Policy Analysis

Cato Institute Policy Analysis No. 162: False Dreams and Broken Promises: The Wasteful Federal Investment in Urban Mass Transit

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Executive Summary

Over the past quarter century, U.S. taxpayers have pumped more than $100 billion in subsidies into the nation's urban mass transit systems. That massive taxpayer investment has paid for urban public transportation systems that fewer and fewer Americans are using. Incredibly, mass transit ridership is lower today--not only as a percentage of commuter trips taken but also in absolute numbers of riders--than it was in the early 1960s. Despite the low and declining use of bus and rail systems, federal grants for urban transit now appear to be as popular as ever: bills before both houses of Congress would provide increases of up to 20 percent in public aid for municipal bus and rail systems.

The considerable support within Congress for expanded transit aid is not surprising. Since the federal government created the Urban Mass Transportation Administration during Lyndon Johnson's administration, public transit has been a fertile field of dreams and promises. Tax-supported transit lobbyists[1] supply Congress and state houses with visions of magic carpets that whisk commuters around gleaming cities.

The alleged virtues of public transit are by now familiar. For weary motorists, public transit systems promise less automobile-generated traffic congestion; for environmentalists, less air pollution; for city planners, a first step toward urban revitalization; for the poor, inexpensive access to efficient transportation; for conservationists, less wasteful use of energy; and for the business community, a way to lure suburbanites back to central business districts.

Regrettably, more than two decades of experience with publicly supported bus and rail systems have exposed each of those dreams as a costly illusion. Public transit systems have failed to deliver any of the promised benefits.

- Transit subsidies are not increasing ridership. Transit ridership is lower today than it was 30 years ago--before the billion-dollar subsidies began. People, including transit executives[2] and elected officials, tend to ride public transit only when they have no other reasonable choice.

- Transit subsidies have not reduced road congestion. The shiny new multi-billion-dollar rail systems have not diverted meaningful numbers of drivers from their cars; most new patronage has been of less expensive, more flexible bus lines and energy-efficient car and van pools.[3]

- Transit subsidies do not reduce air pollution. Because public transit has not increased ridership, transit has had no

discernible impact on air quality in cities. Mass transit patronage is so low that even doubling it would have a negligible effect on air quality.

- Public transit is not energy efficient. The average public transit vehicle in the United States operates with more than 80 percent of its seats empty.[4] Because of the low average number of passengers per bus, energy consumption per passenger mile for public transit buses now is greater than that for private automobiles and far exceeds that for car and van pools.[5]

- Transit subsidies have not helped revitalize cities. Cities, such as Buffalo, with new multi-billion-dollar rail systems have not reduced flight from their central business districts. Even with ever-greater subsidies for public transit, the exodus of businesses and residents from downtown areas is accelerating.[6]

- Urban transit does not benefit the poor. Ridership studies show that the poor are not heavy users of federally subsidized transit systems. Transit provided only 7 percent of trips made by low-income people.[7]

The cold, hard lesson of the last 25 years is that instead of promoting increased efficiency in bus and rail service, higher taxpayer subsidies have paid higher-than-inflationary transit costs. Subsidies have financed exces-sive compensation for transit employees, declines in transit productivity, and swollen bureaucracies--not increased sevices. If public transit costs had risen only at the same rate as private bus industry costs, service levels now could be more than double the 1989 level.[8]

Worst of all, taxpayer subsidies, particularly federal grants, have actually impeded the development of efficient and cost-effective urban transit programs in U.S. cities. The experience of other industrialized nations and some selected systems in the United States demonstrates that by tearing down the significant regulatory barriers, which prevent private, unsubsidized transit systems from developing, and by encouraging competitive contracting by private providers for subsidized systems, the mobility needs of urban residents can be met at lower cost and greater convenience to customers. Conversely, if Congress approves further large increases in transit subsidies, they will fuel further increases in transit costs. Those funding increases will ill-serve the interests of urban commuters, and they will certainly ill-serve the interests of American taxpayers.

The Destructive Federal Role in Urban Mass Transit

Before 1960 most transit systems in the United States were privately owned and operated. That situation was reversed when Congress created the Urban Mass Transportation Administration (UMTA) in 1964.[9] Indeed, during the mid and late 1960s, public aid was used to help finance the conversion of transit from private to public monopoly. From an initial $435 million over three years,[10] UMTA's funding level grew over the next 20 years to $3 billion per year by 1989.

As a result of the poor performance and waste of many of the transit systems receiving federal support, the Reagan administration, under David Stockman and James C. Miller III at the Office of Management and Budget, succeeded in cutting transit grants by roughly 25 percent in the mid and late 1980s. In 1985 former senator William Proxmire (D-Wis.) presented his celebrated Golden Fleece Award for wasteful use of tax money to UMTA. Proxmire said that UMTA had "played Santa Claus to the nation's cities," and that the results of the program were "a spectacular flop, the Edsel of federal programs. Taxpayers were taken for a ride." Ralph Stanley, at that time the administrator of UMTA, accepted the award in person stating, "I embrace Senator Proxmire's Golden Fleece Award and totally agree with his criticism."[11]

Despite the obvious problems of mass transit, higher levels of federal subsidies have been proposed. This year funding for mass transit may rise by as much as 20 percent to nearly $4 billion annually.[12]

The Myth and Reality of Public Transit Systems

The conventional wisdom in Washington is that the manifold social benefits of efficient public transit systems justify high taxpayer subsidies. A massive commitment of taxpayers' money to public transit is purportedly essential to solving a variety of national problems--including urban decay, traffic congestion, U.S. dependence on foreign oil, and the transportation problems of the poor. For those and other reasons, strong special interest groups support increasing subsidies to bus and rail systems.[13] Yet upon closer inspection, the evidence convincingly demonstrates that each supposed benefit of transit is more myth than reality.

Myth no. 1: Federal Transit Subsidies Have Improved Transit Service

Federal dollars for urban transit have not bought improvements in service levels for commuters; rather, they have generated rapid inflation of costs in the industry. Between 1970 and 1985 public transit operating costs per vehicle mile increased an incredible 393 percent (Figure 1), or roughly twice the rate of general inflation during the same time period and roughly 2.5 times the operating cost increase for similar service in the private bus industry.[14] Public transit costs have increased at a faster rate than costs in any other sector of the economy--even health care (Figure 2). From 1970 to 1989 public transit costs per vehicle mile increased approximately 20 percent more than health care costs.[15]

Figure 1
Change in Inflation-Adjusted Costs per Mile for Transit and Private Bus Service, 1950-85
Source: APTA Annual Reports and UMTA Section 15 Annual Reports.

