

**J00A0104**  
**Washington Metropolitan Area Transit Authority**  
**Maryland Department of Transportation**

***Operating Budget Data***

(\$ in Thousands)

	<u>FY 14 Actual</u>	<u>FY 15 Working</u>	<u>FY 16 Allowance</u>	<u>FY 15-16 Change</u>	<u>% Change Prior Year</u>
Special Fund	\$268,340	\$285,621	\$320,422	\$34,801	12.2%
<b>Adjusted Special Fund</b>	<b>\$268,340</b>	<b>\$285,621</b>	<b>\$320,422</b>	<b>\$34,801</b>	<b>12.2%</b>
<b>Adjusted Grand Total</b>	<b>\$268,340</b>	<b>\$285,621</b>	<b>\$320,422</b>	<b>\$34,801</b>	<b>12.2%</b>

- The fiscal 2016 allowance increases by \$34.8 million (12.2%) from the current year working appropriation. This appropriation represents Maryland’s share of the operating subsidy to the Washington Metropolitan Area Transit Authority (WMATA).
- Based on WMATA’s proposed fiscal 2016 budget, Maryland’s share of the operating subsidy is projected at \$325.3 million or \$4.9 million more than the fiscal 2016 allowance. If the WMATA budget as approved requires a Maryland subsidy larger than that included in the allowance, then the Maryland Department of Transportation will process a budget amendment to fulfill Maryland’s obligation to WMATA. Any appropriation in excess of the amount needed for the grant will cancel at the end of the fiscal year.

***PAYGO Capital Budget Data***

(\$ in Thousands)

	<u>Fiscal 2014 Actual</u>	<u>Fiscal 2015</u>		<u>Fiscal 2016 Allowance</u>
		<u>Legislative</u>	<u>Working</u>	
Special	\$136,655	\$144,345	\$169,345	\$132,091
<b>Total</b>	<b>\$136,655</b>	<b>\$144,345</b>	<b>\$169,345</b>	<b>\$132,091</b>

Note: Numbers may not sum to total due to rounding.

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- The fiscal 2015 working appropriation is \$25.0 million more than the legislative appropriation reflecting Maryland’s share of the \$75.0 million that WMATA’s local funding partners agreed to provide to begin implementing system capacity enhancements proposed in WMATA’s Metro 2025 initiative.
- The fiscal 2016 allowance decreases \$37.3 million reflecting removal of the Metro 2025 funding and the estimated cash flow needs for Maryland’s share of the WMATA fiscal 2016 capital program.

## *Analysis in Brief*

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### **Major Trends**

**Ridership:** Ridership in fiscal 2014 was 13.3 million trips lower than the projections included in the fiscal 2015 budget submission and 2.5 million trips lower than total ridership in fiscal 2013. A decline in rail ridership of 4.9 million trips was partially offset by increases in Metrobus (2.3 million trips) and MetroAccess (93,000 trips). Ridership for fiscal 2015 and 2016 is projected to grow 6.9% and 1.4%, respectively.

**Revenue Miles:** Revenue vehicle miles are projected to increase for both Metrorail and Metrobus between fiscal 2014 and 2016, but the number of passengers per revenue vehicle mile is projected to decline during this period. Operating cost per passenger trip is projected to increase in nearly every year for both services during this period.

**Farebox Recoveries:** WMATA’s fiscal 2012 to 2016 systemwide five-year average farebox recovery is projected to be 47.6%. Metrorail has the highest five-year average farebox recovery at nearly 65.7%, while the Metrobus farebox recovery averages 25.6%, and MetroAccess averages just over 7.3% during this period.

### **Issues**

**Yellow Line Fatality Exposes Problems with Maintenance, Emergency Response, and Training:** An investigation into the causes of, and response to, a January 12, 2015 Yellow Line train incident that resulted in one passenger fatality are ongoing. While a final report on the incident is not expected for some months, media reports on the incident have raised concerns about failures in system maintenance that may have contributed to causing the incident, communication problems between WMATA personnel and emergency responders during the incident response, and radio malfunctions and other equipment failures. **To the extent possible under federal regulations governing agency comments during an ongoing investigation, WMATA should comment on the factors which led to the smoke in the tunnel, problems associated with the response to the incident, and actions it has taken and plans to take to address the issues relating to the causes of the incident and problems associated with the response to the incident.** Committee narrative requesting a report on the findings of the

**investigation, once complete, along with WMATA’s response to any recommendations resulting from the investigation, is included in the Recommended Actions section of this analysis.**

### **Operating Budget Recommended Actions**

1. Adopt narrative requesting a report on the January 2015 Yellow Line train incident once the investigation of the incident is complete.

### **PAYGO Budget Recommended Actions**

1. Concur with Governor’s allowance.

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**Washington Metropolitan Area Transit Authority**  
**Maryland Department of Transportation**

***Budget Analysis***

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**Program Description**

The Washington Metropolitan Area Transit Authority (WMATA) operates the second largest rail transit system and the fifth largest bus network in the United States. WMATA was created in 1967 by an interstate compact in which Maryland, Virginia, and Washington, DC participate. Subsequently, two federal representatives were added to the Board of Directors (board). Each signatory jurisdiction provides two directors to WMATA's eight-member board. Construction of WMATA's 103-mile Metrorail system began in 1969 and was completed in 2001. In 2004, the system was expanded to its current 86 stations and 106 miles with the opening of the Blue Line extension to Largo Town Center and the New York Avenue\Florida Avenue\Gallaudet University station on the Red Line. In 2009, construction started on a 23.1-mile rail extension to Dulles, Virginia dubbed the Silver Line. The first 11.6 miles with 5 stations opened in July 2014. Construction of the second phase, consisting of 11.5 miles and 6 stations, is scheduled for completion in calendar 2018. The system now serves 26 stations in Maryland.

