



Finance Committee

Information Item IV-B

December 1, 2016

FY2018 Operating Budget Work Session

Washington Metropolitan Area Transit Authority
Board Action/Information Summary

Action Information

MEAD Number:
201828

Resolution:
 Yes No

TITLE:

FY2018 Operating Budget Work Session

PRESENTATION SUMMARY:

In the first of three work sessions on the proposed FY2018 operating budget, staff will provide additional information on ridership and revenue.

PURPOSE:

In response to Board member requests for additional information on ridership and revenue assumptions in the FY2018 operating budget, staff will conduct the first of three budget work sessions covering these topics.

DESCRIPTION:

Key Highlights:

- Following the General Manager/Chief Executive Officer's (GM/CEO) proposal of the FY2018 operating budget in November, the Finance Committee is convening three work sessions in December and January to review the budget in greater detail. The work sessions will cover revenue and ridership, personnel expenses, and non-personnel expenses.

Background and History:

In order to bridge a projected budget gap of nearly \$300 million, the GM/CEO has proposed an FY2018 operating budget that includes WMATA employee headcount reductions, fare increases, bus and rail service cuts, limited use of Federal Transit Administration (FTA) grant funds for eligible preventive maintenance activities, and increased jurisdictional contributions.

Following the presentation of the proposed budget, Metro Board members submitted follow-up questions to staff covering a range of topics. These questions will serve as the basis for three public work sessions in December and January covering revenue and ridership, personnel expenses, and non-personnel expenses.

Discussion:

Complete answers to the Board member questions regarding revenue and ridership are included as an attachment. The presentation to the Finance Committee summarizes

these questions into a set of related topic areas.

FUNDING IMPACT:

Information item only - no funding impact.	
Project Manager:	Thomas J. Webster
Project Department/Office:	CFO/OMBS

TIMELINE:

Previous Actions	November 2016 - GM/CEO proposal of FY2018 operating budget December 2016 - Request for budget public hearings
Anticipated actions after presentation	January 2017 - Work sessions #2 and #3 on proposed operating budget (personnel and non-personnel expenses) January - February 2017 - Public participation activities and budget public hearing March 2017 - Planned adoption of FY2018 budget

RECOMMENDATION:

No action recommended - information item only.



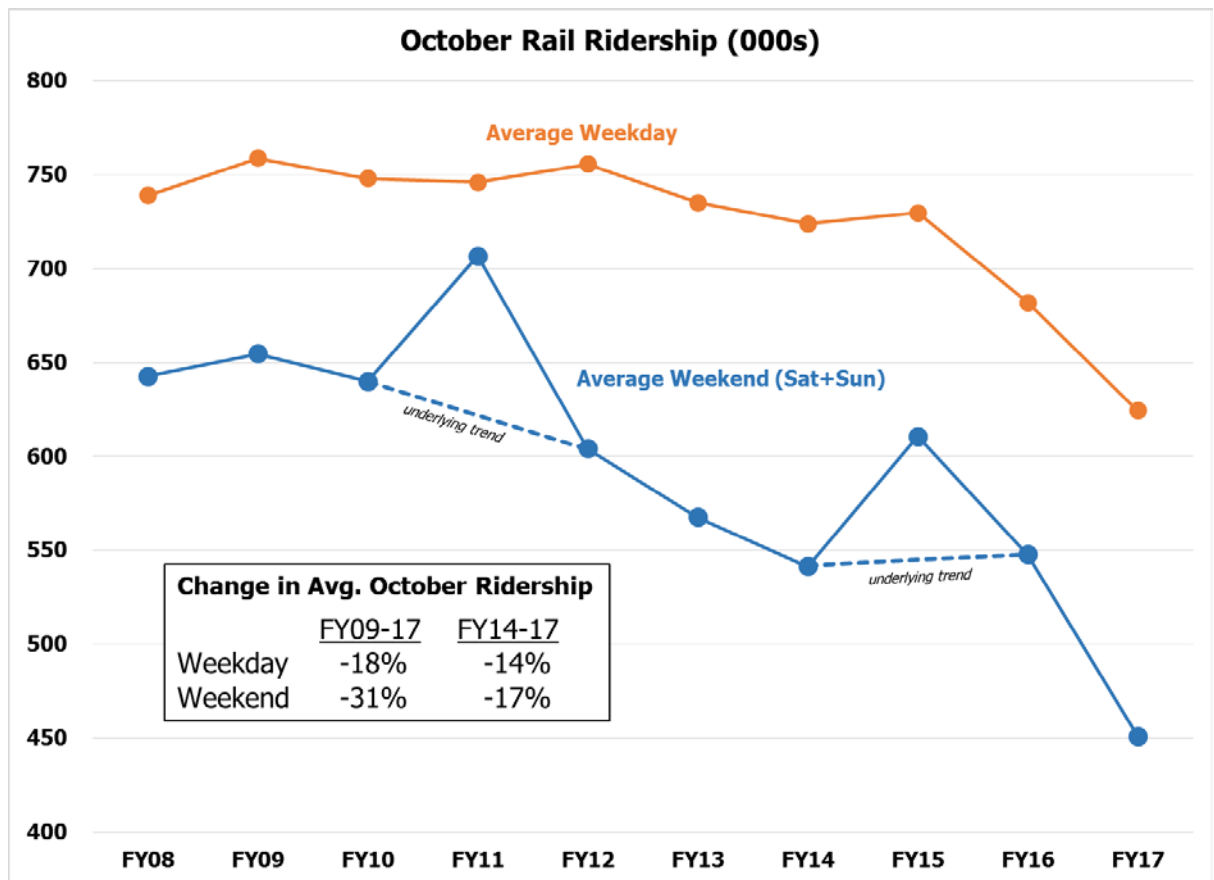
Washington Metropolitan Area Transit Authority FY2018 Proposed Operating Budget

