Federal Support of Public Transportation Operating Expenses

January 18, 2024
The costs of providing public transportation service fall into two main categories: operating expenses and capital expenses. Operating expenses (e.g., labor and fuel) are about two-thirds of all transit service expenses, and capital expenses (e.g., bus purchases) are about one-third. Federal support of operating expenses has a maximum federal share of 50%. In the late 1990s, Congress eliminated federal operating support for transit in urbanized areas of 200,000 people or more but broadened the definition of capital expenses in federal law to include items considered by the industry to be operating expenses, such as preventive maintenance. Consequently, federal funding of operating expenses based on the industry definition was almost five times greater in 2019 than in 1997 (in inflation-adjusted terms).

Federal support for operating expenses has reemerged as an issue because of the disruptions to public transportation ridership caused by the Coronavirus Disease 2019 (COVID-19) pandemic. Public transportation agencies kept many buses and trains running during the height of the pandemic, especially to support the travel of “essential workers,” but ridership and fare revenues plummeted. Public transportation agency budgets, particularly operating expenses, were supported by federal supplemental appropriations in FY2020 and FY2021 totaling $69.5 billion. This amount was about five times the annual federal public transportation support of $12 billion in 2019, the final full year before the pandemic, and more than three times the $19 billion coming from fares and other operating revenue.

Almost all of these supplemental appropriations provided by the federal government to maintain public transportation service had been obligated by summer 2023, but ridership remained at about 70% of the pre-pandemic level. Many agencies expect large operating budget deficits in FY2024 and beyond. Thus, transit agencies are likely to need additional governmental support to avoid reducing services and employee layoffs. Some states and local governments have announced greater funding for transit, and some agencies are implementing changes such as fare increases and operating efficiencies.

Another possible way to address expected budget deficits is to increase federal operating support for public transportation agencies. Federal assistance for operating expenditures could affect three main aspects of public transportation: (1) transit service, including the amount provided and fares; (2) transit productivity; and (3) transit capacity and condition. Research on the rapid expansion of operating support in the 1970s generally concludes that it allowed transit agencies to maintain a higher level of transit service and lower fares than would have prevailed without it, but such support also caused supply-side productivity (e.g., the operating cost per vehicle mile) to worsen. With growth in vehicle miles of about 50% since the late 1990s, the operating cost per vehicle mile has remained relatively constant over the same period. In contrast, demand, measured by ridership, grew by about 14% over the same period, resulting in substantial growth in the operating cost per trip.

Another potential effect of federal operating support is that it may reduce geographic service inequalities that arise from the ability of different state and local governments to support transit service.

The effects of federal operating support on asset condition are less clear. Greater flexibility in the use of federal funding for operating expenses may be associated with a more rapid decline in the condition of capital assets as some transit agencies focus on day-to-day needs rather than asset maintenance and renewal. However, existing flexibility to use capital funds for maintenance may help agencies to preserve equipment and facilities. Estimates of spending needed to renew and expand public transportation infrastructure by the Department of Transportation suggest that more of the funding provided in the Infrastructure Investment and Jobs Act (IIJA; P.L. 117-58) could be used for operating expenses, but doing so might slow the reduction of the so-called “state of good repair backlog” and reduce the amount of funding available for expansion projects.

If Congress were to decide that more federal support for public transportation operating costs is warranted, options could include providing short-term funding or—given the likely long-term decline in public transportation ridership and fare revenue—greater, long-term funding. Another option Congress might consider is to reduce operating assistance or federal transit assistance overall. One option for reducing operating assistance could be to change the definition of a capital expense in federal law to exclude items traditionally considered operating expenses, such as maintenance (as existed before 1998). Federal policy changes could reduce the need for operating support. This might include distributing some funding based on performance measures, encouraging congestion pricing schemes, and raising user fees on automobiles. For example, H.R. 2864 (116th Congress) proposed to raise the federal tax on gasoline by 5 cents per year for five years.
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Introduction

The Coronavirus Disease 2019 (COVID-19) pandemic had an unprecedented effect on public transportation agency budgets. Public transportation agencies kept many buses and trains running, especially to support the travel of “essential workers,” but ridership and fare revenues plummeted. Public transportation agency budgets were supported by federal supplemental appropriations totaling $69.5 billion. This amount was about five times the annual federal public transportation support of $12 billion in 2019, the final full year before the pandemic, and more than three times the $19 billion coming that year from fares and other operating revenue.

Ridership has grown from the low reached in the second quarter of 2020 but was about 70% of the pre-pandemic level in the third quarter of 2023. Although public transportation is provided in a wide range of places, including small urban areas, rural areas, and tribal lands, the New York City urban area and a few other major urban centers heavily influence these data because public transportation infrastructure, ridership, and federal government support are concentrated in those places.

Almost all of the money provided by the federal government to maintain public transportation service has been obligated, and many agencies expect large operating budget deficits in FY2024 and beyond. Consequently, public transportation agencies are likely to need additional governmental support to avoid reduced services and employee layoffs. Some states and local governments have announced greater support for transit agencies. Additionally, transit agencies are implementing other changes such as increases in fares and operating efficiencies.

