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A Desire Named Streetcar How Federal Subsidies Encourage Wasteful Local Transit Systems

by Randal O'Toole

Executive Summary

The nation's mass transit system is a classic example of how special interests prevail over the needs and interests of voters and taxpayers. Total inflation-adjusted subsidies to transit—buses and trains—have more than doubled since 1990, yet total ridership has increased by less than 10 percent. Train ridership has dropped dramatically while automobile use has skyrocketed.

Prior to 1964, when Congress began subsidizing transit, the industry was mostly private. Since then, the industry has been almost entirely taken over by state and local governments. Today more than three of every four dollars spent on transit come from taxpayers, not transit riders.

The effectiveness of local transit systems is undermined by federal subsidies, which encourage the construction of highly visible and expensive services such as light-rail trains to suburban areas despite the chronically low number of riders on those routes. Federal subsidies to transit advocacy groups and misguided environmental and labor regulations also encourage a large investment of taxpayer money in wasteful transit systems.

The ideal solution would be to devolve transit and other transportation funding entirely to state and local governments. Short of that, Congress should reform the federal transportation funding system to minimize the adverse incentives it creates.

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Introduction

The nation's transit system is a classic example of how special interests prevail over the needs and interests of voters and taxpayers. Total inflation-adjusted subsidies to transit—local buses and trains—have more than doubled since 1990, yet transit ridership has increased by less than 10 percent. The result is that the average cost to taxpayers for every transit trip has increased by 95 percent, from \$1.68 to \$3.28 in 2003 dollars.

Prior to 1964, when Congress began subsidizing transit, the industry was mostly private, and, though it was losing riders, it operated at an overall profit. Since then, the industry has been almost entirely taken over by state and local governments. Today more than three of every four dollars spent on transit come from taxpayers, not transit riders.

The reason localities continue to fund train systems that are surprisingly underused, expensive, and wasteful can be traced directly to federal subsidies for transit. Since mass transit agencies depend on taxpayers rather than users for most of their revenue, they focus on highly visible and expensive services such as light-rail transit to suburban areas. The transit industry's core market consists of people who don't drive and who mostly live in inner cities. To pay for high-cost suburban rail transit routes, transit agencies often raise fares or cut back on services to inner-city areas. The result is that taxpayers often end up paying heavy subsidies for projects that reduce overall transit ridership and often harm transit-dependent families.

In addition to the huge subsidies offered by Congress to transit agencies, specific incentives in federal law encourage agencies to waste money and exacerbate the problem. Instead of helping localities solve real transportation problems, federal subsidies encourage redirecting taxpayer money to projects that are likely to fail.

The net result is that the federal government has succeeded in creating a system that promotes wildly extravagant spending on train systems. The desires of train supporters

end up trumping the demands of everyone else.

The ideal solution would be to end federal transit subsidies and devolve transit and other transportation funding entirely to state and local governments by letting them keep their fuel tax dollars. Short of that, Congress should reform the federal transportation funding system to minimize the adverse incentives it creates.

A Brief History of Transit

America's transit industry traces its roots to 1827 with the first urban coach line in New York City.¹ The development of steam trains and horse cars in the 1830s reduced costs and made transit available to more people. By 1880 American cities had 10,000 miles of horse-car rail lines.² In 1871 private entrepreneurs built the New York elevated train, which carried masses of people on short trips for a nickel each. New York also saw the first cable car in 1868 and the first subway in 1870.³

Outside major cities, transit boomed only after electric streetcars were fully developed around 1890. Streetcars had such tremendous cost advantages over other forms of urban transportation that, by 1910, almost every American city with more than 10,000 people had one or more streetcar lines, nearly all of which were built with private funds.

Many streetcar lines were built to connect suburban real estate developments with downtown job centers, and transit fares paid the operating costs. The capital costs were covered by the sale of homes and lots. Those lines were later merged into regional transit companies.

In 1907, the earliest year for which numbers are available, transit companies carried passengers on about 9.5 billion trips. By 1926 that number had nearly doubled to 17.3 billion trips, a number that would be exceeded only during and after World War II. Per capita transit ridership peaked in 1920 at about 287 annual rides per urban resident.⁴

The rise of the automobile signaled the end of the nation's streetcar systems. By 1929 more than half of all American households owned an automobile. State and local governments began to apply gasoline taxes and other user fees to the paving of streets and highways throughout urban areas. When the time came to replace rails, trolley wires, and other capital equipment, transit companies realized it made more sense to run buses on paved streets whose cost was shared with autos than to maintain exclusive rail rights-of-way and infrastructure for streetcars. Buses were also more flexible and faster than streetcars. Transit riders annoyed with dilapidated streetcars welcomed the newer and more comfortable buses.

