

Finance and Capital Committee Information Item III-A

June 22, 2023

Future Financial Planning FY2025-2035

Washington Metropolitan Area Transit Authority

Board Action/Information Summary

Action Information	Document Number: 205539	Resolution: O Yes No
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Presentation Name:

Future Financial Planning FY2025-2035

Project Manager:

Yetunde Olumide

Project Department:

Finance

Purpose/Key Highlights:

- Metro plays a vital role in the economic vitality of the National Capital Region, supporting the revitalization and creation of new activity centers. As the region increasingly grows around Metro, the system will be an even more important part of attracting talent and business.
- Metro is on an upward trend with growing ridership and more satisfied customers. Dedicated capital funding in 2018 enabled Metro to address longneglected state of good repair work. The pandemic destabilized Metro's operating model, both reducing ridership and triggering historic inflation. Metro's vulnerability became even more apparent because of its lack of dedicated operating funding.
- FY2025 marks the precipice of Metro's funding crisis. When federal relief funding
 is exhausted next year, Metro expects an operating deficit of \$750 million in
 FY2025. The economics of transit operations mean Metro can't bail itself out.
 Without regional action, Metro will be forced to make major service reductions
 impacting customers and the region at large. To continue positive momentum,
 regional leaders need to address Metro's long-term structural deficit.

Interested Parties:

PFM Group Consulting, a leading transit agency advisor, worked with Metro to develop a long-range financial model.

Background:

Future financial planning for FY2025–2035 advances our Strategic Transformation Plan goals of service excellence, talented teams, regional opportunity and partnership, and sustainability.

By connecting people to possibilities, the region's transit system enables a stronger economy, more access to opportunity, less congestion, and cleaner air.

Within the Compact area, 60 percent of the population, 70 percent of the jobs, and 50 percent of the employers are located within one half of a mile of Metrorail stations and bus stops. The concentration of new development around Metrorail is an indicator of the value placed on proximity to Metro. This includes 65 percent of new office development and 50 percent of new apartments within a half mile of Metrorail stations.

Metro is delivering on its commitment of service delivery and customers are responding positively.

- Rail customer satisfaction is up 16 percentage points to 84 percent over the same time last year, while bus customer satisfaction increased 2 percentage points to 71 percent.
- Ridership continues to grow. In May, Rail ridership reached 50 percent of prepandemic levels on weekdays, 89 percent on weekends; bus ridership reached 88 percent of pre-pandemic levels on weekdays and 93 percent on weekends.
- **Metro is adapting to how customers travel** with service changes to better meet customer needs by providing **more frequent all-day service**.
- The region is investing in renewing and modernizing Metro. Reinvestment
 has renewed assets and substantially reduced the state of good repair backlog.

While Metro and its peers have been temporarily sustained by federal relief funding that will be exhausted soon, most transit agencies are identifying significant and growing deficits beginning by FY2025. Some states and localities in conjunction with their transit agencies have acted to ensure adequate transit funding, such as New York State and New York City which reached a deal in May to close New York MTA's funding deficit that would have begun in FY2024 at \$1.6 billion growing to \$2 billion by FY2026.

Currently, Metro operations are funded through fares and other revenues, state and local subsidies, and temporary Covid-related federal relief funding. Beginning in FY2020, along with other transit agencies, Metro sustained its operations through federal relief to offset lost revenue and increased costs resulting from the Covid-19 pandemic. Metro expects to exhaust its American Rescue Plan Act of 2021 (ARPA) funding in FY2024. Approximately one quarter of Metro's FY2024 operations funded through these remaining federal relief funds.

Discussion:

Following the exhaustion of federal relief funding in FY2024, Metro expects an operating deficit of \$750 million in FY2025. This is more than a one-year challenge. The deficit is projected to continue its growth through FY2035 even with continued ridership recovery.

Deficit Drivers

The \$750 million deficit has three main drivers:

- Jurisdiction Subsidy Credit: At the onset of the pandemic, Metro provided support to jurisdictions in the form of a subsidy reduction and forgone three percent increases. Had Metro not provided this support, the jurisdictional subsidy would be \$196 million higher in FY2025.
- Decreased revenue since the pandemic: Overall ridership is forecasted to be approximately 25 percent below pre-pandemic levels in FY2025. In addition, shorter distance and weekend trips, which result in less revenue than long-distance weekday trips, have seen the fastest recovery. These changes and related impacts to parking and advertising revenues are expected to continue to keep revenue below pre-pandemic levels in the short and medium term. FY2025 total revenue is expected be approximately \$288 million below pre-pandemic levels.
- Inflation and collective bargaining agreements: Historic inflation caused by the pandemic and related supply chain impacts made everything more expensive, raising Metro's personnel and non-personnel costs. The vast majority of Metro's workforce which operates and maintains the system participates in collective bargaining. Metro must comply with mandated annual increases under the terms of the respective collective bargaining agreements, which indexes compensation levels to inflation. This cost growth is responsible for \$266 million.

Due to the size of the \$750 million gap, Metro cannot resolve the deficit by itself since the amount far exceeds the potential savings from what can be reasonably achieved through fare increases and service cuts.