Maryland provides an annual operating grant to the Washington Suburban Transit Commission (WSTC) through the Maryland Department of Transportation's (MDOT) Secretary's Office budget. WSTC authorizes MDOT to provide funding to WMATA for the operation of the Metrorail, Metrobus, and MetroAccess programs. These operating grants are based on numerous factors, including miles of service, number of stations, number of passengers, and population density in each jurisdiction and are offset by the fare revenues generated by each service.

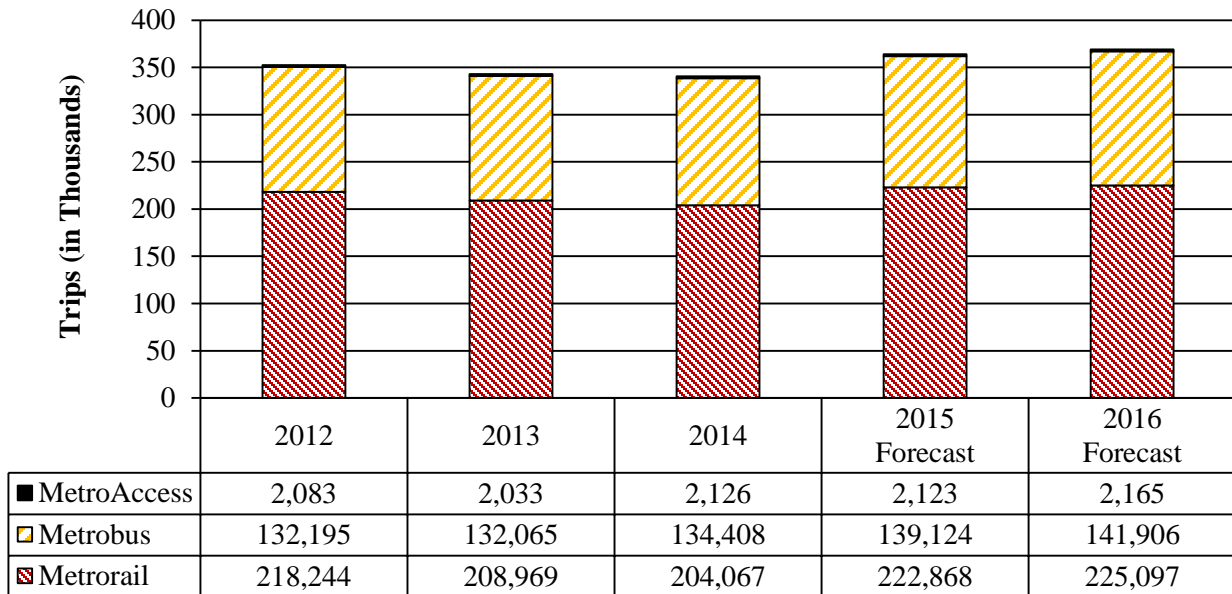
WMATA's mission is to ensure the best in safe, reliable, cost-effective, and responsive transit services by promoting regional mobility and contributing toward the social, economic, and environmental well-being of our community.

**Performance Analysis: Managing for Results**

**1. Ridership**

**Exhibit 1** shows ridership for the WMATA system from fiscal 2012 to 2014 and projections for fiscal 2015 and 2016. Ridership in fiscal 2014 was 13.3 million trips lower than the projections included in the fiscal 2015 budget submission and 2.5 million trips lower than total ridership in fiscal 2013. A decline in rail ridership of 4.9 million trips was partially offset by increases in Metrobus (2.3 million trips) and MetroAccess (93,000 trips). A number of factors contributed to the lower ridership including the federal government shutdown in October 2013, the January 1, 2014 decrease in the federal mass transit subsidy, the slow economic recovery, and declining federal government

**Exhibit 1  
WMATA Annual Ridership  
Fiscal 2012-2016  
(Trips in Thousands)**



WMATA: Washington Metropolitan Area Transit Authority

Source: Washington Metropolitan Area Transit Authority

employment. For fiscal 2015, ridership is projected to rebound, growing by 6.9% over fiscal 2014 and representing a 3.3% increase over fiscal 2012 ridership levels, the most recent year in which ridership increased. Ridership in fiscal 2016 is projected to increase by 1.4% representing an increase of just over 5.0 million trips.

## 2. Revenue Miles

Another measure of performance is to look at the relationship between the service provided and used, as measured by revenue miles and passenger trips, relative to expenditures. **Exhibit 2** provides a summary of these measures for Metrorail and Metrobus. Following are some of the highlights.

**Exhibit 2**  
**Efficiency Measures of WMATA**  
**Fiscal 2013-2016 Est.**

	<u>2013</u>	<u>2014</u>	<u>Est.</u> <u>2015</u>	<u>Est.</u> <u>2016</u>
<b>Metrorail</b>				
Revenue Miles (in Millions)	75.9	74.1	87.8	87.8
Passengers Per Revenue Mile	2.75	2.75	2.54	2.56
Operating Cost Per Revenue Mile	\$11.68	\$13.01	\$11.69	\$12.32
Operating Cost Per Passenger Trip	\$4.24	\$4.72	\$4.60	\$4.80
<b>Metrobus</b>				
Revenue Miles (in Millions)	39.2	38.6	40.5	41.0
Passengers Per Revenue Mile	3.37	3.49	3.44	3.46
Operating Cost Per Revenue Mile	\$13.68	\$14.76	\$15.30	\$15.84
Operating Cost Per Passenger Trip	\$4.06	\$4.23	\$4.45	\$4.57

WMATA: Washington Metropolitan Area Transit Authority

Source: Washington Metropolitan Area Transit Authority

**Metrorail**

- Revenue vehicle miles – measured as miles traveled when a railcar is in service collecting fares – decreased in fiscal 2014 by 1.8 million but are projected to grow by 13.7 million miles in fiscal 2015 and remain at that level in fiscal 2016. A major factor in the growth in revenue vehicle miles is the opening of the first phase of the Silver Line.
- Passengers per revenue vehicle mile in fiscal 2014 remained unchanged from fiscal 2013 at 2.75 with a decline to 2.54 projected for fiscal 2015 and a slight rebound to 2.56 in fiscal 2016.
- Operating cost per revenue mile and passenger trip compares expenditures to total revenue miles and passenger trips to measure the cost of providing service. Operating cost per revenue mile and per passenger trip both increased in fiscal 2014 but are projected to decline again in fiscal 2015, then increase in fiscal 2016.