Board Member Questions and Answers

Ridership / Revenue

1. **With the 100,000 per year ridership decline, when did the drop accelerate? Provide a longer term history of the decline.**

Total annual Metrorail ridership peaked in FY2009, but as the chart below shows, the decline since that time has not been consistent. The chart shows average weekday and weekend ridership for October each year from FY2008 through FY2017. Along with May, October is a “typical” month for Metro that is not strongly affected by holidays, tourists, weather, or other factors. However, given the relatively small sample size for weekends (i.e., only 4-5 weekends per month), the underlying trend is shown in both FY2011 and FY2015 when a few strong weekend ridership days boosted the monthly average above the underlying trend in those years.





From FY2009 through FY2012, despite the recession, average weekday ridership held essentially flat at around 750,000 trips. The drop in total ridership during that period was driven by declines in weekend ridership, which fell by nearly 10 percent (from 650,000 combined on Saturday/Sunday to 600,000). This was the period when weekend service interruptions for rail system maintenance and rehabilitation began to be more frequent and more intense.

Between FY2012 and FY2015, average weekday ridership experienced its first sustained decline of about 4 percent, falling to 725-730,000 daily. This was attributed to a combination of largely external factors, including increased telecommuting, a pullback in federal employment, growth in alternative transportation options (such as Uber and Capital Bikeshare), and relatively low gas prices, among others. Weekend ridership also continued to decline during the same period, falling to approximately 550,000 as service interruptions continued due to weekend track work.

The drop in ridership then accelerated substantially in FY2016 (prior to SafeTrack) and has continued in FY2017. Average weekday ridership fell below 700,000 in FY2016 and was only 624,000 in FY2017 (i.e., October 2016, the month which was just completed). The drop in FY2016 was primarily due to customer reaction to declining safety and service reliability. This drop has been exacerbated in FY2017 by the SafeTrack program, which has significantly interrupted weekday (including peak hour) service for many thousands of riders. Weekend ridership has also declined further (to only 450,000) as service frequency of only three trains per hour (or every 20 minutes) on most lines has become the norm. Overall, since peaking in FY2009, average weekday ridership in October has declined 18 percent, while average weekend (Saturday plus Sunday) ridership has declined 31 percent. Through SafeTrack and railcar investments, Metro is focused on restoring safety, reliability, and customer confidence.

2. What information is available about ridership in October?

October Rail ridership is 15.0 million, down 2.1 million trips or 12 percent from last year, or 14 percent below budget. Year-to-date Rail ridership is down 13 percent from prior year and is 15 percent below budget. Preliminary October Bus ridership is 10.7 million, which is 7 percent below prior year and 10 percent below budget. Year-to-date Bus ridership is down 7 percent from prior year and is 9 percent below budget.

3. Fare revenue is down \$85M from FY2017 budget. Please provide your methodology for fare revenue to go from \$775M in FY2017 to \$690M in FY2018, and what is the ridership decline that is at the root of the 11% revenue decline?

Through FY2016, Metro's ridership declined due to customer reaction to system reliability challenges, changes in transportation options, low gas prices and



telecommuting; as a result passenger revenue was \$57 million below prior year. The FY2017 budget did not fully recognize the lower ridership levels and associated revenue. Based on current trends, FY2017 revenue is forecasted to be nearly \$100 million below the FY2017 budget. This reflects the change in ridership environment and decreased ridership for continued track and safety improvements, as well as lower bus and rail ridership due to fare increase and service reductions.

Between Metrobus and Metrorail, ridership is estimated to be 15 million trips less than the FY2017 forecast. The proposed fare increases will decrease ridership by 10 million, and the service reduction proposals will impact an estimated 5 million trips.

Ridership	FY2016 Actual	FY2017 Projected	FY2017 Forecast	FY2018 Proposed
Metrorail	191,348	203,500	183,510	177,105
Metrobus	127,432	135,598	123,432	115,230
MetroAccess	2,281	2,420	2,281	2,300
Total	321,060	341,518	309,222	294,635
Revenue	FY2016 Actual	FY2017 Budget	FY2017 Forecast	FY2018 Proposed
Metrorail	\$574,351	\$612,800	\$532,851	\$534,991
Metrobus	\$141,053	\$152,120	\$135,793	\$145,350
MetroAccess	\$9,156	\$9,972	\$9,156	\$9,732
Total	\$724,560	\$774,892	\$677,800	\$690,073

4. **If the operating budget expenses are \$1.8B and farebox revenue are \$841M, what is the farebox recovery rate for FY2018? What was it for the past 5 years?**

The following table provides both farebox recovery rate and total cost recovery rate for FY2012 through FY2018. Farebox recovery rate includes only passenger fares and parking fees, while total cost recovery rate adds in all other non-passenger revenue sources, including advertising, fiber optic leases, and joint development.

