of transit for the next decade. One point is clear: Though strong federal and state assistance will be required, cities will continue to have the leadership role in transit financing.

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Options for Financing a Regional Transit Authority

DENISE DIPASQUALE AND CHRIS HENDRICKSON

Transit service stoppages for lack of funds and eleventh-hour makeshift financial solutions have become all too common in recent years. Regional taxes dedicated to transit service subsidization are increasingly popular and may be necessary for continued operation in many U.S. metropolitan areas. Although these taxes are relatively new, they are under active consideration in many areas in response to rapidly increasing transit deficits and the current administration's proposed reductions in federal operating subsidies. This paper compares the efficiency and equity of various taxes for these purposes, including motor fuel, real estate, sales, wage and income taxes as well as fare increases. Data on the tax levels required and resulting burdens by income class are reported for the Pittsburgh region. Tax payments per trip are also estimated by income class as an indication of the distribution of net benefits. Broad-based wage or income taxes seem to be the most desirable source, coupled with close attention to potential reductions in transit expenses. Sales taxes are also an acceptable tax source, although they have a smaller tax base and a slightly more regressive effect than wage or income taxes.

Government assistance for transit service burgeoned in the past decade. In 1970, total subsidy for all modes of public transit was $541 million in the United States. By 1978, subsidies had increased to $5.264 million, representing more than a fivefold increase in real dollars (1,2). Funding the capital requirements and operating deficits of existing and desired transit services has become both a substantial undertaking and a continuing problem in many metropolitan areas. Transit service reductions or stoppages for lack of funds have occurred in several areas recently, including Chicago, Birmingham, and Boston. Eleventh-hour makeshift solutions such as special state appropriations or loans have become all too common in the past few years.

The rapid increase in the level of subsidy has been accompanied by major changes in the sources of subsidy funds. Prior to 1973, no funds for operating assistance were provided by the federal government. By 1978, federal grants for operating assistance totaled $567 million for the 26 largest metropolitan areas, or 10 percent of total operating revenue in these areas. Revenue from regional taxes and counties also increased, with a 180 percent increase in real dollar contributions from 1974 to 1978. This represents an increase from 25 to 31 percent of operating subsidies. Although contributions from state and local governments increased in dollar amounts from 1974 to 1978 in these large metropolitan areas, the real value of these contributions declined. These changes for 26 large metropolitan areas are generally indicative of the nation since these services represent 92 percent of the total national operating deficit. Assistance for capital investments such as new vehicles, exclusive rights-of-way, and other facilities has also increased dramatically in the period from 1974 to 1978, but there has not been a major shift in the source of funds. Throughout this period, the federal government has provided matching funds to the level of 80 percent of the cost of capital investments, and virtually all transit agencies have taken advantage of this funding opportunity (2).

The current transit funding situation in the United States is marked, then, by rapidly increasing subsidy amounts, increasing reliance on federal and regional taxes for operating subsidies, and continuing reliance on the federal government for the bulk of capital funds. However, the federal government is not only unwilling to substantially increase operating subsidies, but has proposed elimination of all federal transit operating subsidies. Coupled with rapidly increasing deficits, many transit systems are faced with financial crises.

By and large, states seem to be unwilling or unable to assume a larger role in transit funding. Accordingly, regional taxes will become increasingly important as a source of funds for transit service. Based on the principle that the beneficiaries of services should assume their costs, regional financing for transit operation is sensible since the benefits of transit are predominantly regional in nature.

While regional funding is one revenue option, we emphasize that enacting new taxes or increasing existing taxes should certainly be avoided unless these changes are necessary to achieve public objectives. Transit service reductions, cost reductions, or private operation may provide more desirable alternatives to increased transit subsidies in any particular case and should always be carefully considered. The current remarkable increase in transit operating and capital costs coupled with the stagnation of operating revenues must be curtailed at some point in the future. Otherwise, no financing scheme will be adequate. Although cost reduction is extremely important, analysis of the possibility or
deshiality of service and cost reductions is beyond the scope of this paper. However, the costs of the taxes discussed below can certainly be used to weigh the relative merits of service reductions and tax increases for such analysis.