**Metrobus**

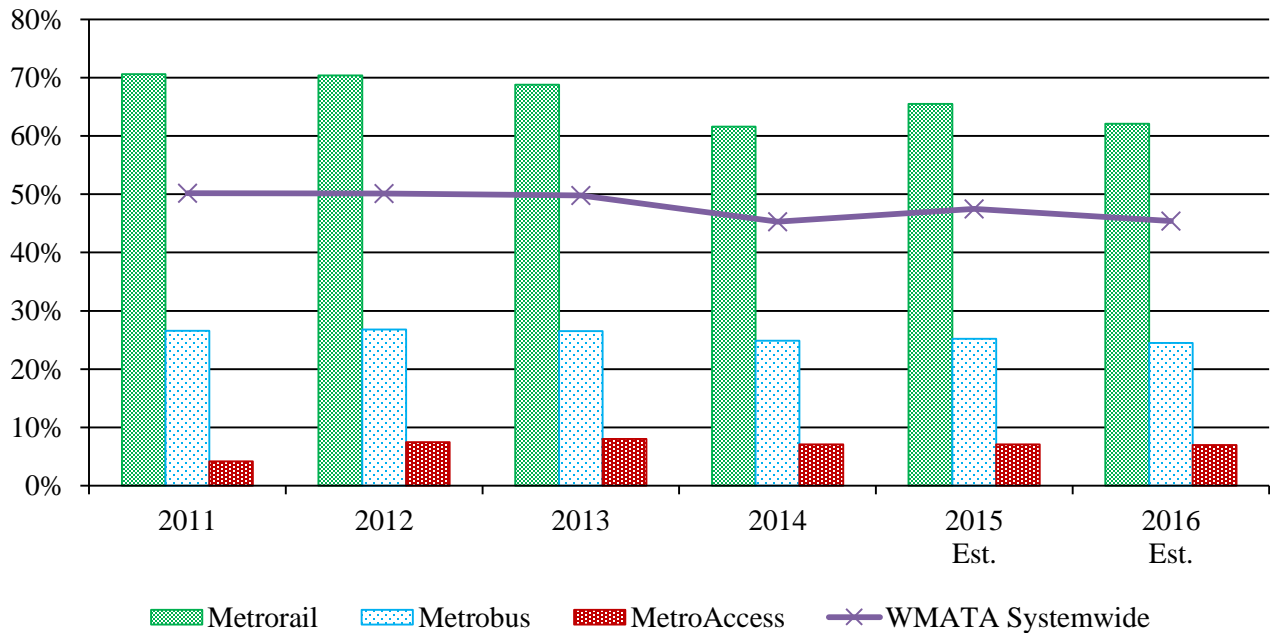
- Revenue vehicle miles for Metrobus declined slightly between fiscal 2013 and 2014 but are projected to increase in both fiscal 2015 and 2016.

- Passengers per revenue mile increased from 3.37 in fiscal 2013 to 3.49 in fiscal 2014 but are projected to decline slightly in fiscal 2015 and increase again in fiscal 2016.
- Operating cost per revenue mile and passenger trip both increased in fiscal 2014 and are projected to increase in both fiscal 2014 and 2015. Operating cost per revenue mile is projected to increase by an annual average rate of 3.6% between fiscal 2014 and 2016, and operating cost per passenger trip is projected to grow at an average annual rate of 3.9% for this period.

### 3. Farebox Recoveries

**Exhibit 3** provides information on WMATA’s farebox recovery ratio from fiscal 2011 to 2016. The fiscal 2012 to 2016 systemwide five-year average farebox recovery is projected to be 47.6%. Metrorail has the highest five-year average farebox recovery at nearly 65.7%, while the Metrobus farebox recovery averages 25.6%, and MetroAccess averages just over 7.3% during this period.

**Exhibit 3  
WMATA Farebox Recovery Rates  
Fiscal 2011-2016 Est.**



WMATA: Washington Metropolitan Area Transit Authority

Source: Washington Metropolitan Area Transit Authority



## **Proposed Budget**

### **Expenditures**

WMATA's proposed fiscal 2016 operating budget totals \$1.8 billion, an increase of \$69.0 million (3.9%) over the fiscal 2015 approved budget. WMATA reports that major components of change between the current year and fiscal 2016 proposed operating budgets comprise:

- \$56.9 million in personnel expenses, including fringe benefits and Other Post Employment Benefit contributions, resulting from the negotiated collective bargaining agreements with its labor unions;
- \$7.0 million in initiatives that will continue fatigue management and enhance employee development;
- \$7.0 million increase in paratransit services;
- -\$1.3 million for fuel and propulsion power; and
- -\$3.7 million for casualty and liability coverage.

The proposed fiscal 2016 operating budget constrains spending by:

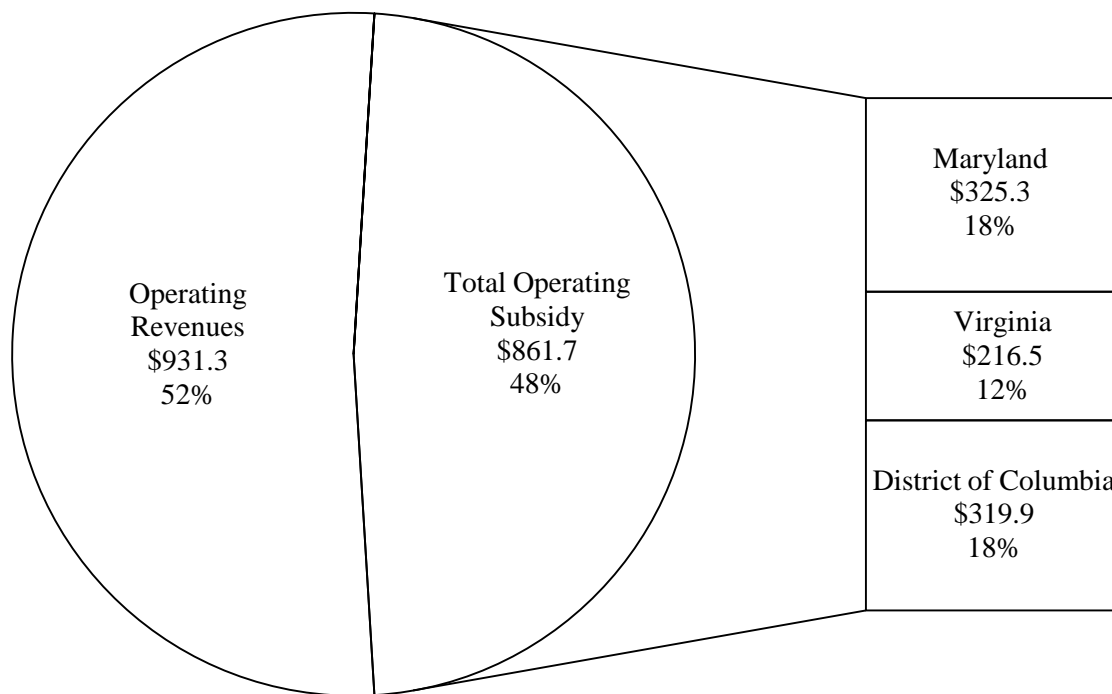
- eliminating 50 nonsafety sensitive positions;
- deferring investments in the bus Priority Corridor Network;
- deferring investments in State of Good Operations and expansion of bus vehicle and rail station cleanliness; and
- transferring operations of some bus routes from WMATA to local jurisdictions.

**WMATA should brief the committees on its proposal to transfer operation of certain bus routes to local jurisdictions including identification of routes to be transferred to Maryland jurisdictions, the current annual cost of operations for each of the routes proposed for transfer, and the estimated financial impacts on each jurisdiction from assuming operation of the transferred routes.**

## Revenues

WMATA’s operations are funded through operating revenues and subsidies provided by Maryland, Virginia, and Washington, DC. **Exhibit 4** shows that 52.0% of the operating budget will be supported by WMATA’s operating revenues. Passenger revenue, in particular Metrorail, accounts for approximately 89.0% of all operating revenue. Projected fiscal 2016 operating revenues decline by almost 1.6% from the current year. A projected decrease of \$19.6 million in Metrorail passenger revenues is only partially offset by a projected \$2.4 million increase in Metrobus and MetroAccess passenger revenue. WMATA attributes the decline to the decrease in the federal transit benefit, the stagnation/decline in federal employment in the region, and the decline in the price of gasoline.

**Exhibit 4**  
**WMATA Proposed Fiscal 2016 Revenues**  
**Fiscal 2011-2016 Est.**  
**(\$ in Millions)**



**Total Revenues = \$1.8 Billion**

WMATA: Washington Metropolitan Area Transit Authority

Note: Excludes debt service and \$30.7 million in capital preventive maintenance used in the operating budget to reduce the local subsidy.

Source: Washington Metropolitan Area Transit Authority

The local subsidy fills the gap between operating revenues and expenditures. In fiscal 2016, the local subsidy supports 48.0% of operating spending. The local subsidy is projected to increase by \$83.7 million over the current year (10.8%), as shown in **Exhibit 5**.

**Exhibit 5**  
**WMATA Operating Budget Resources**  
**Maryland Operating Subsidy**  
**Fiscal 2013-2016**  
**(\$ in Millions)**

	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>\$ Change</u> <u>2015-2016</u>	<u>% Change</u> <u>2015-2016</u>
Revenue	\$853.6	\$853.1	\$946.0	\$931.3	-\$14.7	-1.6%
Local Subsidy	669.0	732.0	778.0	861.7	83.7	10.8%
Preventive Maintenance/Other	30.7	30.7	30.7	30.7	0.0	0.0%
<b>Total</b>	<b>\$1,553.3</b>	<b>\$1,615.8</b>	<b>\$1,754.7</b>	<b>\$1,823.7</b>	<b>\$69.0</b>	<b>3.9%</b>
Maryland Share of Operating Subsidy	\$263.7	\$268.3	\$285.6	\$320.4	\$34.8	12.2%
WMATA Projection				325.3	39.7	13.9%
Maryland Surplus/(Shortfall)				-4.9		

WMATA: Washington Metropolitan Area Transit Authority

Note: Excludes debt service and audit adjustments.

Source: Washington Metropolitan Area Transit Authority; Maryland State Budget; Department of Legislative Services

Exhibit 5 also shows that the amount included in the Maryland budget for WMATA operations is \$4.9 million less than the estimated requirement based on WMATA’s proposed budget. If the approved WMATA budget requires a contribution greater than the amount included in the Maryland budget, MDOT will submit a budget amendment to align the fiscal 2016 appropriation to the amount needed. If the amount appropriated is greater than needed, the difference will cancel at the year-end closeout. **Appendix 4** provides an estimated allocation of the State operating and capital subsidies by local jurisdiction.

## **PAYGO Capital Program**

### **Program Description**

MDOT’s Office of the Secretary provides a grant to support WMATA’s capital program including the design, construction, and rehabilitation of the Metrorail and Metrobus systems. General parameters on capital funding levels are established in a six-year Capital Funding Agreement developed

through negotiations between WMATA and its local funding partners. The current agreement expires June 30, 2016.

