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Report to the Chairman, Committee on
Government Reform, House of
Representatives

May 2006

MASS TRANSIT

Issues Related to Providing Dedicated Funding for the Washington Metropolitan Area Transit Authority





Highlights of [GAO-06-516](#), a report to the Chairman, Committee on Government Reform, House of Representatives

Why GAO Did This Study

A regional panel estimated that the Washington Metropolitan Area Transit Authority (WMATA)—Washington, D.C.’s, transit system—will have total budgetary shortfalls of \$2.4 billion over 10 years. The panel and others have noted that WMATA’s lack of a significant dedicated revenue source may affect its ability to keep the system in good working order. Proposed federal legislation would make \$1.5 billion available to WMATA if the local governments established dedicated funding.

This report addresses (1) the characteristics of dedicated funding and its effects on transit agencies and governments; (2) how potential revenue sources compare in terms of stability, adequacy, and other factors; (3) major actions needed to establish dedicated funding for WMATA and the progress made to date; and (4) issues that dedicated funding poses for the region and WMATA.

To address these issues, GAO reviewed financial data for the nation’s 25 largest transit agencies, interviewed officials from 6 transit agencies and from the state and local governments that support WMATA, and reviewed literature on the financing of mass transit.

GAO provided a draft of this report to WMATA and the Department of Transportation for review. Officials from these agencies provided technical clarifications that were incorporated in the report, as appropriate.

www.gao.gov/cgi-bin/getrpt?GAO-06-516.

To view the full product, including the scope and methodology, click on the link above. For more information, contact Katherine A. Siggerud at (202) 512-2834 or siggerudk@gao.gov.

MASS TRANSIT

Issues Related to Providing Dedicated Funding for the Washington Metropolitan Area Transit Authority

What GAO Found

Dedicated funding, an important source of revenue for many transit agencies, is described by the Federal Transit Administration (FTA) as a specific revenue source—such as a sales or gas tax—that is designated to be used for transit and is not subject to appropriations. According to data transit agencies report to FTA, 23 of the 25 largest transit agencies have dedicated funding, although the transit agencies GAO spoke with vary in the extent to which their dedicated funding corresponds to FTA’s description. Most transit agencies with dedicated funding receive such funding from multiple sources and use it on both operations and capital expenses. Generally, dedicated funding is subject to the same oversight as other expenditures and is viewed by transit agencies as having a positive effect on their financial health, particularly with regard to long-range planning. However, dedicated funding has potential drawbacks: For example, it is vulnerable to economic cycles, and it limits the budgetary flexibility of state and local governments.

Selecting a dedicated funding source for WMATA involves consideration of the funding source’s year-to-year stability and its longer-run adequacy. For state and local governments, another consideration is the political feasibility of the tax or fee rate required to collect a specified amount of revenue from a particular funding source. Revenue sources that GAO analyzed—the sales tax, payroll or income tax, motor vehicle fuels tax, property tax, access fees, and vehicle registration fees—have different characteristics when assessed using these considerations. If governments increase their overall tax and fee revenues to provide additional funding for WMATA, there may be equity, efficiency, and administrative cost issues for their tax systems.

To establish dedicated funding and conform to the requirements of the proposed federal legislation, WMATA’s supporting jurisdictions would need to enact separate legislation to direct a specific revenue source to WMATA and to amend the WMATA Compact. As of April 2006, legislation to dedicate a portion of sales tax revenues to WMATA had been enacted in the District of Columbia, but neither Maryland nor Virginia had enacted comparable legislation. The only jurisdiction to introduce a bill to amend the Compact has been Maryland, and this legislation was later withdrawn. The District of Columbia and Virginia have not begun steps to amend the Compact.

The federal government and the jurisdictions that support WMATA will need to resolve several issues should they choose to provide WMATA with dedicated funding, including (1) the proportion of the jurisdictions’ payments to WMATA that come from dedicated funding and how to mitigate its risks; (2) whether dedicated funding will result in a net increase in payments to WMATA and how the size of each jurisdiction’s payment will be determined; (3) whether dedicated funding should be used for operations, capital expenditures, or both; and (4) whether increased oversight of WMATA is needed to ensure dedicated funds are properly accounted for.

Contents

Letter		1
	Results in Brief	3
	Background	7
	Dedicated Funding Is an Important Part of Transit Agencies’ Overall Funding and Commonly Includes a Basket of Revenue Sources Used for Both Operations and Capital Expenditures	17
	Revenue Sources That Could Be Dedicated to WMATA Vary in Their Stability, Revenue Adequacy, and Required Tax or Fee Rate	32
	Although All Jurisdictions Proposed Legislation in 2006 Directing a Revenue Source to WMATA, Actions to Provide WMATA with Dedicated Funding Are Not Complete	37
	WMATA Funding Partners Have Yet to Resolve Several Issues Related to Dedicated Funding	44
	Agency Comments	49
Appendix I:	Objectives, Scope, and Methodology	50
Appendix II:	Revenue Sources Compared on the Basis of Revenue Stability and Adequacy, and Required Tax or Fee Rate	53
Appendix III:	Revenue Sources Compared on the Basis of Administrative Cost, Equity, and Efficiency	61
Appendix IV:	GAO Contact and Staff Acknowledgments	73
Tables		
	Table 1: Comparison of Key Aspects of District of Columbia, Maryland, and Virginia Dedicated Funding Proposals and Metro Funding Panel Recommendation	39
	Table 2: Percentage Distribution of Payments to WMATA under Current Allocations and under Regional Sales Tax	47

Figures

Figure 1: Washington Metropolitan Area Transit Zone	8
Figure 2: Sources of WMATA's 2006 Operating and Capital Budgets	10
Figure 3: Amount of WMATA Compact Jurisdictions' Operating Subsidy and Capital Program Payments, 2006	12
Figure 4: Types of State and Local Funds for the 23 Largest Transit Agencies That Received Dedicated Funding in 2003	22
Figure 5: Summary of Revenue Sources and Key Considerations	35

Abbreviations

BART	Bay Area Rapid Transit
Compact	Washington Metropolitan Area Transit Authority Compact
DART	Dallas Area Rapid Transit
FTA	Federal Transit Administration
H.R. 3496	House of Representatives bill no. 3496
MBTA	Massachusetts Bay Transportation Authority
MDOT	Maryland Department of Transportation
MTA	Metropolitan Transportation Authority
NTD	National Transit Database
NVTC	Northern Virginia Transportation Commission
SEPTA	Southeastern Pennsylvania Transportation Authority
WMATA	Washington Metropolitan Area Transit Authority

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United States Government Accountability Office
Washington, DC 20548

May 15, 2006

The Honorable Tom Davis
Chairman
Committee on Government Reform
House of Representatives

Dear Mr. Chairman:

In recent years, the Washington Metropolitan Area Transit Authority (WMATA) has faced serious financial and budgetary problems as well as continuing challenges related to the safety and reliability of its transit services. At the same time, ridership is at an all-time high, and WMATA continues to provide critical services and considerable benefits to the Washington, D.C., region's economic well-being and to the federal government. Over the years, the federal government has provided WMATA with about 60 percent of the funds used to construct the Metrorail subway system, and Congress has a continued interest in the viability of WMATA due to the system's importance to the functioning of the federal government and the orderly movement of people during major events and times of regional or national emergencies.

The Metro Funding Panel—a regional panel cosponsored by the Metropolitan Washington Council of Governments, the Greater Washington Board of Trade, and the Federal City Council—reported in 2005 that WMATA, under its current revenue structure, will have budgetary shortfalls of \$2.4 billion over 10 years,¹ in spite of an agreement in 2003 from the WMATA Compact (Compact) jurisdictions² to provide an

¹PB Consult Inc., *Report of the Metro Funding Panel* (Washington, D.C., Jan. 6, 2005). The panel estimated this amount by comparing WMATA's projected capital and operating expenditures with its projected revenues for 2005 through 2015.

²For the purposes of this report, "Compact jurisdictions" refers to the political entities that fall within the Metrorail service area and to which WMATA currently allocates its costs. These jurisdictions are the states of Maryland and Virginia; the District of Columbia; the counties of Montgomery and Prince George's in Maryland; the counties of Fairfax and Arlington in Virginia; and the cities of Alexandria, Fairfax, and Falls Church in Virginia. Although Loudoun County is within the WMATA transit district, there is currently no bus or rail service provided to this county; as a result, WMATA does not allocate any of its costs to Loudoun County. Some WMATA riders reside in jurisdictions to which WMATA does not allocate costs; according to a WMATA official, these individuals account for more than 10 percent of WMATA's daily riders.

additional \$1.5 billion for the agency's critical capital needs.³ This panel and others have noted that WMATA's lack of any significant dedicated source of revenue may affect WMATA's ability to carry out essential equipment and infrastructure projects needed to keep the system in good working order.⁴ Past efforts to provide stable and reliable sources of funding for WMATA were difficult due to the agency's complex governance structure and the political nature of decisions related to how much each of the local governments should pay.

Legislation introduced in Congress and approved by your committee would make \$1.5 billion in federal funding available to WMATA if, among other things, the local governments established dedicated sources of revenue.⁵ This legislative proposal has motivated the region to renew its efforts on this front. You asked us to provide you with information on issues related to establishing dedicated funding for WMATA, including (1) the characteristics of dedicated funding and how it affects transit agencies and state and local governments, (2) how potential revenue sources that could be used for dedicated funding or for addressing WMATA's projected budgetary shortfall compare in terms of key considerations, (3) major actions that would be needed to establish dedicated funding for WMATA and the progress that has been made to date in carrying out those actions, and (4) issues that dedicated funding poses for the region and WMATA.

To determine the characteristics of dedicated funding and how it affects transit agencies and state and local governments, we analyzed the financial data that the 25 largest transit agencies reported to the Federal Transit Administration's (FTA) National Transit Database. We reviewed the reliability of these data and concluded that they were sufficiently reliable for our purposes. We also conducted semistructured interviews

³We testified in July 2005 that the panel's estimate may not be comprehensive because it does not include the costs of WMATA's paratransit system, which provides services that are required under the Americans with Disabilities Act. See GAO, *Mass Transit: Preliminary Views on Options for Additional Fiscal Oversight of the Washington Metropolitan Area Transit Authority*, [GAO-05-922T](#) (Washington, D.C.: July 28, 2005).

⁴See Robert Puentes, *Washington's Metro: Deficits by Design* (Washington, D.C., The Brookings Institution Series on Transportation Reform, June 2004); and GAO, *Issues Being Faced by the Washington Metropolitan Area Transit Authority*, [CED-79-52](#) (Washington, D.C.: Apr. 10, 1979).

⁵H.R. 3496, the National Capital Transportation Amendments Act of 2005, was introduced by Rep. Tom Davis on July 28, 2005, and was amended by the House Committee on Government Reform and ordered to be reported to the full House on October 20, 2005.

with officials at six transit agencies, which we selected based on their similarity to WMATA and their use of a range of dedicated revenue sources.⁶ We reviewed the legislation establishing dedicated funding at some of these agencies, and interviewed state and local government officials in the Washington, D.C., region and experts on transportation finance. To assess how potential revenue sources that could be used for dedicated funding or for addressing WMATA's projected budgetary shortfall compare in terms of key considerations, we reviewed and synthesized economics literature on mass transit funding, and interviewed experts in transportation planning and finance. To determine the actions required to establish dedicated funding for WMATA and the progress made in carrying out those actions, and to identify issues that dedicated funding poses for the region and WMATA, we reviewed and analyzed the proposed federal legislation that would make additional funding available to WMATA (H.R. 3496) and the related legislation proposed in the District of Columbia, Maryland, and Virginia. We also interviewed officials from all of the state and local jurisdictions supporting WMATA, members of the general assemblies of Virginia and Maryland and the District of Columbia City Council, and representatives from the Northern Virginia Transportation Commission and the WMATA Board of Directors. We conducted our work from August 2005 through May 2006 in accordance with generally accepted government auditing standards. Details of our scope and methodology are provided in appendix I.

Results in Brief

Dedicated funding, an important part of many transit agencies' overall funding, has several characteristics as described by FTA: (1) Specific revenue sources are designated, (2) the revenue is designated to be provided to the transit agency, and (3) the revenue is not subject to appropriations. In 2006, the District of Columbia, Maryland, and Virginia proposed dedicated funding bills—all of which would provide a portion of sales tax revenues to WMATA—that demonstrate some of these characteristics. The six transit agencies we spoke with vary in the extent to which the funds they reported to FTA as dedicated have these characteristics—three agencies have revenue sources with all three, while three others receive revenue that they consider to be dedicated, but which is subject to appropriations or allocated among other transportation

⁶We interviewed officials at the following transit agencies: Bay Area Rapid Transit (San Francisco), Dallas Area Rapid Transit, Massachusetts Bay Transportation Authority (Boston), Metropolitan Transportation Authority (New York), Southeastern Pennsylvania Transit Authority (Philadelphia), and St. Louis Metro.

programs, including transit. According to the 2003 national data collected by FTA, of the 25 largest transit agencies, 23 reported receiving funds that they consider dedicated. Of the 23 agencies, 18 reported receiving dedicated funding from multiple sources, with sales taxes being the most common source. Twenty of the 25 largest agencies reported using dedicated funds for a combination of operations and capital expenses. Expenditures from dedicated sources are generally subject to the same oversight as expenditures from other sources,⁷ such as reviews of capital plans by the board of directors and periodic audits by federal and state auditors, although at two of the transit agencies we spoke with, the legislation establishing dedicated funding also provided for increased oversight of the agencies. According to almost all of the transit agencies we spoke with, dedicated funding can have a positive effect by enabling more effective multiyear planning for transit agencies and improving their credit ratings, which in turn lowers their cost of borrowing. However, the degree to which the credit ratings of transit agencies—including WMATA's—are improved by dedicated funding depends on how the dedicated funding is structured and to what degree such funding is more reliable than the agencies' existing revenue sources. Dedicated funding also has potential disadvantages for transit agencies, such as fluctuations in revenue streams, and for state and local governments, such as decreased flexibility in the budgeting process and a reduction in the funds available for other transportation programs.

Selecting a dedicated local funding source for WMATA involves various key considerations—including the funding source's year-to-year stability and its longer-run adequacy to keep pace with demands for transit expenditures—that are important for determining how well a revenue source will support WMATA's planning efforts and future expenditures. For state and local governments, another key consideration is the political feasibility of the tax or fee rate required to collect a specified amount of dedicated revenue from a particular funding source. Potential revenue sources that we analyzed—the sales tax, payroll or income tax, motor vehicle fuel tax, property tax, access fees, and vehicle registration fees—have different characteristics when assessed using these considerations. Furthermore, if state and local governments increase their overall tax and fee revenues to provide additional funding for WMATA, there may be additional equity, efficiency, and administrative cost effects for their tax

⁷Other sources of revenue transit agencies receive include state and local appropriations and other funding, fares and other operating revenue, and federal grants.

systems that vary depending on the choice of revenue source for this additional funding. These effects are likely to be small given that the additional amount of revenue collected for WMATA would be small in relation to the overall state and local government operations.

To establish dedicated funding for WMATA and for WMATA to be eligible for additional federal funding under H.R. 3496, the Compact jurisdictions would need to enact separate legislation to (1) direct a specific revenue source to WMATA and (2) make certain amendments to the WMATA Compact, as required by H.R. 3496. Legislators in all three major jurisdictions served by WMATA—the District of Columbia, Maryland, and Virginia—introduced legislative proposals in 2006 to dedicate various amounts of sales taxes to WMATA. As of April 2006, the District of Columbia’s legislation had been enacted but had not yet received congressional approval, which is required for the law to take effect, and Virginia’s and Maryland’s legislation had not been enacted. In addition, an issue emerged in Maryland about whether the state’s current system for funding WMATA, which uses funds from the state transportation trust fund, should be considered dedicated. The position of the state’s transportation department is that the trust fund should be considered dedicated, but an official with the state’s Office of Attorney General said in a legal opinion dated February 17, 2006, that the fund does not constitute dedicated funding for WMATA. Regarding legislation to amend the WMATA Compact, such a bill was introduced in Maryland but was later withdrawn. Legislation to amend the Compact has not been introduced in either the District of Columbia or Virginia. Some regional stakeholders have stated that amending the Compact may not be necessary to achieve some of the changes called for in H.R. 3496.

WMATA’s funding partners—which include the federal government as well as the local and state jurisdictions that provide subsidy payments to the agency—face a number of issues that will need to be resolved should they choose to provide WMATA with dedicated funding, including the following:

- The proportion of the Compact jurisdictions’ contributions to WMATA that should come from dedicated funding and how to mitigate risk associated with dependence on dedicated revenue sources. Although H.R. 3496 specifies that all state and local contributions are to come from dedicated sources, the dedicated funding bills introduced in the District of Columbia, Maryland, and Virginia do not meet this requirement, and none of the state and local officials we spoke with indicated that measures to fulfill this requirement are likely. For the 23 largest transit agencies with dedicated

funding in 2003, on average, 70 percent of state and local funds received were from dedicated sources. Additionally, if a large proportion of WMATA's state and local contributions is to come from dedicated funding, stakeholders must also determine to what extent the risk of revenue volatility should be balanced between the jurisdictions and WMATA.

- Whether dedicated funding will result in a net increase in the payments to WMATA and how the amount of payments to WMATA will be allocated among the jurisdictions. Local officials we interviewed agreed that dedicated funding should be used to support a net increase in payments to WMATA, but not all of the legislative proposals introduced in the region reflect this perspective. Regarding how payments to WMATA are allocated, the three major jurisdictions have differing opinions on whether the formulas that are currently used to determine the amount of operating and capital payments should also be used to determine the amount of dedicated funds the jurisdictions should pay. Whether additional funds provided to WMATA from dedicated sources are distributed to WMATA based on the existing allocation formulas or using another method can have an effect on the distribution of payments among the jurisdictions.
- Whether dedicated funding should be used for operations, capital expenditures, or both. The Metro Funding Panel report suggested that dedicated revenues should be used to cover WMATA's projected budgetary shortfall, which is due largely to capital expenditures, but Compact jurisdictions have mixed views on whether dedicated funds should be used solely for WMATA's capital program or for both operating and capital expenses.
- Whether increased oversight of WMATA is needed to ensure that dedicated funds are adequately accounted for. Many local stakeholders told us either that they were concerned that a loss of governance could occur with dedicated funding or that it is important to have accountability mechanisms in place with dedicated funding. Additionally, H.R. 3496 calls for creating an inspector general's office at WMATA, and in April 2006, the WMATA Board of Directors voted to establish such an office. We provided a draft of this report to WMATA and the U.S. Department of Transportation for their review and comment. Officials from these agencies provided technical clarifications that were included in the report, as appropriate. We also provided portions of the draft report related to the legislative process in the District of Columbia, Maryland, and Virginia, and the legislative proposals on dedicated funding to officials from these jurisdictions to verify that the information was accurate.

