Safety and Service Delivery Committee

Information Item III-A

February 8, 2018

Metro Performance Report

Washington Metropolitan Area Transit Authority

Board Action/Information Summary

○ Action ◉ Information	MEAD Number: 201953	Resolution: ○ Yes ◉ No

TITLE:

Metro Performance Report – Q2/FY18 Report

PRESENTATION SUMMARY:

The Metro Performance Report communicates Metro's system-wide performance in the areas of quality service, safety, security and financial responsibility.

PURPOSE:

The Metro Performance Report informs the Safety and Service Delivery Committee on Metro's performance for a key set of measures to track progress toward Authority strategic goals. Further, this public report communicates key actions and results to Metro's customers to support transparency and accountability.

DESCRIPTION:

Key Highlights:

The Metro Performance report compares performance fiscal year-to-date to targets that Metro aims to achieve, or where applicable, to previous fiscal year-to-date performance. As of Q2/FY18:

13 measures were at or above target, or better than last fiscal year

5 measures were near target

9 measures were not met, or worse than last fiscal year

Background and History:

In 2013, the Board of Directors adopted Metro's mission, vision and four strategic goals for building a transit system that supports a competitive region:

- Build and maintain a premier safety culture and system
- Meet or exceed expectations by consistently delivering quality service
- Improve regional mobility and connect communities
- Ensure financial stability and invest in our people and assets

Previously presented separately to the Safety Committee (Safety Report) and the Customer Service, Operations and Security Committee (Vital Signs Report), this comprehensive quarterly Metro Performance report provides Board members and customers with data and information to track progress toward these strategic goals, and supports Metro's efforts to be transparent and accountable to its customers.

Within Metro, this data is used on an ongoing basis to inform decision-making. The Department of Safety and Environmental Management (SAFE) utilizes multiple datasets to monitor safety activities that impact employees and the riding public. SAFE conducts a daily review of incidents, systematic inspections of facilities and regulatory programs and employee/contractor training to ensure a safer workplace and environment for our passengers. Within Operations, these measures are actively tracked by staff through a series of "Stat" performance review meetings that encourage data-driven analysis and decision-making. Departments develop fiscal year business plans with these and other measures and key actions that demonstrate departmental contribution to Metro's mission. These activities all contribute toward Metro's performance-based planning and programming approach.

Quarterly reporting of safety measures is required by the Board of Directors system safety policy statement as part of the approved System Safety Program Plan (SSPP). The SSPP is required under FTA Final Rule Code of Federal Regulations 49, part 659, Rail Fixed Guideway Systems: State Safety Oversight.

Discussion:

QUALITY SERVICE AND SECURITY FOCUS

Service reliability improving and crime best in a decade

MyTripTime

Rail customer OTP improved to 87 percent during the first half of FY18, thanks in large part to the implementation of a realistic schedule and the addition of new 7000 trains. Railcar delays remain the most frequent type of delay but are down almost 20 percent thanks to changes in the fleet composition and improved maintenance procedures. While Metro's rail infrastructure renewal program lowers on-time performance by about 2-3 percentage points in the short-run as service is reduced at nights and on weekends, overall rail infrastructure reliability is showing signs of improvement. The number of speed restrictions resulting from track inspections is down 40 percent, as are delays related to track defects. Bringing—and keeping—the system into a State of Good Repair, however, requires constant maintenance and renewal. To reflect Metro's commitment to

providing quality service, Metro's rush-hour promise refunds registered SmarTrip® customer trips that are more than 15 minutes late.

Rail Fleet Reliability

Railcar performance is the best reported in eight years, reaching over 87,000 miles between delays—equivalent to about 2 weeks of travel. For customers, this has resulted in 47 percent fewer offloads. Better performance was primarily driven by the addition of new 7000 series railcars to the fleet. As of the end of December 2017, the 7000 series trains represented over 40 percent of the available fleet and traveled over 121,000 miles between delays. Metro's second largest fleet, the 2000/3000 series also saw performance improvements of 9 percent compared to fiscal year to date 2017. The 5000 series cars are currently the poorest performers, and are slated for retirement in calendar year 2018.

Rail Infrastructure

In mid-August, Metro put in place a 35 mile per hour speed restriction covering almost 23 miles of track through the downtown core of the system to reduce trains' traction power draw while Metro analyzes power optimization used to propel trains. Because most trains do not travel above 35 miles per hour on these segments, these restrictions had a minimal impact on customer on-time performance. Metro is wrapping up the study of the power draw and expects to lift the speed restriction in the downtown core next quarter (in FY18-Q3). In addition, for about two months each Fall Metro places safety-related speed restrictions at upwards of 10 outdoor approaches to stations where falling leaves can lead to slippery rails. These restrictions add a few seconds to each trip, but do not significantly delay customers.

