



Finance & Administration Committee

Information Item IV-A

May 9, 2013

Bus Ridership

**Washington Metropolitan Area Transit Authority
Board Action/Information Summary**

<input type="checkbox"/> Action <input checked="" type="checkbox"/> Information	MEAD Number: 200134	Resolution: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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TITLE

Analysis of FY2013 Metrobus Ridership

PRESENTATION SUMMARY

This presentation provides an overview of Metrobus ridership through the first nine months of FY2013. Ridership is down slightly over that period compared to FY2012 actual results, but up compared to FY2013 budgeted estimates.

The overall drop in bus ridership year-to-date is approximately 1.5 percent, though this figure falls to 0.6 percent after accounting for Hurricane Sandy in October. The growth areas for Metrobus ridership include weekends, PCN corridors, and the northern and western parts of the DC core. The weaknesses for Metrobus ridership include suburban services, non-regional services, and the southern and eastern parts of the DC core. Metrobus passengers have responded to the recent investments in the PCN corridors and the State of Good Operations (SOGO) investments that have increased reliability (measured both in terms of lost trips and mean distance between failures) and also have improved on-time performance.

Looking forward to FY2015 and beyond, Metro and its jurisdictional partners will need to continue to dedicate financial resources to Metrobus in order to reduce crowding, improve on-time performance, and maintain the “curb appeal” of the Metrobus service. Decisions will also need to be made about how to allocate these limited resources across various Metrobus markets.

PURPOSE

This presentation will provide the Committee with detailed information related to ridership on Metrobus. It will demonstrate relationships between key factors influencing ridership (cause) and the impacts of these factors at a route and line level (effect) using Metro’s business intelligence tool. While this presentation is informational, Metro will be using business intelligence analytical tools to guide future decisions on funding, fare policy, and service planning.

BACKGROUND

The FY2013 approved budget for Metro forecasted that total Metrobus ridership for the year would be approximately two percent below ridership in FY2012, at approximately 130 million riders. However, through the first nine months of FY2013, Metrobus ridership has exceeded those forecasted levels, although total ridership is still slightly below FY2012. Contained within this broad trend are important changes on a number of key dimensions, including weekday versus weekend, service plan, and geographic sector. This presentation provides an in-depth review of Metrobus ridership during the first nine months of FY2013 and provides a more detailed assessment of Metrobus' current strengths and weaknesses.

DESCRIPTION

The primary findings from the Metrobus ridership analysis are summarized below:

- Total actual Metrobus ridership is down approximately 1.5 percent in FY2013 compared to the same period in FY2012. However, ridership is up approximately one percent compared to FY2013 budgeted estimates.
- Total ridership is down only 0.6 percent after accounting for Hurricane Sandy in October, which closed the entire Metrobus and Metrorail system for almost two days.
- The key dimensions for considering Metrobus strengths and weaknesses include:
 - *Time of day*: Ridership patterns by time of day are almost identical from FY2012 to FY2013. Approximately 60 percent of Metrobus ridership on a typical weekday occurs in the peak hours between 6am-10am and 3pm-7pm, and over one-third of the ridership occurs in the heaviest parts of the peak between 7am-9am and 4pm-6pm. There has been a slight shift in ridership towards the 5am-6am period and away from the 6am-8am period, which may indicate that some riders are trying to avoid peak-hour congestion.
 - *Day of week*: Average weekday ridership is down approximately one percent, while average weekend ridership is up approximately four percent. Weekend ridership has grown strongly every year since 2010.
 - *Service plan*: PCN corridors now account for over 50 percent of Metrobus ridership, and ridership in those corridors is up 0.4 percent so far in FY2013. The other service types have experienced ridership declines – ridership on Express services is down 0.4 percent, and the High Ridership, Full Service, and Basic Service routes have all seen ridership decline approximately two percent.
 - *Geographic sector*: Metro's Bus Planning group analyzes bus ridership using a geographic sector scheme that breaks the region into 14 different sectors –

six in the District of Columbia, three in Virginia, and five in Maryland. Ridership increased between FY2012 and FY2013 in five sectors – western, central, and downtown DC; western Montgomery County; and southern Prince George’s County. Ridership declined in the other nine sectors, with the largest absolute declines in southeastern and eastern DC.

