates 1 pound of carbon dioxide.[6]

Replacing the country's automobile combustion engines with electric motors merely changes the location of fossil-fuel greenhouse gas emissions from vehicle tailpipes to the smokestacks of electric power generating facilities. It's a NIMBY feel-good quick solution that will not result in lower total greenhouse gas emissions.

[4] https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions

[5] https://www.eia.gov/energyexplained/electricity/electricity-in-the-us.php

[6] How to Avoid a Climate Disaster: The Solutions We Have and the Breakthroughs We Need, Bill Gates, 2021, pp

Demand for electricity has increased so much since 2019 that fossil-fuel electricity generating facilities previously shut down have re-opened, primarily due to bitcoin mining.[7,8,9] Switching to electric cars will just make the problem worse.

The Solution: More Reliance on Public Transit

Increasing reliance on public transit, on the other hand, can quickly reduce actual greenhouse gas emissions. Because buses divide greenhouse gas emissions among their riders, every kind of bus, including diesel, reduces gas emissions per rider mile. This carbon savings is multiplied with high-capacity transit such as light rail and heavy rail commuter trains. The greenest public transit systems consist of electric trains augmented by electric buses, where the electric power is generated from sustainable sources. But the overriding goal must be reducing usage of cars.

Often omitted from the carbon savings equation is the fact that opting to ride public transit instead of driving reduces emissions even more than a mere comparison of emissions from various modes reveals. When travelers choose transit instead of driving, pollution that would have been generated by their individual vehicles is avoided while the pollution added when a person boards a bus or train already in service is negligible. For every mile an automobile is driven, one pound of CO2 is released into the atmosphere, contributing to global warming. Quite simply, we must provide mass transit options if we expect people to drive less and head off climate catastrophe.

The 80/20 Split for Highway Spending vs Other Spending

According to the Transit Center research foundation, "In 13 of the 28 cities, more than 90 percent of people live within walking distance of transit…but usually that transit isn't very useful."[10] The American Public Transportation Association (APTA) reports that 55% of all Americans have access to public transportation.[11] Yet, only 20% of the federal surface transportation budget can be used for public transportation improvements.

The current 80/20 ratio of highway vs transit spending needs to be changed immediately to reflect America's needs for public transportation infrastructure investment. In order for the USA to achieve climate change mitigation, the obvious solution is to give people public

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[7] https://grist.org/technology/bitcoin-greenidge-seneca-lake-cryptocurrency/

[8] https://www.wsj.com/articles/bitcoin-miners-are-giving-new-life-to-old-fossil-fuel-power-plants-11621594803

[9] Cryptocurrency Firm Seeks Power Plant Deal, Buffalo News, Section B, Page 1, 7/20/2021

[10] https://transitcenter.org/who-lives-near-frequent-transit/

[11] Public Transportation Facts - American Public Transportation Association

transit that rivals the convenience of driving cars. Continuing to spend four times as much on Interstates and highways will never achieve this important aim.

80/20 vs 50/50 Transit Funding Ratios are Inequitable

To fund transportation projects equitably, a second set of funding ratios ought to be examined. As it stands, the federal government funds highway projects at 80% while the remaining 20% is paid by state and local governments.

Instead of using the same funding ratio for transit projects, federally funded transit projects receive no more than 50% federal funding, with the 50% balance paid for by state and local governments. Transportation for America notes in a report that, "Under SAFETEA-LU, FTA has awarded New Starts funding to 22 projects with an average award of $589 million, representing less than 50 percent of the total project costs."[12]

MPOs Choose Lowest Local Cost Instead of Lowest Total Cost

Because control of transportation spending lies with local and state officials who have fiscal responsibility to their constituencies, transportation improvement projects tend to be chosen based on the lowest cost to state and local governments rather than on the lowest total cost, which would be best for the federal taxpayer. The result is that federal taxpayers often outlay a great deal more than they would have if funding ratios were the same for Interstate, highway, and transit projects.

This can be illustrated with a hypothetical transportation improvement project. Let's examine a transportation proposal offering a choice between funding a highway project or funding a light rail rapid transit (LRRT) project.

The LRRT Option

Our hypothetical transportation corridor has an existing publicly owned abandoned railroad right-of-way that could be re-purposed for LRRT. Because this right-of-way exists, LRRT right-of-way acquisition costs are zero, which makes the total cost of the LRRT option less expensive than the total cost of the highway alternative. **The LRRT option could be constructed for $100 million/mile.**

The Highway Option

Highway construction for the example corridor requires significant right-of-way acquisition costs because the highway has a much wider footprint than LRRT. **The highway option could be constructed at $175 million/mile**.