Infrastructure Availability – On average this fiscal year, about 95 percent of track has been available during revenue hours. The speed restrictions related to power consumption and fall leaves reduced availability by 3.1 percent. Unplanned single-tracking and other condition-related speed restrictions further reduced availability by 0.2 percent. Planned maintenance work during evenings and weekends, including extended shutdowns on the Red and Green lines to replace interlockings and crossovers, reduced availability by 1.7 percent. By 10 p.m. almost every weeknight, up to three Metro crews have begun working on the track to address tunnel leaks, renew rail infrastructure, and conduct preventive maintenance to ensure safe and reliable operations for customers. Metro's aggressive rail infrastructure renewal, inspection and preventive maintenance program aims to reduce unplanned single-tracking events and speed restrictions.

FTA Reportable Speed Restrictions – On average this fiscal year, about 8 percent of track was under speed restriction during the FTA-mandated period of 9 AM the first Wednesday of each month. The majority of this was related to speed restrictions aimed at reducing power consumption in the system core. Not counting these speed restrictions, the measure falls to 1.7 percent of track under speed restriction, below Metro's target of 2.2 percent.

Bus On-Time Performance

FYTD through December, 78 percent of buses were on-time, a three percent improvement from the same period last year. OTP improved across all days of the week and during all service periods with three percent more on-time buses during the weekday and 2 percent more on-time buses during the weekend. Overall improvement was primarily driven by a decrease in buses running late during peak period service – AM Peak (6AM-9AM) and PM Peak (3PM-7PM) – with these rush service periods improving the most. Improvements in OTP have been driven by schedule adjustments of low-performing routes, with the schedule adjustments implemented in June improving performance one percent compared to this same time last year.

Bus Fleet Reliability

FYTD through December, buses on average traveled 7,504 miles between service interruption, a seven percent decline from the same period last year with buses traveling six percent fewer miles and experiencing one percent more service interruptions. While all fleet technology types declined compared to the same period last year, fleet reliability of the fleets that provide the most service – Hybrid and CNG – declined at a slower rate compared to the performance of the older Clean Diesel and Diesel fleets. Overall bus fleet reliability performance was impacted by increased use of older, less reliable buses due to the 105 model year 2014 8000-series Hybrid buses being removed from service on September 28 along with increased service interruptions due to coolant sensor failures on the newest CNG fleet.

MetroAccess OTP

MetroAccess OTP improved to 92 percent FTYD compared to 87 percent through the same period last year. This improvement is particularly significant given that 92 percent OTP is the contractually-enforced service level agreement for OTP between WMATA and its paratransit service providers. FYTD performance is currently buoyed by strong performance this quarter – 93 percent OTP was delivered in October and November, and 94 percent in December. Improved performance is largely attributed to an operator staffing level increase to allay a previous operator shortage, and these new operators adjusting to their roles. Last year, operator staffing levels hemorrhaged due to

increased marketplace competitiveness. However, WMATA provided an adjustment to its paratransit contractors to enable them to be more competitive in the market, thus rectifying the issue.

Elevator/Escalator Availability

FYTD elevator availability is at 97 percent, equaling performance through the same period last year as well as FYTD 2016. Preventive Maintenance Compliance (PM Compliance) is a key driver of escalator availability; it should be noted that 100 percent PM compliance was achieved for elevators system-wide in October 2017. The Office of Elevators and Escalators (ELES) is currently undergoing a process wherein PM procedures are being tailored to address each unique asset model.

FYTD escalator availability is at 94 percent, an uptick from 93 percent escalator availability compared to the same period last year. At least 94 percent escalator availability has been achieved for each month in this fiscal year. Similar to elevator availability, PM Compliance is a key driver of escalator availability. For Q2/FY2018, an average of 97 percent PM Monthly Compliance was achieved. Metro's aggressive and expansive plan to replace a significant number of escalators across the system remains on track. Metro's Office of Elevators and Escalators (ELES) has completed 12 escalator replacements for the first half of FY18 with 16 units remaining to be complete. Total units completed under this project to date are 84.

Crime

The FYTD Part I crime rate decreased 19 percent compared to the same period last year. Crimes against property, accounting for 71 percent of Part I crimes, decreased 20 percent, and crimes against persons, accounting for 29 percent of Part I crimes, decreased 15 percent. The combined crime rate of 4.4 crimes per million passenger trips represents the lowest rate in recent years.