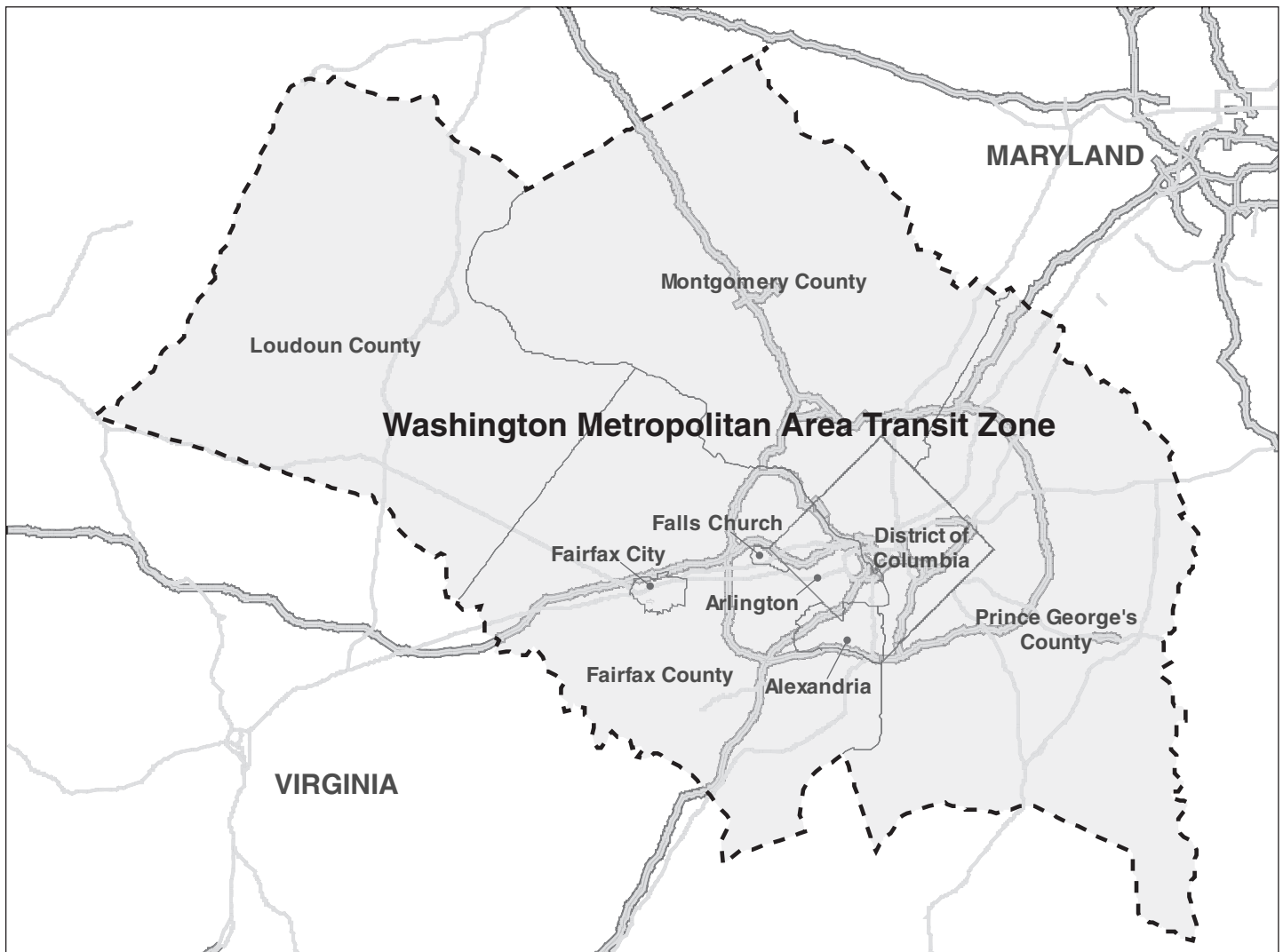
Background

WMATA Is a Large, Multijurisdictional Transit Agency with an Unusual Organizational Structure

WMATA was created in 1967 by an interstate compact that resulted from the enactment of identical legislation by Virginia, Maryland, and the District of Columbia, with the consent of Congress.⁸ The Compact also created the Washington Metropolitan Area Transit Zone, shown in figure 1, where WMATA provides its transit services, including the District of Columbia; the cities of Alexandria, Falls Church and Fairfax; the Virginia counties of Arlington, Fairfax and Loudoun; and the Maryland counties of Montgomery and Prince George's.

⁸Washington Metropolitan Area Transit Authority Compact, Pub. L. No. 89-774 (1966).

Figure 1: Washington Metropolitan Area Transit Zone



Source: GAO.

Note: Although Loudoun County is in the transit zone, it does not provide financial support to WMATA because there is currently no Metrorail or Metrobus service in Loudoun County.

WMATA is unusual among transit agencies in that it was created by an interstate compact; moreover, it has unique demands placed on it because it serves the national capital area and the federal government, as we

discussed in a July 2005 testimony.⁹ WMATA provides transportation to and from work for a substantial portion of the federal workforce, and federal employees' use of WMATA's services is encouraged by General Services Administration guidelines that instruct federal agencies to locate their facilities near mass transit stops whenever possible. WMATA also accommodates increased passenger loads and extends its operating hours during events related to the federal government's presence in Washington, D.C., such as presidential inaugurations and funerals, and celebrations and demonstrations on the National Mall. WMATA's Metro Transit Police assists federal law enforcement agencies such as the Secret Service by making available its officers who have expertise in areas such as explosives detection and civil disturbance management. WMATA also provides Metrobuses to be used as a security perimeter on the grounds of the U.S. Capitol and other public places for events such as inaugurations and State of the Union addresses.

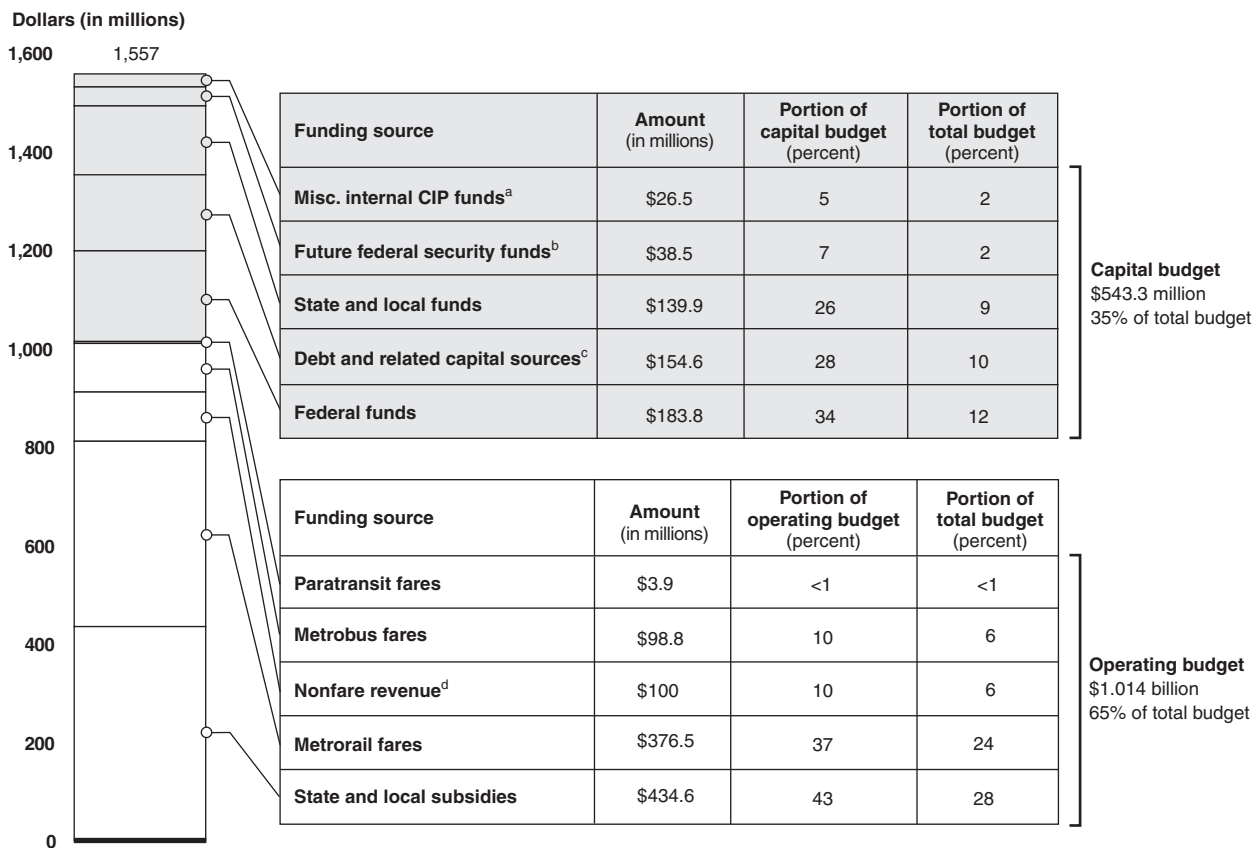
WMATA began building the Metrorail system in 1969, acquired four regional bus systems in 1973, and began the first phase of Metrorail operations in 1976. In January 2001, WMATA completed the originally planned 103-mile Metrorail system, which included 83 rail stations on five rail lines. As of March 2006, the transit system encompasses (1) the Metrorail subway system, which now has 86 Metrorail stations on five rail lines and a fleet of about 948 railcars; (2) the Metrobus system, which has a fleet of about 1,451 buses serving 340 routes; and (3) the MetroAccess ADA complementary paratransit system, which provides specialized transportation services, as required by law, to persons with disabilities who are certified as being unable to access WMATA's fixed-route transit system.

⁹[GAO-05-922T](#).

WMATA Funds Its Operations and Capital Activities through a Variety of Directly Generated Revenues and through Other Local, State, and Federal Sources

WMATA funds its operations through a combination of revenues from passenger fares, nonfare revenues such as parking and advertising fees, and payments from state and local governments. It funds its capital program primarily through grants from the federal government and contributions from state and local governments, and by borrowing from the private sector through the issuance of bonds. WMATA's funding sources for operations and capital are shown in figure 2.

Figure 2: Sources of WMATA's 2006 Operating and Capital Budgets



Source: GAO analysis of WMATA data.

Notes: Percentages may not total to 100 due to rounding.

^aMiscellaneous internal Capital Improvement Program (CIP) funds refers to revenue from interest earned on funds held by WMATA.

^bFuture federal security funds refers to funds WMATA expects to receive in 2006 from the federal government for security purposes.

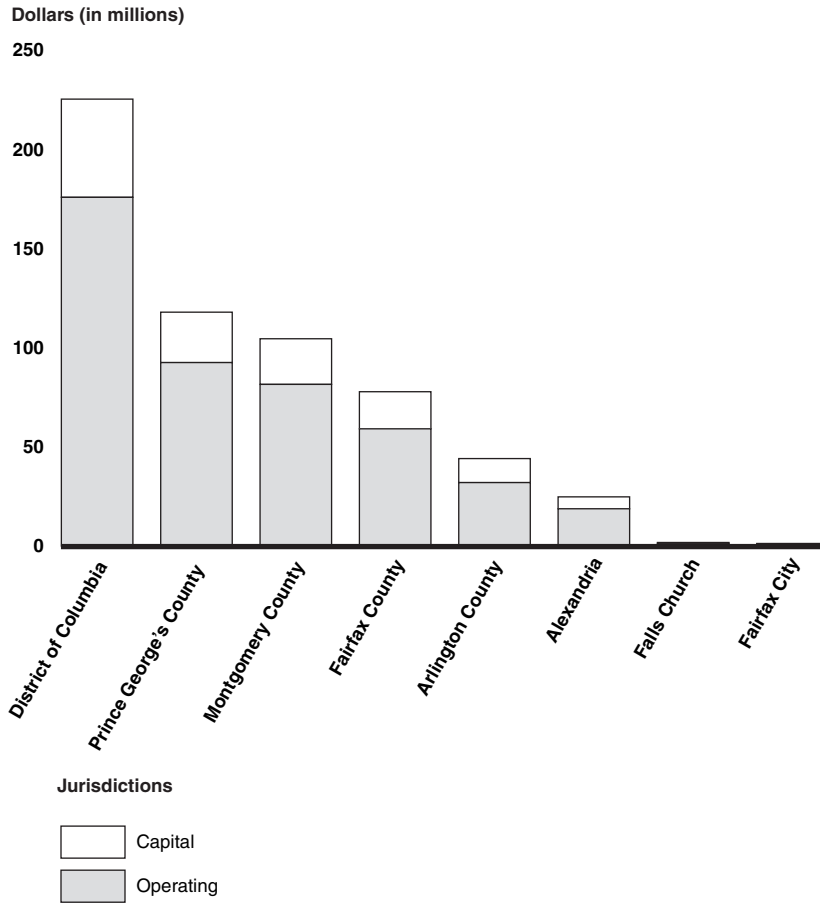
^cFunding received through the issuance of debt must later be repaid, with interest, from another source. WMATA's debt servicing payments for its current 6-year capital funding program, Metro Matters, are part of the capital budget.

^dNonfare revenue includes advertising, parking, and joint development fees, among other things.

The operating costs for bus, rail, and paratransit that are allocated to the Compact jurisdictions are determined by a set of formulas that take into consideration factors such as population, ridership, number of Metrorail stations, and miles of bus routes.¹⁰ The formulas for determining capital cost allocation—other than for extension projects, which are paid for by the sponsoring jurisdiction—are based on the amount that the jurisdictions pay for operating costs. Under these formulas, jurisdictions with higher populations and service levels (indicated by factors such as the number of Metrorail stations and miles of bus routes) generally pay more than jurisdictions with smaller populations and lower service levels. The operating subsidy and capital program payments for 2006 as determined by the formulas are shown in figure 3.

¹⁰The formulas that are used to allocate WMATA's operating and capital costs among the jurisdictions are a matter of policy determined by WMATA's Board of Directors and are not contained in the WMATA Compact.

Figure 3: Amount of WMATA Compact Jurisdictions' Operating Subsidy and Capital Program Payments, 2006



Source: GAO analysis of WMATA data.

The Compact jurisdictions of the District of Columbia, Maryland, and Virginia vary in the sources they use for payments to WMATA:

- District of Columbia.* Payments to WMATA are provided by the District's Department of Transportation every quarter. Operating costs are paid for from the District of Columbia's general fund and capital costs are funded by general obligation bonds.
- Maryland.* Payments to WMATA for Montgomery and Prince George's counties are made from the Maryland Transportation Trust Fund. The trust fund's revenue sources include a gas tax, vehicle title tax, and other

motor vehicle taxes and fees, along with other sources such as federal aid. Trust fund revenues are also used for operating and capital expenses for various modes of transportation in the state including transit, ports, and aviation, as well as for local road construction. Maryland is required by state law to make payments for the share of WMATA's operating expenses, capital equipment replacement, and debt service for which Montgomery and Prince George's Counties are responsible.¹¹

- *Virginia.* The individual cities and counties are responsible for making payments to WMATA. A portion of these localities' payments are made through the Northern Virginia Transportation Commission (NVTC).¹² NVTC holds, in trust, funds from a variety of sources that are used to pay for its members' public transit systems—including WMATA and local bus systems such as the Fairfax Connector and Alexandria's DASH bus. Sources include a 2 percent Northern Virginia retail motor vehicle fuel tax and state sources such as transit assistance grants and state bonds issued for WMATA.¹³ NVTC sources accounted for about two-thirds of payments to WMATA from Northern Virginia counties and cities in fiscal year 2006. The portion of the localities' obligation to WMATA that is not covered by NVTC sources is usually paid directly by the localities from their general funds.

History of Efforts to Provide Stable and Reliable Funding for WMATA

In 1980, federal legislation required that for WMATA to receive additional funding for construction of the Metrorail system, the WMATA Compact jurisdictions had to demonstrate that they had "stable and reliable" sources of revenue sufficient to pay for the principal and interest on bonds and the local share of the operating and maintenance costs of the transit system.¹⁴ The District of Columbia, Maryland, and Virginia took the following actions to comply with the requirement:

- *District of Columbia.* The city adopted a law in 1982 to earmark funds for WMATA by establishing a Metrorail/Metrobus account within its general fund. The account was supported by earmarking existing revenues that

¹¹Md. Code Ann., Transp. §§ 3-216 and 10-205.

¹²The Northern Virginia Transportation Commission was created in 1964 to plan and coordinate public transportation in Northern Virginia.

¹³Va. Code Ann. §§ 58.1-815.1 and 58.1-1720.

¹⁴National Capital Transportation Amendments of 1979 (also known as the Stark-Harris Act), Pub. L. 96-184, 93 Stat. 1320 (1980).

came from sources receiving direct or indirect benefits from mass transit, including sales taxes on hotels, meals, and gasoline, as well as vehicle registration fees and parking meter fees. The earmarked revenues were sufficient to cover the District of Columbia's share of WMATA's operating, debt service, and capital expenses. This account is no longer the source of WMATA payments. As described above, the District of Columbia now provides payments to WMATA from its general revenue fund and general obligation bonds.

- *Maryland.* The state enacted legislation in 1980 to require the Maryland Transportation Trust Fund to assume a portion of the costs WMATA allocated to Montgomery and Prince George's Counties. The legislation also provided the trust fund with new sources of revenue, including motor vehicle fuel taxes, a portion of the corporate income tax, and all revenues of the state motor vehicle administration. The trust fund was used to pay all of Montgomery and Prince George's Counties' share of WMATA's capital costs, and 75 percent of the counties' share of operating costs and debt service. Montgomery County provided for the balance of its obligation to WMATA through a property tax earmarked for mass transit, and Prince George's County met the remainder of its obligation by establishing the Mass Transit Special Revenue Fund and earmarking revenues from the state real property tax grant program in the event that county appropriations to the fund fell short. State legislation in 1992 and 1998 made the state's transportation trust fund the source of all payments to WMATA.
- *Virginia.* In 1980, the state enacted a 2 percent sales tax on the retail price of gasoline within the Northern Virginia counties and cities in the WMATA service area and dedicated the proceeds of the new tax to WMATA, effective in July 1982. The state also increased its biennial appropriation to NVTC, increasing the amount of state money available for payment to WMATA. At the same time, the Northern Virginia counties and cities enacted local ordinances stating their intention to fund WMATA's debt service and operating assistance on an annual basis and designating their general fund revenues as the source of funding for what the gasoline tax and state aid did not cover.