In this paper, we shall examine a number of state and regional financing sources. We are particularly interested in regional funding because it may be the most promising method of providing additional operating funds for transit. Our intent is to quantitatively assess the equity and efficiency impacts of a variety of potential regional funding sources, including the possibility of major transit fare increases. Our assessments will be based on an analysis of taxes for the Pittsburgh metropolitan region, but we believe that this analysis and our general conclusions with regard to specific tax types are applicable to most metropolitan areas. In the second section, we describe the existing service and funding of the Pittsburgh transit system. The third section considers the potential of various taxes to yield sufficient revenues. The fourth section reports the incidence of current and potential funding sources. The distribution of transit benefits and tax payments is examined in the fifth section. Difficulties in managing a dedicated transit tax are noted in the last section.

CURRENT FINANCING OF PITTSBURGH TRANSIT SYSTEM

The Port Authority of Allegheny County (PAT) was formed in 1964 and immediately assumed transit service in Allegheny County by purchase of existing transit companies for $43 million. At the time of its formation, there was considerable interest in maintaining the system throughout the county region; the City of Pittsburgh occupies only 8 percent of the land area of this region. Consequently, funding and operation of the PAT system were always organized on a countywide rather than citywide basis. According to the annual reports for PAT, Allegheny County guaranteed the debt service for the bonds issued by PAT to purchase the assets of private companies in 1964. Since 1964, PAT has maintained the bus, trolley, commuter rail, and inclined-plane service that it assumed at its formation and has expanded bus service into suburban areas.

For the first three years of PAT's existence (1964-1967), fares and other service revenue provided the bulk of operating revenue. In each year, however, deficits were incurred and were financed by grants from Allegheny County. The source of these funds has been a countywide real estate tax. In 1967, the Commonwealth of Pennsylvania initiated a program of providing operating subsidies for mass transit. In 1973, subsidy funds for operating expenses were made available from the federal government. These new subsidy programs were fortuitous for PAT since PAT's deficit was outstripping the subsidy funds available prior to 1973. Thus, PAT has received operating subsidies from the county in which it operates, the state, and the federal government.

Table 1 shows sources of operating revenue from 1970 to 1979. During this period, the fare revenue as a proportion of expenses dropped from 79 percent in 1970 to less than 46 percent in 1978. Subsidy received from Allegheny County increased in dollar amount from $3.8 to $6.7 million but decreased as a percentage of operating revenues from 10 to 8 percent. The subsidy funds from the state and from the federal government showed significant increases; the state funds provided 27 percent of all operating expenses in 1978, whereas the federal government provided 16 percent. During this same period, operating expenses more than doubled, representing a 27 percent increase in operating expenses in real dollars. All these trends are consistent with national patterns.

As with other transit systems, PAT has been more dependent on the federal government for capital subsidy funds than for operating funds. As of 1978, 59 percent of PAT's capital expenditures had been financed by grants from the federal government, 12 percent from the Commonwealth of Pennsylvania, and the remaining 29 percent funded by grants from Allegheny County. During the period 1964-1978, the total capital expenditure was $295 million. The amount of capital expenditure and capital grant revenue received varies each year but has tended to increase over time. In 1978, capital grants received amounted to $33 million or 45 percent of all revenue.

CURRENT AND POTENTIAL REVENUE SOURCES AND YIELDS

There are a variety of regional taxes that could be used to fund transit subsidies. General sources currently used in particular metropolitan areas include wage, sales, income, and real estate taxes. Motor fuel taxes or vehicle toll revenues have also been used to subsidize transit. Finally, fare and other service revenues also represent a regional base for transit funding.