SAFETY FOCUS

Rail improving, bus an area of focus

Red Signal Overruns

Train and Equipment Operators had 70 percent fewer red signal overruns than during the first six months of FY17, with three reported incidents between July and December. When comparing calendar years, 2017 had the lowest monthly average of red signal overruns since 2012, with 0.7 violations per month. Two of the three FYTD18 violations occurred during a turnback move in single-tracking areas. Turnback operations are special moves that

can involve “double-ending” a train with a second operator in the trailing car and require additional levels of communication and coordination between the two operators and the Rail Operations Control Center (ROCC). SAFE is developing corrective actions to reduce the probability of these events.

Fire Incidents

In the first half of the fiscal year, fire incidents increased by nine percent, from 47 in FYTD17 to 51 incidents through December 2017. Of the FYTD18 fire incidents, forty-one percent were related to arcing insulators, which included a monthly high of nine in July, and a low of zero in November and December. Debris-related fires decreased by eight percent over the same time period. There were two incidents related to arcing track components (i.e., not insulators) in FYTD18 that occurred at the Shady Grove Rail Yard, and were due to a stray current issue that has since been resolved.

Rail Collisions

Operational rail collisions decreased by 50 percent compared to 2017 FYTD. Of the four collisions in FYTD18, three occurred in rail yards and included contact with a bump post, striking a rail car while moving in the rail car shop, and striking a maintenance facility’s shop door. The one mainline collision involved improperly stored material on a Roadway Maintenance Machine (RMM) striking a component of the tunnel infrastructure.

Derailments

Through December 2017, there have been six derailments reported. This represents a 45 percent reduction from the same period of FYTD17. All six incidents involved RMMs, including three that were hi-rail contractor pickup trucks. There were no derailments in October and November 2017. Four of the six derailments occurred in rail yards at low speeds.

Bus Collisions

Despite incurring 76 fewer collisions, the bus collision rate increased by less than one percent compared to the first six months of FYTD17. This is primarily due to a six percent decrease in mileage, which resulted in a four percent increase in the preventable collision rate. Over half of the collisions were classified as sideswipes, hit while stopped, and fixed or moving object collisions.

Bus Pedestrian Strikes

Compared to FYTD17, two fewer pedestrians were struck and transported from the scene during FYTD18 through December. Of the seven incidents in

FYTD18, two involved bicyclists and three occurred while the bus was attempting to make a turn. There was no correlation between routes or bus divisions, as all seven incidents occurred on different routes. Four of the seven incidents occurred at an intersection.

Rail Customer Injuries

One-hundred nine Rail passengers were injured during the first six months of FY18. This resulted in a Customer Injury Rate (CIR) of 1.25 injuries per million passenger trips, which is a nearly eight percent decrease compared to FYTD17. The injuries were primarily driven by slips/trips/falls on escalators and station platforms. Primary causal factors that were identified included customer inattention and intoxication.

The most common locations of customer injuries were Gallery Place (13) and Metro Center (five); followed by Potomac Avenue, DuPont Circle, Southern Avenue, and Union Station (four each).

Bus Customer Injuries

On Metrobus, 162 customers have been injured in FYTD18, a 29 percent increase from FYTD17. One-hundred customers were injured as a result of collisions, an increase of six compared to FYTD17. Seventy-nine of the 100 collision-related injuries were the result of non-preventable collisions. An additional 44 customers were injured as a result of slips/trips/falls. These injuries occurred primarily during hard braking or while the bus was in motion (e.g., turning, leaving a stop, stopping in traffic).

MetroAccess Customer Injuries

MetroAccess continued to demonstrate a decrease in customer injuries through the second quarter of FY18, resulting in a customer injury rate of 1.97 injuries per hundred thousand passenger trips. Twenty-three MetroAccess customers experienced an injury through December, compared to 34 in the same period of FY17. The reduction in customer injuries correlates with an overall reduction in preventable and non-preventable collisions. Customer slips, trips and falls were also reduced over this period.

Overall Employee Injury

Through the second quarter of FY18, 384 WMATA employees experienced an OSHA-recordable injury, which are those injuries that result in lost time, medical treatment beyond first aid, or other significant injuries. The Employee Injury Rate (EIR) of nearly seven injuries per hundred full-time employees, which is above the target of 5.1. Through the same time period of FY17, 335 employees were injured (approximately six injuries per hundred employees).

For FYTD, the most common injuries were related to vehicle collisions (93 injuries), ergonomics (65 injuries), slips/trips/falls and stress/assault (64 injuries each). Ergonomic injuries involve lifting, pushing/pulling as well as repetitive motions, such as operating a bus or train.