Another possibility to address the expected operating budget deficits is greater federal operating support, either as a greater share of existing funding support or in addition to the current funding level. Congress formally eliminated federal operating assistance for transit operators in urbanized areas with populations above 200,000 in the late 1990s, while keeping it available for operators in smaller urbanized areas (populations of 50,000-199,999) and in rural areas. Despite this change, federal funding of operating expenditures grew dramatically. This paradox is largely explained by the fact that Congress broadened the definition of transit capital expenses in federal law to include items traditionally considered in the industry to be operating expenses, such as preventive maintenance. Congress also allowed limited operating support for small bus operators in larger urbanized areas beginning in FY2013.

Federal assistance for operating expenditures could affect three main aspects of public transportation: service, productivity, and asset condition. Research on the rapid expansion of

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1 Examples of essential workers are healthcare providers (e.g., nurses, phlebotomists, and radiology technologists) and workers enabling the sale of human food and animal food (e.g., people working at groceries, convenience stores, and warehouses). For federal guidance on essential workers, see Department of Homeland Security, Cybersecurity and Infrastructure Security Agency, “Guidance on the Essential Critical Infrastructure Workforce,” August 13, 2021, at https://www.cisa.gov/resources-tools/resources/guidance-essential-critical-infrastructure-workforce.


3 The New York City region, which includes parts of New York, New Jersey, and Connecticut, accounts for about 40% of national transit ridership.


operating support in the 1970s has generally concluded that it allowed transit agencies to maintain a higher level of transit service than would have prevailed without it, but such support also caused productivity to decline.\(^6\) Federal support may also reduce service inequalities that arise from the ability of state and local governments to support transit service. The effects of operating support on asset condition are less clear. Greater flexibility in the use of federal funding for operating expenses may be associated with a more rapid decline in the condition of capital assets as some transit agencies focus on day-to-day needs rather than asset renewal. However, existing flexibility to use capital funds for maintenance may help agencies preserve equipment and facilities, thereby increasing asset lifespan and reducing lifecycle costs.\(^7\)

This report begins by discussing how public transportation funding is expended and how federal support for operating expenses has changed over time. It then outlines the potential issues Congress faces with supporting operating expenses and the options it might consider if it chooses to address those issues. For example, options for Congress might include funding operations on a short-term basis or—given the likely long-term decline in public transportation ridership and fare revenue—greater, long-term federal support for public transportation operating costs.

### How Transit Dollars Are Spent

The costs of providing transit service fall into two main categories: operating expenses and capital expenses. Of all costs for public transit, operating expenses have accounted for about two-thirds on average and capital expenses for about one-third. In 2020, for example, total public transportation expenditures were $74.3 billion (2020 dollars), with $50.5 billion (68%) spent on operations and $23.7 billion (32%) on capital investments.\(^8\)

Operating expenses can be further categorized by “function” or “object class” (Figure 1). By function, vehicle operation accounted for 42% of public transit agencies’ total operating expenses, followed by general administration (17%), vehicle maintenance (16%), purchased transportation (15%), and non-vehicle maintenance (11%). Purchased transportation is service provided to a transit agency by another operator based on a contract. By object class, the largest operating expenses were compensation (62% of the total, with 34% going to salaries/wages and 28% to fringe benefits), purchased transportation (which is both a function and an object class, 15%), services from outside organizations (9%), and materials and supplies, including fuel (8%).\(^9\)

Capital expenses, as defined by the Federal Transit Administration (FTA), are

> Expenses related to the purchase of capital equipment and financing capital projects. Equipment means an article of non-expendable tangible personal property having a useful life of more than one year and an acquisition cost, which equals the lesser of the capitalization level established by the government unit for financial statement purposes, or

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\(^6\) See, for example, Charles Lave, “It Wasn’t Supposed to Turn Out Like This,” Access, no. 5 (Fall 1994), pp. 21-25, at [http://www.uctc.net/access/access05.pdf](http://www.uctc.net/access/access05.pdf).


$5,000. Capital expenses are non-annually recurring and do not include operating expenses (OE) that are eligible to use capital funds, such as preventative maintenance.\textsuperscript{10}

The largest capital expenses are guideways (39%), rolling stock (24%), passenger stations (15%), maintenance facilities (8%), and communication and information systems (8%).\textsuperscript{11}

\textbf{Figure 1. Public Transportation Operating Costs by Function and Object Class, 2020}

By Function
- Non Vehicle Maintenance: 10.9%
- Purchased Transportation: 15.1%
- Vehicle Maintenance: 15.7%
- General Administration: 16.7%
- Vehicle Operations: 41.6%

By Object Class
- Other*: 6.0%
- Materials and Supplies: 7.7%
- Services: 9.2%
- Fringe Benefits: 28.1%
- Salaries and Wages: 31.9%


\textbf{Notes:} *Other includes utilities and casualty and liability. Due to rounding, numbers may not sum to 100.

Most federal funding for public transportation is provided through programs administered by the FTA. About two-thirds of this funding is distributed (apportioned) by formula, and the remaining amount is distributed competitively or for special purposes. In general, federal public transportation programs allow an 80% maximum federal matching share for capital projects and a 50% maximum matching share for operating expenses.