Since 2018, Metro has taken actions to reduce expenses and grow revenue achieving an ongoing annual cost savings of \$308 million through a combination of revenue opportunities and aggressive cost management. The draconian cuts needed to make an impact in the \$750 million deficit will significantly harm riders and not resolve the structural financial issue.

Significant portions of Metro's operations are fixed costs, expenses that do not vary directly based on service. The severity of these cuts would devastate this region, yet still not eliminate the funding deficit and would trigger a transit death spiral. Failure to invest in Metro's future will impose significant impacts on customers, risking the quality, safety, and accessibility of the system.

- Rail and bus service would be cut 67 percent with no service after 9:30pm. All but 37 of 135 bus lines would be eliminated
- Remaining customers would experience 20- to 30-minute waits on all rail and bus lines
- Cuts to fixed-route service would reduce MetroAccess service area and operating hours

In addition to the direct service cuts, Metro would be forced to reduce maintenance, police, and customer service functions. Customers would experience severe crowding.

longer police response times, and more frequent elevator and escalator outages. Closing Metro's funding deficit through fare increases would require unrealistic fare increases, with service cuts and fare increases potentially leading Metro into a death spiral of a loss of ridership. If this happens, transit's value to the region is drastically reduced. These cuts would likely devastate our region.

A transit death spiral would hurt the region, resulting in longer wait times for buses and trains, worse traffic, reduced access to jobs and opportunity, and more pollution.

Funding Impact:

Metro's FY2025 funding deficit is a major challenge that must be addressed.

Previous Actions:

No prior actions

Next Steps:

FY2025 budget development sessions and stakeholder and community engagement

Recommendation:

Information Only

Future Financial Planning FY2025–2035

Finance and Capital Committee June 22, 2023



Today's Discussion

- Summarize the value Metro provides to the region
- Preview key points for decision makers and stakeholders on the significant structural deficit facing Metro beginning in FY2025
- Discuss the community and regional ramifications of not sufficiently investing in Metro

Metro and the Region

Metro Moves a Thriving Region

Your Metro, The Way Forward

Strategic Transformation Plan

Our Goals

Service Excellence

Talented Teams

Regional Opportunity

& Partnership

Sustainability

Regional Outcomes

Economic Strength

Access to Opportunity

Less Congestion,

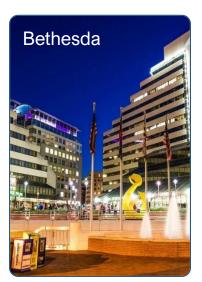
Cleaner Air

Mobility for All



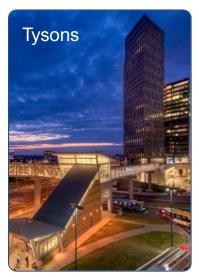


Metro and the Region are Growing Together













Within ½ mile of Metrorail stations and bus stops in the Compact area:

- 60% of population 2.8M people
- **70%** of jobs **1.7M** jobs
- 50% of employers 134,400 businesses

The ½ mile around Metrorail stations is just 3% of the region's land but contains:

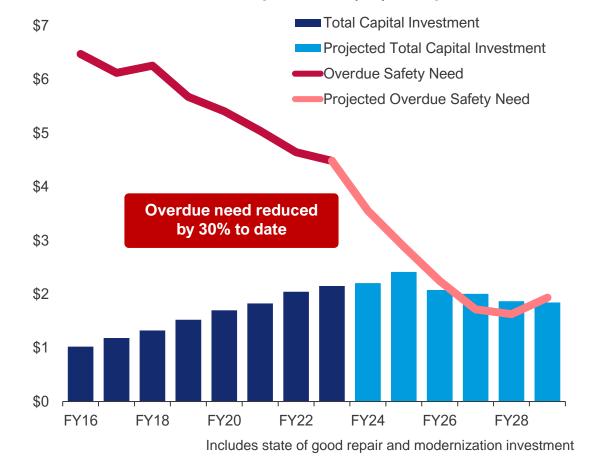
- 30% of property value \$328B
- **40%** of jobs
- 65% of new office development
- **50%** of new apartments
- 25% of affordable housing
- 13 Fortune 500 headquarters



The Region is Investing in Renewing and Modernizing Metro

investments have renewed system assets and substantially reduced the state of good repair backlog.

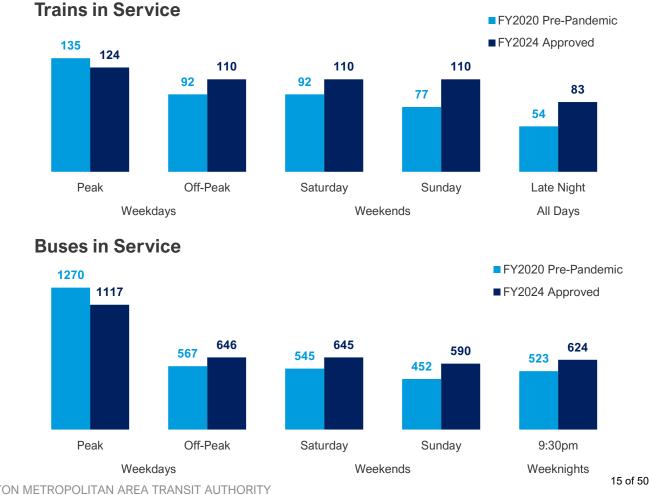
Overdue State of Good Repair Need (\$B) & Capital Investment





Metro is Adapting to How Customers Travel

All day service better meets customer needs, providing more frequent daytime and late-night service all week.