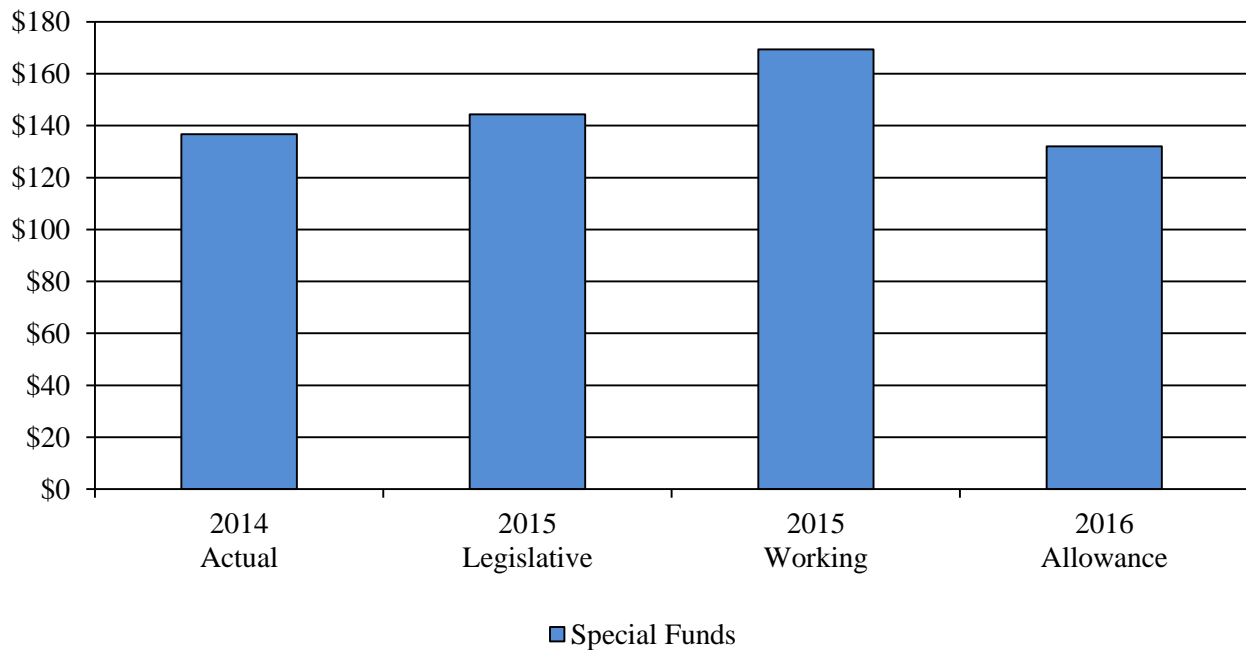
### **Fiscal 2015 to 2020 Consolidated Transportation Program**

Total six-year spending programmed for the WMATA capital grant in the Maryland *Consolidated Transportation Program* is \$936.4 million. The majority of this funding is for infrastructure rehabilitation and replacement to maintain the system in a state of good repair. The fiscal 2015 grant includes \$25.0 million for system capacity enhancements as part of the Metro 2025 initiative.

### **Fiscal 2015 and 2016 Cash Flow Analysis**

As shown in **Exhibit 6**, the fiscal 2015 working appropriation increased by \$25.0 million from the legislative appropriation. This represents Maryland’s portion of the \$75.0 million in local funding committed to Metro 2025 system capacity enhancements. The fiscal 2016 allowance decreases by \$37.3 million from the current year working appropriation reflecting projected cash flow needs in the coming year and the removal of the Metro 2025 funding.

**Exhibit 6**  
**Cash Flow Changes**  
**Fiscal 2014-2016**  
**(\$ in Millions)**

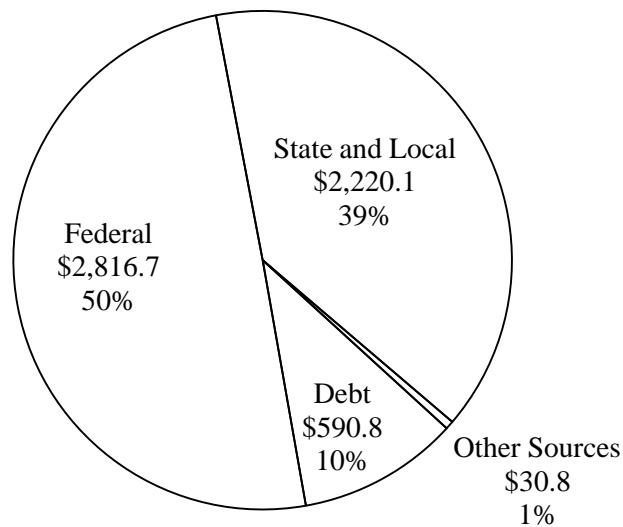


Source: Maryland Department of Transportation, 2015-2020 *Consolidated Transportation Program*

### WMATA Six-year Capital Program

Excluding funding for the proposed Metro 2025 initiative, which has yet to be agreed to by the local funding jurisdictions, WMATA’s fiscal 2016-2021 *Capital Improvement Program* (CIP) totals \$5.7 billion. As shown in **Exhibit 7**, federal funds comprise 50% of funding; State and local contributions comprise 39%; and debt and other sources comprise the remaining 11%.

**Exhibit 7**  
**WMATA Six-year Capital Program**  
**Fiscal 2016-2021**  
**(\$ in Millions)**



**Total Funding = \$5.7 Billion**

WMATA: Washington Metropolitan Area Transit Authority

Source: Washington Metropolitan Area Transit Authority, Fiscal 2016 Proposed Budget

Major planned safety, rehabilitation, and replacement investments in WMATA’s fiscal 2016-2021 CIP include:

- safety improvements and implementation of National Transportation Safety Board (NTSB) recommendations, including but not limited to the examination and replacement of track circuits, the replacement of power cables, and the installation of event recorders and reliability improvements to the Vehicle Monitoring Systems on legacy fleets;

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- comprehensive rehabilitation and replacement of track and rail structures to achieve a state of good repair and a steady state of maintenance;
- replacement, rehabilitation, and repair of railcars:
  - replacement of the 1000 Series railcars (300 railcars);
  - replacement of the 4000 Series railcars (100 railcars);
  - initiation of replacement of the 2000/3000 Series railcars; and
  - initiation of the rehabilitation of 5000 Series railcars;
- replacement, rehabilitation, and repair of buses:
  - replacement of approximately 100 buses per year; and
  - rehabilitation of approximately 100 buses per year;
- procurement of approximately 175 MetroAccess vehicles per year:
  - approximately 150 replacement vehicles; and
  - approximately 25 expansion vehicles;
- rehabilitation of rail line segment infrastructure:
  - Red Line rehabilitation – Stage 2;
  - Orange Line rehabilitation – Stage 1;
- replacement of Southern Avenue and Royal Street bus facilities;
- modernization of Metro’s fare collection infrastructure and technology;
- replacement of escalators (approximately 128);
- rehabilitation of escalators (approximately 144); and
- rehabilitation of elevators (approximately 80).