In 2005, the Metro Funding Panel estimated that under its current revenue structure, WMATA would have a total budgetary shortfall of \$2.4 billion during fiscal years 2006 through 2015 if it went forward with the projects remaining in its 10-year capital improvement plan, not including those that

involved expanding the current system.¹⁵ The panel's report noted that WMATA—unlike almost all other large transit systems—does not have a substantial dedicated source of revenue, such as a local sales tax, whose receipts are directed to the transit authority. As a result, the panel concluded that the Washington, D.C., region needs to develop a dedicated source of funding for WMATA, and recommended specifically that a regionwide sales tax be implemented. In the course of its work, the panel analyzed a number of revenue options for dedicated funding for WMATA, including estimating the tax or fee rate that would be required to raise sufficient revenue to address the projected shortfall.

In our July 2005 testimony before the House Committee on Government Reform, we stated that the actual projected shortfall could, in fact, be much greater because the Metro Funding Panel did not include in its estimate costs associated with providing paratransit service, which is required by the Americans with Disabilities Act.¹⁶ These costs are significant; in fact, the panel estimated that these services could result in an additional shortfall for WMATA of about \$1.1 billion over the 10-year period.

The Brookings Institution in June 2004 issued a report that similarly concluded that WMATA's lack of dedicated revenues makes its core funding uniquely vulnerable and at risk as WMATA's member jurisdictions struggle with their own fiscal difficulties.¹⁷ The Brookings report also concluded that the Washington, D.C., region needs to develop a dedicated source of revenue.

Finally, regional stakeholders have undertaken efforts to secure stable and reliable funding for WMATA. For example, the Metropolitan Washington Council of Governments established a coordinating committee in January 2006 to review, evaluate, and advocate for the passage of dedicated funding legislation for WMATA. Additionally, legislation passed by the Maryland General Assembly in April 2006 would require the Maryland Department of Transportation to conduct a study of a number of transit

¹⁵*Report of the Metro Funding Panel.* The estimates also took into account additional operating expenditures that would result from the completion of capital projects.

¹⁶[GAO-05-922T](#).

¹⁷*Washington Metro: Deficits by Design* (June 2004).

issues, including the state's transit costs and its funding strategies to take advantage of potential new federal funding for WMATA¹⁸

Proposed Legislation in Congress Would Authorize Additional Federal Funding for WMATA If the Compact Jurisdictions Provide Dedicated Funding

In July 2005, Representative Tom Davis, Chairman of the House Committee on Government Reform,¹⁹ introduced the National Capital Transportation Amendments Act of 2005 (H.R. 3496), which would authorize \$1.5 billion to WMATA over 10 years for financing the capital and preventive maintenance projects included in WMATA's Capital Improvement Program. The bill states that WMATA is essential for the effective functioning of the federal government and for the orderly movement of people during major events and times of regional or national emergency, and that additional funding is necessary to ensure the transit system's continued functionality. H.R. 3496 does not appropriate funds. For WMATA to receive the funding authorized in H.R. 3496, Congress must pass additional legislation appropriating funds. H.R. 3496, as amended by the House Committee on Government Reform, states that to be eligible for the additional funding, WMATA must amend the WMATA Compact to require that

- all payments to WMATA from the Compact jurisdictions be derived from dedicated funding sources,
- an Office of Inspector General be established at WMATA, and
- the WMATA Board of Directors be expanded to include four additional members appointed by the federal government, two of whom are voting and two of whom are nonvoting.²⁰

¹⁸See Maryland H.B. 1345 and S.B. 850. As of April 2006, this legislation was awaiting the governor's signature.

¹⁹Mr. Davis represents the 11th Congressional District, which includes parts of Fairfax County and Prince William County in Northern Virginia. The House Committee on Government Reform, which also has jurisdiction over the municipal affairs of the District of Columbia in general, has oversight of WMATA because of the transit agency's unique position serving the nation's capital and the large level of federal investment in the construction of the original 103-mile Metrorail system.

²⁰When H.R. 3496 was introduced in July 2005, the bill provided for expanding the WMATA Board of Directors to include two additional board members appointed by the federal government, one of whom was voting and one of whom was nonvoting. In October 2005, the House Committee on Government Reform amended H.R. 3496 and revised the requirement to expand the WMATA Board of Directors to include four additional board members appointed by the federal government.

Dedicated Funding Is an Important Part of Transit Agencies' Overall Funding and Commonly Includes a Basket of Revenue Sources Used for Both Operations and Capital Expenditures

Definition of Dedicated Funding Has Some Common Characteristics, but There Is Variation in How It Is Structured

Using the definition in FTA's National Transit Database (NTD), we identified the following characteristics of dedicated funding: (1) specific revenue sources are designated, (2) the revenue is designated to be provided to the transit agency, and (3) the revenue is not subject to appropriations.²¹ Similarly, H.R. 3496 states that dedicated funding is any source of funding that is earmarked and required under state or local law to be used for payments to WMATA.

In the Washington, D.C., region, legislators in the District of Columbia, Maryland, and Virginia proposed bills to provide dedicated funding to WMATA—described in detail later in this report—that demonstrate some of these characteristics, as follows:

- Legislation in the District of Columbia, which was enacted in April 2006, would set aside a portion of the sales tax revenue to be dedicated solely for WMATA. Under this legislation, which must be approved by Congress before taking effect, the provision of dedicated funds to WMATA would be

²¹In general, dedicated taxes and fees are levied at the state or local level.

subject to annual appropriations by Congress, but not by the District of Columbia.²²

- Legislation introduced in the Maryland General Assembly, which was not enacted during the 2006 legislative session, would have set aside a percentage of the sales tax revenue, but the tax proceeds would have been dedicated to WMATA and other transit programs and expenses in the state, and also would have been subject to appropriations.
- Legislation proposed in the Virginia General Assembly would set aside a portion of a regional sales tax to be dedicated to WMATA, and these funds would not be subject to appropriations. As of April 2006, this legislation had not been enacted.

Although the Maryland General Assembly considered bills in its 2006 session to provide dedicated funding to WMATA, the position of Maryland's Department of Transportation is that the state's current system for funding WMATA already constitutes dedicated funding. Under this system, payments are made from the state's transportation trust fund, which has several dedicated sources, although expenditures from the fund are subject to an annual appropriations process. Maryland officials also note that state law requires them to provide funding to WMATA. On the other hand, an official with Maryland's Office of Attorney General stated in a legal opinion dated February 17, 2006, that the transportation trust fund does not constitute dedicated funding.²³

The six transit agencies we spoke with varied in the extent to which the dedicated revenue sources they reported to the NTD have the three characteristics we identified.²⁴ Three of the transit agencies reported

²²Under the District of Columbia Home Rule Act, the District of Columbia's annual budget must be approved by Congress through annual appropriations. See D.C. Code Ann. § 1-204.46.

²³Letter from Bonnie A. Kirkland, Assistant Attorney General, Office of Counsel to the General Assembly, Office of the Attorney General of Maryland, to the Honorable Ann Kaiser, Maryland General Assembly, House of Delegates (Feb. 17, 2006).

²⁴All transit agencies that receive urbanized area formula program funds from FTA must submit reports to NTD through its Web-based reporting system. The financial section of the NTD reporting system allows agencies to enter data in predetermined categories of funding, including but not limited to general revenues, other funds, and dedicated sources, including sales tax, income tax, property tax, gas tax, other dedicated taxes, tolls, bonds and loans, and other dedicated sources. The reporting system also requires transit agencies to report whether each source is generated by the transit agency or comes from the locality, state, or federal government.

dedicated funding sources with all three characteristics, while the other three agencies reported dedicated funding sources that were subject to appropriations or were allocated among other transit or transportation programs.

- Three agencies—San Francisco’s Bay Area Rapid Transit (BART), Boston’s Massachusetts Bay Transportation Authority (MBTA), and Dallas Area Rapid Transit (DART)—have dedicated funding sources with all three characteristics. BART receives the proceeds from a regional dedicated sales tax, as established by state law.²⁵ The tax is collected by the state and the proceeds are provided directly to BART by the state treasury. At MBTA, state law directs that the proceeds of a statewide dedicated sales tax are deposited into a state MBTA fund from which the state treasurer will provide funds to MBTA upon request, without an appropriation.²⁶ At DART, the state comptroller collects the proceeds of a regionally dedicated sales tax and provides those proceeds directly to DART.²⁷
- New York’s Metropolitan Transportation Authority (MTA) receives a number of revenue streams that it considers to be dedicated, even though they are subject to appropriations by the state legislature or by local governments and they do not always consist of a specific tax or fee that is dedicated to the agency. They include: (1) local matching payments for state aid, which in addition to being appropriated may come from general revenues as opposed to a specific revenue source;²⁸ (2) payments from two state funds for MTA, which are composed of the receipts of several taxes statutorily required to be deposited in these trust funds and which are subject to appropriations by the state legislature; and (3) local payments—which are appropriated—for the operation and maintenance of commuter rail stations, the amount of which is designated in statute.²⁹
- St. Louis Metro receives a portion of local sales taxes that are dedicated to both highway and transit purposes and that must be annually

²⁵Cal. Pub. Util. §§ 28952 and 29142.2.

²⁶Mass. Ann. Laws ch. 10 § 35T.

²⁷Tex. Tax Code Ann. §§ 322.001, 322.201, and 322.301.

²⁸N.Y. Transp. Law § 18-b.

²⁹N.Y. Pub. Auth. Law § 1277. See also Metropolitan Transportation Authority, *2005 Combined Continuing Disclosure Filings* (New York, Apr. 29, 2005).

appropriated. The allocation between highways and transit is determined through the annual budgeting process and is not statutorily designated.³⁰

- Philadelphia’s Southeastern Pennsylvania Transportation Authority (SEPTA) receives dedicated funding from the state of Pennsylvania, which dedicates a portion of its statewide sale tax, as well as several motor vehicle-related fees,³¹ to two state trust funds to be used for aid to transit agencies statewide, not only SEPTA. Statutory formulas are used to determine how much each agency receives, and the funds are provided to transit agencies directly from the state treasury.³²

Almost All Large Transit Agencies Have Dedicated Funding

Of the 25 largest transit agencies, all except 2—the Maryland Transit Administration, which operates Baltimore’s transit and commuter rail systems, and the Port Authority Trans-Hudson Corporation, which operates rail lines and ferryboats between New York and New Jersey—reported to the NTD that they received dedicated sources of revenue in 2003.³³ Although the NTD provides a description of dedicated funding, the revenue that transit agencies report as dedicated may or may not have the characteristics described by the NTD. In addition to dedicated funding, other revenue sources transit agencies reported receiving were a combination of state and local appropriations and other funding, fares and other operating revenue, and federal grants.³⁴ Of the total revenues those 23 largest transit agencies received in 2003 from state and local sources—including dedicated funding, general revenue appropriations, and other funding sources—the proportion that came from dedicated sources averaged 70 percent. For 12 of these agencies, between 90 percent and 100 percent of state and local funds they received in 2003 came from dedicated sources. Figure 4 shows the percentages of transit agencies’ state and local

³⁰Mo. Ann. Stat. §§ 94.600 to 94.660.

³¹These other fees include a \$1 per tire fee on the sale of new tires for highway use, a 3 percent tax on the total lease price on leased vehicles, and a \$2 daily fee on the rental of motor vehicles. See Pa. Stat. Ann. Taxation and Fiscal Affairs, 72 § 9301.

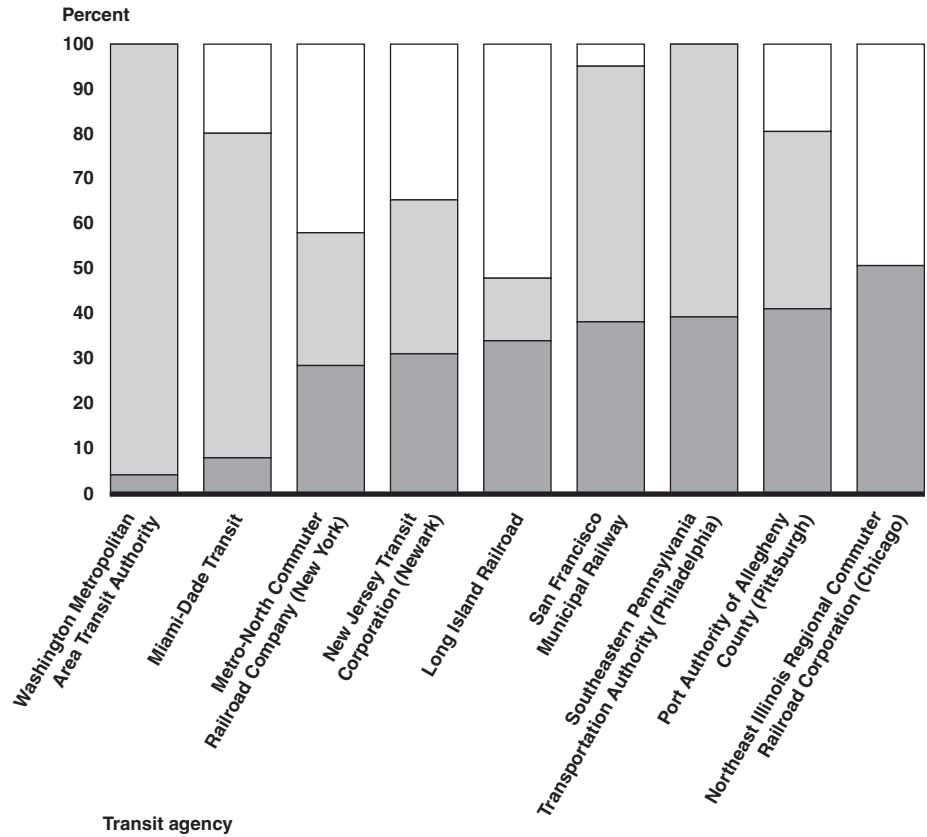
³²Pa. Stat. Ann. Transportation, 74 §§ 1310 and 1310.1.

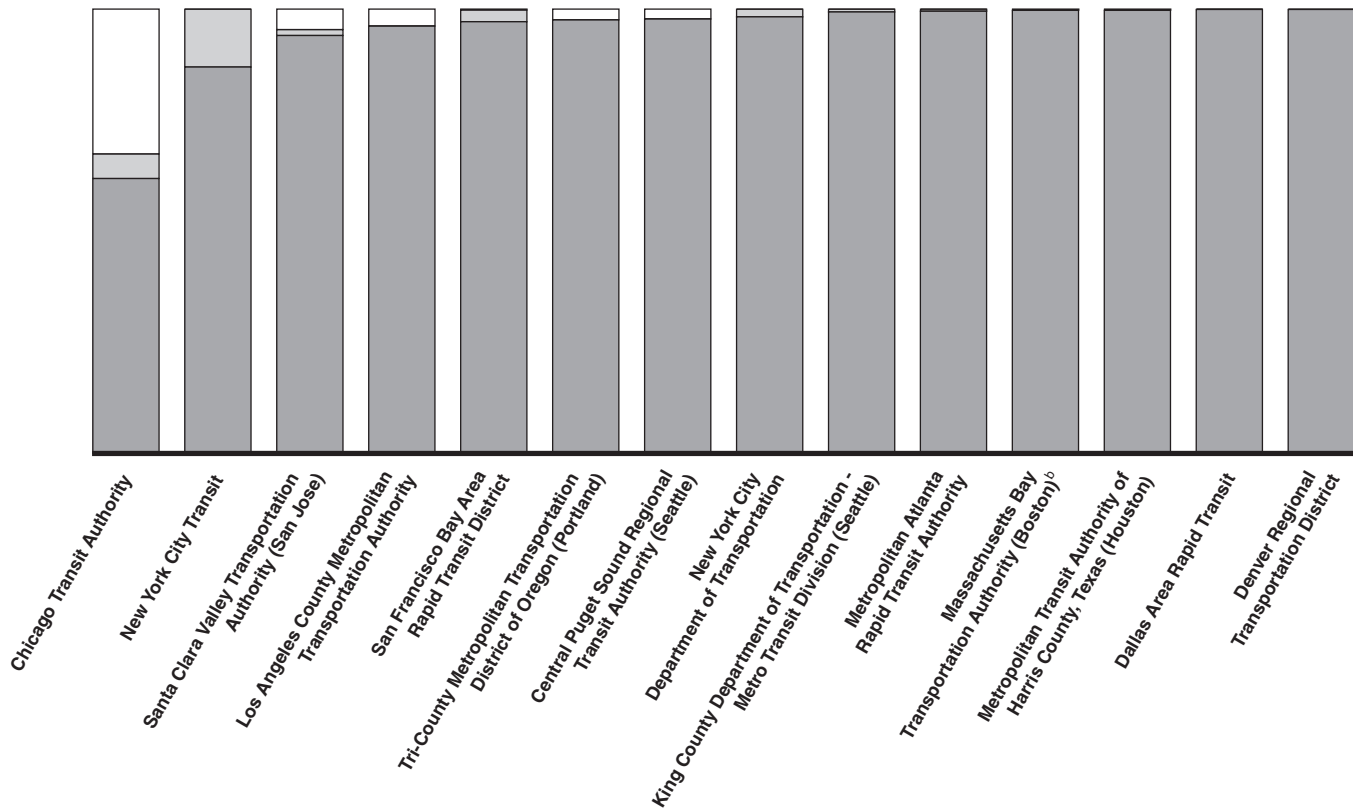
³³WMATA receives dedicated funding from the receipts of a Northern Virginia gasoline tax that equaled about 4.3 percent of all state and local contributions in 2003.

³⁴Other state and local funding is any state or local government funding that is not dedicated to transit at its source or is not included in the budgeting process of general revenue funds, such as funds for a specific project or from special state or local programs.

funding that came from dedicated funds, general revenue, and other funding in 2003.

Figure 4: Types of State and Local Funds for the 23 Largest Transit Agencies That Received Dedicated Funding in 2003





Other funding sources^a
 General revenue
 Dedicated funds

Source: GAO analysis of NTD data.

^aOther funds are any state or local government funding sources that are not dedicated to transit at their source or are not included in the budgeting process of general revenue funds.

^bThe Massachusetts Bay Transportation Authority reported approximately \$141 million in local assessments as general revenues. Based on information we received from this transit agency, revenue from local assessments is considered a dedicated source of funding. As a result, for the purposes of this analysis, we recategorized this amount as dedicated funding.

