



Advancing a Multimodal Transportation System by Eliminating Funding Restrictions

By Kevin DeGood and Andrew Schwartz January 2015

Introduction and summary

Most of our assumptions have outlived their usefulness.—Marshall McLuhan¹

One of the most pervasive, durable, and detrimental myths in transportation policy is that highways pay for themselves, while public transportation does not. In reality, both modes require significant public subsidies, as user fees—such as fuel taxes and farebox revenues—cover only a portion of total costs. States and the federal government supplement these user fees with property taxes, bonding, and general revenues. On average, these nonuser fee revenues represent 26 percent of total annual highway expenditures.²

Moreover, treating all highways equally obscures the fact that per-mile construction and maintenance costs, driving levels, and motor fuel tax revenues vary substantially depending on the location, size, and population around a particular road. While the overwhelming majority of driving occurs within metropolitan areas, many large urban highways and arterial roads cost substantially more money to maintain than they generate in fuel taxes. This is also true of many rural and exurban arterial roads. This means that states must cross subsidize thousands of miles of roads that generate insufficient gas tax revenues each year.

Research by the Center for American Progress shows that nearly 4 in 10 miles of interstate highway and other principal arterial roadways fail to generate enough in user fees to cover their long-term maintenance costs. For the purposes of this analysis, maintenance costs include one reconstruction and multiple resurfacings over the course of three decades while excluding the costs of land acquisition, engineering, construction, and inflation.

When the analysis is conducted assuming 1 percent annual inflation, the share of interstate and other principal arterial roadways that fail to cover their costs rises by more than 22,000 miles, or 9 percent. In all likelihood, actual construction inflation will be much higher than 1 percent per year over the next 30 years. Furthermore, if land acquisition and construction expenses were amortized over the same period, an even higher share of roadways would fail to cover their costs.

This research also strongly suggests that an even higher share of minor arterial roadways, collectors, and other local roads fail to cover their long-term costs. A disproportionately large percentage of driving occurs on interstates and principal arterials—which make up the National Highway System, or NHS—relative to the rest of the roadway network. Data from the U.S. Department of Transportation’s Federal Highway Administration shows that the NHS accounts for only 5.5 percent of all roadway miles yet carries 55 percent of all vehicle miles traveled, or VMT, each year.³ As a result, the remaining 94 percent of the system generates much less user fee revenue on a per-mile basis, since it carries less than half of all driving.

TABLE 1
Fiscal performance of interstates and principal arterials

Geography	Loss	Share	Breakeven	Share	Surplus	Share
Urban areas, more than 1 million residents	5,340	44%	2,054	17%	4,643	39%
Urban areas, between 200,000 and 1 million residents	6,125	23%	3,973	15%	17,027	63%
Urban areas, between 50,000 and 200,000 residents	43,286	47%	11,178	12%	37,893	41%
Urban subtotal	54,752	42%	17,205	13%	59,564	45%
Rural subtotal	34,979	35%	10,764	11%	55,338	55%
National total	89,731	39%	27,968	12%	114,903	49%

Source: Based on authors’ calculations from the Federal Highway Administration, “HPMS Public Release of Geospatial Data in Shapefile Format,” available at <http://www.fhwa.dot.gov/policyinformation/hpms/shapefiles.cfm> (last accessed October 2014); Federal Highway Administration, “2013 Status of the Nation’s Highways, Bridges, and Transit: Conditions & Performance,” available at <http://www.fhwa.dot.gov/policy/2013cpr/appendixa.htm> (last accessed October 2014); U.S. Energy Information Administration, *Petroleum Marketing Monthly May 2014* (U.S. Department of Energy, 2014), available at <http://www.eia.gov/petroleum/marketing/monthly/pdf/mgt.pdf>; Federal Highway Administration, *State Motor Fuel Taxes and Related Receipts - 2012* (1) (U.S. Department of Transportation, 2013), available at <http://www.fhwa.dot.gov/policyinformation/statistics/2012/pdf/mf1.pdf>; Federal Highway Administration, *Revenues Used By States for Highways - 2012* 1/ (U.S. Department of Transportation, 2013), available at <http://www.fhwa.dot.gov/policyinformation/statistics/2012/pdf/sf1.pdf>.

TABLE 2
Fiscal performance of interstates and principal arterials including inflation

Geography	Loss	Share	Breakeven	Share	Surplus	Share
Urban areas, more than 1 million residents	7,672	64%	1,750	15%	2,616	22%
Urban areas, between 200,000 and 1 million residents	9,295	34%	5,366	20%	12,463	46%
Urban areas, between 50,000 and 200,000 residents	50,816	55%	11,353	12%	30,190	33%
Urban subtotal	67,783	51%	18,469	14%	45,269	34%
Rural subtotal	44,523	44%	11,722	12%	44,836	44%
National total	112,306	48%	30,191	13%	90,105	39%

Source: Based on authors’ calculations from the Federal Highway Administration, “HPMS Public Release of Geospatial Data in Shapefile Format,” available at <http://www.fhwa.dot.gov/policyinformation/hpms/shapefiles.cfm> (last accessed October 2014); Federal Highway Administration, “2013 Status of the Nation’s Highways, Bridges, and Transit: Conditions & Performance,” available at <http://www.fhwa.dot.gov/policy/2013cpr/appendixa.htm> (last accessed October 2014); U.S. Energy Information Administration, *Petroleum Marketing Monthly May 2014* (U.S. Department of Energy, 2014), available at <http://www.eia.gov/petroleum/marketing/monthly/pdf/mgt.pdf>; Federal Highway Administration, *State Motor Fuel Taxes and Related Receipts - 2012* (1) (U.S. Department of Transportation, 2013), available at <http://www.fhwa.dot.gov/policyinformation/statistics/2012/pdf/mf1.pdf>; Federal Highway Administration, *Revenues Used By States for Highways - 2012* 1/ (U.S. Department of Transportation, 2013), available at <http://www.fhwa.dot.gov/policyinformation/statistics/2012/pdf/sf1.pdf>.