Rail Employee Injuries

The Rail EIR decreased by two percent when compared to the first six months of FY17, primarily due to decreases in injuries by the Railcar Maintenance, Traction Power Maintenance, Automatic Train Control Maintenance, and Plant Maintenance groups. While these groups performed better than last year, several other departments experienced increases in employee injuries. These include Rail Station and Train Operations (+5), Elevator and Escalator (+1), Systems Maintenance (+2), Supply Chain (+2), and Information Technology (+2). The most common injury types were slips/trips/falls, followed by ergonomic-related injuries struck by/against injuries.

Bus Employee Injuries

Through the first two quarters of FY18, the BUS EIR is nearly 40 percent higher than the same period as FY17. Bus Transportation's EIR increase is primarily driven by increases in preventable collision-, ergonomic- and stress/assault-related injuries, while Bus Maintenance experienced an increase in struck by/against injuries. Fifty-two percent of Bus injuries were non-preventable.

FISCAL RESPONSIBILITY FOCUS

Balancing budget through expense management, as ridership and fare revenues lower than projected

Ridership

Total FYTD ridership of 145.2 million is three percent below the budget forecast of 149.5 million. Rail ridership has stabilized at levels similar to last year while bus ridership has continued to decline.

- Rail ridership was 87 million, 2.1 percent below forecast. Weekday ridership averaged 604,000, a 1.8 percent increase over last year while daily weekend ridership averaged 202,000, an 0.1 percent decrease from last year.

- Bus ridership was 57 million, 4.1 percent below forecast. Weekday ridership averaged 385,000, a 7.6 percent decrease compared to last year while daily weekend ridership averaged 166,000, an 8.1

percent decrease from last year.

- MetroAccess ridership was 1.2 million, 3.5 percent below forecast, averaging 8,000 trips per weekday.

Operating Budget Management

Below budget expenses exceeded revenue shortfalls, resulting in projected balanced budget.

- Expenses under budget by $31 million, primarily due to vacant positions and lower spending on services
- Revenue below budget by $10 million, primarily due to ridership below forecast
- Subsidy – the budget had a favorable $21 million year-to-date; the year-end forecast projects a balanced budget

Capital Funds Invested

Forty percent of capital funds invested FYTD; forecasted pace of investment to increase in Q3 and Q4

FUNDING IMPACT:

The initiatives are funded in the FY18 budget	
Project Manager:	Patrick Lavin and Joseph Leader
Project Department/Office:	Offices of System Safety and Environmental Management and Chief Operating Officer

TIMELINE:

Previous Actions	October 2017 – Quarterly Safety Report November 2017 – Q1/FY18 Vital Signs Report
Anticipated actions after presentation	May 2018 – Q3/FY18 Metro Performance Report

Washington Metropolitan Area Transit Authority

Q2

Metro Performance Report

Safety and Service Delivery Committee

February 8, 2018

Q2 FY2018 Metro Performance Report

Fiscal-Year-to-Date Performance
July – December 2017

QUALITY SERVICE

MY TRIP TIME - RAIL

87% of customers arrived on-time

● Target ≥ 88% on-time

BUS ON-TIME PERFORMANCE

78% of buses arrived on-time

● Target ≥ 79% on-time

METROACCESS ON-TIME PERFORMANCE

92% of vehicles arrived on-time

● Target ≥ 92% on-time

SAFETY & SECURITY

RED SIGNAL OVERRUNS

3 red signal overrun incidents

● FYTD Prior Year 10

BUS COLLISIONS

60.2 collisions per million miles

● FYTD Prior Year 59.8

PART I CRIME

639 4.4 per million passengers

● FYTD Target ≤ 875 Part I Crimes

FINANCIAL RESPONSIBILITY

RIDERSHIP

145.2 million passengers

● Budget Forecast 149.5 million passengers

BUDGET MANAGEMENT

2% favorable

● Target 0 to 2% favorable

CAPITAL FUNDS INVESTED

40% of capital budget invested

● FYTD Forecast ≥ 46%

KEY

- MET OR ABOVE TARGET
- NEAR TARGET
- TARGET NOT MET

NOTE:
Percentages rounded to the nearest whole number

Quality Service & Security Focus

Service reliability improving and crime best in a decade

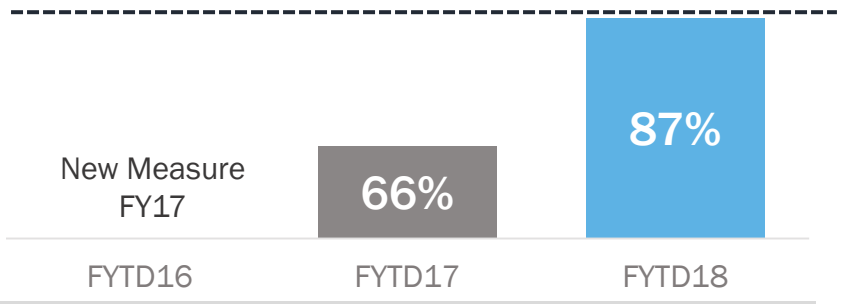
MyTripTime – Rail Customer On-Time Performance