Figure 2
Inflation in Transit Costs versus Costs of Other Goods and Services 1970-89
Based on APTA annual reports; UMTA Section 15 annual reports; and U.S. Department of Labor, Bureau of Labor Statistics, various annual reports.

Figure 3
Fares as Percentage of Operating Expenses
Based on data from the APTA annual reports and UMTA section 15 annual reports.

The cost inflation in the public transit industry has corresponded almost precisely with mushrooming levels of federal assistance. Annual subsidies rose from less than $300 million in 1970 to more than $12 billion in 1989[16]--a 10-fold increase after adjusting for inflation. Those subsidies represented 14 percent of transit revenues in 1970 and nearly two-thirds of transit revenues in 1989 (Figure 3). Public transit has consumed more than $100 billion in public aid in the last two decades. Although federal funding for public transit declined in the 1980s, state and local assistance has more than made up for the loss so that aid to public transit continues to grow faster than inflation.[17]

Regrettably, service has improved little in response to the increased federal commitment to local transit. For each new inflation-adjusted dollar of revenue, transit has produced less than 25 cents of new service--75 cents of each dollar has financed cost increases that exceed the rate of inflation. A 1986 study by UMTA found that of the $8 billion spent by the federal government on operating subsidies, $2 billion went for higher real wages, $1.5 billion went for lower employee productivity, and $1 billion went to reduce real fares. Only $1 billion went to extend or improve transit service.[18] As a result, today it costs an estimated $4.20 to generate a dollar's worth of new transit service.[19]

In sum, federal subsidies to urban transit have not purchased additional or improved levels of service. The funds have contributed to a largely inefficient and overcompensated industry that is failing consumers.

Myth no. 2: Increasing Federal Subsidies Will Attract More Transit Riders

Gross public transit ridership has been consistently falling since World War II. In 1945 ridership was 23.5 billion passengers, whereas in 1989 it was 7.5 billion--or less than one-third the 1945 level and less than half the 1950 level (Figure 4). The drop in ridership occurred despite huge increases in the number of urban commuters between 1945 and

1989.

Since 1970 urban ridership has risen by roughly 5 percent, which could be taken as a sign that public transit is on the rebound. Unfortunately, even the small reported increase in ridership is probably vastly exaggerated as a result of the way trips on public transit are counted. Each segment of a public transit journey is counted separately, so a passenger transferring from one bus to another or from a bus to a rail car is counted as two passenger trips. Studies have shown that up to two-thirds of new rail ridership represents transfers from buses. Hence, many bus riders are double-counted because they must use both a bus and a rail line or two buses to make a trip that they previously made on a single bus.

Figure 4
Transit Ridership, 1945-89
Based on data from APTA and UMTA
(Graph Omitted)

Because the population has increased 25 percent and the labor force has increased 50 percent since 1970, the minuscule increase (if it exists at all) in ridership claimed by the transit industry translates into a shrinking market share captured by public transit. Transit's share of trips to and from work--transit's biggest market--declined by nearly 30 percent during the 1970s in large metropolitan areas. Total public transit rides per capita plunged an additional 15 percent from 1980 to 1989 in metropolitan areas with populations of more than 1 million.[20] In 1980 public transit's urban market share[21] (6.4 percent of work trips) just exceeded the market share for walking to work; car and van pools, which do not receive any direct federal subsidies, provided nearly three times the number of trips to work that public transit did. Nationwide, only 2.2 percent of all personal trips were made by transit, and just over 5 percent of work trips were provided by transit.[22]

Even the development of expensive new rail systems did not reverse the trend in ridership loss; per capita transit ridership dropped in all urban areas that opened or expanded rail systems in the 1980s: Atlanta, Baltimore, Buffalo, Miami, Portland, Sacramento, San Diego, San Francisco, and Washington, D.C. Consider these examples:

* Portland's light rail line, which opened in 1987, attracted only one-third of its riders from the automobile;[23] most other riders were diverted from buses.

* Buffalo spent more than $600 million, most of which was federal money, to construct a rail line, but combined bus and rail ridership in 1989 was 20 percent below the bus-only ridership figure for 1980.[24]

* Miami's Metrorail, which was built in the 1980s with massive federal assistance and carried a final price tag in excess of $1 billion, is ridden by only 1 percent of Dade County residents.[25]

Most cities that have constructed expensive new rail systems during the past 15 years have dramatically overestimated ridership. Figure 5 shows projected versus actual ridership in nine cities with rail systems built with federal dollars. Ridership fell below projections in every one of the cities, and only one achieved even half the predicted ridership levels.

Myth no. 3: Public Transit Can Meet the Transportation Needs of Urban Commuters in the 1990s

Figure 5
Rail Passengers, Actual vs. Predicted Ridership
Source: Don Pickerell, The Causes of Rising Transit Operating Deficits (Washington: U.S. Department of Transportation, 1983).
(Graph Omitted)

Transit use in the United States has been declining for at least the past five decades as a result of changing lifestyles and economic conditions, including low-density land use patterns inside and outside of cities, suburbanization, the increase in female employment outside the home, the 40- hour work week, the steadily growing affluence of workers, and most important, the emergence of the automobile. Some argue, however, that public transit will experience a revival in the 1990s as public investment in buses and rail systems rises.

The evidence suggests that many of the changing commuter travel patterns that began to emerge in the 1970s and 1980s will continue in the 1990s, thus accelerating the exodus from subways and buses to automobiles and other forms of non-fixed-route transportation services such as minivans. Even if increasing government transit dollars are able to purchase increases in the level of transit service, those programs will become increasingly incidental to America's travel patterns.