Public transportation funding is typically provided in multiyear authorization bills. In November 2021, the federal public transportation program was reauthorized for FY2022-FY2026 as part of the Infrastructure Investment and Jobs Act (IIJA; P.L. 117-58).\textsuperscript{12} As with previous authorization acts, the IIJA provided funding for public transportation from the Highway Trust Fund’s mass


\textsuperscript{12} CRS Report R47002, Federal Public Transportation Program: In Brief, by William J. Mallett.
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Unlike previous authorization acts, the IIJA also provided a multiyear advance appropriation from the U.S. Treasury’s general fund. The IIJA provided an approximately 67% increase in annual federal funding for public transportation (in nominal dollars) when compared with the annual amount provided in the previous authorization, the Fixing America’s Surface Transportation (FAST) Act (P.L. 114-94) of 2015, as extended.13

In addition to FTA monies, federal funding for public transportation is available from several surface transportation programs that allow federal highway money to be spent on public transportation projects and from non-transportation programs in areas such as health, education, and veterans affairs. In FY2022, about $885 million was transferred (or “flexed”) from highway programs to public transportation.14

The COVID-19 pandemic had an unprecedented effect on transit agency budgets, including operating revenues and sources of government support.15 Table 1 provides a national summary of public transportation funding in the year prior to the pandemic; it does not convey the role of federal investment in 2020 or later. Fares and other operating revenues covered about one-quarter of the total cost, with the remainder provided by federal, state, and local governments. The federal government supported less than 10% of operating expenditures prior to the pandemic and a third of capital expenditures.

Table 1. Sources of Funding for Operating and Capital Expenditures in Public Transportation Provision, 2019

| Note: Sources of local government expenditures include funds from local taxes, toll transfers, and bond proceeds. |

<table>
<thead>
<tr>
<th>Operating</th>
<th>Capital</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>Millions of Dollars</td>
<td>%</td>
</tr>
<tr>
<td>Fares and Other Income</td>
<td>34.0</td>
<td>18,740</td>
</tr>
<tr>
<td>Local Government</td>
<td>35.1</td>
<td>19,353</td>
</tr>
<tr>
<td>State Government</td>
<td>22.9</td>
<td>12,639</td>
</tr>
<tr>
<td>Federal Government</td>
<td>7.9</td>
<td>4,366</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>55,099</td>
</tr>
</tbody>
</table>

Federal Law and Trends in Operating Support

At the outset of the federal public transportation program, as enacted in the Urban Mass Transportation Act of 1964 (P.L. 88-365), Congress authorized assistance to transit operators for

13 The authorizations in the Fixing America’s Surface Transportation (FAST) Act (P.L. 114-94) of 2015 were for FY2016-FY2020; they were extended through FY2021 by the Continuing Appropriations Act, 2021 and Other Extensions Act (P.L. 116-159).


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capital projects only. An influential study on transit needs published in 1962 had recommended against federal support for operating expenses on the basis that such support would reduce transit operators’ incentives to control costs. Argumens for capital support only were buttressed by the widely held belief that physical improvements in transit systems would stabilize ridership, which had declined 60% between 1945 and 1960. Operating deficits, by contrast, were generally not a problem in the early 1960s. At the time, the largely private transit industry as a whole was marginally profitable because operators spent little on facilities and equipment, and some unprofitable transit companies had gone out of business.

Federal capital support was promoted as a short-term commitment to stabilize an industry for which state and local governments would assume responsibility. Despite the infusion of federal funds, transit operators were struggling in the early 1970s; patronage had continued to fall, fares were relatively high by historical standards, and operating deficits were growing. Some argued, additionally, that the federal policy of providing only capital assistance was causing operators to overbuild their systems, substitute capital for labor (even when it was uneconomic), and skimp on maintenance. These problems led to calls for federal operating support as a way of encouraging more efficient, less capital-intensive transit systems.

The oil crisis of 1973 increased congressional interest in supporting transit service. The National Mass Transportation Act of 1974 (P.L. 93-503) added operating support for transit providers with the goals of maintaining fare levels and increasing service and ridership. Operating support was provided with a maximum federal matching share of 50%. The maximum federal matching share for capital expenses had been raised to 80% in the Federal-Aid Highway Act of 1973 (P.L. 93-87) to provide approximate parity with highway funding, and the 1974 act left that matching share unchanged.

With the introduction of federal eligibility for operating costs beginning in FY1975 and a broadening of eligibility a few years later, federal funds applied to operations more than doubled from FY1975 through FY1980 (Figure 2). As total assistance rose, federal operating grants as a share of operating and capital grants grew to nearly 30% by 1980. Assistance increased so rapidly that the General Accounting Office concluded that at all levels of government, “demand for transit operating subsidies is approaching crisis proportions.” In response, and as part of a desire to reduce federal expenditures, the Reagan Administration proposed phasing out operating assistance by FY1984 and cutting back on capital assistance.


20 Jones, Urban Transit Policy, p. 128.


Congress declined to eliminate operating assistance, but beginning in FY1982, authorization and appropriations laws imposed limits on the use of formula funds (known as the “operating limit” or “operating cap”). As a result of these changes, the share of federal transit funds going toward operations decreased from the peak near 30% in the early 1980s to about 25% through the early 1990s.24

Beginning in FY1998, the Transportation Equity Act for the 21st Century (TEA-21; P.L. 105-178) eliminated federal operating support for transit in urbanized areas of 200,000 people or more but broadened the definition of capital expenses to include preventive maintenance, which was previously considered in federal law as an operating expense. This allowed maintenance expenses to be eligible for an 80% federal share. TEA-21 continued to allow transit providers in urbanized areas under 200,000 to use federal funding for both capital and operating expenses, at their option. Additionally, transit operators in urbanized areas of all sizes were permitted to use up to 10% of their Section 5307 apportionments to provide paratransit service, in accordance with the Americans with Disabilities Act (P.L. 101-336).25 This was accomplished by defining paratransit as a capital project. As a result, federal funding for operating expenses, based on the traditional industry definition, quintupled in inflation-adjusted terms between 1997 and 2011 (Figure 2). Capital support increased by about 32% over this period, so the share of federal support going to operating expenses increased from 13% to 35%.