	FY2012 Actual	FY2013 Actual	FY2014 Actual	FY2015 Actual	FY2016 Actual	FY2017 Budget	FY2018 Proposed
Farebox Recovery Ratio	52.0%	51.8%	48.1%	49.6%	46.0%	47.1%	41.4%
Cost Recovery Ratio	57.4%	56.8%	53.1%	55.5%	50.8%	52.5%	46.3%



Fare Adjustments

5. **Could staff expand on the expected decrease in total ridership from the proposed fare increases? How much of this would be riders deciding to make fewer trips versus completely abandoning the system?**

The proposed fare increase for Metrobus is expected to result in a decrease of 6 million bus trips annually, while the Metrorail fare changes are expected to reduce rail ridership by 3.5 million trips. Metro's fare impact modeling does not analyze individual rider decisions, but instead uses the total number of trips on an average day, by length/cost, period, income level, minority status, etc. Therefore Metro staff is not able to project how much of the decrease would be the result of reduced trip-making versus riders shifting entirely to another mode.

6. **For the fare increase proposal, what is the demand elasticity imputed by the projected ridership decline?**

Fare elasticities used in the ridership projections were developed for Metro as part of a recent study conducted by the University of Maryland's National Center for Smart Growth. Different elasticities were assumed for different modes and trip lengths. The weighted average of the demand elasticity is approximately -0.5, which means a 10 percent increase in fare will result in a 5 percent decrease in ridership. However, given the current ridership environment and overall uncertainty, management has been more conservative in forecasting FY2018 than the results of the ridership elasticity calculation (e.g., assuming less net revenue increase from various fare increases).

7. **Were alternatives such as increasing the transfer benefit modeled to reduce the demand elasticities?**

Staff evaluated a number of potential fare change scenarios as part of the development of the FY2018 proposed budget. Some scenarios that included larger rail fare increases also included increases to the bus-rail transfer discount as a way to partially offset the fare increase impact for some riders. However, the net revenue impact of an increase to the transfer discount is negative – that is, more revenue is lost from existing riders paying less than is gained from incremental new riders – and therefore an increase in the transfer discount was not included in the proposal.

8. **What would be the cost of increasing the bus-to-rail and rail-to-bus transfer discount by \$0.25 to a total of \$0.75?**

Increasing bus transfer discount by \$0.25 to \$0.75 would result in an annual revenue loss of approximately \$7 million.



9. What percent of bus riders make a transfer to or from Metrorail? What is the jurisdiction of residency of these transfer customers?

According to the 2014 Metrobus survey, 30 percent of Metrobus trips include a transfer from or to Metrorail. Of those customers transferring, 43 percent live in the District of Columbia, 36 percent reside in the State of Maryland and 18 percent are residents of the Commonwealth of Virginia. An additional 3 percent are from jurisdictions outside of the region.

10. Did we benchmark bus fares to understand how the proposed \$2 fare compares to comparable systems?

City/Agency	Single-ride bus fare
NYC Transit	\$2.75
Dallas (DART)	\$2.50
Atlanta (MARTA)	\$2.50
San Francisco (Muni)	\$2.25
Philadelphia (SEPTA)	\$2.25 cash / \$1.80 token
Chicago (CTA)	\$2.00
Boston (MBTA)	\$2.00 cash / \$1.70 card
Los Angeles (LACMTA)	\$1.75
WMATA	\$1.75
Baltimore (MTA)	\$1.70

11. Please provide an estimate of the net additional revenue from increasing the fare on the B30 and the 5A airport routes to \$9.00.

Monthly ridership on the two airport routes is approximately 53,000. Increasing the fare from current \$7.00 per trip to \$9.00 per trip would generate approximately \$800,000 in net additional revenue annually after accounting for reduced demand. However, the B30 route has been proposed for elimination as part of the proposed FY2018 service reductions on Metrobus. It is also expected that the 5A will be considered for elimination once Silver Line Phase 2 opens and Dulles Airport is connected to the Metrorail system.

12. What percent of bus riders use the 7-day unlimited ride bus pass? If the single-ride bus trip increased to \$2.00 and the pricing on the 7-day bus pass



was adjusted to nine times the single ride fare, what would be the revenue loss when compared to keeping the pricing at ten times the single ride fare?

Approximately 3.5 percent of customers who use Metrobus at least once a week use a weekly bus pass. If the 7-day bus pass is set at \$18 (\$2 single-ride bus trip multiplied by nine times the fare), the annual revenue loss is estimated at \$1.5 million, and is not projected to increase passenger trips.

13. What does each dime of parking rates increase bring in revenue?

At current utilization rates, total parking fee revenue to Metro is expected to be approximately \$42 million in FY2017 on a base of approximately 11 million parking transactions. If no other fare increases or service changes on rail were implemented, the net revenue gain from a \$0.10 parking fee increase would be approximately \$1 million. However, given that additional fare increases on rail are proposed, as well as reductions in peak period service frequency, Metro estimates a net gain of \$0.5 million from the proposed \$0.10 increase.