As has been well established, the dominant commuting pattern is no longer from the suburbs to downtown but from low-density suburb to low-density suburb. Today the number of suburb-to-suburb commuter trips is roughly double the number of commuter trips from suburb to center city.[26] Yet public transit's conventional forms--buses and trains--can be effective only in high-density corridors where a large number of riders begin or end their trips in a concentrated area such as a densely developed central business district. While many large downtown areas have grown, their relative importance in metropolitan areas has diminished--most commercial and office development has occurred in the suburbs. And the emerging suburban employment and retail centers do not have densities sufficient to justify expanded transit service--particularly rail service. The cost in subsidies, vehicles, and transit personnel to duplicate the radial networks that serve downtown areas would be prohibitive.

The unavoidable truth for the transit industry is that today's metropolitan area is tailor made for cars, not for fixed-route public transit. Conventional transit cannot serve suburban areas with speeds and total travel times comparable to those of private transportation. Further investments in modes of transportation to accommodate travel patterns that predominated more than 40 years ago will not meet commuters' needs in the 1990s.

Myth 4: Public Transit Can Be Successful in the United States Because It Is Successful in Other Industrialized Countries

Advocates of higher taxes for transit constantly point to the far higher levels of transit ridership in Western Europe, Canada, Australia, New Zealand, and Japan to suggest that substantial increases in U.S. transit ridership would occur if only there were much higher levels of public support for public transit.

But there are inconsistencies in that line of reasoning. First, public transit subsidies already are higher in the United States than they are in other developed nations. The extremely high operating costs of public transit in the United States suggest that, with the possible exception of the former communist countries, U.S. public subsidies per passenger may be the highest in the world. Subsidies account for approximately two-thirds of operating costs in the United States, substantially more than they do in nations where ridership is higher. In Europe and Canada subsidies are less than 50 percent, and in Japan subsidies are less than 15 percent.[27]

The higher ridership in other developed nations is not the result of more generous subsidies. The average resident of a Western European urban area takes nearly five times as many public transit trips annually as a U.S. urban resident, despite the fact that a lower level of service (vehicle miles) per rider is provided in Europe. There are at least two fundamental causes of Europeans' more intensive use of public transit--density and concentration of destinations. Western European urban areas have a far larger percentage of their commercial development and employment in their urban cores, and their population densities are much greater--more than three times those of their U.S. counterparts.

Even in an urban environment that favors use of bus and rail service, public transit's market share is stable or declining, and automobile usage is increasing in Western Europe, just as it is in the United States.[28] Europe did not create higher transit ridership by attracting passengers from the automobile, although many transit supporters insist that can happen in the United States. Indeed, in Europe today, as income levels rise, the automobile is diverting passengers from transit. Moreover, even though subsidies are generally lower than they are in the United States, concern about rising public transit costs has induced Western European governments to take various actions to limit the growth of subsidies even further, such as competitive contracting, reduced reliance on national government subsidies, and overall limitations on subsidies.[29]

Myth no. 5: Increased Public Investment in Transit Will Increase U.S. Productivity and Competitiveness

Economists agree that there is a correlation between a nation's capital infrastructure and its productivity and

competitiveness. But productivity is improved by a new capital project only when its benefits equal or exceed its costs and when the rate of return at least equals that of alternative investments. Infrastructure may be productive or unproductive--money expended to build a bridge to nowhere or an underutilized rail facility erodes productivity. On the whole, public investment in new transit infrastructure has diminished, not increased, the nation's total productivity.[30]

Transportation planners routinely overstate the projected economic rate of return on new public transit investments by systematically overestimating ridership and underestimating construction costs. For example, a U.S. Department of Transportation study of 10 urban rail projects showed that only one project came in under the estimated cost; construction costs for the remainder ranged from 33 to 106 percent over initial estimates.[31]

Proper tallying of the total public investment in cities' transit systems and calculation of the per passenger subsidy makes it clear that the costs of those projects far exceed any possible benefits to national productivity or competitiveness. Total costs of capital and operation range from $5.58 to $16.44 per rail passenger ride, yet most riders pay a base fare of roughly $1.00.

Many of the expensive transit projects funded in the 1980s turned out to be white elephants. Detroit, for example, built a three-mile downtown people mover (that operates in only one direction) largely with federal funding. Construction costs were 50 percent over budget and ridership 80 percent below projection.[32] To pay for the construction deficit, funding was siphoned from needed bus improvements in a city whose low-income population represents a substantial market for bus service expansion. Detroit proposed reduction of its police force as it increased its expenditures for the higher-than-anticipated operating deficit[33]-- and Detroit has one of the nation's highest crime rates. Similarly, in Miami per passenger expenses are so great that it would have been cheaper for taxpayers to provide limousine service for public transit users than to build and operate an extravagantly expensive rail system. Such rail systems are anything but an efficient investment in America's infrastructure.

Undaunted by the evidence, cities throughout the country are now duplicating those expensive mistakes. Dallas, Minneapolis, Salt Lake City, and Tucson are all planning expensive rail systems that would be suitable only for the high-density cities of Europe. Those systems are not expected to cover their operating expenses let alone recapture the multi-billion-dollar federal, state, and local investment of taxpayers' money.

Unquestionably, the major explanation of the inability of the public transit industry to contain costs has been the inflated salaries and benefits of public transit workers. Public transit employees are paid as much as twice the amount received by the average nonsupervisory worker in the United States and 65 percent more than the average U.S. worker. Although the education requirement for transit drivers is less than a high school diploma, they receive nearly 11 percent more in total compensation than do private-sector employees with four or more years of college education. The average compensation for all transit employees exceeds the average salary for U.S. employees with college degrees by more than 30 percent.[34] Public transit fringe benefits average 50 percent of employee pay--nearly double the fringe benefits of the average private-sector worker.[35] Hence, when fringe benefits are added to the equation, the average transit employee receives 70 percent more in compensation than the average U.S. employee (Figure 6).[36]

Worse yet, the pay premium enjoyed by transit workers appears to be widening. Philadelphia's fiscally troubled Southeastern Pennsylvania Transit Authority, for example, has developed a 1992 budget that includes a 5.5 percent wage increase (more than one-third more than the national average wage increase in 1991) for employees. Yet SEPTA is planning service cutbacks, demanding additional subsidies, and threatening to shut down the system if a new, dedicated tax is not provided for the deficit-plagued transit system.[37] San Francisco's Bay Area Raid Transit system reports that unionized employees have rejected an offer of a 4 percent wage increase for each of the next three years. The BART offer would bring drivers' salaries to $48,000, janitors' to $36,000, and mechanics' to $53,000 per year; benefits, which add to the total compensation, would remain at 51 percent of wages and salaries, so that drivers would be compensated at more than $70,000, janitors at more than $50,000, and mechanics at $80,000 annually.[38]

Figure 6
Annual Compensation of Full-Time Employees, 1988
Derived from Statistical Abstract of the United States and UMTA section 15 report, 1988.