Some supporters of mass transit have perpetuated the story that General Motors conspired to destroy the nation's transit systems by replacing "efficient" streetcars with "dirty" buses, but that is little more than an urban legend that has been debunked by numerous books and articles.⁵ General Motors did purchase an interest in various transit companies, but its only goal was to sell its brand of buses to companies that were already converting from streetcars to buses. The simplest evidence of this is that General Motors never controlled more than a small fraction of the nation's transit lines, and it controlled none after 1949. Yet transit companies in many cities not controlled by General Motors, including Dallas, Denver, Indianapolis, Minneapolis, Portland, and Seattle, all converted from streetcars to buses, mostly during the 1950s.

The shift to buses was mainly prompted by the inefficiencies of streetcars, which were apparent to both public officials and private transit operators. In 1955, for example, Congress ordered the company operating streetcars in Washington, D.C., to convert its system to buses within eight years.⁶ The last Los Angeles "red car" lines, which were featured as victims of a conspiracy in the movie *Who Framed Roger Rabbit?* had never been owned by General Motors and were actually converted to buses by a public agency, the Los Angeles Metropolitan Transit Authority, in 1961.⁷

In 1966 St. Louis converted its last streetcar line to buses. That left streetcar systems in only six American cities—Boston, Philadelphia, San Francisco, Pittsburgh, New Orleans, and Cleveland—plus other forms of rail transit in New York and Chicago. Private transit companies and public transit agencies in most other cities considered rail transit economically infeasible. Rail systems simply worked better in high-density urban centers than in less populated cities.

Whether by rail or by bus, World War II boosted transit ridership to a high of nearly 23.5 billion trips in 1946, or about 267 trips per urban resident. The end of wartime fuel rationing led ridership to decline after that year by an average of 7 to 8 percent per year through most of the 1950s and by about 3 percent per year in the early 1960s. By 1964 annual ridership had fallen to 8.3 billion trips, or about 62 trips per urban resident.⁸ Although taxpayers supported city-owned transit agencies in New York, San Francisco, and several other large cities, 95 percent of the transit industry remained privately owned.⁹

Federal Intervention in Local Transit Systems

In 1964 Congress passed the Urban Mass Transportation Act, which promised federal capital grants to state and local public transit agencies. The law offered capital grants for up to 50 percent of the cost of transit improvements. The law did not provide funds for public purchase of private transit companies, but as transportation historian George Smerk observes, most transit companies, recognizing the declining nature of their business, "were anxious to sell out to the public sector."¹⁰ So cities without government-run transit systems bought the companies to make themselves eligible for the federal grants.

Congress has justified many other federal transportation programs using a liberal interpretation of the Interstate Commerce Clause of the Constitution. But most transit systems do not cross state lines, so federal support for transit is based instead on the

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General Welfare Clause.¹¹ Transit supporters argue that federal funding for highways, which comes exclusively from highway users, helps people who drive, but many people don't drive or cannot afford to own an automobile. Subsidies are needed, they argue, to support such *transit-dependent* people.¹² In fact, the real pressure for federal transit funding came from a few large cities that had relied on commuter trains to bring workers into the downtown areas—namely, Boston, Chicago, New York, and Philadelphia.

“Downtown areas were not designed to handle the traffic load which results from . . . reliance upon the private automobile,” argued a 1960 Department of Commerce report.¹³ The loss of commuter rail service would mean the death, or at least the shrinkage, of those downtowns as jobs followed people to the suburbs. Nationwide, such a transition had been taking place for more than 50 years. But big-city mayors and downtown property owners wielded enormous political influence, and they reacted with horror to the possible loss of commuter trains. Since they blamed that loss on Congress, it was natural for them to pressure Congress to rectify the problem.

The Kennedy administration offered intellectual justification for federal intervention in mass transit in 1962. Since most people lived in urban areas, “our national welfare requires the provision of good urban transportation.” To “promote economic efficiency and livability,” cities needed “the properly balanced use of private vehicles and modern mass transportation to help shape as well as serve urban growth.”¹⁴

In other words, not only should the government subsidize transit to urban centers, such as Manhattan, that were too dense to make automobile use practical; it should also “shape” other urban areas so that they too could be served by transit, possibly becoming so dense that they would eventually be inaccessible to autos. Although that would supposedly be done for “efficiency” and “balance,” those two goals would soon be derailed in the cause of supporting transit at any cost. Although the notion that transit investments

can shape urban areas has since proven futile, it remains a major intellectual justification for spending money on mass transit, particularly rail systems.

Soon after the 1964 legislation, when almost every private transit company had been bought by government transit agencies, governments at the federal, state, and local levels began to pour billions of dollars of annual subsidies into transit programs. Yet ridership continued to decline, with drops of 6 percent per year between 1969 and 1972. The industry was saved only by the gasoline shortages of the mid-1970s, which led to sustained ridership growth for the first time since 1946.¹⁵

Since 1972 ridership has grown by 46 percent from a low of 6.6 billion trips to a 2004 level of 9.6 billion trips. However, that represents no gain in per capita ridership, which since 1970 has hovered around 40 to 50 trips per urban resident and was at the low end of that range in 2004.¹⁶ Transit growth has not kept up with the growth in driving. During the period when transit grew by 46 percent, driving in urban areas increased by more than 170 percent.¹⁷ Growth in the ridership of mass transit is also heavily influenced by external factors: ridership increases when gasoline prices are up or the economy booms, and ridership stagnates or falls when gasoline prices fall or the economy is in recession.

