



# The Maryland Transit Funding Study Steering Committee

## *Committee Report*

*January 2007*



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## INTRODUCTION

Facing mounting pressures to provide additional capacity and other capital investments to the major public transportation systems serving the State's major metropolitan areas, the General Assembly created Senate Bill 850 which directs the State to undertake a study documenting the transit investment and funding needs over a twenty year time horizon.

Specifically, SB 850 calls for the study to include the following:

- An analysis of operating and capital funding needs for transit in Maryland over a twenty year time horizon. This is to be an unconstrained and comprehensive analysis addressing all aspects of preserving, enhancing, operating, and maintaining the state's transit system.
- A review of how transit services are funded throughout the United States, focusing on cities with large transit systems.
- Identify potential State funding strategies that would enhance resources as needed.

Further, the bill provides for the formation of the Transit Funding Study Steering Committee to provide direction on the study process and any recommendations. The Transit Funding Study Steering Committee was to include the following representatives

- Three members of the Senate of Maryland, appointed by the President of the Senate;
- Three members of the House of Delegate, appointed by the Speaker of the House;
- The Secretary of Transportation, or the Secretary's designee
- The Secretary of Budget and Management, or the Secretary's designee.

A final report is to be submitted to the General Assembly. SB 850 directs that the report to be submitted on December 15, 2006. However, the Steering Committee approved the submission of an Interim Report in December, with the Final Report to be submitted by mid January. This report serves as that document.

## ***The “Davis Bill”***

Interest in the issue of transit funding by members of the General Assembly was heightened by the introduction of H.R. 3496, legislation introduced to Congress by U.S. Representative Thomas Davis of Virginia. H.R. 3496 authorizes an additional contribution of federal funds to be appropriated over a ten year period to address a predicted \$300 million annual capital funding gap at the Washington Metropolitan Area Transit Authority. This federal funding is to be matched equally by members of the WMATA compact, which includes the State of Maryland, the District of Columbia, and the Virginia counties of Arlington and Fairfax.

The bill requires amendments to the existing regional Compact agreement between WMATA and the local signatory governments. These amendments call for each of the local governments to provide their share of the local match to the federal allocation from revenues generated from dedicated funding sources. As defined by the bill, these sources refer to “any source of funding which is earmarked and required under State or local law to be used for payments to the Transit Authority.”

Lastly, the bill requires regional compact amendments establish an Inspector General assigned to the Transit Authority and an additional four representatives added to the WMATA Board to provide additional oversight of WMATA operations and management. These representatives will include at least one customer of WMATA bus or rail transit services.

The U.S. Congress adjourned in December 2006 without enacting this bill. It is likely that this bill, or a similar bill, will be introduced in the next Congress.

## ***Meeting the Challenge: Study Approach***

The Transit Funding Steering Committee was formed during the late summer of 2006 to address the requirements of S.B. 850. As noted earlier, the Steering Committee consists of legislative representatives and two Department Secretaries, or their assigned designates. Its members are listed below.

### **Transit Funding Steering Committee**

Secretary of Transportation Robert Flanagan

Senator David Brinkley

Senator James DeGrange

Senator Rona Kramer

Delegate John Bohanan

Delegate Sheila Hixson

Delegate Maggie McIntosh

David Treasure, Department of Budget and Management

The study approach considers each of the issues called for by the General Assembly in S.B. 850 using a series of meetings with the Steering Committee focused on a separate issue:

- Meeting 1: Establish a Context: Maryland Transit Services and Funding
- Meeting 2: Learning from Others
- Meeting 3: Understanding Our Needs

The first Transit Funding Steering Committee meeting took place on October 20, 2006. That meeting focused on discussing the transit system and services that are currently funded and managed by the State of Maryland today. At that meeting, MDOT staff presented current and historical information about the transit services operated and funded in the State of Maryland. Additionally, the committee heard information about transit expenditures and sources of revenues.

The second Transit Funding Steering Committee meeting was held on November 29, 2006. Members were addressed by a panel of representatives from WMATA compact jurisdictions about how they fund transit. Additionally, MDOT consultants provided an overview of transit funding around the United States. The meeting concluded with public testimony from Maryland transit stakeholders including business groups, user groups, local government, and other interested parties.

A third meeting was held on December 18, 2006. At this meeting, MDOT consultants presented members with an assessment of transit needs and estimated costs for addressing those needs over the next twenty years. A series of alternative strategies for addressing the needs was suggested for consideration by members. The transit needs and funding projections presented by staff were based upon historical data as well as projects and initiatives that have been identified for transit by the Department.

## ***Purpose and Contents of Report***

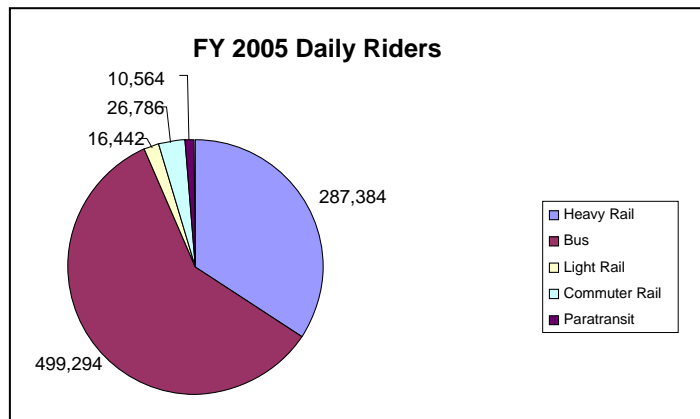
This report summarizes the information collected, analyzed and presented to the Maryland Transit Funding Study Steering Committee. The report is organized by each of the three major elements of the study process. Each of the presentations given to the Steering Committee is currently available for public review on the Maryland Department of Transportation website.

## **TRANSIT IN MARYLAND – AN OVERVIEW**

Maryland is home to two major urbanized transit systems featuring high capacity rail, local bus services, and extensive paratransit services. In addition, Maryland's transit system includes a comprehensive network of commuter bus and rail serving the D.C. and Baltimore employment centers and is the grant recipient and overseer of 24 locally operated transit systems providing traditional bus services, paratransit and other specialized services targeting specific transit customers.

The Maryland Transit Administration (MTA), a modal agency of the Maryland Department of Transportation is the designated recipient of federal transit grants with oversight responsibility for transit operating in all areas in Maryland except for the Washington, DC metropolitan area. MTA also owns, operates and manages transit services in the Baltimore region while overseeing contracted commuter bus, commuter rail, and paratransit services. The State participates as a managing and funding partner of transit in the Washington D.C. region through its participation on the Washington Metropolitan Area Transit Authority (WMATA) Board of Directors. WMATA provides heavy rail, local bus, and paratransit services in the Washington, D.C. metropolitan region, including Prince Georges and Montgomery Counties.

Transit is a vital form of transportation to the State of Maryland. In 2005, transit services around the state served a total of 840,440 daily riders. The vast majority of daily transit trips are taken by bus, including local bus and commuter bus services. This is followed by heavy rail transit provided in both the Baltimore and



Washington regions. Commuter rail services follow, illustrating the significance that longer distance commuting transit plays in serving the State's economy. Paratransit and light rail comprise the remaining transit ridership markets. Each of these services will be examined in detail in the sections that follow.

## ***Heavy Rail***

Two separate heavy rail systems operate in Maryland, each serving a different metropolitan region. Heavy rail is a high capacity, high frequency premium transit service that operates both in subway tunnels and above ground at street level and on elevated tracks. Heavy rail operates both in central city urbanized "walk up" stations and at suburban stations with parking available for patrons. Services tend to be oriented in a spoke and wheel orientation, directing travel to and from urban central business districts and providing connectivity through large transfer stations.

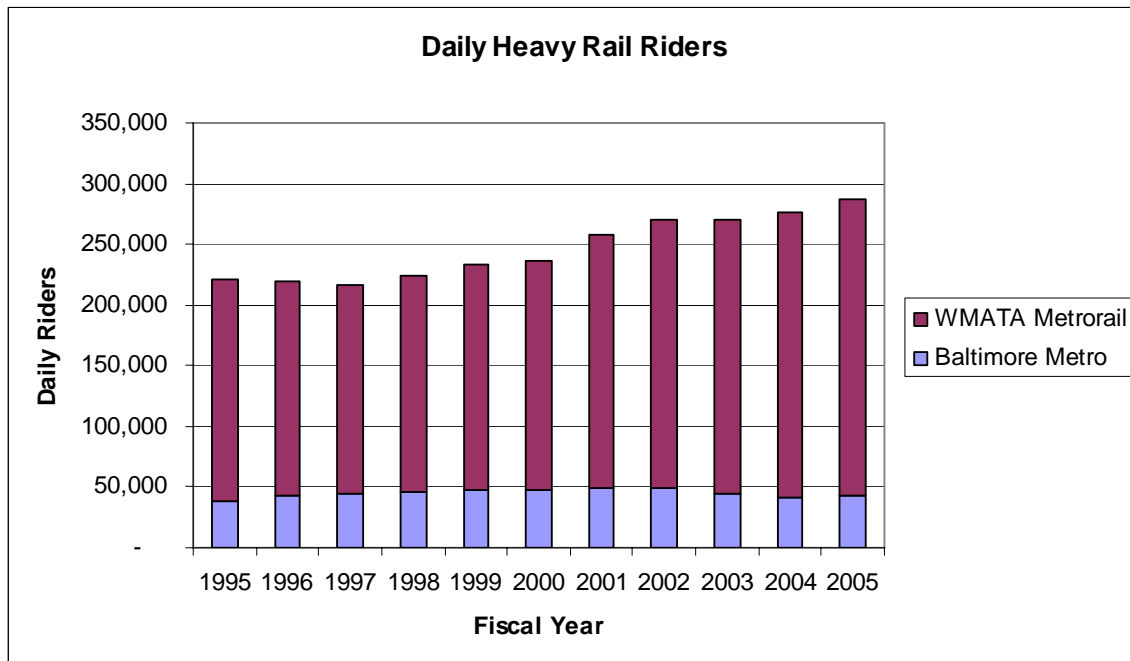
The Washington Metrorail system was the first to offer heavy rail transit services. Service was initiated at the Silver Spring station in 1978. Over time Metrorail service has expanded to include a total of 26 stations and 38 one-way directional route-miles in Maryland. The WMATA Metrorail system is a comprehensive regional service that includes a total of 106 miles of one-way directional route miles and 86 stations in Maryland, Washington, D.C., and Virginia.

The Baltimore Metro system was first opened in 1986 with a single line operating from Reisterstown Plaza to Charles Center in downtown Baltimore. Service has expanded twice since that time to now extend from Owings Mills station in Northwest Baltimore County to Johns

Hopkins Hospital in East Baltimore. There are a total of 14 stations in operation today and 29 one-way directional route miles.

Heavy rail requires a wide range of equipment and personnel that drive the costs of operations and maintenance. Both systems in the Washington and Baltimore regions are over twenty years old. Rail cars need regularly scheduled overhauls and replacement in accordance with federal requirements and acceptable standards of practice. WMATA currently owns 952 rail cars in its fleet and the Baltimore Metro owns 100. Elevators, escalators, fare equipment, communications, and security all contribute to the costs of operating a heavy rail system.

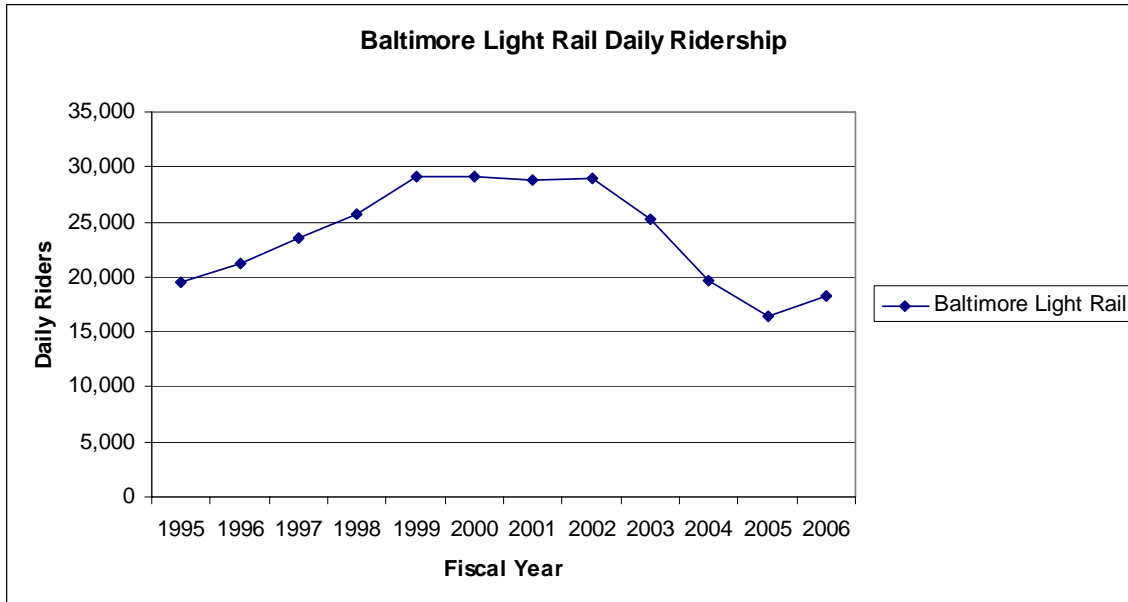
As noted earlier, heavy rail is a popular service in the State's urbanized areas, serving well over 280,000 patrons on an average weekday. This popularity has grown over the years as service has expanded, fueled by population and employment growth in the service areas.



### **Light Rail**

Light rail currently only serves the Baltimore region. The Central Light Rail Line operates 2 routes on 37 route-miles, serving 33 stations. The Central Light Rail system serves downtown Baltimore as it extends from Hunt Valley, an employment center in Baltimore County, to





Cromwell in Anne Arundel County, and the BWI-Thurgood Marshall Airport. Light rail service has expanded several times over the years. Service was initiated between Timonium to Camden yards, soon followed by an increase in service to Patapsco. Service expansions to Cromwell, BWI Airport, and a Penn Station shuttle followed.

Light rail offers high capacity transit service that operates trains on tracks that are largely separated from general motorized traffic. After operating largely on single tracks for a number of years, the MTA invested in a double-tracking of the system which required long-term cessations of service. Complete service, with major improvements in service frequency and reliability, was provided again in 2005. It is expected that ridership will return and continue to grow with these service improvements.

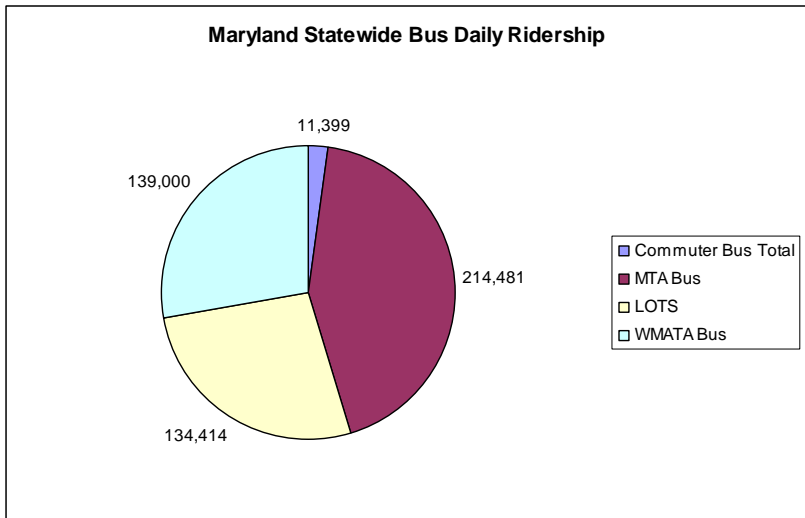
Factors that influence investments in light rail include security equipment and personnel, fare machines, communications equipment, vehicle and equipment maintenance, and energy costs. Parking is available at many of the State's light rail stations. The need for additional parking to address increased demand is anticipated at several stations.

### **Local and Commuter Bus**

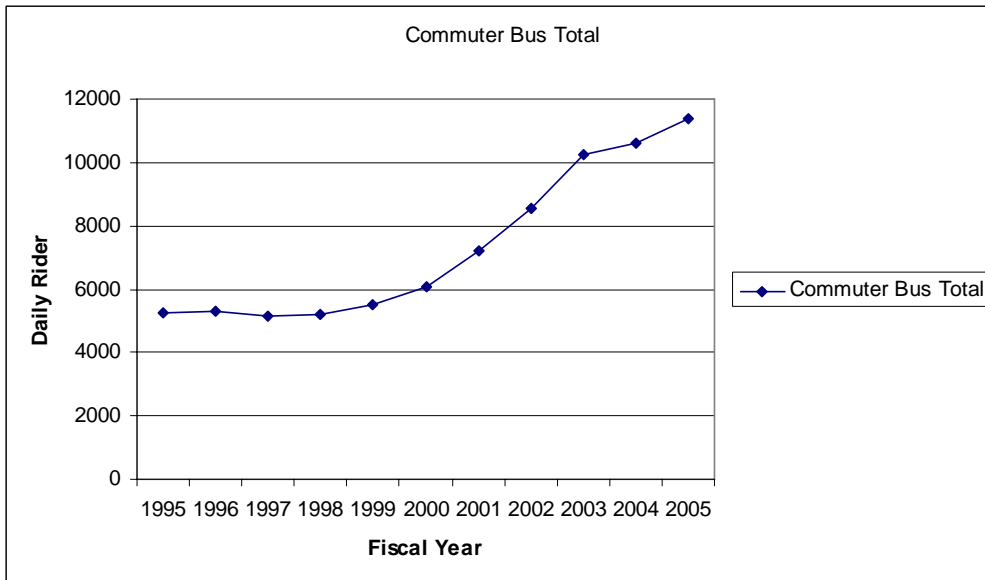
The core transit service in the State of Maryland is bus transit. Buses operate extensively throughout the state on a variety of local, express, and commuter routes. The MTA operates 78 local, express, and commuter buses throughout the Baltimore region. WMATA operates

127 bus routes in Maryland. Well over half of Maryland’s locally operated transit systems (LOTS) operate traditional bus services. And, the MTA contracts service on 27 commuter bus routes that use private contractors to operate over-the-road coaches on longer distance routes serving downtown Baltimore and Washington employment destinations.