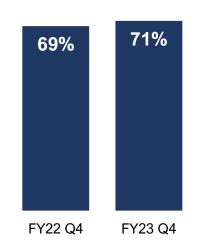
Customers See an Improving Metro

Metro Customer Survey

Rail Customer Satisfaction

Up 16% points
84%
68%
FY22 Q4 FY23 Q4

Bus Customer Satisfaction



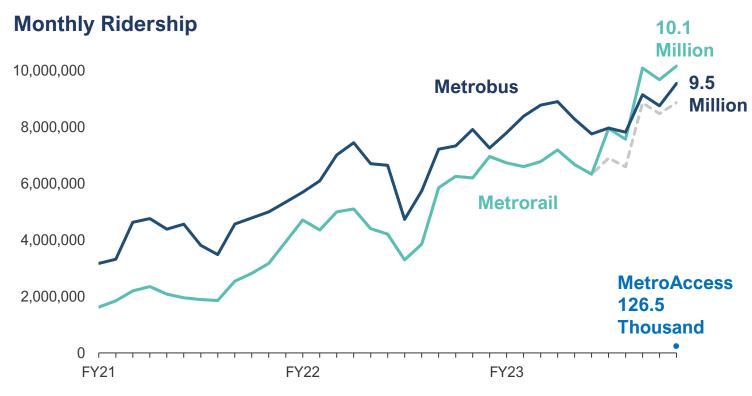
Washington Post-Schar School Poll







Ridership is Growing



Source: Bus Ridership from Automatic Passenger Counters (APCs). Rail Ridership from taps until January 2023, when Metro began using faregate sensors to count total entries, including non-tap ridership. The gray dashed line represents tap-only ridership after January 2023.

Metrorail

 May 2023 – Ridership at 50% of pre-pandemic levels on weekdays,
 91% on weekends

Metrobus

 May 2023 - Ridership at 88% of pre-pandemic levels on weekdays, 106% on weekends

MetroAccess

- May 2023 Ridership recovered to
 56% of pre-pandemic levels
- Serving a higher share of trips through convenient, lower cost Abilities-Ride program



Metro Has a Lot More to Come

Key Highlights



Better Bus Network

Faster service to key destinations, expanded frequent network and 24-hour service.



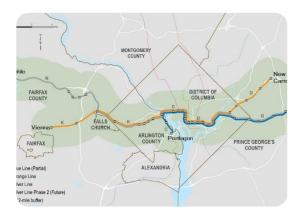
8000-Series Trains

Higher capacity trains with open gangways, expansion options to provide more frequent service and comfort.



Zero-Emission Buses

Deliver service with zero tailpipe emission and develop the workforce of the future.



Blue/Orange/Silver Study

Address key system bottleneck to improve service and support a growing region.



Metro at the Precipice

No Dedicated and Ongoing Funding Source

"...the unfolding troubles of Metro potentially pose one of the gravest fiscal and political crises ever confronted by Washington."

- Make Metro Work, 1976

"It has long been understood that the lack of a dedicated revenue source is both unique and challenging for WMATA."

- *Keeping Metro on Track*, The Brookings Institution, 2005

WASHINGTON CENTER REPORT RECOMMENDS ACTIONS NEEDED TO "MAKE METRO WORK" projects in the counties. 11 These funds are derived from the state's transportation trust fund that "if the regi projects at the common. These tands are utsized arous are supported as a unapproximately by the state's 23.5 cent tax on gasoline, vehicle taxes, and fees. ¹² Yet for all that, not even this state money is dedicated. To be sure, the funds allocated to WMATA flow continue to enjoy from the revenues generated by the trust fund, which is separate and distinct from the state's general fund. But even these funds are also subject to annual legislative appropriations and are means must be fo not guaranteed for WMATA. At the same time, while there are dedicated funds for transit from a portion of the property taxes in Prince George's and Montgomery counties, these are total size of th limits on the r The five Virginia cities and counties, meanwhile, are the only jurisdictions in the WMATA service area that have any dedicated funding for the local subsidy. In northern Virginia, a 2-percent tax is levied on gasoline sellers and retailers (in addition to the 17.5 cent jurisdictions state tax). These funds are provided to the Northern Virginia Transportation Commission (NVTC), which was created by the Virginia General Assembly in 1964 to plan and develop transportation projects in that part of the commonwealth. NVTC then administers these funds to transportation projects in may pure or the commonwealth. ANY ACC their doministics these names to supplement the localities' share of the WMATA subsidy. ¹⁴ But while these are dedicated funds, they only make up a small portion of the jurisdiction's total subsidy amount. In FY 2004, the gas they only make up a sman portion or the jurisdiction a total substitution. In a color, the form of the total northern Virginia as generated 3.7 minutes for many accounts and present of the substitution of the subs directly to WMATA. Local jurisdictions provide the remaining 43.3 percent through allocations commissioned of the unfolding The lack of dedicated funds is problematic Because of the lack of a stable and dedicated revenue stream, WMATA must rely pose one of excessively on general fund revenues from its state and local partners just to keep the system excessively on general man revenues man to another particles and the property of the fourth functioning. This is, of course, a difficult problem for any transit agency. But for the fourth largest agency in the country such an over reliance is extraordinary and problematic for several crises ever It has long been understood that the lack of a dedicated revenue source is both unique and challenging for WMATA. Over the years, several GAO reports discussed the problems and cratterings for World A. Over the years, several NA 1979 GAO report stated that tates fund transit see: Robert G. Stanley, "Characteristics of State Fr A 2001.

