

Policy Analysis

No. 670

November 10, 2010

ADVANCE COPY

Fixing Transit The Case for Privatization

by Randal O'Toole

Executive Summary

America's experiment with government ownership of urban transit systems has proven to be a disaster. Since Congress began giving states and cities incentives to take over private transit systems in 1964, worker productivity—the number of transit riders carried per worker—has declined by more than 50 percent; the amount of energy required to carry one bus rider one mile has increased by more than 75 percent; the inflation-adjusted cost per transit trip has nearly tripled, even as fares per trip slightly declined; and, despite hundreds of billions of dollars of subsidies, the number of transit trips per urban resident declined from more than 60 trips per year in 1964 to 45 in 2008.

Largely because of government ownership, the transit industry today is beset by a series of interminable crises. Recent declines in the tax

revenues used to support transit have forced major cuts in transit services in the vast majority of urban areas. Transit infrastructure—especially rail infrastructure—is steadily deteriorating, and the money transit agencies spend on maintenance is not even enough to keep it in its current state of poor repair. And transit agencies have agreed to employee pension and health care plans that impose billions of dollars of unfunded liabilities on taxpayers.

Transit advocates propose to solve these problems with even more subsidies. A better solution is to privatize transit. Private transit providers will provide efficient transit services that go where people want to go. In order for privatization to take place, Congress and the states must stop giving transit agencies incentives to waste money on high-cost transit technologies.

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Urban transit is the most expensive way of moving people in the United States.

Introduction

The term “socialism” has been much abused in recent years, with people applying it to bailouts, regulation, and other government activities that fall short of actual government ownership. But one industry has unquestionably been socialistic for decades: urban transit, more than 99 percent of which is today owned and operated by state and local governments.

The results have not been pretty. Since 1964, the year Congress began giving states and cities incentives to take over private transit companies, worker productivity—the number of transit trips carried per operating employee—has fallen more than 50 percent.¹ After adjusting for inflation, operating costs per rider have nearly tripled, while fare revenues increased by a mere 8 percent.² “It’s uncommon to find such a rapid productivity decline in any industry,” the late University of California economist Charles Lave observed of U.S. transit in 1994.³

Today, urban transit is the most expensive way of moving people in the United States. Airlines can transport people at a cost of less than 15 cents per passenger mile, barely a penny of which is subsidized.⁴ Driving costs less than 23 cents per passenger mile, which also includes about a penny of subsidy.⁵ Socialized Amtrak costs close to 60 cents per passenger mile, about half of which is subsidized.⁶ But urban transit costs nearly one dollar per passenger mile, with fares covering only 21 cents per passenger mile and subsidies paying for the rest.⁷

These horrendous financial results are obscured by the mountains of propaganda issued by the Federal Transit Administration, individual transit agencies, the American Public Transportation Association, and various other transit advocates claiming transit saves people money, saves energy, and protects the environment. In fact, it only saves people money by imposing most of their transport costs on other taxpayers. Nor is transit particularly energy efficient or environmentally friendly, as the average transit

system uses about the same amount of energy and emits about the same amount of pollution per passenger mile as the average car. In fact, a majority of transit systems use far more energy and pollute far more per passenger mile than the average car.⁸

The fact that more than three out of four transit dollars come from taxpayers instead of transit users has several negative effects on transit programs. For one, transit agencies are more interested in trying to get dollars out of taxpayers, or federal and state appropriators, than in pleasing transit riders. This leads the agencies to focus on highly visible capital improvements, such as rail transit projects, dedicated bus lanes, and supposedly multi-modal transit centers, that are not particularly useful to transit riders. Moreover, the agencies neglect to maintain their capital improvements, partly because most of the taxpayers who paid for them never ride transit and so do not know about their deteriorating condition.

Further, dependence on tax dollars makes transit agencies especially vulnerable to economic downturns because the sources of most of their operating funds—generally sales or income taxes, but in some cases annual appropriations from state legislatures—are highly sensitive to the state of the economy. Sales and income taxes are particularly volatile, while property taxes are less so.⁹ Yet property taxes provide only about 2 percent of transit operating funds, while sales and income taxes provide more than a quarter of operating funds.¹⁰

Privatization of public transit systems would solve all of these problems. Private operators would have incentives to serve customers, not politicians, with cost-effective transport systems. The few examples of private transit operations that can be found show that private operators are more efficient and can offer better service than government agencies.

History

In 1964, the vast majority of the nation’s transit systems were privately owned and profitable.¹¹ In that year, Congress passed the

Urban Mass Transit Act, promising capital grants to public agencies that operate transit. Within a decade, almost all transit systems had been taken over by cities or state-chartered public agencies.

Many people believe Congress began supporting transit to help low-income people who lacked access to automobiles. In fact, the real goal was to support wealthy property owners in the downtowns of a few large metropolitan areas. Railroads that offered commuter-train service in Boston, Chicago, New York, and Philadelphia had proposed to discontinue these money-losing trains.¹² Since Manhattan and other downtown areas were not designed to handle the influx of automobiles needed to replace these trains, and since many of the trains crossed state lines, Congress decided to use federal funds to support public takeover of these commuter lines.

Politically, Congress could not limit the program to just four metropolitan areas. So the law allowed any public agency to apply for federal capital grants, which led to the near-complete socialization of the transit industry.

“Federal policy started out with the notion of a one-shot injection of capital to rejuvenate the aging physical plant of our transit systems,” observed Lave. No doubt many members of Congress who voted for the 1964 law expected that, since private transit companies had covered their operating costs before 1964, public transit agencies would continue to do so. But because of the political nature of public agencies, “it didn’t work out that way,” said Lave.¹³

The Transit Productivity Crisis

While private transit operators had a simple goal—earn a profit by providing transit where people would pay for it—Lave pointed out that public agencies were expected to reach a “complex and nebulous” set of goals, including “solve urban problems, save the central city, provide cheap mobility for the poor, transport the handicapped, and so

on.”¹⁴ Perhaps just as important, public agencies cast their tax-collecting nets wide, charging sales, property, or income taxes over as broad an area as possible. But this left them obligated to provide transit service to many areas that had few transit customers.

Whether it was to meet nebulous goals or to justify broader taxation, “routes were extended into inherently unprofitable areas,” noted Lave.¹⁵ One result is that the average number of people on board an urban transit bus declined from 12 in 1977 (the earliest year for which data are available) to 9 in 2008, while the number of people boarding a bus, per bus mile, declined by nearly 40 percent from 1964 to 2008.¹⁶

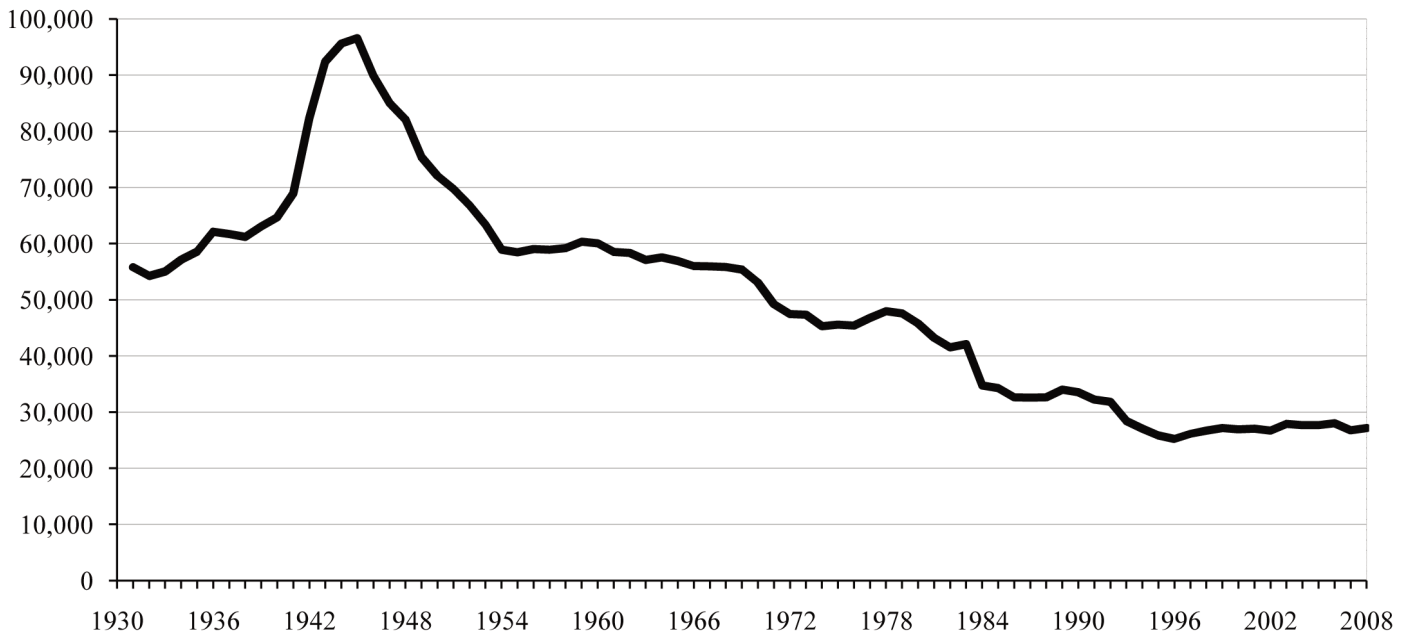
The number of transit riders carried per transit worker declined even more. Figure 1 shows the number of annual trips carried by America’s transit systems for every operating employee for the years 1931 (the earliest year for which data are available) through 2008. The figure shows that transit carried about 60,000 people per employee during the 1930s, surging to more than 90,000 during the war years when gas rationing forced many people to take transit instead of driving, then falling back to around 60,000 trips per worker after the war. While worker productivity then remained constant for a decade, once government took over it declined by more than 50 percent.¹⁷

Far from being an environmental panacea, transit energy efficiencies have also dramatically declined. Between 1970 and 2008, the amount of energy used to move a passenger one mile by automobile declined by nearly 30 percent, but the amount used by transit buses increased by 76 percent and the amount by light- and heavy-rail transit increased by 17 percent.¹⁸ In 2008, transit used an average of 3,360 British thermal units (BTUs) per passenger mile, while passenger cars used an average of 3,440.¹⁹ This is hardly a big enough difference to justify huge subsidies to transit on the basis of energy savings, especially since auto energy efficiencies are rapidly improving.

While worker productivities and energy efficiencies declined, costs rose. From 1965, when

After government took over transit systems, transit worker productivity declined by more than 50 percent.