Temporary operating assistance for larger urbanized areas was provided in an amendment to the American Recovery and Reinvestment Act (ARRA; P.L. 111-5) enacted in 2009. ARRA provided

24 DOT, FTA, 1998 Statistical Summaries: FTA Grant Assistance Programs, 1999, Table 40.
25 In some circumstances, transit agencies were permitted to use up to 20% of §5307 apportionments (49 U.S.C. §5302(4)(I)). Paratransit is non-fixed route service—often for the elderly and persons with disabilities—using automobiles, vans, and small buses in response to calls from passengers.
$8.4 billion for public transportation in response to the severe economic downturn but originally limited much of that funding for capital expenses. A few years later, a provision in the Moving Ahead for Progress in the 21st Century Act (MAP-21; P.L. 112-141) provided an exception to the existing law for small bus agencies in large urbanized areas. Like transit agencies in small urbanized areas, small agencies in large urbanized areas tend to have large capital expenditures in some years and small capital expenditures in other years. Transit agencies with 75 or fewer fixed route buses could use up to 75% of Urbanized Area Formula Program funds for operating expenses, and agencies with between 76 and 100 buses could use up to 50% (MAP-21, §20007), known as the “100-bus rule.” Despite this change, federal operating assistance remained at about $5 billion from 2011 through 2019 (in 2022 inflation-adjusted dollars; Figure 2). Assistance provided in response to the COVID-19 pandemic resulted in a historic amount of federal funds going for operating expenses in 2020 through 2022 (Figure 3).

**Figure 3. Operating Expenditures by Source of Funds, 2018-2022**
in billions of inflation-adjusted 2022 dollars

With fewer riders due to COVID-19, fare revenue has fallen dramatically at most public transportation agencies. According to FTA, fares and other operating revenue fell from $22 billion in 2019 to a low of $10 billion in 2021 (in 2022 dollars; Figure 3).28 Public transportation

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27 The FAST Act modified these provisions to include demand response service, except complementary ADA service.
agencies also have faced higher costs as a result of the health emergency, such as extra cleaning costs. To maintain public transportation services and jobs, public transportation agency budgets were supported by federal supplemental appropriations in FY2020 and FY2021 totaling $69.5 billion, about five times the pre-pandemic level of annual federal public transportation support and more than three times the amount coming from fares and other operating revenue annually.29

While the pandemic challenged the public transportation industry nationwide, its financial effects fell most heavily on agencies operating subways and commuter rail systems,30 the largest of which are located in the New York metropolitan area. Not only did subways and commuter rail lose a greater share of ridership than bus systems due to the pandemic, but they are typically more reliant on fares to cover operating costs. Prior to the pandemic, fares and other operating revenues covered about one-quarter of the total cost of providing public transportation nationally. The five-year average (2015-2019) of fare revenue as a share of total costs for buses was 20%, and the shares of total costs for subway and commuter rail coming from fares were 34% and 32%, respectively (Figure 4).

![Figure 4. Fare Revenue as a Share of Total Expenses, by Mode](image)

**Figure 4. Fare Revenue as a Share of Total Expenses, by Mode**
five-year average, 2015-2019

<table>
<thead>
<tr>
<th>Mode</th>
<th>Fare revenue as share of expenses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subway</td>
<td>33.7%</td>
</tr>
<tr>
<td>Commuter Rail</td>
<td>32.1%</td>
</tr>
<tr>
<td>All Transit Modes</td>
<td>23.1%</td>
</tr>
<tr>
<td>Bus</td>
<td>20.0%</td>
</tr>
</tbody>
</table>

5-year average (2015-2019)

**Source:** APTA, 2022 Public Transportation Fact Book: Appendix A, Tables 62, 68, and 92.

**Notes:** Expenses used in the calculations are the total of capital and operating expenses.

The share of bus costs supported by fares is lower because buses provide service on many low-demand routes and times of day to provide geographic and temporal coverage, whereas rail is typically deployed on select routes and at times of the day that have high demand. Rail riders have higher incomes on average and are more likely to have a personal vehicle available but may be willing to pay relatively higher fares to avoid peak period traffic and parking costs. With comparatively lower incomes, bus riders are generally more sensitive to fares.31

The effects of these developments in ridership and fare revenue have been to upend the budgets of many public transportation agencies, especially the largest agencies that operate multimodal systems. According to the American Public Transportation Association (APTA), transit agencies had obligated more than 99% of federal COVID-19 emergency relief funds by the middle of

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2023. In a survey of its members, APTA found that about half of transit agencies and more than two-thirds of large agencies said they would experience severe budget problems (a so-called “fiscal cliff”) in the next five fiscal years (FY2024-FY2028). Without new sources of federal, state, or local funding, or a combination of these, many operators would face large and sustained operating deficits. If new funding is not forthcoming, it is likely that agencies would have to institute some combination of fare increases, service cuts, and layoffs or search for efficiency improvements. Reduced and possibly more expensive service could lead to falling ridership, requiring further fare hikes and service cuts.