A 2001.

Transportation Commission, "Northern Virginia Transportation expense."

Northern Virginia Transportation Commission, "Northern Virginia Transportation Resource Guide" (Arlington, VA: 2003) 20 of 50

How Metro's Operations Are Funded

FY2024 Operating Funds

Fares and Other Revenues

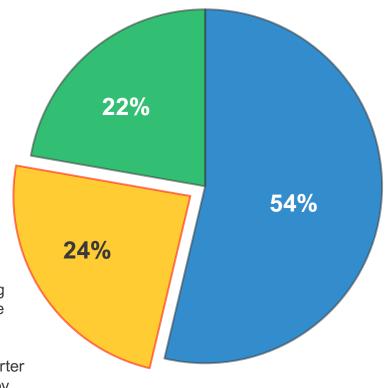
Revenue from passenger fares, parking, advertising, joint development and other activities

Prior to the pandemic approximately half of Metro's operations and maintenance were funded by these Metro generated revenues

Exhausted FY2024 Federal Relief

Temporary pandemic relief funding has balanced Metro's budget since late 2020 and runs out in 2024

In FY2024, approximately one quarter of Metro's operations are funded by federal relief funds



State and Local Subsidies

Contributions from Metro's funding jurisdictions in DC, MD, and VA have typically paid for half of Metro's operations and maintenance

State law in MD and VA caps annual growth at three percent with limited exclusions



A Nationwide Transit Crisis



FY2025²

FY2026³

Metro is More Vulnerable than its Peers

\$1,600+

\$2,000+

Crisis

Averted

Metro Alone Lacks Dedicated Operating Funding

\$750

\$830

	metro *	MTA	B A R T	cta	M			5
	WMATA	NY MTA	BART	СТА	LA Metro	MBTA	NJ Transit	SEPTA
Dedicated Sources ¹	0%	37%	35%	57%	80%	59%	26%	44%
State/Local Subsidies ¹	53%	6%	3%	1%	14%	7%	4%	10%
Anticipated Deficit When Federal Covid Relief is Exhausted (\$ in M)								
FY2024 ²		\$1.600+						

\$100

\$300+

FY25 Crisis Likely Averted

Based on publicly available sources as of May 2023

\$100+

\$900+

¹FY2023 Budget ²SEPTA Federal Relief depletes in FY2024. SEPTA using Stabilization Fund for FY2025 and FY2026 ³CTA amount for entire Chicago-RTA region

\$700+

\$400+

\$1,000+

\$100+

\$475+



\$60+

How BART and NY MTA Avoided Fiscal Collapse

FY25 Crisis Likely Averted 6/12/2023 Crisis Averted 5/2/2023



California



New York

- Maintenance of \$4B general fund investment in transit capital, option to flex capital funding for transit operations
- \$1.17 billion over three years in flexible funds for transit capital or operations
- \$661 million Cap and Trade revenue (\$331 million this year; \$300 million in out years)
- \$200 million General Fund
- \$280 million Public Transportation Account
- Deal includes converting previously committed transit capital funds to flexible funds