(Graph Omitted)

Public transit has suffered declining labor productivity over the past two decades. Productivity as measured by hours of bus service produced per constant dollar fell an average of 43 percent from 1964 to 1985; the productivity decline for large transit agencies was 55 percent. About one-third of the cost increases over inflation in urban transit since 1970 can be attributed directly to the decline in productivity.[39]

Let us put the dismal record of transit worker productivity and performance into perspective. The unsubsidized private taxi industry employs about the same number of workers as transit but provides three times as many vehicle miles of service.[40] Yet transit is heavily subsidized by government and taxis receive virtually no public assistance.

One explanation for transit's steep productivity decline is that transit employees are working less. Average annual service hours worked by each public transit employee (for buses) fell from 1,228 in 1964 to 1,028 in 1985. The decrease in productivity was worse for the largest transit agencies--from 1,205 hours in 1964 to 929 hours per employee in 1985.[41] Meanwhile, public transit driver absenteeism, which is epidemic in the industry, averaged 34 days a year in Miami, 32 days in Los Angeles, and 27 days in Pittsburgh, exclusive of vacations and holidays.[42]

Another cause of the anemic productivity levels in the transit industry is a provision of the Urban Mass Transportation Act of 1964, section 13(c),[43] which is administered by the U.S. Department of Labor. That provision has secured for transit workers a degree of bargaining power that is not shared by employees or labor unions in other U.S. industries.[44] It sounds innocent enough, requiring that adequate labor arrangements be made to ensure that employees are not harmed as a result of federal funding. In practice, however, section 13(c) has been interpreted to require negotiation of generous labor agreements between transit agencies and their unions. Failure of a transit agency to make concessions to labor can result in loss of federal funding, thus giving transit labor unions de facto veto power over the coveted capital (and operating) grants.[45]

Section 13(c) has impeded efforts to improve productivity and efficiency in the transit industry. It requires up to six years' pay for an employee whose job is eliminated as a result of economies or efficiencies. Assuming the 1988 annual compensation level of $41,000 for the average public transit bus driver, legally mandated severance pay could be as much as $250,000 per worker, compared with mandated severance pay (unemployment insurance benefits) of less than $5,000 for typical American workers.

Section 13(c) also has so skewed collective bargaining in favor of transit unions that they have negotiated not only higher-than-market compensation in the industry but absurd work rules that extract pay for not working. For example, the use of part-time labor is severely restricted or prohibited outright, even though part-time labor is ideal for public transit, because a large percentage of public transit service is consumed during rush hour periods in the morning and evening. Under current operating practices, to cover both morning and evening rush hours, drivers are paid for time not worked during midday. Most public transit labor contracts also require the full-time employment of substitute drivers. Sometimes substitute drivers operate buses and are paid for driving; other times substitute drivers are paid to sit and wait. Substitute public transit drivers, who have skills that can be learned in a month or less, are paid whether or not they work; substitute public school teachers, who must have at least four years of college, are paid only when they work.

The net effect of those restrictive work rules is that public transit bus drivers work as few as 36 minutes of each hour for which they are paid on some services, and the average is less than 50 minutes of work for each hour's pay. Practices such as those would bankrupt a company in the competitive marketplace.

The combination of federal subsidies, excessive pay rates, routine cost overruns, and archaic work rules in the transit industry has prevented implementation of economical investment and operating procedures in public bus and rail service. That combination has been a major factor in transit's cost escalation. The annual excess of transit costs over inflation (from 1970) is now more than four times the total amount of federal operating subsidies. Pumping billions of additional federal tax dollars into such a system does not contribute to the development of America's infrastructure and ultimately makes the nation less, not more, competitive.

Myth no. 6: The Washington Metro Has Been a Stunning Public Transit Success That Can Be Duplicated in

Many Other Cities

The most comprehensive federally supported rail system in the nation is Washington, D.C.'s Metro. It is typically regarded as a transit showcase that can be duplicated in other cities.

Although the Washington Metro carries more riders than any other new rail facility, it has fallen far short of reaching its ridership projections.[46] Part of the reason is that employment in the central business district has grown at a much lower rate than projected before the system was built, while suburban employment has grown at a greater rate. Not only did public transit ridership per capita decline in the 1980s in the Washington area, but planners projected that public transit's work trip market share would decline another 9 percent from 1986 to 2000--despite a planned $3 billion, or 70 percent, expansion of the rail system.[47] Even the most recently opened Metro stations are drawing far fewer passengers than predicted. Two new suburban Maryland stations, which cost approximately $300 million to construct and opened in 1990, are attracting only 7,300 passengers a week--slightly more than half the 13,100 expected.[48]

The taxpayers of the Washington area could not have afforded to build the $8 billion Metrorail system. It has been built primarily by funding from taxpayers across the country. Indeed, the taxpayers of the Washington area can barely afford to pay for operating the system as local and state budgets strain to keep up with rising costs.[49] And the American taxpayers cannot afford the tens of billions of dollars it would cost to replicate the Washington system in other cities.