<table>
<thead>
<tr>
<th>Year</th>
<th>Fare Revenue (%</th>
<th>Other Service Revenue (%)</th>
<th>Allegheny County (%</th>
<th>Commonwealth of Pennsylvania (%</th>
<th>Federal Revenue (%)</th>
<th>Total Revenue (in thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>79</td>
<td>3</td>
<td>10</td>
<td>8</td>
<td></td>
<td>37.2</td>
</tr>
<tr>
<td>1971</td>
<td>73</td>
<td>10</td>
<td>14</td>
<td>10</td>
<td></td>
<td>41.2</td>
</tr>
<tr>
<td>1972</td>
<td>54</td>
<td>2</td>
<td>11</td>
<td>33</td>
<td></td>
<td>56.2</td>
</tr>
<tr>
<td>1973</td>
<td>61</td>
<td>2</td>
<td>9</td>
<td>28</td>
<td></td>
<td>48.2</td>
</tr>
<tr>
<td>1974</td>
<td>55</td>
<td>3</td>
<td>6</td>
<td>36</td>
<td></td>
<td>56.9</td>
</tr>
<tr>
<td>1975</td>
<td>51</td>
<td>2</td>
<td>9</td>
<td>27</td>
<td></td>
<td>52.4</td>
</tr>
<tr>
<td>1976</td>
<td>51</td>
<td>2</td>
<td>9</td>
<td>27</td>
<td></td>
<td>68.8</td>
</tr>
<tr>
<td>1977</td>
<td>48</td>
<td>2</td>
<td>9</td>
<td>28</td>
<td></td>
<td>72.8</td>
</tr>
<tr>
<td>1978</td>
<td>46</td>
<td>2</td>
<td>9</td>
<td>27</td>
<td></td>
<td>79.1</td>
</tr>
<tr>
<td>1979</td>
<td>44</td>
<td>2</td>
<td>9</td>
<td>28</td>
<td></td>
<td>86</td>
</tr>
<tr>
<td>1980 (first six months)</td>
<td>44</td>
<td>2</td>
<td>9</td>
<td>28</td>
<td>16</td>
<td>48.0</td>
</tr>
</tbody>
</table>

Notes: Annual revenue is reported on a calendar-year basis until 1979; data for 1979 include the first six months of 1979 plus one half of 1978 revenue. This is the only year in which this practice was used. The figures given above are preliminary. This may affect the reported subsidy percentage from one year to the next, even without a change in the overall level of subsidization. Data for 1979 are preliminary. Source: PAT annual reports.
use or benefit from the service. In the case of transit service, this principle would imply that all transit expenses should be paid by those who directly or indirectly benefit from the service. In the absence of indirect benefits, this suggests that fare revenues should be sufficient to cover transit costs. However, benefits of transit services may also accrue to nonusers, for example, by reducing the overall level of congestion for commuters. It might be argued that these indirect benefits that accrue to nonusers suggest that households in areas served by transit should provide subsidy funds.

Unfortunately, identifying the extent to which individual taxpayers receive any such nonuser benefits is quite difficult. One possible approach would be to determine whether current nonuser benefits result in increases in property values in the areas served by transit. Special taxes might then be imposed within the areas surrounding transit services. However, there are no reliable means to attribute real estate values or value changes to transit services. Empirical studies suggest only a weak relationship, if any at all, between real estate values and transit service, particularly bus service (2).

Regardless of the distribution of benefits among different groups, it is clear that nearly all the user and nonuser benefits from transit subsidies accrue within the region served by the transit service. Accordingly, the benefit principle would suggest that regional taxes or fare revenues should fund the service. It is difficult to extend the principle to the level of charging for individual nonuser benefits, and the expense of current transit services generally precludes operation from only fare revenues without service cutbacks. The general presumption in favor of regional financing is quite clear under the benefit principle, which indicates that examination of regional sources is worthwhile.

If enacted, regional transit taxes might be expected to replace existing sources of subsidy as well as to accommodate increased transit deficits. Table 2 reports the tax rates that would have been required to replace various categories of subsidy funds in 1978. Required revenue yields range from $13 million, to replace federal operating subsidies alone, to $74 million, to replace all federal, state, and county operating and capital subsidies to transit. For example, $19 million in revenue is required to replace federal and county operating subsidies in 1978. This could be accomplished by a 0.53 percent sales tax, a 0.26 percent wage tax, a 0.21 percent income tax, or a 0.35 percent real estate tax imposed on residents of Allegheny County. Alternatively, a $0.03/gal motor fuel tax could be imposed. Other desired revenue yields can be obtained by proportionally increasing or decreasing these rates.

The fare increases necessary to replace subsidy funds reported in Table 2 require a strong qualification. These fare increases are derived by assuming either no patronage decline with increased fares or, alternatively, transit expense reductions that are directly proportional to patronage declines. Actually, patronage and transit expenses would be expected to decline with fare increases, but transit costs would decrease by a much lower percentage. Assuming a transit fare elasticity of 0.3 and no reduction in costs with patronage reduction implies that a fare increase of 183 percent is required to replace federal operating subsidies. The actual fare increase required would be somewhere between 36 percent (reported in Table 2) and the 183 percent increase required without any cost savings. Thus, the fare increases reported in Table 2 are underestimates of the actual required fare increases to replace subsidy amounts.