**Issues with Federal Operating Assistance**

Federal assistance for operating expenditures could affect three main aspects of public transportation: (1) transit service, including the amount provided and fares; (2) transit productivity; and (3) transit capacity and condition.

**Public Transit Services and Fares**

The operations of many transit agencies are under stress because of low ridership and farebox revenue due to the disruptions caused by COVID-19, as well as longer-term issues with transit demand. Supplemental federal appropriations, predominantly for operations, have helped prevent service cuts and higher fares over the past few years. In general, federal government funding since the 1960s, for both capital and operating costs, has supported a higher level of service and lower fares than would have otherwise been possible. Less federal funding in the future could lead to less total spending on public transportation, at least for a time as state and local governments adjust, and thus could lead to less service and possibly higher fares.

In addition to the overall funding level, transit agencies can be concerned about the flexibility to use federal funds for operating costs. Restrictions on the use of federal funds for operating expenses are generally less important for larger transit agencies, which have large, ongoing capital programs. Because those agencies can switch their own funds between capital and operating accounts, any extra federal support is helpful in maintaining operations. Flexibility in the use of federal transit funds is generally more important for smaller agencies, whose capital expenditures are more likely to be big in some years and small in others. These smaller agencies may have difficulty juggling federal capital funding in order to maintain operations and may therefore rely more heavily on the flexibility in the use of federal funds offered by current law.

**Service Provision Equality**

Although public transportation providers are found throughout the United States, service provision is predominantly urban. Research has shown that urban public transportation services are better in higher income places because of the reliance on local government for a large share of

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transit operating expenses. Consequently, it is possible that greater operating support by the federal government could reduce service inequalities, particularly if funding were distributed predominantly to low-income communities.

**Productivity and Government Support**

The federal role in supporting transit operations has been controversial. Research has generally concluded that government support, and particularly federal operating support, has maintained a higher level of transit service and supported lower fares than would have prevailed otherwise but has also caused productivity to decline. These studies are to be interpreted with caution, because transit productivity can be defined in many ways and can change for many reasons. Further, declines in transit productivity can be the result of deliberate federal policy decisions to promote specific types of transit operations. For example, the Americans with Disabilities Act of 1990 required transit agencies to provide facilities and services to accommodate disabled people, which can be costly. According to data from APTA, service predominantly provided to accommodate disabled people, known as “paratransit,” accounted for about 2% of public transportation trips in 2019 but 9% of capital and operating expenses.

Whether measured in terms of service supplied or service consumed, national public transit productivity has declined since the 1960s. The operating cost per vehicle mile (a measure of service supplied) more than doubled between 1960 and the early 1980s (in inflation-adjusted dollars; Figure 5). After declining then through the late 1990s, the average operating cost per vehicle mile increased slightly from a low in 1999 through 2019. The operating cost per passenger trip (a measure of service consumed), however, has more than quintupled over this 50-year period. While transit service supplied has nearly tripled, the number of passenger trips has changed relatively little.

The decline in productivity per passenger trip is to some extent related to social and economic trends that have resulted in depressed transit demand. Chief among these are residential and employment suburbanization, along with the wide availability of automobiles and the relatively low cost of driving.

Declining per-passenger productivity is also related to government policy that has sought to use public transit as a way to deal with a range of social and environmental issues, such as traffic congestion; transporting the poor, the elderly, and the disabled; air pollution; land use; and economic development. Pursuing these policy goals in the context of suburbanization has required delivering more frequent service on more routes than may be warranted solely by demand. Furthermore, providing costly service to low-density suburbs has often been part of the political calculus to win support for transit from planning agencies that serve entire metropolitan areas.

According to a number of studies, public subsidization, and particularly federal support of operating costs, were important factors in the rapid decline in supply-side productivity during the

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37 Jones, *Urban Transit Policy*. 
1970s. Using data on the cost of providing hours of bus service from 1950 through 1985, one researcher found that productivity declined by 1.4% per year before federal assistance in 1964, by 2.1% in the era of federal capital support, and by 3.1% in the era of both federal capital and operating support.

**Figure 5. Measures of Productivity in Public Transportation, 1960-2019**

Index, 1960 = 1.0


Notes: Data are not fully continuous. For example, paratransit data are first included in 1984. Also, beginning in 1984, data are recorded by transit agency reporting year. Prior to 1984, data are calendar year. For more information, see the “Methodology” tab in the APTA source spreadsheet.

Another study found that federal operating assistance had twice the cost-inflationary impact of state subsidies, suggesting that local transit managers and local government officials are more accountable to state governments in the use of funds than they are to federal officials. Because transit is a labor-intensive industry, increases in wages and fringe benefits have typically been identified as the main driver of operating costs in these studies. A more recent study on

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39 For road-based public transit, cost per vehicle hour is likely to be a better measure of productivity because it is not affected by levels of traffic congestion.

40 Charles Lave, “It Wasn’t Supposed to Turn Out Like This,” *Access*, no. 5 (Fall 1994), pp. 21-25, at http://www.uctc.net/access/access05.pdf.


commuter rail systems found that although productivity declined with higher subsidies, most of the subsidies resulted in lower passenger fares.\textsuperscript{43}

A complete analysis of transit’s costs and benefits would examine the economic value provided to society as a whole, not just the finances of the industry.\textsuperscript{44} Social value includes the effect of government transit spending on economic development and pollution reduction as well as on mobility, including the improved mobility of drivers due to reductions in highway congestion. Transit spending also offers some insurance value to people who are not regular users by offering an alternative to other modes of transportation in the event of bad weather, car problems, or other contingencies.