Service Reductions

14. The rail and bus service rightsizings are expected to save \$12M/rail and \$17M/bus, for a total of \$29M. Where are these “savings” reflected in the operating budget for FY2018?

The service reduction savings are reflected as reductions in personnel costs (salary, wages and fringe) as well as reductions in fuel and materials & supplies for Bus and Rail. In addition, the revenue impact is reflected in passenger fares.

<i>\$ in Millions</i>	Bus	Rail	Total
Personnel	\$15.2	\$9.7	\$24.9
Non-Personnel	2.7	0.0	2.7
Fuel / Propulsion	1.6	10.2	11.8
Revenue Loss	(2.7)	(7.7)	(10.4)
Net savings	\$16.8	\$12.2	\$29.0

15. What is the rationale behind and methodology used in calculating the ridership loss attributed to rail right-sizing?

For the rail service rightsizing proposal, staff used ridership data for May 2016 as this was a representative month without any major disruptions and was prior to the start of SafeTrack surges. For each of the service proposals (peak, off-peak,



evening and weekends), modest ridership losses of 1 to 2 percent are projected as service headways would widen and passenger travel times would increase, in addition to the trains being more crowded. The projected peak loading, Passenger per Car (PPC), was then calculated to determine whether the resulting PPC was within the Board policy standard of 80 to 120 PPC.

The source for the rail ridership data is a monthly consolidation of fare gate and SmarTrip data. The PPC calculations are sourced from field data to generate monthly analysis on passenger loads during the peak periods.

- 16. What is the projected a.m. and p.m. peak load point(s) on the Green line with the proposed abolition of Rush Plus service and what would be the expected PPC at those peak load points?**

The projected peak load point on the Green line is Shaw-Howard University in the A.M. and Mt Vernon Square in the P.M. The average passenger per car (PPC) will be within the Board policy standard of 80 and 120.

- 17. What would be the percentage of eight-car trains operating during rush hours in the 8 minute rush hour service frequency scenario? What would be the percentage for the remainder of the system if the Yellow line is excluded since it currently operates with all six-car trains at all times?**

Metro currently assumes scheduled operation of 50 percent 8-car trains on Red, Orange, Green, and Blue lines during peak periods. The proposed plan would allow Metro to operate up to 75 percent 8-car trains on line segments, subject to power system capacity. Metro would continue to operate 6-car trains on Silver and Yellow lines.

- 18. What is the time range for “Early Evening” service in the Metrorail service change proposal? How would the Red line be treated in this proposal, i.e. what would be the span of Grosvenor and Silver Spring turnbacks?**

“Early Evening” service is defined as 6:30 pm to 9:30 pm.

Currently, the short trip is operated between Grosvenor and Silver Spring only during the peak period. The proposal also reinstates the “Grosvenor turnback” during off-peak times, such that every other Red Line train to Shady Grove terminates at Grosvenor. The short trip will operate between Grosvenor and Silver Spring all day.

- 19. What is the cost savings from reinstating midday Grosvenor turnbacks and how many riders board or exit at affected stations on an average midday?**

The annual operating savings to reinstating the Grosvenor turn backs (on weekday and weekend) is \$1.21 million less projected revenue loss of \$0.35



million, which equals an estimated subsidy reduction of \$ 0.86 million. The following is midday ridership based on May 2016:

May-2016		WEEKDAY AVERAGES				TOTAL
		AM	MID	PM	EVN	
SHADY GROVE	ENTRY	8,465	1,867	1,214	325	11,870
	EXIT	923	1,041	6,940	2,564	11,468
ROCKVILLE	ENTRY	2,157	804	882	303	4,147
	EXIT	721	575	2,058	814	4,168
TWINBROOK	ENTRY	2,196	770	970	241	4,178
	EXIT	786	526	1,900	874	4,086
WHITE FLINT	ENTRY	1,506	650	1,096	253	3,505
	EXIT	943	491	1,367	637	3,438

20. **What is the dollar value savings from closing the rail system early on weeknights and weekends as proposed by the GM? Is this value already included in the proposed FY18 budget? Is the proposed \$4.0 million in additional late night bus service included in the GM's FY18 budget?**

The net savings (expense reductions less revenue loss) for closing the rail system early is projected at \$2.5 million annually, and is included in the FY2018 Proposed Budget. Supplementary Bus service is not included in the proposed budget.

21. **What would be the approximate savings from closing all rail station second entrances at 8 p.m. on weeknights and all day on Saturday and Sunday (excluding Navy Yard on baseball game days)?**

There are 22 stations with two or more mezzanines, with a minimum of one station manager scheduled for each station mezzanine during rail service hours. If Metro closed one mezzanine at a location, there would be cost savings in station manager labor and a small reduction in custodial needs; a portion of the savings would be negated by increased security patrol at the closed mezzanines and impacts to ridership. The preliminary estimated annual savings of closing one mezzanine during the weekend period is \$50-\$90K and closing one mezzanine



earlier on weekdays is \$15-\$30K. An important consideration in figuring the savings is determining what mezzanines can be closed. For example, at stations with two mezzanines, one entrance may service the greater number of passengers, while the second mezzanine meets ADA requirements. Other considerations are distance between mezzanine entrances, utilization, and adjacent facilities.