States and the federal government fund a substantial portion of their transportation expenditures by taxing the sale of gasoline and diesel fuel. Highway proponents have successfully enacted prohibitions against using fuel tax revenues to support public transportation and other multimodal projects in 30 states.⁴ At the federal level, there is an unofficial rule that no more than 20 percent of fuel tax revenue can support public transportation, also referred to as transit.⁵ These prohibitions and unofficial limits hamper the ability of states and metropolitan regions to effectively plan for future needs, as many worthwhile transit and multimodal projects languish due to a lack of funds.

Highway boosters have exploited the myth of self-sufficiency to argue that fuel tax revenue should only fund highway and bridge projects. In effect, highway boosters argue that the source of the money should determine what that money builds. This approach misses that, in many urban areas, transit, passenger rail, or other multimodal projects are the most effective means of achieving an efficient, economically productive, equitable, and environmentally sustainable transportation system. While a roadway may produce an important share of transportation tax revenues, additional roadway construction may not be the most appropriate mobility solution. In short, objective measures of transportation system needs should determine transportation priorities regardless of the source of funds.

In addition to the myth of highway user fee self-sufficiency, funding restrictions are predicated on the false notion that public transportation riders do not pay gas taxes and therefore do not pay into the system. The primary issue is the assumption that people who ride transit never drive. In fact, the vast majority of transit riders does indeed drive and, as a result, pays motor fuel taxes. A recent national survey by the American Public Transportation Association found that 82 percent of transit riders live in a household with a car.⁶ Of those transit riders with access to a car, 87 percent used the vehicle more than three times per week.⁷ As this research shows, driving and public transportation are complementary, with residents paying into the system that allows them the flexibility to choose the mode of transportation that meets their needs for any given trip.

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Beyond the issue of funding, transit provides significant benefits for people who exclusively drive, as public transportation lowers roadway congestion.⁸ In the absence of transit service, riders would be forced to drive for all trips, adding vehicles to the network during the peak periods of travel demand—the morning and the evening. Research by Texas A&M University shows that if transit services were stopped in the top 10 largest metropolitan regions, it would increase roadway delay by 677 million hours each year.⁹ Yet prohibitions on the use of gas taxes to fund public transit mean that metropolitan and state transportation authorities are often denied the ability to implement a balanced surface transportation system capable of delivering the most benefits to residents and businesses.

The negative consequences of funding restrictions are especially harmful in metropolitan areas with growing roadway congestion. Research shows that total hours of roadway delay in urban areas increased by 400 percent from 1982 to 2011.¹⁰ Yet state and local planners are often prevented from using user fee revenues, overwhelmingly generated by urban drivers, to improve the transportation system through balanced investment.

Data from the Federal Highway Administration show that 67 percent of all VMT—or 1.9 trillion miles annually—occurs within urban areas.¹¹ Urban drivers generate nearly \$7 out of every \$10 in user fees, but they face counterproductive restrictions regarding how those funds may be used. States and metropolitan regions should have the flexibility to implement needed transportation projects regardless of the source of funding.

The U.S. surface transportation system is a complex mix of different modes, including highways, intercity passenger rail, public transportation, freight rail, and intermodal connections that allow freight to flow from ship to train and from train to truck. Funding restrictions at the state and federal levels represent a major barrier to successfully planning and implementing an efficient, equitable, sustainable, and globally competitive transportation system.

Reforming surface transportation will require changes at the federal and state levels. Specifically, Congress should establish a multimodal account within the Highway Trust Fund to provide funding for highway, transit, passenger and freight rail, port development, and intermodal facilities, among other projects. Funding from this multimodal account should be distributed through a competitive program administered by the Department of Transportation’s Office of the Secretary. In addition, states should be given the flexibility to use any portion of their federal highway funds for any project category eligible under the multimodal program.

TABLE 3
Annual hours of additional roadway delay if transit service ended

Metro region	Hours
New York	440,647,000
Chicago	67,432,000
Boston	37,943,000
Washington	33,810,000
Los Angeles	32,345,000
Philadelphia	30,167,000
Miami	11,589,000
Atlanta	10,520,000
Houston	6,733,000
Dallas-Fort Worth	6,292,000
Total	677,478,000

Source: David Schrank, Bill Eisele, and Tim Lomax, "Urban Mobility Report 2012" (College Station, TX: Texas A&M Transportation Institute, 2012), available at <http://d2dtl5nnlpfr0r.cloudfront.net/tti.tamu.edu/documents/mobility-report-2012.pdf>.

At the state level, legislatures should repeal any statutory or state constitutional prohibitions that prevent the use of motor fuel taxes or other user fees for projects other than highways. Once these restrictions have been lifted, states should require their respective transportation departments to engage in scenario planning based upon achieving objectives and quantifiable system performance goals.

Taken together, increased funding flexibility from Congress and state legislatures and goal-driven scenario planning will allow transportation agencies to implement a truly multimodal, integrated, and balanced system.

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