Figure 1
Transit Trips per Operating Employee



Source: 2010 *Public Transportation Fact Book*, Appendix A: Historical Tables, Tables 1 and 12 (Washington: American Public Transportation Association).

the federal government began subsidizing transit, through 2008, the latest year for which data are available, adjusting for inflation using the consumer price index (CPI), fares collected per trip declined by nearly 24 percent, while operating costs per trip rose by 125 percent. When adjusting for inflation using gross domestic product deflators, fares per trip declined only 4 percent but costs per trip rose 184 percent. Total operating subsidies have grown from \$0.6 billion in 1965 to \$24.5 billion in 2008 (adjusted using GDP deflators).²⁰

One reason for the rise in costs is that Congress required transit agencies whose employees were represented by labor unions—meaning most of them—to obtain union support to be eligible for federal grants. As Charles Lave noted, the unions used this as leverage to win generous pay and benefit contracts.²¹

The *New York Times* reports that more than 8,000 of the New York Metropolitan Transportation Authority’s 70,000 employees

earned more than \$100,000 in 2009, with one commuter-train conductor collecting nearly \$240,000. One locomotive engineer earned a \$75,000 base salary, \$52,000 in overtime, and \$94,600 in “penalty payments,” extra pay for driving a locomotive outside of the yard in which he worked. Engineers would earn two days pay for driving two different kinds of locomotives—electric and diesel—in one day.²²

Overtime alone costs the MTA \$560 million a year.²³ That includes \$34 million in “phantom” overtime paid to workers while they were on vacation.²⁴ When Los Angeles’ transit agency attempted in 2000 to save money by, among other things, hiring more employees to reduce overtime costs, union workers went on strike for 32 days until the agency backed down.²⁵

The MTA is not alone; tales of bus drivers earning more than \$100,000 per year can be found throughout the United States. The highest-paid city employee in Madison, Wisconsin, is a bus driver who earned nearly \$160,000 in 2009.²⁶ San Francisco Muni paid

nearly 20 percent of its employees more than \$100,000 (including benefits) in 2009.²⁷

Another reason costs have increased is that transit agencies have invested heavily in high-cost transit systems when lower-cost systems would work as well. Between 1992 and 2008, more than 35 percent of transit capital investments have been spent on commuter- and light-rail systems. In 2008 these modes accounted for more than 15 percent of operating costs, yet carried only 9 percent of transit riders.²⁸

Since 1965, federal, state, and local taxpayers have provided more than \$500 billion (inflation-adjusted) in operating subsidies to transit. Complete data on capital funding are not available before 1988, but evidence suggests that capital subsidies typically equal about 60 percent of operating subsidies.²⁹ Thus, it is likely that taxpayers have provided more than \$800 billion (inflation-adjusted) in subsidies to transit since 1965.

At best, all this money has done is arrest the decline in transit ridership. In 1944, about 84 million Americans lived in urban

areas, and they rode transit an average of 275 times a year. Since that year, per capita urban ridership declined steadily to 60 trips per year in 1965 and less than 50 trips per year in 1970. Since then, it has fluctuated—mainly in response to gasoline prices—between about 40 and 50 trips a year, settling at 45 trips per year in 2008.³⁰

Although the national average is 44 trips per urban resident, fewer than two dozen urban areas out of the more than 320 that provide transit service exceed this average. Transit systems in nearly half of all urban areas with transit service attract fewer than 10 rides per resident per year.

As Table 1 suggests, urban areas with high rates of transit ridership tend to have large concentrations of jobs at the urban core (such as New York City; San Francisco; and Washington, DC) or are college towns (as in State College, Pennsylvania; Ames, Iowa; and Champaign–Urbana, Illinois). The presence or absence of expensive rail transit does not seem to be an important factor in the overall use of transit.

Transit agencies have invested heavily in high-cost transit systems when lower-cost systems would work as well.

Table 1
Top 50 Urban Areas by 2008 Per Capita Transit Trips

Urban Area	State	Transit Trips	Population	Per Capita Trips
New York*	NY	3,982,936,323	18,395,242	217
San Francisco–Oakland*	CA	434,655,224	3,266,471	133
Washington*	DC	489,483,961	4,205,492	116
Honolulu	HI	71,309,970	745,763	96
Boston*	MA	376,529,314	4,125,435	91
State College	PA	6,559,617	75,053	87
Ames	IA	4,646,554	55,022	84
Chicago*	IL	609,080,503	8,466,375	72
Champaign–Urbana	IL	9,605,069	134,584	71
Philadelphia*	PA	351,752,800	5,193,443	68
Davis	CA	4,688,300	74,682	63
Seattle*	WA	183,588,167	2,931,544	63
Portland*	OR	111,693,176	1,807,054	62
Los Angeles*	CA	698,339,657	12,175,434	57

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Table 1 Continued
Top 50 Urban Areas by 2008 Per Capita Transit Trips

Urban Area	State	Transit Trips	Population	Per Capita Trips
Bellingham	WA	5,130,053	91,728	56
Gainesville	FL	9,043,242	172,389	52
Baltimore*	MD	111,243,038	2,138,711	52
Livermore	CA	4,564,865	89,159	51
Denver*	CO	101,312,011	2,101,519	48
Eugene	OR	11,587,710	242,297	48
Springfield	MA	26,733,542	577,810	46
<i>National total/average</i>		<i>233,505,871</i>	<i>10,256,681,637</i>	<i>44</i>
Las Vegas	NV	66,168,163	1,512,119	44
Santa Barbara	CA	8,283,975	191,536	43
Salt Lake City*	UT	41,713,708	971,263	43
Pittsburgh*	PA	69,399,410	1,673,551	41
Durham–Chapel Hill	NC	12,839,863	312,364	41
Milwaukee	WI	53,702,791	1,331,111	40
Ann Arbor	MI	12,025,530	301,638	40
Madison	WI	13,719,186	348,208	39
Atlanta*	GA	163,066,276	4,171,166	39
Lansing	MI	11,370,744	294,212	39
Minneapolis–St. Paul*	MN	94,799,207	2,459,603	39
Lafayette	IN	5,028,088	131,412	38
San Diego*	CA	104,805,966	2,743,739	38
Austin	TX	37,399,219	1,072,865	35
Cleveland	OH	57,681,474	1,688,665	34
San Antonio	TX	48,349,481	1,455,487	33
Spokane	WA	11,851,256	357,750	33
Miami*	FL	172,464,050	5,237,997	33
Syracuse	NY	12,658,913	393,841	32
Olympia	WA	5,141,672	169,765	30
Bloomington	IN	2,861,499	97,045	29
Bremerton	WA	5,375,564	184,191	29
San Jose*	CA	45,700,017	1,595,153	29
Fresno	CA	17,148,254	604,971	28
Buffalo*	NY	26,173,336	925,606	28
Duluth	MN	3,244,277	116,315	28
Rochester	NY	17,652,858	679,487	26
Tri-Cities	WA	4,894,190	189,089	26
St. Louis*	MO	53,675,790	2,102,409	26

* Urban areas with rail transit in 2008.

Source: Transit ridership from 2008 *National Transit Database*, “agency UZAs” and “service” spreadsheets; urbanized area populations from 2008 *American Factfinder*, table B01003 for all urbanized areas, tinyurl.com/23s25bj.

While per capita ridership may have remained steady at about 40 to 50 trips per year, transit's share of travel has declined as per capita urban driving has grown. From 1970 through 2008, per capita transit ridership stagnated, but per capita driving of personal vehicles grew by 120 percent.³¹ As a result, transit's share of motorized urban travel fell from 4.2 percent in 1970 to 1.8 percent in 2008.³²

The Transit Tax Crisis

The Great Recession has not treated transit riders well. A group called Transportation for America has documented that well over 100 major transit agencies cut or proposed to cut service or raised fares in response to the recession in 2009.³³ The American Public Transportation Association (APTA) estimates that more than 80 percent of transit agencies have raised fares and/or cut services.³⁴ By reducing tax support for transit, the recession has left many agencies with a "budget gap" equal to the shortfall in funds required to maintain transit service at previous levels. These agencies have taken some dramatic steps to close the shortfalls:

- New York's MTA closed part of a \$1.2 billion budget gap in 2009 by raising fares up to 30 percent and eliminating 2 subway and 35 bus lines, yet it still expects a \$1 billion budget gap in 2010.³⁵
- One MTA proposal to help close the shortfall sparked especially strong opposition: the transit agency proposed to start charging full fares to schoolchildren.³⁶ Historically, free and discounted fares to schoolchildren have saved New York City the cost of a separate school bus service. The agency dropped this proposal after strong protests.³⁷
- New Jersey Transit responded to a \$300 million budget gap by raising fares as much as 25 percent.³⁸
- The Chicago Transit Authority laid off

1,100 workers, or about 10 percent of its work force.³⁹

- Despite a sales tax increase aimed at eliminating a \$160 million deficit in 2010, Boston's Massachusetts Bay Transportation Authority (MBTA) expects a \$73 million budget gap in 2011.⁴⁰
- Clayton County, Georgia, completely terminated its suburban Atlanta bus services in March 2010.⁴¹

Transportation for America and APTA use these cuts to argue for more subsidies to transit. In particular, these groups would like to see Congress allow transit agencies to spend a larger share of federal funds on operations instead of just capital improvements. Those groups overlook an important lesson about the costs of relying on taxes to fund most of their programs: revenue from such taxes can vary dramatically with the economy, leaving transit agencies highly vulnerable to economic downturns.

Transit agencies spend about \$36 billion a year on operations. Of this, slightly less than a third comes from transit fares, while slightly more than a third comes from state or local taxes—mostly sales taxes—dedicated to transit. Only about 7 percent comes from federal funds, and most of the rest, or about a quarter of operating costs, comes from annual or regular appropriations by state legislatures or local city or county commissions.

Some transit agencies, such as the Washington Metropolitan Area Transit Authority and Philadelphia's Southeastern Pennsylvania Transportation Authority, have no sales or other taxes dedicated to their programs and rely on annual appropriations by state legislatures or local municipalities. Because appropriators are fickle, these agencies look enviously on other agencies that do receive dedicated sales or other taxes.

Taxes, however, can also vary widely in response to economic cycles. Few agencies build up a reserve fund during boom years, partly because they fear if they have a large reserve then some other government body will either cut its contribution to the agency or demand a share of the agency's revenue.

Revenue from taxes can vary dramatically with the economy, leaving public transit agencies highly vulnerable to economic downturns.

Transit agencies are in a constant hunt for new taxes to support deficit-ridden operations.