While federal transit funding was originally proposed to support commuter trains in New York, Chicago, Boston, and Philadelphia, the opportunity to gain federal funds inspired many smaller urban areas to begin transit service. Today, nearly three-fourths of the 430 U.S. urban areas of 50,000 people or more are served by one or more federally supported transit agencies.¹⁸ Yet the vast majority of transit riders are still in the major urban areas. The New York urban area alone accounts for three of eight transit trips, while six areas together—Boston, Chicago, New York, Philadelphia, San Francisco, and Washington—account for more than three of five transit trips.¹⁹

Were it not for the Urban Mass Transportation Act of 1964, it is conceivable that the gasoline shortages of the 1970s would have

led private transit providers to develop innovative low-cost solutions to urban transportation problems. Such solutions could have included frequent bus service with limited stops in major corridors (known today as bus rapid transit), express service from individual suburban centers to major job centers, and door-to-door demand-responsive services to low-density areas.²⁰ Government assistance to low-income and other transit-dependent people, if required, could have come in the form of transit vouchers that would have operated like food stamps.

Instead, most states passed laws forbidding private operators to compete with government transit monopolies.²¹ Inside the transit agencies, innovations were stifled by the plodding planning processes of government bureaucracies more responsive to appropriations committees than to actual transit riders. As this paper will show, the incentives created by and associated with federal government funding encouraged transit agencies to select high-cost, high-risk solutions such as rail transit rather than the low-cost solutions listed above.

The Choice: High-Cost Rail or Flexible Bus Systems

Historically, the best transit service can be found in dense central cities, and people who depend on or prefer to use mass transit tend to locate in those areas. But the notion that transit programs should be used to “shape as well as serve urban growth” has led many transit agencies to extend service into the suburbs. Since most suburbanites prefer to drive automobiles, suburban transit service receives little use. Moreover, given finite resources, extending service into the suburbs means providing less service to transit-dependent people in the inner cities.

As University of California–Irvine economist Charles Lave notes, prior to 1964 transit managers had a goal of providing “a self-supporting service for those who wished to use it.”²² But since 1964 that goal has changed to one that is “complex and nebulous: use tran-

sit service as a tool to solve urban problems, save the central city, provide cheap mobility for the poor, transport the handicapped, and so on.”²³ The “so on” prominently includes getting suburban commuters out of their automobiles. As a result, says Lave, transit productivity—trips per dollar of input—declined dramatically. “If transit productivity had merely remained constant since 1964, when federal intervention began,” wrote Lave, “total operating costs would be more than 40 percent lower [in 1994].”²⁴

The focus on suburban riders also creates an equity issue, says UCLA professor of planning Brian Taylor. “The growing dissonance between the quality of service provided to inner-city residents who depend on local buses and the level of public resources being spent to attract new transit riders is both economically inefficient and socially inequitable,” comments Taylor.²⁵ “While low-income residents generally benefit from the public transit subsidy,” Taylor adds, “the benefits of subsidies disproportionately accrue to those least in need of public assistance.”²⁶

Problems of both cost and equity are most apparent in the increasing number of transit agencies that are planning or building rail transit lines. According to the General Accounting Office, it can cost 50 times as much to build a rail line as to start bus service with comparable frequencies and schedules.²⁷ Moreover, the GAO found, buses cost less to operate and can sometimes run on faster schedules than rail transit.²⁸

Proponents of rail transit argue that trains will attract riders who won’t ride a bus. Researchers have found, however, that rail attracts new riders not because they have a preference for trains but because transit agencies usually run rail lines on more frequent schedules with fewer stops (and thus higher average speeds) than bus lines. “There is no evident preference for rail travel over bus when quantifiable service characteristics such as travel time and cost are equal,” concludes one study.²⁹ When put on schedules that stop less frequently and thus operate at higher average speeds, buses “should be as

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effective as rail in generating patronage,” says another study.³⁰

Lawsuits brought by low-income bus riders in Los Angeles and the San Francisco Bay Area highlight the equity issues. In the early 1980s Los Angeles increased transit system ridership by 35 percent in just three years by expanding bus service and keeping fares low. Then the region began building rail transit systems and, because of cost overruns, was forced to simultaneously increase bus fares and cut back on bus service. The result was a 17 percent loss in ridership.³¹