Almost 500,000 daily trips are taken on Maryland bus routes. MTA bus services lead daily ridership figures with over 200,000 daily trips. This is followed by trips made on WMATA bus services, LOTS services, and commuter bus.



The introduction and expansion of premium rail services in the State’s urban areas, has been accompanied by steady and declining bus ridership in those areas. Meanwhile the growth of Maryland suburban and rural communities has driven the growth of many Maryland LOTS and the commuter bus networks serving DC and Baltimore employment. Systems that have seen a great deal of growth in recent years include Montgomery County’s Ride On, Frederick County’s Translt, and Charles County bus services. Some of these local systems include highly sophisticated operations, such as Montgomery County’s Ride On. Given the size of their local populations, bus services in Montgomery and Prince George’s Counties serve over 72% of total daily riders on the Maryland LOTS. Similarly, commuter bus routes serving Southern Maryland communities continue to show growth as Southern Maryland increases its growth as a bedroom community to Washington, D.C. Local and commuter bus services will continue to grow in response to economic development and land use trends. As cities and inner suburbs revitalize and draw additional population, demand for high quality local bus services should continue to grow.



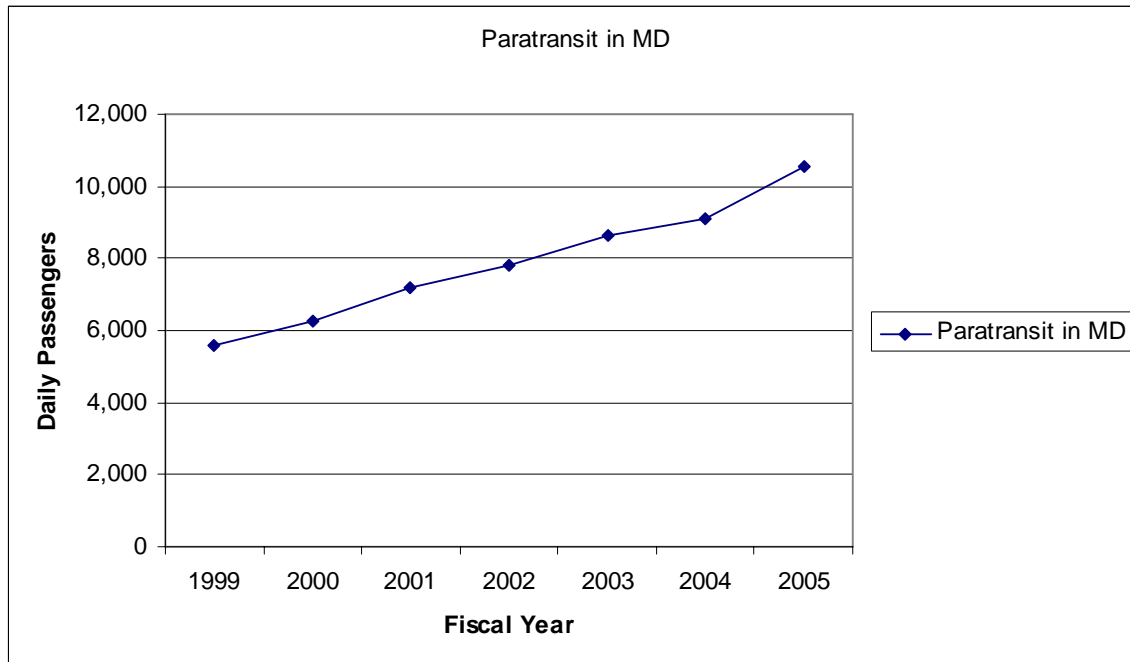
Bus systems require considerable investments in labor, equipment and services to operate effectively. Over 2,000 buses are in service in the Baltimore and Washington local bus systems alone. Bus fleets are in a continuous cycle of maintenance and replacement in order to fulfill vehicle life expectancies. Unlike rail vehicles that are replaced about every 25 years, buses are replaced on about a 12-15 year cycle, with smaller more specialized vehicles being replaced more frequently.

Vehicle costs range from \$67,000 for the smallest vehicles to over \$500,000 for larger articulated models. Bus service technologies offer cleaner and alternative fuels, better accessibility to wheel chairs and other patrons with low floors, fare collection systems that increase the efficiency of collecting fares among modes while collecting data on transit riders, and vehicle locator systems that offer improvements in service reliability and security. These technologies are improvements that improve the quality of service and reduce operating costs, but they add to the cost of a transit vehicle.

Fleets require large maintenance facilities for their maintenance and storage. The MTA has four such facilities located throughout their service area. Each of these facilities is aging and in need of substantial repairs and other investments.

## Paratransit

Paratransit is a specialized transit service that addresses the transportation needs of disabled and elderly populations. Access to transportation for these populations is guided by requirements contained in key federal legislation, particularly the Americans with



Disabilities Act of 1990. A portion of the federal transit funding Maryland receives is specifically dedicated to serving these populations. By law, a system of paratransit must be “comparable and complimentary” to fixed route bus and rail services provided for a given jurisdiction. Similar requirements do not exist for parallel paratransit services to commuter bus and rail services. Federal law also guides the identification of eligible recipients of paratransit services.

Paratransit services are provided by a range of modes, including specially equipped cars, vans and buses. Most paratransit service in Maryland is contracted out. Taxi vouchers are also a means of providing eligible populations with paratransit service. These services can be demand response, made by reservation and/or by subscription. Given the curb-to-curb nature of most paratransit services, the need for specialized vehicles and complex scheduling systems, the operating cost per passenger for paratransit is very high compared to other transit services. For example, in FY 2004, the MTA had an operating cost per passenger of almost \$34 for paratransit compared with \$2.32 for traditional bus services.

Ridership on Maryland's paratransit services has grown steadily in response to expanding federal eligibility criteria and other factors.

### ***Other Transit Services and Programs***

Maryland's LOTS provide a wide range of specialized services to meet the transportation needs of the State's rural and suburban residents. In addition to traditional bus services and paratransit services targeting elderly and disabled residents, Maryland transit agencies provide services designed to provide residents with access to jobs that are not accessible by other forms of public transportation. Maryland LOTS also coordinate transportation services with a number of local human service agencies that provide transportation to their constituencies. Lastly, some locally operated transit systems coordinate area rideshare and vanpooling services.

### ***Maryland Commuter Rail Service (MARC)***

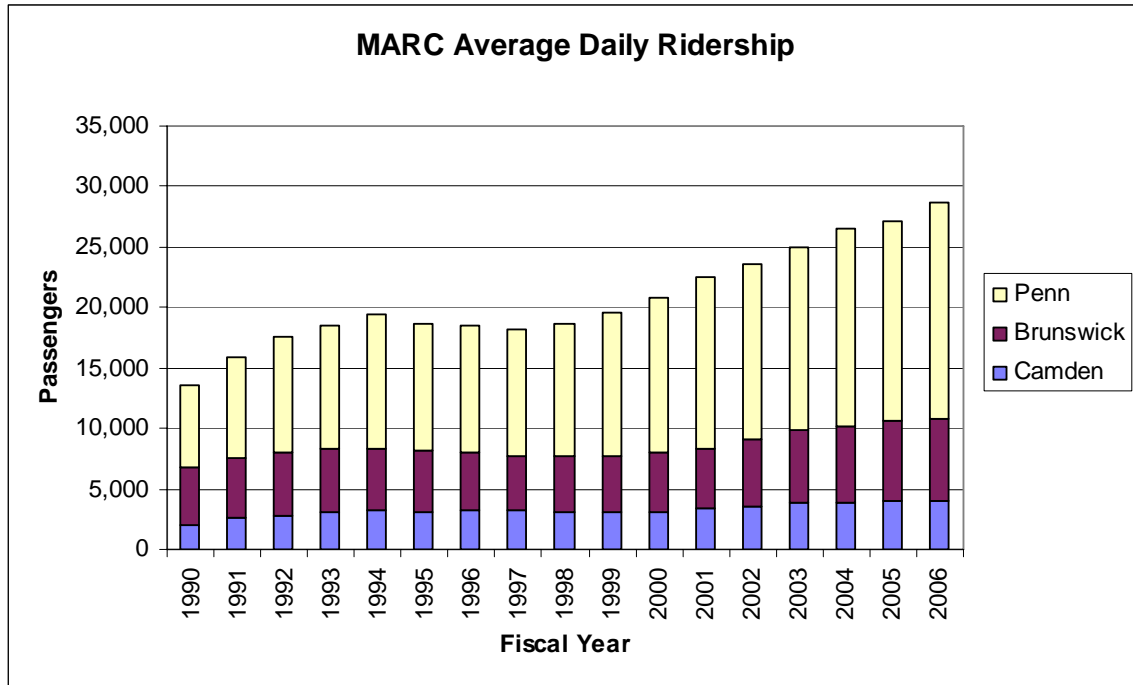
Operating on historic passenger rail lines, whose origins date back to the 1830s, Maryland's Commuter Rail services have long enabled long distance commutes from Maryland's rural communities in Western and North central Maryland to jobs in the Baltimore and Washington central business districts (CBD). Similarly, MARC facilitates commuter traffic between the State's two major CBDs. Using contract agreements with Amtrak and CSX, Maryland operates three commuter rail lines:

- The Penn Line operates between Washington Union Station and Baltimore Penn Station with limited service to Perryville.
- The Camden Line operates between Washington Union Station and Camden Yards in downtown Baltimore.
- The Brunswick Line operates between Washington Union Station and Point of Rocks, Maryland.

MARC is purely a commuter service. Service frequencies are greatest during the morning and evening commuting hours. Service is limited during the mid-day and evenings and is not provided at all on weekends.

Population growth along MARC service lines, employment growth and increased congestion on major highways serving downtown Baltimore and Washington D.C. has fueled increased demand for MARC services. Unfortunately, Maryland's contract agreements with Amtrak and CSX for access to rail lines, stations, and services have limited the State's ability to respond to such growth. Trains operating above capacity

(standing room only), and delays caused by equipment malfunctions and trains being held back to allow priority Amtrak and freight trains to pass are not uncommon occurrences. Despite these inconveniences, demand for MARC train service remains strong.



In an effort to address growing demands, MTA has invested in bi-level cars and additional parking at some stations to expand service capacity. MTA currently has a vehicle fleet of 60 single level and 62 bi-level cars. As with other transit vehicles, these require regular service and overhauls. Replacement is required about every 30 years. Costs average about \$2.2-2.4 million per vehicle.

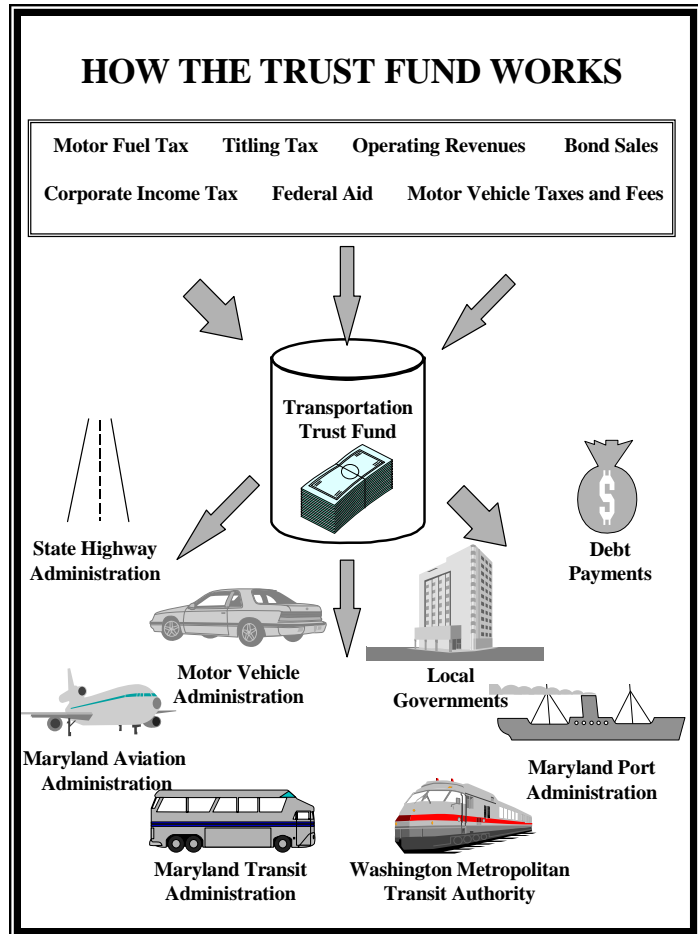
***Transit Funding In Maryland***

Transit is one of several modes that are funded using the Maryland Transportation Trust Fund (TTF). The TTF was created in 1971 to act as a dedicated source of revenues to support the Maryland Department of Transportation. The fund supports all of the Department’s activities including debt service, modal agency operations, and capital projects.

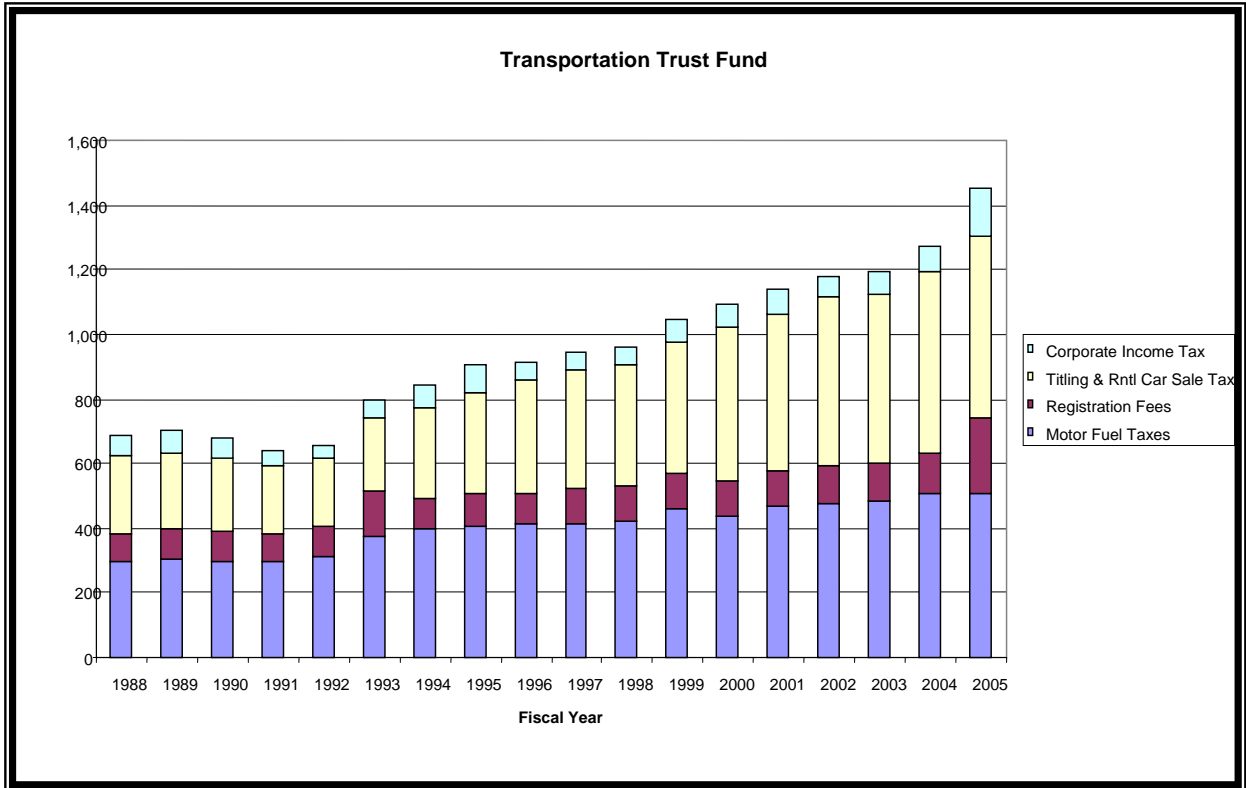
Several sources of revenues make up the TTF. They include:

- Motor vehicle fuel tax of 23.5 cents per gallon gasoline, 24.25 cents per gallon of diesel fuel, and 7 cents per gallon of aviation fuel;

- Motor vehicle registration and other fees;
- Motor vehicle titling tax of 5% of the fair market value of new and used vehicle sales and those of new residents;
- Corporate income tax – 24% of the State’s 7% corporate income sales tax is reserved for the TTF;
- Operating revenues – from transit fareboxes, MPA terminal operations, MAA flight activities, fees, parking and concessions;
- Federal funds – authorized by the U.S. Congress. The recently passed SAFETEA-LU legislation authorized \$720 million in annual funds to the Department; \$580 million in highway programs and \$140 million of that in transit funds.



The TTF is predominantly comprised of motor vehicle and other user fees. These offer a stable source of revenue for the Department. Because the motor vehicle fuel tax is a flat fee, rather than charged as a percentage of retail prices, revenues from that source do not grow with inflation.



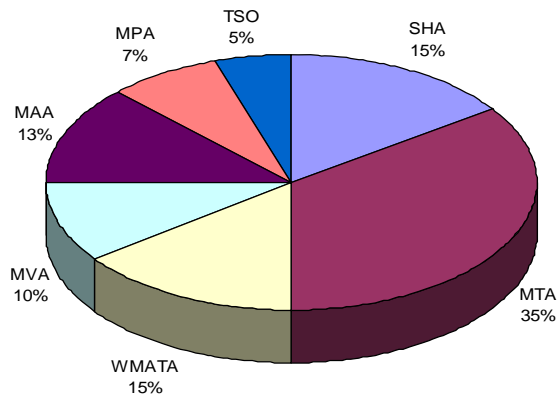
As noted earlier, MDOT uses the TTF to pay for all transportation needs in the State, including transit. The FY 2006 uses show that transit throughout the State, including WMATA, obtained about 27% of total funding for that year. This amount varies each year depending upon the status of various initiatives and needs throughout the Department. Transit generally receives about 35% of total MDOT expenditures.