Of course, levying any of the taxes reported in Table 2 may result in a decline in the total tax base just as transit patronage might be expected to decline with fare increases. For example, an increase in the motor fuel tax within Allegheny County might induce residents to purchase motor fuel outside the county. Similarly, regional sales taxes may be avoided by purchasing outside the county. Therefore, the tax rates reported in Table 2 are underestimates of the actual tax rate to yield the desired revenue target. However, the possibilities of substitution, causing a decline in the tax bases, due to the tax rates reported in Table 2 are likely to be smaller than the decline in transit patronage due to fare increases.

Obviously, the tax rates required to raise particular revenue targets depend crucially on the magnitude of the tax base. Thus, the required income tax rate is less than half of the sales tax rate in all cases. To replace all subsidy funds, the required tax rates are appreciable increases on existing taxes. For example, the required regional gasoline tax of $0.10/gal would be only slightly

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Table 2. Required regional tax rates to achieve possible subsidy targets in 1978.

<table>
<thead>
<tr>
<th>Item</th>
<th>Federal Operating Subsidy</th>
<th>Federal and County Operating Subsidy</th>
<th>Total Operating Subsidy</th>
<th>Total Subsidy</th>
<th>Tax Base ($ Billions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue required ($1000 0000)</td>
<td>13.1</td>
<td>19.5</td>
<td>41.1</td>
<td>74.5</td>
<td>3.56</td>
</tr>
<tr>
<td>Regional sales tax (%)</td>
<td>0.37</td>
<td>0.53</td>
<td>1.12</td>
<td>2.08</td>
<td>3.56</td>
</tr>
<tr>
<td>Regional wage tax (%)</td>
<td>0.17</td>
<td>0.26</td>
<td>0.55</td>
<td>0.99</td>
<td>7.45</td>
</tr>
<tr>
<td>Regional income tax (%)</td>
<td>0.15</td>
<td>0.21</td>
<td>0.46</td>
<td>0.83</td>
<td>8.91</td>
</tr>
<tr>
<td>Regional property tax (%)</td>
<td>0.24</td>
<td>0.35</td>
<td>0.76</td>
<td>1.37</td>
<td>5.40</td>
</tr>
<tr>
<td>Regional gasoline tax (cents/gal)</td>
<td>1.9</td>
<td>2.7</td>
<td>5.9</td>
<td>10.6</td>
<td>0.036</td>
</tr>
</tbody>
</table>

*P.A. annual report.

Based on sales tax collections from firms located in Allegheny County tabulated by Pennsylvania Bureau of Research and Statistics. Data exclude untaxed sales and may include some sales by outlets located outside the region. Sales tax collections are based on 1978 retail sales. Calendar years used for sales tax collections are based on the tax year. Regional wages and incomes are reported in income tax returns (fiscal 1971 and tabulated by the Pennsylvania Department of Revenue. The wage tax considered in this analysis is based on the wages of residents of Allegheny County. An alternative scheme would be to levy the wage tax at the place of employment, but all those who work in Allegheny County. For the regional income tax, taxable income is defined to be identical to taxable income under the state individual income tax.

Pennsylvania State Tax Equalization Board, annual certification, as reported in 1979 (4).

*Based on sales tax collections from firms located in Allegheny County tabulated by Pennsylvania Bureau of Research and Statistics. Data exclude untaxed sales and may include some sales by outlets located outside the region. Sales tax collections are based on 1978 retail sales. Calendar years used for sales tax collections are based on the tax year. Regional wages and incomes are reported in income tax returns (fiscal 1971 and tabulated by the Pennsylvania Department of Revenue. The wage tax considered in this analysis is based on the wages of residents of Allegheny County. An alternative scheme would be to levy the wage tax at the place of employment, but all those who work in Allegheny County. For the regional income tax, taxable income is defined to be identical to taxable income under the state individual income tax.

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Pennsylvania State Tax Equalization Board, annual certification, as reported in 1979 (4).

*Volume sales of gasoline estimated as the total state sales in 1978 ($2 billion) multiplied by the percentage of vehicles registered in Allegheny County in 1978.