In 1995 the NAACP sued on behalf of a group named the Bus Riders’ Union, charging the transit agency with discrimination because it cut bus service to low-income minority neighborhoods in order to build rail lines into white, middle-class neighborhoods. In a settlement agreement, the agency agreed to restore bus service.³² That led to a 32 percent increase in overall transit ridership—that is, rail and bus ridership combined. But most of that increase was the result of people choosing to use bus service, not train service. After billions were spent on rail lines, rail transit in 2003 carried less than 12 percent of the region’s transit trips.³³

Low-income groups in San Francisco recently filed a similar lawsuit against the region’s Metropolitan Transportation Commission. The commission’s transportation plan called for spending billions of dollars on suburban rail lines that, in some cases, were expected to cost \$100 for each new ride. Meanwhile, the plan denied funds for improving bus service to a low-income minority neighborhood that was expected to attract new riders at a cost of just 75 cents per trip.³⁴

There are very few outstanding successes when it comes to urban rail systems. Building a rail line may lead to more train riders, but if the transit system loses bus riders there may be little net gain or an actual net loss in overall transit system riders. Rail advocates stress the number of rail riders while neglecting to mention the lost bus riders.

That needs to be kept in mind when analyzing the success of transit systems generally.

Of the eight urban areas that had rail transit when Congress started funding transit projects, only one—Boston—has seen clear increases in total ridership in the last two decades. Six others—Chicago, Cleveland, New Orleans, Philadelphia, Pittsburgh, and San Francisco—have seen total ridership decline by 18 percent or more. The story in New York is mixed: Ridership declined by more than 30 percent between 1984 and 1993, recovered most (90 percent) of that loss by 2001, and then declined again.³⁵

The success of transit systems in the 15 urban areas that have built rail transit systems in the last three decades has also been mixed:

- Overall transit ridership has declined in four areas (Atlanta, Baltimore, Buffalo, and St. Louis).
- Ridership in San Jose crashed when the recent recession reduced sales tax revenues and the agency had to cut service to avoid defaulting on the bonds it sold to build the rail lines.
- Total bus and rail ridership has increased in Los Angeles, Miami, and Seattle, but the increases were due to better bus service, not increased use of the rail service.
- Ridership has grown in Dallas, Denver, Portland, Sacramento, and Salt Lake, but at slower rates than before the regions began building rail.
- Only the San Diego and Washington, D.C., rail systems are doing relatively well, and even those systems have problems.³⁶ Washington’s Metrorail system, for example, carried fewer commuters to work in 2000 than in 1990.³⁷

By contrast, numerous regions with bus-only transit systems have seen huge increases in ridership over the past two decades:

- Austin, Las Vegas, and Raleigh-Durham have more than quadrupled ridership.
- Charlotte and Phoenix have more than doubled ridership.
- Houston and Tucson have nearly doubled ridership.³⁸

On average, between 1984 and 2004, transit trips in regions with bus-only transit grew by 30 percent while regions with rail transit recorded increases in transit trips of only 1 percent.³⁹ In many bus-only urban areas, transit ridership has grown much faster than driving. Among rail regions, only San Diego can say the same. Ironically, almost all of the urban areas listed above are now planning or building rail lines that, if history is any guide, will likely stunt the growth of transit ridership in those regions.

The Problems with Rail Transit

A careful review of history reveals that rail transit poses three major threats to regional transit service:

1. Construction cost overruns often force agencies to raise fares or cut service. A review of dozens of rail transit projects found that they suffer an average of 41 percent overruns.⁴⁰ Los Angeles, Portland, and Sacramento are good examples.⁴¹
2. Rail construction tends to put agencies so heavily in debt that, during recessions and periods of low tax revenue, they are forced to make large cuts in service. A recession that reduces tax revenues by 10 percent might force a bus-only agency to cut service by 10 percent, but a rail agency with half of its balance sheet tied up with financing debt would have to reduce service by 20 percent. San Jose, San Diego, San Francisco, and Washington are all examples of that.⁴²
3. Rail lines must be rebuilt about every 30 years, and reconstruction costs nearly as much as the original construction. Few transit agencies budget for that in advance. Washington's Metro system, for example, says that over the next 10 years it must spend \$12.2 billion to maintain its rail lines—which cost \$9 billion to construct in the first place—and to pay for that it will need a significant tax increase.⁴³

An even longer history of the failure of rail transit may be found in Europe. Since World War II, most European countries have discouraged auto driving with punitive auto and fuel taxes and promoted rail transit with heavy subsidies. Europe's policy, like that of many U.S. urban planners, is to "shift the balance" from autos to transit, relieving road traffic "by developing other means of transport," especially "major rail works."⁴⁴

That policy has not worked. According to the European Union, between 1980 and 2000, the automobile's share of European passenger travel increased from 76 to 78 percent while intercity rail and transit's share declined from 21 to 16 percent.⁴⁵ A recent conference on European transport policy concluded that rail transit "has never successfully reduced road traffic and, except in a few city centers, cars remain largely predominant almost everywhere in urban and suburban areas."⁴⁶ As a result, says one member of the European Parliament, "the current European transport policy steers towards a prohibitively expensive and inefficient utopian ideal."⁴⁷

Why Rail Systems Continue to Get Funding

Despite all those problems, regions with successful bus systems, such as Charlotte, Houston, and Phoenix, are now building rail lines. Twenty-five urban areas have operating rail lines in 2005, and rail lines are under construction in several more. As many as three dozen other bus-only regions are planning or debating rail transit⁴⁸ What is the attraction of this high-cost, high-risk system when the low-cost alternative—buses—has worked so well?