Transportation expenditures generally fall into two categories: operating and capital. Capital expenditures go towards investments in capital and infrastructure, including project construction, equipment, vehicles, fuel, and other facilities. Operating expenditures are used to pay for the services and labor that go into transportation system operation, including security personnel, drivers, maintenance activities and employees, and more.

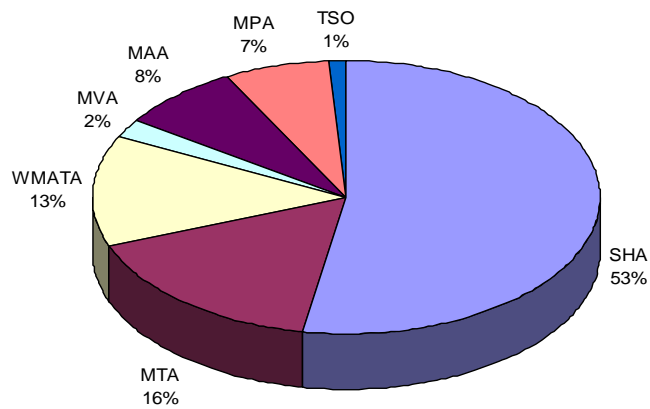
The following shows how the FY 2007-2012 transportation program is divided into operating and capital expenditures by mode. Transit comprises half of the State's transportation operating budget and about 30% of the State's capital budget.



## Operating Expenditures



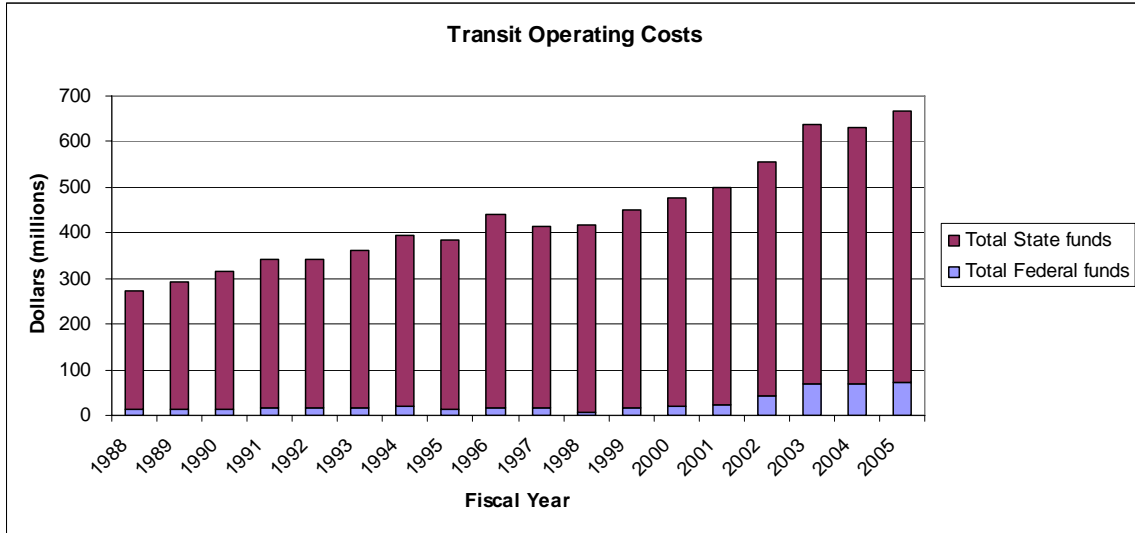
## Capital Expenditures



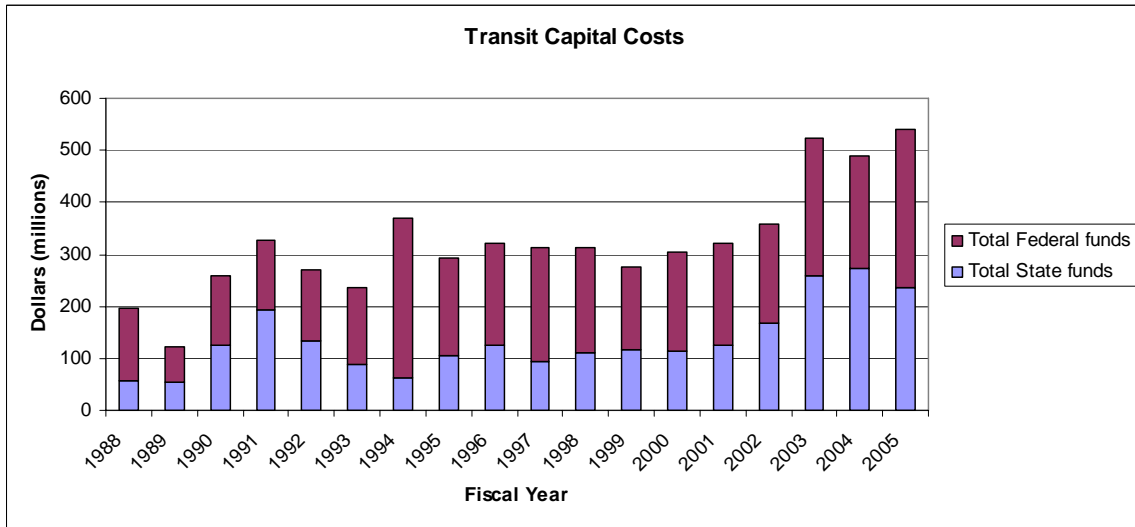
Legend:

- SHA- State Highway Administration
- MTA – Maryland Transit Administration
- WMATA – Washington Metropolitan Area Transit Authority
- MVA- Motor Vehicle Administration
- MAA – Maryland Aviation Administration
- MPA – Maryland Port Administration
- TSO- The Office of the Secretary of Transportation

Transit operating costs vary by transit mode, as discussed earlier, and increase as transit services are expanded. The State controls operating costs through a variety of means. Federal funding has been virtually eliminated for transit operating expenditures placing the burden on the State for paying for operating costs.



Transit capital costs vary each year depending upon the activities in place at the Department. Federal funds comprise a larger portion of the transit capital expenditures, again depending upon the initiatives underway at the Department.



Federal transit funding is a very important part of the transit capital budget. Transit funding is divided into several different grant programs, each targeting a different transit market. Most of the federal transit programs are formula funds, allocated to transit agencies or their designated recipients according to a variety of factors. These programs are designated for capital expenditures supporting eligible transit agencies, as well as preventative maintenance. Federal transit funding programs require a 20% match by the transit agency as a condition of their receipt.

### **Federal Transit Funding Programs**

#### Formula Programs

- Urbanized Area Formula (5307)
- Elderly and Disabled (5310)
- Rural and Small Urban (5311)
- Job Access and Reverse Commute (5316)
- New Freedom (5317)

#### Discretionary Programs (5309)

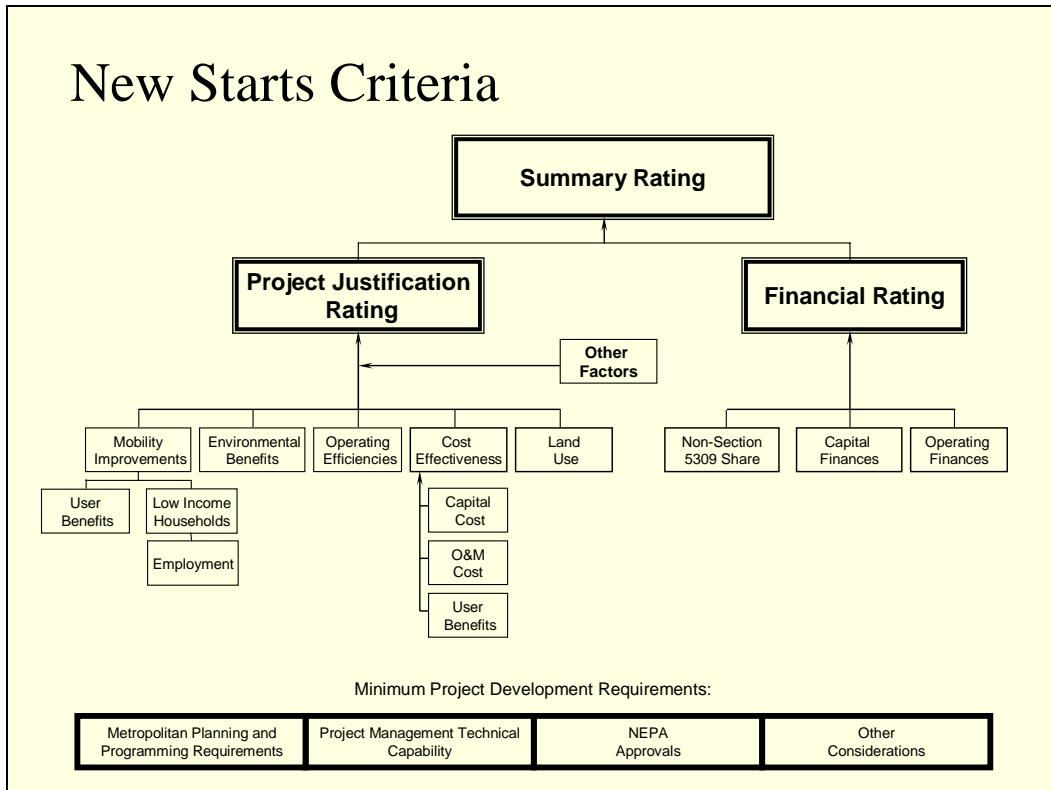
- Bus and Bus Facilities
- Fixed Guideway Modernization
- New Starts

The federal "Capital Program", is a discretionary program reserved for major investments in bus and bus facilities, fixed guideways, and new transit extensions or systems (New Starts). These dollars are awarded to transit agencies competitively, based on a process and criteria established in federal law and regulations. Additionally, Congress frequently earmarks dollars from these programs for specific priority projects within their districts. For example, SAFETEA-LU contains over 600 bus and bus facility program earmarks, equaling over half the program dollars over the life of the authorization bill. In 2006, Maryland received \$24 million for 14 projects in this program, MTA received \$32 million and WMATA \$78 million of fixed guideway modernization program dollars.

The federal New Starts program is a \$1.5 billion discretionary program that provides federal dollars towards the construction of new fixed guideway systems (rail and bus rapid transit), as well as extensions to existing systems. This is the program from which the MTA would seek funding to pay for the major transit projects that are currently in planning such as the Bi-county Transitway, the Baltimore Red Line, and the Corridor Cities Transitway in the I-270 corridor. The federal matching requirement for the program is set at 20%, like other federal transit programs. However, because of the highly competitive nature of the program, FTA generally pays 50% or less of total project costs.

The process for applying for and obtaining New Starts funding is set in federal law and regulation. A rigorous assessment of a project based on standard criteria that demonstrate the value of a project for federal

funding is conducted by the Federal Transit Administration (FTA), who then rates a project for funding based on that project’s performance. Criteria include a project’s cost effectiveness, the current land use and land use policies in place to support transit use, and the local financial commitment shown in the project’s financial plan. Projects must go through Alternatives Analysis to select a locally preferred alternative, be well into Preliminary Engineering, and obtain at least a “medium” rating by the FTA before being considered seriously for funding.

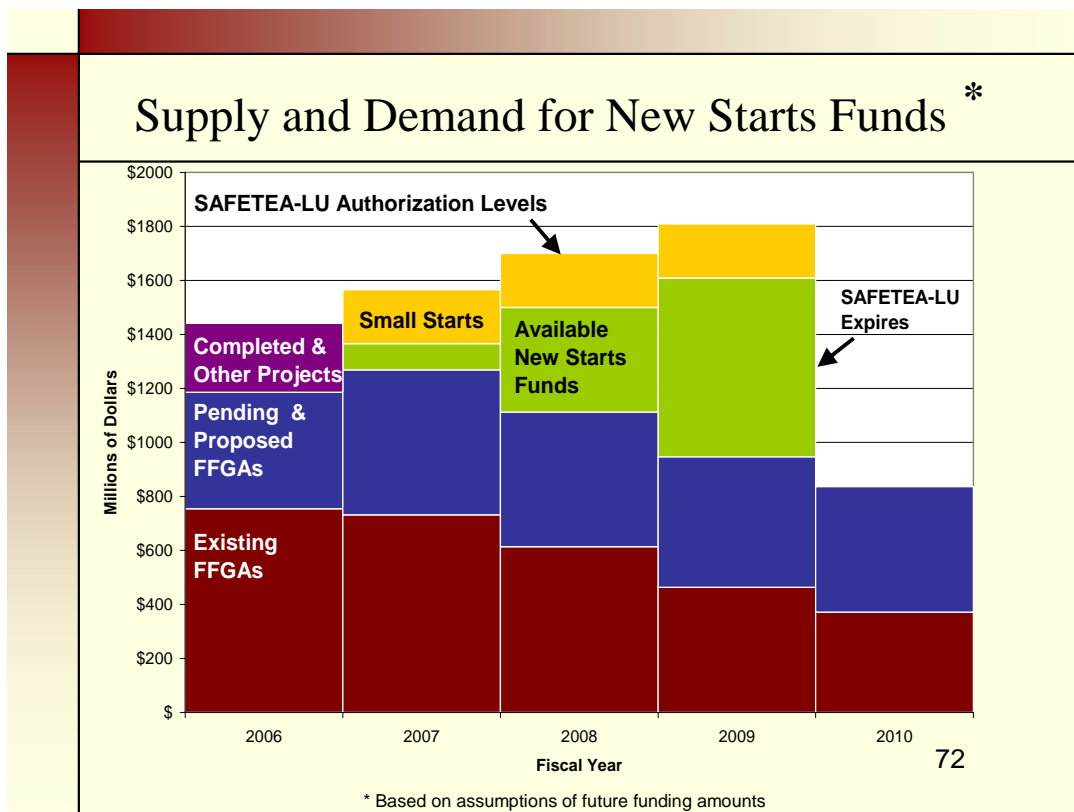


In the past, New Starts funding has been used for the Largo extension of the WMATA Metrorail, extensions and double tracking of the Baltimore light rail, and the MARC extension to Frederick. Competing for New Starts funding for Maryland’s prospective projects will depend upon the timing of when those projects are ready for funding, the amount of funding available to the FTA for allocation, how well the projects fare against federal criteria, and competition among projects from around the United States.

The fiercely competitive nature of the New Starts process in which project demand has far exceeded funding supply has facilitated a slowly declining pipeline of projects in the New Starts program. However, anticipated demands from around the country will still exceed available funds to pay for the projects. As projects advance in

the New Starts program, they obtain Full Funding Grant Agreements (FFGA) by the FTA, commitments for funding through the New Starts program. Projects with FFGAs or with pending or proposed FFGAs will demand the vast majority of available New Starts funding as provided in the recent federal transportation authorization bill, SAFETEA-LU. Furthermore, SAFETEA-LU has authorized a subset of New Starts funds to be set aside for smaller New Starts project, dubbed "Small Starts".

Several projects around the country are in sufficiently advanced stages of planning and development to be seriously considered for New Starts funding. A sample of such projects includes new transit investments in Minnesota, Norfolk, Seattle, Houston, Miami-Dade, New Jersey, and the Dulles Corridor Phase 1 project. The funding demands of these projects will exceed available New Starts program funds for new projects. The federal government will review all proposed projects and their performance against the criteria outlined previously as they make recommendations to Congress for New Starts funding.



## **LEARNING FROM OTHERS**

An important task for the Transit Funding Steering Committee is to examine the ways in which transit is funded at other states. This section of the report will present an overview of transit funding throughout the United States as well as more detailed information on peers to Maryland from the Washington region, a handful of other large urban transit systems from across the United States, and the experience of using public private partnerships to fund three specific transit projects. Lastly, this section will summarize the major themes arising from public testimony provided to the Transit Funding Steering Committee on November 29, 2006.

### ***WMATA Compact Peers***

The Steering Committee was particularly interested in hearing from other representatives of the WMATA compact, who are now responsible for funding their share of WMATA services and who would also be affected if the Davis Bill, H.R. 3496, is to be reintroduced and passed when the new U.S. Congress convenes in January 2007. Three individuals representing compact partners from Virginia Department of Rail and Public Transportation, Fairfax County, Virginia, and the District of Columbia addressed the Steering Committee during the meeting held on November 29, 2006. The following is an overview of what each of those individuals presented to the Committee.

### **Virginia Department of Rail and Public Transportation**

The Steering Committee was presented a brief overview of transportation revenues and spending in the Commonwealth of Virginia.

Virginia has a 17.5 cents per gallon tax on motor fuels that is allocated to three transportation funds: the Highway Maintenance and Operating Fund, the Transportation Trust Fund, and the Department of Motor Vehicles.

Transit funding and management is more locally managed and funded in Virginia than in Maryland. About 15% of the State's Transportation Trust Fund is allocated to transit. Local agencies are the designated recipients for federal transit funding and are responsible for contributing towards those systems.

## **Fairfax County Department of Transportation**

Fairfax County is one of two local jurisdictions that provide funding to the Washington Metropolitan Area Transit Authority. An overview of a system of transit funding that combines local, regional, State and Federal revenue sources was presented.

Transit in Northern Virginia is coordinated and overseen by the Northern Virginia Transportation Commission (NVTC). Ten different transit services and agencies are operated within the jurisdictions that comprise the Commission. Among the transit providers and services are WMATA bus and rail, Fairfax Connector bus and CUE bus, Virginia Railway Express (VRE) commuter rail, Alexandria DASH bus, PRTC OMNI Ride bus and OMNI Link bus, Arlington Transit, and Loudoun Transit. Transit in the NVTC region has grown by 17% just since 2002.

WMATA is by far the largest source of transit costs to the region at \$335.2 million in FY 2005. This is followed by VRE service at \$61.6 million and the Fairfax Connector at \$43.9 million.

Transit is funded by a combination of sources that include local general funds and bonds, transit fares, the Northern Virginia gas tax, State aid, and Federal Aid.