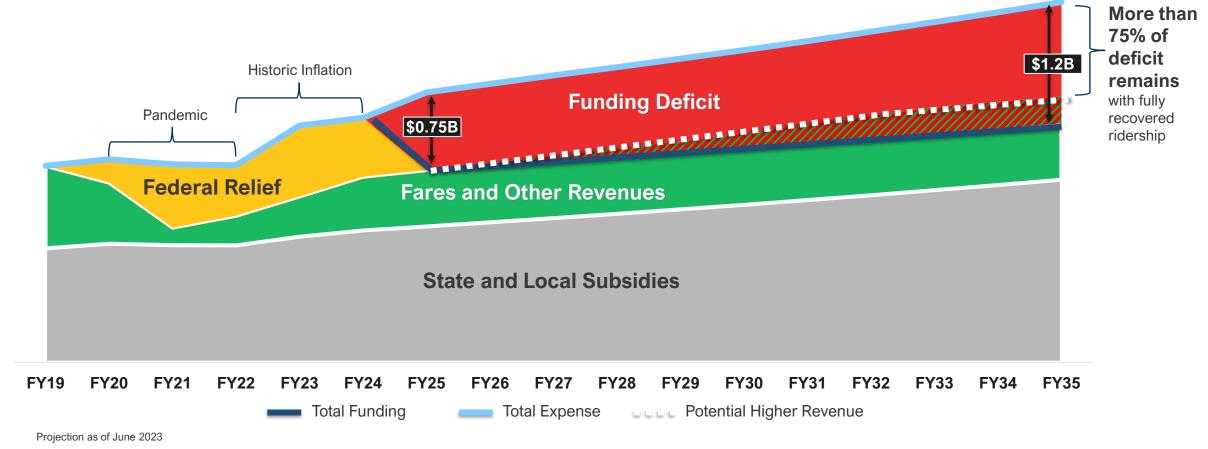
- Increase on Payroll tax (\$1.1B annually)
- One-time payment of \$300M for State
- New York City contribution of \$165M annually for paratransit
- \$400M in annual operating efficiencies
- Casino fees (\$500M annually beginning FY26)

Funding package and efficiencies enabled:

- More trains nights & weekends
- Reductions to proposed fare increase
- Piloting of zero fare bus routes
- Additional paratransit funding



FY2025: Unprecedented Operating Deficits Begin





FY2025 \$750M Deficit Drivers in Detail

Jurisdiction Subsidy Credit

\$196M

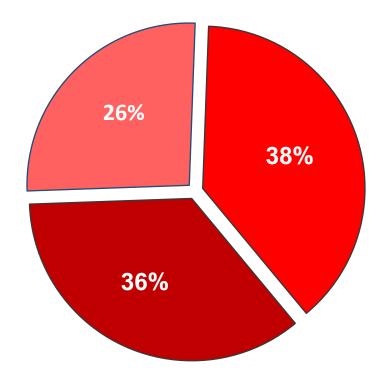
At the onset of the pandemic, Metro provided support to jurisdictions in the form of a subsidy reduction and forgone 3% increases.

Inflation & Collective Bargaining Agreements

\$266M

Metro's contractual commitments and inflation soared by 10% in one year during the pandemic and FY2025 outlook assumes continued inflation of approximately 5%. Inflation from FY2024 to FY2025 grew on average about 5%.

FY2025 Operating Gap



Decreased Revenue Since Pandemic

\$288M

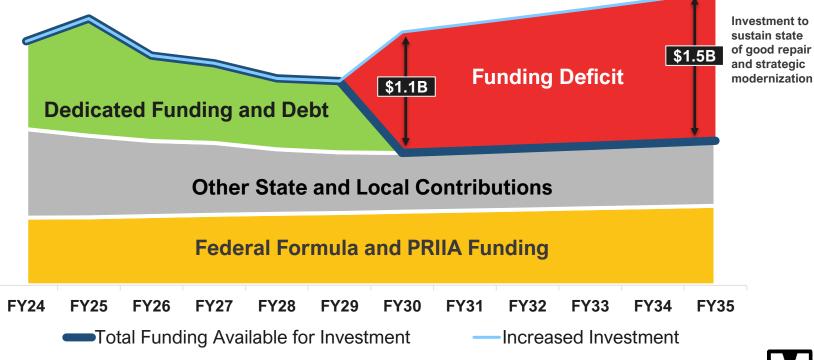
Overall ridership forecast to be approximately 25% below pre-pandemic levels along with greater prevalence of shorter distance trips outside of weekdays. Parking and advertising revenues also impacted.



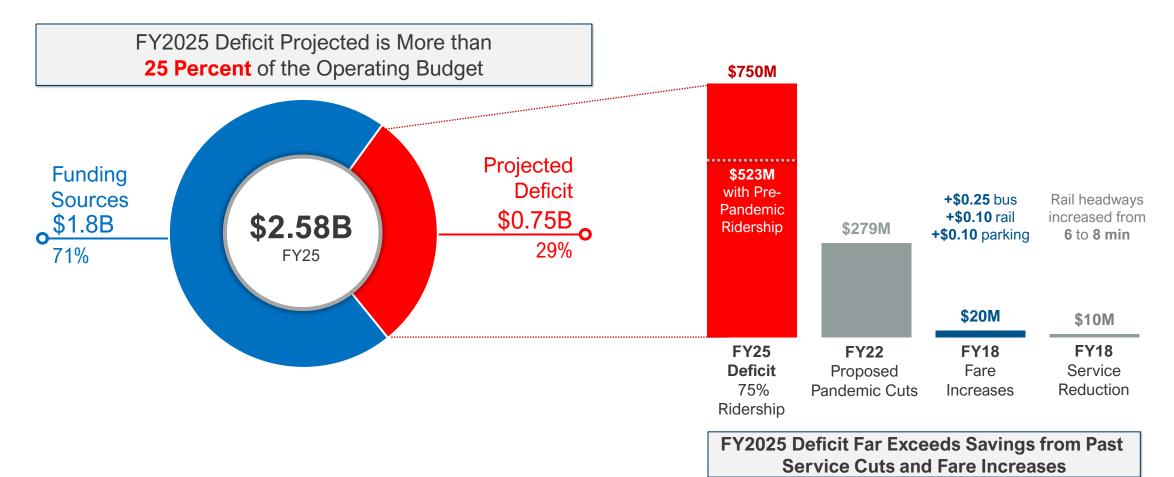
Capital Funding Deficit Approaching

Dedicated capital funding borrowing capacity projected to be exhausted in FY2029 and new capital funding will be needed to address ongoing system safety, renewal and modernization needs