MyTripTime – Rail

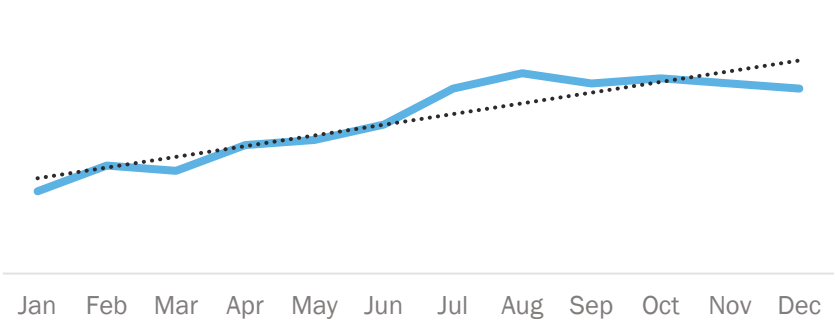
Near target

Target 88%

Desired Direction



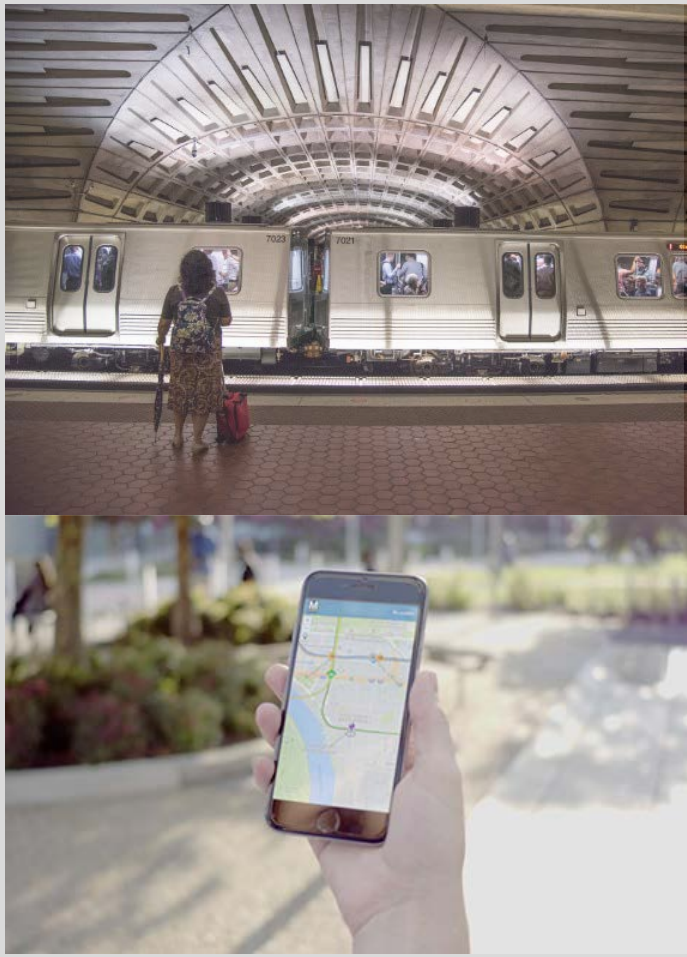
12-Month Trend



OTP improved thanks to fewer railcar delays and fewer extended maintenance disruptions

Key Actions:

- Aggressive rail infrastructure renewal, inspection and preventive maintenance program
- Acceptance of 7K trains
- Begin retirement of 5000 series fleet CY2018
- Repair escalators, elevators and fare gates



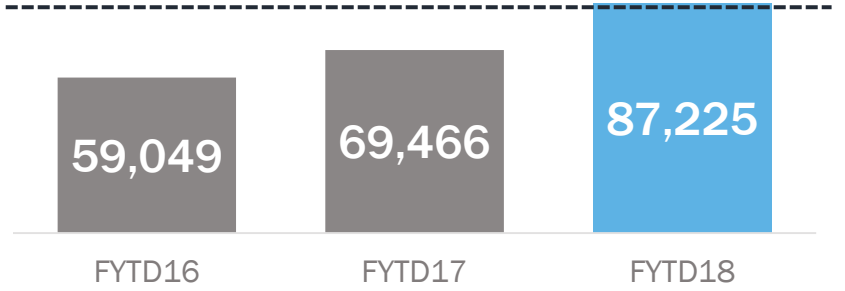
Rail Fleet Reliability

Rail Fleet Reliability [mean distance between delay]