The first answer to that question, of course, is the desire of bureaucrats and politicians to come up with and fund new pork projects. A transit agency that expands its bus fleet gets the support of the transit operators union. But an agency that builds a rail line gets the support of construction companies, construction unions, banks and bond dealers, railcar manufacturers, electric power companies (if

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the railcars are electric powered), downtown property owners, and other real estate interests. Rail may be a negative-sum game for the region as a whole, but those concentrated interests stand to gain a lot at a relatively small expense to everyone else.

Yet the demand for pork from politicians and interest groups isn't enough to explain the present-day stampede to fund inefficient 19th-century rail travel. Economist Charles Lave blames federal funding for the transit industry's increasing cost per transit rider. Federal funding "sent the wrong signals to management and labor," says Lave. "Management interpreted the message to mean: efficiency was no longer primary; rather, it was more important to expand passenger-demand and to provide social services. So routes were extended into inherently unprofitable areas and fares were lowered to the point where no one would find them burdensome. Labor interpreted the message to mean: Management now has a Sugar Daddy who can pay for improvements in wages and working conditions."⁴⁹ Indeed, prior to the Urban Mass Transportation Act of 1964, the San Francisco Bay Area was the only region of the country seriously considering construction of new rail lines.

Lave is correct in a general sense. But the problem is caused by more than the simple act of federal funding. Congress has also deliberately or accidentally built numerous incentives into the law that encourage transit agencies to focus on high-cost, low-benefit alternatives. The U.S. Department of Transportation has added to those incentives with its rules tied to the administration of transportation funds. Although the ideal solution would be to devolve all transportation funding to state and local governments, eliminating the perverse incentives can solve at least some of the problems in the short term.

The Adverse Incentives of Federal Funding

Congress and the U.S. Department of Transportation have deliberately or inadver-

tently created numerous incentives for transit agencies and local governments to use transit funds for wasteful and misguided projects. Those adverse incentives are created by the following characteristics of the current federal transportation financing system:

- an agency structure within the Department of Transportation that discourages the most efficient use of funds,
- approval procedures that allow labor unions to prevent innovative transit solutions,
- a requirement that most or all federal funds be used for capital projects,
- a legal provision allowing cities to cancel plans to build more highways and apply those funds to transit,
- a lack of any formula for allocating new-start transit funds among states and regions,
- a "flexible fund" mechanism that allows funds to be used for either transit or highways and that allows transit project supporters to game the system,
- a transit planning process that allows agencies to systematically low-ball cost estimates and overstate potential ridership,
- a mandate for a comprehensive planning process that is biased in favor of high-cost transit projects,
- federal grants to nonprofit anti-highway organizations, and
- legislation tying the distribution of transportation funds to air quality planning.

Structure of the U.S. Department of Transportation

When Congress passed the Urban Mass Transportation Act of 1964, there was no Department of Transportation, so transit grants were dispensed by the Housing and Home Finance Agency. Two years later, in an effort to better coordinate the federal government's many transportation programs, Congress authorized the creation of the U.S. Department of Transportation.

When the first secretary took office in January 1967, however, he could have aided such coordination by structuring the department according to transportation *functions* such as urban transport, interstate freight transport, and interstate passenger transport. Instead, he organized it according to transportation *systems*, such as mass transit, highways, air, rail, and waterway transport.⁵⁰

Ever since then, transit projects have been evaluated according to one set of criteria, and urban highway projects have been evaluated using another totally incompatible set of criteria. The agencies themselves often effectively become lobbyists for the state and local agencies they fund, so they have no interest in a process that might increase a sister agency's budget at their expense. As a result, it is nearly impossible to calculate whether President Kennedy's goal of having a "properly balanced use of private vehicles and modern mass transportation" is ever reached in a given urban area.

For transit agencies, ignorance is bliss since the balance appears to be tipped quite heavily in mass transit's favor. In 2003, for example, federal, state, and local subsidies for transit—that is, transit expenses not covered by transit fares—amounted to about \$31 billion.⁵¹ By comparison, federal, state, and local subsidies for highways—that is, sales, property, and income taxes spent on highways less highway user fees diverted to transit and other non-highway purposes—were only \$15 billion.⁵² Yet highways account for about one hundred times as many passenger-miles and infinitely more freight movement than transit.⁵³

Labor Requirements

One of the compromises necessary for the passage of the Urban Mass Transportation Act of 1964 was a concession to labor unions. Under the law, transit agencies are required to gain the support of transit unions for all federal capital grants. That effectively gives the Amalgamated Transit Union, which represents train operators and mechanics, veto power over transit projects. Although the union does not necessarily favor high-cost rail

over low-cost buses, it does oppose steps that could provide better transit at a lower cost.