### **Proposed Six-year Metro 2025 System Capacity Enhancements**

WMATA's CIP includes \$1.3 billion in funding from fiscal 2016 through 2021 for system capacity enhancements through the Metro 2025 initiative. The following work would be undertaken:

- initial investments to initiate the acquisition of expansion railcars to expand the Metrorail fleet to support eight-car train operations (220 expansion 7000 Series vehicles);
- rail-yard capacity improvements at New Carrollton to support eight-car train operation;
- construction of a new heavy repair and overhaul facility;
- station capacity and access improvements at four of Metro's busiest stations:
  - improvements to be completed at Union Station and Gallery Place by 2020;
  - improvements to L'Enfant Plaza and Metro Center stations to begin in 2020 or shortly thereafter;
- purchase of approximately 80 additional buses to support implementation of the Bus Priority Corridor Network Plan;
- investments in planning and project development for future Blue Line connections and pocket and crossover tracks; and
- continued investment in long-range planning and studies for system capacity needs, as well as project development for major capital projects.

Despite the heavy use of Metrorail and Metrobus by federal employees, no federal funding is assumed in WMATA's CIP for Metro 2025 – as currently projected, all funding would be provided by the local jurisdictions, with a Maryland contribution of \$26.9 million in fiscal 2016 and a total six-year contribution of \$374.4 million.

Beyond the \$25 million provided in fiscal 2015, MDOT has not committed to Metro 2025 expansion projects, indicating that WMATA must first address issues related to the existing system. These comprise:

- resolving safety and state of good repair issues;
  - implementation of all NTSB recommendations from the 2009 Fort Totten and the 2015 L'Enfant Plaza incidents;

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- addressing the backlog of deferred maintenance of the existing system which stretches out beyond 2020 for items such as track welds and escalators;
- delivery of safety and state of good repair projects (estimated to comprise 90% of the capital program);
  - in fiscal 2014, WMATA delivered only 79% of the capital program value;
  - for fiscal 2015 WMATA staff have informed the board that capital program delivery is forecast at 76% of the program value;
- restoring sound financial management;
  - produce audited financial statements for fiscal 2014;
  - provide a full accounting of how all capital funds, federal, State, and local, were used in fiscal 2014 and beyond; and
  - close out all findings from the June 2014 Federal Transit Administration’s Financial Management Oversight report.

**WMATA should detail the efforts it has made, if any, to secure federal participation in funding Metro 2025 projects. WMATA should also brief the committees on the progress it is making in addressing the issues noted above related to safety and state of good repair and restoring sound financial management.**

**Fiscal 2016 Capital Program**

WMATA’s proposed fiscal 2016 capital program, including Metro 2025 projects, totals \$1.3 billion. **Exhibit 8** shows planned spending by category.



**Exhibit 8**  
**Fiscal 2016 Capital Spending by Category**  
**(\$ in Millions)**

<u>Category</u>	
Vehicle/vehicle parts	\$546.8
Rail system infrastructure rehabilitation	97.4
Maintenance facilities	176.9
Systems and technology	172.8
Track and structures	75.6
Passenger facilities	176.4
Maintenance equipment	47.3
Other facilities	11.8
Project management and support	8.7
<b>Total</b>	<b>\$1,313.7</b>

Source: Washington Metropolitan Area Transit Authority, Fiscal 2016 Proposed Budget

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**Exhibit 9** shows the total proposed funding by source for WMATA’s fiscal 2016 capital program along with the amount Maryland is expected to contribute. The variance between the Maryland contribution assumed in the WMATA’s CIP and the amount included in the Maryland fiscal 2016 allowance will be reconciled based on cash flow needs as the year progresses and the results of negotiations on Metro 2025 funding. Should funding greater than the amount included in the Maryland budget be needed, MDOT will add funds by budget amendment. Should the full amount of funding included in the Maryland budget not be required, remaining funds will cancel at the year-end closeout.

**Exhibit 9**  
**Sources of Funding for the Fiscal 2016 Capital Program**  
(\$ in Millions)

	<u>Total</u>	<u>Maryland</u>
<b>Federal</b>		
Federal formula programs	\$379.6	
Federal Passenger Rail Investment and Improvement Act	150.0	
Resiliency grant	4.4	
Other federal grants	18.1	
<b>Subtotal – Federal</b>	<b>\$552.1</b>	
<b>State and Local</b>		
Federal formula programs match	\$92.6	\$32.20
Federal Passenger Rail Investment and Improvement Act match	150.0	50.0
Resiliency grant match	1.5	0.52
System performance (locally funded only)	121.9	42.38
Other state and local	4.5	
<b>Subtotal – State and Local</b>	<b>\$370.5</b>	<b>\$125.1</b>
<b>Other Sources</b>		
Insurance Proceeds	\$0.8	
Land sale proceeds	30.0	
<b>Subtotal – Other Sources</b>	<b>\$30.8</b>	
Planned long-term financing	\$282.8	
Metro 2025 (locally funded only)	77.4	\$26.9
<b>Total</b>	<b>\$1,313.6</b>	<b>\$152.0</b>
Maryland fiscal 2016 allowance for WMATA capital grant		\$132.1
Variance		-\$19.9

WMATA: Washington Metropolitan Area Transit Authority

Note: The WMATA proposed fiscal 2016 budget document shows a lump sum for the Maryland contribution of matching funds for the federal formula programs, resiliency grant, and for the locally funded system performance funding. The allocation shown above is based on Maryland’s percentage of total local funding for these items.