[12] http://t4america.org/wp-content/uploads/2012/08/T4-Financing-Transit-Guidebook.pdf

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The following table summarizes the options:

Mode	Cost per mile $million	Corridor Length	Total Cost $ Billion	% Federal Share	$ Federal Share	$ Local Share
Light Rail Rapid Transt	$100	10 mi	$1 Billion	50%	$500 Million (1/2 $Billion)	$500 Million
Highway	$175	10 mi	$1.75 Billion	80%	$1.4 Billion	$348 Million

Unintended Cost Consequences

In the table above, note the ***total cost*** of the highway project option **is ¾ billion dollars more** than the total cost of the LRRT project option. The ***local cost*** of the highway project **is $152 million less** than the total cost of the LRRT project.

The MPO wants to choose the LRRT option. Unfortunately for federal taxpayers, project funding ratios are not equal. Because the *local* share for the highway project option is $152 million less than for the LRRT project option, the MPO chooses the highway option.

It is logical to assume that because the federal share of transit projects is much less than for roads and highways this would result in savings to the federal government. However, the ratio disparity causes the opposite effect in practice.

If the funding ratio for transit were the same as highways, the MPO would make the logical, sensible choice and choose the lower cost LRRT option. **The unintended consequence of the ratio inequity is federal taxpayers are forced to pay ¾ billion dollars more than would have been spent if transit were funded at the same level as highways.**

The example transportation project demonstrates how ratio inequity can cause the federal government to unnecessarily spend ¾ billion dollars to save the state and local region $152 million. This is a bad deal for the federal taxpayer.

The general case is that transportation projects are always at least 30% more expensive for states and localities, making transit projects the option of last resort, while forcing spending on Interstates and highways. This is wasteful and fiscally irresponsible.

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Policy Recommendations

End the requirement to spend 4 times as much on Interstates and Highways as on Transit

Because today's need to reduce greenhouse gas emissions can be addressed effectively and quickly by transitioning as many commuters as possible to public transit, the federal funding ratio should be adjusted. Instead of automatically spending 4 times as much on Interstates and highways as on transit, we endorse Transportation for America's recommendation "...that spending be adjusted to invest in transit like we did with highways in the 1950s and 60s to give more people more options for getting around."[13]

For transportation improvement projects FTA should require MPOs to analyze whether moving people with public transit is more cost effective than moving cars with Interstates and highways. Current spending policy is an unconscionable waste. Its continuation will arrest transitioning from car commuting to public transportation.

Funding for intercity Amtrak needs should fall under a separate category from urban intracity public transit. While expanding Amtrak service is urgently needed to reduce greenhouse gas emissions attributed to medium-distance air travel and long-distance car travel, Amtrak's allocation should not be at the expense of urban public transportation allocations.

If Amtrak's expanding allocation is subtracted from local public transportation allocations, as intercity passenger rail service expands, public transit systems would receive even less money than they currently do, plunging them into death spirals.

Fix the Project Funding Inequity

Funding for the federal share of public transit projects should be at the same level as for Interstate and highway projects, with 80% covered by the federal government and 20% covered by states and localities. Additionally, it should not be more difficult for transit projects to meet requirements such as planning and environmental impact statements than it is for highways. Making the ratios equal for highways and transit has the potential to save federal taxpayers billions of dollars.

MPOs should be required to choose projects based on lowest total cost, not lowest local cost. Public transit project funding and highway project funding should be evaluated on an unbiased, equal basis.

The FTA should be directed to evaluate project service levels in terms of moving people, not automobiles.

[13] Bipartisan infrastructure deal could do more harm than good

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Fix the IRS Tax Code to Stop Favoring Cars Over Transit

The IRS treats employer reimbursement of public transit commuting expenses as wages.[14] IRS's position is that commuting is not a business expense. Rather, commuting is a joy and delight for employees who gladly commute to and from their employer's place of business for pleasure, not for any business purpose.

Commuting to work on public transit should be considered a business expense. Enactment of this policy change would replace the current option of employees paying for transit using pre-tax dollars. Phasing out of employees purchasing transit with pre-tax dollars would reduce paperwork for employers by eliminating payroll record-keeping requirements of the current pre-tax payment program. Allowing employers to provide public transit for commuting would encourage employees to use sustainable alternatives for their commutes.

Because some states and localities require employers to offer the current purchase plan using pre-tax dollars, replacing the pre-tax transit purchase program with a straightforward business expense deduction should be delayed one year to allow states and localities time to change their laws to match the new policy should they decide to do so.

The pre-tax parking program should be abolished. The IRS should not be subsidizing parking.[15]

[14]Publication 15-B (2021), Employer's Tax Guide to Fringe Benefits
For use in 2021
[15]Publication 15-B (2021), Employer's Tax Guide to Fringe Benefits
For use in 2021