- *Allocation*: Regional routes, which cross jurisdictional boundaries and connect major activity centers, currently carry over 80 percent of Metrobus riders. The remaining 20 percent are carried on non-regional routes, which are directly paid for directly by the jurisdiction in which the route operates. Between FY2012 and FY2013, regional ridership is flat, while non-regional ridership is down 3 percent.
- Metrobus continues to increase its SmarTrip® penetration. Regular entries with SmarTrip® are up three percent over the period; transfers are flat; and cash rides (which includes student paper passes, Access patrons, and other special counts) are down 18 percent. Within that latter group, full fare cash rides are down 21 percent.
- Two broader trends are important for understanding the current and future trajectories of Metrobus ridership:
 - *Reliability*: The PCN and SOGO investments are resulting in noticeable improvements in reliability, with a 10% gain in mean distance between failures and a 12 percent overall reduction in lost trips. Metrobus has also had its second straight year of improvement in on-time performance (OTP), with OTP above the target of 78 percent in January through March of 2013.
 - *Shift from rail to bus*: In March, the Committee asked for information about a potential shift from rail to bus as a result of the fare increase. In general, for weekday riders who are *already on rail*, there are not many opportunities to shift to bus, and the travel time is likely to be substantially greater. However, given the larger off-peak fare increase on rail in July 2012, it is possible that some of the growth in Metrobus on the weekend could be from former rail passengers. More broadly, within the District of Columbia and other close-in suburbs (such as the Columbia Pike corridor in Arlington County), we are seeing bus begin to emerge more strongly as a *choice* mode, particularly for younger riders.

FUNDING IMPACT

None.

TIMELINE

Board action	None required.
Anticipated actions after presentation	Analysis and discussion in support of FY15 fare policy discussions beginning in Fall 2013.

ELECTRONIC ATTACHMENTS

See attached power point presentation for tables and charts detailing ridership and revenue.



Washington Metropolitan Area Transit Authority

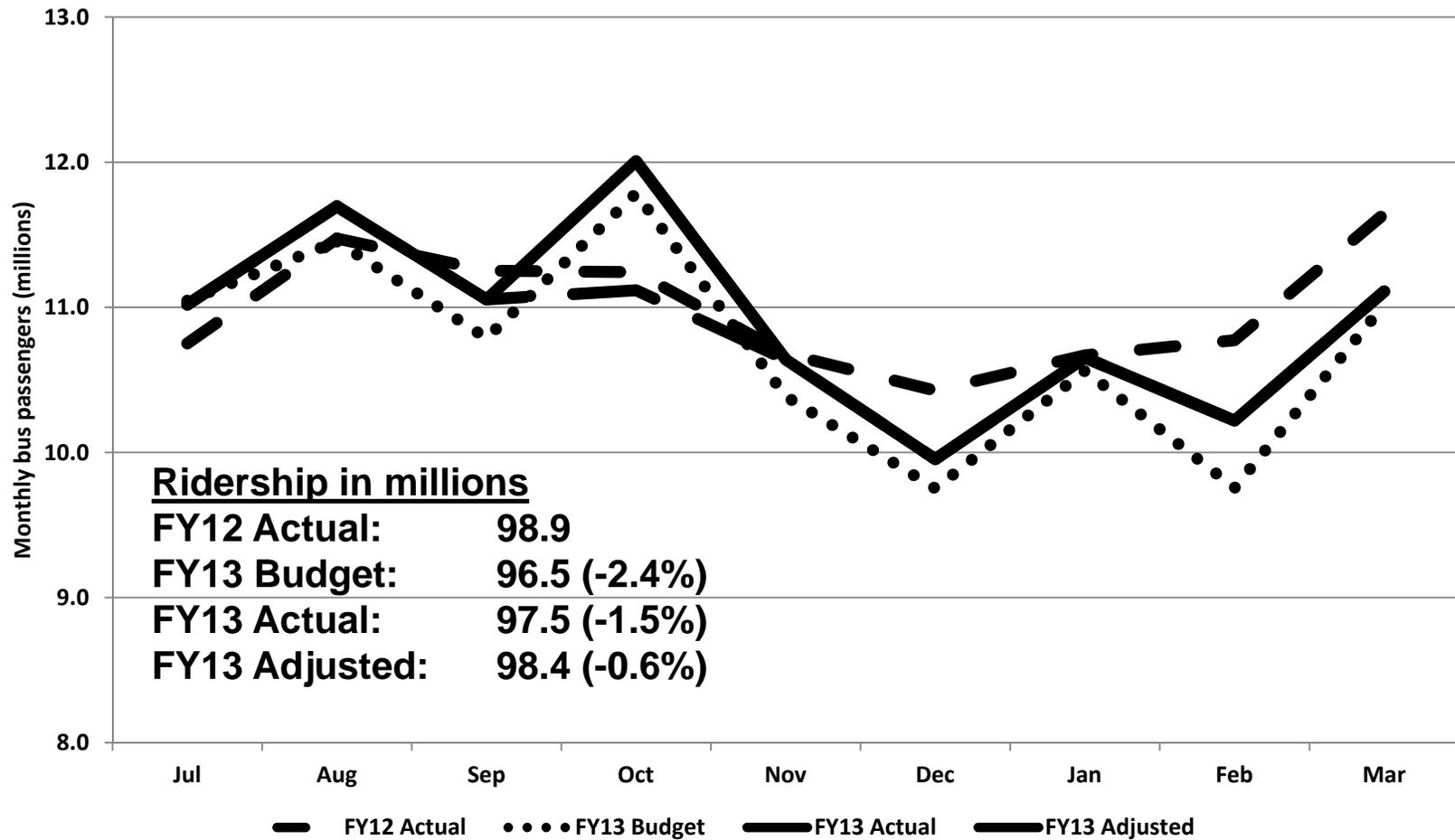
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FY13 Bus Ridership is Holding Steady