Source: Washington Metropolitan Area Transit Authority; Department of Legislative Services

## ***Issues***

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### **1. Yellow Line Fatality Exposes Problems with Maintenance, Emergency Response, and Training**

On January 12, 2015, a southbound Yellow Line train encountered heavy smoke and came to a halt shortly after leaving the L'Enfant Plaza station. One passenger died and scores of other passengers were sent to the hospital. An investigation into the causes of the smoke and problems that occurred during the response to the incident are ongoing. While a final report on the incident is not expected for some months, media reports on the incident have raised concerns about failures in system maintenance that may have contributed to the cause of the smoke, communication problems between WMATA personnel and emergency responders, radio malfunctions, and other equipment failures.

On February 11, 2015, one of the parties to the investigation, NTSB, issued urgent safety recommendations to WMATA, the Federal Transit Administration (FTA), and the American Public Transportation Association (APTA), as a result of this incident despite only being in the early stages of the investigation. The NTSB recommendations relate to the maintenance of fans used to clear smoke from tunnels, the lack of written tunnel ventilation procedures, and adequate training on tunnel ventilation procedures. According to the NTSB letters, the ventilation fans located at strategic locations in the WMATA subway system to remove smoke and heat from the tunnels were operated improperly during the incident, resulting in the smoke settling over the stationary train instead of being vented from the tunnel. Furthermore, a post-accident inspection found that two out of four ventilation fans closest to the source of the smoke had tripped an overload circuit breaker and were nonoperational, possibly for the entire duration of the incident. The NTSB recommended that WMATA assess its subway tunnel ventilation system to verify the state of good repair, develop and implement detailed written tunnel ventilation procedures for operations control center staff to follow, and incorporate these procedures into ongoing training and exercise programs. The NTSB recommendations to FTA and APTA urge those entities to ensure that other subway transit systems ensure the state of good repair of ventilation systems and to have written procedures and training programs related to operation of those systems in place.

**To the extent possible under federal regulations governing agency comments during an ongoing investigation, WMATA should comment on the factors which led to the smoke in the tunnel, problems associated with the response to the incident, and actions it has taken and plans to take to address the issues relating to the causes of the incident and problems associated with the response to the incident.**

**Committee narrative requesting a report on the findings of the investigation, once complete, along with WMATA's response to any recommendations resulting from the investigation, is included in the Recommended Actions section of this analysis.**

## WMATA Safety Incident History

As a recipient of federal grant funding, WMATA is required to submit safety data to the FTA’s National Transit Database. **Exhibit 10** shows the number of reported collisions, derailments, and fires associated with Metrorail operations for calendar 2004 through 2013, the most recent year for which complete data is available. The frequency in fire incidents underscores the critical importance in ensuring that adequate emergency response procedures and training programs are in place.

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### Exhibit 10 WMATA Subway Incidents Reported to NTD Calendar 2004-2013

<u>Calendar Year</u>	<u>Collisions</u>	<u>Derailments</u>	<u>Fires</u>
2004	1	0	1
2005	0	0	0
2006	5	1	109
2007	7	1	82
2008	5	1	26
2009	6	1	2
2010	3	1	10
2011	3	1	24
2012	1	3	22
2013	2	2	15
<b>Total</b>	<b>33</b>	<b>11</b>	<b>291</b>

NTD: National Transit Database

WMATA: Washington Metropolitan Area Transit Authority

Source: Federal Transit Administration, National Transit Database

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## How Metrorail Compares with Other Heavy Rail Transit Systems

Although WMATA clearly has safety-related issues that need to be addressed, its safety record, as measured by total collisions, derailments, and fires per million train revenue miles, compares well with other heavy rail transit systems across the nation. As seen in **Exhibit 11**, Metrorail has averaged fewer of these incidents per train revenue mile over the past 10 years than seven of the other large heavy rail transit systems in the United States.

**Exhibit 11**  
**Average Number of Collision, Derailment, and Fire Incidents**  
**Per Million Train Revenue Miles**  
**Calendar 2004-2013**

<b><u>Heavy Rail Transit System</u></b>	<b><u>10-year Average</u></b>
MTA New York City Transit	33.7
Massachusetts Bay Transportation Authority	25.4
Chicago Transit Authority	9.0
Los Angeles County Metropolitan Transportation Authority	4.7
Miami-Dade Transit	4.2
The Greater Cleveland Regional Transit Authority	2.9
Southeastern Pennsylvania Transportation Authority	2.8
<b>Washington Metropolitan Area Transit Authority</b>	<b>2.7</b>
Metropolitan Atlanta Rapid Transit Authority	1.6
San Francisco Bay Area Rapid Transit District	0.8

MTA: Metropolitan Transportation Authority

Source: Federal Transit Administration, National Transit Database

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## ***Operating Budget Recommended Actions***

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1. Adopt the following narrative:

**Report on the January 2015 Yellow Line Train Incident:** The budget committees request that once the National Transportation Safety Board (NTSB) has completed its investigation of, and issued its report on the January 2015 Yellow Line train incident, that the Washington Metropolitan Area Transit Authority (WMATA) provide a report (1) summarizing the NTSB findings and recommendations; and (2) detailing the corrective actions WMATA has taken and plans to take as a result of the incident and to respond to the NTSB recommendations. The report should be submitted to the committees 45 days after the NTSB investigation report is released.

<b>Information Request</b>	<b>Author</b>	<b>Due Date</b>
Report on January 2015 Yellow Line train incident and corrective actions taken or planned in response	WMATA	45 days after release of the NTSB report on the incident

## ***PAYGO Budget Recommended Actions***

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1. Concur with Governor's allowance.