Most Large Transit Agencies Rely on Multiple Dedicated Funding Sources, Often Including Sales Taxes, to Mitigate Volatility

Most transit agencies reported receiving multiple dedicated revenue sources from state and local governments, as well as, in some cases, dedicated revenue that was directly generated.³⁵ For example, GAO's analysis of NTD data for the 23 largest agencies that have dedicated funding shows that 18 of these agencies received dedicated funds from at least two sources in 2003, with the sales tax being the source most commonly dedicated to transit (15 of the 23 transit agencies received dedicated funds from sales taxes). Sales tax also ranked at the top in revenue generation among dedicated sources; in 2003, approximately \$4.5 billion or 43 percent of the approximately \$10.3 billion in total dedicated revenues received by the 23 transit agencies came from sales taxes. According to the NTD data and to the transit agencies we spoke with, sales taxes dedicated to transit are levied at the state or local level and are sometimes enacted by ballot measures. All of the transit agencies we spoke with have dedicated funding that includes sales taxes, as follows:

- St. Louis Metro receives two separate sales taxes—one at one-half of 1 percent and one at one-quarter of 1 percent—that are levied in the localities that Metro serves. The revenues are collected by the state and remitted to the local governments to be appropriated to Metro.
- San Francisco's BART receives 75 percent of a one-half of 1 percent sales tax that is levied in the counties in the BART transit district. The sales tax was first enacted in 1969 to fund the completion of the rail system, but the revenues are now used for operations.
- Dallas's DART receives the proceeds of a 1 percent sales tax from the 13 cities that are served by the transit agency. This tax is part of the statewide 8.25 percent sales tax; part of it can be set aside for localities for economic development purposes, such as schools, parks, and transit.
- Boston's MBTA receives 20 percent of the statewide sales tax revenues. State law designates a "base revenue amount," which increases each year with inflation, for the amount of revenue MBTA is to receive from this tax each year. If the portion of the tax receipts designated for MBTA does not meet the base amount, the state makes up the difference.

³⁵Directly generated funds are funds obtained from nongovernmental sources. These funds are derived from revenues generated by or donated directly to the transit agency and, if the transit agency has taxing authority, can include revenues from dedicated taxes and fees.

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- Philadelphia's SEPTA receives a portion of the statewide sales tax. Approximately 2 percent of the revenue from this tax is deposited in state public transportation accounts and is allocated to the state's transit agencies, including SEPTA, based on statutory formulas.
 - New York's MTA receives the proceeds of a three-eighths of 1 percent regional sales tax, which is used for operating costs of the commuter rail and transit systems.

Local option sales taxes—in which the sales tax rate of a city or town can be raised above the rate of the state sales tax and which are enacted by ballot measures—have become more prevalent in financing a variety of transportation projects, including transit. Many ballot measures for local option sales taxes target a mix of transportation programs, including highways and transit. A transportation economist we spoke with noted a recent trend in ballot measures for sales taxes for capital projects and said that an advantage of these taxes is that they bring about fiscal discipline because the agencies have to deliver results (such as a completed capital project) within a specified time. According to this economist, in 2002, there were 43 such ballot measures, and in 2004, there were 44; in both years, roughly half of them passed. Denver, Salt Lake City, and 23 counties in California are some of the localities that have local option sales taxes that are either dedicated to transit or can be used for any mix of transportation purposes.

The second most common source of dedicated funding for transit, according to our analysis of NTD data, was the gasoline tax. In 2003, 7 of the 23 agencies with dedicated funding reported receiving revenues from this source. In that year, the gasoline tax generated about \$304 million or 2.9 percent of about \$10.3 billion in total dedicated revenues received by those 23 agencies. Of the 6 transit agencies we spoke with, 2—New York's MTA and San Francisco's BART—had revenue from a dedicated gasoline tax.

Some of the transit agencies we spoke with also use other sources of dedicated revenue, such as mortgage recording taxes, city and town assessments, and motor vehicle-related fees. Following are some examples:

- New York's MTA receives funds from a mortgage-based tax. New York City and the seven other counties within MTA's service area collect a tax based on a percentage of the debt secured by real estate mortgages and provide the receipts to MTA.

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- Boston’s MBTA receives funds from assessments it makes on the 175 cities and towns in the MBTA district. The assessments are based on a weighted population formula.
 - New York’s MTA and Philadelphia’s SEPTA receive funds from various motor vehicle fees (e.g., MTA receives funds from registration and other fees and SEPTA receives funds from car leasing and car rental fees.) Transportation experts we spoke with said that using a basket of revenue options lowers transit agencies’ economic risk because different revenue sources are affected to different degrees by fluctuations in economic activity and other factors, and that a diversity of revenue sources helps to ensure a steady revenue stream. Additionally, these experts said that specific revenue sources are selected based on the conditions of the local economy, with the goal of having less volatility.

Most Transit Agencies Use Dedicated Funds for Both Operating and Capital Expenditures

In 2003, 24 of the 25 largest transit agencies in our analysis reported spending dedicated funds for operating expenditures, capital expenditures, or a combination of both, according to our analysis of NTD data.³⁶ Of those 24 agencies, 20 spent dedicated funds for a combination of operating and capital expenditures. Having the flexibility to spend dedicated revenues on operations or capital has advantages for transit agencies, according to agencies and transportation experts we spoke with. One transportation expert we spoke with noted that agencies that have flexibility to spend dedicated funding on operations or capital are better off because the agency can adjust to cost changes. Transit agencies noted the following reasons why this flexibility is advantageous:

- Spending on capital projects fluctuates. For example, capital projects might need up-front funding in one year but not in the next.
- The construction of capital projects, such as extending a rail line, typically creates a need for operating expenditures, so dedicated funds used to

³⁶Our analyses of the 25 largest transit agencies discussed earlier in this report showed that 23 of those agencies received dedicated revenues in 2003. However, in this section of the report, we are analyzing the portion of those agencies’ expenditures that were funded from dedicated revenues, including revenues received in earlier years. In 2003, one transit agency that did not report receiving dedicated revenue in 2003—the Port Authority Trans-Hudson Corporation in New York and New Jersey—spent dedicated funds that it received in an earlier year.

build a capital project might later be used for operating expenses once the project is implemented.

- Regional and agency priorities may change, which may require a shift in how funds are used.

Transit agencies we spoke with did not cite any disadvantages of having the ability to spend dedicated revenues on both types of expenditures. Some agencies are subject to restrictions on how they spend dedicated revenues, as illustrated in the following examples:

- Philadelphia's SEPTA must use the dedicated revenue it receives from the state for capital projects, debt service, and asset maintenance.
- San Francisco's BART uses revenues from the dedicated local sales tax and property assessments for operating expenditures. These are the only local sources of operating support the agency receives.
- Dallas's DART is subject to an operating expenditures cap, which was enacted by its Board of Directors. Growth in operating expenses must not exceed 90 percent of the inflation rate.

Expenditures from Dedicated Sources Are Generally Subject to the Same Oversight as Expenditures from Other Sources

Expenditures from dedicated sources are subject to the same type of oversight as expenditures from other sources, which at transit agencies includes a board of directors involved in capital planning and periodic audits by federal and state auditors. FTA does periodic reviews of all transit agencies that receive funding from FTA, including procurement system reviews, financial management oversight reviews, and drug and alcohol oversight reviews. Some of the transit agencies whose officials we interviewed are subject to oversight and review as follows:

- DART's expenditures are subject to review by its internal auditor (which reports directly to the Board of Directors), a state auditor, and the Texas Department of Transportation. DART's Board of Directors and the cities in the Dallas region that are served by DART review DART's budget annually.
- MBTA has an internal audit department that reports to the general manager. A state auditor also reviews certain programs and areas of MBTA on an annual basis, and a state inspector general's office reviews MBTA. The state auditor has a suboffice in MBTA's office building with dedicated officials reviewing transportation programs. Internal and state audits focus more on program reviews than on financial audits. The state legislature sometimes has hearings on MBTA, generally for capital projects. Finally,

the MBTA Advisory Board, which is made up of representatives from each city and town within the MBTA district, approves MBTA's mass transportation program and its annual budget.

- MTA is required to file reports each year with state legislators and other officials certifying the proper use of the dedicated funds, and the state comptroller is authorized to audit MTA's financial records. MTA also has an office of inspector general, which does programmatic reviews and investigations.

While spending safeguards do not generally vary based on the source of revenue, safeguards can vary depending on whether funds are used for operations or capital. Major capital projects funded by FTA are monitored to ensure they are progressing on time, within budget, and according to approved plans, and agencies that issue debt to finance capital projects must make debt repayments within specified time frames. Also, agencies' capital projects require the review and approval of the board of directors, whose review sometimes includes a public approval process. MTA's 5-year capital program, for example, is subject to an extensive public approval process that is coordinated through the board of directors. MBTA also has an open capital planning process that is subject to a lengthy public review process. On the operations side, one agency we spoke with—DART—as noted earlier, has a cap on expenditures for operations that was enacted by its Board of Directors, which dictates that growth in operating expenses must not exceed 90 percent of the inflation rate.

Although dedicated funds are generally subject to the same type of oversight as funds from other sources, the implementation of dedicated funding at transit agencies sometimes has been accompanied by enhanced oversight:

- When state legislation established dedicated funding for SEPTA, it also required the Board of Directors to be expanded to include four additional members appointed by the state. According to a SEPTA official, the state said that since it was going to be shouldering a greater percentage of SEPTA's costs, it should have more of a voice in how SEPTA was run.
- State legislation establishing dedicated funding sources for MTA in the 1980s also established oversight mechanisms, including a capital planning board, an inspector general, and a committee on the Board of Directors for capital program oversight.

Dedicated Funding Can Improve Transit Agencies' Planning for Future Expenditures and Access to Bond Markets, but It Also Has Disadvantages

Dedicated funding is an important revenue source for transit agencies because it enhances their planning of future expenditures and increases their access to bond markets due to better predictability of revenue. With regard to planning, according to five of the six agencies we interviewed, dedicated funding makes revenue more predictable, thereby enabling more effective multiyear planning. With regard to raising revenue through the issuance of bonds, all of the agencies we spoke with have used dedicated funds to issue bonds for capital programs and projects. In addition, four of the six agencies we interviewed said that dedicated funding either allowed them to issue bonds or improved their credit rating. An improved credit rating generally allows agencies to issue bonds at a lower rate, thereby decreasing the cost of borrowing for capital projects. For example, SEPTA used the funds from a 1992 dedicated funding package to support the issuance of bonds for capital needs. SEPTA inherited most of the commuter rail service formerly provided by Conrail, which required major repairs to stations, bridges, tracks, and overhead power.

The officials we spoke with representing local governments and transportation departments in the District of Columbia, Maryland, and Virginia, and NVTC, also cited a number of advantages of dedicated funding for WMATA. Officials from five of these entities stated that a consistent and known source of revenue would enable WMATA to plan more efficiently for future expenditures. Another local official said that dedicated funding would also allow WMATA to provide a consistent level of quality. That WMATA stands to receive \$1.5 billion in additional federal contributions if dedicated funding is established is an advantage cited by officials from one local jurisdiction, as well as NVTC.

An analyst with one of the major credit rating agencies told us that dedicated funding is one factor that can strengthen transit agencies' bond ratings. According to this analyst, who has expertise in transit, dedicated funding can provide better access to the capital markets, but any effect on the cost of borrowing will depend on how the dedicated funding is structured. For example, a dedicated revenue stream is more stable if the legislation creating it is difficult to reverse. Additionally, requiring that revenues be spent first on debt servicing is looked upon favorably by bond rating agencies. This analyst also noted that the credit-rating history of transit agencies—including WMATA—is based partly on that of the local or state jurisdictions that provide the agency with subsidy payments. WMATA has a good, steady credit-rating history in part because of the high credit ratings of its member jurisdictions. The key downside to WMATA's current funding arrangement is the appropriations risk—that local

jurisdictions might not make their payments or might be late. However, the analyst noted that the jurisdictions supporting WMATA had a long history of making payments on time, which, to a certain degree, offsets the risk of appropriations. Furthermore, although dedicated funding could also offset the appropriations risk—if the dedicated revenue source were structured so that it was not subject to appropriations—it could increase the risk associated with the revenue source, such as economic fluctuations.

Despite the advantages of dedicated funding, there are risks of revenue volatility and a loss of budgetary flexibility for governments supporting transit agencies. Although the transit agencies we spoke with cited the predictability of revenue as an advantage of dedicated funding, they also acknowledged that a risk of dedicated funding is that it may be too volatile or not meet funding expectations. For example, BART is largely dependent on local sales tax revenues for operating expenses; when the local economy began declining in 2000, revenues were no longer sufficient, leading BART to cut operating costs and raise fares.

According to three transit agency officials we spoke with, it can be difficult or impossible to obtain additional money from state and local governments that have already provided the agencies with dedicated funds. For example, although SEPTA officials told us that their dedicated revenues were too small a proportion of their overall funding to enhance the agency's long-term planning ability, they said that they had been unsuccessful in obtaining additional dedicated funding. Moreover, not all transit agencies have the authority to raise tax rates or fees themselves. In addition, local option taxes for capital projects are a potentially problematic means of providing dedicated funding in that, although they do provide agencies with additional funds, they often expire after a certain number of years, requiring agencies to have another ballot measure or to find other ways to increase revenue.

However, some transit agencies benefit from laws that mitigate the risk of revenue fluctuations associated with dedicated funding sources. MBTA, for example, is protected by legislation designating that 20 percent of the statewide sales tax revenues go to the agency; this legislation specifies a base revenue level that changes each year with the inflation rate. If revenues do not meet the base level, the state makes up the difference. MTA also has access to additional funding if the local matching shares for state operating assistance are insufficient. If localities are unable to provide the matching funds to MTA, the state takes out the shortfall from the amount the locality would have received in state aid, and provides it

directly to MTA. Additionally, some agencies have reserve funds they can draw on if revenues are not sufficient.

Officials in the Washington, D.C., region identified similar concerns when discussing what they believe the effects of dedicated funding for WMATA might be. An official from one local jurisdiction stated that a dedicated funding system is only as reliable as its funding source; another local official said that revenues dedicated to WMATA from a specific source may fluctuate from year to year with changing economic conditions.

Regarding the loss of budgetary flexibility, we have previously reported that setting government funds aside for a specific use—such as with federal trust funds—may affect the funding available for other spending priorities.³⁷ We also reported that constituencies may create pressure to spend revenues that are set aside for a specific purpose, regardless of the need for the spending at the moment or the priority that would otherwise be given such spending.³⁸ Some of the officials in the Washington, D.C., region we interviewed also cited disadvantages related to state and local budgeting. Maryland officials from the state Department of Transportation and a local jurisdiction noted that funding dedicated strictly for WMATA may reduce funds available for other transportation programs. Officials from another local jurisdiction also noted that revenue dedicated from an existing tax—rather than from a new source of revenue—reduces that locality's general fund and decreases spending flexibility.

³⁷GAO, *Long-Term Fiscal Issues: Increasing Transparency and Reexamining the Base of the Federal Budget*, [GAO-05-317T](#) (Washington, D.C.: Feb. 8, 2005).

³⁸GAO, *Federal Trust and Other Earmarked Funds: Answers to Frequently Asked Questions*, [GAO-01-199SP](#) (Washington, D.C.: January 2001).

Revenue Sources That Could Be Dedicated to WMATA Vary in Their Stability, Revenue Adequacy, and Required Tax or Fee Rate

In light of the proposed federal legislation to provide additional funding to WMATA (H.R. 3496), state and local officials are faced with two main issues, should they choose to enact dedicated funding for WMATA: (1) which revenue source or sources to dedicate to WMATA and (2) whether and how to address a WMATA budgetary shortfall. The two issues are not necessarily linked since implementing a dedicated revenue source does not automatically require a change in revenue sources or in the amount of revenue collected. Important considerations in selecting a revenue source or sources to be dedicated to WMATA are the stability and long-run adequacy of the revenue source, as well as the political feasibility of the size of the tax or fee rate necessary to provide sufficient revenue to WMATA. In evaluating revenue sources to provide additional funding to WMATA, equity, efficiency, and administrative cost are potentially important considerations.

Year-to-Year Revenue Stability, Longer-Run Revenue Adequacy, and Required Tax or Fee Rate Are Key Considerations for a Revenue Source to Be Dedicated to WMATA

One key budgeting consideration identified in the economics literature that is relevant for establishing a dedicated revenue source, from the perspective of the transit agency, is year-to-year revenue stability. Year-to-year revenue stability refers to the degree to which both short-term fluctuations in economic activity (the business cycle) and other factors not directly linked to the business cycle influence dedicated tax revenues. The revenue stability of different taxes and fees with respect to economic fluctuations is often compared by estimating the percentage change in year-to-year revenues that results from a 1 percent change in year-to-year income levels. The variability in these estimates is then used to evaluate the relative magnitude of fluctuations not related to the business cycle. A greater degree of variability in the estimate of economic response indicates a higher degree of instability from noncycle variations.

Year-to-year revenue stability is an important consideration because it influences the ability of a government or agency to carry out effective planning and budgeting. A stable revenue source is not subject to substantial year-to-year fluctuations, making it easily predictable. Greater predictability leads to more accurate revenue forecasts and allows for better budgeting and planning as it reduces the probability of a significant funding shortfall (or surplus) in any given year.

In the longer run, an important consideration for WMATA's financial health is that the revenues yielded by a dedicated source adequately keep pace with increases over time in transit expenditure demands. Although many economists used to believe that there was a trade-off between year-to-year stability and long-run revenue growth, current research suggests

that a revenue source can exhibit relatively high long-run growth and be relatively stable. Long-run revenue adequacy is measured by how revenues are expected to grow over time as income grows.³⁹ The relationship between income levels and the revenue generated by a tax or fee is a convenient benchmark for comparing different revenue sources. However, to assess the adequacy of a revenue source for transit spending, one would need to know how transit demand (and, consequently, spending) is related to income. There is considerable uncertainty, however, about the relationship between income growth and growth in demand for transit services. As a result, it is uncertain what relationship between revenue growth and income growth over the longer run is necessary to ensure that revenues will adequately keep pace with transit expenditure demands.

Estimates of long-run revenue growth rates for a given revenue source often differ at the state or county level, creating further potentially important budgetary and political implications for dedicated funding for WMATA, which has a service area that encompasses multiple jurisdictions. From a budgeting perspective, these jurisdictional differences should be taken into account to arrive at accurate forecasts of transit revenues. Political concerns might arise because of different revenue growth rates in the Compact area, which could mean that the allocation of payments among jurisdictions could change over time unless tax or fee rates are adjusted or floors and ceilings are placed on contribution levels.