For example, when Capital Metro, Austin's transit agency, built up a \$200 million reserve fund, the city of Austin demanded that the agency yield some of its revenue to the city. Capital Metro built a rail line to use up that reserve fund, and now is deep in debt.⁴²

With little reserves, most agencies are forced to cut transit service during recessions, and the cuts often result in significant declines in transit ridership. For example, during the dot-com crash, San Jose, California, saw a 15 percent decline in jobs, but the region's transit agency was forced to cut bus service by 19 percent. The combination of job losses and reduced transit service resulted in a 34 percent decline in transit ridership.⁴³

To avoid deficits, transit agencies are in a constant hunt for new tax dollars. For example, the New York MTA enjoys dedicated subsidies from New York City bridge tolls, a share of state gas taxes, corporate taxes, a local sales tax, and a real estate transfer tax.⁴⁴ Yet the agency recently sought a so-called congestion toll (actually a fee charged to anyone who drives a car into Manhattan).⁴⁵ When that idea failed, the MTA proposed a "millionaire's tax" on all New Yorkers who earn more than a million dollars a year.⁴⁶ While the legislature failed to pass either of those taxes, it did approve five others, including a payroll tax, for transit. Yet even with the new taxes, MTA had nearly a billion dollar gap in its 2010 operating budget.⁴⁷

Or consider Portland, Oregon. In 1998, Portland-area voters rejected a property tax increase to fund a new light-rail line. Portland's transit agency decided to build the line anyway, financing it partly by deferring replacement of its buses. A decade later, the agency has one of the oldest bus fleets in the nation, so now it plans to ask voters to raise property taxes so it can replace the buses.⁴⁸

While many transit agencies have responded to the recession by raising fares, this is often considered to be an option of last resort. In New York City, fares cover around 40 percent of operating costs, so an increase in fares can do much to close budget gaps. But in most other cities, fares cover a much smaller portion

of operating costs: just 12 percent in Phoenix, 15 to 20 percent in Cleveland, Houston, Salt Lake City, and San Francisco (Muni), and 20 to 30 percent in Atlanta, Denver, Pittsburgh, Portland, and St. Louis. Raising fares in these cities does little to close budget gaps, especially considering that fare increases inevitably reduce ridership, so that a 10 percent fare increase produces less than a 10 percent increase in revenues.

Raising fares can also have as great political repercussions as raising taxes, especially since transit riders are easily identified as "victims" while taxpayers tend to be nebulous. When New York's MTA raises fares in 2007, U.S. congressman Anthony Weiner (D-New York) lamented, "middle-class New Yorkers and those struggling to make it are bearing the cost" of transit, while Transit Workers Union official Roger Toussaint worried that "straphangers are left to foot a bill that isn't theirs." Both believed filling the agency's budget gaps was somehow the responsibility of the state, not the people who actually ride transit. State assemblyman Richard Brodsky (D-Westchester) vowed, "The burden of funding mass transit would not be borne solely by riders," adding, "everyone in the region should share the cost."⁴⁹

The Transit Debt Crisis

Transit agencies that have invested heavily in rail transit are especially vulnerable to economic downturns because of their debt load. Bus-only agencies rarely need to borrow money, partly because buses are inexpensive compared with trains and partly because federal grants provide much of the funding for bus purchases. But agencies that build new rail lines, or need to rehabilitate old ones, almost always go heavily into debt to do so, particularly because the federal government usually pays no more than half the cost of the rail lines.

For every \$3 spent on operations, Boston's Massachusetts Bay Transportation Authority (MBTA, sometimes known as "the T" for

short) spends more than \$2 on principal and interest on its debt.⁵⁰ According to a recent report published by the MBTA, the agency “is mired in a structural, ongoing deficit that threatens its viability.” Until recently, the agency has maintained service only by refinancing its debt at lower interest rates, but interest rates are not likely to get much lower than they are today. “No amount of reorganization, reform, or efficiencies can generate the \$160 million needed to close the FY10 budget gap,” says the report, “let alone the even larger deficits projected in the future. Until the MBTA’s underlying debt and financing weaknesses are addressed, all such changes, at best, will only delay the T’s day of reckoning.”⁵¹ Ironically, the agency reached this condition several years after the Massachusetts legislature first dedicated a share of state sales taxes to transit, thus showing that having a dedicated tax does not insulate transit agencies from financial problems.

The MBTA may have the heaviest debt load of any major transit agency, but others are nearly as bad. For every \$5 spent on operations, St. Louis Metro spends more than \$3 servicing its debt. Salt Lake City’s Utah Transit Authority and San Francisco’s BART spend close to a dollar on debt for every \$2 spent on operations. Atlanta’s MARTA, Chicago’s Metra, and Los Angeles County’s Metropolitan Transit Authority each spend about \$1 on debt for every \$3 on operations. The Chicago Transit Authority and TriMet of Portland have ratios of more than 1 to 4. Transit agencies this heavily in debt are especially vulnerable to downturns because small declines in tax revenues can force them to make proportionately larger cuts in service.

The Transit Pension Crisis

On top of problems with mounting debt, most transit agencies also offer workers generous health care benefits and pension plans. Transit “subsidies sent the wrong signals to management and labor,” observed Lave. “Labor interpreted the message to mean: management now has a sugar daddy who can pay

for improvements in wages and working conditions.”⁵²

TriMet of Portland agreed to a benefits package that provides 100 percent of health care costs for all employees, their families, and retirees. The package was so generous that TriMet’s board president resigned in protest, calling it the “greatest coup in the history of public employment in our city.” Because of this and other benefits, TriMet employees now receive \$1.18 in benefits for every \$1 they collect in pay.⁵³ Few other transit agencies are quite so generous with fringe benefits, but the Chicago Transit Authority, New Jersey Transit, San Francisco BART, and Washington Metro all pay 75 to 85 cents in benefits for every dollar in salary or wages.⁵⁴

The big problem is not current benefits but the currently unfunded obligations to pay out pensions and health care costs in the future. New York’s MTA has \$15 billion in unfunded liabilities on top of close to \$30 billion in debt. Portland’s unfunded liabilities are more than 10 times fare revenues and two times operating costs. Other agencies with particularly heavy unfunded liabilities include the Boston MBTA, Houston Metro, Pittsburgh PATH, St. Louis Metro, and Washington Metro.

Agency managers and boards may agree to take on the unfunded liabilities because most of the costs are deferred to the future, but eventually the costs catch up to the agencies. A recent audit of the Chicago Transit Authority found that its “retiree healthcare plan is on the verge of fiscal collapse.”⁵⁵

The Transit Infrastructure Crisis

America’s transit systems are suffering from an infrastructure crisis that, among other things, was responsible for an accident that killed nine people on the Washington Metro-rail system in June 2009.⁵⁶ According to a 2010 report from the Federal Transit Administration, the nation’s transit industry has a \$78 billion backlog of work that must be done to bring transit assets into a “state of good repair.”

For every \$3 spent on operations, Boston’s transit agency spends more than \$2 on principal and interest on its debt.

Table 2
Annual Transit Fares, Costs, and Debt (millions of dollars)

Urban Area	Agency	Fares	Operating Costs	Debt	Debt Service
New York	MTA	4,350.0	10,117.4	29,600.0	1,713.0
New Jersey	NJT	754.4	1,836.7	3,820.1	294.6
Washington	WMATA	683.3	1,479.7	1,195.8	174.7
Chicago	CTA	505.7	1,251.2	4,616.8	332.5
Boston	MBTA	448.8	1,232.0	5,679.8	840.4
Philadelphia	SEPTA	404.8	1,168.3	352.4	36.9
Los Angeles	LACMTA	334.0	1,181.7	4,473.0	355.9
San Francisco	BART	318.1	572.5	1,461.9	242.5
Chicago	Metra	251.7	594.6	2,410.2	193.5
San Francisco	Muni	150.4	756.0	54.8	7.3
Atlanta	MARTA	105.2	390.9	2,050.3	130.6
Denver	RTD	96.9	388.0	1,203.6	82.3
Portland	TriMet	90.0	424.3	370.0	111.5
San Diego	MTS	85.2	208.7	241.0	30.7
Pittsburgh	PATH	78.2	362.2	374.1	44.8
Houston	Metro	67.1	417.8	337.1	11.1
St. Louis	Metro	59.4	219.6	919.4	129.2
Cleveland	RTA	47.7	252.1	205.7	20.0
San Jose	VTA	36.2	301.9	625.4	40.2
Phoenix	Valley Metro	32.5	71.5	100.1	2.6
Salt Lake City	UTA	33.5	181.0	1,655.9	82.8

Source: Comprehensive annual financial statements for the agencies indicated for 2009, except Cleveland and Pittsburgh, which are for 2008.

Note: Operating costs exclude depreciation. Debt includes capital leasing obligations. Operating costs and debt for New York MTA include only that portion relating to transit, not to bridges and tunnels. Debt service includes principal and interest for the most recent year available; depending on terms, debt service obligations may increase in the future even without added borrowing.

Portland transit employees receive \$1.18 in benefits for every \$1 they collect in pay.

Annual maintenance spending is less than is needed just to keep rail and bus systems in their current state of poor repair, so the overall system is deteriorating.⁵⁷

Although much attention has been paid to a supposed infrastructure crisis involving roads and highway bridges, the truth is that

there is no highway infrastructure crisis. The gas taxes, tolls, and other user fees that fund most of our highway system have been adequate, even after being raided to subsidize transit, to keep state highways in good shape. The number of bridges that are rated “structurally deficient” has declined by nearly 50 percent

Table 3
Unfunded Actuarial Accrued Liabilities (millions of dollars)

Urban Area	Agency	Unfunded Liability	Share of Operating Costs (%)
New York	MTA	15,061.50	149
New Jersey	NJT	779.8	42
Washington	WMATA	1,565.30	106
Chicago	CTA	690	55
Boston	MBTA	1,843.70	150
Philadelphia	SEPTA	406.8	35
Los Angeles	LACMTA	1,090.10	92
San Francisco	BART	460.9	81
Chicago	Metra	11.6	2
San Francisco	Muni	436	58
Atlanta	MARTA	222.9	57
Denver	RTD	85.4	22
Portland	TriMet	907	214
San Diego	MTS	86.8	42
Pittsburgh	PATH	701.3	194
Houston	Metro	476.6	114
St. Louis	Metro	223.1	102
San Jose	VTA	262.9	87
Salt Lake City	UTA	73.2	40

Source: Comprehensive annual financial statements for the agencies indicated for 2009, except Cleveland and Pittsburgh, which are for 2008.

since 1990.⁵⁸ The average “roughness rating”—which ranges from under 60, meaning “very smooth,” to more than 220, meaning “very rough”—has improved from 92 to 78 in the last decade.⁵⁹ Some local highways and bridges may have problems, but our national system of interstate, U.S., and other state highways is in good shape.