22. Metrobus Service Changes. Understand the basic concept. Is there utility in providing jurisdictions to plus up their subsidy to continue service?

Balancing the FY2018 operating budget will require shared sacrifice. The GM/CEO’s budget closes the gap through a significant reduction in Metro employee headcount and other management actions; right-sizing of bus and rail service to current ridership levels; a fare increase; and an increase in the funding contribution from the local jurisdictions. Subject to Board consideration, the jurisdictions may choose to increase their funding contribution to continue bus service currently proposed for elimination.

23. In general, is it worth considering service change proposals (including subsidy levels) that could allow some tailoring for each jurisdiction?

The Finance Committee will consider approval of a public hearing docket for proposed service reductions and fare changes on December 1, 2016. Board members will have an opportunity to amend the proposed public hearing docket to modify or include other service changes. These proposals could potentially be “tailored” for each jurisdiction, though tailoring is more feasible when modifying bus service and much less feasible when modifying rail service or fares.

24. Are the expected savings from Abilities Rides built into the MetroAccess operating costs assumptions for FY2018?

Yes. The budget assumes cost savings of \$4.1 million attributable to the projected shift of 150K trips to Abilities Ride, offset slightly by induced demand for the new service.

	Rate	Passenger Trips	Total (\$ in thousands)
Current Cost	\$48	150,000	\$7,200
<i>Less: Program Subsidy</i>	\$18	150,000	(\$2,700)
Net Cost			\$4,500
<i>Less: Induced Demand</i>	\$18	20,700	(\$372)
Total Cost Savings			\$4,128



Washington Metropolitan Area Transit Authority

FY2018 Budget Work Session: Ridership & Revenue

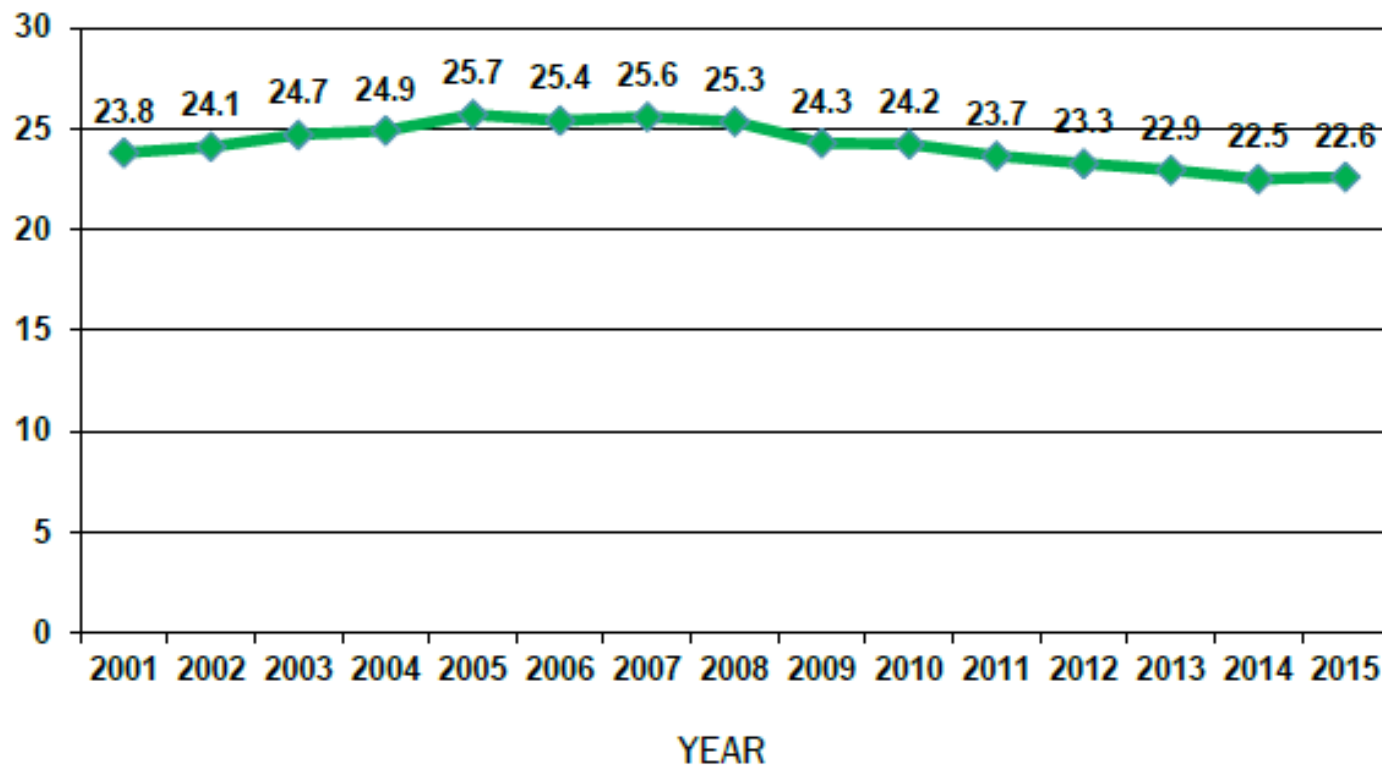
Finance Committee
December 1, 2016



A Trend Defying the Norm

Jobs, Population Up – People Travelling Less?