Another key consideration in choosing a revenue source to be dedicated to WMATA is the tax or fee rate required to dedicate a specified amount of revenue from that source—that is, the rate required may influence the choices of state and local officials among various revenue sources. In general, the rate required will be smaller when the tax or fee is applied to a larger base.

As part of its analysis of WMATA’s funding issues, the Metro Funding Panel estimated the tax or fee rate required to generate specified amounts of dedicated revenue from six potential revenue sources.⁴⁰ The specified amounts were based on different categories of WMATA’s spending that

³⁹Adequacy is assessed using a long-run elasticity or the percentage growth in revenue given a 1 percent increase in income levels. A long-run elasticity of more than one indicates that revenues grow faster than income (a 1 percent increase in income levels leads to a more than 1 percent increase in revenues).

⁴⁰We did not analyze parking taxes, one of the panel’s six potential revenue sources.

could be covered by dedicated local revenues. For example, the panel estimated the tax or fee rate required to dedicate \$148 million in 2010. That amount represents 50 percent of what the panel estimated would be needed for capital spending to renew aging components of the WMATA system and add system capacity to meet growing demands, plus operating spending related to this capital investment.⁴¹ In addition to its estimates of the level of dedicated revenue needed to fund different specified levels of spending, the panel made several critical assumptions in developing its estimates of the tax or fee rate required.⁴² The accuracy of these assumptions will affect the accuracy of the panel's estimates.⁴³

Potential Revenue Sources Have Different Characteristics When Assessed Using the Key Considerations of Year-to-Year Stability, Long-Term Adequacy, and Required Tax or Fee Rate







Figure 5 provides a summary—based on our analysis of the economic literature and the Metro Funding Panel report—of how these six revenue sources (sales tax, payroll/income tax, motor vehicle fuel tax, property tax, access fees, and vehicle registration fees) compare according to stability, long-run adequacy, and tax or fee rate required. Additional analysis of each of the taxes and fees, and how they compare with respect to the key considerations, is presented in appendix II.

⁴¹More specifically, this estimate includes funding for increasing the number of rail cars and expanding the capacity of existing stations to increase system capacity, but does not include funding for new system extensions, such as the proposed rail line to Dulles International Airport. However, the operating spending related to capital investment includes operating costs for the extension to Dulles and the Anacostia light rail line. In addition, this estimate was based on several assumptions, including that fares would increase over time to keep the level of costs covered by fares unchanged, that state and local government contributions would increase by 5.3 percent per year, and that the costs of MetroAccess would be covered by some other means than WMATA's budget.

⁴²Some of the assumptions that the panel made follow: The tax or fee would be assessed throughout the WMATA Compact region, except for Virginia's Loudoun County, and not elsewhere in Maryland or Virginia; each tax or fee base would grow in the future at the same rate as it grew in the recent past; compliance with each tax or fee would be 100 percent; and, with one exception (parking tax), dedicating revenue from any source would not lead to any behavioral effects, such as reduced motor vehicle fuel purchases in the Compact region if some motor vehicle fuel tax revenues were dedicated to WMATA.

⁴³The actual tax or fee rate required in 2010 would be higher than the panel's estimate if the tax or fee base grew less rapidly in the future than in the recent past, if compliance with the dedicated tax or fee were less than 100 percent, or if dedicating a tax or fee led to substantial behavioral effects. On the other hand, the rate required would be lower than the panel's estimate if the tax or fee was assessed in all of Maryland and Virginia rather than just in the WMATA Compact region or if the tax or fee base grew more rapidly in the future than in the recent past.

Figure 5: Summary of Revenue Sources and Key Considerations

Revenue sources	Revenues highly stable in relation to economic fluctuations			Revenue growth likely to outpace overall economic growth			Relative size of tax/fee rate needed to collect a specified amount of dedicated revenue			Metro Funding Panel's estimate of tax or fee rate needed to collect \$148 million in 2010
	Yes	No	Details	Yes	No	Details	Small	Large	Details	
 Sales tax		✓	Likely more susceptible to economic fluctuations than property or fuel tax. Similar variation to payroll or income tax revenues, but less random variation year to year.		✓	Retail sales usually take up a declining share of income as income rises.	✓		Tax base is broad, especially when most retail purchases, including food, are taxed.	A sales tax rate of 25¢ per \$100 of retail sales throughout the WMATA compact region.
 Payroll or income tax		✓	Likely more susceptible to economic fluctuations than property or fuel tax. Similar variation to sales tax revenues, but more random variation year to year.	✓		Usually outpaces economic growth because of progressive nature.	✓		Applicable tax base is broad, especially for an income tax.	A payroll tax rate of 16¢ per \$100 of payroll throughout the WMATA compact region.
 Motor vehicle fuels tax	✓		Highly stable, but could be susceptible to random fluctuations such as those resulting from natural disasters or other events that disrupt oil supply.		✓	Historically, grows slowly, but faster than sales tax. Future adequacy concerns due to potential fuel efficiency improvement and increased transit use.		✓	Tax base is relatively narrow.	A fuel tax rate of 11.1¢ per gallon of fuel purchased in the WMATA compact region.
 Property tax		✓	Moderate susceptibility to economic fluctuations, but likely less susceptible than sales or income/payroll tax.	varies		Widely variant growth patterns at county level depending on local economic conditions and implementation.	✓		Tax base is relatively broad.	A property tax rate of 3.44¢ per \$100 of assessed value throughout the WMATA compact region.
 Access fees	✓		Likely very stable if fee rate is set on a per-square-foot basis, but changes in the level of developed property may not be concurrent with or proportional to economic fluctuations.	varies		Limited growth if fees do not change. However, increased development near stations may grow revenues.		✓	Tax base is much narrower than that of a general property tax.	A fee of 30¢ per square foot of federal and commercial property within 0.5 miles of designated Metrorail stations per year.
 Vehicle registration fees	✓		Likely very stable, but may exhibit a lagged response to economic downturn.		✓	Unlikely to keep pace with economic growth because car ownership levels are already high.		✓	Tax base is relatively narrow.	No Metro Funding Panel estimate for vehicle registration fees.

Source: GAO analysis of economic literature and Metro Funding Panel report.

Tax and Fee Changes Used to Provide Additional Funding for WMATA Can Affect the Equity, Efficiency, and Administrative Cost of the State and Local Tax Systems, but the Effects May Be Small

Experts and state and local officials commonly identified the economic considerations of equity, efficiency, and administrative cost as potential key considerations in evaluating revenue sources. However, these considerations are only relevant if the amount of revenue or the methods for its collection are altered.⁴⁴ In the context of dedicated funding for WMATA, these considerations come into play primarily when addressing a shortfall. State and local governments could establish a dedicated funding source for WMATA without increasing their revenue collections. However, if they want to provide WMATA with enhanced funding to address the revenue shortfall identified by the Metro Funding Panel, they would have to take some offsetting fiscal action, such as increasing their revenues, reducing their spending on other functions, or taking money from available surplus revenues, if any.

In the case of raising additional funding for WMATA, administrative costs are likely to be a more important decision factor than equity or efficiency, particularly if the state and local jurisdictions choose to implement at the state or local level a tax or fee that is not currently being administered at that level of government (even though the tax or fee might be collected by another level of government). Conversely, administrative costs are likely to be small if the tax or fee is already being collected at the desired level of government. Equity and efficiency effects are likely to be small given that the additional amount of revenue collected for WMATA would be small in relation to the overall state and local government operations. Possible exceptions are the vehicle fuel tax and vehicle registration fees, which might require larger rate increases because of their relatively small bases.

⁴⁴The preceding section on stability and long-run revenue growth implicitly assumes that a source is dedicated without altering the amount of revenues collected or the way in which they are collected. This section addresses the economic implications of increasing the amount of revenue raised. However, state and local jurisdictions could choose to implement a policy somewhere in between these two cases. For instance, they could change the composition of revenues without increasing revenue collections, such as implementing a new dedicated tax or fee and lowering an existing tax or fee. This change in revenue composition would have efficiency and equity effects, although they are once again likely to be small. In the interest of brevity, the discussion presented in this text does not take into account these more complicated cases, although their effects can be assessed by applying the same reasoning. In the preceding example, the efficiency and equity effects of both the new source and lowered tax or fee rate should be considered jointly to arrive at a net effect.

Possible administrative, equity, and efficiency effects are discussed in appendix III.⁴⁵

Although All Jurisdictions Proposed Legislation in 2006 Directing a Revenue Source to WMATA, Actions to Provide WMATA with Dedicated Funding Are Not Complete

To Conform to the Current Requirements of H.R. 3496, the Enactment of State or Local Legislation Directing Specific Revenue Sources to WMATA Would Be Needed

To establish dedicated funding as defined in H.R. 3496 (i.e., a revenue source that is legislatively directed solely to WMATA), each Compact jurisdiction would need to enact legislation directing a specific revenue source or sources to WMATA. The legislative process for enacting such legislation in the District of Columbia, Maryland, and Virginia is as follows:

- Legislation in the District of Columbia would be taken up first by the District of Columbia City Council. If passed by the council and signed by the District of Columbia mayor, the WMATA legislation would require approval by Congress.⁴⁶
- In Maryland, if it is determined that the state's current system for funding WMATA does not constitute dedicated funding, the General Assembly could pass legislation—signed by the governor—to order a tax rate change, shift the use of an existing tax, impose a new fee or surcharge, or enable localities to enact a tax rate change. Dedicated funding legislation could have a local or statewide scope. If the scope were local—which

⁴⁵Also see appendix III for a brief discussion of the issues surrounding the possible implementation of a regionwide tax or fee.

⁴⁶All new laws in the District of Columbia require congressional approval before taking effect. See D.C. Code Ann. § 1-206.01.

would be a departure from the current funding structure—local input would be considered and a consensus would be reached by a local delegation; the legislation would then go to the state legislature for final approval.⁴⁷ If the scope of the legislation were statewide, the legislation would not require initial approval by the local delegation and would go directly to the state legislature. Legislation in Maryland to enact dedicated funding for WMATA may also have to address the issue of parity in transit spending across the state, particularly between the Baltimore and Washington, D.C., regions. If additional funds are raised for or dedicated to WMATA, there may need to be additional funds provided for other state transit programs.

- In Virginia, the General Assembly could pass a law—signed by the governor—ordering a tax rate change or redirecting existing taxes statewide to establish dedicated funding. According to local officials in the state, to change the existing tax structure, Northern Virginia jurisdictions would have to be given the authority to raise or dedicate a tax by the General Assembly, unless that tax is currently under local control.⁴⁸ State legislation can require local approval through a voter referendum or a vote by the local governing bodies. Legislation concerning a dedicated funding system for WMATA may or may not need the approval of the local jurisdictions it would encompass. The state also determines whether a tax shall be statewide in scope or limited to certain localities.

⁴⁷A local delegation usually consists of the state representatives of the districts involved in the local legislation.

⁴⁸The real estate tax is one of the major taxes commonly controlled at the local level, although localities have limited authority from the state to levy such taxes as recordation and sales taxes.

Legislative Bodies in the District of Columbia, Maryland, and Virginia Have Considered Dedicated Funding Legislation

Bills were introduced in 2006 in the District of Columbia, Maryland, and Virginia that would dedicate a portion of sales tax revenues to WMATA. These bills differ from one other in a number of aspects, and they also differ from the approach recommended by the Metro Funding Panel, which included dedicating a sales tax increase of one-quarter of 1 percent across the WMATA Compact area to be used for capital maintenance and system enhancement.⁴⁹ The panel also recommended that the proceeds of the regional sales tax be in addition to the jurisdictions' current payments for operations and capital. Table 1 provides details on the legislative proposals and the panel's recommendation.

Table 1: Comparison of Key Aspects of District of Columbia, Maryland, and Virginia Dedicated Funding Proposals and Metro Funding Panel Recommendation

Type of tax dedicated to WMATA	Sales			Metro Funding Panel recommendation
	District of Columbia	Maryland ^a	Virginia ^b	
Tax rate	One-half of 1 percent	Varies from one-quarter of 1 percent to 1 percent	One-quarter of 1 percent	One-quarter of 1 percent
Estimated annual revenue that would be available to WMATA ^c	\$50 million to \$60 million, about one-fourth of the District's total fiscal year 2006 payments to WMATA of \$225.3 million	No applicable estimate—funds are split among WMATA and other transit expenses of state	\$51.5 million, about 33 percent of Virginia's total fiscal year 2006 payments to WMATA of \$154.3 million	\$148 million
Scope of tax	District-wide	Statewide	Five Northern Virginia Compact jurisdictions	Regionwide
Revenues from existing tax or tax increase	Existing tax	Existing tax	Tax increase	Recommended either a tax increase or using existing revenues
Method of allocation to WMATA	Maryland and Virginia will each pay amounts at least equal to that paid by the District of Columbia	Does not specify	Funds will be applied to each Virginia locality's obligations to WMATA	Funds allocated based on tax receipts in each jurisdiction

⁴⁹The panel's one-quarter of 1 percent estimate was based on the assumption that the federal government would make additional contributions to WMATA. According to the panel's assumptions, in the absence of an additional federal contribution, the sales tax rate necessary would be one-half of 1 percent. The panel's recommendation was based on analysis using the jurisdictions' existing sales tax bases, which are not identical; for example, in Virginia, groceries are taxed under the sales tax, while in the District of Columbia, they are not. The report also states that jurisdictions might be able to dedicate a portion of an existing tax rather than increasing a tax.

Type of tax dedicated to WMATA	Sales			Metro Funding Panel recommendation
	District of Columbia	Maryland ^a	Virginia ^b	
Recipients of revenue	WMATA	WMATA, Maryland Transit Administration, and other local transit programs in Maryland	WMATA	WMATA
Where funds are held prior to payment to WMATA	A separate fund for WMATA outside of the District of Columbia's general fund	Mass Transit Account within Maryland Transportation Trust Fund	Northern Virginia Transportation Commission	Not applicable
Specified uses of revenue for WMATA	Maintenance and improvement	Capital and operating expenses, including maintenance and improvement	Operating deficit, capital, and debt service	Projected shortfall for capital maintenance and system enhancement
Revenues in addition to or in place of current subsidy payments	Revenues shall provide additional funding for WMATA	Revenues from sales tax may not replace other state funds necessary to pay WMATA's costs	Revenues are intended to be in addition to current payments	Revenues would be in addition to existing payments
Other action bill is contingent upon to take effect	The bill is contingent upon additional federal grants for WMATA, and Maryland and Virginia passing legislation to dedicate an amount of funds at least equal to that dedicated by the District of Columbia; the fiscal impact of the bill on the rest of the District's budget must also be included in an approved District budget and financial plan before the bill can take effect	Two bills state that funds for WMATA shall be used consistent with additional federal grants for WMATA and bills passed by the District of Columbia and Virginia dedicating revenue to WMATA; the others do not specify	One bill was amended to be contingent upon additional federal funding being made available	Not applicable

Source: GAO analysis of the Metro Funding Panel report and the dedicated funding legislation in the District of Columbia, Maryland, and Virginia.

Notes: The following legislation was included in this analysis: District of Columbia B16-0569; Maryland H.B. 981, H.B. 1345, H.B. 1392, and S.B. 850; and Virginia H.B. 1003, H.B. 1082, and S.B. 267.

^aThe four Maryland bills are largely identical; variation is noted in table.

^bThere were other legislative proposals considered in Virginia that address transportation funding, in addition to those included in this analysis. We only included proposals that dealt strictly with funding for WMATA, rather than broader transportation proposals.

^cThe revenue estimates for the District of Columbia, Virginia, and the Metro Funding Panel were prepared by the District of Columbia Chief Financial Officer, NVTC, and the Metro Funding Panel, respectively.

As of April 2006, dedicated funding legislation in the District of Columbia had been enacted by the city but had not yet received congressional approval. Additionally, this legislation will not take effect until H.R. 3496 and dedicated funding laws in Maryland and Virginia are passed. In Maryland, two of the bills—one in the House and one in the Senate—that were originally introduced to provide dedicated funding, were amended to remove the dedicated funding provisions and to add language requiring that the Maryland Department of Transportation (MDOT) undertake a study on the state’s transit costs and funding strategies, as noted earlier. The amended bills do not provide any funding for transit. The other dedicated funding bills in Maryland did not proceed beyond the committee level. In Virginia, dedicated funding legislation was approved by the Senate but not by the House. However, the Virginia proposal to dedicate a one-quarter of 1 percent sales tax levied in Northern Virginia to WMATA is included in the Senate’s budget proposal, so, as of April 2006, it was still possible that dedicated funding could be enacted through this vehicle.

As discussed earlier in this report, although legislators in the Maryland General Assembly have introduced dedicated funding bills, MDOT’s position is that the state’s current system for funding WMATA already constitutes dedicated funding. On the other hand, an official with the state’s Office of Attorney General said in a legal opinion dated February 17, 2006, that the fund does not constitute dedicated funds for WMATA. An MDOT official we spoke with said that Maryland would consider making adjustments to the trust fund to meet the goal of dedicated funding.

Amendments to the WMATA Compact Would Require State Legislation and Congressional Consent, but There Has Been Little Movement in the Region to Pursue Amendments

As currently written, H.R. 3496 requires the WMATA Compact to be amended, a process that entails state legislation and congressional consent. H.R. 3496, as amended, requires the WMATA Compact to be amended to require that (1) all payments from the Compact jurisdictions come from a dedicated source, (2) WMATA establish an inspector general, and (3) four federal representatives be added to the WMATA Board of Directors, one of whom must be a regular Metrobus or Metrorail rider.⁵⁰ To amend the WMATA Compact, identical legislation—which would be separate from legislation establishing dedicated revenue sources—must be enacted by the states of Maryland and Virginia, and the District of

⁵⁰According to H.R. 3496, two of the members would be voting and two would be nonvoting.

Columbia, and must be consented to by Congress. No amendment can be enacted until this process is complete.

According to our legal analysis of the WMATA Compact and H.R. 3496, amending the Compact would not be necessary for the WMATA Compact jurisdictions to establish dedicated funding or to create an inspector general for the agency, but would be necessary for changing the structure of WMATA's Board of Directors:

- It is unnecessary to amend the WMATA Compact for jurisdictions to provide payment to WMATA from dedicated sources of funding. However, if the Compact were amended to require dedicated funding, then the jurisdictions would be bound to this requirement as long as it remains in the Compact. The Compact does not specify what the source of the jurisdictions' payments to WMATA shall be nor how WMATA's costs are to be allocated among the jurisdictions.
- WMATA could establish an office of inspector general without amending the Compact; however, some provisions in H.R. 3496 about the inspector general's office conflict with the Compact. For example, H.R. 3496 would require a unanimous vote of all board members to remove the inspector general. Under the Compact, most actions by the board do not require a unanimous vote; rather, they require a majority vote and the majority must include at least one board member from each of the three jurisdictions. Conflicts such as this between H.R. 3496 and the Compact could be resolved through an amendment to either one. The WMATA Board of Directors voted in April 2006 to create an office of inspector general. WMATA's policy outlining the structure and functions of this office is similar to the provisions in H.R. 3496, although WMATA officials told us that they wrote this policy to avoid any conflicts with the WMATA Compact.
- Adding federal representatives to the Board of Directors would require a Compact amendment because the Compact specifically sets forth the composition of the board, which is composed of six members, two each from the District of Columbia, Maryland, and Virginia.