Metrobus Ridership: FY2012 vs. FY2013 (Q1-Q3)





What's Going On?

- Analysis of ridership changes across key dimensions
- Review of broader trends influencing ridership
- Thoughts for FY15 and beyond



Overall Trend Conceals Lots of Variation

- Unlike Metrorail, Metrobus is not a single service; it is an aggregation of different markets.
 - 175 lines, 318 routes, 11,000+ bus stops
 - 14 geographic sub-regions
 - 6 different types of product



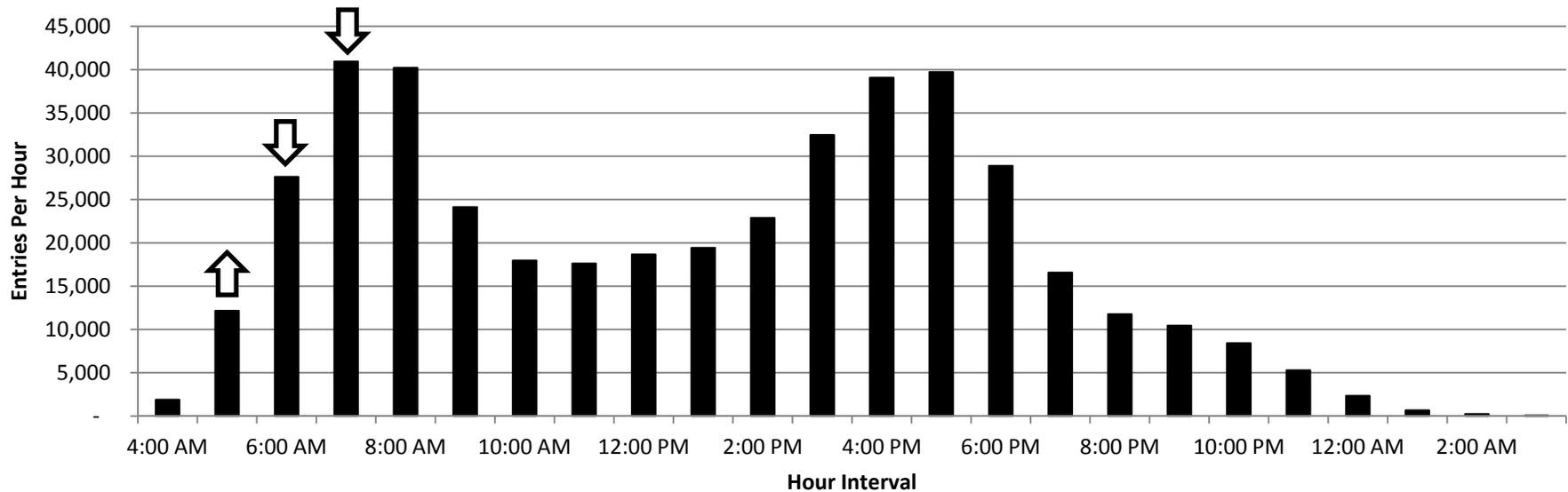
Ridership Comparisons

- Time of Day
- Day of Week
- Service Plan
- Geographic Sector
- Allocation
- Fare Type



Time of Day

Average FY13 Weekday Ridership by Hour of Entry



- 60% between 6-10am and 3-7pm
- 34% between 7-9am and 4-6pm
- Slight shift towards 5-6am and away from 6-8am – riders avoiding peak congestion?