For instance, one way transit agencies could save money is by contracting out bus operations to private businesses. Private operators typically hire nonunion workers, and while they may not pay them significantly less than union scale, they save a considerable amount of money in many ways. Under a law passed by the Colorado legislature, Denver's transit agency contracts out half of its bus service and spends 40 to 50 percent less per bus vehicle-hour or vehicle-mile on contract service than it did on in-house service.⁵⁴ Transit agencies that were truly interested in providing better transit at a lower cost would contract out all of their services. Yet, any plans by transit agencies to do so without a state mandate would be opposed by transit unions and thus would make the agencies ineligible for federal funds.

Capital vs. Operating Funds

For many years after passage of the Urban Mass Transportation Act of 1964, Congress limited the use of federal transit grants to capital projects. That gave transit agencies incentives to spend the money in ways that were capital intensive but minimized operating costs.

Initially, in many agencies that led to the purchase of buses that were larger than the agencies might have actually needed. The operating cost of a small bus is about the same as a big one, the agencies reasoned, and since the federal government was paying a large share of the capital cost, they might as well get the biggest bus possible.

Of course, that meant that buses would run nearly empty most of the day. Though transit buses typically have about 44 seats, the average number of passengers carried by a transit bus in 2003 was fewer than nine.⁵⁵ Any agency that suffered buyers' remorse would be stuck with its decision because Congress also required that if an agency ever sold a bus that had been paid for with federal funds before it was fully depreciated, it would have to reimburse the federal Treasury

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the full value of the capital grant minus a straight-line depreciation. In a weak market for used buses, that was not practical.

Starting in 1974 Congress allowed a small share of federal transit grants to be used for operating funds.⁵⁶ As a result of the federal formula, about one federal transit dollar on average goes toward operating expenses for every four dollars spent on capital improvements.⁵⁷ Due to the nature of buses, transit agencies typically spend about \$3 to \$4 of federal subsidies on bus operating expenses for every dollar they spend on bus capital purchases.⁵⁸ The opposite is true for light rail, however: transit agencies typically spend \$3 to \$4 on light-rail capital projects for every dollar they spend operating light rail.⁵⁹ Thus, federal funding—which stacks the deck in favor of transit systems with high capital costs—encourages agencies to concentrate on funding rail systems rather than buses.

Cancellation of Highway Projects

New rail transit construction did not become popular among public transit agencies until 1973, when Congress first allowed cities to cancel interstate highway projects and use the funds for mass transit instead—but only for capital spending.⁶⁰ The cost of an interstate highway might be enough to double the number of buses in a transit agency's fleet, but few agencies could afford to double the operating budgets for buses (which, as you recall, is about three times more than the capital costs). However, a region's failure to spend all of the money released by cancellation of the highway would open elected officials to charges that they "lost" federal funds to other regions of the country.⁶¹

Rail transit became the answer precisely because of its high capital costs. Although rail operating costs might be a bit higher than the cost of operating buses, transit agencies convinced themselves that that would not be a problem. The high capital cost of rail would be enough to absorb the costs of the cancelled interstate highway and provide as many, if not more, local construction jobs as the highway would have

required. Cities from Boston and Chicago to Portland and Sacramento took advantage of the law.⁶² The law allowing cancelled highway funds to be spent on transit expired in 1998. But, as described below, it was replaced with other perverse incentives.

Lack of an Allocation Formula

In 1982 Congress increased gasoline taxes by 5 cents a gallon and dedicated one of those cents to transit funding. From that point on, transit received 20 percent of all increases in federal gasoline taxes that were used for transportation.⁶³

Since the creation of the Interstate Highway System in 1956, Congress has distributed federal highway funds according to a formula based on each state's population and geographic area. Although this formula is hotly debated in each transportation reauthorization bill, once it is set in place states have an incentive to spend their share of funds as wisely as possible.

Congress created a similar formula for transit funds, but so-called new start rail systems were exempted from the formula. So as some cities began to build new rail transit systems, they ended up getting the lion's share of transit funds. Rail advocates in other cities argued that they would not get their share of the funds unless they, too, began building rail lines. Meanwhile, transit planners in cities that had already completed rail transit projects argued that they had to build more in order to keep getting their fair share of the federal subsidy.