Because many of the economic benefits go to people who are not transit passengers, the economic value of transit cannot be measured solely by passengers’ willingness to pay fares covering the operating and capital costs.\textsuperscript{45} Although some transit proponents claim that a full assessment of social value shows transit spending often to be more productive than highway spending, there are many possible ways to measure the economic benefits to society and no consensus about the true social value of transit spending.\textsuperscript{46} Nevertheless, researchers have argued that the broader social benefits warrant current subsidy levels in some very large cities with high levels of traffic congestion.\textsuperscript{47}

### Operating Assistance and Transit Infrastructure

The effects of federal operating assistance on transit infrastructure condition are difficult to establish in any conclusive way. This is because infrastructure condition is a complex function of asset age, asset mix, intensity of use, capital spending, maintenance spending, and climate, among other things. However, for a given amount of federal funding, an inverse relationship would be expected between the share of federal transit funds devoted to operating expenses, other than maintenance, and the condition of transit infrastructure, all else being equal.

The deterioration of a physical asset is typically not linear. In other words, when an asset is new, deterioration tends to be slow, whether or not it is properly maintained. However, with advancing age, deterioration quickens, particularly when the asset is poorly maintained (Figure 6). This suggests that insufficient investment in replacement and rehabilitation may have no serious consequences for a time, but this failure eventually may result in the need for a greater infusion of funds to bring the assets up to a “good state of repair.”\textsuperscript{48}


\textsuperscript{44} David Lewis and Fred L. Williams, Policy and Planning as Public Choice: Mass Transit in the United States (Brookfield, VT: Ashgate, 1999).


In its conditions and performance (C&P) report to Congress approximately every two years, DOT prepares investment estimates for highway and public transportation infrastructure. The most recent C&P report, with data through 2016, showed that transit infrastructure condition remained relatively stable between 2006 and 2016. The report also asserted that the country was spending just enough to maintain the current physical condition and operational performance of transit systems from 2016 through 2036. The report indicated that more spending would be needed to eliminate the state of good repair backlog, which it estimated to be $126 billion in 2016 (in 2022 dollars), and for expansion projects.

**Figure 6. Hypothetical Value of a Public Transportation Asset by Age**

![Graph showing the hypothetical value of a public transportation asset by age](image)


Note: In this inventory of asset types, trackwork is the element of a rail transit system over which railcars are operated, excluding the rail.

According to the C&P report, in 2016, the country as a whole spent $22.6 billion on public transportation capital projects composed of $14.0 billion for preservation and $8.6 for expansion (all in 2022 dollars). To bring the system up to a state of good repair by 2036, DOT estimated, would require $21.8 billion for preservation annually (in 2022 dollars). Any spending on expansion would be additional. DOT also estimated higher amounts for accommodating low and high ridership growth that both appear to be unlikely in the near future because of the disruptions caused by the COVID-19 pandemic. Nevertheless, expansion expenditure might be necessary to accommodate places with population growth and for other purposes, such as connecting an outlying airport to the urban core.

DOT’s C&P report makes no recommendation about the share of capital investment that should come from the federal government. Over the 10-year period prior from 2010 through 2019, the

49 The report was prepared prior to the enactment of the Infrastructure Investment and Jobs Act (IIJA), in accordance with 23 U.S.C. §503(b)(8), 49 U.S.C. §308(e), and 23 U.S.C. §167(h).

50 DOT, Federal Highway Administration (FHWA), and FTA, **Status of the Nation’s Highways, Bridges, and Transit: Conditions and Performance Report to Congress, 24th Edition**, October 2021, Chapter 7, at [https://doi.org/10.21949/1521794](https://doi.org/10.21949/1521794).
federal government’s share of capital spending was about 40%. If this share were to continue, the C&P report suggests that about $8.8 billion of federal spending annually would be needed to eliminate the backlog of repair needs in the 2016-2036 period (in 2022 dollars). Together with the federal share of expansion costs, another $3.5 billion annually, federal capital spending might total about $12.3 billion per year.

Over the 10-year period 2010 through 2019, federal spending on public transportation totaled about $14.6 billion per year, $9.6 billion per year on average for capital expenses, and another $5.0 billion per year for operating expenses (in 2022 dollars). This is less capital spending than the amount DOT estimated would be needed going forward. However, the IIJA provided about a 67% increase (in nominal dollars) in annual funding for public transportation in comparison with the period authorized by the FAST Act, as extended. The amount authorized and appropriated in the IIJA was $20.5 billion in FY2022 rising to $22.3 billion in FY2026 (in nominal dollars).

Based on DOT’s estimates of spending needs, these amounts, averaging $21.4 billion annually over the five-year period, are somewhat higher than the $17.3 billion annual spending estimate that combines DOT’s $12.3 billion for capital and $5.0 billion in federal operating support. This difference may provide an opportunity to spend more federal dollars on operating expenses and allow for enough capital spending to reduce the state of good repair backlog and to expand transit infrastructure. This conclusion assumes that federal funding would continue to be provided at the level in the IIJA past its expiration at the end of FY2026 and adjusted for inflation and that state and local governments would maintain their level of capital and operating spending. Dedicating a greater share of federal funding to operating costs could slow transit expansion and the reduction of the state of good repair backlog. Federal funding over and above the IIJA amounts dedicated to operating expenses, however, would not likely affect transit system asset capacity and condition.