Legislation that would amend the WMATA Compact as required by H.R. 3496 has not been proposed in the District of Columbia or Virginia, according to a WMATA official. Such legislation was introduced in the Maryland General Assembly in February 2006, but was later withdrawn. Currently, the jurisdictions are more focused on enacting legislation to establish dedicated funding. Additionally, officials with the transportation departments of the District of Columbia, Maryland, and Virginia noted that

even if H.R. 3496 is enacted, there is no guarantee that federal funding for WMATA would be appropriated. Also, officials in Northern Virginia questioned whether Compact amendments are necessary to implement the requirements of H.R. 3496 to establish an inspector general and to provide dedicated funding to WMATA.

Timeline for Implementing Dedicated Funding Is Uncertain

There is no clear consensus among Compact jurisdictions about which legislation—amending the Compact or revenue legislation—should be dealt with first. Although Maryland officials stated that it makes more sense to amend the Compact to establish oversight first, the officials we spoke with in the District of Columbia and Virginia stated that enacting revenue legislation should be the first priority before trying to amend the Compact.

The schedules for considering legislation in the District of Columbia, Maryland, and Virginia are different in each jurisdiction. In the District of Columbia, council members can file legislation to be introduced at any time during normal business hours, unless the council is at recess.⁵¹ The council generally meets to vote on legislation on the first Tuesday of every month. The legislative sessions of the Maryland and Virginia general assemblies both begin annually in January. In Maryland, the session adjourns after 90 days; bills may be filed throughout the 90-day session, but bills introduced after the 21st day of the Senate’s session and the 31st day of the House’s session need special approval before they are returned to the floor. In Virginia, the adjournment date varies based on the legislative year and whether the General Assembly chooses to extend the session, and the deadline for filing legislation is in January, the same month the session begins. The short legislative sessions and large volume of bills leave a limited window for considering and passing dedicated funding legislation for WMATA.

⁵¹An exception to this rule is emergency bills, which may be introduced during a recess of the council.

WMATA Funding Partners Have Yet to Resolve Several Issues Related to Dedicated Funding

WMATA's funding partners face a number of issues that will need to be resolved should they choose to provide WMATA with dedicated funding. As discussed previously, the Compact jurisdictions have differing views on what constitutes dedicated funding, with Maryland officials having different opinions on whether their current system for supporting WMATA is dedicated, and the District of Columbia and Virginia viewing dedicated funding as a specific source statutorily dedicated to WMATA. In addition to addressing this fundamental issue, the jurisdictions must also resolve the following issues:

- what proportion of the jurisdictions' payments to WMATA would come from dedicated sources and how to mitigate the risk associated with dependence on these sources;
- whether dedicated funding would result in a net increase in the amount WMATA receives from the Compact jurisdictions and what portion of the total amount dedicated to WMATA each jurisdiction would pay;
- whether dedicated funding should be used exclusively for WMATA's capital or operating needs, or both; and
- whether increased oversight of WMATA is needed to ensure adequate accountability for dedicated funds.

Stakeholders Would Have to Determine the Proportion of the Compact Jurisdictions' Contributions to WMATA That Should Come from Dedicated Funding and How to Mitigate Risk Associated with Dependence on Dedicated Revenue

There is currently no agreement among WMATA's stakeholders—at the local, state, and federal levels—as to what proportion of the Compact jurisdictions' total payments to WMATA should come from dedicated funding. Although as currently written, H.R. 3496 would require that all state and local contributions come from dedicated funding, no jurisdiction has offered a proposal that would meet this requirement and none of the state and local officials we spoke with indicated that measures to fulfill this requirement are likely. As noted earlier, among the 23 largest transit agencies with dedicated funding, an average of 70 percent of their state and local contributions came from dedicated sources in 2003. Among the District of Columbia and the cities and counties in Maryland and Virginia, officials from two jurisdictions expressed support for providing all payments to WMATA from dedicated sources, although officials from one of these jurisdictions also recognized that such an approach was not likely to have regional support. As a result, WMATA's stakeholders will need to determine a dedicated funding level that is acceptable to all parties.

If a large proportion of WMATA's state and local contributions were to come from dedicated funding, stakeholders would also need to determine how the risk of revenue volatility would be balanced between the jurisdictions and WMATA. The revenue sources chosen for dedicated funding for WMATA may fluctuate from year to year, requiring the transit agency to work within the constraints of the available revenue or necessitating additional appropriations from the state and local jurisdictions supporting WMATA. Legislation establishing dedicated funding for other transit agencies sometimes provided safeguards for revenue streams, such as specifying an annual revenue floor. These safeguards can better protect the transit agencies from revenue fluctuations, but the state or local government bears the burden of ensuring adequate revenue to the transit agency each year. WMATA's funding partners will need to determine the extent to which they or WMATA should take on this risk.

Compact Jurisdictions Would Have to Determine Whether Dedicated Funding Would Result in a Net Increase in Payments to WMATA and How the Amount of Payments to WMATA Would Be Allocated among the Jurisdictions

Officials we interviewed from each of the localities in Maryland and Virginia said that dedicated funding should result in a net increase in payments to WMATA. Officials from two Virginia jurisdictions elaborated, saying that dedicated funds could be used both to replace part of the current subsidy payments jurisdictions currently make from their general funds, and to provide additional funding to WMATA, to result in an overall increase. An official from another Virginia jurisdiction said that dedicated funding should only result in a net increase in the jurisdictions' payments to WMATA if the federal government participates in supporting WMATA. Officials from the District of Columbia did not offer an opinion on this topic.

Although the officials we interviewed generally said that dedicated funding should be used to increase their financial support of WMATA, the dedicated funding proposals introduced in the region are not all clear about whether dedicated revenues are to be in addition to the jurisdictions' current payments. The legislative proposals introduced in Maryland and Virginia state that the dedicated revenues are not meant to reduce or replace other funding sources. However, because these proposals do not explicitly state that dedicated revenues will be used to provide WMATA with additional funding—above the jurisdictions' current level of payments—it remains unclear if these proposals would result in a net increase in the payments to WMATA. The District of Columbia's legislation does, however, state that its purpose is to provide additional payments to WMATA.

Regardless of whether dedicated funding results in a net increase in the amount of payments to WMATA, the region would need to determine what portion of the total amount dedicated to WMATA each jurisdiction would pay—that is, whether the amount of payment from dedicated sources would be based on current allocation formulas or would be determined using another means. None of the legislative proposals explicitly states how the amount of payments to WMATA from dedicated revenues would be determined, but local officials we interviewed did express views on this matter. The District of Columbia officials we spoke with said that the amount of payments to WMATA from dedicated revenue sources should not be determined using the current allocation formulas. These officials said they believe the burden of providing financial support for WMATA should be more evenly distributed across the three major jurisdictions. This view is reflected in the District of Columbia’s legislative proposal, which includes a provision that would require Maryland and Virginia to dedicate an amount of revenue at least equal to that dedicated by the District of Columbia, although it does not specify how that amount would be determined. Officials from two of the Northern Virginia Compact jurisdictions and from the Virginia Department of Transportation stated that they believed the current allocation formulas should also be applied to dedicated revenues provided to WMATA. Neither the Virginia legislation nor the Maryland legislation explicitly states how the relative size of payments to WMATA would be determined. State and local officials from Maryland, along with other Virginia officials we met with, did not express strong views about whether the current allocation formulas would be applied to additional funding provided to WMATA.

Whether additional funds provided to WMATA from dedicated sources are distributed to WMATA based on the existing allocation formulas or using another means could have an effect on the distribution of payments among the jurisdictions. For example, using the approach recommended by the Metro Funding Panel—in which all local Compact jurisdictions would provide the entire proceeds of a one-quarter percent or one-half percent sales tax to WMATA—the amount of funds that each jurisdiction would provide to fund WMATA’s estimated capital shortfall would be based on the jurisdiction’s tax receipts, rather than on the allocation formulas. As a result, the payments would be shifted away from the District of Columbia and Maryland and toward Virginia. Table 2 compares the current distribution among the jurisdictions of payments for WMATA’s operating subsidy and capital improvement program to the distribution of additional payments for the estimated capital shortfall using a dedicated regional sales tax.

Table 2: Percentage Distribution of Payments to WMATA under Current Allocations and under Regional Sales Tax

Percent	Distribution of current operating subsidy payments	Distribution of current capital improvement program payments	Distribution of payments for WMATA's estimated capital shortfall under a regional sales tax levied at the same rate in all jurisdictions
District of Columbia	38	35	20
Maryland	38	35	32
Virginia	24	30	48

Source: GAO analysis of information from WMATA and the Metro Funding Panel Report.

Notes: Distributions for operating subsidy and capital improvement program payments are based on WMATA's fiscal year 2006 approved budget.

Capital improvement program payments include those for projects funded by Metro Matters and Beyond Metro Matters, two capital funding packages that address infrastructure rehabilitation and expansion of capacity within the current fixed-route system.

Stakeholders Would Have to Determine Whether Dedicated Funding Would Be Used for Operations, Capital Needs, or Both

Whether funds are used for operations, capital projects, or both has implications for key issues, such as the purpose of the dedicated funding and the appropriate amount of that funding. The Metro Funding Panel proposed that dedicated funding be used to cover WMATA's budgetary shortfall, which the panel projected would occur largely due to planned capital expenditures. Dedicated funding legislation introduced in Maryland and Virginia states that funds are to be used for operations and capital, while the District of Columbia's legislation states only that funds are to be used for "maintaining and improving the transportation system [of WMATA]." Officials we spoke with from local jurisdictions also had varied views on this topic:

- Representatives from three of the eight local jurisdictions stated that dedicated funding should go toward funding WMATA's capital needs, citing the following advantages: (1) Capital planning benefits from the predictability of dedicated funding because such planning tends to involve multiple years; (2) WMATA's unfunded needs are mostly capital needs related to system rehabilitation and capacity, a conclusion reached by the Metro Funding Panel report; and (3) an annual subsidy is already in place to fund operations.
- Representatives from two other local jurisdictions stated that dedicated funding should be used for both operations and capital needs. They noted that: (1) operations and capital programs can both benefit from the stability provided by dedicated funding, (2) transit agencies can be more

efficient when given the flexibility to use funds for either purpose, and (3) making operating payments to WMATA from dedicated funding, rather than from the jurisdictions' general funds, can make budgeting easier for both WMATA and the jurisdictions.

- Representatives from three of the eight local jurisdictions had no opinion on whether dedicated funding should be used for operations or capital needs.

Stakeholders Would Have to Determine Whether Increased Oversight of WMATA Would Be Needed to Ensure Dedicated Funds Were Adequately Accounted For

In earlier testimony on WMATA, we highlighted the importance of having reasonable assurances that if WMATA were to receive additional funds, it would spend these funds effectively.⁵² H.R. 3496 would make additional federal funding contingent upon WMATA's establishing an office of inspector general, and, in April 2006, the WMATA Board of Directors approved a resolution that would establish such an office. The issue of appropriate oversight was also discussed by regional stakeholders during a summit on dedicated funding for WMATA in October 2005. Summit participants—who included state and local officials from the Compact jurisdictions—agreed that steps should be taken to improve oversight of WMATA. Additionally, U.S. Representative Albert Wynn, whose district includes parts of Prince George's and Montgomery Counties, sent a letter to WMATA urging the Board of directors to create an "independent investigative authority" to study WMATA's budgets, plans, purchases, and employee relations with the goal of improving operations and alerting the public to problems. Officials in six out of eight local jurisdictions, as well as an official with a state department of transportation, told us either they were concerned that a loss of governance could occur with dedicated funding or that it is important to have accountability mechanisms in place with dedicated funding. For example, one official said that additional oversight of WMATA is necessary and particularly important if WMATA is given greater control over its revenue stream through dedicated funding. An official from a state transportation department said it was important to improve oversight of WMATA through such steps as increasing access to WMATA's financial and operating data if WMATA were to receive additional funds.

⁵²GAO-05-922T.

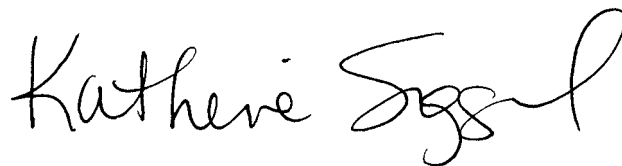
Agency Comments

We provided copies of a draft of this report to WMATA and the U.S. Department of Transportation for their review and comment. We received comments, consisting of technical clarifications, from officials from the Department of Transportation's Office of Budget and Policy and from WMATA's Interim General Manager, Auditor General, and Director of Intergovernmental Relations, which we incorporated in the report, as appropriate. We also provided officials from the District of Columbia, Maryland, and Virginia with an opportunity to comment on segments of the report pertaining to their legislative processes and the dedicated funding bills introduced in their legislative bodies. These officials also provided technical clarifications, which we incorporated in the report, as appropriate.

As agreed with your office, unless you publicly announce its contents earlier, we plan no further distribution of this report until 30 days from the report date. At that time, we will send copies to the appropriate congressional committees and to the Secretary of Transportation, the Interim General Manager of WMATA, and officials in the state and local jurisdictions with whom we spoke. We will also make copies available to others upon request. In addition, this report will be available at no charge on the GAO Web site at <http://www.gao.gov>.

If you or your staff have any questions about this report, please contact me at (202) 512-2834 or siggerudk@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made key contributions to this report are listed in appendix IV.

Sincerely yours,



Katherine Siggerud
Director, Physical Infrastructure Issues

Appendix I: Objectives, Scope, and Methodology

To determine the characteristics of dedicated funding, and how it affects transit agencies and state and local governments, we reviewed the literature on transit agencies' use of dedicated funding and interviewed representatives of a major credit rating agency and the Government Finance Officers Association. We performed semistructured interviews with six transit agencies—Bay Area Rapid Transit, Dallas Area Rapid Transit, Massachusetts Bay Transportation Authority, New York's Metropolitan Transportation Authority, Southeastern Pennsylvania Transit Authority, and St. Louis Metro—which we selected to include a cross section of characteristics that are similar to the Washington Metropolitan Area Transit Authority (WMATA), including size of total budget, modes operated, age of rail system, and service area. Additionally, we selected agencies that had a diversity of dedicated revenue sources. We also reviewed the legislation establishing dedicated funding and budget and financial documents from some of these agencies. We analyzed financial data for the 25 largest transit agencies using information in the Federal Transit Administration's (FTA) National Transit Database (NTD). The NTD contains financial data reported to FTA by transit agencies.¹ We used 2003 data, the most recent year for which data were available at the time of our analysis. We selected the top 25 agencies based on the size of their combined operating and capital budgets. To assess the reliability of the NTD, we interviewed an FTA official knowledgeable about the database and reviewed pertinent documentation. FTA has several processes in place to assure the reliability of the NTD data, including the following:

- The data that agencies report have to be reconciled against the agencies' own audit reports. The data are then certified by the chief executive officer of the agency.
- FTA uses an automated program that checks transit agencies' current year entries against the previous year's data. If an inconsistency is identified, the general manager of the agency is contacted to verify the information.

¹As noted earlier in this report, all transit agencies that receive urbanized area formula program funds from FTA must submit reports to the NTD. The NTD uses a Web-based reporting system for transit agencies to submit their reports. The financial section of the NTD reporting system allows agencies to enter data in predetermined categories of funding, including local general revenues, state general revenues, other funds, and dedicated sources, including sales tax, income tax, property tax, gas tax, other dedicated taxes, tolls, bonds and loans, and other dedicated sources. The reporting system also requires transit agencies to report whether each source is directly generated by the transit agency or comes from the locality, state, or federal government.

- The NTD system is backed up every hour to ensure that in the event of a power loss or other disruption to the system, the data would not be lost.

We also compared the NTD data with the information we received from our interviews with the six transit agencies, as well as with some agencies' budget and financial documentation. Generally, the information we received from transit agencies supported the information in the NTD. However, there was one instance in which we recategorized a revenue source reported by an agency. MBTA reported the revenue from local assessments as general revenues; these assessments, according to MBTA officials and financial documents, are dedicated. Because our analysis of NTD data included determining the proportion of state and local contributions that come from dedicated sources, we placed the revenue from local assessments into the dedicated category. Based on our assessment, we determined that the NTD data were sufficiently reliable for our purposes.

To compare potential revenue sources that could be used as dedicated funding for WMATA, we reviewed literature on the economics of state and local public finance and mass transit funding and the Metro Funding Panel report, and met with experts in state and local public finance and the financing of transportation and with staff from the Metro Funding Panel. Based on that review and those discussions, we

- identified year-to-year revenue stability, longer-run revenue adequacy, and the tax or fee rate necessary to yield a specified amount of revenue as key considerations for choosing a revenue source to dedicate to WMATA;
- identified equity, efficiency, and administrative cost as additional considerations that could be affected if there are tax and fee increases to provide additional funding to WMATA;
- identified the sales tax, the payroll or income tax, the motor vehicle fuel tax, the property tax, access fees, and vehicle registration fees as revenue sources that we would compare; and
- assessed these revenue sources based on the considerations identified.

To determine the major actions required to establish dedicated funding for WMATA, what progress on these actions has been made so far, and what issues related to dedicated funding have emerged, we interviewed the following state, local, and regional officials, including

- the chief administrative officers or other appropriate official from each of the eight local Compact jurisdictions² or their representatives;
- the Director of Transportation from the District of Columbia and the Secretaries of Transportation from Maryland and Virginia;
- members of the Maryland General Assembly, the Virginia General Assembly, and the City Council of the District of Columbia—we selected officials who sit on committees that would be involved in dedicated funding legislation;
- officials from the Offices of the Parliamentarian at the U.S. House of Representatives and the U.S. Senate;
- representatives from the Northern Virginia Transportation Commission; and
- WMATA officials, including representatives from the Board of Directors, the Office of Policy and Intergovernmental Relations, and the Office of General Counsel.

We also reviewed dedicated funding legislation that was proposed in the District of Columbia, Maryland, and Virginia, and Maryland statutes pertaining to the payment of WMATA. We performed a legal analysis of how the requirements of H.R. 3496 compare with the provisions in the WMATA Compact. We also attended public meetings relating to dedicated funding for WMATA, including an October 2005 regional summit and hearings of the District of Columbia City Council and the Maryland General Assembly.