Projected Capital Investment Needs and Funding (\$M)



Metro Can't Close FY2025 Deficit by Itself



Failure to Invest in Metro's Future

Delivering a System Aligned with Customer Expectations

High quality, safe and secure, accessible

Beyond vehicle operations, Metro's costs are mainly driven by the system footprint, not the amount of service operated.

Many activities to ensure safety of customers, employees and assets including compliance with safety and security standards, federal requirements, corrective actions, collective bargaining agreements.





Behind each train and bus operator, there are more people making Metro work.

Rail

- Operation and maintenance of railyards, track, structures, stations, signals, elevators/escalators, fare collection, etc.
- 24/7 control center
- Police/Security
- Custodians and facilities maintenance
- Customer service agents and ambassadors
- Safety, compliance, administrative support

Metrorail Metrics

- 128 miles of track
- 98 stations
- 642 escalators, 308 elevators
- 3,000 track circuits
- 100+ power substations & control rooms
- 1,300 railcars, 200 work vehicles

Bus

- Operation and maintenance buses, bus garages, fare collection, and other equipment maintenance
- 24/7 control center
- Police/Security
- Real-time data systems

Metrobus Metrics

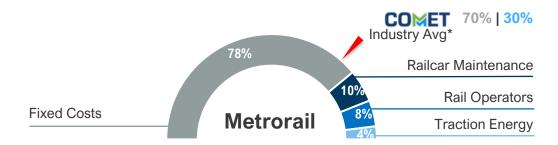
- 9 bus operating divisions
- 1,600 buses
- 10,000 bus stops

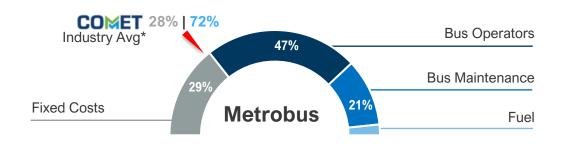
MetroAccess

- Accessibility and customer service centers, reservations and scheduling, contract management and oversight
- 750 paratransit vehicles



Metro's Cost Structure is Comparable to Our Global Peers





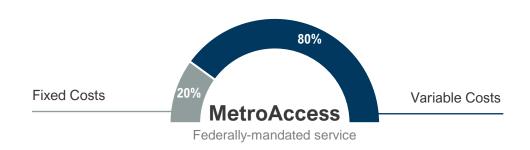
Fixed Costs

Costs that do not vary directly with service levels e.g., infrastructure maintenance

Variable Costs

Costs that vary directly with service levels e.g., vehicle operators







Aggressive Management Actions Have Created Savings

Actions Taken to Create Savings

- Healthcare cost-sharing
- Maximizing real estate assets
- Office consolidation
- Recovery plan, hiring/vacancy freeze, defer material supply purchase
- Elimination of positions through efficiencies and planned reductions
- Non-revenue fleet reduction, enhanced contractor management, call center consolidation (FY2025)

Impact of Annual Management Actions





Balancing Budget with Service Cuts Would Devastate Region

Impacts of a 67% cut to Metro

- Worse service, quality, security, and accessibility
- Stops ridership recovery; below current capacity needs

Could serve only 300,000 rail and 200,000 bus trips a day

Triggers transit death spiral



ήÅ	Ridership Impact	-95M (-40%)		
	FTE Impact	-5,300 (-41%)		
(Operating Budget Impact			
	Expense	-\$947M (-37%)		
	Revenue	-\$197M (-37%)		
	Net	-\$750M		
	Deficit	\$0		
Assumes Full Jurisdictional Subsidy				

Note: amounts may not sum due to independent rounding



The Impact of a 67% Metrorail Service Cut

Operational Reduction

	FY2024	67% Cut
Trains in Service	124	52
Frequency	Day: 5-12 mins Night: 7.5-15 mins	Day: 20-30 mins Night: No service
Closing times	Weekdays: Midnight Weekends: 1 AM	Daily: 9:30 PM No special event service

Customer Experience



Severe Crowding & Denied Boardings



Reduced Police Presence/Patrols



Degraded Customer Service



Reduced Elevator & Escalator Availability



Dirtier Trains and Stations



More administrative & compliance risk



The Impact of a 67% Metrobus Service Cut

Operational Reduction

	FY2024	67% Cut
Bus Lines	135	37
Frequency	Peak: up to 6 mins 21 lines: 12 min or better all day Systemwide: varies	Every 20 to 30 mins
Operating Hours	Late Night & 24-Hour Network	No buses after 9:30 pm