The same cannot be said for the nation’s transit systems, which are steadily declining. The primary culprits for this maintenance backlog are the rail systems in the 10 urban areas with rail lines more than 30 years old.⁶⁰ A

2009 FTA report found that the maintenance backlog of seven of the nation’s largest transit systems, which together carry more than half of all transit trips, was \$50 billion, \$46 billion of which was for rail transit.⁶¹ The 2010 report, which estimated the backlog for all of the 400 or so transit agencies in the country, found that about three-fourths of the maintenance backlog was due to rail transit.⁶²

Boston, Chicago, and Washington seem to be vying for the title of the nation’s worst-maintained transit system. An independent review commissioned by the governor of

The nation’s transit industry has a \$78 billion maintenance backlog, and annual maintenance spending is not even enough to keep systems in their current state of poor repair.

Because of inadequate maintenance, the June 2009 Washington MetroRail crash that killed 9 people was practically inevitable.

Massachusetts reported that “the outlook is bleak” for Boston’s transit system because the system was deteriorating faster than the Massachusetts Bay Transportation Authority could maintain it. In 2010, the agency said that it needed \$3 billion to bring the system up to a state of good repair, but it was able to find only about \$200 million. Many projects estimated to be essential for safety were left unfunded. Worse, the agency estimated that it needed to spend \$470 million a year—more than twice the amount it had available—just to keep the system from deteriorating further.⁶³

The Chicago Transit Authority is “on the verge of collapse” both physically and financially. The train from O’Hare Airport to downtown Chicago must slow to 6 mph over part of its journey because the tracks are in such poor shape. The CTA says it needs more than \$16 billion to bring the system back to a state of good repair.⁶⁴

The National Transportation Safety Board’s report on the June 2009 Washington Metrorail crash that killed nine people suggests that such an accident was practically inevitable. Nearly half of the signals that Metrorail uses to keep trains from colliding are obsolete and could malfunction at any time. In fact, the signals in the particular stretch of track where the accident occurred had not been working for several days prior to the collision. On top of that, a quarter of the railcars in Metrorail’s fleet offer occupants little protection in case of collisions, and the NTSB had urged Metrorail to replace them several years before. Metrorail replied that it had budgeted only \$30 million over the next three years for safety improvement, which would only be enough to replace a handful of railcars.⁶⁵

New York City’s transit system reached a nadir in the 1980s, when trains experienced one breakdown for every 6,600 miles of service. Since then, the city has invested more than \$20 billion in restoring transit and now has one breakdown for every 140,000 miles of service. Still, the Metropolitan Transportation Authority estimates that it needs \$16.5 billion more to bring the entire system into a state of good repair.⁶⁶

New York has set a goal to bring its entire transit system into a state of good repair “for the first time in history.”⁶⁷ Yet even if the program is fully funded, some parts of the system will not reach a state of good repair until 2028.⁶⁸ Moreover, one MTA official despairs that “there will never be ‘enough money’” to bring the system into a state of good repair.⁶⁹ One reason is that the city is undertaking expensive—and some say unnecessary—expansion plans even as it lacks the funds to maintain what it has. For example, it has started construction of a new eight-mile Second Avenue subway line, located just two blocks from an existing parallel subway line, that will cost more than \$16.8 billion—about the amount needed to bring the system into a state of good repair.⁷⁰

Nationally, the problem is only going to get worse as newer rail systems age and transit agencies find they do not have the funds to maintain them. The critical time, when most of a rail line’s infrastructure needs rehabilitation or replacement, is when it reaches 30 years of age. The oldest parts of Atlanta’s system turned 30 in 2009. San Diego’s original light-rail line, the first modern light rail in the United States, turns 30 in 2011. Rail lines in Baltimore, Buffalo, Miami, Portland, Sacramento, and San Jose will all reach 30 years of age in the next decade. Virtually none of the transit agencies that operate these rail lines have the financial resources to rehabilitate them when they are worn out, yet few will be able to make the politically tough yet financially responsible decision to cease rail service.

The Obama administration’s choice to head the Federal Transit Administration, Peter Rogoff, charges that transit agency “behavior isn’t responsible.” He reached this conclusion after scores of meetings with agency managers that frequently followed a similar pattern. First, the managers complained that they do not have enough money to operate the systems they have. But then “the glossy brochures come out” and they ask the FTA for money to expand their rail lines.

“If you can’t afford to operate the system you have,” asks Rogoff, “why does it make

sense for us to partner in your expansion? . . . Might it make more sense for us to put down the glossy brochures, roll up our sleeves, and target our resources on repairing the system we have?”

Rogoff advises cities that want to build rail lines that “Paint is cheap, rail systems are very expensive.” Trains may seem exciting, but “you can entice even diehard rail riders onto a bus, if you call it a ‘special’ bus and just paint it a different color than the rest of the fleet.” He adds that cities can also paint designated bus lanes and “move a lot of people at very little cost compared to rail.” What is known as “bus rapid transit,” he continued, “is a fine fit for a lot more communities than are seriously considering it.”⁷¹

The Transit Innovation Crisis

America’s socialized transit industry has completely lost its ability to innovate and respond to changing times. While private transit companies in the 20th century rapidly replaced high-cost rail transit with low-cost buses, public transit agencies have gone backwards, substituting high-cost rail for low-cost buses.

The most recent real innovation in the transit industry was demand-responsive transit, sometimes called “dial-a-ride.” Conceived in the 1970s, this system allowed people to schedule a pickup with a telephone or other telecommunications device. A small bus or van would arrive at or near their door and take them to their destination, stopping to pick up or drop off other passengers along the way.

The only transit agency to make a serious attempt at a broadly available dial-a-ride system was San Jose’s Santa Clara County Transit District, and that experiment ended because it was too successful. Demand for the service was so high that the telephone call center was overwhelmed, and thousands of potential customers were turned away each day by their inability to schedule a pickup. Moreover, the local taxi industry successfully convinced a

state court that the service infringed on its exclusive franchise to carry people door to door, and the agency was given a choice of abandoning the service or effectively buying out the taxi companies. It chose the former.⁷²

Today, automation via the internet would solve the call-center problem. While most transit agencies provide a dial-a-ride service, they limit its use to disabled passengers. With such a small customer base, the average dial-a-ride bus operates at just 12 percent of capacity, and subsidies average \$3 per passenger mile and \$27 per trip, making it the most expensive form of transit in the country.⁷³ Meanwhile, private companies such as SuperShuttle profitably operate dial-a-ride services in almost every major city, but are generally limited by state or local laws to carry passengers only to or from airports.

American cities have millions of people traveling between millions of homes and millions of other destinations. Instead of relying on “small-box transit” that caters to these travel patterns, as dial-a-ride would do, many transit agencies have gone in the opposite direction and focused on big-box transit using obsolete technology that serves a very limited set of destinations. For example:

- In the 1970s, Atlanta, Washington, DC, and the San Francisco Bay Area built subway/elevated systems using technologies dating back to 1904, when New York City installed the first electric-powered subway.
- In the 1980s, San Diego, Portland, Buffalo, and other cities built light-rail systems using technologies dating to 1939, when virtually identical light-rail transit connected Oakland with San Francisco.
- In 2001, Portland started the streetcar fad, using technologies dating to 1888 when Richmond, Virginia installed the first successful electric street railway. Since then, Cincinnati, Dallas, Tucson, and numerous other cities are planning or building streetcar lines.

Since people do not live in patterns that

Instead of relying on “small-box transit,” which caters to modern travel patterns, many transit agencies focus on big-box transit using obsolete technology that serves a limited set of destinations.

Transit supporters who claim that transit saves people money conveniently ignore the subsidies that support more than three-fourths of the costs of transit.

are conducive to successful big-box transit, transit agencies have become social engineers, trying to use the power of government to coerce people into living patterns that will lead them to ride these expensive trains more frequently. Enticements come in the form of subsidies to so-called transit-oriented developments: high-density, mixed-use developments that combine housing with shops and are usually located near a rail station.⁷⁴ Coercion comes in the form of urban-growth boundaries that drive up the cost of single-family housing, which most people prefer.⁷⁵ These policies have not been successful: despite these policies, rail transit continues to carry less than 1 percent of passenger travel in Portland, San Diego, San Jose, Sacramento, and other regions that opened their first new rail lines after 1976.⁷⁶

The Case for Subsidies

Supporters of transit subsidies justify those subsidies by inventing and exaggerating the social benefits of transit. They imagine, for example, that transit is environmentally superior to driving, when in fact, the environmental impacts of transit are approximately equal to driving.⁷⁷ In 2008, for example, operating the average car used about 3,400 British thermal units (BTUs) per passenger mile, while the average transit bus used 4,300.⁷⁸ While rail transit operations use an average just 2,500 BTUs per passenger mile, the energy cost of building rail lines is high.⁷⁹ A complete lifecycle analysis has found that “total lifecycle energy inputs and greenhouse gas emissions contribute an additional 63% for onroad, 155% for rail, and 31% for air systems over vehicle tailpipe operation.”⁸⁰ In other words, the total energy cost of driving is about 5,500 BTUs per passenger mile, while rail transit is about 6,400 BTUs per passenger mile.

Subsidy advocates claim that transit saves people money.⁸¹ In making this claim they both exaggerate the cost of driving and ignore the subsidies that support more than three-

fourths of the cost of transit operations and improvements. Their calculations assume that people only buy new cars, pay full finance charges for the cars, and then buy a new car as soon as the old one is paid off, resulting in an average expenditure of 56 cents per mile. In fact, the average car on the road is 9.2 years old, meaning Americans keep driving cars for an average of more than 18 years. (The average light truck is 7.1 years old.)⁸² Since older cars are fully amortized, their average cost is far lower than 56 cents per mile.

According to the Bureau of Economic Analysis, Americans spent slightly less than \$950 billion in 2008 buying, operating, and maintaining autos, including all related taxes and insurance.⁸³ For that expense, Americans drove cars and light trucks about 2.7 trillion passenger miles, for an average cost of about 35 cents a vehicle mile.⁸⁴ Since the average car carries about 1.6 people, the average cost of auto travel is about 22 cents per passenger mile.