Met target

Target 85,000

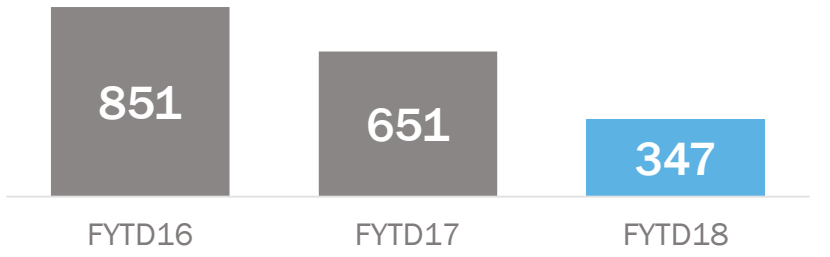
Desired Direction



Offloads [due to railcar problems]

Decreased compared to prior year

Desired Direction



Reliability surpassed target, reaching eight-year high

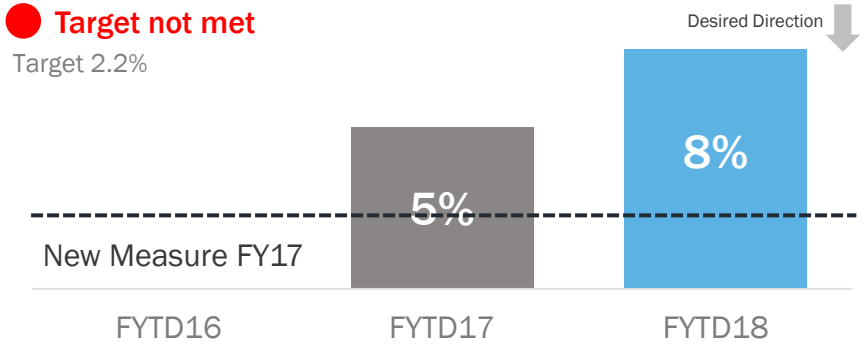
Key Actions:

- Acceptance of 7K trains
- Continue to adjust inspection schedules and procedures for legacy fleet
- Begin retirement of 5000 series fleet CY2018

Rail Infrastructure

Infrastructure Availability

FTA Reportable Speed Restrictions



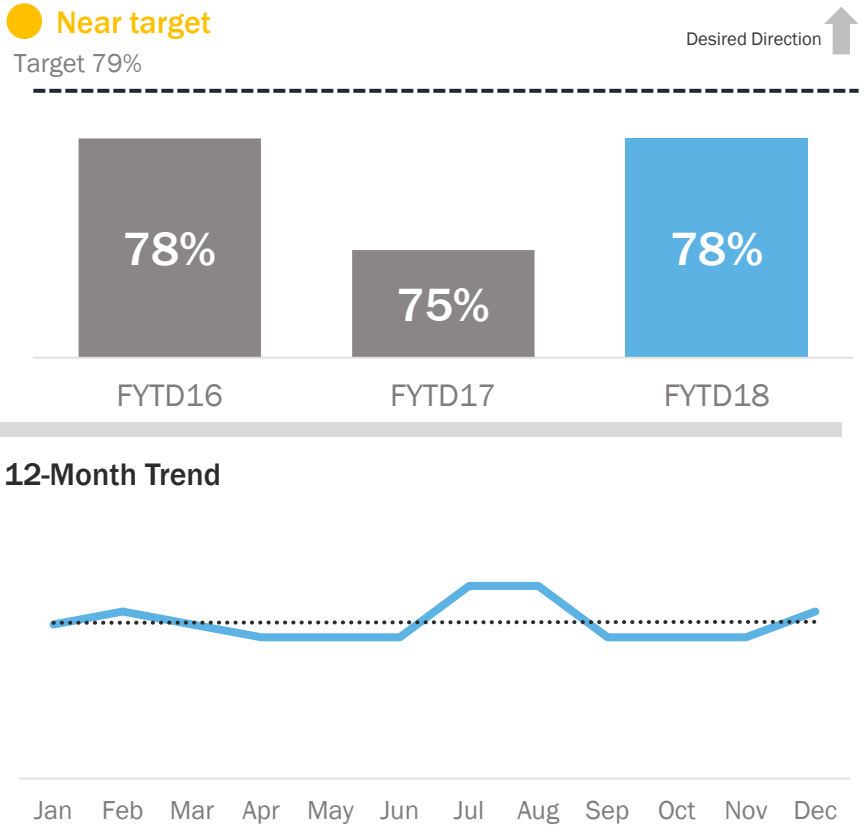
Speed restrictions in downtown core and related to fall weather reduced availability but had limited impact on OTP