Customer Experience



Discontinued Routes, Longer Wait Time



Reduced Police Presence/Patrols



Severe Crowding & Denied Boardings



More administrative & compliance risk



Degraded Customer Service



Dirtier Buses



MetroAccess Impacted by Rail and Bus Cuts



Fewer customers and destinations served



Reduced operating hours



No service beyond regulatory requirements





Impacting hospital visits/VA, life-saving dialysis, and other trips, reducing the independence and quality of life of customers and their families who rely on us most



Remaining Customers Would Endure Long Waits

Trains every 20 to 30 minutes on each line



FY2024: Trains every

7.5 minutes



67% Cut: Trains every

30 minutes









Remaining Customers Would Endure Long Waits

Trains every 20 to 30 minutes on each line

Ronald Reagan Washington National Airport Sunday afternoon





FY2024: Trains every

6 to 12 minutes



67% Cut: Trains every

20 to 30 minutes



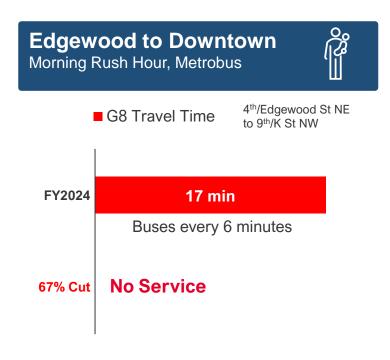






Trips Would Be Longer, Unreliable, or Impossible

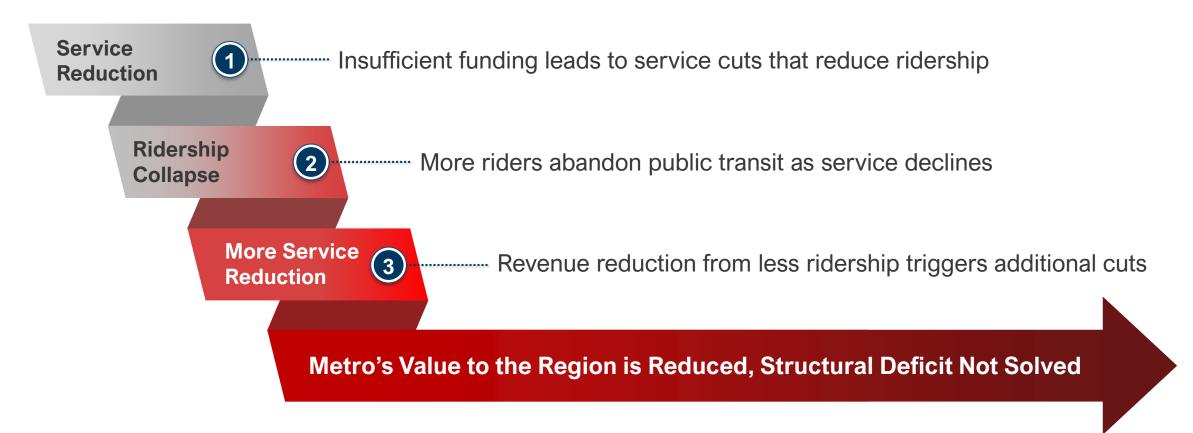
A less useful network providing lower value to customers and the region







Service Cuts Would Trigger a Metro Death Spiral





A Transit Death Spiral Will Hurt the Region

More congestion, more pollution, and reduced economic competitiveness and quality-of-life



Longer wait times for trains and buses



Worse traffic



Reduced access to jobs and opportunity



More pollution



Next Steps

- Stakeholder and funding partner engagement
- Community information sessions
- FY2025 budget development process



Appendix



About Metro's Financial Model

Ridership and Revenue

- Total baseline ridership grows around 5% per year from FY25-30 and at 1 percent after FY30
- Better Bus and Metrorail Service Optimization projected to grow ridership by a total of 11 percent above baseline
- Assumes two percent fare increase every other year

Expense

- Current collective bargaining commitments (e.g. GWI, CPI)
- Personnel & Non-personnel: CPI 5% assumed in FY25 26, decreasing to around 3% in FY27 and beyond
- Revert to \$60M preventive maintenance transfer for FY25 and beyond

Subsidy

Assume 3 percent annual growth

Establish Financial Reserve Policy

INPUTS

METRO

Fares

Subsidy

Hotel Tax

Income Tax

Service

Sales Tax

Property Tax

U.S. BEA



Developed by **PFM Financial Advisors LLC**, a leading advisor to transit agencies including:

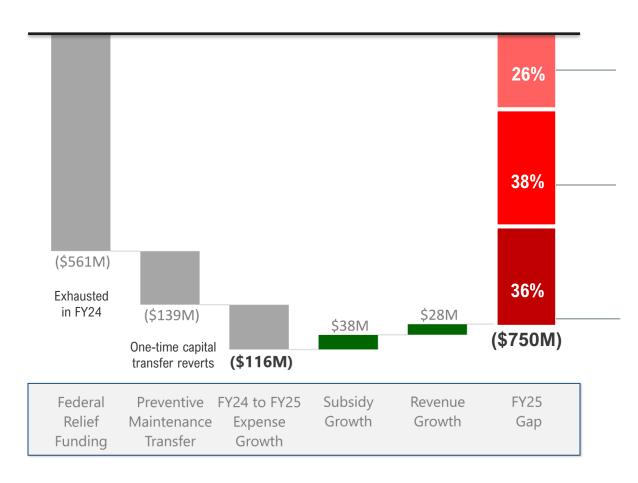
- Chicago Transit Authority
- San Diego Association of Governments
- Los Angeles Metropolitan Transportation Authority
- Miami-Dade Transit

PFM Group Consulting LLC uses econometric forecasting techniques to provide short and long-term economic and revenue forecasting, and provides budgeting and financial planning to clients nationwide

The PFM Group serves a broad range of clients in the District of Columbia, Maryland, and Virginia



FY2025 \$750M Deficit in Detail



Jurisdiction Subsidy Credit

\$196M

With the onset of the pandemic, Metro provided relief to the jurisdictions in the form of a subsidy reduction and forgone 3 percent increases

Decreased Revenue Since Pandemic

\$288M

Overall ridership forecast to be approximately 25 percent below pre-pandemic compared to 2019 along with greater prevalence of shorter distance trips outside of weekday peak periods. Parking and advertising revenues also impacted

Collective Bargaining Agreements & Inflation

\$266M

Metro's contractual commitments and inflation soared by 10% in one year during the pandemic and FY25 outlook assumes continued inflation of approximately 5%



How People Are Using Metro

Metrorail and Metrobus Riders' Top Destinations in Q1 2023*



Work

51% 55% Rail



Family & Friends

39% Bus

33% Rail



Shopping

44% 14% Bus Rail



Medical Visits

26% 13% Rail



Pharmacy

24% 2% Rail



Airport

5% 13% Rail



Federal Workers



Active Unique Metrorail Riders



K-12 and Post-Secondary

Approximately 9M trips (FY2023)



Travelers/Visitors

Estimated 3.5M+ trip to and from local airports (FY2023)



of trips taken by individuals residing outside of the region (2022 Rail Survey)

Active Unique Metrobus Riders



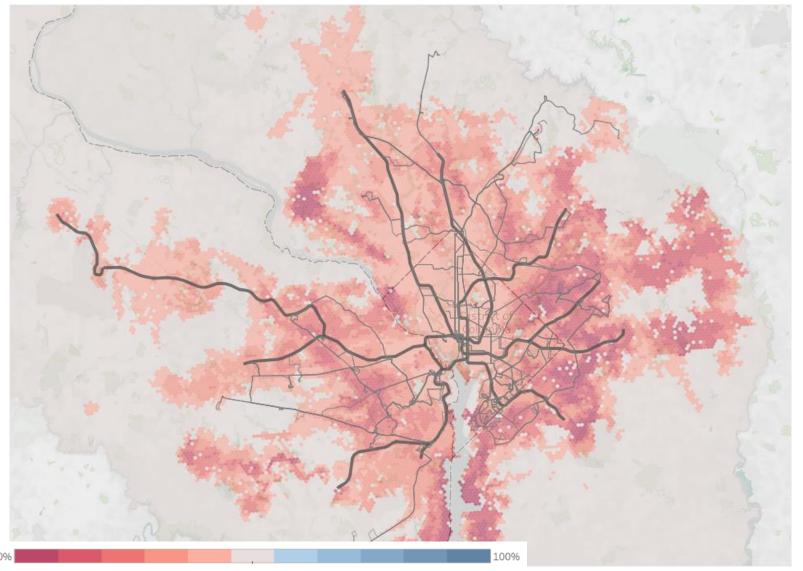
of Metrorail riders (2022 Rail Survey)



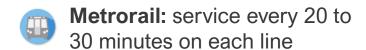
^{10%}

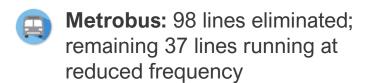
^{*}Base: All customers who rode Metrorail/Metrobus within 7 days prior to taking this survey. Measure: Types of trips taken within the past 7 days

Service Cuts Dramatically Reduce Job Access



A 67% decrease in transit service would result in a less useful network providing less value to customers and the region





Results in dramatic cuts to job access across the entire region.



Unaffordable Fares Would Decimate Ridership

Potential Fares	Bus	Rail	Access
Full Fare	\$11+	\$11–\$33	\$22-\$35
Senior/Disabled/ Low-Income	\$5.50+	\$5.50– \$16.50	
Monthly Pass	_	\$349–\$1,047	_
		545% Increase	

Example from Metro Center One-Way Fares Destination Fare (\$) **Addison Rd** 21.00 **Anacostia** 12.80 **Archives** 12.25 **Arlington Cemetery** 12.25 **Ashburn** 32.70 **Ballston-MU** 15.80 **Benning RD** 16.90 **Bethesda** 19.35 *rounded to the nearest \$0.05

Illustrative examples. Contains unrealistic assumption of 50 percent elasticity