Myth no. 7: Public Transit Conserves Energy and Improves Air Quality

With its continually declining work trip market share, public transit does not and cannot reduce energy consumption or air pollution. Some transit vehicles are overcrowded during peak hours in high-demand corridors. Yet, most of the time, there is excess capacity. The average public transit vehicle in the United States operates with more than 80 percent of its seats empty.[50] Because of the low average number of passengers per bus, the energy consumption per passenger mile of public transit buses is now greater than that of private automobiles, and it far exceeds that of car and van pools.[51] And unlike automobiles, public buses are becoming less, not more, energy efficient. In 1985 public transit used nearly 55 percent more transit vehicles to provide approximately the same number of rides provided in 1965. Over the same period of time the number of vehicle miles increased by 22 percent even though ridership remained static.[52]

Rail, also because of its low ridership, has not contributed to energy conservation. Rail systems require large amounts of energy for the construction of roadbeds, tunnels, and rolling stock. For example, one study estimated that San Francisco's BART system, which is highly patronized, will never save enough energy to recoup its initial energy investment.[53] That is apparently the case for most urban rail systems. A 1982 Congressional Budget Office study concluded that "under typical conditions rapid rail systems actually waste energy rather than save it."[54]

Boosters of rail and advocates of higher transit taxes contend that air quality will improve as transit subsidies increase. Portland's light rail line is often cited as an example of how transit has produced substantial improvements in air quality since 1972.[55] Other factors are responsible for the improvement in Portland's air quality. Since 1972 automobiles, which account for the overwhelming percentage of travel in Portland (and virtually all other U.S. metropolitan areas), have become 48 percent more energy efficient on average, and the average new car has become 100 percent more energy efficient.[56] Further, the average automobile produces less pollution per gallon of gasoline today than it did in 1972. In addition, the percentage of urban trips taken by public transit in Portland was lower in 1989 than in 1980.

Public buses have, on balance, had no favorable effect on air pollution in U.S. cities. Because of low average ridership, buses, on a per passenger basis, often contribute to air pollution because bus emissions are much greater than those of cars or taxis.

Even minute improvements in the fuel efficiency and emission standards of automobiles, which are expected in coming years, or an increase in the number of riders per car would have much more effect on the environment than would massive increases in expensive public transit service.[57] Increased energy efficiency and decreased air pollution could

be more efficiently and effectively achieved by the use of high-occupancy-vehicle lanes, the automation of toll collection to speed traffic, and other such reforms.

Myth no. 8: Urban Transit Reduces Traffic Congestion

Automobile users are said to benefit from public transit because it reduces congestion on roads and highways. Indeed, that supposed external benefit to drivers is the justification for using 1 cent of the federal gasoline tax to pay for transit. (One proposal before the House of Representatives would increase the gas tax to fund transit. A portion of last year's federal gas tax is also to be appropriated for transit.) Yet the reduction in traffic congestion resulting from increased transit subsidies is trivial, even under a best-case scenario. For instance, if transit ridership were doubled and the ridership gain came entirely from drivers who left their cars to ride transit, the number of vehicle miles traveled by car would decline by less than 3 percent.[58]

Again Portland serves as an example. The number of automobile commuters who switched to light rail in Portland was less than 0.5 percent of daily commuters in the metropolitan area,[59] a percentage quickly nullified by the rate of growth in employment. New light rail riders account for less than two months' natural growth in total travel in the metropolitan area.[60]

Winning over even small numbers of riders from the roads and highways to transit has proven to be prohibitively expensive. It cost $9.22 to attract each new passenger ride to Portland's light rail line and $28.23 per passenger ride on the Atlanta system. Translated into cost per commuter per year, the expense of diverting each commuter from an automobile was $4,702 for the Portland line and $14,397 for the Atlanta system.[61]

Myth no. 9: Transit Subsidies Are Essential to the Mobility of the Poor

Transit provides essential mobility to many of the poor, but transit accounted for less than 7 percent of trips made by low-income people in 1983.[62] The most pressing need of the inner-city poor is transportation from the city to suburban jobs for which they are qualified. Yet only 5 percent of the total "reverse commute" market is served by public transit. From 1970 to 1980 transit's reverse commute market share declined by 50 percent. [A federal program to encourage entrepreneurs to provide reverse commute services to the inner-city poor has encountered resistance and delay as a result of transit unions' using their power under section 13(c). Many proposals have been abandoned; new proposals have been discouraged; and the poor continue to go unserved.] The increasingly dispersed nature of inner-cityto-suburb trips renders conventional mass transit service (large buses) unsuitable for that market in terms of both travel time and financial feasibility.[63]

If public transit subsidies benefit anyone, they benefit affluent suburbanites, not the poor. A Los Angeles study determined that inner-city service, patronized largely by the poor, received less than 22 cents in total operating subsidy per passenger boarding, while express service, patronized largely by the affluent, received more than $1.18 per boarding.[64] A 1986 study showed that riders with incomes exceeding $50,000 per year received 50 percent more in federal operating subsidies per transit trip than did low-income users of transit.[65] The difference would have been greater if capital figures had been included.

Some rail systems bypass areas with low-income residents. The Washington Metro, for example, does not go to many high-density poor areas of the city, but it does service the affluent surrounding suburbs. Most Metrorail riders--some 73 percent--earn $25,000 or more; 19 percent earn $75,000 or more.[66]

Improving Transit through Competition and Privatization

Clearly, inefficient, highly subsidized public transit systems cannot deliver the socioeconomic benefits that have been promised and hoped for. Federal subsidies have rewarded inefficiency and wasteful capital investment, while propping up transit monopolies that actually impede effective alternatives to public transit. The unique patterns of American urban and suburban development and our particular social problems do not lend themselves to old European solutions, which are being abandoned. To meet America's needs, the following reforms are needed.

Eliminate Federal Subsidies

Federal transit subsidies have resulted in higher costs than they have covered. Subsidies have resulted primarily in a transfer of wealth from the taxpayers and the productive private sector to well-paid transit employees. At a minimum, in the interest of equity and efficiency, section 13(c) should be eliminated; transit workers should not continue to receive extraordinary compensation.

Federal subsidies increase the cost of transit. Federal capital grants have generated a mad scramble among cities to secure federal transit dollars to pay for new buses and rail service. Often as little as 5 to 10 percent of the investment is local money,[67] yet mayors and local transit authorities have demonstrated repeatedly that to attract "free" federal dollars, they will undertake massive capital investments, even when ridership does not justify construction or purchase. The federal contribution to capital assistance can be as high as 80 percent; nationally, the federal government funds 62 percent of total capital costs.[68] That federal contribution has had an undue influence on the escalation of transit costs.

Many countries have recognized the cost distortion that results from national subsidies and are reducing or elimi nating them. Examples include Norway, New Zealand, the United Kingdom, and the Soviet Union.[69] Canada and Australia, with much higher per capita transit ridership, have neither federal operating nor federal capital subsidies. Costs are lower and investments are more effective when subsidies are eliminated altogether, or at least are drawn from a level of government closer to home.[70]

Eliminate Barriers to Unsubsidized Private Service

In most cities only the transit monopoly is permitted by law to provide public transit service. Where the private market can operate without subsidy, it should be allowed to do so. Turning to the private market does not require returning to private monopolies and franchises, which are only slightly better than public monopolies. It simply means allowing the free market to provide unsubsidized service where it can.