Key Actions:

- Preventive maintenance and capital programs
- Expand pilot waterproofing technique in Red Line tunnels
- Track inspections to identify and fix degraded conditions

Bus On-Time Performance

Bus On-Time Performance



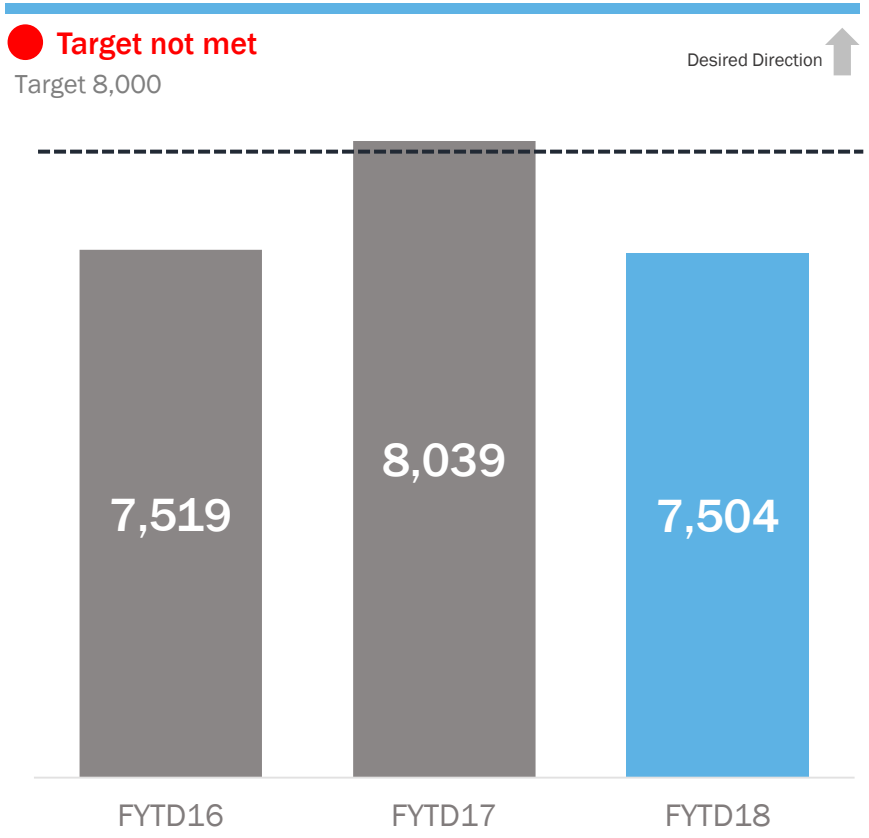
OTP improved across all days of the week and all service periods

Key Actions:

- Actively manage headway routes through dedicated field supervisors and control center specialists
- Implement technology upgrades for real-time tracking of buses
- Utilize articulated and strategic buses on high-frequency routes to reduce crowding and improve reliability
- Continue to implement schedule adjustments on low-performing routes

Bus Fleet Reliability

Bus Fleet Reliability



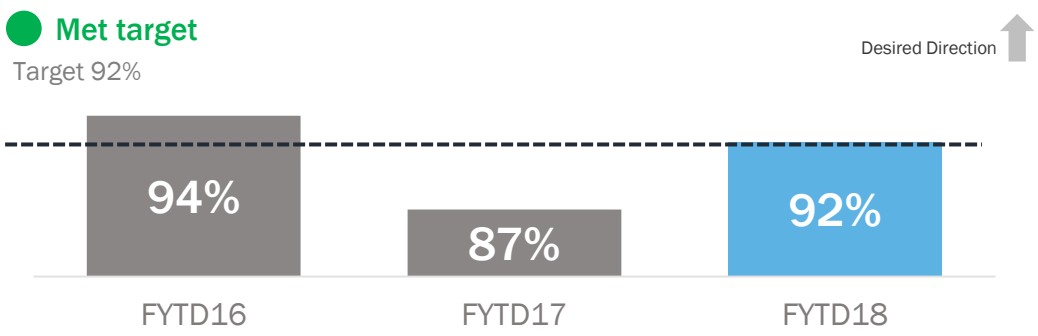
Impacted by increased use of older, less reliable buses due to out of service 8000-series buses