Between 1992 and 1997, for example, Oregon received more dollars from the federal mass transit trust fund, relative to what Oregon auto and truck drivers paid into the fund, than any other state except New York, thanks entirely to Portland's light-rail construction.⁶⁴ In 1996 Mike Burton, executive director of Portland Metro, warned in a letter to other officials in the region that "the region must take action to bring Oregon's fair share of federal transportation dollars back home or they will be lost to other regions of the country."⁶⁵ The action he wanted them to take was

to endorse the construction of more light-rail lines.

Flexible Funds

Until the 1982 law, Congress had dedicated all revenues from federal gas taxes and highway user fees to highways. Although highway interests opposed the diversion of highway funds to transit, they acceded to the 20 percent formula in order to gain support for the gasoline tax increase. Highway builders were satisfied as long as the formula dedicated 80 percent of all user-fee increases to highways.

In 1991, however, Congress created a new fund called the “flexible fund.” Whereas some highway user fees were dedicated to highways and others to transit, urban areas could use the flexible funds for either highways or transit.

That gave anti-highway interests a powerful incentive to promote expensive transit projects. Once content merely to oppose highways that would disrupt existing neighborhoods, the anti-auto groups now had an incentive to demonize the automobile in order to get a large share of the flexible funds dedicated to anything but highway improvements. That in turn led them to embrace rail transit because buses alone would not take a big enough bite out of a region’s flexible funds.

Project Planning

At least since 1970, transit agencies that want to build rail transit have been required to write plans comparing the costs and benefits of the rail line with alternatives such as improved bus service. However, the Department of Transportation exercises only minimal oversight and does not ensure that the estimates projected in those plans are reasonable. To make rail transit appear more attractive, agencies routinely underestimate costs and overestimate ridership.

A 2002 review of hundreds of transportation projects found that U.S. rail transit projects ended up costing an average of 41 percent more than their original projections. By comparison, highway projects were 8 percent over budget.⁶⁶ A 2005 review of demand fore-

casts by the same analysts found that rail transit projects overestimated demand by an average of 100 percent. By comparison, estimates of highway demand averaged a bit lower than actual demand.⁶⁷

Federal officials have known that for years. “The systematic tendency to overestimate ridership and to underestimate capital and operating costs,” wrote Department of Transportation analyst Don Pickrell in 1989, “introduces a distinct bias toward the selection of capital-intensive transit improvements such as rail lines.”⁶⁸ Yet the department still does very little to ensure the use of accurate data and information.

Regional Planning

In the 1991 transportation act, Congress required urban areas requesting federal transportation dollars to submit lengthy regional transportation plans. Once written, the plans are to be updated every five years, which essentially puts the regional planning agencies in a perpetual planning mode.

The law requires that the public be involved in those plans. But because the plans are complicated and the process is tedious, no one other than professional lobbyists has an incentive to get involved. That places most of the power to write the plans in the hands of urban planners who tend to believe that automobiles are bad and transit is good.

As urban planner Douglas Porter has noted, there is a “gap between the daily mode of living desired by most Americans and the mode that most city planners believe is most appropriate.” That gap, Porter continues, is created by the fact that “Americans generally want a house on a large lot and three cars in every garage, or rather on the highways,” yet planners object to the “low-density sprawl and dependence on roads and highways.” The problem, as Porter and other planners see it, is that local elected officials tend to give people what they want rather than what planners think they should have. Porter’s way of closing the gap is to create regional planning agencies that are insulated from public pressure and have “powers to require local plans to conform to regional or state goals.”⁶⁹

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In the mid-1990s the Environmental Protection Agency started giving millions of dollars in grants to anti-highway groups to participate in transportation planning.

That, in essence, is what Congress did in 1991. The Department of Transportation requires that every urban area in the nation have a “metropolitan planning organization” that allocates federal transportation funds to municipalities in that region. The 1991 act gave those organizations power to write the regional plans. Although the organizations are guided by boards consisting of mayors and councilors from the various cities and counties in the region, they typically grant the bulk of authority to their planning staffs.

In order to ensure some level of public involvement, the Department of Transportation pressured metropolitan planning organizations to involve transit riders and pedestrians in planning.⁷⁰ Although 80 to 98 percent of travel in all U.S. urban areas is by auto, the department did not require planners to involve auto users.

Funding Anti-Highway Lobbying

To make matters worse, in the mid-1990s the Environmental Protection Agency started giving millions of dollars in grants to anti-highway groups to participate in transportation planning. The stated purpose of the grants was to reduce auto driving, and recipients included the Surface Transportation Policy Project, the Environmental Defense Fund, the Association for Commuter Transportation, and the Bicycle Federation of America.⁷¹

In 1998 Congress dedicated a slice of highway user fees to a new fund with the innocuous title of Transportation and Community and System Preservation Pilot Program. The fund was the brainchild of Sen. Ron Wyden (D-OR), who wanted to give other regions an opportunity to replicate an anti-highway initiative in Oregon that is known as the Land-Use Transportation Air Quality Project. That program grants funds to regional and local governments to study transportation, and a special provision in the law urges that funds be shared with “nontraditional partners,” meaning nonprofit organizations. After the law was passed, a newsletter of the Surface Transportation Policy Project urged local groups to take advantage of this provision to fund their campaigns to “redirect highway

funds” to transit and transit-oriented development.⁷² As expected, a large share of this fund has gone to anti-auto groups to promote rail transit and oppose new roads.