Regional Trend: Weekday VMT/Capita





Customers Expect Fast, Frequent, and Reliable Service

Reasons to Ride More by Segment

Frequent Commuters are the most likely to wish Metro cared more about their trip. Infrequent Non-work Riders, who use the system the least, would be most affected by having a station/stop closer to their home or work. Infrequent Commuters are the most interested in easier-to-understand fares.

% agree	Frequent Commuter	Frequent Commuter Plus	Infrequent Commuter	Infrequent Commuter Plus	Frequent Non-work Rider	Infrequent Non-work Rider
if it got me to my destination more quickly	67%	77%	72%	79%	67%	67%
if service ran more frequently	67%	85%	74%	77%	71%	58%
if it were more reliable	70%	82%	83%	73%	64%	57%
it were less expensive	66%	75%	71%	70%	57%	63%
if stations/stops were closer to my home/work	42%	59%	52%	52%	53%	64%
if it were less crowded	60%	62%	69%	57%	48%	45%
if Metro cared more about my trip	60%	58%	55%	53%	45%	34%
if the hours of operation were extended	39%	56%	43%	50%	53%	33%
if I had better information to make my trip	36%	45%	29%	44%	36%	31%
if the fares were easier to understand	33%	34%	45%	40%	36%	30%

n = 1044
 $\alpha = 0.05$

Significantly higher than row average
 Significantly lower than row average

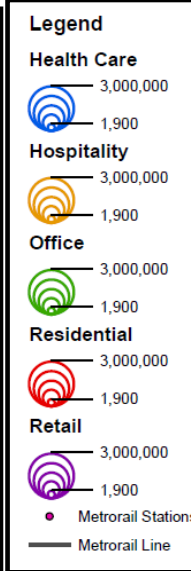
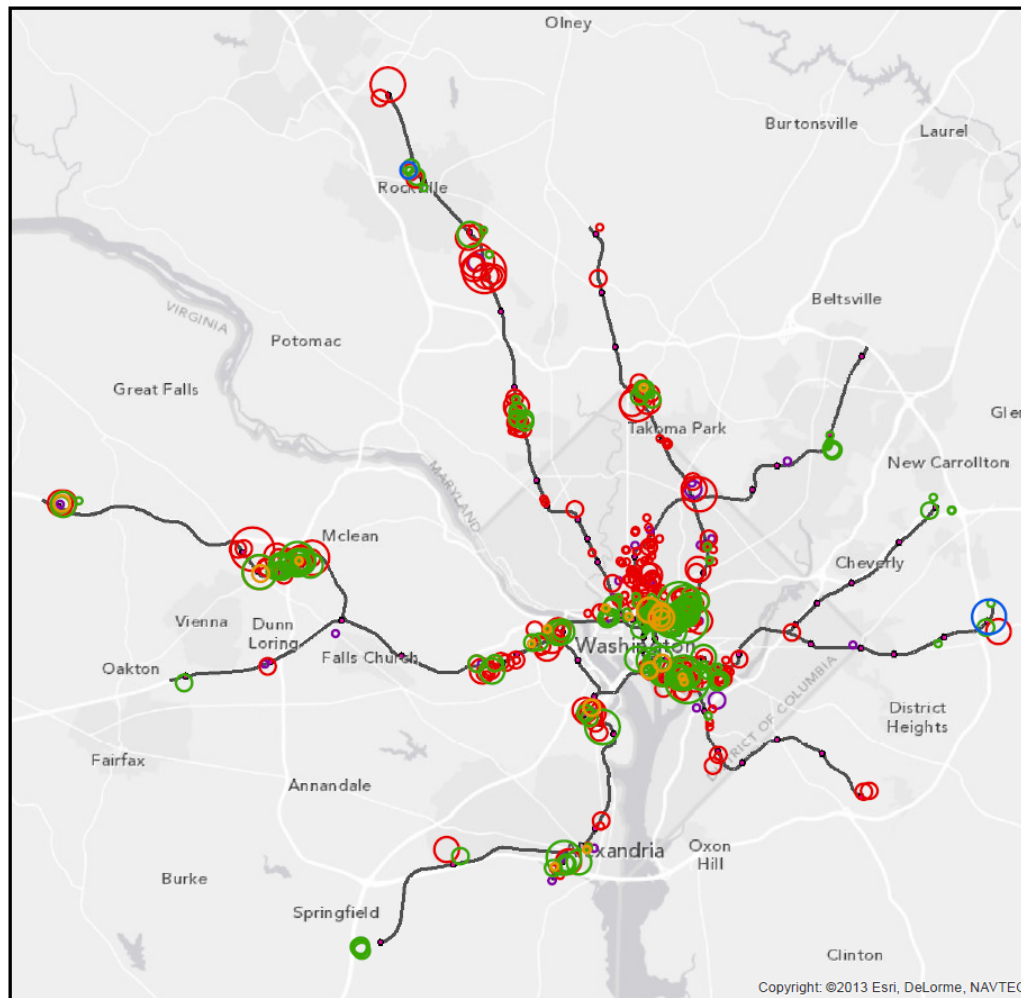