By comparison, transit riders paid \$11.4 billion in fares in 2008 to travel 53.7 billion passenger miles, for an average fare of 21 cents per passenger mile. On top of the fare revenue, transit systems received \$25.0 billion in operating subsidies and \$16.1 billion in capital subsidies. With the subsidies taken into account, the total cost of transit was 98 cents per passenger mile—more than four times greater than the cost of driving (Table 4).⁸⁵

But, say supporters of transit subsidies, highways are subsidized too. To justify federal transit subsidies, they often point to the fact that the federal government paid for most of the cost of the Interstate Highway System. The difference is that interstate highways were funded out of highway user fees, primarily gasoline taxes, on a pay-as-you-go basis. This introduced positive feedback into the system: if highway planners built interstates that people wanted to use, highway users would pay the gasoline taxes needed to fund the interstates. If highway planners built roads to nowhere, people would not buy gasoline to drive those roads and—since the federal government did not allow states to borrow against their shares of future federal

gas tax revenues—state construction programs would slow down. Since transit agencies get most of their funds from taxes, not user fees, the feedback they get from users is much weaker.

If gas taxes are considered a form of highway user fee, there are almost no federal subsidies to highways and few state subsidies. In 2007, highway users paid \$39.5 billion in federal highway user fees, of which \$33.5 billion was actually spent on highways. Highway users also paid \$78.4 billion in state highway user fees, of which \$60.7 billion was actually spent on roads. Much of the rest of the user fee money was used to subsidize mass transit. Offsetting those diversions, the federal government spent about \$2.5 billion in general funds on roads, while the states spent about \$16.2 billion on roads. The net effect is that federal and state highway subsidies were virtually nil.⁸⁶

There were subsidies at the local level, mainly because most localities do not collect highway user fees. While local governments collected about \$5.1 billion in user fees (about \$1 billion of which was diverted to mass transit), they spent \$35.4 billion in general funds on roads. The net subsidy of about \$34.4 billion works out to less than a penny per passenger mile.⁸⁷

The situation changed slightly in 2008. When Congress passed the sexennial surface transportation reauthorization bill in 2005, it authorized more spending out of highway user fees—including billions of dollars diverted to mass transit—than highway users are paying. The Highway Trust Fund—an imaginary account that keeps track of fund balances—ran out of money in 2008. To keep revenues flowing to the states, Congress appropriated \$6 billion to highways and \$2 billion to mass transit.⁸⁸ This is less a subsidy

Unlike transit, interstate highways were funded out of user fees, creating a feedback loop: if planners built interstates that people wanted to use, users would pay the taxes needed to fund the roads.

Table 4
Sources of 2008 Transit Funds (millions of dollars)

	Operating	Capital	Total
Federal	2,568	6,419	8,986
State	9,405	1,984	11,389
Local	10,756	7,589	18,345
Other	2,307	110	2,417
Fares	11,378	0	11,378
Total	36,414	16,101	52,515
Subsidies	25,036	16,101	41,137
Cost per passenger mile	0.68	0.30	0.98
Cost per trip	3.55	1.57	5.12
Subsidy per passenger mile	0.47	0.30	0.77
Subsidy per trip	2.43	1.56	3.99

Source: “2008 National Transit Profile,” Federal Transit Administration, 2009, p. 1, tinyurl.com/2cmnujk.

Note: Transit carried 10.3 billion trips, traveling 53.7 billion passenger miles in 2008.

If the goal of transit is to help people who cannot drive or cannot afford a car, that goal would be better served by giving those people transportation vouchers they can apply to any public conveyance.

**Table 5
Highway Subsidies in 2008**

	General Funds (millions)	Diversions (millions)	Net Subsidy (millions)
Federal	11,049	5,623	5,426
State	13,828	16,865	-3,037
Local	36,286	1,069	35,217
Total	61,163	23,557	37,606
Vehicle miles of travel			2,793,509,000,000
Subsidy in cents per vehicle miles of travel			1.3
Passenger miles of travel			4,871,683,000,000
Subsidy in cents per passenger mile			0.8

Source: *Highway Statistics 2008* (Washington: Federal Highway Administration, 2009), tables HF-10 and VM-1.
 Note: “General funds” are nonhighway user fees spent on highways. “Diversions” are highway user fees spent on transit and other nonhighway programs. Note that highways carried nearly 100 times as many passenger miles as transit, yet transit subsidies were significantly larger than highway subsidies even in a year of unusually large highway subsidies.

to highways than a consequence of irresponsible spending. Even if considered a subsidy, total subsidies to highways in 2008 still add up to less than a penny per passenger mile, while transit subsidies averaged 77 cents per passenger mile.⁸⁹

Other reasons often given for subsidizing transit are just as invalid. Critics of transit subsidies are accused of being heartless to the low-income people who heavily patronize transit.⁹⁰ But if the goal of transit is to help people who cannot drive or cannot afford a car, that goal would be better served by giving those people transportation vouchers they can apply to any public conveyance than by creating government monopolies that focus more on pleasing elected officials than users.

In general, the goals that transit supposedly contributes to, whether congestion relief, reduced air pollution, or offering mobility to low-income people, can invariably be achieved at a far lower cost using

tools other than socialized transit systems. One of those tools is a private, market-driven transit system.

The Case for Privatization

All the problems identified in this report are a direct result of public ownership of transit systems:

- Transit productivity has declined because transit managers are no longer obligated to ensure that revenues cover costs. In fact, in the world of government, agency managers are respected for having larger budgets, which leads transit managers to use tools and techniques that actually reduce productivity.
- Transit’s tax traumas during the recession are typical of government agencies that create new programs during boom peri-

ods that are not financially sustainable in the long run. Private businesses do the same thing, but are able to slough off marginal operations during recessions. Public agencies have a difficult time doing so because each program and each transit line has a built-in political constituency demanding continued subsidies.

- Public agencies are also more likely to run up debt because political time horizons are so short: what an agency provides today is much more important than what that service will cost tomorrow. This is especially true when it comes to pensions and other worker benefits whose true costs can be postponed to the politically distant future.
- The tendency to build expensive infrastructure whose maintenance cannot be supported by available revenues is a particular government trait. As one official at the U.S. Department of Transportation says, politicians “like ribbons, not brooms.” In other words, they like funding highly visible capital projects, but they gain little from funding the maintenance of those projects.
- The failure to innovate and the tendency to turn to social engineering when people will not behave the way planners want are inconsistent with the values of a free society.

Ironically, the real problem with public transit is that it has too much money. The addition of tax dollars to transit operations led transit agencies to buy buses and other equipment that are bigger than they need, to build rail lines and other high-cost forms of transit when lower-cost systems would work as well, to extend service to remote areas where there is little demand for transit, and to offer overly generous contracts to politically powerful unions.

Privatizing transit would solve these problems. Private transit operators would have powerful incentives to increase productivity, maintain transit equipment, and avoid transit systems that require expensive infrastructure

and heavy debts. While private transit systems would not be immune to recessions, they would respond to recessions by cutting the least-necessary expenses. In contrast, public agencies often employ the “Washington Monument Syndrome” strategy: they threaten to cut highly visible programs as a tactic to persuade legislators to increase appropriations or dedicate more taxes to the agency, such as New York MTA’s proposal to eliminate discounted fares for students.

Despite the almost complete socialization of America’s transit industry, there remain a few examples of private transit. Though most states have made public transit agencies legal monopolies, there have also been a few new private start-ups in places where private transit is permitted.

The Atlantic City Jitney Association is a group of private bus owners that operate scheduled service on eight routes in Atlantic City. Four of the routes connect the New Jersey Transit rail station with hotels and, being subsidized by the hotels, charge no fares. The other four routes charge fares of \$2.25.⁹¹ The jitneys are all 13-passenger minibuses, individually owned by their operators, which run 24 hours a day. The association was first created in 1915 and claims to be “the longest running nonsubsidized transit company in America.”⁹²

A more extensive jitney or shared taxi service is provided by the *públicos*, or public cars, of Puerto Rico. Like the Atlantic City jitneys, they tend to be individually owned and most are 17-passenger vans. Routes and fares are fixed by a public service commission, and the *públicos* travel both within and between cities. Although San Juan has its own public bus and rail system and several other Puerto Rico cities have public buses, the *públicos* carry more people more passenger miles each year than all the public transit services combined. *Público* fares average \$1.02 per trip, about twice the fares on San Juan’s public buses.⁹³ Similar services operate in many other countries going by such names as *colectivo* (Chile, Columbia, and Nicaragua); *alternativo* (Brazil); *combi* (Argentina); and, when not legally sanc-

The real problem with public transit is that it has too much money, leading it to overspend on equipment and be overly generous with politically powerful unions.

Private jitney services operate without subsidies in New York, New Jersey, Florida, and Puerto Rico.

tioned, *taxi pirata* (Costa Rica and Mexico).

Indeed, similar jitney services have appeared in Miami, New York City, and northern New Jersey. Sometimes called dollar vans, many are registered with state public utility commissions, but some operate illegally. They tend to mainly serve recent immigrants and other minority populations.⁹⁴ More than a dozen different jitney companies serve the Miami-Dade County area, for example, often competing directly with, and charging lower fares than, the publicly subsidized Miami-Dade bus service.⁹⁵

One line that is more upscale is the Hampton Jitney, a bus service that has connected Manhattan with wealthy Long Island enclaves for more than 30 years. Offering comfortable long-distance buses, some of which have two-and-one seating and chef's galleys, and charging around \$24 per one-way trip, the Hampton Jitney attracts 600,000 passengers per year, belying the claim often made by rail advocates that well-off people will only ride trains, not buses.⁹⁶

Another private transit service in the New York-New Jersey area is the NY Waterway system of ferryboats and buses. With the construction of bridges, highway tunnels, and trans-Hudson subways, ferry service across the Hudson River ceased in the 1960s, and no public agency considered restarting the service. But truck company owner Arthur Imperatore, who owned land on both the Manhattan and New Jersey sides of the river, started a ferry service in 1986. Fares included bus service to destinations throughout midtown and downtown Manhattan. The initial operation was so successful that NY Waterway eventually added more than two dozen more routes.

The system was almost too successful for its own good. After the September 11, 2001, destruction of the World Trade Center interrupted Port Authority of New York and New Jersey (PATH) subway service. NY Waterway borrowed heavily to add enough boats to its fleet to meet the increased demand for ferry service. When subway service was restored at the end of 2003, the decline in ferry patronage almost bankrupted the company. It was

saved by selling some of its routes to BillyBey Ferry Company.

In addition to borrowing money after 9/11, NY Waterway received several million dollars in Federal Emergency Management Agency (FEMA) subsidies to provide an alternative to the shutdown subways.⁹⁷ When PATH wanted to start new ferry routes, it provided terminal space to NY Waterway. Otherwise, NY Waterway has been entirely unsubsidized.