Day of Week

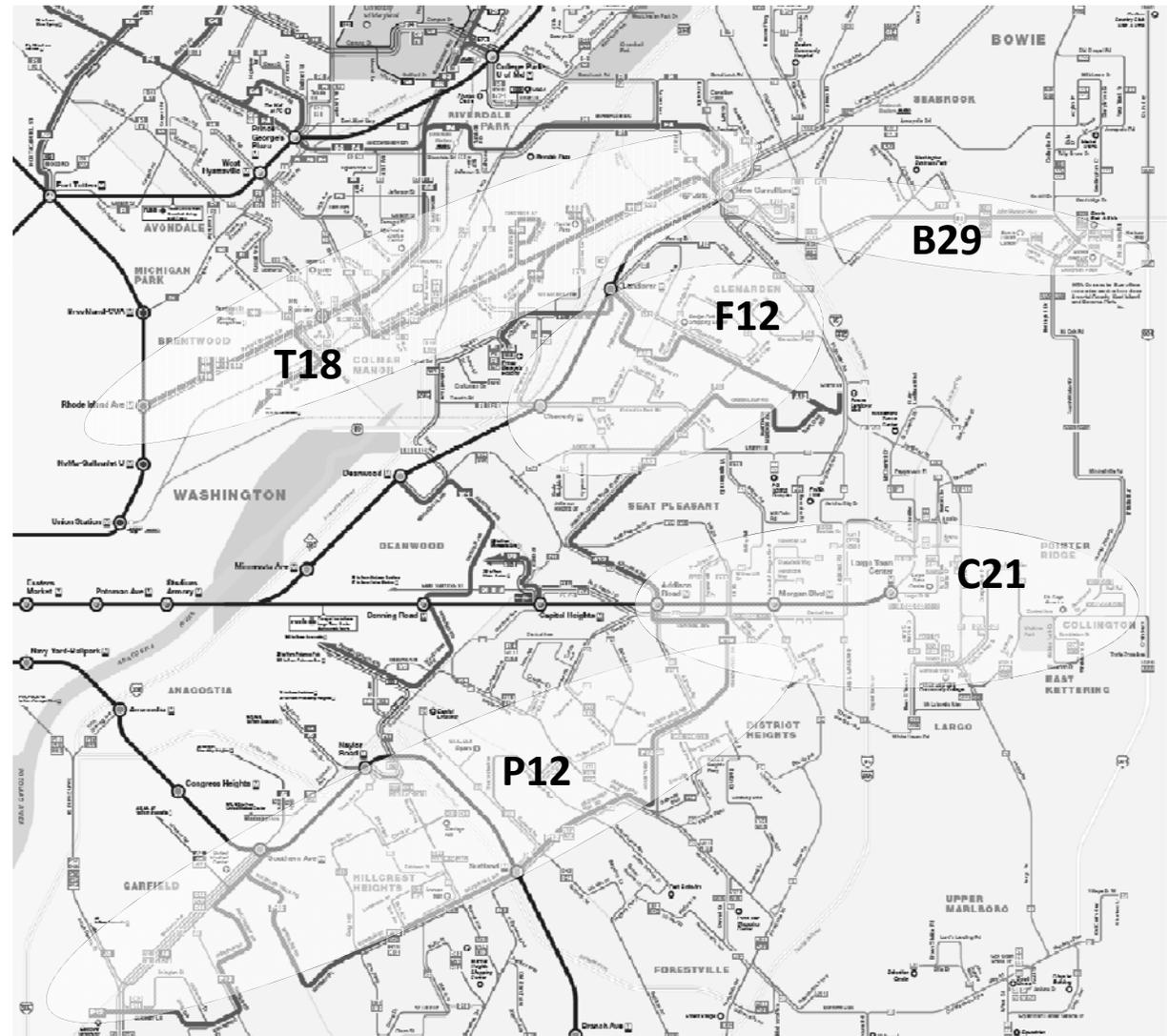
- Average weekday ridership down 1%
- Average weekend ridership up 4% -- continuation of post-2010 trend





Service Plan

- **Priority Corridor (PCN)**
 - 24 Board-identified corridors
 - Major arterial TOD and anticipated growth
- **High Ridership**
 - 5000+ passengers per day, 7 days/week
- **Full Service**
 - 1300+ passengers per day, 6-7 days/week
- **Basic Service**
 - <1300 passengers per day, weekday only
- **Express**