Increase assumes no patronage decline with fare increases, thereby understimating the required fare increase.
less than the $0.11/gal state tax that was imposed on motor fuel sales in 1978. The required sales tax would be one-third of the current 6 percent sales tax, whereas the required income tax rate would be nearly two-fifths of the state income tax rate in 1978. Although these tax rate increases are substantial, only two revenue sources in Table 2 would be unlikely to yield sufficient revenue to replace operating and capital subsidies. These are the transit fare increases and the motor fuel tax for which a substantial diversion of motor fuel purchases outside the county might be expected.

In addition to the adequacy of the yield from a potential tax source, the ease of administration of the tax is also a concern. In Pennsylvania, income and sales taxes are collected by the state, so any regional taxes might simply be included in the state reporting and collection process. Wage taxes might be collected at the workplace, as they are currently for local jurisdictions, or filed with the state income tax returns. Real estate taxes are collected at the local level and additional levies would not be administratively burdensome. However, no administrative structure currently exists to collect motor fuel taxes at the county level. Imposing a special surcharge within the region would require additional reporting by firms that sell motor fuels since they currently do not report sales by county. Thus, on the criterion of administrative ease of collection, the various tax sources in Table 2 are relatively equal, with the exception of the motor fuel surcharge, which would require additional accounting and reporting.

INCIDENCE OF CURRENT AND POTENTIAL TAX SOURCES

In addition to sufficient yield and administrative ease in collection, there are several other considerations that can be examined when evaluating a tax to fund a particular service. The traditional public finance literature proposes the ability-to-pay principle in addition to the benefit principle. Under the ability-to-pay principle, the revenue target or total revenue necessary to fund a public good or service is set by a broader decision process. Taxes imposed to yield this revenue target should ensure that the contribution of each taxpayer is in accord with his or her ability to pay. Under the principle, taxpayers with equal capacity should contribute equal amounts, whereas those with greater capacity should pay more. In the transportation literature, it is often argued that public transportation provides substantial benefits to the poor although it may be a rather blunt instrument for this purpose (7,8). If providing these benefits to the poor is a goal of public transit, it may be argued that the funding sources should be based on the ability to pay. This argument would suggest, for example, that a broad-based income tax with perhaps a progressive rate structure would be an appropriate source of revenue. The primary justification for this type of tax would be that the resulting tax burden would be equitable.

While the distribution of tax burdens among particular groups such as the elderly and minorities is of concern when designing new taxes, the most common concern in the evaluation of the equity of a particular tax source is the income incidence. Although there is much debate as to which income (current income, permanent income, wealth) to consider when measuring burden, current income is the most common base, given the data problems with alternatives.

In Table 3, the distribution of payments among income classes for various tax sources in 1978 is reported. The table provides the distribution of payments for the major revenue sources to the state's General Fund as well as current and potential regional (county) revenue sources. The distribution is measured by the ratio of tax payments to income within each income category. In contrast to the contribution proportions in Table 3, the ratios in Table 4 reflect the actual burden experienced by an average household in each income group. Any concentration of tax payments among the lowest-income groups when compared with the income and wage taxes. The distribution of fare revenues is particularly interesting. In essence, the distribution of transit fare payments is equal across our income classes. As a result, the highest-income category (with income of more than $25,000) contributed only 16 percent of fare revenues, whereas the minimum contribution of this high-income class is 30 percent for the other tax sources reported in Table 3.

The distribution of the burden of potential tax sources by income class is reported in Table 4 for 1978. Each entry in this table represents the average ratio of tax payments to income within each income category. In contrast to the contribution proportions in Table 3, the ratios in Table 4 reflect the actual burden experienced by an average household in each income group. Any concentration of tax payments among the lowest-income groups when compared with the income and wage taxes. The distribution of fare revenues is particularly interesting. In essence, the distribution of transit fare payments is equal across our income classes. As a result, the highest-income category (with income of more than $25,000) contributed only 16 percent of fare revenues, whereas the minimum contribution of this high-income class is 30 percent for the other tax sources reported in Table 3.

The average burdens reported in Table 4 deserve several caveats. First, the burdens were calculated on the basis of current income. Since public assistance payments are known to be underreported, current income for the lowest-income groups may be underestimated. As a result, the tax burden may be overestimated. The net effect on the distribution...
of the burden among income classes would depend on the distribution of unreported income among these classes. Second, the burdens reported in Table 4 reflect the initial rather than the ultimate burden of tax payments. State and local tax payments represent a deduction for federal income tax purposes, and the progressive nature of the federal income tax results in an ultimate burden that is more regressive than that reported in Table 4. Since the highest-income classes generally have a higher marginal tax rate, an equal state or local tax deduction results in greater tax savings for high-income households relative to low-income households.