Market STILL Wants Metro Development-Related Ridership

100M SF TOD
Underway

>90% of
Region's
Commercial
Development
within ½ mile
of Metrorail



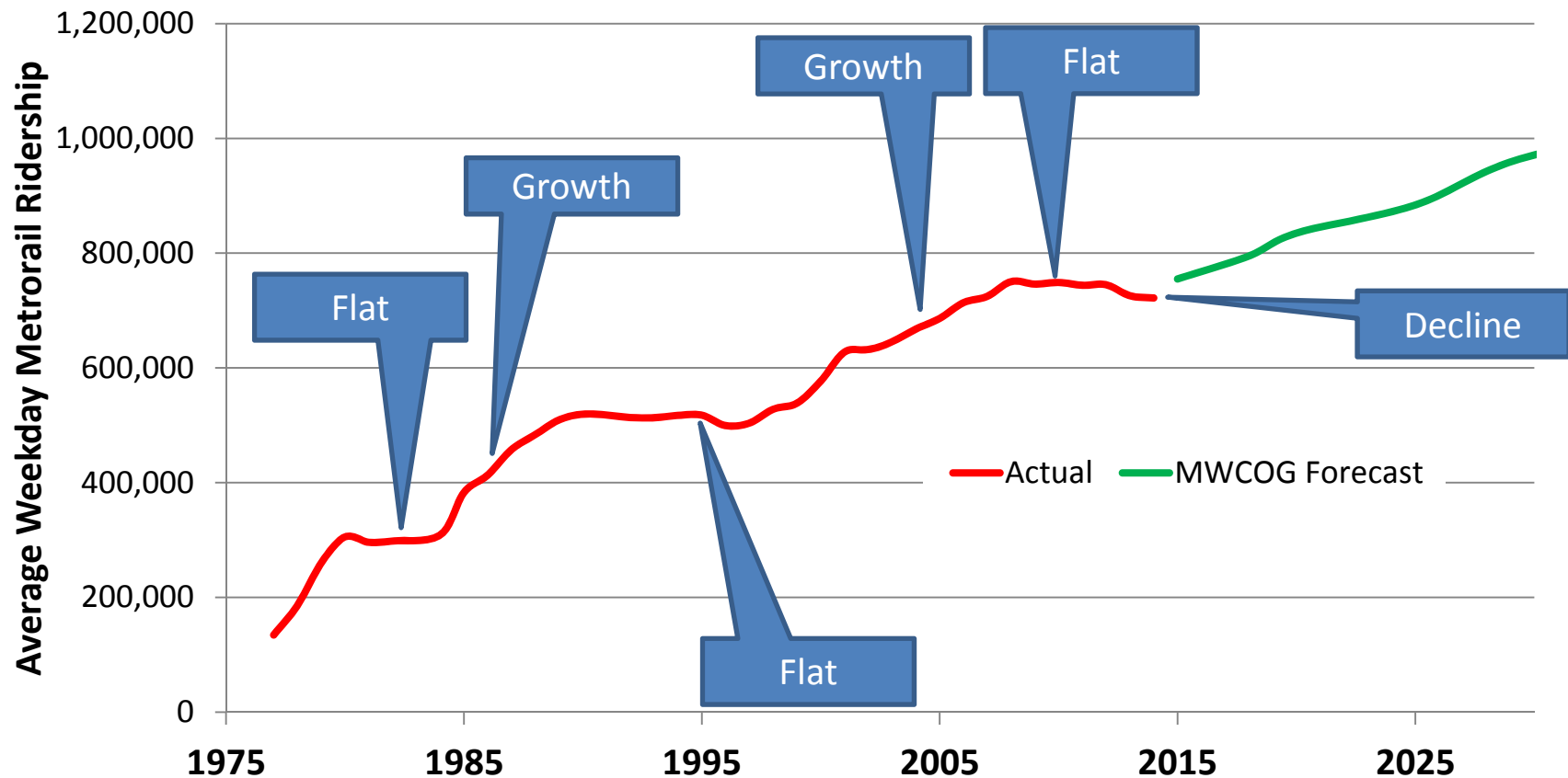
150,000 new
entries/day

\$400,000 in
new farebox
revenue each
weekday



Rail Ridership Growth Potential Contingent on Restoration of Service Quality

Metrorail Ridership, 1975-2030





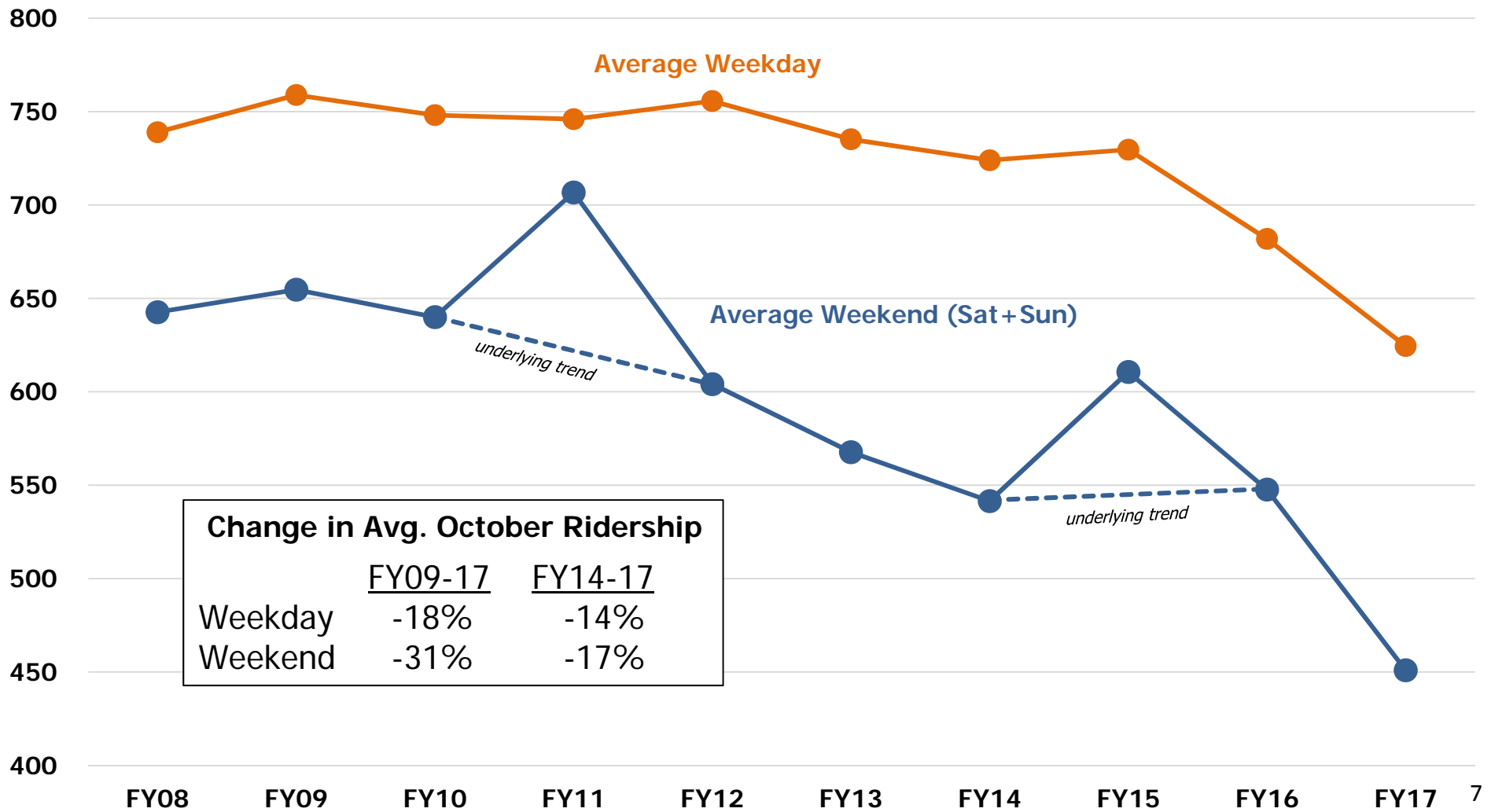
Review Board Questions

- Overall ridership trends
- FY2018 ridership/revenue projections
- Cost recovery
- Transfers
- Metrobus pricing



Rail Ridership Trend FY2008-FY2017

October Rail Ridership (000s)



Change in Avg. October Ridership		
	<u>FY09-17</u>	<u>FY14-17</u>
Weekday	-18%	-14%
Weekend	-31%	-17%



Impact of Specific Events on Ridership

- Red Line accident (June 2009): No evident long-term impact on ridership
- Government shutdown (Oct. 2013): Significant impact during two-week closure, but ridership bounced back quickly
- Sequestration (started 2013): coincided with peak period ridership decline, but was one of many factors





Ridership & Revenue

Ridership	FY2016 Actual	FY2017 Projected	FY2017 Forecast	FY2018 Proposed
Metrorail	191,348	203,500	183,510	177,105
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Cost Recovery

	FY2012 Actual	FY2013 Actual	FY2014 Actual	FY2015 Actual	FY2016 Actual	FY2017 Budget	FY2018 Proposed