The *National Transit Database* reports that, in 2007, NY Waterway earned \$33 million in fare revenues and spent \$21 million on operations; in 2008, it earned \$35 million in revenues and spent \$25 million on operating costs.⁹⁸ BillyBey reported \$7.6 million in fares and the same amount in operating costs in 2007, and \$8.4 million in revenues and \$7.3 million operating costs in 2008.⁹⁹ Debt service is not included in operating costs or reported in the *National Transit Database*, so it is unknown how much of a profit NY Waterway actually made. But it is clear that NY Waterway is doing well, despite facing competition from subsidized buses and PATH subway trains.

At least two private transit services have started in the last year. The Washington Wave, a new jitney service in Houston, is aiming for a more upscale clientele than the one served by New York-New Jersey dollar vans. The jitneys are mainly serving the entertainment districts that are growing around the downtown Houston area. Unlike most cities, Houston has legally allowed jitneys for years, but this is the first time in more than a decade that someone has started such a service.

Clayton County, Georgia, is the previously mentioned county that completely terminated all public bus service in 2010. In response, a private individual purchased buses and is offering service on some of the routes formerly subsidized by Clayton County.¹⁰⁰ The new service charges \$3.50 per ride (with discounts for seniors, children, and the disabled), compared with average fares of \$1.10 for the subsidized buses.¹⁰¹

Although not true privatization, many transit agencies save money by contracting out

transit services to private operators. The success of such operations demonstrates how much more efficient private companies are than public agencies. The Colorado legislature requires that Denver's Regional Transportation District (RTD) contract out half of its bus service to private operators. Despite having to pay taxes and fees that RTD is exempted from, the private operators billed taxpayers \$5.01 per bus mile in 2008, which was just 52 percent of the \$9.65 per bus mile spent by RTD on the buses it operates itself. Nationally, about 16 percent of bus operations are contracted out, at an average cost of \$6.34 per bus mile compared with \$9.80 for in-house operations.¹⁰²

While not urban transit, intercity buses provide a private transportation success story whose lessons are useful for public transit. Beset by competition from subsidized Amtrak and discount airlines, intercity bus service declined steadily through about 2005. But since then it has staged a revival, particularly in well-traveled corridors of the Northeast, Midwest, and California.

The revival actually began in 1998, when a Chinese immigrant named Pei Lin Liang started a discount bus service called Fung Wah ("magnificent wind") between New York and Boston. With the Internet as its reservations clerk, drivers selling tickets to walk-ons, and curbsides serving as bus stations, Fung Wah kept its overhead low and charged half the fares then being charged by Greyhound for the same route. Soon, other individuals and companies imitated Fung Wah's success, and such "Chinatown buses" were seen as attractive, low-cost alternatives for travel in the Northeast.¹⁰³

Eventually, Greyhound and Peter Pan Bus Company formed a joint venture, Bolt Bus, to compete with the Chinatown buses. A British company, Stagecoach, also stepped in with its double-decked Megabuses. Bolt and Megabus offer free wireless Internet service, leather seats, extra legroom, and fares starting as low as \$1.50 and averaging about \$15 for travel from New York to Washington or Boston. Today, around a dozen different companies offer bus service in the Boston-to-Washington corridor,

charging fares that are typically about one-third of Amtrak's conventional trains and one-tenth of Amtrak's high-speed Acela trains. While exact ridership numbers are not available, the American Bus Association reports that the average intercity bus fills about two-thirds of its seats.¹⁰⁴ Even if Boston-to-Washington buses fill only half their seats, they carry as many or more riders as Amtrak.

Generally, these buses run nonstop or with only one stop. For example, bus riders can take their choice of individual buses running from New York to Philadelphia; New York to Baltimore; New York to Rockford, Maryland; New York to Washington; and New York to Norfolk, Virginia. Megabus also offers service throughout the Midwest, but after a one-year experiment it left the California market in late 2008.¹⁰⁵ Other discount bus companies, including CABus, California Shuttle, and USAsia, operate in the Los Angeles-San Francisco and California-Las Vegas corridors, with fares starting as low as \$5.¹⁰⁶ Chinatown-type buses can also be found in Alabama, Arizona, Florida, Georgia, Nevada, North and South Carolina, and Washington State.¹⁰⁷

The American Bus Association estimates that, nationally, scheduled intercity buses carry about 15 billion passenger miles per year.¹⁰⁸ That's about 2.5 times as many passenger miles as Amtrak, which receives subsidies averaging nearly 30 cents per passenger mile compared with subsidies to buses that are nearly zero.

Including capital costs, transit agencies spend an average of more than \$1 per passenger mile on bus service, but intercity buses earn a profit charging less than 15 cents per passenger mile.¹⁰⁹ They do so by going where people want to go and filling at least half to two-thirds of their seats. By comparison, the average public transit bus fills less than a quarter of its seats and, when standing room is counted, just 15 percent of its capacity.¹¹⁰

The Effects of Privatization

Private transit providers will focus on reducing costs and focusing scheduled transit

Private intercity bus service has staged a revival and private buses now carry more passengers between Boston and Washington than heavily subsidized Amtrak.

In low-density areas, private companies may replace scheduled bus services with SuperShuttle-like demand-responsive services that can take anyone door to door.

services on high-demand areas where they can fill a high percentage of seats. To reduce costs, they would employ transit technologies that have minimal infrastructure requirements, use the appropriate size of vehicle for each area served, and economize on labor.

Privatization would probably improve transit service in the inner cities, where most transit patrons live, while it would reduce service in many suburbs, where most people have access to cars. Privatization would also greatly alter the nature of transit services in many cities.

Private investors would be unlikely to expand or upgrade high-cost forms of transit such as light rail, streetcars, and automated guideways. Private operators might continue to run existing rail lines until the existing infrastructure is worn out, which tends to be after about 30 years of service. Rather than rebuild the lines, private operators would probably then replace the railways with low-cost, flexible bus service.

Private operators might find it worthwhile to maintain a few heavy-rail (subways and elevateds) and commuter-rail lines in the long run. Fares cover more than 60 percent of the operating costs of subways/elevateds in New York, San Francisco, and Washington; more than half the operating costs of commuter trains in Boston, Los Angeles, New Jersey, New York, and Philadelphia; and more than half the operating costs of subways/elevateds in Boston and Philadelphia. It is possible that private operation could save enough money to cover operating costs, with enough left over to keep infrastructure in a state of good repair in many of these cities. Most other rail lines, including virtually all of the ones being planned or built today, would not pass a market test, mainly because buses can attract as many riders at a far lower cost.

Bus services would change as well under private operation. In heavily used corridors, private transit services would offer both local bus services (that stop several times per mile) as well as bus rapid transit services that connect major urban centers and rarely stop between those centers. In low-demand areas, private operators would likely substitute 13- to

20-passenger vans for the 40-seat buses currently used by most public agencies. In even lower-demand areas, private companies may elect to focus on SuperShuttle-like demand-responsive services that pick anyone—not just disabled passengers—up at their doors and drop them off at their destinations.

Private Transit Alternatives

In the era of private transit, cities gave transit companies exclusive franchises to operate on specific streets or routes. Since each route was a monopoly, city or state public utility commissions strictly regulated fares and service levels. Some people believe that such regulation hastened the decline of private transit by limiting the ability of transit companies to raise fares to keep up with inflation or cut service on nonperforming routes.¹¹¹

Considering that its chief competition is the automobile, transit can hardly be considered a monopoly today. In contrast to the regulatory model, cities could completely open streets to any transit provider. City or state commissions might ensure that vehicles and drivers are safe, but not regulate fares, routes, or schedules. This is essentially the system used in many developing countries.

In their 1997 book *Curb Rights*, Daniel Klein, Adrian Moore, and Binyam Reja argue that the relatively unregulated model works in developing countries because auto ownership rates are low. In the United States, where demand for transit is lower, the model could fail because transit companies would attempt to pirate customers away from one another—for example by running buses a few minutes ahead of competitors' bus schedules. This would make transit uneconomical for any of the providers and many areas would be left with no service at all. Their solution is to auction transferable curb rights—the right to stop vehicles to pick up and drop off passengers—at selected locations on various routes. Fares and schedules would remain unregulated, but individual transit providers would have routes and customers secure from *taxi piratas*.¹¹²

America has a variety of transit markets, and it is likely that no one solution is best for all of them. New York City has enough demand for transit that the unregulated model might work fine in the absence of curb rights. The demand for transit in Los Angeles might be thin enough that the curb rights model might work best. Smaller cities and towns might prefer the franchise system. Fortunately, with more than 300 urban areas with transit service, there is room for experimentation.

More important than finding the right model at the very beginning is eliminating the current perverse incentives that promote the stultifying socialistic system. Just as the government takeover of transit resulted from actions taken by Congress, so Congress must be the first to take actions to reverse this process. It can do so in the next surface transportation reauthorization bill, which is scheduled for consideration in 2011.

A Privatization Action Plan

Instead of the “complex and nebulous” goals identified by Lave in 1994, urban transit should have a single goal: to efficiently move people who are willing to pay for that transportation. As illustrated by the large differences in costs between buses that are contracted out and buses that are directly operated by public agencies, private businesses are more efficient than publicly owned transit systems.

To achieve this goal, federal, state, and local governments should take the following steps:

1. State and local governments should stop subsidizing highways. In the decade ending in 2008, some \$444 billion in general funds were spent on roads (after adjusting for inflation to 2008 dollars). This was partly offset by \$234 billion in diversions from highway user fees to transit and other nonhighway programs. Even if this offset is not counted, ending the \$444 billion in subsidies will not pose a hardship on drivers, as the subsidies amount to just 1.5 cents for each of the 29 trillion vehicle miles driven in those years.

At the same time, ending the subsidies will provide an important object lesson for the transit industry: transportation can and should pay for itself. Ending highway subsidies will also take away the argument of transit advocates that, since highway users receive subsidies of less than a penny per passenger mile, transit users should receive subsidies of more than 70 cents per passenger mile.

The best way to end the subsidies would be to switch from gasoline taxes to vehicle-mile fees as the basis for paying for highways. As noted by Jim Whitty of the Oregon Department of Transportation at a recent conference on mileage-based fees, electronic fees can be collected for every road, with funds going to the government agency that owns or manages that road; they can vary by the level of traffic in order to minimize congestion; and they can be charged without invading driver privacy.¹¹³ Mileage fees will be more politically palatable to drivers provided, first, that the vehicle-mile fee is a replacement for—not an addition to—existing gasoline taxes and, second, that the collected fees are spent only on highways, roads, and streets, and not diverted to other activities.