State aid in Virginia is largely paid for by a transportation trust fund of state gas tax, a ½ cent sales tax, a 3% tax on motor vehicles, and a vehicle registration fee.

General fund sources range considerably throughout the State of Virginia. Property tax is the single greatest source of local general fund revenues. However, several additional taxes may apply, including cigarette taxes, meal taxes, hotel taxes, and rental car fees.

NVTC regional jurisdictions collect a 2% tax on the retail price of motor fuels that is used for transportation in the region. This tax is paid in addition to the 17.5 cents per gallon statewide gasoline taxes. In Alexandria, Arlington, Fairfax City, and Fairfax County the tax is dedicated to WMATA. In other jurisdictions within the NVTC district, the tax revenues can be used for any transportation purpose. Many allocate some of these revenues to transit.

Tax districts in Northern Virginia are also an important source of local funding contributions to transit. Fairfax County established a tax district to pay for a portion of the Dulles Rail project. A similar district is in place in Fairfax and Loudoun Counties for road improvements to

the Route 28 corridor, and in Prince William County to pay for the Route 234 Bypass improvements.

Residents of the Cherry Hill Area of Prince William County established a Community Development Authority to fund \$59 million in transportation improvements, including a VRE station and parking.

Northern Virginia Transportation District Bonds, backed by Northern Virginia right-of-way fees and recordation taxes, are also used. Since 1993, the Virginia General Assembly has approved over \$500 million in bonds for the region. About 29% of these revenues have been used for transit projects, including Metrorail capital improvements, the Dulles Rail project, and PRTC buses.

### **District of Columbia DOT**

The District of Columbia consider transit services to be a significant priority, since 37% of District residents do not own or operate a car.

The District of Columbia generally uses bonds covered by the District's General Obligation provisions to pay for its share of the WMATA capital budget, as signed in the Metro Matters Funding Agreement in 2004.

The District is in the process of planning several additional transit projects, including a DC Circulator bus service, the Rapid Bus Transit service and DC Streetcar in Anacostia, "H" Street, and Benning Road. These initiatives are costing the District a total of \$5.7 million in FY 2007, to be paid for from local funds for operations and general obligation bonds for capital projects. Given the District's limited staff resources, they are contracting service operations for the currently operating DC Circulator and intending to contract out future services on the other corridors.

### ***Overview of Transit Funding in the United States***

Transit management and funding is different for each agency, metropolitan area, and State in the United States. In an effort to understand how Maryland compares with its peers – states with one or more large urbanized transit systems – staff reviewed data and information about how transit services are managed and funded for a subset of urban transit systems that fall within the National Transit Database list of Top Fifty Agencies. The National Transit Database is information collected by the Federal Transit Administration from transit agencies around the country that received federal funding<sup>1</sup>. The list of agencies selected for review includes agencies serving major

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<sup>1</sup> Data and information source: *2004 National Transit Database*



metropolitan areas in the United States of at least 200,000 people. Generally these agencies are multimodal. That means they operate many different services including bus as well as some form of rail transit, commuter bus or rail, and paratransit and other services.

Among the most prominent conclusions drawn from this review is that Maryland transit funding and management is unique in the United States. Most transit agencies are primarily locally and regionally managed and funded, with a wide range of State funding contributions going to their systems. Only New Jersey Transit is similar to the MTA in that it is a state agency that operates, manages and funds transit. The major difference is that New Jersey Transit is managed by a Board of Directors appointed by the Governor rather than by an Administrator that directly serves the Secretary of Transportation.

Transit funding methods come in many forms, including dedicated funds, formula funds, discretionary funds, appropriated funds, and reimbursements. Most transit agencies reviewed for this study receive some form of dedicated funding. The General Accountability Office, in a report produced in 2006 responding to the proposed "Davis Bill" provisions, reports that 23 out of 25 of the largest transit agencies in the United States received some form of dedicated funding in 2003<sup>2</sup>. Of these, an average of 70% of state and local transit revenues were from dedicated funds. Only about 8% of total transit system funds come from state and local general funds.

The sales tax was found to be the most prevalent source of transit revenues, applied both as a local option and statewide sales tax. For example, St. Louis applies a mix of sales tax revenues to fund their transit systems. The Massachusetts Bay Transit Authority (the agency that operates the Boston "T" system) obtains a state mandated 20% of the State sales tax. And in California, a total of 18 counties have passed voter referenda to collect sales taxes for transportation. This is in addition to a ¼ cent of the state's 7.25% retail sales tax that is dedicated to state transit agencies.

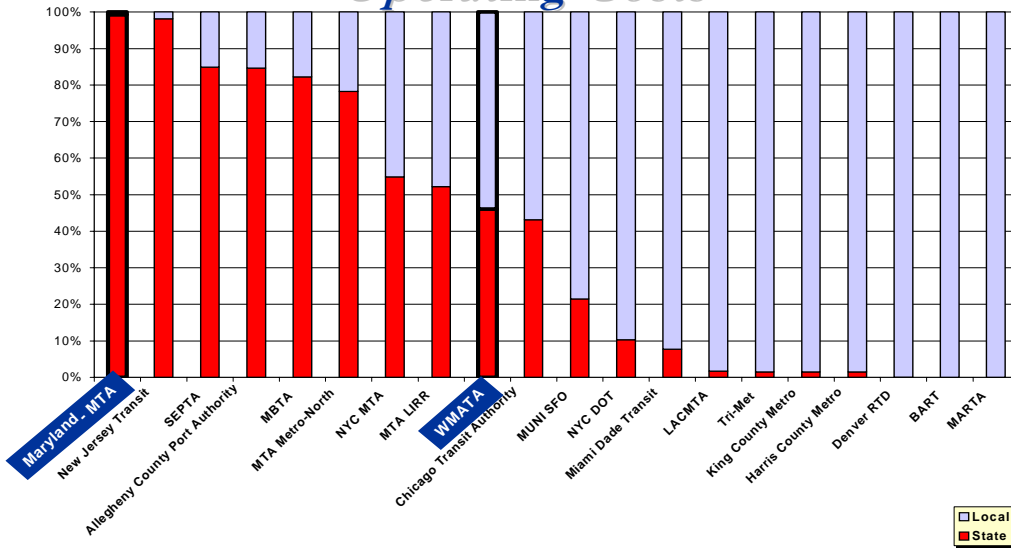
Other common sources of funding include the gasoline tax, property taxes and assessments, other vehicle fees, and a wide range of fees and taxes.

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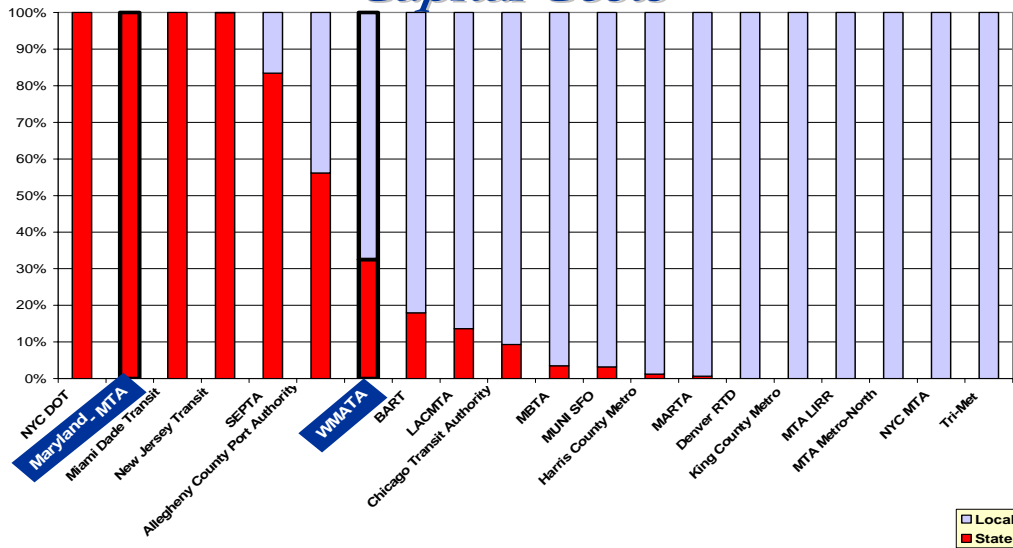
<sup>2</sup> General Accountability Office, *Mass Transit: Issues Related to Providing Dedicated Funding for the Washington Metropolitan Area Transit Authority*, May 2006.

State and local funding shares for transit vary considerably in the United States. They range from complete State funding, as in the case of Maryland, to complete local funding, as in the case of MARTA in Atlanta and the Denver RTD system. State funding is generally more common in support of operating costs than capital investments.

## State and Local Funding of Transit *Operating Costs*



## State and Local Funding of Transit *Capital Costs*

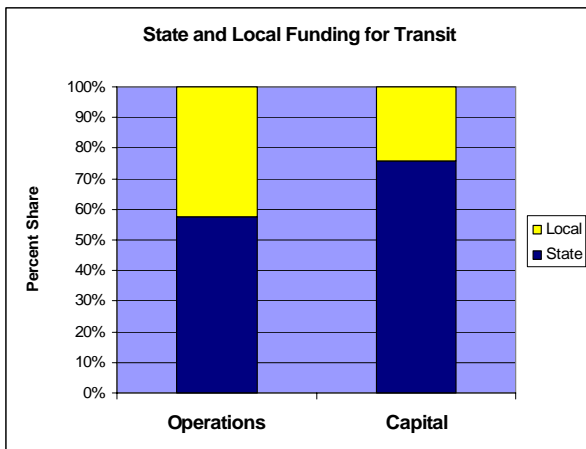


\* Local funding share for WMATA comes from local governments in Virginia and the District of Columbia.

## **Selected Peer Transit Systems**

Several peer transit systems were looked at in additional detail. They were selected primarily for having similarities to transit agencies in Maryland, or because they have a characteristic of interest to the State. Several of these systems are funded largely by the State, while largely local and regional governments fund others. These systems are introduced below.

**Pennsylvania Transit** – The Commonwealth of Pennsylvania has much in common with Maryland. There are two major urbanized transit systems in the Commonwealth, operating in the Pittsburgh and Philadelphia regions. Transit is a substantial state program in Pennsylvania. The state has funding responsibility for not only the two urbanized systems, but also 40 additional urban and fixed route transit systems, and 30 smaller community transit systems.



SEPTA is the major urbanized transit system that operates in the Philadelphia region. SEPTA is a comprehensive system that operates bus, heavy rail and light rail, commuter rail, and paratransit services throughout the region. SEPTA is managed by a Board of Directors comprised of representatives from each of the jurisdictions within the service area as well as representatives of State government. SEPTA is largely funded through state funds.

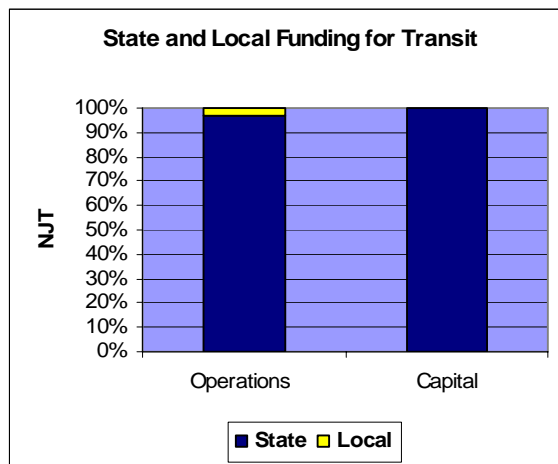
The Port Authority of Allegheny County operates in the Pittsburgh region. The Port Authority operates bus and busway services, a light rail system, and an incline. Like SEPTA, the Port Authority enjoys considerable state funding support, but is also largely locally managed.

The Commonwealth, under the direction of Governor Rendell, has declared a transportation funding crisis in Pennsylvania, mainly affecting the Commonwealth's highway and bridge and transit programs. Transportation funding in Pennsylvania relies on a Transportation Trust Fund based on highly unstable utility taxes. These taxes have underperformed in recently years, requiring the Commonwealth to pass several "stop gap" measures, using highway funds, to ensure continued transit operations and to avoid costly fare

increases. The crisis has led Governor Rendell to make the task of securing funding for the systems his first major task of his new term of office.

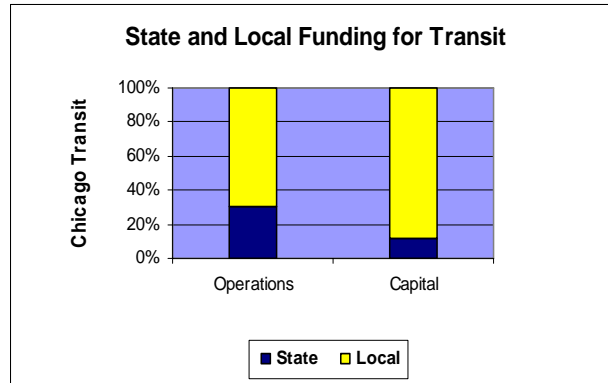
In November 2006, the Commission released its reform recommendations. An annual gap of \$760 million in the system is to be funded with a new transportation trust fund. The trust fund will still rely heavily on statewide support, with transit funded at a 75% state/25% local split. It will be based upon a sales tax as a replacement to the unreliable utility tax. Recommendations include several specific provisions, including calling for a consolidated transit operating funding program, a greater degree of oversight and discretion in applying funds by the Pennsylvania Department of Transportation (PENNDOT) that is linked to need and performance, and a series of transit agency actions identified to improve cost-efficiency in transit operations.

**New Jersey Transit** - As noted previously, New Jersey Transit is very similar to the Maryland Transit Administration. New Jersey Transit is a multimodal statewide transit agency that operates throughout New Jersey. Commuter rail, light rail, bus services, and paratransit are featured services. Transit is managed using a Board of Directors that is appointed by the Governor.



Similar to a number of agencies reviewed for this study, New Jersey Transit is facing a fiscal predicament. They were forced to transfer \$300 million of capital money to operations to close an operating budget deficit, caused by a situation in which revenues were not keeping up with needs. A recent ballot initiative retooled their bonding capacity, which was almost depleted by efforts to service the debt on existing bonds. The State has completed a five year plan that should add an additional \$195 million in annual revenues to the Transportation Trust Fund using debt restructuring, an increase in the dedicated gas tax to be dedicated to the trust fund, and an increase in new trust fund bonds.

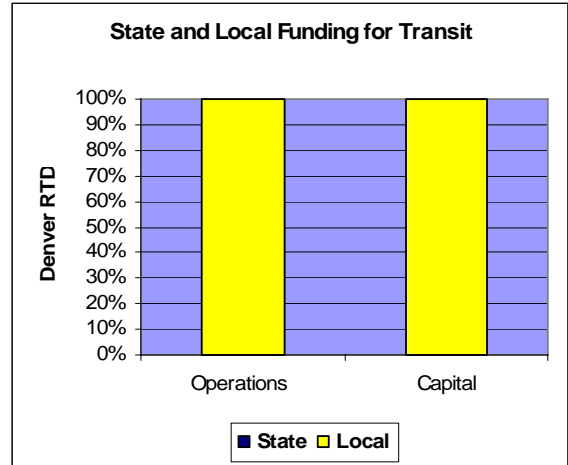
**Chicago** - Chicago transit is largely a local and regional responsibility. The agency was examined for this study because it has recently faced financial pressures and is reviewing the funding of other agencies as it seeks solutions for enhancing its own funding system. Chicago's funding formula is 23 years old with expenses rising faster than revenues. The CTA, one of the three transit service agencies in Chicago, is particularly burdened by increases in security costs and a legislated mandate to fund its pensions at 90% by 2059. The pension fund had been funded only at 40%. Officials estimate that the fund could go bankrupt by 2012.



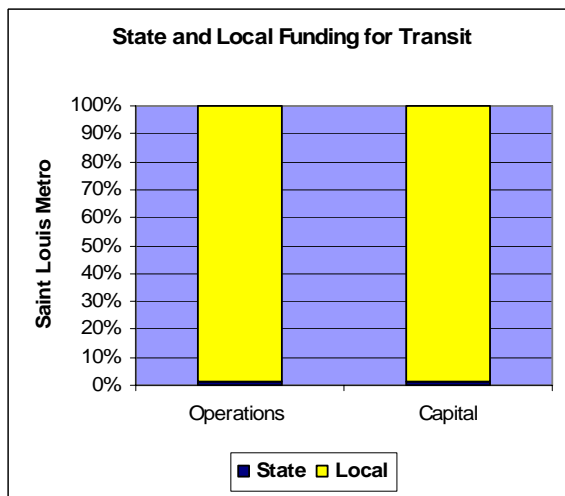
The Chicago region is home to three transit agencies, each focusing on a different transit market. The Chicago Transit Authority (CTA) operates heavy rail and bus services focused on the City of Chicago. PACE is a suburban bus system, operating throughout the region. METRA is a regional commuter rail system providing Chicago suburban residents with access to City of Chicago employment. Each of these agencies is operated under the Regional Transit Authority (RTA), managed by its own service board and distinct management team.

The RTA is the primary funding vehicle for transit in Chicago. RTA retains 15% of regional sales tax receipts and allocates these taxes to the three transit agencies. The independent service boards create difficulties for the RTA as the agencies compete for limited resources. A regional strategic transportation plan is underway at the RTA. The study reviews the RTA needs, which are estimated at \$57 billion over the next 30 years to maintain, improve and expand the system.

**Denver** – The Denver Regional Transit District (RTD) is examined for this study because it is generally considered to be a successful system and is undergoing rapid growth. The RTD is entirely funded with local and regional sources. A 1% sales and use tax is charged throughout the region and dedicated to transit. Local government contributions are about 2% of the total costs of major capital investments. The reliance of the transit agency on local revenues increases its vulnerability during periods of economic recession. Denver was particularly hard hit during the 2001 economic downturn.



The RTD is undergoing an aggressive 12-year expansion program known as FasTracks. The FasTracks program includes \$4.7 billion in transit improvements, including 39 miles of light rail, 79 miles of commuter rail, and 18 miles of bus rapid transit. Funding strategies for the program include innovative public private partnerships such as transit oriented development of new transit stations, joint development of transit facilities, and a federally guaranteed TIFIA loan of \$3.59 million to be applied to 11 projects.