***Current and Prior Year Budgets***

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**Current and Prior Year Budgets  
Washington Metropolitan Area Transit Authority  
(\$ in Thousands)**

	<u>General Fund</u>	<u>Special Fund</u>	<u>Federal Fund</u>	<u>Reimb. Fund</u>	<u>Total</u>
<b>Fiscal 2014</b>					
Legislative Appropriation	\$0	\$287,000	\$0	\$0	\$287,000
Deficiency Appropriation	0	0	0	0	0
Budget Amendments	0	-600	0	0	-600
Reversions and Cancellations	0	-18,060	0	0	-18,060
<b>Actual Expenditures</b>	<b>\$0</b>	<b>\$268,340</b>	<b>\$0</b>	<b>\$0</b>	<b>\$268,340</b>
<b>Fiscal 2015</b>					
Legislative Appropriation	\$0	\$285,621	\$0	\$0	\$285,621
Cost Containment	0	0	0	0	0
Budget Amendments	0	0	0	0	0
<b>Working Appropriation</b>	<b>\$0</b>	<b>\$285,621</b>	<b>\$0</b>	<b>\$0</b>	<b>\$285,621</b>

Note: Numbers may not sum to total due to rounding. The fiscal 2015 working appropriation does not include January 2015 Board of Public Works reductions and deficiencies.

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## **Fiscal 2014**

The fiscal 2014 budget for the WMATA operating grant closed out \$18.7 million lower than the legislative appropriation. A budget amendment reduced funding for paratransit services (\$600,000) being provided through a pilot program in the Secretary's Office. A year-end cancellation of \$18,060,063 was due, in part, to a fiscal 2012 audit adjustment (\$11.6 million), which reduced Maryland's required contribution. The remaining cancellation reflects the actual required contribution level based on the WMATA budget, which is finalized after the State budget is enacted.

## **Fiscal 2015**

The fiscal 2015 legislative appropriation remains unchanged.

**Fiscal Summary**  
**MDOT – WMATA – Operating Budget**

<u>Program/Unit</u>	<u>FY 14 Actual</u>	<u>FY 15 Wrk Approp</u>	<u>FY 16 Allowance</u>	<u>Change</u>	<u>FY 15 - FY 16 % Change</u>
04 Washington Metropolitan Area Transit – Operating	\$ 268,339,937	\$ 285,621,000	\$ 320,422,000	\$ 34,801,000	12.2%
05 Washington Metropolitan Area Transit – Capital	136,654,906	169,345,000	132,091,000	-37,254,000	-22.0%
<b>Total Expenditures</b>	<b>\$ 404,994,843</b>	<b>\$ 454,966,000</b>	<b>\$ 452,513,000</b>	<b>-\$ 2,453,000</b>	<b>-0.5%</b>
Special Fund	\$ 404,994,843	\$ 454,966,000	\$ 452,513,000	-\$ 2,453,000	-0.5%
<b>Total Appropriations</b>	<b>\$ 404,994,843</b>	<b>\$ 454,966,000</b>	<b>\$ 452,513,000</b>	<b>-\$ 2,453,000</b>	<b>-0.5%</b>

Note: The fiscal 2015 working appropriation does not include January 2015 Board of Public Works reductions and deficiencies. The fiscal 2016 allowance does not reflect contingent or across-the-board reductions.

**Budget Amendments for Fiscal 2015**  
**Maryland Department of Transportation**  
**Washington Metropolitan Area Transit Authority – Capital**

<u>Status</u>	<u>Amendment</u>	<u>Fund</u>	<u>Justification</u>
Approved	\$12,933,254	Special	Adjusts the WMATA capital program subsidy for a one-year pledge by the mayor of the District of Columbia and the governors of Maryland and Virginia for Metro 2025 capacity improvements.
Pending	\$12,066,746	Special	Adjusts the grant to the WMATA to reflect the Maryland share of the estimated level of capital spending.

WMATA: Washington Metropolitan Area Transit Authority

Source: Maryland Department of Transportation

**WMATA Operating and Capital Subsidies Allocated by Jurisdiction  
Fiscal 2016  
(\$ in Millions)**

	<u>Montgomery County</u>	<u>Prince George's County</u>	<u>Total</u>
<b>Operating Subsidy</b>			
<b>Metrobus Operating Subsidy</b>			
Regional bus subsidy	\$51.6	\$61.1	\$112.7
Nonregional bus subsidy	10.6	24.4	35.0
<b>Subtotal</b>	<b>\$62.2</b>	<b>\$85.5</b>	<b>\$147.7</b>
<b>Metrорail Operating Subsidy</b>			
Base allocation	\$54.9	\$48.5	\$103.4
Max fare subsidy	3.1	1.4	4.6
<b>Subtotal</b>	<b>\$58.0</b>	<b>\$49.9</b>	<b>\$107.9</b>
MetroAccess Subsidy	\$22.1	\$47.6	\$69.6
Debt Service	\$4.9	\$5.5	\$10.4
<b>Total Operating Subsidy</b>	<b>\$147.2</b>	<b>\$188.6</b>	<b>\$335.7</b>
<b>Capital Subsidy</b>			
Formula Match and System Performance	\$36.8	\$38.3	\$75.1
Passenger Rail Investment and Improvement Act <sup>1</sup>	21.9	28.1	50.0
<b>Total Capital Subsidy<sup>2</sup></b>	<b>58.7</b>	<b>66.4</b>	<b>125.1</b>
<b>Total Subsidy – Operating and Capital</b>	<b>\$205.9</b>	<b>\$254.9</b>	<b>\$460.8</b>

WMATA: Washington Metropolitan Area Transit Authority

<sup>1</sup>WMATA allocates the Passenger Rail Investment and Improvement Act match to Maryland as a lump sum. The allocation shown here is calculated using the proportionate amounts of the operating subsidy for each county.

<sup>2</sup>Does not include WMATA's proposed 'Metro 2025' funding which, if adopted, would require an additional \$26.9 million contribution from Maryland.

Note: Maryland pays the entire operating and capital subsidies to WMATA. These allocations show the share of the subsidy based on the facilities located in each county.

Source: Washington Metropolitan Area Transit Authority; Department of Legislative Services