2. Congress should phase out subsidies to transit and all other forms of transportation. To the extent that transportation is interstate in nature, Congress should ensure that transportation programs are fiscally prudent. This means that, whenever possible, they should be privately operated and always funded out of user fees, not taxes.

If there is a special need to federally fund some program, such as a program aimed at reducing air pollution, federal funds should be spent on projects that directly address that problem. The idea that funding indirect programs such as transit to reduce congestion, save energy, clean the air, and solve other problems simply leads to wasteful spending on projects that do not really address any of those problems.

3. Congress should eliminate New Starts, Small Starts, the Congestion Mitigation/Air Quality fund, and other nonformula funds. These funds have become “open buckets” that encourage transit agencies to plan wasteful

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Taxes dedicated to transit give transit agencies a license to spend on programs that have no economic or financial justification.

projects in order to get larger shares of federal funds. “Formula funds”—federal funds that are distributed on the basis of such factors as population, land area, and/or actual use—are much better because they are fairly fixed and thus state and local transportation agencies have little incentive to spend on inappropriate projects because more spending will not lead to more federal grants.

4. Congress should include user fees in the formula funds. Funds distributed on the basis of the user fees collected will give transit and other transportation agencies incentives to focus on better service to users rather than on pleasing politicians. For example, a formula that distributes funds to states based 50 percent on user fees, 45 percent on population, and 5 percent on land area initially results in a distribution similar to today’s distribution of highway funds, but in the long run rewards states (and transit agencies within each state) that increase the share of their transportation systems paid out of user fees. Once transit agencies are more focused on user fees, it will be easier for them to privatize transit operations.

5. States should end diversions of gas taxes and other highway fees to transit. In 2008, California diverted more than \$800 million, Pennsylvania diverted more than \$600 million, and other states diverted nearly \$3.7 million in gas taxes to transit. California also diverted \$1.2 million, and other states diverted \$2.6 million, in motor vehicle registration fees to transit. New York diverted almost \$500 million, and other states diverted \$200 million more, in road tolls to transit.¹¹⁴

This unearned money gives transit agencies a license to spend on programs that have no economic or financial justification. They also reduce the public faith in highway user fees, making it difficult for state and local agencies to raise the fees they need to maintain and improve roads.

6. States should end other transit subsidies. In addition to highway user fees, states dedicated more than \$5 billion in income, sales, property, and other taxes to transit operations. Phasing out this money would encourage

transit agencies to privatize their operations.

7. States may want to provide mobility assistance to low-income, disabled, and other people who lack automobility. Instead of giving transit agencies billions of dollars and hoping they will use it to help people who cannot drive, states could give mobility vouchers to such people. These vouchers could be applied to any common carrier form of transportation: airlines, Amtrak, intercity buses, urban transit, or taxis.

8. Transit agencies should privatize their systems in ways that promote efficient services to people in their cities or districts. Where possible, privatization should encourage, or at least allow for, competition. But transit agencies should consider a variety of options (such as franchises, curb rights, and unrestricted competition) to determine what might be best for their particular urban areas.

Conclusion

Public ownership of transit is one of the least defensible government programs in the United States. It has led to a huge decline in transit productivity, a large increase in costs, and only minor increases in outputs. In addition, a powerful lobby of groups now feel entitled to government support—groups that do not include transit riders, for the most part, but instead are mainly rail construction companies and railcar manufacturers, transit contractors, transit employee unions, and the transit agencies themselves. Privatization will make transit responsive to users, not politicians, and will actually lead to better services for many transit users.

Notes

1. 2010 *Public Transportation Fact Book, Appendix A: Historical Tables* (Washington: American Public Transportation Association), tables 1 and 12.

2. *Ibid.*, tables 38 and 42. Includes only bus, heavy rail, light rail, and trolley bus for 2008, as these are the only modes for which data were available in 1964.

3. Charles Lave, "It Wasn't Supposed to Turn Out Like This: Federal Subsidies and Declining Transit Productivity," *Access*, Fall 1994, p. 21, tinyurl.com/2bnkcrb.
4. *National Transportation Statistics* (Washington: Bureau of Transportation Statistics, 2010), tables 3-16, 3-27A, and 3-29A.
5. *National Economic Accounts* (Washington: Bureau of Economic Analysis, 2010), table 2.5.5; *Highway Statistics 2008* (Washington: Federal Highway Administration, 2009), tables HF-10 and VM-1.
6. *Monthly Performance Report for September 2008* (Washington: Amtrak, 2009), pp. A-1.2, A-1.5, and A-2.2.
7. *National Transit Database 2008* (Washington: Federal Transit Administration, 2009), tables T01, T02, T04, T05, and T06.
8. Randal O'Toole, "Does Rail Transit Save Energy or Reduce Greenhouse Gas Emissions?" Cato Institute Policy Analysis no. 615, April 14, 2008, tables 1 and 6.
9. John Matthews, "Tax Revenue Volatility and a State-Wide Education Sales Tax," Fiscal Research Center, Georgia State University, Atlanta, 2005, pp. 3-4, tinyurl.com/2chkw9u.
10. *National Transit Database 2008*.
11. Lave, p. 22.
12. George M. Smerk, *The Federal Role in Urban Mass Transportation* (Bloomington, IN: Indiana University, 1991), pp. 60-61.
13. Lave, p. 23.
14. *Ibid.*
15. *Ibid.*, p. 25.
16. *2010 Public Transportation Fact Book, Appendix A: Historical Tables*, tables 1, 2, and 6.
17. *Ibid.*, tables 1 and 12.
18. Stacey C. Davis, Susan W. Diegel, and Robert G. Boundy, *Transportation Energy Data Book, Edition 29* (Oak Ridge, TN: Department of Energy, 2010), tables 2.13 and 2.14.
19. *2008 National Transit Database*, "energy consumption" and "service" spreadsheets.
20. *2010 Public Transportation Fact Book, Appendix A: Historical Tables*, tables 1, 38, and 42. Costs and fares are for bus, trolley bus, heavy rail, and light rail only as data for other modes are not available before 1984. The consumer price index is from "Consumer Price Index: All Urban Consumers," Bureau of Labor Statistics, 2010, tinyurl.com/334qxx; GDP deflators are from "Historical Tables: Budget of the U.S. Government, Fiscal Year 2011," Office of Management and Budget, 2010, table 10.1, tinyurl.com/y826v9m.
21. Lave, p. 25.
22. Michael Grynbaum, "\$239,000 Conductor Among M.T.A.'s 8,000 Six-Figure Workers," *New York Times*, June 2, 2010, tinyurl.com/3y5stsc.
23. "Much of New York Transit Agency's \$560 Million Overtime Tab 'Can't Be Justified,' Exec Says," *Workforce Management*, May 21, 2010, tinyurl.com/3ydw8w.
24. Heather Haddon, "Contract Perk Allows Transit Workers to Earn OT on Vacation," *AM New York* (blog), July 14, 2010, tinyurl.com/2635ulv.
25. Jeffrey Rabin, "MTA Strike Has Deep Roots in Agency's Past Mistakes," *Los Angeles Times*, September 19, 2000.
26. Dean Mosiman, "Madison Metro Driver Highest Paid City Employee," *Wisconsin State Journal*, February 7, 2010, tinyurl.com/yant5lg.
27. Will Reisman, "SFMTA Employees Top List for \$100K Incomes," *San Francisco Examiner*, June 16, 2010, tinyurl.com/2c55gln.
28. *2010 Public Transportation Fact Book, Appendix A: Historical Tables*, tables 1, 38, and 42.
29. *Ibid.*, tables 38 and 42. Data include all modes.
30. *Ibid.*, table 1. Urban population for 1965 is from "Table 4. Population 1790 to 1990, United States Urban and Rural," Census Bureau, tinyurl.com/deenfb, with numbers interpolated for years between decennial censuses. Urban population for 2008 is from *2008 American Community Survey* (Washington: Census Bureau, 2009), table B01003, "Total Population with Geographic Components," tinyurl.com/3yp57ef.
31. *Highway Statistics Summary through 1995* (Washington: Federal Highway Administration, 1996), table VM-201; *Highway Statistics 2008*, table VM-1. Urban miles of passenger cars, motorcycles, and other 2-axle, 4-tire vehicles. See note 26 for urban populations.
32. Calculated by comparing passenger miles of transit with vehicle miles of driving times 1.6, the