**St. Louis Metro** – St. Louis is considered an interesting case for this study because the transit system serves a bi-state agency (similar to WMATA). Additionally, the City of St. Louis is a separate political jurisdiction from St. Louis County (similar to Baltimore), thus pitting urban communities against suburban communities for obtaining funding and political support for transit in the region.

This regional situation is particularly interesting in St. Louis, because transit funding and management is almost entirely a local and regional responsibility. A complex formula of dedicated sales taxes charged among the various jurisdictions in the region comprises the primary source of revenues for transit funding. This includes a ½ cent sales

tax charged by the City and County of St. Louis, and St. Clair County, Illinois that goes to the transit agency directly. An additional ¼ cent sales tax is collected and dedicated to transit in the City and County of St. Louis. The agency board is comprised of members from both State jurisdictions: 5 from Missouri and 5 members from Illinois.

St. Louis is also experiencing financial difficulties. A \$5 million deficit is projected for FY 2007 which grows to \$30 million for FY 2008 due to post employment benefit obligations, a recent extension of MetroLink, and debt service on 2002 bonds for principal which was previously deferred.

### **Lessons Learned**

This cursory review of how others fund and manage major transit agencies throughout the United States points to number of important lessons that help create a better understanding of the context with which Maryland provides transit relative to other states.

The most obvious fact that emerges from this review is that there is no one way to manage and pay for transit in the United States. Transit is primarily a local matter. The way transit is managed and funded principally reflects local policy and preferences.

Another conclusion that can be drawn is that Maryland is unique to others in the United States because transit funding is entirely a statewide responsibility. This is generally a reflection of Maryland's historically held policy and preferences regarding public transportation. Local jurisdictions have responsibility for operating the locally operated transit systems, but the State oversees their federal funds and contributes local funding of their transit costs. Additionally, the State is responsible for funding two major urban transit systems and a comprehensive set of bus and rail commuter transit. This is a statewide responsibility that is only matched in scope by the transit programs in the states of New Jersey and Pennsylvania.

An interesting contrast to Maryland's transit funding approach can be seen when examining how the different WMATA compact partners participate in funding WMATA. In Virginia, the local jurisdictions participate as funders and managers of WMATA, rather than the State department of transportation (DOT). In Maryland, the State DOT provides both the management oversight of WMATA and the state's funding share. Other contrasts can be seen in examining the transit systems in Chicago, St. Louis, and Denver where local transit funding and management is predominant.

Another conclusion that can be drawn from our review of transit across the United States is that transit funding is a problem for a number of agencies and States. Several of our peers – New Jersey, Pennsylvania, and Chicago transit – all are undergoing some type of funding study and reform of their funding sources and structures. Maryland can take heart in the fact that although we recognize that there are challenges in funding our future transit investments and resources, the Transportation Trust Fund is fundamentally a reliable means for funding transit, as well as all of our transit needs. The funding sources relied upon in New Jersey and Pennsylvania in particular failed to supply predicted funds or meet debt obligations. These are serious problems that Maryland thankfully does not face.

Where Maryland can learn from our peers, is in the use of alternatives to or supplements to the TTF's gas tax, which does not respond to inflation, thus reducing the buying power of the revenues generated. The State receives a fixed number of cents per gallon of gasoline sold, even in the face of cost increases. If the price of gas or rate of inflation decreases the consumption of gasoline, the State will suffer the effects of less revenue as a result.

As discussed in this report, many transit agencies have come to rely upon sales taxes as a primary means of funding transit. This is because the base for collecting sales taxes is so large and tends to grow as populations and economies grow. A small increase in a sales tax, such as  $\frac{1}{4}$  percent, can result in millions of dollars in revenues. Our peers also make liberal use of locally applied sales taxes, and dedicated taxes. Dedicated taxes are those in which the revenues are dedicated to a transit agency or system. The potential of dedicated revenues, based upon sales taxes, is demonstrated particularly in Denver where a substantial transit growth program is being funded largely from a regionally collected 1% sales tax.

As the costs of transit provision increase as well as demand for service, more and more transit agencies are seeking innovative means to pay for their transit needs. Many are making use of federal loans, such as the TIFIA program. Others are entering into partnerships with the private sector to help pay for their transit programs. The next section reviews three transit projects developed in partnerships between transit agencies, the public sector, and private sector.



## Public Private Partnerships: Three Case Studies

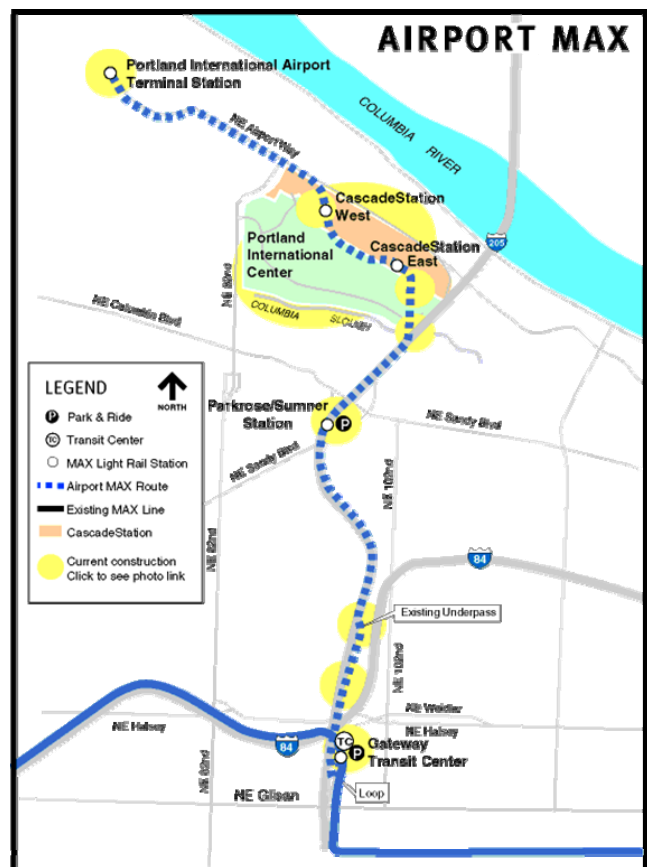
As available transit infrastructure needs continue to grow at a faster rate than available funding, many transit agencies and state and local governments are using innovative financing to achieve their transportation objectives. Public private partnerships are an increasingly important means of getting transportation infrastructure developed. The private sector sees value not only in getting additional transportation infrastructure constructed, but can find ways to profit from the ventures themselves. To understand how the private sector can get involved in transit infrastructure development, the study looked at three case studies of successful transit projects developed cooperatively between public and private sector partners.

### TriMet (Portland, Oregon), Airport MAX project

TriMet has a comprehensive transit plan that dates back to the 1980s. On that plan was an extension of their successful MAX light rail system to the airport, anticipated for development sometime in the mid-2000's. In 1997, the company Bechtel approached TriMet with an unsolicited proposal to help build the 5.5 mile transit extension, in return for the right to develop on a parcel of land adjacent to the transitway.

Several partners were involved in this project. They included Bechtel, the Port of Portland, the city of Portland, and the Tri-County Metropolitan Transit District of Oregon (TriMet). The deal that was struck by the partners for developing the station included the following:

- The City of Portland agreed to contribute \$23.8 million toward the light rail construction. These funds would partially pay for construction of the 2.9-mile segment from the Gateway Transit Center along the I-205 right-of-way. The area is within the Airport



Way Urban Renewal District, thus eligible for Tax Increment Financing to fund the contribution.

- TriMet was responsible for \$45.5 million of the construction costs. Along with the City, TriMet helped develop the 2.9-mile segment from the Gateway Transit Center. TriMet used money from its general fund for its contributions and did not request additional state or federal funds for this project.
- The Port of Portland contributed \$28.3 million to develop the rail station inside the airport terminal as well as a 1.2-mile segment of the rail line leading from NE 82<sup>nd</sup> Street to the airport along Airport Way. The Port also provided the land for the station at the terminal as well as the development rights to the land that would be given to Bechtel in the Portland International Center. The Port used a Passenger Facility Charge to pay for its portion of the project.
- Bechtel received an 85-year lease for 120 acres of land in the Portland International Center to create a development project that would include two stops on the Airport Max line. In place of rent for the land, Bechtel agreed to fund a 1.4-mile segment of the rail line, including two stations and an overpass, at a cost of \$28.2 million. Additionally, an agreement was developed between the agencies to bypass competitive bidding requirements to allow Bechtel to be awarded a design-build contract for the light rail construction. This contract was worth \$125 million, awarded on a sole-source basis.

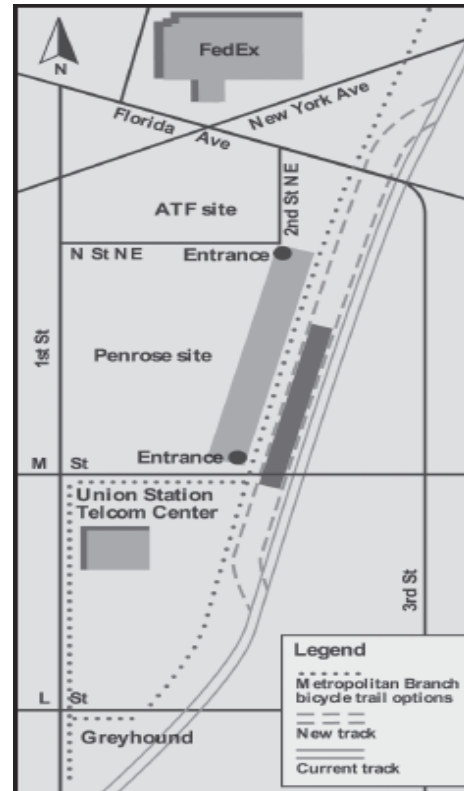
The project was built in an unusually fast timeframe. Less than five years passed between the time that Bechtel approached the partners and when service began operation. Several things contributed to that time frame including that ability to build without federal funds, the availability of right-of-way and the lack of environmental issues, and the availability of funds from the TIF district, which was already approved and required no additional voter or legislative action.

## New York Avenue-Gallaudet University Metro Station

The New York Avenue-Florida Avenue Metrorail Station is an infill station developed in close proximity to Washington, D.C. The area the station serves was targeted for redevelopment by the District of Columbia. According to a 1999 study by the Washington Metropolitan Area Transit Authority, there were 5,600 people within  $\frac{1}{2}$  to  $\frac{3}{4}$  mile of the New York Avenue/Florida Avenue intersection. The population was 90% minority and had a median income of \$23,296, below the District's \$30,727 median income level. The Metrorail Red Line served the area but the area was in the midst of a 2-mile segment without a stop.

The New York Avenue Metro station was built with funds from private landowners, the District of Columbia and the federal government. The cost of the project eventually exceeded \$100 million, about \$25 million more than the original estimates. The following describes the partnership that led to the project's development.

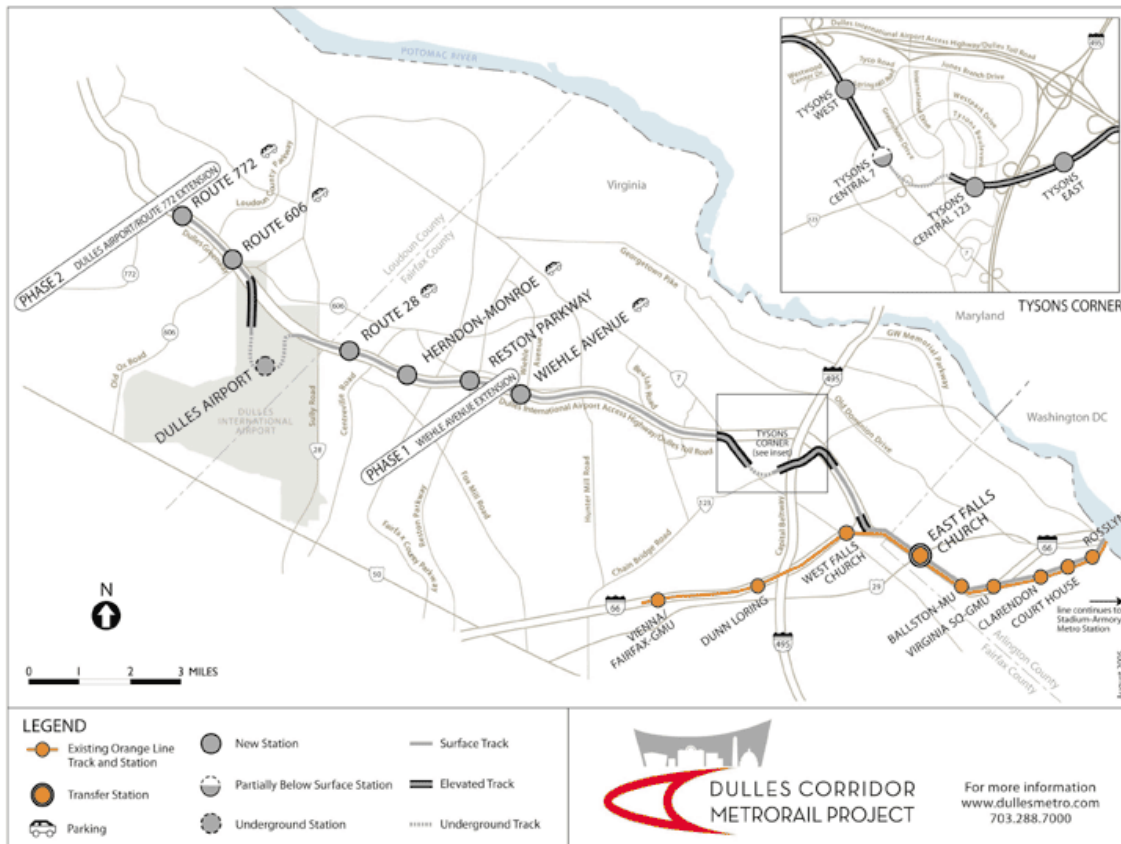
- Private landowners responded to a feasibility study and organizing by local advocates that demonstrated the value of the station to land surrounding the station. Local landowners contributed \$25 million to the station and agreed to pay a special assessment over a 30-year period to pay for the funds. This assessment was charged to non-residential landowners in addition to usual property taxes.
- Congress took interest in the project and the participation of the private sector in the initiative. They agreed to match the funding provided by property owners and Congress committed \$25 million to the project. In addition, Congress contributed \$6 million to develop a section of the Metropolitan Branch trail, an important element of the project to the local bicycling community. The federal government also committed \$100 million to build a headquarters office for the Bureau of Alcohol, Tobacco, and Firearms and another \$100 million to build offices housing the Securities and Exchange Commission.



- The District of Columbia funded the \$350,000 project feasibility study and conducted a major public and agency outreach campaign for the project. The District also committed \$34 million from the city's general funds to the project, eventually increasing that amount to almost \$54 million when costs exceeded original estimates.

This project also was developed in a record time of less than ten years. The station opened in 2004. Development in the area of the station has been robust since its completion. A total of 15 million feet of office space is either built, under construction or planned for the area and land sales have increased in value from \$10 per square foot to \$50 per square foot.

### Dulles Corridor Metrorail Project



The Dulles Corridor Metrorail project is still undergoing project development. It is planned to be a 23-mile extension of Metrorail extending from Falls Church to Loudoun County, Virginia. Included will be stations at Tysons Corner and the Dulles International Airport. The project, as it currently stands, is to be built in two phases. The first phase of the project is to extend to Wiehle Avenue in Reston and will

contain four stops in heavily congested Tysons Corner. Phase 2 of the project is supposed to continue from Wiehle Avenue along the Dulles Toll Road, stop at the airport, and continue to Ryan Road in Loudoun County.

The project is to be the first transit project to be designed and constructed under the Virginia Public-Private Transportation Act of 1995. Two competing private sector firms joined forces to create the Dulles Transit Partners LLP (DTP). Additional partners include the Metropolitan Washington Airports Authority (MWAA), the Virginia Department of Transportation, Fairfax County, Town of Herndon, and Loudoun County. Commercial property owners formed a tax assessment district in the Tysons Corner area to help finance the project.

A summary of the partnership is described below.

- The Federal Transit Administration is funding the largest portion of Phase 1 of the project in the form of a \$225 million New Starts grant. This money is to be applied towards project planning and development. Federal funding is anticipated to grow to \$900 million for construction.
- The Commonwealth of Virginia was anticipated to provide 28% of the cost by leveraging a dedicated toll increase on the Dulles Toll road. A recent development resulted in complete control being provided to MWAA for the Dulles Toll Road enabling them to control toll setting in exchange for assuming all financial and management responsibilities for the toll road. This arrangement includes MWAA assuming responsibility for funding the Commonwealth's portion of the Phase I and Phase II of the Metrorail project.
- Fairfax County is contributing 28% of Phase I of the project through the implementation of a rail transportation improvement district through Tysons Corner. Fairfax County began collected 22 cents per \$100 of assessed value of land for properties on top of their current real estate tax rate of \$1.13. The assessment may expand to 29 cents per \$100 of assessed value later in project development. Fairfax County also hopes to expand this transportation improvement district to the western portion of the county to contribute towards Phase 2 of the project.

- Loudoun County intends to contribute its share of the local gasoline tax and Business Professional and Occupancy License revenue.

As noted before this project is a “work in progress”. The complex nature of the project and its funding arrangements will provide an interesting lesson on how to apply public private partnerships for transit projects. It also demonstrates innovative means of collecting and contributing revenues for transit by local agencies.

### **Lessons Learned**

The use of public-private partnerships (PPP) to develop transit projects has long been seen as an important means of developing transit projects. Efforts to capture private funds to support transit come in a variety of forms, ranging from special taxing districts and tax increment financing of property that garner revenues from property owners to joint development of transit stations and facilities. The examples shown in this document combine both of these techniques.