²Alexandria, Arlington County, Falls Church, Fairfax City, Fairfax County, Montgomery County, Prince George's County, and the District of Columbia.

Appendix II: Revenue Sources Compared on the Basis of Revenue Stability and Adequacy, and Required Tax or Fee Rate

The following paragraphs provide a summary—based on our analysis of the economic literature and the Metro Funding Panel report¹—of how six revenue sources (the sales tax, the payroll/income tax, the motor vehicle fuel tax, the property tax, access fees, and vehicle registration fees) compare according to stability, long-run adequacy, and tax or fee rate required.

Sales Tax

Previous studies suggest that revenues from the sales tax are more susceptible to economic fluctuations than property or fuel tax revenues. Sales tax revenues are susceptible to economic fluctuations because they are dependent on consumer purchases, and these purchases vary with changes in income. Studies estimate that the economic fluctuations of retail sales tax revenues are about the same as those for income tax revenues, but that the sales tax is less prone to random variations.² Economic estimates suggest that sales tax revenues are more stable if the tax base includes items for which purchases remain relatively constant. These items are commonly referred to as necessities, including food, clothing, and prescription drugs. However, caution is needed when applying these results because there can be significant variations at the state level. For instance, the results of two studies suggest that Maryland sales tax revenues are more responsive to economic fluctuations than are sales tax revenues in Virginia.³

In terms of long-run revenue growth, there is a general consensus in the economics literature that sales tax revenues do not keep pace with overall economic expansion. This slower growth, compared with income, occurs because retail sales usually take up a declining share of income as income rises. Two studies produced very similar state-specific estimates for Maryland and Virginia consistent with this finding; a 10 percent increase in total personal income is associated with a roughly 8 percent increase in

¹PB Consult Inc., *Report of the Metro Funding Panel* (Washington, D.C., Jan. 6, 2005).

²As has been done elsewhere in the literature, we use the term “random” variations to refer to short-term variability in tax revenues resulting from factors other than economic fluctuations caused by the business cycle.

³Donald Bruce, William F. Fox, and M.H. Tuttle, “Tax Base Elasticities: A Multi-State Analysis of Long-Run and Short-Run Dynamics,” *Southern Economic Journal* (forthcoming); and Randall G. Holcombe and Russell S. Sobel, *Growth and Variability in State Tax Revenue: An Anatomy of State Fiscal Crises* (Westport, Conn.: Greenwood Press, 1997).

sales tax revenues.⁴ Economic estimates also suggest that tax bases that include food have lower levels of long-run growth than those that exclude food, although bases including food tend to be more stable. In addition, other results suggest that sales tax revenues grow faster as income rises when the sales tax base includes more services because spending on the service sector has been rapidly increasing.

Collecting a specified amount of dedicated revenue from a general sales tax usually requires a relatively small tax rate because the base to which that rate would be applied is relatively large. When retail purchases of many services, as well as goods, are taxed, the base is particularly large and a smaller tax rate would be needed than if the tax applied only to retail purchases of goods. When retail purchases of major categories of goods, such as food purchases from grocery stores, are excluded, then the base is smaller and a higher tax rate would be needed.

The Metro Funding Panel estimated that a sales tax rate of 25 cents per \$100 of taxed retail sales throughout the WMATA Compact region would be required to collect \$148 million in 2010.⁵ Compared with some of its estimates for other revenue sources, the panel's estimate for the sales tax was relatively straightforward and based on publicly available data. However, for several reasons, the retail sales tax base might increase at a rate different from the historical average growth rate that the panel assumed in developing its estimate. These reasons include future population or income growth that differs from such growth in the past; increased retail sales through the Internet; and decisions by state and local governments to apply the sales tax to some previously untaxed purchases, or to stop applying it to some currently taxed purchases.

⁴"Tax-Base Elasticities: A Multi-State Analysis of Long-Run and Short-Run Dynamics." (forthcoming) and *Growth and Variability in State Tax Revenue: An Anatomy of State Fiscal Crises* (1997).

⁵As discussed earlier, this amount represents the panel's estimate of what would be needed for capital spending to renew aging components of the WMATA system and to add system capacity to meet growing demands, plus operating spending related to this capital investment. We use this amount to be able to show the panel's estimates of the tax or fee rate required from each revenue source on a consistent basis. However, we neither endorse the panel's estimate of how much it would cost for that level of capital and operating spending, which we did not review, nor take a position on whether this is an appropriate concept for the level of WMATA spending that should be covered by dedicated local revenues.

Payroll or Personal Income Tax Previous studies suggest that income tax revenues are more susceptible to economic fluctuations than property or fuel tax revenues because income varies more over the course of the business cycle than do property values or fuel purchases. The variability in income tax revenue is about the same as for sales tax revenue, but random variations are larger. Unlike the sales tax discussed above, which is more stable with a broader base, tax revenues from personal income are more stable under the payroll tax, or when the tax base is limited to wage income.⁶ Economic studies indicate that there are some large differences in the fluctuation of income tax revenues due to changes in economic conditions at the state level. Two studies provide conflicting estimates of the relative volatility of income tax revenues in Virginia and Maryland, with one study suggesting more volatility in Virginia and the other suggesting more volatility in Maryland. These differences at the state level indicate the need for caution in generalizing from state or national studies because smaller jurisdictions, such as cities or counties, might also differ substantially in measures of revenue stability.

In terms of long-run revenue growth, previous studies have consistently indicated that income or payroll tax revenues more than keep pace with overall economic growth. Income tax revenues grow faster than income levels because of the progressive nature of most income taxes: People with higher incomes typically pay a larger percentage of their income in taxes than those with lower incomes.⁷ This progressivity occurs because of graduated tax rates that get higher as incomes grow and deductions and credits that are often phased out at higher income levels. Payroll tax revenues may not increase as much as income tax revenues due to economic growth because a payroll tax might not have graduated tax rates. A study of individual states found that evidence from Maryland and Virginia is consistent with the broader observation that income tax

⁶Payroll tax revenues are more stable than income tax revenues because nonwage income, such as capital gains, tends to vary more than wage income over the course of the business cycle.

⁷Income tax revenues grow faster than income levels because of progressivity in the tax structure even though there is some evidence that as total income rises, taxable income rises less rapidly. Differences in taxable and total income arise because some types of income are exempted or taxed at lower rates, deductions and credits are available to filers that qualify, and not all taxable income is reported on income tax forms.

revenues generally rise faster than income levels, with the long-run growth rate in tax revenues for an equal growth rate in income larger in Virginia.⁸

Collecting a specified amount of dedicated revenue from an income or payroll tax generally requires a relatively small tax rate because the base to which that rate would be applied is relatively large. A lower tax rate would be needed for an income tax because the tax base would include both nonwage and wage income, while the payroll tax base would include only wage income. Exempting some income from tax—such as by putting a cap on the amount of wage income subject to a payroll tax, as is done for Social Security, or allowing some form of deduction for income up to some level—would raise the tax rate required on the remaining income because the base would be smaller.

The Metro Funding Panel estimated that a payroll tax rate of 16 cents per \$100 of wages earned by residents of the WMATA Compact region, with wages below \$15,000 per year and above \$100,000 per year exempt, would be required to collect \$148 million in 2010. According to a panel staff member who participated in developing these estimates, the payroll tax estimate was the most complex to develop. Because the panel derived this estimated tax rate from an estimate of the tax base that itself was derived from Census Bureau data on income that included nonwage income, the tax rate may be lower than the rate that would be needed to raise the same amount of revenue from a tax that applied only to wage income. On the other hand, the estimated tax base did not include any income earned by nonresidents of the Compact region. If such income could be taxed, then the tax base could be higher, which would allow the same amount of revenue to be collected with a lower tax rate.

Motor Vehicle Fuel Tax

Previous studies indicate that motor fuels tax revenues exhibit the highest degree of stability in the presence of economic fluctuations compared with property, income, and sales taxes. The revenues are more stable because in the short run fuel purchases do not change much in response to changing economic conditions. However, the literature indicates that fuel tax revenues have the most severe random fluctuations, such as those due to natural disasters or other events that disrupt the supply of oil.

⁸“Tax-Base Elasticities: A Multi-State Analysis of Long-Run and Short-Run Dynamics” (forthcoming).

In terms of long-run growth, studies have found that motor vehicle fuel revenues have historically grown more slowly than general measures of economic growth, but not as slowly as sales tax revenues. Future long-run adequacy concerns remain because of potential fuel efficiency improvements and increased transit use resulting from rising fuel prices and congestion. This concern is exacerbated because motor fuel taxes are generally applied on a per-gallon basis, not as a percentage of the total sale price. Under this structure, revenues are proportional to fuel consumption, not total fuel expenditures, which may require that the motor fuels tax rate be increased over time if revenues are to keep pace with the demand for transit expenditures in periods of high inflation.

Collecting a specified amount of dedicated revenue from a tax on retail purchases of motor vehicle fuel requires a relatively large tax rate because the base to which that rate would be applied is relatively small compared with, for example, the base for a general sales tax on retail purchases. If for various policy reasons some fuel purchases are exempt from the tax, then the required tax rate on the remaining fuel purchases would be even higher.

The Metro Funding Panel estimated that a motor vehicle fuel tax rate of 11.1 cents per gallon of motor vehicle fuel purchases within the WMATA Compact region would be required to collect \$148 million in 2010. However, uncertainty about some of the assumptions underlying this estimate may make it less reliable than the panel's more straightforward estimates for some of the other revenue sources. For example, this estimate is based on an assumption that average fuel efficiency does not change throughout the period analyzed—until 2015. However, if fuel efficiency improves in response to high fuel prices, then the number of gallons purchased will be less than the panel estimated and the tax rate required would be higher than the panel estimated. In addition, the panel's estimate of the number of gallons of fuel purchased in the Compact region in the baseline period is based on an estimate from the Metropolitan Washington Council of Governments on the number of vehicle miles traveled within the Compact region. Using vehicle miles traveled introduces uncertainty in an estimate of fuel purchases because some driving in the Compact region is done by vehicles that were filled up with fuel outside the region, while some fuel purchased within the Compact region was used in cars driven outside the Compact region, and these two influences might not be completely offsetting.

Property Tax

Previous studies suggest that property tax revenues are moderately susceptible to economic fluctuations, but generally less so than sales and

income/payroll taxes, because assessed property values tend to vary less over the course of the business cycle than do retail sales or incomes. Fluctuations in property tax revenues due to changes in economic conditions are generally more predictable than those of other revenue sources because there is often a lag between changes in economic conditions and their effects on property tax revenues. This lag occurs because it often takes a while for changes in property values to be reflected in property assessments. However, this advantage in predictability is only captured using more sophisticated forecasting techniques that take into account economic indicators from the recent past. In addition, random fluctuations in property tax revenues are relatively small.

The evidence from previous studies on the long-run revenue growth of property tax revenues is inconclusive. Studies indicate that revenues exhibit widely variant long-run growth patterns at the county level, sometimes increasing faster than income and sometimes more slowly. Researchers have provided evidence suggesting that these large local disparities are generated by differing local economic conditions and implementation structures.

Collecting a specified amount of dedicated revenue from a property tax generally requires a relatively small tax rate because the base to which that rate would be applied is relatively large. The Metro Funding Panel estimated that a property tax rate of 3.44 cents per 100 dollars of assessed value in the WMATA Compact region would be required to collect \$148 million in 2010. Compared with some of its estimates for other revenue sources, the panel's estimate for the property tax was relatively straightforward and based on publicly available data, as was the sales tax estimate. However, long-run property value growth might differ from the growth rate in the past, which could cause the required tax rate to differ from the panel's estimate.

Access Fees

Access fees⁹ are not as widely used as the previously discussed revenue sources, and the economic literature on the characteristics of access fees is sparse. Intuition suggests that revenues would likely be stable in the face of economic fluctuations if the fee rate were set on a per-square-foot

⁹An access fee is a fee charged to property owners whose property benefits in value from the location of some nearby transportation infrastructure, such as a transit station. It is typically charged on a per-square-foot basis for property within a specified distance of the station.

basis, unless the property around a Metrorail station was relatively undeveloped and significant building was taking place or expected to occur.¹⁰ In this instance, rapid short-run growth in revenues would be expected until the development was completed.

Although access fee revenues would likely be relatively stable, long-run revenue growth would be limited if the fee rate were applied per square foot and remained the same over time. Revenue growth would only occur to the extent that taxable space increased and would likely be minimal, or even negative, in real dollars if the rate is not indexed for inflation. However, to the extent that revenue growth is due to increased development near stations, there might be a link between revenue growth and the increased demand for transit expenditures.

Collecting a specified amount of dedicated revenue from an access fee generally requires a fee rate that, especially compared with a property tax, is large relative to the assessed value of the property, because the base is much narrower than that of a general property tax. Many details could determine the required fee rate, such as the radius of the area around a rail station within which properties would be subject to an access fee.

The Metro Funding Panel estimated that an annual transit access fee rate of 30 cents per square foot of federal and commercial property within 0.5 miles of designated Metrorail stations would be required to collect \$148 million in 2010. The panel derived this estimate from data on the square footage of federal property and all commercial and hotel space within 0.5 miles of 63 Metrorail stations. If an access fee were in place, it might apply to additional categories of property not included in the estimated tax base, which would lower the required fee rate. However, if federal properties were not subject to the access fee, the required fee rate would be higher.

Vehicle Registration Fees

Revenues from vehicle registration fees are also likely to be relatively stable from year to year. In addition, their response to economic fluctuations is likely to lag because car ownership rates are not likely to vary much over the course of the business cycle, and any variation that might occur is likely to occur after a downturn, rather than during it.

¹⁰If the access fee is based on property values, not square footage, access fee revenue characteristics would be similar in spirit to those of the property tax, but with a much narrower base.

Long-run growth in vehicle registration fee revenues is unlikely to keep pace with economic growth. Car ownership rates are already so high that higher household income is unlikely to lead to a proportionate increase in the number of cars owned per household (for example, a doubling of average income levels is unlikely to lead to double the number of cars per household).¹¹ However, longer-term increases are possible in areas with high sustained levels of population growth and, therefore, vehicle ownership growth. This revenue source might provide less long-run adequacy for funding transit than those previously discussed because revenues over the longer term may change inversely with changes in the demand for transit expenditures. For instance, policy changes, increasing fuel prices, and increasing road congestion might lead households to use transit more and own fewer vehicles, causing the demand for transit to increase while revenues from vehicle registration fees are decreasing.

Collecting a specified amount of dedicated revenue from motor vehicle registration fees requires a relatively large fee rate because the base to which that rate would be applied is relatively small compared with sales, property and income taxes. If, for policy reasons, some types of motor vehicles were exempted from the fee, then the required fee rate would be even larger. The Metro Funding Panel did not evaluate motor vehicle registration fees as a funding source for dedicated revenues for WMATA and thus did not estimate the fee rate required to collect any specified amount or revenue.

¹¹This assessment assumes that vehicle registration fees are assessed as a fixed fee per vehicle. A vehicle property tax that is assessed as a percentage of the value of the vehicle would have greater growth potential because tax revenues could keep pace with inflation and because households whose incomes increase are likely to upgrade, or purchase more expensive vehicles, even though the total number of vehicles per household does not increase.

Appendix III: Revenue Sources Compared on the Basis of Administrative Cost, Equity, and Efficiency

We identified administrative cost, equity, and efficiency as key considerations in raising additional revenue on the basis of discussions with state and local public finance experts and public officials and a review of the relevant economics literature. Administrative cost includes the cost of collecting, enforcing, and remitting the additional revenue in addition to the compliance burden (e.g., out-of-pocket expenses for record keeping and time) placed on taxpayers and those paying fees. Additional administrative costs are likely to be large if revenue is increased by implementing a new tax or fee and relatively small for an increase in a tax or fee rate for a revenue source currently in place at the appropriate level (e.g., state or locality).

Economists often assess equity according to two principles:

- *Ability to pay principle.* Those who are more capable of bearing the burden (usually those with higher income levels) of taxes or fees should pay more in taxes and fees than those with a lesser ability to pay. A tax or fee rate structure is generally thought to be more equitable if it is consistent with this principle. Some tax or fee rate structures are also progressive—that is, the tax or fee liability as a percentage of income increases as income increases.
- *Benefit principle.* Those who pay for a service are the same individuals benefiting from the service.

Efficiency can be measured in different ways, but economists commonly use two concepts to evaluate the efficiency of a revenue structure:

- *Economic behavioral distortions.* This term refers to changes in individual decision making due to incentives in the tax or fee system that move the economy away from its most efficient outcome. Distortions are likely to be smaller when a tax or fee is applied to a broad base (both jurisdiction—who is taxed; and range—what is taxed) and rates do not differ significantly across neighboring jurisdictions.
- *Accountability.* Those benefiting from a service pay the full social cost of the service. If the beneficiaries do not have to bear the full cost, they may seek to have the government provide more of the service even when additional amounts of the service cost more than the value of the additional benefits provided, which would be inefficient. Although the concept that those who benefit from a service should pay for it is similar to the benefit principle for assessing equity, in discussing the effects of adherence to or deviation from this principle on efficiency we are concerned with the accountability it provides rather than the fairness.

**Administrative Cost May
Be a More Important
Factor in Selecting a
Source for Increased
Revenue Than Equity and
Efficiency Changes**

Our analysis suggests that if there are substantial differences in administrative costs among revenue sources selected to address a WMATA funding shortfall, these differences may be more important than equity and efficiency effects, particularly if the current formula for allocating local contributions to fund WMATA is retained and jurisdictions are allowed to choose their own revenue sources. There can be substantial differences in the equity and efficiency effects among the different revenue sources when they are being used to finance state and local government as a whole, and for at least some of the potential revenue sources we analyzed, these effects have been well studied in the economics literature. However, differences in the effects associated with funding a WMATA shortfall are likely to be much smaller because the increase in revenue needed is small compared with the revenue raised to fund overall state and local government operations. Moreover, equity and efficiency effects are sometimes difficult to measure, and there is a lack of consensus in the economics literature regarding the equity and efficiency implications for several of the revenue sources discussed below. In contrast, differences in administrative cost among revenue sources can be easier to identify and, therefore, more likely to affect decision making. These costs include items such as computer systems, forms, and collection devices, as well as the time spent by government employees and the individuals paying the tax or fee.