Private unsubsidized buses and vans currently are providing transit for people in New York and Miami.[71] A 1991 Wall Street Journal report found that private (sometimes outlawed) vans are increasing their market share rapidly.

Transit officials estimate that more than 2,500 private transit vans now patrol New York City. They seem to be everywhere in the boroughs of Brooklyn and Queens, bearing names like "KnightRider," "Island Boy" and "Leo the People's Friend." The phenomenon seems to be spreading to other cities with large Caribbean immigrant populations. In Miami, transit officials count 300 private vans, some even offering video tapes of Spanish-language soap operas to entertain riders.[72]

Vans and minibuses, which many people prefer to large buses and which have been shown to expand ridership in some areas,[73] could provide unsubsidized services in many high-density areas, freeing subsidies to expand service in other areas. Yet such service is outlawed in many cities, and the public transit agencies jealously guard their monopoly status. Express service is also provided by the private sector in some areas, but generally it too is prohibited.

Public transit spokesmen argue that private vehicles "skim the cream" from profitable routes and increase the deficits of transit agencies. But public transit costs are so high that few if any routes cover their capital and operating costs. In other words, there is no cream to skim. Moreover, the private sector pays taxes, not paid by the public sector, that can exceed the net revenue public transit can obtain from its best routes.

Opening the transit market to private vans and minibuses can provide an opportunity for the poor or near poor to become entrepreneurs as it has done in South Africa.[74] The cost of capital is relatively low. In time those private operators could expand to multiple vehicles, or the experience and profits earned could lead to other profitable ventures. Meanwhile, those entrepreneurs would be positive role models for the entire community, provide employment and a valuable service, and contribute to the tax base.

Adopt Competitive Contracting for Subsidized Transit

If political considerations mandate continued taxpayer subsidies, public transit service should at least be purchased

through competitive contracting. Under that system the public authority awards service contracts to responsive and responsible operators who demonstrate an ability to provide the specified quality and quantity of service for the lowest price. The public authority retains policy control over the service, while the competitive market produces the service under public scrutiny.

Public transit services are being converted to competitive contracting in Sweden, Denmark, the United Kingdom, New Zealand, Norway, and Finland. Competitively contracted services in London carry as many passengers as the entire Philadelphia rail and bus transit system. Competitive contracting is used in the United States for most paratransit (dial-a-ride) service and almost 8 percent of bus service. Metropolitan areas such as Dallas, Los Angeles, Denver, St. Louis, Cincinnati, San Diego, San Francisco, Seattle, Minneapolis, and Atlanta have achieved large cost savings through competitive contracting of bus service. The extraordinarily high costs of public transit in the United States have made possible average cost savings of 30 percent.[75] There is little reason, except vested public transit interests, not to competitively contract for subsidized transit service.

Conclusion

The realities of public transit fall woefully short of the myths. Transit is needed, but we can no longer afford to imagine that conventional public transit can address the complex problems of the changing American city. And we can no longer support a monopoly system of public mass transit, which has proven to be ineffective, inequitable, and unaf fordable. Through incorporation of competition, America can have efficient transit systems in every city--systems that do improve the environment, lessen traffic congestion, reduce fuel consumption, and help the poor. And improved transit can be provided at much less cost to the American taxpayer.

Notes

[1] Most larger public transit agencies pay for full-time lobbyists in Washington as well as in the state capital, and transit management also spends time lobbying. Most large transit agencies have fully developed public affairs depart ments. In addition, the American Public Transit Association, which is financially supported by most of the nation's transit agencies, is involved in lobbying activity. Federal law pro hibits lobbying with federal moneys, so transit agencies use state and local moneys and fares to finance lobbyists.

[2] Like private-sector businesses, many public transit agencies provide free parking for their employees. And large transit agencies keep large fleets of cars for non emergency and nonsupervisory use by staff. Transit boards and executives also use single-occupancy vehicles. Accord ing to the New York Daily News (June 2, 1991), New York City's Metropolitan Transportation Authority board members spent $200,000 in the past 12 months for chauffeured limousines to travel to and from the MTA Madison Avenue offices. The newspaper quoted the MTA first vice chairman, who gener ated $22,000 in overtime in the previous 16 months for his personal driver: "public transportation can be slower and more inconvenient than a car." It should be noted that New York City is the nation's most densely populated large city and has by far the nation's most extensive transit system.

[3] Alan E. Pisarski, Commuting in America: A National Report on Commuting Patterns and Trends (Westport, Conn.: EnoFoundation for Transportation, 1987).

[4] National Urban Mass Transportation Statistics: Section 15 Annual Report (Washington: U.S. Department of Transportation, Urban Mass Transportation Administration, 1987).

[5] Calculated from National Urban Mass Transportation Statistics: Section 15 Annual Report (Washington: U.S. Depart ment of Transportation, Urban Mass Transportation Administration, 1986); and National Transportation Statistics, (Washington: U.S. Department of Transportation, Transportation Systems Center, 1988).

[6] For an analysis of America's changing cities, see Joel Garreau, Edge City: Life on the New Frontier (New York: Doubleday, 1991).

[7] Dieter Klinger and J. Richard Kuzmyak, Personal Travel in the U.S., vol. 1, 1983-1984: Nationwide Personal Transportation Study (Washington: U.S. Department of Transporta tion, Federal Highway Administration, 1986).

[8] Data from National Urban Mass Transportation Statistics: Section 15 Annual Report, various years; and Transit Operating and Financial Statistics (Washington: American Public Transit Association, various years).

[9] Urban Mass Transportation Act of 1964, 49 U.S.C. 1601 et seq. A prior act, the Housing Act of 1961, authorized $75 million in aid to urban transit over three years.

[10] Paul N. Tramontozzi and Kenneth Chilton, "The Federal Free Ride: The Economics and Politics of U.S. Transit Policy," Center for the Study of American Business, Washington University, St. Louis, October 1987.