Like transit systems in general, there is no “one-size-fits-all” approach to transit PPPs. However, generally PPP only applies to the development of a facility, as in these three cases. The costs of operating the services are generally not captured in a PPP, although contracting out transit operations and maintenance is not unusual, which suggests that a concession agreement or similar approach to a partnership with the private sector related to operations and maintenance of a new facility is possible.

Generating private sector participation in transit project development generally occurs in instances where transit demand and land values at proposed transit facilities are high. They frequently involve transit-oriented land development around transit stations and facilities. On the public side, the transit agency and area local jurisdictions need to provide the private sector with incentives to enter into a PPP agreement, to help offset the risk of the development. In the case of the TriMet development, the private partner received a design build contract for the transit infrastructure to offset potential losses from the development. Appropriate zoning around stations, for example, enables the private sector to develop profitable developments that in turn can create transit riders. Value capture mechanisms like the special taxing districts applied in these three examples allow the public sector to pay for the station and over time may generate adequate revenues to contribute towards operations.

On the other hand, transit agencies and public partners also need to protect their interests. Transit agencies need to consider the needs of their riders and ensure that developments provide designs and use that will contribute towards transit operations and ridership objectives. Public sector partners have goals regarding economic development and quality of life to meet. Coming to agreement with private sector and local jurisdictional partners in the development of transit facilities is an exercise in careful and patient negotiations to develop a strategy that works for all parties.

### ***Public Testimony***

In an effort to extend the process to transit stakeholders, the Transit Funding Study Steering Committee took public testimony from sixteen individuals representing a wide range of transit stakeholders, including business groups, local government, transit riders, and Maryland transit agencies.

Many chose to submit written testimony and additional information to supplement their oral testimony. A handful only provided written testimony. The groups represented in the public testimony are listed in the box above.

<p style="text-align: center;"><b>Public Testimony to the Transit Study Steering Committee:</b> <i>List of Represented Groups</i></p> <p>Montgomery County Council Greater Baltimore Committee Maryland Chamber of Commerce BWI Business Partnership American Council of Engineering Consultants Washington Metropolitan Area Transit Authority Washington Business Transportation Action Coalition Transportation Planning Board Greater Washington Board of Trade Prince George's County Business Roundtable Transit Association of Maryland City of Baltimore Amalgamated Transit Union, Local 1300 Montgomery County Chamber Action Committee on Transit Maryland Board of Realtors Metro Riders Advisory Council Washington Regional Network Private Citizen and transit rider</p>
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Each of the groups addressing the Steering Committee indicated their support for policies that would result in increased revenues available for transit services in Maryland. Many of these groups voiced their support for specific projects that they would like to see funded with these revenues. Several indicated their support for the Davis Bill and

finding a solution to meeting the bill's requirements. Very few were willing to identify a specific strategy for increasing revenues. Instead there was a general preference to see the Steering Committee or General Assembly offer a specific proposal for the groups to respond to. The speakers were particularly reluctant to support regionally applied funding solutions and some hinted at opposition to the concept, saying that the needs are statewide so the solutions should similarly be statewide.

Some of the comments and suggestions incorporated in the oral and written testimony provided to the Steering Committee includes the following:

- Pursue public private partnerships to develop transit projects where opportunities are available.
- Increase funding not only for transit but other transportation modes as well.
- Consider using voluntary contributions to common area charges, applied to the business community, as a means to generate revenues for transit.
- The City of Baltimore has included formation of a Baltimore Regional Transit Authority in its recently completed Master Plan.
- The General Assembly should seek ways to generate revenues from residents from outside the state.
- A strategy of linking revenue increases to multiple programs, such as transportation and education, might increase the popularity of a revenue increase in the eyes of the public.
- Require funding contributions from local governments as a matching requirement. This would increase local and regional commitment to transit investment and management.
- Consider taxes on parking lots (not garages) to capture the opportunity cost of using the land for parking.
- Reduce development in rural lands as a strategy for reducing the costs of transportation.
- Obtain revenues for transit from sources that reduce traffic and increase the attractiveness of transit, such as congestion priced highways, parking fees and highways.



## UNDERSTANDING OUR NEEDS

The final element of the Transit Funding Study focused on identifying Maryland's transit funding needs over the next twenty years. Transit needs consist of a multiple and equally important factors. They begin with the investments needed to ensure the effective day-to-day **operation and maintenance** of the existing transit system. That includes addressing the growing costs of the labor, energy, and equipment needed to operate an effective and efficient transit system. **System preservation**, or the process of maximizing the useful life of the State's transit investments as a means to improve system performance and efficiency, is another critically important source of transit needs in the State. **System enhancement** includes additional vehicles, parking and frequencies to enhance existing services in response to increased demand and foster greater usage of existing services. And, the State needs to focus on targeted **system expansion**, major capital investments in new transit facilities and services that respond to the need to support Maryland's economic viability and ensure continued high quality of life in the State's growing urbanized areas. These new project expansions also need to be operated and maintained, which adds to those costs.

In light of these factors staff identified "unconstrained" transit needs, as directed by SB 850. This means that staff looked to all the various factors that are needed to operate and maintain the existing system, to preserve and enhance services within the system that exists, targeted system expansion and what it would cost to operate those new services. MDOT staff consultants identified and presented to the Steering Committee several alternatives to consider on a statewide basis for addressing the State's transit funding needs, as below in this report and to the Steering Committee.

### ***Transit Funding Context***

There are many factors which drive transit funding needs, such as, demographic and economic growth; an expanding transit network; and the impact of inflation. One of the most fundamental and easily understood factor which drives transit funding needs has and will continue to be growth in population of the State. Staff looked back over the previous twenty-five years at the State's growth in population and at the growth in the State's transit system over that same timeframe. From 1980-2005, population in Maryland grew by 1.4 million people, a 32.9% increase. In that same time period the State's transit system grew considerably to include:

- New heavy rail transit in Baltimore and its extensions to Owings Mills and Johns Hopkins Hospital
- 22 of 26 WMATA rail stations in the Washington region were opened to service
- New light rail service in Baltimore and its extensions to Hunt Valley, Cromwell, BWI-Marshall Airport, and Penn Station
- Expanded MARC commuter rail services, including an extension to Frederick
- Growth in locally operated transit systems by over 9.6 million annual miles of service
- Commuter bus service growth, including a doubling of service since 1995.
- Growth in paratransit service, including a 90% increase in paratransit ridership from 1999 to 2005.

Looking forward to the next twenty-five years, Maryland is projected to continue to see robust growth, but not quite as explosive as during the previous twenty-five years. The Maryland Office of Planning projects that the state will grow by 1.13 million people, a rate of about 20% over today's population. Projections also indicate that Maryland will absorb an additional 543,000 households, a growth rate of a little over 25% over today's figures, and 660,000 new jobs, about 16% over today's figures.

One of the interesting trends the State is seeing, similar to other states around the country, is the impact of aging baby-boomer. Today, persons aged 65 and over make up only about 644,000 people or 11.5% of the State's total population. That group is expected to grow to over 1.3 million residents, about 19.5% of the State's total population in 2030. That particular demographic has traditionally been an important component of the transit customer base, because of the additional transportation needs older Americans can face.

In general, there are three major elements of transit funding needs and costs when responding to such growth. The first is that capital investments are required to expand and improve service where needed. Investments in new rail and bus lines, communications technologies, in vehicles, maintenance equipment, fare machines, parking facilities, etc. are all needed to respond to additional demands of growth. The second is that operations costs will increase in response to enhanced levels of service. As the State increases

services to respond to needs, the State will need to invest in the labor, fuel, security, and other services required to operate that service. Last, as service expands there will be increased preservation and maintenance costs to reach the maximum useful life of the State's transit investments. Vehicles will need to be periodically overhauled and replaced, track maintained, escalators and elevators kept in working order, and more.

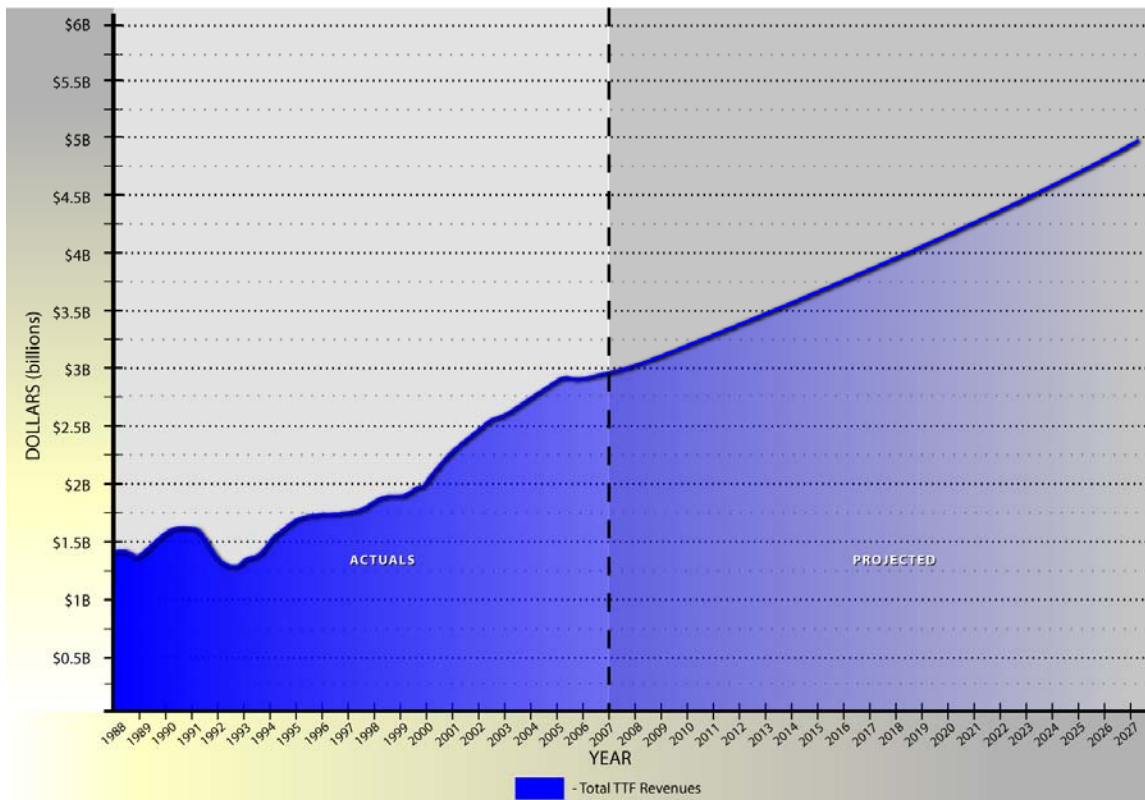
### ***Twenty-year Unconstrained Transit Costs***

In order to assess the financial implication of meeting projected growth and the associated twenty-year unconstrained transit needs of the State, a multi-step analysis was performed. First a twenty-year estimate of total transportation revenues and transit's share of these revenues needed to be generated. Once these estimates were made, the projected operating, system preservation, system enhancements, and system expansion costs over the next twenty years were generated and compared to the estimated level of funding available for transit needs to identify the scale of the transit funding shortfall. The remainder of this section of the report lays out the results of this multi-step analysis.

### **Transportation Trust Fund Revenue Trends**

To obtain estimates of total transportation funding levels over the next twenty years, staff looked back at historical trends for total revenues for the Transportation Trust Fund, which is primarily comprised of user fees and taxes, operating revenues and federal aid. Total actual revenues for the trust fund are plotted on the graph below for the period extending from FY 1988 to FY 2007.

## TTF Revenue Trends 20 Year History - 20 Year Projection

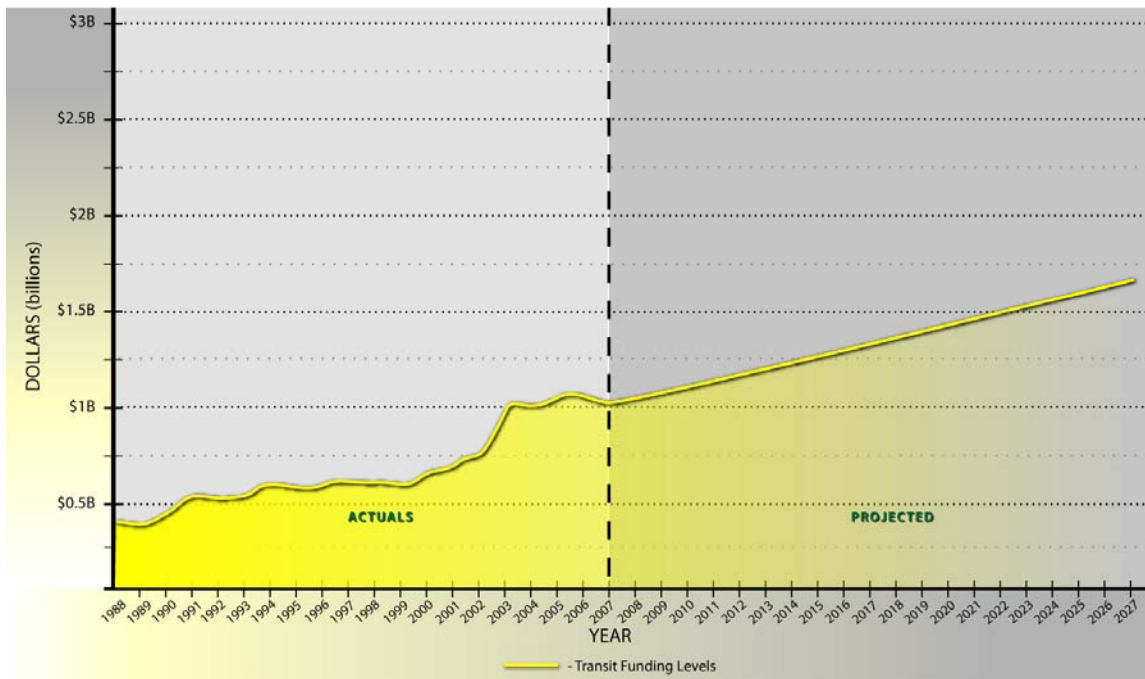


Revenue growth over the past 20 years reflects everything from the effects of population and economic growth to changing travel behavior and federal aid policies to increases in fees and taxes from the sources of the Trust Fund revenues. Based on this historical data, an average annual growth rate of the various TTF revenues was developed to serve as the basis for projecting future revenues. The projected average annual growth of the Transportation Trust Fund was estimated **without** the impact of increased user fees, taxes or fares. This was accomplished by backing out the impact of previous increases in user fees, taxes or fares when generating the historical average annual growth rate of total revenues.

### Transit Funding Trends

Trends in funding transit were estimated similarly and are shown in the graph below.

## Transit Funding Trends 20 Year History - 20 Year Projection



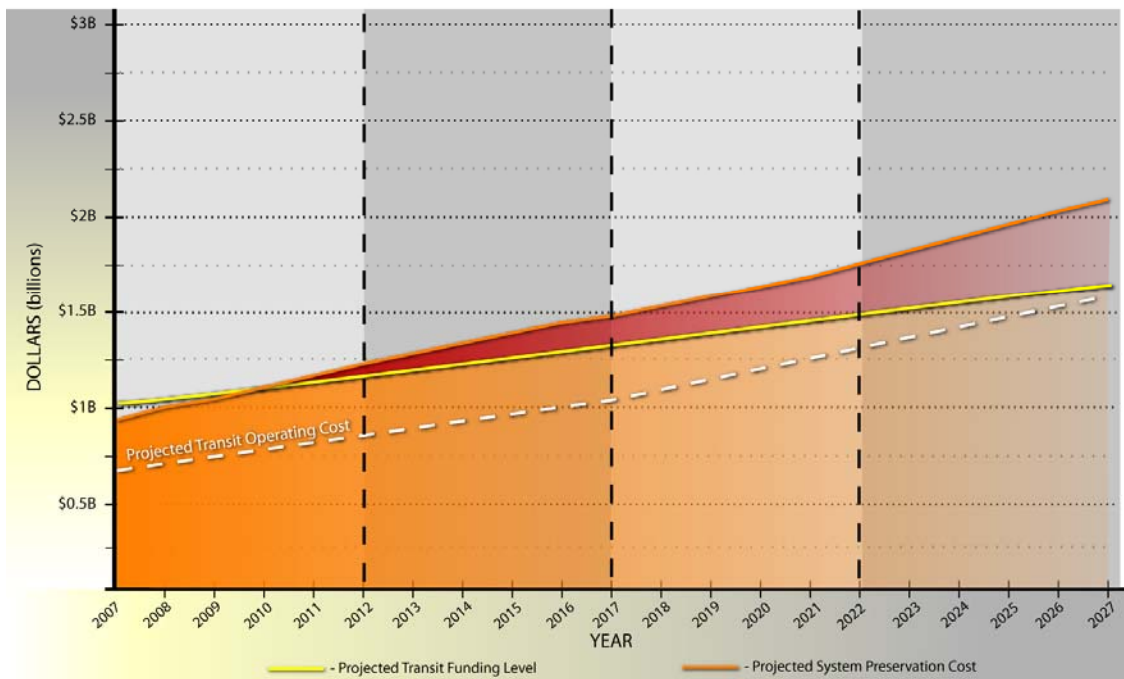
Transit expenditures as a portion of total trust fund expenditures are plotted on the graph for the period of FY 1988 to FY 2007. The average annual percentage of total transportation funding dedicated to transit expenditures over that time period was approximately 35%. Using this historical trend as a baseline, a reasonably expected share of TTF revenues available for future transit funding needs was projected for the 2007-2027 time period. It is important to note the projections represent the dollars expected to be available for transit funding over the twenty year timeframe of the study, through the year 2027 **without** any increases in user fees, taxes or fares assumed, but does include projected federal aid.

### Projected Transit Operating and System Preservation Costs

The next step in this analysis was to develop estimates for transit needs in the State. Staff began with estimating the basic costs associated with transit operations and system preservation. These estimates assume no new investments in services or facilities and instead just account for what it would take to operate and maintain the system that is in place today.