Tying Funding to Air Quality Planning

The Clean Air Act Amendments of 1990 tied federal transportation funds to a mandate to improve air quality in many regions. Regions rated by the Environmental Protection Agency as having air pollution problems were required to take certain steps to relieve those problems. Regions that did not have an EPA-approved plan to reduce their air pollution would be denied transportation funds.

Yet, a 1993 EPA study concluded, “Capital-intensive investments may not be the best way to address air quality concerns.” The study found that coordinating traffic signals, which might cost a few tens of millions of dollars in a large urban area, would produce five times the air pollution benefits of building a 20-mile rail transit line and doubling bus service.⁷³ Cars pollute more in stop-and-go traffic, so low-cost ways to reduce congestion can be very effective at reducing pollution.

To the EPA and many urban planners, relieving congestion simply encourages more driving. So they prefer to focus on high-cost transit improvements and hope that increased congestion will convince some drivers to take transit. Portland’s regional planning agency, for example, wrote in its transportation plans that “congestion signals positive urban development” and that “transportation solutions aimed solely at relieving congestion are inappropriate” because they “would eliminate transit ridership.”⁷⁴ The Twin Cities’ agency decided to limit construction of new highways in the hope that “as traffic congestion builds, alternative travel modes will become more attractive.”⁷⁵ Unfortunately, the air pollution models endorsed by the EPA and the Department of Transportation failed to account for the added pollution caused by congestion—and thus failed to credit any air quality benefits to congestion relief.⁷⁶

The 1991 transportation bill also created a congestion mitigation/air quality (CMAQ) fund of about \$1 billion per year. Despite the

name, areas with severe air pollution are not allowed to use the funds to reduce congestion by increasing road capacity. Instead, they must spend the funds on transit and other alternatives to automobile use.

While some regions have used CMAQ dollars to coordinate traffic signals, others have used them to build light-rail lines, rail park-and-ride stations, and other transit projects. For instance, in 2000, the most recent year for which comprehensive data are available, only 18 percent of total CMAQ funding went to traffic signal coordination projects.⁷⁷

Conclusion

Whether by design or by accident, the federal government has created a system that promotes wildly extravagant spending on mass transit, and on rail lines in particular. Congress can fix some of the problem by

- simplifying or eliminating the transportation planning process so regions can decide for themselves how much effort needs to be put into planning and how much should be put into actual transportation improvements;
- disentangling the clean-air process from transportation planning, including regions with air pollution problems, so that regions can find their own solutions, not ones mandated by a faulty centralized process;
- terminating the Transportation and Community and System Preservation program, on the grounds that taxpayers should not be required to fund political lobbying by any interest group;
- restricting CMAQ funds to ensure they are used for things that will genuinely and cost effectively reduce congestion and air pollution; and
- eliminating any requirement that transit agencies use union labor only; Congress should not stifle unions, but neither should it mandate them.

If Congress continues to insist on subsidi-

dizing state and local transit agencies, it could at least increase the ratio of operating funds to capital funds from its current level—\$1 in operating funds for every \$2 in capital funds—to \$4 or \$5 in operating funds for every dollar in capital funds. That would take away the incentive to propose high-capital-cost projects such as rail lines when buses can do the same work for a much lower cost.

A second change would be to distribute the funds to regions using a formula similar to the highway formula, one that is based on population, transit ridership, and similar factors. That would discourage transit agencies from planning high-cost projects in order to get their “fair share” of federal funds.

The administration can also make changes in the structure of the Department of Transportation that could fix some of the adverse incentives inherent in the agency. If the department were organized into agencies based on the people they serve, rather than the transportation mode, the agencies would have more of an incentive to spend funds effectively. Such agencies might include an Urban Transportation Agency, a Rural or Interstate Transportation Agency, and a Freight Transportation Agency.

Unfortunately, those changes cannot alter the fundamental problem. Just as Congress now includes thousands of earmarks in the transportation reauthorization bills when a few decades ago there were almost none, a transportation bill amended as described above would still be susceptible to powerful members of Congress seeking exemptions for their states or districts. In the long run, the best solution for transit riders and taxpayers would be to get the federal government out of the urban transportation business entirely.

Devolution of federal urban transportation programs to state and local governments would likely result in better transit service for transit-dependent people as well as better transportation for everyone else. Transit agencies would be encouraged to focus more on their customers and less on powerful members of Congress who want to build urban monuments. Supporters of bet-

The best solution for transit riders and taxpayers would be to get the federal government out of the urban transportation business entirely.

ter transportation policy should work toward this goal before the next reauthorization bill is due in five years.

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