- average number of people per vehicle in urban travel. See *2009 National Household Travel Survey* (Washington: Federal Highway Administration, 2010), "Average Vehicle Occupancy by Mode and Purpose," tinyurl.com/2aabuzl.
33. "Stranded at the Station: The Impact of the Financial Crisis in Public Transportation," *Transportation for America*, 2009, pp. 13–15, 20; Richard Fausset, "Clayton County Loses Vital Bus Service, Link to Atlanta," *Los Angeles Times*, April 1, 2010, tinyurl.com/yhgoj9h.
34. "Impacts of the Recession on Public Transportation Agencies," *American Public Transportation Association*, 2010, p. 2, tinyurl.com/2an23ck.
35. William Neuman, "M.T.A. Forecasts \$1 Billion Deficit Next Year," *New York Times*, April 27, 2009, tinyurl.com/dekt9m.
36. "Plan to End Free Student MetroCards Provokes Outrage," *The Gothamist* (blog), December 15, 2009, tinyurl.com/yhwekeg.
37. "Free Student MetroCards Saved by MTA," *Huffington Post*, June 18, 2010, tinyurl.com/2wp2ohe.
38. Terrence Dopp, "NJ Transit Plans 25% Fare Increase Amid Deficit," *Business Week*, March 5, 2010, tinyurl.com/ybcweo5.
39. "CTA Cuts Start Sunday after Last-Minute Talks Fail," *WGN News*, February 5, 2010, tinyurl.com/2em8n4h.
40. Kyle Cheney, "MBTA Still Faces \$73M Deficit," *Eagle-Tribune*, March 4, 2010, tinyurl.com/3ynpwlh.
41. Richard Fausset, "Clayton County Loses Vital Bus Service, Link to Atlanta," *Los Angeles Times*, April 1, 2010, tinyurl.com/yhgoj9h.
42. Ben Wear, "Austin, Capital Metro Appear to Reach Debt Deal," *Austin Statesman*, April 14, 2010, tinyurl.com/385dk5w.
43. "Santa Clara Valley Transit Authority Transit Profile 2001" (Washington: Federal Transit Administration, 2002), p. 1, tinyurl.com/328jvv; "Santa Clara Valley Transit Authority Transit Profile 2005" (Washington: Federal Transit Administration, 2006), p. 1, tinyurl.com/2rjkmw.
44. Brian Kane, "Born Broke: How the MBTA Found Itself with Too Much Debt, the Corrosive Effects of this Debt, and a Comparison of the T's Deficit to Its Peers," *MBTA*, 2009, p. 7, tinyurl.com/2fcxnr.
45. "Governor Paterson Announces Support for Traffic Mitigation Plan," Governor's Office, State of New York, March 21, 2008, tinyurl.com/25su4sp.
46. Marcia Kramer, "'Millionaire's Tax' Could Fund NYC Mass Transit," *WCBS TV News*, April 9, 2008, tinyurl.com/2c65jvf.
47. "MTA 2010 Preliminary Budget," Metropolitan Transportation Authority, 2009, p. 3, tinyurl.com/yllxwj.
48. Joseph Rose, "TriMet to Ask Portland-Area Voters for \$125 Million to Replace Aging Buses," *Portland Oregonian*, August 11, 2010, tinyurl.com/27um9so.
49. Sewell Chan, "Board Approves Subway and Bus Fare Increase," *New York Times*, December 19, 2007, tinyurl.com/25vw758.
50. "Financial Statements June 30, 2009," Massachusetts Bay Transportation Authority, 2010, pp. 5–6, tinyurl.com/383um53.
51. Kane, p. ES-1.
52. Lave, p. 25.
53. Anita Kissee, "Could TriMet's Fat Benefits Sink the Transit Agency?" *KATU News*, July 16, 2009, tinyurl.com/2ush3ag.
54. Based on an analysis performed by Andrew Hillard of the Cascade Policy Institute, Portland, Oregon, August 2010.
55. "Chicago Transit Authority FY2006 Proposed Budget: Analysis and Recommendations," *The Civic Federation*, 2005, p. 3, tinyurl.com/38ab7u5.
56. Ann Scott Tyson, "For Days before Red Line Crash, Circuit Failures Left Metro Trains Invisible," *Washington Post*, July 31, 2010, tinyurl.com/2dylzns.
57. "National State of Good Repair Assessment," Federal Transit Administration, 2010, p. 19, tinyurl.com/3yws53z.
58. *National Transportation Statistics*, table 1-27, "Condition of U.S. Highway Bridges."
59. *Highway Statistics 1998* (Washington: Federal Highway Administration, 1999), table HM-64; and *Highway Statistics 2008*, table HM-64.
60. Those 10 areas are Atlanta, Boston, Chicago, Cleveland, New York, New Orleans, Philadelphia, Pittsburgh, San Francisco, and Washington.
61. "Rail Modernization Study Report to Congress,"

- Federal Transit Administration, 2009, p. 4, [tinyurl.com/coxk3c](#).
62. “National State of Good Repair Assessment.”
63. David F. D’Alessandro, “MBTA Review,” State of Massachusetts, 2009, pp. 3, 22, 23, [tinyurl.com/2vknatn](#).
64. “Chicago Rail System on Verge of Collapse,” *Engineering News Record*, November 21, 2007, [tinyurl.com/2xlpqy](#).
65. Ann Scott Tyson, “NTSB Blames ’09 Metro Crash on Track Circuit Failures, Negligent Safety Attitude,” *Washington Post*, July 28, 2010, [tinyurl.com/2e6p7c8](#).
66. “Transportation Infrastructure,” City of New York, 2007, pp. 3–5, [tinyurl.com/3x3hp1l](#).
67. “PlaNYC Progress Report 2010,” City of New York, 2010, p. 42, [tinyurl.com/2bxsd55](#).
68. “A Review of MTA New York City Transit ‘State of Good Repair’ Expenditures,” New York City Comptroller, 2007, p. 7, [tinyurl.com/y9wuy5](#).
69. Dave Henley, “New York City Transit,” presentation to the 2009 State of Good Repair Roundtable, Washington, DC, 2009, p. 15, [tinyurl.com/yagtxum](#).
70. Stephen Kaufman, “The Second Avenue Subway—An Abomination of Taxpayer Waste,” *Room Eight* (blog), October 3, 2009, [tinyurl.com/yagvna1](#).
71. Peter Rogoff, “Next Stop: A National Summit on the Future of Transit,” presentation at the Federal Reserve Bank of Boston, May 18, 2010, [tinyurl.com/28km9vs](#).
72. Charles S. McCaleb, *Tracks, Tires and Wires: Public Transportation in California’s Santa Clara Valley* (Glendale, CA: Interurban Press, 1981), p. 125.
73. “2008 National Transit Profile,” Federal Transit Administration, 2009, p. 1, [tinyurl.com/cmnujk](#).
74. See, for example, Jennifer Lang, “New Urban Renewal in Colorado’s Front Range,” Independence Institute, 2007, p. 7, [tinyurl.com/24udsur](#).
75. Randal O’Toole, “The Planning Tax: The Case against Regional Growth-Management Planning,” Cato Institute Policy Analysis no. 606, December 6, 2007, [tinyurl.com/lp9djl](#).
76. *2008 National Transit Database*, “service” spreadsheet; *2008 Highway Statistics*, table HM-72.
77. Randal O’Toole, “Does Rail Transit Save Energy or Reduce Greenhouse Gas Emissions?” Cato Institute Policy Analysis no. 615, April 14, 2008, table 1.
78. Stacy C. Davis, Susan W. Diegel, and Robert Boundy, *Transportation Energy Data Book: Edition 29* (Oak Ridge, TN: Department of Energy, 2010), table 2.13.
79. *Ibid.*, table 2.14.
80. Mikhail V. Chester and Arpad Horvath, “Environmental Assessment of Passenger Transportation Should Include Infrastructure and Supply Chains,” *Environmental Research Letters* 4 (2009), [tinyurl.com/njz4vt](#).
81. “Save \$9,381 Annually by Riding Public Transportation,” American Public Transportation Association, press release, August 11, 2010, [tinyurl.com/29w2hj9](#).
82. *National Transportation Statistics* (Washington: Bureau of Transportation Statistics, 2009), table 1-25, [tinyurl.com/2wrghxs](#).
83. “Personal Incomes Expenditures by Type of Expenditure,” Bureau of Economic Analysis, table 2.5.5, rows 54 and 57, [tinyurl.com/354vena](#).
84. *Highway Statistics 2008*, table VM-1, [tinyurl.com/26s2vjx](#).
85. “2008 National Transit Profile,” Federal Transit Administration, 2009, p. 1, [tinyurl.com/2cmnujk](#).
86. *Highway Statistics 2008*, table HF-10A, [tinyurl.com/376etq5](#).
87. *Ibid.*
88. *Highway Statistics 2008*, table HF-10, [tinyurl.com/38a7wka](#).
89. In the spreadsheet version of table HF-10 ([tinyurl.com/38pb6w5](#)), total subsidies are calculated by adding the negative numbers in cells O16 and O17 (diversions of user fees to nonhighway programs) to cell O32 (expenditures of general funds and other nonuser fees on highways).
90. Matthew Yglesias, “Cars Are Expensive, Poor People Need Transit,” *Think Progress*, June 4, 2010, [tinyurl.com/29dnmv2](#).
91. “Jitney Ticket Sales—Routes,” Atlantic City Jitney Association, [jitneys.net/573.html](#).
92. “What We Do—Who We Are,” Atlantic City Jitney Association, [jitneys.net/552.html](#).

93. *National Transit Database 2008*, “service” and “fare revenue by mode” spreadsheets.
94. Lynn Wohlwend, “Council Eyes Color Coding to Make ‘Dollar Vans’ Safer,” *Queens Chronicle*, April 6, 2006, tinyurl.com/2egdwrz.
95. Lisette Corsa, “A Life in Transit,” *Miami New Times*, June 8, 2000, tinyurl.com/2flvesf.
96. Jen Wieczner, “Taking City Dwellers to the Hamptons in Style,” *Wall Street Journal*, August 27, 2010, tinyurl.com/38u2op2.
97. Sascha Brodsky, “Many Routes to Ferry King’s Success,” *Downtown Express*, July 17, 2002, tinyurl.com/b54snr.
98. *National Transit Profiles 2007* (Washington: Federal Transit Administration, 2008), “Port Imperial Ferry Corporation dba NY Waterway” and *National Transit Profiles 2008* (Washington: Federal Transit Administration, 2009), “Port Imperial Ferry Corporation dba NY Waterway.”
99. *National Transit Profiles 2007*, “BillyBey Ferry Company, LLC” and *National Transit Profiles 2008*, “BillyBey Ferry Company, LLC.”
100. “New Bus Service Coming to Clayton County,” WBSTV, July 30, 2010, tinyurl.com/25wvmes.
101. “Routes and Stops,” QuickTransit, 2010, tinyurl.com/2axfpyh.
102. *National Transit Database 2008*, “service” and “operating expense” spreadsheets.
103. Noreen Malone, “Get on the Bus,” *Slate*, June 17, 2009, tinyurl.com/nvn9h3.
104. Interview with Robin Phillips, American Bus Association, Washington, June 18, 2009.
105. Michelle Snow, “Megabus Ends West Coast Route,” *Suite 101*, October 17, 2008, tinyurl.com/2am2w2x.
106. “California Shuttle Bus,” cashuttlebus.com/services.asp.
107. “GotoBus.com,” gotobus.com/bus.
108. Paul Bourquin, “Motorcoach Census 2008,” American Bus Association, 2008, tinyurl.com/2f9m76d.
109. *National Transit Database 2008* (Washington: Federal Transit Administration), 2009, “service,” “operating expense,” and “capital expense” spreadsheets; *National Transportation Statistics* (Washington: Bureau of Transportation Statistics, 2010), table 3-16, tinyurl.com/22lqlr3.
110. *National Transit Database 2008*, “service,” “operating expense,” “capital expense,” and “revenue vehicle inventory” spreadsheets.
111. George Hilton, “The Rise and Fall of Monopolized Transit,” in Charles Lave, *Urban Transit: The Private Challenge to Public Transportation* (San Francisco: Pacific Research Institute, 1985), pp. 31–48.
112. Daniel Klein, Adrian Moore, and Binyam Reja, *Curb Rights: A Foundation for Free Enterprise in Private Transit* (Washington: Brookings Institution Press, 1997), pp. 107–114.
113. Jim Whitty, “Deployment of Mileage Charging Systems in the United States,” in David Coyle and Richard Baker, eds., *2010 Symposium on Mileage-Based User Fees* (College Station, TX: Texas Transportation Institute, 2010), p. 10, tinyurl.com/3yr2hnt.
114. *Highway Statistics 2008*, table SDF.

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