[11] Randall Fitzgerald, When Government Goes Private (New York: Universe Books, 1988), p. 153.

[12] "Transit Wins Big in House Bill," Congressional Quarter ly, July 13, 1991, p. 1889.

[13] For a discussion of the various interest groups lining up in favor of increased federal transit aid, see Kirk Victor, "Transit Turnaround," National Journal, August 31, 1991, pp. 17-20.

[14] Calculated from Interstate Commerce Commission and American Bus Association data.

[15] Calculated from Consumer Price Index Medical Care Component.

[16] Data from National Urban Mass Transportation Statistics: Section 15 Annual Report, various years; and Transit Operating and Financial Statistics, various years.

[17] Data from National Urban Mass Transportation Statistics: Section 15 Annual Report, various years.

[18] Ralph L. Stanley, administrator, Urban Mass Transportation Administration, Statement before the Subcommittee on Appropriations, U.S. House of Representatives, April 9, 1986, pp. 3-4.

[19] Data from National Urban Mass Transportation Statistics: Section 15 Annual Report, various years; and Transit Operating and Financial Statistics, various years.

[20] Based on data from all public transit systems located within the 39 metropolitan areas that reported both in 1980 and 1989 and all new systems reporting in 1989 (102 public transit systems included in analysis).

[21] Public transit figures are overstated--the figures in clude taxis, limousines, privately owned buses and vans, and other unsubsidized services.

[22] Klinger and Kuzmyak.

[23] The Renaissance of Rail Transit in America (New York: Regional Plan Association, 1991).

[24] Data from National Urban Mass Transportation Statistics: Section 15 Annual Report, various years.

[25] Stephen Moore, "Rx for Urban Mass Transit: A Dose of Competition," Heritage Foundation Backgrounder no. 542, October 1986.

[26] Pisarski

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[27] Analysis of data from Jane's Urban Transport Systems, ed. Chris Bushell (Coulsdon, Surrey, U.K.: Jane's Information Group, 1991). Sample included 139 foreign systems.

[28] European Conference of Ministers of Transport, Promoting Regional Transport: Report of the Eighty-Second Round Table on Transport Economics (Paris: ECMT, 1990)

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[29] See Wendell Cox and Jean Love, "International Experience in Competitive Tendering," paper presented at Second International Conference on Privatization and Deregulation in Passenger Transport, Tampere, Finland, June 1991.

[30] Perhaps the most successful investment in new transit rail infrastructure has been in San Diego. Fares cover more than 90 percent of the costs of operation for the first line of the "San Diego Trolley." Constructed without federal funding, that line was completed for a fraction of the costs of comparable rail lines built with federal funding. That performance far surpasses that of any other new rail invest ment.

[31] Urban Rail in America: Forecast versus Actual Ridership and Costs (Cambridge, Mass.: U.S. Department of Transportation, Transportation Services Center, 1989).

[32] Ibid.

[33] "Police vs. the People Mover," Detroit News, April 15, 1988.

[34] The Chicago Transit Authority provides a stark example of the excessive compensation paid public transit workers. The executive director of the CTA, who is not the most highly paid transit administrator in the nation (the executive directors of the Southeastern Pennsylvania Transit Authority in Philadelphia and the Washington Metropolitan Area Transit Authority that serves the nation's capital are paid roughly $50,000 more per year), receives more pay than elected officials such as the governor of Illinois, the mayor of Chica go, and U.S. senators and representatives or appointed officials such as the Chicago police superintendent and fire commissioner. The American Public Transit Association, Transit Fact Book (Washington: APTA, 1988); Kim Nauer, "Pay for City's Brass Matches Up with Peers," Chicago Tribune, October 15, 1990; Gary Washburn, "Gung-ho Chief Has CTA Jumping," Chicago Tribune, August 5, 1990; Statistical Abstract of the United States (Washington: U.S. Government Printing Office, 1990).

[35] Data from National Urban Mass Transportation Statistics, Section 15 Annual Report (Washington: U.S. Department of Transportation, Urban Mass Transportation Administration, 1988); and Statistical Abstract of the United States (Washington: Government Printing Office, 1990).

[36] Ibid.

[37] Kimberly J. McLarin, "SEPTA Approves Budget," Philadelphia Inquirer, June 27, 1991.

[38] Benny Evangelista, "BART Ad Incenses Unions," Oakland Tribune, July 18, 1991; and BART full-page ad: "Labor Negotiations Status Report No. 1," Oakland Tribune, July 18, 1991.

[39] Don Pickrell, The Causes of Rising Transit Operating Deficits (Washington: U.S. Department of Transportation, Urban Mass Transportation Administration, 1983).

[40] The Status of the Nation's Local Mass Transportation: Performance and Conditions, report to Congress (Washington: U.S. Department of Transportation, Urban Mass Transportation Administration, 1988).

[41] Calculated from data in Charles Lave, Measuring the Decline in Transit Productivity in the U.S. (Thredbo, NSW, Australia: International Conference on Competition and Own ership of Bus and Coach Services, 1989).

The transit industry dismisses declining public transit labor productivity as a necessary consequence of increases in rush hour service. See, for example, Elliott D. Sclar, K. H. Schaeffer, and Robert Brandwein, The Emperor's New Clothes: Transit Privatization and Public Policy (Washington: Economic Policy Institute, 1989). Lave, however, found that rush hour service has not increased; it has declined by 15 percent in recent decades. Lave also reports that public transit operating speeds have increased by 13 percent over the same period. The drop in rush hour service and the increase in operating speeds, of themselves, would have a positive effect on labor productivity. Lave's findings suggest that public transit productivity may have declined even more than is suggested by the raw numbers.

[42] Subhash R. Mundle, "Impact of Work Rules on Transit Productivity and Costs," paper presented at the Urban Mass Transportation Administration's Fourth Annual Symposium: The Private Sector and Public Transit, March 1988.

[43] Urban Mass Transportation Act of 1964, as amended, 49 U.S.C. 1601 et seq. Amendments include an extension of section 13(c) labor protection to cover federal operational funding in addition to original provisions covering federal capital funding.

[44] Simon Rottenberg, "Protection of Employees in the Public Acquisition and Operation of Urban Mass Transit," in Government Protection of Employees Involved in Mergers and Acquisitions, ed. Herbert R. Northrup and Philip A. Miscimarra (Philadelphia: University of Pennsylvania, Wharton School, 1989) provides the most comprehensive examination of the effects of section 13(c).