By using the data reported in Tables 3 and 4, the distribution of the average burdens and payments may be calculated for the various potential taxes discussed earlier. Table 5 reports these distributions for a revenue target of $19 million in 1978, which would be sufficient to replace all federal and county operating subsidies.

The burdens and payments reported in Table 5 permit comparisons of different tax sources within any income class. For taxpayers with incomes between $10,000 and $15,000 in 1978, the individual income tax results in the lowest average payment ($21), whereas the sales tax represents the lowest average burden (0.0013). The wage tax would result in the lowest average payment and the lowest average burden to the lowest-income class. Thus, the wage tax has the most progressive impact of all the sources listed in Table 5, although there is a slightly lower burden on the highest-income class compared with the middle-income classes for this tax source.
DISTRIBUTION OF BENEFITS AND TAX PAYMENTS

The incidence estimates presented in the previous section are only one side of the equity issue in transit finance. As noted earlier, policymakers may be interested in the relationship between the benefits received and the tax payments by income group as well as the distribution of tax payments in relation to the ability of households to pay.

Unfortunately, identification of the distribution of transit benefits is not an easy task. Transit riders obviously benefit from the improved service and lower fares made possible by subsidies. Owners of real estate may benefit from the improved access to their property provided by transit service. In addition, transit service may provide a variety of indirect social and environmental benefits such as reduced congestion, improved air quality, and increased mobility to the elderly and handicapped. Because of the difficulties associated with measuring these indirect benefits, we have restricted our attention to the direct benefits to transit riders. These are likely to represent the largest category of benefits, since environmental and other indirect benefits were found to be small in several studies (12-14). Even when restricting our consideration to direct benefits, we must make the simplifying assumption that the distribution of benefits in each income class is equal to the distribution of trips. In fact, we expect that some trips are valued more than others, but because of data limitations we cannot properly weigh each trip by its actual value.

The tax payments per trip for each income class under the four alternative regional taxes are reported in Table 6 for 1978. Assuming that the distribution of benefits is identical to the distribution of trips, these figures represent the relative level of benefits from regional tax payments within each income class. Tax payments made through the state and federal governments are excluded from Table 6.

With the inclusion of direct benefits to transit riders, the net distributional impact of the Pittsburgh transit service is quite progressive. For example, under a wage tax, a household with income less than $6000 would make a $0.05 tax contribution per trip, on average, whereas a household with an income of more than $25,000 would pay $0.49 per trip, on average. While each of the tax sources reported is progressive, the real estate tax is less progressive than other tax sources. We should note, however, that these figures represent tax payments per trip by income class rather than the average tax payment per trip for households within each income class. As noted earlier, average burdens based on individual household data rather than aggregate data for the income class are more indicative of the progressiveness of tax sources. Given the household burdens reported in Table 4, we expect that net benefit calculations by using household data would show the sales tax to be more regressive relative to the income and wage taxes.

MANAGEMENT OF DEDICATED TAXES

A desirable feature of a dedicated tax for transit subsidies would be to match over time the revenues received with the need for transit subsidy funds without continual tax rate changes. For the transit service offered in Pittsburgh in the mid-1970s, this would not have been possible; the increase in the transit service deficit was much greater than the increase in any of the tax bases discussed above. Throughout the past 10 years, tax rates would have had to have been adjusted upwards to match revenues with the increase in required subsidies.

From 1973 to 1978, operating expenses for transit services increased by slightly more than 70 percent
While the analysis in this paper related to a single metropolitan area, the conclusions are likely to be applicable to a wide variety of urban areas. Regional wage and income taxes seem to be the tax sources that deserve greatest attention. One problem with any dedicated tax is that the growth in revenues will not keep pace with the current rate of increase in transit deficits. Either relatively frequent increases in tax rates or controls on deficit increases would have to be undertaken to match revenues to deficits over time.

Of course, the problem of financial management is part of a broader investment problem with regard to transit. Fare revenues will never be sufficient to cover PAT transit operating expenses as transit service is currently operated. Before imposing or increasing a dedicated transit tax, decision-makers should carefully consider the benefits and costs of particular system configurations and fare structures in order to reduce the necessary level of subsidy.

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