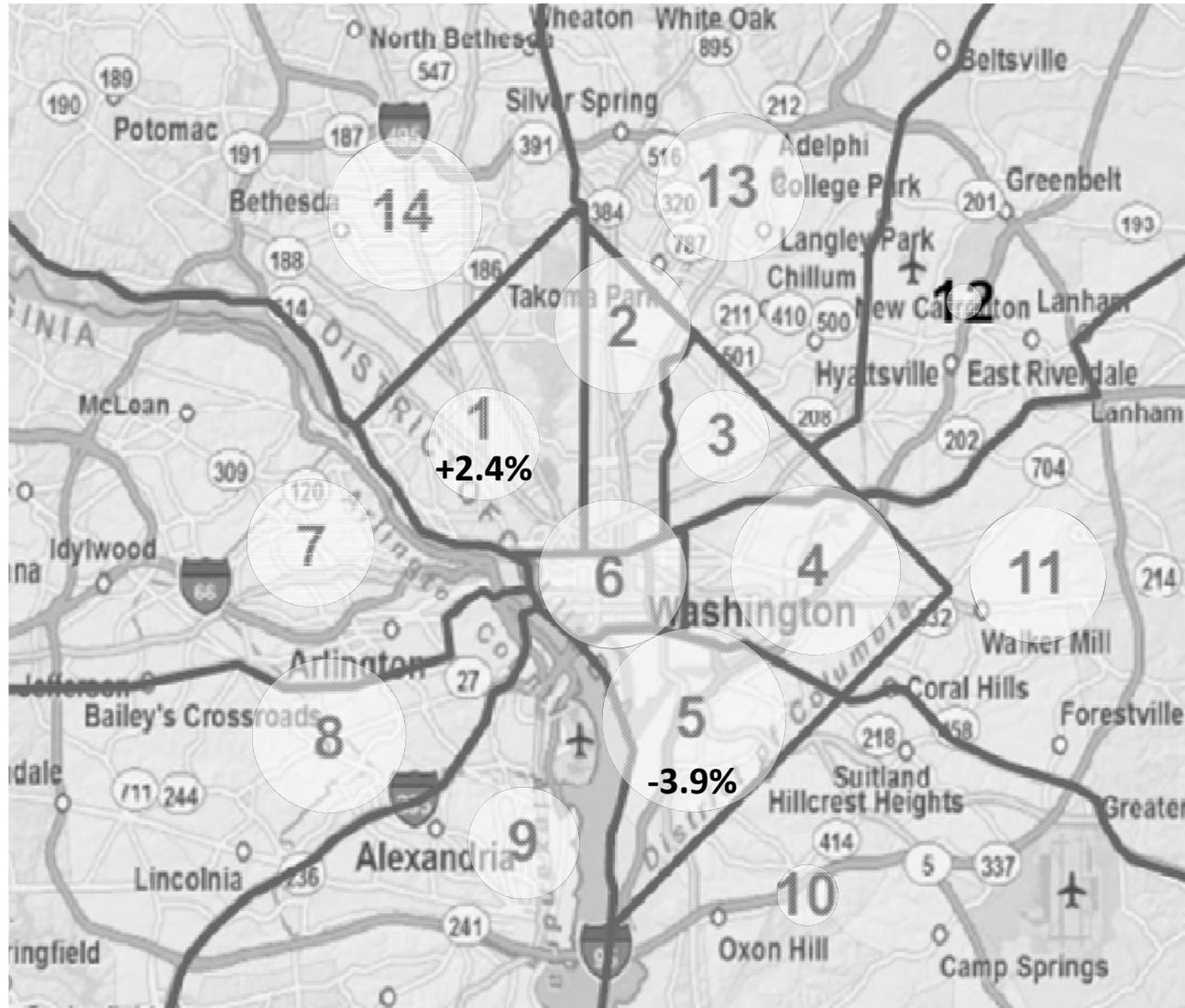


Service Plan (cont.)