The twenty year projections of transit operating costs are based on historical growth trends of costs of **existing** services, which equates to an estimated annual average increase of 4.35%. Building onto that analysis, staff projected system preservation costs for the existing system. The system preservation estimates include full funding for both WMATA and MTA system preservation needs. This includes full funding of Metro Matters, a capital program for WMATA focused on system preservation for fiscal years 2005-2010. These operating and system preservation projections are plotted against the projected Trust Fund revenues available for transit funding, as shown in the graph below.

### 20 Year Projection of Transit Operating and System Preservation Costs



The graph is broken into five year increments to more closely coincide with Maryland transportation programming timeframes. The dotted white line represents the costs for operations only. The top orange line in the graph represents the estimated costs for system preservation layered onto projected operating costs. The yellow line represents projected available transit funds, and the red area reflects unfunded system preservation costs. As noted earlier, these estimates assume no new services or facilities which expand the base system.

The graph shows that the expected cost of operating the existing transit system is anticipated to consume the vast majority of available transit dollars. This is particularly the case towards the end of the twenty-year time horizon. When system preservation costs are layered onto the costs for operating the current transit system, the total costs exceed expected revenues available for transit towards the end of the first five year period.

The estimated dollar amounts of the analysis discussed, illustrating the anticipated funding shortfalls, are provided in the table below.

**Twenty-Year Projections of Transit Operations and  
Preservation Costs**  
(\$ in Millions)

	<b>2007- 2012</b>	<b>2012- 2017</b>	<b>2017- 2022</b>	<b>2022- 2027</b>	<b>20-Year Total</b>
Projected Funds Available	\$5,489	\$6,225	\$7,071	\$8,051	\$26,836
Operating Costs	\$3,713	\$4,671	\$5,753	\$7,052	\$21,189
Preservation Costs	\$1,469	\$1,756	\$2,038	\$2,329	\$7,592
Funding Excess/ (Shortfall)	\$307	(\$202)	(\$720)	(\$1,330)	(\$1,945)

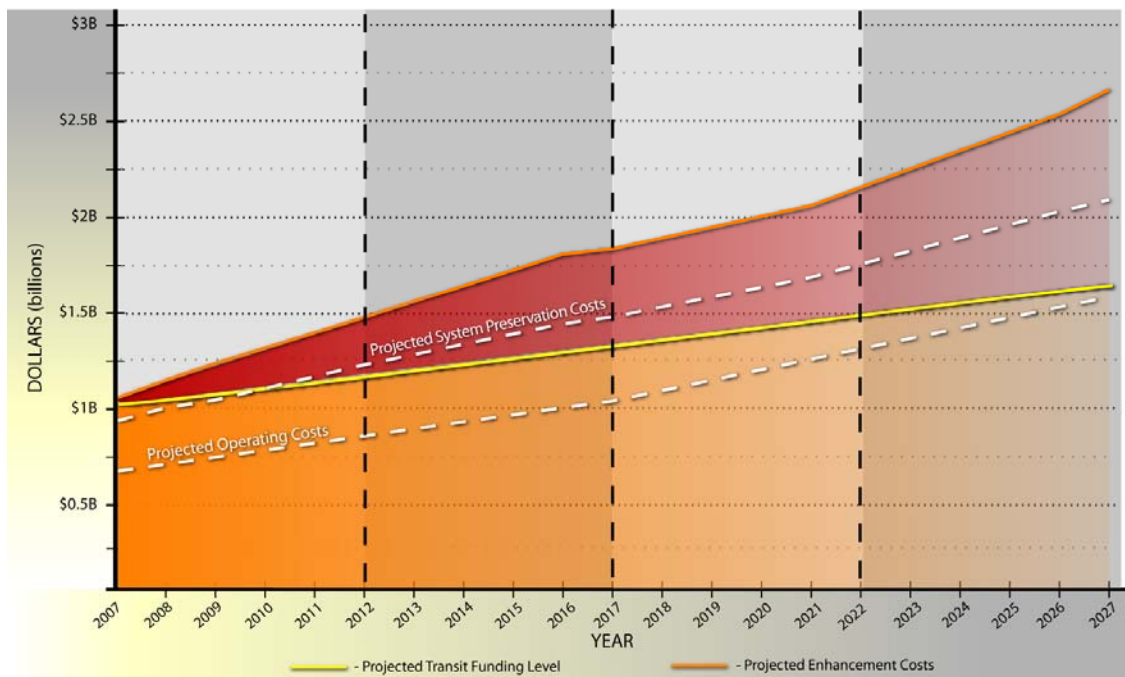
## Projected Transit Enhancement and Expansion Costs

The next step in the analysis was to determine the approximate costs and impacts of transit service enhancements and major project expansions to the system.

System enhancements include significant investments in the existing network, but no new major transit lines. These enhancements include: implementation of the updated MARC Master Plan; full implementation of Metro Matters; 8-car train sets for all of WMATA service; modest growth in the Baltimore and Washington core urban bus systems; and significant growth in paratransit, commuter bus and LOTS systems. Additionally, ongoing operations costs and life cycle costs of equipment used to operate these services are incorporated into the estimates over the twenty-year period.

The following graph shows the incremental impact of adding these projected costs onto the operating and system preservation costs of the existing transit system.

20 Year Projection of Transit Service Enhancement Costs



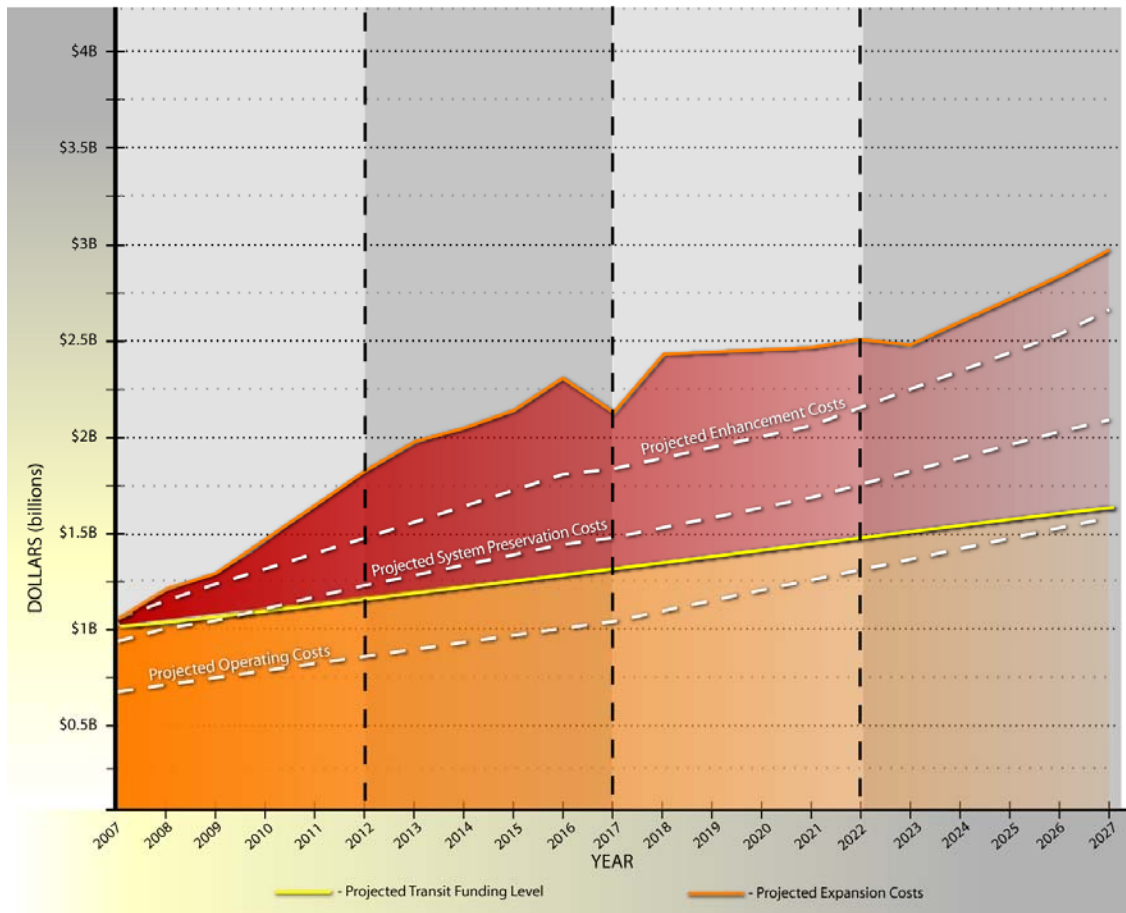


The top orange line represents those layered additional costs of these enhancements. As can be seen, funding shortfalls begin early in the first five-year period and grow significantly by the year 2027.

In addition to costs associated with system enhancements are the costs to expand the system. There are four transit projects currently either in project planning or programmed to begin project planning in Maryland. For the Baltimore system, that includes the Baltimore Red and Green Line transit projects. In the Washington region, that includes the Bi-County Transitway and the Corridor Cities Transitway. For all of these "Big Four" projects, it is anticipated that the mode of transit will be either light rail or bus rapid transit, a specialized bus system that frequently operates on its own right-of-way.

A fourth layer of the analysis adds the anticipated costs of implementing these four projects and is shown in the graph below.

20 Year Projection of Transit System Expansion Costs  
"The Big Four"



Without knowing the specific mode of transit that will be constructed, cost estimates were formed using the mid-way cost of implementing either light rail or bus rapid transit. The estimates include ongoing operations and preservation costs associated with the improvements. The distribution of the costs for these projects over the twenty-year time horizon are based on estimates of cash flows experienced by implementing other major capital investments projects. The total impact of all costs – system expansion, system enhancements, system preservation and operations of the current and expanded systems are shown in the following table.

**Twenty-Year Projections of Transit Enhancement and Expansion Costs**  
(\$ in Millions)

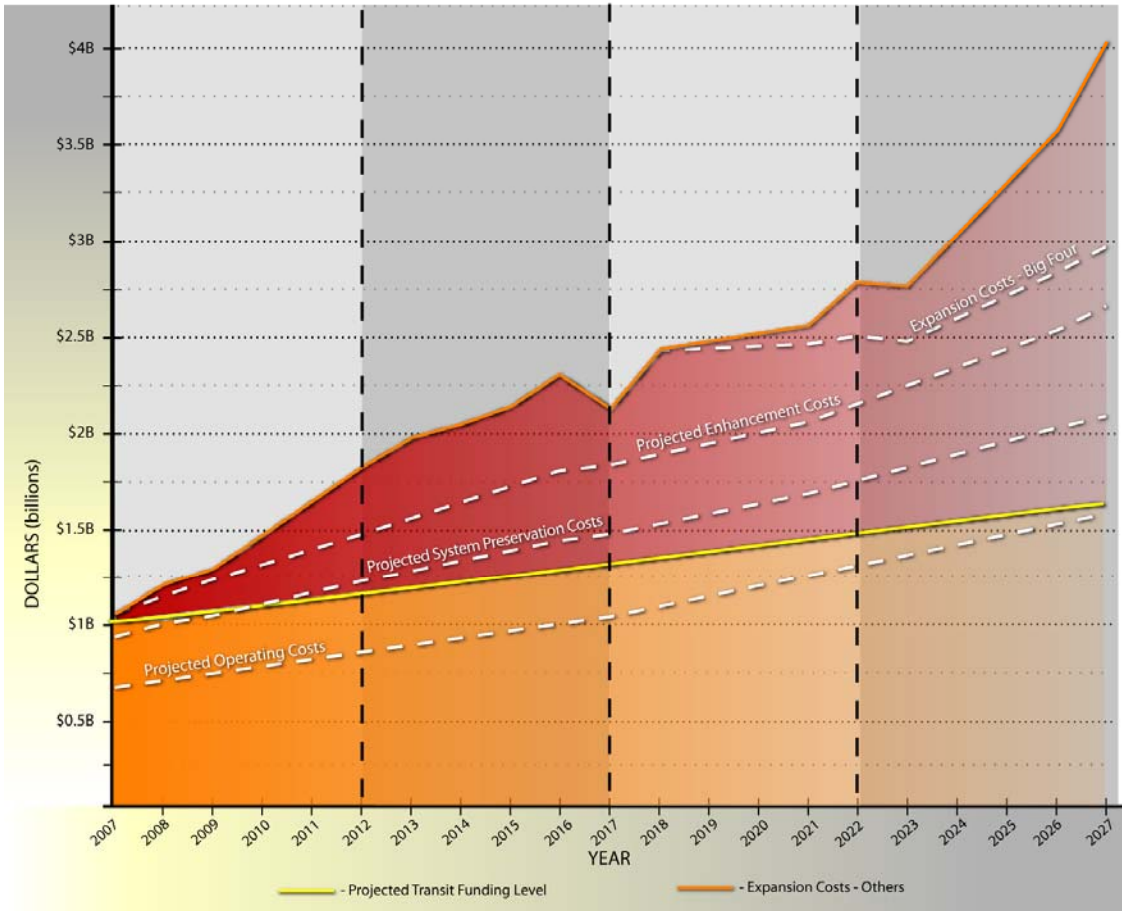
	<b>2007-2012</b>	<b>2012-2017</b>	<b>2017-2022</b>	<b>2022-2027</b>	<b>20-Year Total</b>
Projected Funds Available	\$5,489	\$6,225	\$7,071	\$8,051	\$26,836
Operating Cost	\$3,713	\$4,671	\$5,753	\$7,052	\$21,189
Preservation Costs	\$1,469	\$1,756	\$2,038	\$2,329	\$7,592
Enhancement Costs	\$828	\$1,464	\$1,563	\$2,008	\$5,863
Expansion Costs	\$421	\$2,123	\$2,108	\$1,029	\$5,681
Funding (Shortfall)	(\$942)	(\$3,789)	(\$4,391)	(\$4,367)	(\$13,489)

**Other Major Initiatives**

A final analysis conducted by staff considers the financial impact of a wide range of other major transit initiatives that are being discussed at various forums around the State. These initiatives include: extending the WMATA Green Line from Greenbelt to BWI Airport; expansion of MARC service in the northeastern part of the State; expanding the WMATA Purple Line east from New Carrollton to the Woodrow Wilson Bridge; high capacity transit service to Southern Maryland, LRT to

Columbia; and a new Howard Street rail tunnel in Baltimore City. These estimates are considered to be quite preliminary, as the projects included in them are not in project development. They are presented to show the impact of a truly unconstrained assessment of transit needs in Maryland, but are not used in any subsequent analyses of potential alternatives for meeting the needs.

20 Year Projection of Transit System Expansion Costs  
 "Other Major Initiatives"



**Potential Alternatives for Addressing Transit Funding Needs**

The series of graphs and tables presented above illustrate that the State is facing a considerable shortage of transportation funds available to address transit needs. Based on that assessment it is reasonable to expect a funding need of just under \$1 billion within the next five years growing to over \$13 billion by 2027.

This need is sobering, but there are a number of opportunities available to the State for addressing transit needs. Implemented as a menu from which the state may pick and choose according to policy preferences, they include the following:

- Implement operational improvements to achieve operational efficiencies and reduce costs. Before investing in new services, it is important to ensure the existing system is managed and running as efficiently as possible.
- Implement fare increases to transit services. Fare increases come with the potential for ridership reductions. As discussed by staff during the review of other systems to the Steering Committee, small incremental increases in fares that align with growth in inflation and provide adequate service quality are generally acceptable to riders.
- Consider opportunities for public-private partnerships. As demonstrated by the case studies examined for this study, there are opportunities to reduce the State's cost burden for project development by partnering with the private sector. These opportunities tend to be limited to one-time projects in transit. Operational efficiencies can also be achieved through contracting service operations to private vendors.
- Increase transit's share of the Transportation Trust Fund. As shown on the graphs previously, transit funding shares are generally around 35%. Some years the funding has been greater and other years less. Should the needs and priorities of the State align accordingly, it is possible to commit a greater share of the Trust Fund to transit operations and capital investments. However, according to the Transportation Task Force Report completed in December 2003, other modes such as highways, the port and airport also have significant levels of unmet funding needs. The State will have to weigh these needs as they determine the merits of reallocation of the Transportation Trust Fund.
- Increase local participation in transit funding. One of the lessons learned in examining other transit agencies from around the country is that the vast majority of transit agencies obtain local funding. One option for funding portions of expected costs would be to shift some of the responsibility to local jurisdictions for existing services, or to limit it to new services.
- Increase or implement new Transportation Trust Fund revenues. A number of possibilities exist for enhancing the revenues that flow into the trust fund.

## Menu of Revenue Sources

The staff analyzed several options for meeting the funding shortages identified in this report through increases to existing or implementing new Transportation Trust Fund revenue sources.

The existing sources reviewed include: increases to the motor fuel tax; indexing an increase to the motor fuels tax to inflation; and increases to the motor vehicle titling tax, vehicle registration fees, and corporate income tax. These increases and the anticipated revenues from these increases are shown in the table below.

### Menu of Potential TTF Revenue Source Increases

Existing TTF Revenue Source	Existing Rate	New Rate	Annual Average MDOT Revenues (\$ in Millions)	5 - Year Average MDOT Revenues (\$ in Millions)
Motor Fuel Tax	23.5c/gal.	28.5c/gal.	\$168	\$842
		----- 28.5c/gal. indexed to CPI	----- \$235	----- \$1,175
Titling Tax	5% of Purchase Price	6%	\$171	\$853
Vehicle Registrations	\$50.50/year (passenger car)	5% Increase	\$18	\$89
Corporate Income Tax	7% of Corporate Income Tax	1% Increase dedicated to TTF	\$116	\$578

Additionally, staff looked at a set of new revenue sources that could be applied to the Transportation Trust Fund. Initially they included: increasing the State sales tax at two different rates; increasing the State property tax rate; and implementing a surcharge to the State income tax. However, in response to a request from a member of the Transit Funding Study Steering Committee, staff looked at two alternative means of implementing a regionally applied sales tax increase and generated the associated estimated revenues.