Farebox Recovery Ratio	52.0%	51.8%	48.1%	49.6%	46.0%	47.1%	41.4%
Cost Recovery Ratio	57.4%	56.8%	53.1%	55.5%	50.8%	52.5%	46.3%

Note:

Farebox recovery includes fare and parking fee revenues from passengers.

Cost recovery includes all passenger revenues and all non-passenger revenues such as advertising, joint development, and fiber optic leases.



Transfers

- Riders can transfer between Metrobus routes for free if using a SmarTrip[®] card
 - ✓ Transfers between Metrobus and other local providers also free except for any required upcharge if local fare is different
- Rail-bus (or bus-rail) transfers get a \$0.50 discount off the second fare
- Increasing transfer discount would mitigate fare increase for some current riders, but would reduce net revenue by approximately \$7 million



Metrobus Fares

- 7-day bus pass is most-used pass product:
 - ✓ Could mitigate fare increase by lowering pricing to 9 trips rather than 10
 - ✓ Would reduce revenue approximately \$1.5 million, not expected to attract new customers
- Airport buses (B30 and 5A):
 - B30 currently proposed for elimination, 5A may be eliminated after Silver Line Phase 2 opens
 - Could consider increasing airport fares – if B30 and 5A both still in service, increase from \$7 to \$9 would generate approximately \$0.8 million