- Priority Corridor Network ridership is growing:
 - Accounts for >50% of total Metrobus ridership
 - Up 0.4% in FY13 versus FY12
- Ridership on other services has declined from FY12 to FY13:
 - Express down 0.4%
 - High ridership, full service, and basic service all down approximately 2%



Geographic Sector





Allocation

- Regional routes provide transportation between jurisdictions; serve major activity centers; operate on major arterials; carry high volumes of riders
- Regional routes carry >80% of Metrobus riders
- Regional ridership is flat; non-regional ridership is down 3%
- Non-regional platform hours are down 1%



Fare Type

- Cash rides (including student paper pass, Access patrons, etc.) down 18%; full fare cash down 21%
- Regular entries with SmarTrip® up 3%
- Transfers flat
- SmarTrip® penetration over 90%, but still a high number of cash load transactions





Summary of Ridership Changes FY12 to FY13

Growth areas:

Weekends

PCN services

Western core

Weaknesses:

Suburban services

Non-regional services

Eastern core



Reviewing Broader Trends

- Addressing passenger concerns
 - Reliability
 - On-time performance
- Potential shift from rail to bus



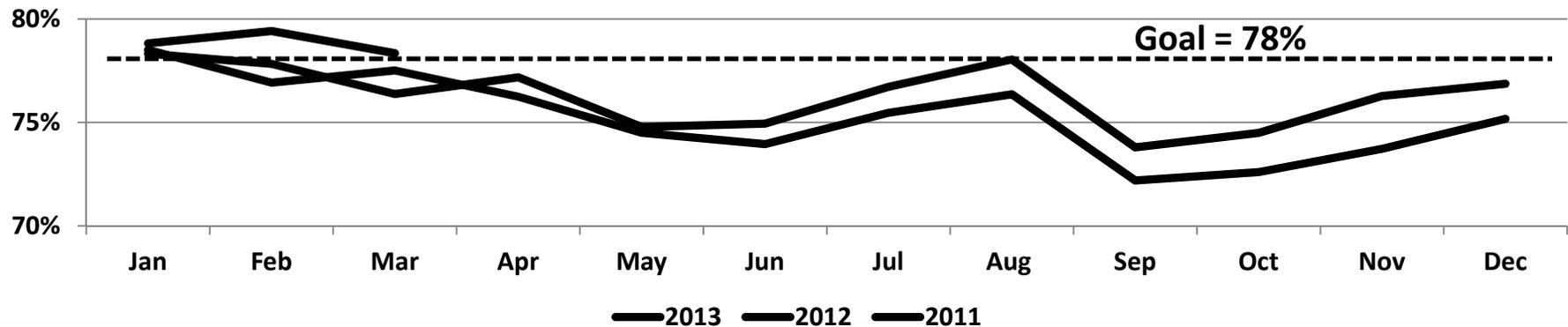


Reliability

- Bus trip is lost when a vehicle does not complete its scheduled run
- From FY12 to FY13:
 - 10% gain in mean distance between failures
 - 12% overall reduction in bus trips lost
- Route-specific success stories:
 - *96,97 (East Capitol St.)*: 41% reduction in lost trips, 7% increase in ridership
 - *52,53,54 (14th St.)*: 31% reduction in lost trips, 4% increase in ridership



On-Time Performance (OTP)



- Second straight year of improvement as a result of schedule adjustments, fleet reallocations, and on-street monitoring
- Success story: L1/L2 on Connecticut Avenue
 - OTP improved from 60% to 80%, ridership up 3%
- Better Bus investments will continue to address OTP



Shift from Rail to Bus?

- Original policy as rail system expanded was not to have buses “compete” with rail
- In 2000, policy changed – parallel services are now considered if needed

Metrorail Map in 1982





Shift from Rail to Bus? (cont.)

- Modest response to fare increase by bus riders – different customer dynamics than rail:
 - Less reliance on federal transit benefit
 - More transit-dependence
 - Lower overall price point
- In general, not much opportunity to shift to bus *if already on rail*, and travel time likely to be substantially greater



Shift from Rail to Bus? (cont.)

- Identified 15 lines in MD and VA that could potentially offer alternative to rail:
 - Growth on 6 PCN and 1 High Ridership
 - Declines on 5 Full Service, 2 Express, 1 Airport
- Dynamic different in DC and close-in suburbs
 - Bus frequencies and travel times are more competitive
 - More riders choosing bus



For FY15 and Beyond: Need for Continued Investment

- Continued positive response to PCN and State of Good Operations (SOGO) investments
- Need to reduce crowding, improve on-time performance, maintain “curb appeal”
- Growing vs. declining markets and need to make resource allocation decisions
- Potential for greater near-term expansion in bus vs. rail, as recognized in Momentum



For FY15 and Beyond: Fare Policy Questions

- Is the SmarTrip® discount on bus still needed?
 - Transfers/passes drive SmarTrip® use on bus
- Can fare policy be used to encourage transfers from bus to rail at key locations?
 - Wheaton to Silver Spring
 - 32/36 at Potomac Avenue
- Should Metro extend differential Airport and Express pricing to high-value services like MetroExtra?