However, if the state and local jurisdictions served by WMATA implement a regionwide tax or fee—an approach proposed by the Metro Funding Panel but which does not have strong support among the Compact jurisdictions—then there could be substantial additional administrative costs as well as effects on equity and efficiency. Administrative costs might be high because no regional collection mechanism is already in place and implementation would require the coordination of collection and enforcement measures across multiple state and local jurisdictions. Equity and efficiency effects are also likely to be greater with the implementation of a regionwide tax because it would change the interjurisdictional allocation of WMATA payments for the shortfall. Changes in equity and efficiency would likely be even larger if a regional tax or fee were used to fund the entirety of state and local WMATA payments, not just the shortfall, because of the additional revenue involved.

Different Potential
Revenue Sources Have
Different Characteristics
When Assessed Using the
Key Considerations of
Administrative Cost,
Equity, and Efficiency

Sales Tax

Administrative costs associated with collecting additional revenue from a sales tax are likely to be relatively low, especially when compared with those associated with access fees and fuel taxes. Sales taxes are one of the two main funding sources at the state level (along with income taxes) and are often used to generate revenue at the local level and in special service districts; thus, tax collection procedures already exist in many places. Administrative costs could be more substantial if jurisdictions are faced with new collection requirements, such as implementing a local option tax where one does not already exist.

In terms of equity based on the ability-to-pay principle, economists have traditionally viewed the sales tax as regressive (although less so when food purchases at grocery stores are excluded from taxation); those with lower income levels pay a higher percentage of their income in sales tax than those with higher income levels. However, more recent analyses have identified some factors that suggest that sales taxes may be closer to proportional and less regressive than previously believed.

One factor is the economic incidence of the sales tax, or who actually bears the burden of a revenue source. In taxation, the individuals who bear the burden of a tax may or may not be the same individuals who remit the revenue to the government. For example, when a sales tax is added to a product, retailers remit the revenue to the government but they may or may not actually be bearing the burden of the tax. Retailers may leave the price of the product unchanged and simply add the sales tax to the price, in which case the consumer pays the full amount of the tax. Retailers might also reduce the price of the product by the amount of the tax so as not to lose sales, in which case the retailer bears the burden of the tax. Another possibility is that the price of the product might fall, but not by the full amount of the tax, in which case retailers and consumers share the burden of the tax. Traditional analyses of the sales tax have generally assumed that consumers bear the full burden of the tax, but more recent analyses have questioned that assumption. If the burden is

borne in part by retailers, then the sales tax may be less regressive than previously believed.

Another factor is the definition of income used in measuring progressivity or regressivity. Traditional analyses that have found the sales tax to be regressive have used annual income levels as the measure of income. More recent research has shown that lifetime income might be a more relevant measure of income as long as there are not severe constraints on an individual's ability to borrow. Using lifetime income, the sales tax appears roughly proportional. That is, people with varying levels of income spend approximately the same percentage of their lifetime income on consumption.

In terms of efficiency, evidence from theoretical and empirical studies suggests that the sales tax is distortionary in that it alters individuals' decisions about where and what to purchase. The sales tax diverts purchases from taxed items toward untaxed or lightly taxed alternatives (e.g., leisure, services, Internet sales, and retail in neighboring jurisdictions). However, the increase in the sales tax needed to collect the revenue associated with funding a WMATA shortfall is likely to be small enough to generate only minor changes in efficiency. The biggest distortions are likely to occur for purchases of items for which consumers are sensitive to small changes in the price of these items, which might happen if there are untaxed or lightly taxed alternatives that are close substitutes.

With respect to the benefit principle of equity and the accountability component of efficiency, the sales tax roughly matches the users of WMATA's services with the costs of those services to the extent that all local residents benefit from transit, and visitors to the Washington, D.C., region, who pay sales taxes while they are in that area, are also likely to use the services. However, from an equity perspective, the adherence to the benefit principle is limited because funding a shortfall with a sales tax does not guarantee that those who receive greater benefits pay more tax; that is, a sales tax is not well targeted toward transit beneficiaries. From an efficiency perspective, the link with accountability is weakened because heavy users of the transit system may advocate investment beyond the economically efficient level because they might not have to bear as large a share of the costs compared with the share of the benefits they would receive.

Payroll or Personal Income Tax The administrative cost associated with collecting additional revenue from a personal income tax could be relatively low if it is collected at the state level as part of existing state income taxes. However, a local income tax might create significant compliance costs for employers and individuals if it is accompanied by new forms and record-keeping requirements. A regional, state, or local payroll tax might also generate significant compliance costs for employers (in the case of a payroll tax collected at the employer level) if it requires additional record keeping and submitting revenues to a new source.

Regarding the ability-to-pay principle for equity, the economics literature has reached a general consensus that the burden of the tax is likely borne by employees in the case of payroll taxes and in proportion to income in the case of income taxes. The economic evidence suggests that employees probably bear most of the burden of a payroll tax through lower wages, even when legislation requires employers to pay half of the tax liability. As lower-income households rely more heavily on wage and salary income, the payroll tax is generally regressive, particularly at the bottom part of the income distribution, but the tax will be less regressive if there is a minimum threshold of wages for paying the tax and more regressive if there is a cap on the amount of income to which the tax applies. It is generally accepted in the economics literature that income tax liabilities are borne by individuals who remit the tax to the government; that is, the tax is not shifted to other individuals. Most income taxes are structured to be progressive: People with higher incomes typically pay a larger percentage of their income in taxes than those with lower incomes. Thus, the income tax is generally thought to be consistent with ability-to-pay principles. However, an income tax can be made regressive, proportional, or progressive depending on the tax rate structure and the distribution of deductions and credits.

Income and payroll taxes have unclear efficiency implications with respect to behavioral distortions because previous studies have not yielded a consensus on the degree to which they create distortions. Generally, payroll or income taxes that alter decisions about whether to work, how many hours to work, and how hard to work can cause distortions in the economy, but estimates of the behavioral responses to income taxes vary

widely.¹ However, there is some consensus that within households, income taxes are more likely to affect the work decisions of a secondary earner.²

With respect to the benefit principle of equity and the accountability perspective of efficiency, payroll taxes are likely to be better targeted toward beneficiaries than are personal income taxes. Like a sales tax, an income tax roughly matches the benefits of WMATA's services to the cost of those services, to the extent that all local residents benefit from transit, although, unlike a sales tax, an income tax does not directly collect revenue from visitors to the Washington, D.C., region who might also benefit from WMATA. However, from an equity perspective, the adherence to the benefit principle is limited because funding a shortfall with a personal income tax does not guarantee that those who receive greater benefits pay more tax. From an efficiency perspective, the link with accountability is weakened because heavy users of the transit system may advocate investment beyond the economically efficient level because they might not have to bear as large a share of the costs compared with the share of the benefits they would receive. A payroll tax is likely to be better targeted to transit beneficiaries because some groups of people who would be affected by a personal income tax but not a payroll tax, such as retirees, might be less likely to benefit substantially from further investment in mass transit than workers. Targeting of a payroll tax could be enhanced if it applied to all of those who work in the WMATA Compact region; income taxes are likely to apply to those who live in the Compact region, which would leave out those who work in the region and benefit from transit even though they live elsewhere (and would include those

¹See, for example, Martin Feldstein, "The Effect of Marginal Tax Rates on Taxable Income: A Panel Study of the 1986 Tax Reform Act," National Bureau of Economic Research Working Paper No. 4496 (1993); James P. Ziliak and Thomas J. Kniesner, "Estimating Life Cycle Labor Supply Tax Effects," *Journal of Political Economy*, vol. 107, no. 2 (April 1999); Jon Gruber and Emmanuel Saez, "The Elasticity of Taxable Income: Evidence and Implications," National Bureau of Economic Research Working Paper No. 7512 (2000); and the references contained therein.

²The analysis is further complicated in that an income tax with a graduated rate structure (the statutory rate is higher at higher levels of income) might create efficiency benefits by providing implicit insurance to individuals. The implicit insurance is triggered when a household experiences a loss in income significant enough to place them in a lower tax bracket. The tax savings from being in a lower bracket helps offset the income loss. (The insurance effects might be quite small at the state and local level because they are greater in systems with more brackets and larger rate differentials.) The full efficiency effects of an increase in the income tax must include both the distortions to work decisions and the effects on implicit income insurance.

who live in the region but work outside the region and might not benefit as much from transit).

Motor Vehicle Fuel Tax

The administrative cost associated with collecting additional revenue from a motor vehicle fuel tax may be substantial if some portion of this tax applied only within the WMATA Compact region and was collected at the retail level. Typically, motor vehicle fuel taxes are collected at the distributor level, including in the District of Columbia, Maryland, and Virginia. Collection at the retailer level would most likely involve additional record keeping for retailers and added costs for local jurisdictions, including setting up a revenue collection procedure, developing standards for record keeping, and enforcing compliance with the tax.

The equity implications with respect to ability to pay for the motor vehicle fuel tax are uncertain. Studies indicate that higher-income households own more cars and drive more total miles, suggesting that they will pay more in motor vehicle fuel taxes than lower-income households, but it is uncertain whether this larger amount of tax paid will represent a larger or smaller share of household income. Given that rates of automobile ownership are fairly high at all income levels beyond the very lowest, the motor vehicle fuel tax may be regressive throughout much of the income range.³ In addition, higher fuel costs increase the cost of travel and of transporting goods. This added cost is more likely to be reflected in the prices of goods for which the demand is relatively unresponsive to changes in prices, or necessities such as food, clothing and prescription drugs, rather than in the prices of goods and services that are considered to be more luxury items. As lower-income households spend a larger portion of their incomes on necessities, this effect of the motor vehicle fuel tax would be expected to be regressive.

The motor vehicle fuel tax has an ambiguous effect on efficiency with respect to behavioral distortions from a conceptual viewpoint, and there is too little empirical evidence to arrive at a conclusion. Motor vehicle fuel tax increases within a region decrease efficiency to the extent that they lead drivers to waste resources traveling to service stations outside the region to find lower prices. However, this loss in efficiency might be partially or fully offset if the tax increase makes the total fuel price closer

³One offsetting factor is that lower-income drivers might tend to own more fuel-efficient vehicles, which would reduce the regressivity of a motor vehicle fuel tax.

to the full social cost imposed by driving (including the cost of the fuel as well as the inconvenience imposed on others due to congestion and pollution).

The motor vehicle fuel tax may be less equitable with respect to the benefit principle and less efficient from an accountability perspective than a sales or personal income tax. Because of differences in car ownership and driving patterns that are unrelated to income, there is likely to be more variance at any income level in the burden of a motor vehicle fuel tax than with a sales or personal income tax, so that even if the benefits of transit accrue to the population as a whole, there is weaker targeting of the tax toward beneficiaries with a motor vehicle fuel tax. Furthermore, when considering specific transit benefits, the link between transit beneficiaries and those who pay the motor vehicle fuel tax is likely to be weak. However, there is a clear link for automobile commuters and others driving at peak times because they benefit from reduced congestion. In contrast, those who drive at nonpeak times and those who do not drive near the transit corridors also pay the motor vehicle fuel tax while receiving little or no benefit. In addition, transit users who do not own motor vehicles will not directly pay any of the tax, although they could be among the largest beneficiaries. As transit users and businesses near transit lines, not automobile commuters, are likely to be the largest beneficiaries of transit services, they may advocate investment beyond the economically efficient level because they might not have to bear as large a share of the costs compared with the share of the benefits they would receive.

Property Tax

The administrative cost associated with collecting additional revenue from a property tax may be the lowest of the revenue sources we have analyzed. Property taxes are the main funding source for local governments, so tax collection procedures are already in place. Administrative cost would be greater if local jurisdictions tried to uniformly implement all or a portion of a regionwide property tax because they are likely to have different administrative procedures, including how and when assessments are made and the relationship between market value and assessed value.

The equity effects of an increase in a property tax are uncertain because property taxes generally represent a combination of a land tax and a tax on the structures on the land, and the incidence of those two taxes varies. In addition, there are different views on the incidence of property taxes. The traditional view of the property tax suggests that the portion of the tax that applies to land value is likely borne by land owners, making the tax progressive because higher proportions of land are owned by higher-

income individuals. However, the portion that applies to structures is likely borne by those who consume the services of the structures—including residents of owner-occupied housing and renters—and previous studies suggest that this portion is proportional or regressive, depending on the measure of income used. Thus, the overall effect is ambiguous. The new view of the property tax suggests that the burden of the property tax is borne by all capital owners. Assuming that capital ownership rises with income, this view suggests that the property tax may be progressive.

With respect to efficiency pertaining to behavioral distortions, property taxes taken by themselves might be considered inefficient because they lead to less investment in structures. However, when the effects of other taxes are considered as well, increases in property tax might enhance efficiency. Because the favorable income tax treatment of investment in housing creates incentives for investment in housing beyond the efficient level, raising the property tax could partially offset these incentives and increase efficiency.⁴

With respect to the benefit principle of equity and the accountability component of efficiency, the property tax roughly matches the beneficiaries of WMATA service with its cost to the extent that all property values are enhanced by the provision of WMATA's services. However, from an equity perspective, the adherence to the benefit principle is limited because funding a shortfall with a property tax increases the tax paid by all property owners, while some property owners would receive most of the benefits. That is, like a sales or personal income tax, a property tax is not well targeted toward beneficiaries, although it may be better targeted than those other taxes to the extent that higher property taxes are collected from owners of properties for which the value has risen over the years due to nearby transit service. Similarly, the link with accountability is weakened because heavy beneficiaries of the transit system, including owners of property with good transit access, may advocate investment beyond the economically efficient level because they might not have to bear as large a share of the costs compared with the share of the benefits they would receive.

Access Fees

The administrative cost associated with collecting additional revenue from access fees is likely to be substantial, perhaps larger than for any of the

⁴The ability to deduct property taxes from income in computing income tax liability limits the extent of this offset.

other revenue sources that we analyzed. The use of access fees would likely involve significant additional administrative cost because local governments would have to develop a new system for implementation, collection, and enforcement. In addition, there would be an increased compliance burden on owners of commercial property located near Metrorail stations because record-keeping requirements would increase.

The equity effects of access fees are uncertain because of uncertainty about the incidence of these fees. The burden might be split among property owners, renters, employees, and consumers, depending on the ability of property owners to shift the tax burden to others through price and wage changes, and the economics literature does not contain sufficient empirical evidence to draw conclusions about how much of the burden would fall on each group.

There is also little existing evidence on the efficiency of access fees with respect to behavioral distortions, although economic reasoning suggests that there might be some small efficiency losses. Access fees increase the cost of developing land near transit stations. To the extent that fees are paid out of profits or windfall gains (due to increases in property values) and do not alter decisions on where to build, there are no efficiency effects. However, if an access fee renders an otherwise profitable venture unprofitable, it creates inefficiency by discouraging development around transit services.

With respect to the benefit principle of equity and the accountability component of efficiency, access fees are most closely targeted to the beneficiaries of transit service. Those who own property, live, and work near transit services are most likely to draw large benefits from the system and would likely bear a large portion of an access fee. This close connection between beneficiaries and costs would lead to increased efficiency, as there would be no incentive to advocate investment beyond the efficient level because the costs would largely fall on the beneficiaries.

Vehicle Registration Fees

The administrative cost associated with collecting additional revenue from motor vehicle registration fees is likely to be relatively low, especially if the increase in revenue is achieved by just increasing the amount of the fee already collected. Some complexity might be added if the additional revenue is collected at a jurisdiction level not currently imposing a registration fee. In either case, there will likely be little or no increase in individual compliance costs, as there would likely be no additional record-keeping requirement. Compliance costs would increase if vehicle owners

were required to make an additional trip or travel to a different location to pay the registration fee.

The equity implications with respect to ability to pay for vehicle registration fees depend on the differences in vehicle ownership rates among income groups and the structure of the fee schedule, such as whether it is a flat fee per vehicle or a fee rate that is based on the value of the vehicle. Studies indicate that higher-income households own more cars, suggesting that they will pay more in vehicle registration fees than lower-income households, but it is uncertain whether this larger amount of tax paid will represent a larger or smaller share of household income. Households owning no vehicles tend to have lower incomes, and those households would pay nothing in vehicle registration fees. However, given that rates of vehicle ownership are fairly high at all income levels beyond the very lowest, throughout much of the income range, a flat vehicle registration fee may be regressive. On the other hand, a vehicle registration fee that is applied to the value of the vehicle is likely to be less regressive than a flat fee because the average value of vehicles owned is higher for higher-income households. Nonetheless, there is empirical evidence on the equity effects of vehicle property taxes, which resemble registration fees based on vehicle value, that these taxes are regressive.

With respect to efficiency pertaining to behavioral distortions, vehicle registration fees make owning a vehicle more expensive, and an increase in a flat fee would be expected to reduce the level of vehicle ownership, although the reduction would likely be minimal.⁵ There are negative effects on efficiency resulting from vehicle owners not facing the full costs that their vehicle use places on others (including the inconvenience and health effects imposed on others due to congestion and pollution). These negative effects could be mitigated to some extent by the reduction in vehicle ownership brought about by additional fees. However, this efficiency gain may be small because a fee imposed at the vehicle registration level only minimally discourages vehicle ownership and does nothing to increase the cost of driving the vehicle on any given trip. Thus, a fee increase would provide no incentives for reduction in the number of trips taken by individuals who do own vehicles.

⁵A fee that is based on vehicle value would have more complex effects on vehicle ownership because households might substitute quantity for quality. For more discussion of this issue, see Erik D. Craft and Robert M. Schmidt, "An Analysis of the Effects of Vehicle Property Taxes on Vehicle Demand," *National Tax Journal*, vol. LVIII, no. 4 (December 2005).

Like a motor vehicle fuel tax, a vehicle registration fee may be less equitable with respect to the benefit principle and less efficient from an accountability perspective than a sales or personal income tax. Because of differences in vehicle ownership that are unrelated to income, there is likely to be more variance at any income level in the burden of a vehicle registration fee than with a sales or personal income tax, so that even if the benefits of transit accrue to the population as a whole, there is weaker targeting of the cost burden toward beneficiaries with a vehicle registration fee. Furthermore, when considering specific transit benefits, the link between transit beneficiaries and those who pay the vehicle registration fee is likely to be weak. Automobile commuters and others driving at peak times benefit from reduced congestion, so for them there is a clear link. However, those who drive at nonpeak times and those who do not drive near the transit corridors also pay the vehicle registration fee while receiving little or no benefit. In addition, transit users who do not own motor vehicles will not directly pay any of the fee, although they could be among the largest beneficiaries. As transit users and businesses near transit lines, not automobile commuters, are likely to be the largest beneficiaries of transit services, they may advocate investment beyond the economically efficient level because they might not have to bear as large a share of the costs compared with the share of the benefits they would receive.

Appendix IV: GAO Contact and Staff Acknowledgments

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