### Policy Options for Congress

Congress might decide that the federal government has the correct balance in its support of transit capital and operating expenditures with its current policies that give full flexibility to transit agencies in small urbanized and rural areas and limited flexibility to agencies in large urban areas through eligibility rules that allow the use of federal funds for maintenance and paratransit. In this way, the federal government predominantly focuses on supporting the capital needs of transit providers, but also encourages transit agencies to properly maintain their assets. Some of the other salient policy options for federal support of operating expenses include (1) providing additional temporary assistance, (2) providing greater long-term assistance, (3) reducing or


53 Public transportation program funding averaged $12.8 billion annually in the period FY2016 through FY2021.

54 These amounts exclude the $69.5 billion provided to public transportation agencies in response to COVID-19 and funding provided through the Public Transportation Emergency Relief Program.

eliminating operating assistance, and (4) encouraging other changes that reduce the need for government support.

**Provide Temporary Assistance for Operating Expenditures**

Provision of temporary assistance for operating expenditures might help transit agencies avoid the “fiscal cliff,” allowing more time for agencies to manage the transition to new patterns of travel. Temporary assistance would not restructure the relationship between the federal government and transit agencies, largely avoiding the issues of productivity and asset condition. Temporary assistance was provided in legislation that addressed the effects of COVID-19. Temporary operating assistance was also provided in an amendment to ARRA (P.L. 111-5), which was enacted in 2009 as a response to the “Great Recession” that ran from January 2008 through June 2009.56

One option, therefore, would be another infusion of federal funds for operating expenditures in addition to “regular” federal public transportation funding. Funds could be distributed by formula, with or without a requirement for a local match, and made available for capital expenses at the option of the transit agency. Another temporary option would be to permit larger public transportation agencies greater flexibility in the use of existing formula public transportation funds. This was an approach proposed in the FY2024 budget by the Biden Administration related to the use of Urbanized Area Formula funds.57

**Provide Greater Ongoing Assistance for Operating Expenditures**

Transit agencies in urbanized areas of 200,000 people or more have less flexibility in the use of federal assistance for operating expense than those in smaller urbanized areas and rural areas. This inflexibility can inhibit service provision, particularly during times of extreme budget stress. It also may cause some transit agencies to overcapitalize, that is to buy buses and build rail lines that they cannot afford to operate. Greater federal operating support may allow for higher utilization of existing assets for service expansion and the lowering of fares. Congress, therefore, might consider options for making more federal transit funds or a larger portion of funds available for operating assistance on an ongoing basis.

One option would be to create a new program for operating support. The Stronger Communities Through Better Transit Act (H.R. 3744, 117th Congress), introduced by Representative Hank Johnson, would have authorized $20 billion per year for four years from the general fund of the U.S. Treasury to be distributed by formula for “eligible operating support costs of public transportation and associated capital improvements that make substantial improvements to transit service as measured by a comparison to the number of revenue hours of service provided by the recipient.” Eligible projects would include decreasing headways (increasing frequency); expanding the service area, hours, or days; and planning that would result in a net increase in service hours. Another bill, the Freedom to Move Act (H.R. 2848/S. 1282, 118th Congress), introduced by Representative Ayanna Pressley and Senator Edward Markey, would authorize $5 billion annually for five years from the general fund to provide grants “to eligible entities, on a


competitive basis to cover the lost fare revenue for fare-free public transportation and improve public transportation.”

Another option would be to allow transit agencies in all areas to use formula funding for operating expenses. This could be accompanied by either keeping the maximum 50% federal share for operating projects or raising it to be closer to or equal to the 80% maximum allowed for capital projects. The inflexibility of operating assistance is probably more detrimental to agencies in communities that are slightly larger than 200,000 people. Thus, another option, perhaps within the urbanized area formula program, could be to allow transit operators in urbanized areas of 200,000 or more to use some of their federal funding for operating costs not already allowed. For example, as has been previously proposed, agencies in areas between 200,000 and 500,000 could be allowed to use 20% of their federal funds for operating expenses.\(^58\)

### Fare-Free Transit Programs

Federal law does not require transit agencies to charge fares. According to federal law, generally, “the Secretary [of Transportation] may not regulate the rates, fares, tolls, rentals, or other charges prescribed by any provider of public transportation” (49 U.S.C. §5334(b)(1)). Thus, transit agencies can and do provide fare-free service. Fare-free transit service can be provided across a whole agency, on a specific route, on specific modes, in specific areas, or at specific times. A separate option is to provide reduced or free service for specific groups, such as students, the elderly, and the low-income.

The main reasons for instituting a fare-free program are providing a no-cost mobility option, particularly for those with low-incomes; speeding bus service typically slowed by the process of fare collection; and encouraging the greater use of transit assets that may have wider social benefits, such as reducing road congestion and air pollution. Research indicates that ridership typically increases in the range of 20%-60% after implementing free fares. Another benefit may be improved bus security due to fewer fare disputes. The most successful programs are typically those instituted by agencies where fare revenues are a relatively modest share of total revenues and there is excess capacity.