[45] Federal legislation created and enforces section 13(c). However, many transit agencies have signed a local version of 13(c) that is more stringent than the federal law. The model 13(c) agreement, developed jointly by the transit unions and the American Public Transit Association in 1975, specifies that disputes be settled by binding arbitration--something not federally required. Although individual agen cies were not required to adopt that contract or its provisions, many did to avoid lengthy contract negotiations.

[46] Urban Rail in America: Forecast versus Actual Ridership and Costs.

[47] Federal City Council, Transit in the Nation's Capital: What Lies Ahead? (Washington: U.S. Department of Transportation, Urban Mass Transportation Administration, Technology Sharing Program, 1986), p. 2.

[48] "2 New Md. Stations Draw Fewer Riders Than Metro Expect ed," Washington Post, September 16, 1991, p. C1.

[49] Metrobus and rail operating costs exceeded $509 million in 1989; states and localities paid 90 percent of the total subsidies of $240 million. The Washington system currently is cutting service for lack of "adequate" subsidies.

[50] National Urban Mass Transportation Statistics: Section 15 Annual Report, 1987.

[51] Calculated from National Urban Mass Transportation Statistics: Section 15 Annual Report, 1986; and National Transportation Statistics, 1988.

[52] Data from the National Urban Mass Transportation Statistics: Section 15 Annual Report, various years; and Transit Operating and Financial Statistics, various years.

[53] Data from National Urban Mass Transportation Statistics: Section 15 Annual Report, various years.

[54] Congressional Budget Office "Urban Transportation and Energy: The Potential Savings from Different Modes," 1982, p. 1.

[55] The Renaissance of Rail Transit in America.

[56] In 1972 the average automobile got 13.4 miles per gallon; by 1988 that figure had improved to 20.0 miles per gallon. The average new car achieved 14.4 miles per gallon in 1972 and 28.8 miles per gallon in 1988. Data from National Transportation Statistics Annual Report (Washington: U.S. Department of Transportation, Research and Special Programs Administration, Transportation Systems Center, 1990)

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[57] Lave.

[58] Alan Altshuler, The Urban Transportation System (Cambridge, Mass.: MIT Press, 1979).

[59] Ibid.

[60] Calculations based on the 1980 to 1990 population growth rate and the national average of daily trips per person in metropolitan areas of similar size as of 1983 given by Klinger and Kuzmyak.

[61] Calculated from data in Klinger and Kuzmyak.

[62] Klinger and Kuzmyak.

[63] The Status of the Nation's Local Mass Transportation: Performance and Conditions, p. 58.

[64] Wendell Cox, "Distribution of Operating Subsidies in Los Angeles County," Transportation Research Record 877 (Wash ington: National Research Council, Transportation Research Board, 1983).

[65] Charles River Associates, Allocation of Federal Transit Operating Subsidies to Riders by Income Group, cited in The Status of the Nation's Local Mass Transportation: Perfor mance and Conditions.

[66] Martin Tolchin, "Transit Aid Called No Help for Poor," New York Times, March 9, 1987.

[67] States also provide capital funds, although at a lower rate than the federal government. The combined state and federal contribution often covers nearly all of the construction--or the proposed cost of construction--of rail and other capital projects and purchases. St. Louis provided an in-kind match so that the federal government is expected to provide the entire cost of planning and building a new light rail system.

[68] Federal formula capital grants provide 80 percent of the total funding of a project up to the limit set by the formula; the remainder of the funding comes from state, city, or regional funds or from fares. Federal discretionary capital grants provide 75 percent. Federal grants no longer cover cost overruns; and because states and localities often provide capital assistance in excess of match requirements as well as fund cost overruns, the level of federal assistance for capital is sometimes less than the permissible statutory limits.

[69] "Congress Bucks Privatization Trend," Transit Times (Washington: American Bus Association, September/October 1991).

[70] William F. Shughart and Mwangi Kimenyi, Public Choice, Public Subsidies, and Public Transit (Washington: U.S. Department of Transportation, Urban Mass Transportation Administration, Office of Private Sector Initiatives, February 1991).

[71] E. S. Savas, Sigurd Grava, Jeffrey A. Parker, and Roy Sparrow, The Private Sector in Public Transportation in New York City (New York: City University of New York, Institute for Transportation Systems, 1991), prepared for the U.S. De partment of Transportation, Urban Mass Transportation Administration; Daniel Machalaba, "Opportunistic Vans Are Running Circles around City Buses," Wall Street Journal, July 24, 1991; Dan Holly, "It's Metro vs Minis in the Battle of Bus es," Miami Herald, May 4, 1991.

In Miami last year minibuses began to operate several transit routes for a lower fare when a change in the law created a loophole. The minibuses garnered 20,000 passengers a month according to the transit agency. The law has since been changed--as a result of pressure from the public transit agency--to prohibit the entry of new private companies and expansion of routes, but companies already operating were "grandfathered in." Metro, the public transit agency, recently has reduced its fares (incurring huge deficits) on one of its routes to drive the unsubsidized company from the market

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In New York private vans illegally divert nearly $30 million a year from the transit agency. Private vans operate their unsubsidized service for a lower fare than the transit agency.

[72] Machalaba.

[73] H. D. Blundred, "Barriers to Market Entry: Practical Experience of the UK Bus Market," paper presented at Second International Conference on Privatization and Deregulation in Passenger Transport, Tampere, Finland, June 1991.

[74] "Congress Bucks Privatization Trend."

[75] Roger F. Teal, "Transit Service Contracting: Experiences and Issues," paper presented at the Annual Meeting of the Transportation Research Broad, Washington, January 1985, p. 3. See also Cox and Love, "International Experience"; Private Sector Briefs: Private Sector Involvement in Public Transportation (Washington: U.S. Department of Transportation, Urban Mass Transportation Administration, Office of Private Sector Initiatives, July 30, 1988 and 1990); Wendell Cox and Jean Love, Designing Competitive Tendering Systems for the Public Good: A Review of the US Experience (Thredbo, NSW, Australia: International Conference on Competition and Ownership of Bus and Coach Services, May 1989).