Regionally applied alternatives were not specifically discussed by the members of the Steering Committee. There are potentially multiple ways in which targeted regions and taxation policy could be provided. The two alternatives provided below offer two such possibilities; they are summarized as follows:

- **Core Service Area Regional Sales Tax:** Under this alternative the regional sales tax was applied only to jurisdictions served by the core major urban transit systems within each of the two metropolitan regions of Baltimore and Washington. The estimated revenues are based on a ¼% increase in the state sales tax applied only to sales transacted in Baltimore City and the following counties: Baltimore, Anne Arundel, Montgomery, and Prince Georges. The resulting sales tax rate in those communities would be 5 1/4%, whereas the sales tax rate elsewhere in the State would remain 5%.
- **Metropolitan Area Regional Sales Tax:** Under this alternative, the regional sales tax was applied to the entire metropolitan regions of Baltimore and Washington which directly and indirectly benefit from the urban core systems as well as commuter bus and MARC rail services, and LOTS that operate in their jurisdictions. The estimated revenues are based on a ¼% increase in the state sales tax applied only to citizens from Baltimore City, and the following counties: Baltimore, Anne Arundel, Carroll, Harford, Howard, Montgomery, Prince Georges, Charles and Frederick. The resulting sales tax rate in those communities would be 5 1/4%, whereas the sales tax rate elsewhere in the State would remain 5%.

The estimated revenues to the MDOT from the various sources are shown in the table below.

## Menu of Potential New TTF Revenue Sources

Revenue Source	Existing Rate	New Rate	Annual Average MDOT Revenues (\$ in Millions)	5 - Year Average MDOT Revenues (\$ in Millions)
Statewide Sales Tax increase	5%	5 ¼ %	\$199	\$993
Statewide Sales Tax increase	5%	5 ½ %	\$399	\$1,995
Core Service Area Regional Sales Tax	N/A	5 ¼%*	\$112	\$561
Metropolitan Area Regional Sales Tax	N/A	5 ¼%*	\$146	\$730
State Property Tax	.112/\$100 Assessed Value	.117/\$100 Assessed Value	\$33	\$164
Income Tax Surcharge	Variable	1% Surcharge	\$80	\$401

\*Represents total of 5% state sales tax plus additional ¼% regionally applied sales tax.

### Funding Scenarios

To better understand the means of meeting the funding shortfall, two scenarios were developed using a combination of operating cost efficiency savings, fare increases, public private partnerships and two separate tax increases: a motor fuel tax increase and a state sales tax increase. These scenarios were tested for their ability to address the

total cost of the expected shortfall in transit funding for the State over the next twenty years.

As seen in the following tables, increasing the motor fuel tax requires much higher tax adjustments in order to accommodate the projected transit funding needs than would an increase in the State sales tax. These results are consistent with assessment of other transit systems from around the country which show the sales tax as the primary source of transit tax revenue given its large base for collection of the tax. Additionally, the analysis shows that fare increases, cost efficiency measures, and public private partnerships have the potential to capture a substantial smaller portion of the expected transit funding shortfall.

**Scenario 1:  
Meeting Funding Shortfall with Existing TTF Revenue Source**

FY (\$ in Millions)

	2007-2012	2012-2017	2017-2022	2022-2027	20-Year Total
Funding (Shortfall)	(\$942)	(\$3,789)	(\$4,391)	(\$4,367)	(\$13,489)
Operating Cost Efficiencies Savings of 1%	\$38	\$50	\$65	\$81	\$234
3% Annual Fare Increase Revenues	\$44	\$51	\$59	\$69	\$223
Public Private Partnership Revenues	\$15	\$21	-	-	\$36
Motor Fuel Tax Revenues (total/gal tax)	\$836 (28.5c/gal)	\$3,695 (44.5c/gal)	\$4,251 (46.5c/gal)	\$4,274 (46.5c/gal)	\$13,056
Total Revenues	\$933	\$3,817	\$4,375	\$4,424	\$13,549



**Scenario 2:**  
**Meeting Funding Shortfall with New TTF Revenue Source**  
 FY (\$ in Millions)

	2007-2012	2012-2017	2017-2022	2022-2027	20-Year Total
Funding (Shortfall)	(\$942)	(\$3,789)	(\$4,391)	(\$4,367)	(\$13,489)
Operating Cost Efficiencies Savings of 1%	\$38	\$50	\$65	\$81	\$234
3% Annual Fare Increase Revenues	\$44	\$51	\$59	\$69	\$223
Public Private Partnership Revenues	\$15	\$21	-	-	\$36
Sales Tax Revenues (total sales tax)	\$993 (5.25%)	\$3,591 (5.75%)	\$4,476 (5.75%)	\$5,577 (5.75%)	\$14,421
<b>Total Revenues</b>	<b>\$1,048</b>	<b>\$3,713</b>	<b>\$4,600</b>	<b>\$5,727</b>	<b>\$15,091</b>

## **SUMMARY AND CONCLUSIONS**

Transit in the State of Maryland is undergoing growth and change, putting pressure on the State's ability to fund this growth. The Maryland General Assembly put forth Senate Bill 850 in 2006 to undertake a study to identify the full extent of the transit needs for the State over the next twenty years and identifies potential strategies for funding those needs. This bill was formed in light of a legislative proposal being put forth by Representative Tom Davis of Virginia that would provide an extra \$1.5 billion for the Washington Metropolitan Area Transit Authority over ten years if and only if a 50% match could be provided by the WMATA compact jurisdictions and provided that those jurisdictions identify a dedicated source of funding to provide that match. This potential funding challenge exacerbates the State's challenge in meeting transit funding needs throughout the State.

A Steering Committee comprised of elected representatives of the Maryland General Assembly and two Department Secretaries directed the study effort, supported by staff of the Maryland Department of Transportation.

The study approach consisted of the following steps:

- Establish a context – provide an overview of historic and existing transit investments, operations and funding in Maryland;
- Learn from others – examine the trends and specific case studies with regards to transit funding in the United States;
- Understand our needs – identify an unconstrained list of transit investment requirements for the State transit system and outline specific strategies for addressing them through existing and new revenue sources.

### ***The Transit Context***

Transit system funding, management and oversight in Maryland is predominantly a State function. The Maryland Transit Administration (MTA) is the operator of the Baltimore metropolitan transit system, including bus, heavy rail, light rail, and paratransit services. The State's 24 locally operated transit systems (LOTS), community transit systems that range in size and scope from small demand responsive systems to comprehensive urban bus networks. Additionally, MTA oversees contract operations of the MARC commuter rail system and the State's expansive commuter bus operations. The Maryland Department of Transportation oversees transit services and funding for

the Maryland portion of the Washington Metropolitan Area Transit Authority.

Transit in Maryland is a core element of the State's transportation system. On any given weekday, transit in Maryland serves over 840,000 customers. Growth in the transit network occurs in response to growth of population and jobs in Maryland's urbanized and growing suburban areas. Over time, some of Maryland's suburban transit systems have grown considerably in response to growth in their local communities. Similarly, systems such as commuter bus and commuter rail show substantial growth to accommodate commuting from the State's growing suburbs to jobs in Baltimore and Washington.

Almost 500,000 daily trips are made by bus. Most of those bus trips are made on one of the State's many city bus systems in the State's urban areas. Many others are on commuter buses, or smaller bus systems serving Maryland suburban and rural communities. Commuter bus services and several LOTS systems continue to grow in relation to growth in the State's suburban and rural communities.

Heavy rail systems operating in the Washington DC and Baltimore region, command almost 290,000 daily trips. The Washington Metropolitan Area Transit Authority Metrorail services began operation in Maryland in 1978, quickly escalating in size to encompass 26 stations in Montgomery and Prince George's Counties. Heavy rail on the Baltimore Metro began operation in 1986 and has since grown into a 14-station corridor.

Commuter rail services in Maryland are a growing sector of the State's transit network. Demand has increased for commuter rail particularly on the Penn Line, which predominantly travels between the Baltimore and Washington central business districts using the Amtrak Northeast Corridor rail network. Efforts to expand commuter rail services are complicated by the limitations of the rail network and railroad operations.

Light rail transit currently operates in the Baltimore region. Ridership grew and remained steady for the service until the suspension of services during construction of a double-tracking project. The system offers substantially improved service and is seeing a resurgence of ridership as a result.

The substantial growth of paratransit services in Maryland is noteworthy. Paratransit serves a very critical population – persons

with disabilities and the elderly population. These are populations that have very limited mobility options available to them without these services. Paratransit is a highly individualized service. The nature of the service means that the costs per passenger of paratransit far exceed other forms of transit.

Transit in Maryland is funded through the State's Transportation Trust Fund (TTF), a dedicated source of revenues for the Maryland Department of Transportation (MDOT). The TTF is comprised of several revenue sources, primarily motor fuel taxes, motor vehicle fees, corporate income tax, and a titling and rental car sales tax. The TTF also includes federal funding allocated to the State. The TTF funds each of the State's transportation modes, including the State transit system.

Transit typically receives about 35% of total MDOT expenditures in any given year. These expenditures include operating and capital costs. Operating costs increase with the growth of the transit system and in relation to inflation and the major cost drivers of labor and fuel. Annual capital costs tend to vary depending upon the specific investments made in a given year.

Federal transit funding is an important source of revenue for the State's transit system. Federal funding is predominantly provided as formula allocations to transit agencies based on the size of their systems and service areas. Federal transit funding is generally limited to capital investments and requires a 80% federal/ 20% state and local funding share. Therefore, operating expenses and state shares must be provided out of the Trust Fund.

Federal capital funding for major new transit investments in rail and bus fixed guideway, the Federal New Starts program, is allocated at the discretion of the Federal Transit Administration. The New Starts process requires a project to compete for transit funding against other proposed transit projects from around the country. Furthermore, although the maximum federal funding share for a New Starts project can be as high as 80%, in line with other federal transit grant programs, this percentage is typically around 50% for projects that receive New Starts funding.

Several key issues arise from an examination of Maryland transit needs and funding, as discussed above. They include:

- Transit is an important component of the transportation system and continues to grow in response to the public's demand for reliable and cost effective transportation options.
- Transit growth coincides with economic and demographic growth in the State. How and where the State grows will have important implications for how and where transit needs will grow.
- Expansion of the transit system requires both the initial capital cost of the infrastructure investment, and the ongoing costs of operating and maintaining the system. Controlling costs are an important aspect of managing transit service provision. However, growth in the costs of providing transit can be anticipated.
- Federal transit funding for major capital investments is constrained. Although federal formula funds remain available and provide the bulk of federal transit funds, funds for the most expensive investments, new major capital investments in rail and bus fixed guideway systems, is distributed at the discretion of the FTA among competing projects from around the country.

### ***Learning From Others***

One important lesson that is learned in examining how transit is managed and funded throughout the United States is that there is no one-size-fits-all transit agency. In an examination of transit funding throughout the United States, several key themes emerged that helps understand Maryland in relation to other states and transit agencies in the United States.

The review of other transit systems conducted for this study included presentations by other WMATA compact jurisdictions, including Fairfax County, Virginia, the Virginia Department of Rail and Public Transit, and the District of Columbia. Additionally, the Steering Committee reviewed an overview of transit funding with a focus on state and local funding shares and revenue sources, by the country's twenty largest transit agencies in the country. An in-depth examination of transit funding of several specifically identified transit agency peers, helped to put Maryland in a better context in relation to the Nation's transit systems. Lastly, the Steering Committee reviewed information related to the application of public-private partnerships, a growing innovative funding strategy used by transit agencies for the development of new major transit investments.

A number of key themes arose in these reviews and several conclusions can be drawn about how transit is funded and managed throughout the United States. These key issues are examined in light of the lessons learned from others below.

- **Transit agency management and funding is substantially a local concern.** Transit is typically locally managed with substantial local funding. The Maryland Transit Administration is clearly a unique entity in that regard. New Jersey Transit is the only other transit agency in the country that is a statewide owned, operated, and funded transit agency. The State of Pennsylvania also has a substantial role in funding its large regional transit agencies, as well as its locally operated community transit systems. However, much of the management responsibility for transit funding is delegated to local boards.

On the other hand, the degree to which states oversee and fund transit varies considerably across the United States. A review of the top twenty transit agencies around the country show that quite a few states share in transit agency funding, particularly of operating costs. Local funding is also provided to the Washington Metropolitan Area Transit Authority, which Maryland participates in the funding for Maryland regional transit services. Local funding is provided by the two Virginia counties that fall within the WMATA service area as well as the District of Columbia.

- **Transit funding is a ubiquitous concern throughout the United States.** Many of the agencies reviewed for the Transit Funding Study were in financial distress and seeking means to addressing their funding needs. Clearly, not all transit agencies are facing such challenges. But, the State of Maryland is not alone in seeking ways of enhancing transit revenues in an effort to meeting growing demand and costs.

The State of Pennsylvania offers a particularly interesting case study for Maryland, because of the state's strong role in funding two major urban transit systems as well as services operating in the remainder of the state. Transportation funding for the State highway and transit systems is a serious concern in Pennsylvania and led the Governor to commission a study to identify a strategy of reforms and revenue enhancements as a means to addressing its transportation funding needs. Transit is funded using a trust fund that relies heavily on highly unreliable utility taxes. The State's five year plan includes a mix of new transit revenues as well as enhanced oversight by the State in which transit funding is linked to performance.

- **Most transit agencies receive dedicated funding.** Most of the transit agencies reviewed for this study receive some form of dedicated revenues. The most prominent of dedicated revenues is a statewide or locally applied sales tax. For example, the Northern Virginia counties of Arlington and Fairfax designate a regionally applied sales tax to the Washington Area Metropolitan Transit Authority. Dedicated funding guards against competition for funds with other transportation modes. The sales tax is a popular source of revenues because of its broad taxing base that produces a lot of revenues from a small tax. (The potency of the sales tax as a source of revenue in Maryland is demonstrated in the third section of this report.)
- **Public-private partnerships are growing as an innovative transit funding source.** A number of agencies are partnering with the private sector to bring about new investments in transit services and facilities. The examples looked at for the study focused on facility/project-based investments that do not extend to funding the operations and maintenance of the service to those facilities. In each case study, the private sector saw a benefit to the transit investment either directly in the form of better access to their services or indirectly in terms of increased property values around the transit facility. The public sector benefited from the revenues and ability to get projects implemented in a timely fashion. Value capturing methods, such as tax increment financing and special assessments, on areas directly benefiting from transit investments is an important means of financing the public's share of project funding.

Public-private partnerships do not necessarily limit themselves to shared project development. Increasingly agencies are opting to contract out service operations and maintenance and even the provision of rolling stock. As transportation needs grow the private sector will see the value in participating in its development as a means to facilitate commerce and economic development. The State can learn from these experiences to develop its own strategies for partnering with the private sector to deliver important transit projects.

- **Local Transportation and Business Stakeholders View Transit As Important**

One of the most important groups that the Steering Committee was able to learn from in this study was transit stakeholders. Written and spoken public testimony provided to the Steering Committee

helped to solidify the importance of finding innovative solutions to providing transit services in Maryland. Most of those who testified wanted to see more transit service and were therefore willing to pay more for those services in the form of higher taxes.

### ***Understanding Our Needs***

As directed in SB 850, an unconstrained estimate of transit needs for the next twenty years was developed. There are many factors that drive transit funding needs, including economic and demographic growth, an expanding transit network of services, and inflation. The source of transit costs and needs is a composition of several equally important demands:

- **Operations and general maintenance** of the existing transit system. This would include the costs of labor, fuel, and other equipment and supplies needed to operated and maintain the existing transit system.
- **System preservation** of the existing system, in which investments are made to ensure the full useful life of transit investments such as vehicle overhauls and facility maintenance and repair.
- **System enhancements** that include substantial capital investments in vehicle fleets, facilities and technology needed to increase service and improve service performance.
- **Major capital investment expansions**, such as new transit stations and transit service extensions to accommodate new markets and growing demand.

Cost estimates for each of these four primary sources of transit needs and costs were projected for the next twenty years based on historic trends and anticipated needs for the transit system. This includes a number of proposed initiatives that would fall into each of the categories of transit costs outlined above. These costs were then compared against projected revenues of an assume 35% of the Transportation Trust Fund for that same time period. The amount of 35% was selected for the comparison based on historic trends regarding the portion of the Transportation Trust Fund that is typically spent on transit.

Assumptions for each of the types of transit funding needs identified above include the following:

- Transit operations costs assume historic growth of the costs of operating existing services, an annual average increase of about 4.35%. Assuming no growth in the transit system, the projected



transit revenues would be enough to cover the costs for the twenty year period. However, the growth in costs exceeds the growth in revenues. Therefore, the revenues would cease being sufficient right after 2027.

- System preservation costs assume a range of specific investments needed for both the WMATA and MTA transit systems to maintain service quality as provided by staff. This includes full funding of the WMATA Metro Matters, a capital funding program for maintenance of the existing system including the replacement of rolling stock and track and facility maintenance. Fleet enhancements were also included. Similar types of needs were identified for the MTA system. Deficits in transit funding start to occur when system preservation costs are layered onto the costs of operating and maintaining the existing system under this set of projections starting in 2012.
- Transit enhancement and expansion costs include several major investments, but no new transit system expansions. These include full implementation of the MARC Master Plan, a twenty year plan for MARC system improvements; 8-car train sets for the WMATA heavy rail system; and modest growth in the Baltimore, Washington and LOTS urban bus systems; growth in paratransit and commuter bus. At this level of investment, layered onto the other costs outlined above, substantial deficits begin in 2008.
- Major system expansions, a set of four projects in some phase of project planning, was the last set of costs layered onto the twenty-year assessment of needs. The four projects include the Red and Green Line transit lines to be built in Baltimore, and the Bi-County Transitway and Corridor Cities Transitway to be built in the Washington region. Estimates include a mid-point cost between bus rapid transit and light rail transit alternatives.

The total projected funding shortfalls resulting from the layered cost projections described above start at about \$950 million in the five year period between 2007-2012 and increase to a shortfall of \$13.5 billion over the twenty year time period between 2007-2027. Many options exist for addressing the shortfalls, some of which are described within this report.

This concludes the report called for by Senate Bill 850. It offers the General Assembly considerable food for thought as they approach the very important task of developing a strategy for funding transit in Maryland for the next twenty years.