The main disadvantage of fare-free transit service and programs is the forgone revenue, offset to some degree by the savings associated with not collecting fares (e.g., fare machines and gates, credit card fees, and enforcement costs). All else being equal, revenue losses require a greater subsidy from taxpayers. The reduction in revenue may inhibit improving service provision, such as more frequent buses and trains, and contribute to overcrowding. Another disadvantage may be an increase in disruptive passengers, such as those primarily seeking shelter, not transportation. This can offset the security benefits of not having to enforce fare payment.


Because there can be concern about transit agencies in urbanized areas that are slightly larger than 200,000, another option might be to increase the population limit below which a transit agency has unlimited flexibility to use federal funds for operating or capital expenses. This threshold might be raised from the current 200,000 to perhaps 400,000 or 500,000 without altering the basic structure of the current program. This approach would not provide greater flexibility to agencies in the largest urbanized areas.

Another option might be to provide federal transit assistance in a block grant, allowing local transit agencies to establish their own spending priorities. Such an approach was suggested by a congressional subcommittee during discussions about the future of federal assistance in the early

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\(^{58}\) A provision like this was proposed in the reauthorization of the surface transportation programs entitled “Surface Transportation Authorization Act of 2009.” The draft legislation was not formally introduced, hence unnumbered, but was subject to markup by the House Subcommittee on Highways and Transit. No further formal action was taken by the House Transportation and Infrastructure Committee.
A worry is that a substantial amount of federal funding would be shifted to operating expenses, resulting in a deterioration of transit infrastructure and subsequent requests for emergency capital assistance. One approach might be for Congress to base some portion of federal assistance on a transit agency’s performance. This might be structured as an incentive grant for systems that increase ridership or improve productivity. Use of incentives and performance measurement are discussed in more detail below.

**Reduce or Eliminate Federal Assistance for Operating Expenditures**

Another option for Congress might be to reduce operating assistance or federal transit assistance overall. One option for reducing operating assistance could be to change the definition of a capital expense in federal law to exclude items traditionally considered operating expenses, such as maintenance (as existed before 1998). If Congress determines that transit operations are a local responsibility, it might consider eliminating federal transit operating assistance altogether. This might lead to improvements in productivity because without federal support, transit agencies might have less incentive to expand service into areas that are difficult and costly to serve and consider cutting the least cost-effective services, except perhaps paratransit service.

**Encourage Changes to Reduce Need for Government Support**

Transit service in its current form could not survive without government support, but Congress might consider ways to encourage productivity improvements and local revenue generation in order to reduce the demand for operating support. One option is for Congress to consider making more use of performance measures to distribute funds by rewarding transit agencies for providing more and better service per dollar of public support. One risk of this approach is that performance measures might reward or punish states and localities on the basis of factors outside their control, such as regional economic conditions or weather events. Distributing funding based on performance also could result in a greater geographic concentration of funding. FTA would have to monitor data accuracy and manipulation and watch for transit agencies potentially “gaming” the performance measurement system.

In heavily congested areas, transit performance might be improved through broader changes to the transportation system such as road pricing, which might encourage some drivers to switch to transit and may also provide a source of funds to enhance transit service. Such road pricing schemes usually make the most sense in severely congested regions where good transit options exist. Congress, therefore, might encourage congested metropolitan areas to design comprehensive congestion management schemes that incorporate highway pricing and transit.

Public transportation ridership might also be increased by raising user fees on automobile use. The costs of car ownership and use are low in the United States compared with most other highly developed countries, a contributing factor to the comparatively low transit use in the United States. For example, according to the Federal Highway Administration, the average tax per gallon

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59 U.S. Congress, House Committee on Public Works and Transportation, Subcommittee on Investigations and Oversight, *Oversight of the Public Transportation Assistance Program, the State of Public Transportation in the Nation, and a Recommended New Block Grant Concept*, 97th Cong., 2nd sess., May 1982, 97-42.


on gasoline in the United States was $0.49 as of December 2022, including federal and state taxes, compared with $2.40 in Japan, $3.92 in Germany, and $4.43 in Italy.\(^{62}\)

Highway user fees, including fuels tax, tolls, and vehicle registration fees, covered about 48% of the cost of highway infrastructure in 2021, with the other 52% coming from general funds, property taxes, and bond issuance, among other things.\(^{63}\) Additionally, many economists note that there are external costs of driving, such as congestion, air pollution, and publicly borne costs of crashes.\(^{64}\)

Raising day-to-day user fees on automobiles would make transit comparatively more attractive. Many fees, such as tolls and parking charges, are set at the state and local levels, but the federal government can influence those fees. For example, the federal tax code provides an income tax exclusion for employer-provided and employer-paid commuter parking. The federal tax code also provides an income tax exclusion for commuter transit benefits (26 U.S.C. §132(f)). Options at the federal level include ending or modifying the income tax exclusion for commuter parking, raising the federal fuels tax, implementing a mileage-based user charge at a level above today’s fuels tax, and encouraging greater use of tolling, including congestion pricing.\(^{65}\)

Some bills that address these options include H.R. 6660 (118\(^{th}\) Congress), which would require employers that provide subsidized parking to offer employees the choice of an equivalent amount in cash; H.R. 1759 (118\(^{th}\) Congress), which would prohibit DOT from implementing a congestion pricing program until an economic impact analysis is completed and made available to the public; and H.R. 2864 (116\(^{th}\) Congress), which would have raised the federal tax on gasoline by 5 cents per year for five years.

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