Key Actions:

- Return 8000-series buses to service
- Work with manufacturer on developing alternative coolant level sensor
- Continue evaluation of new products and adjust preventive maintenance cycles
- Midlife overhaul and preventive maintenance programs
- Sustain bus procurements

MetroAccess On-Time Performance

MetroAccess On-Time Performance



OTP met target

Key Actions:

- Abilities-Ride program has ramped up incrementally and is on track for expanded promotion and growth in 2018
- Overall, staffing levels remain adequate

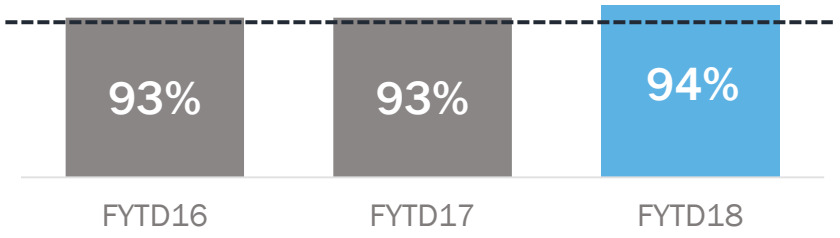
Escalator & Elevator Availability

Escalator Availability

Met target

Target 93%

Desired Direction

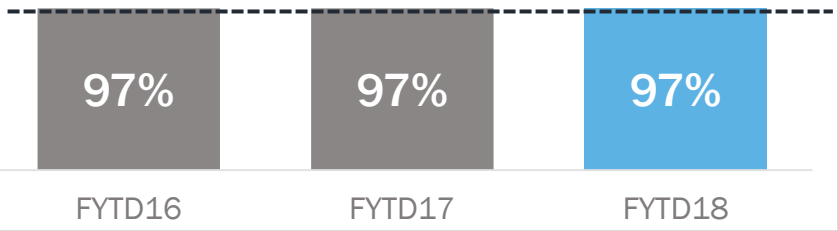


Elevator Availability

Met target

Target 97%

Desired Direction



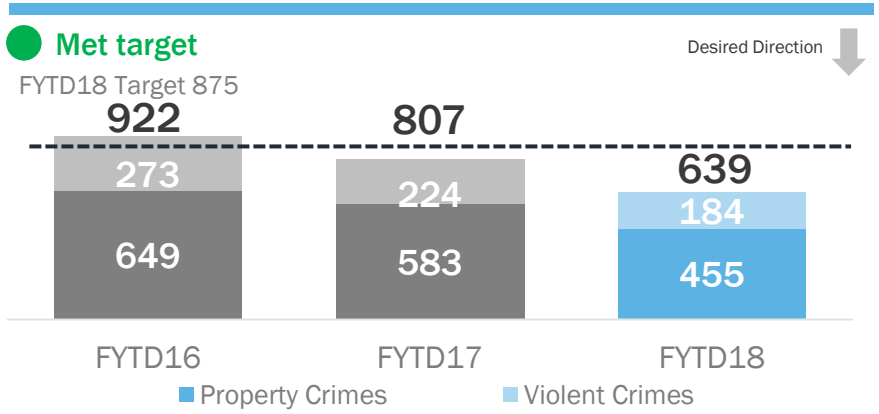
Both met target with escalator availability surpassing target

Key Actions:

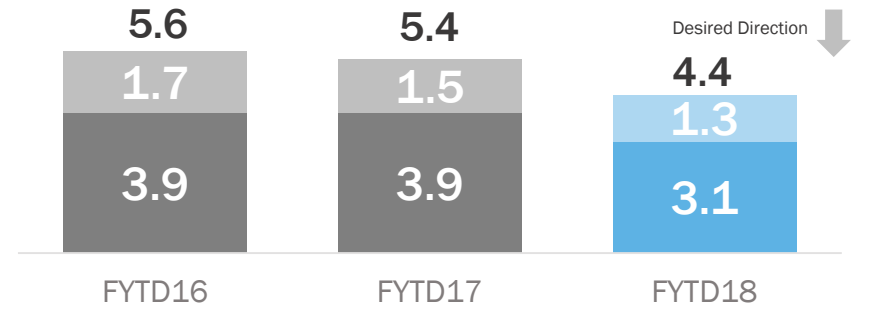
- Continue aggressive replacement and rehab efforts
- Continue updating preventive maintenance procedures tailored to each escalator/elevator model
- Establish contract with manufacturer for escalator steps to ensure steady supply

Crime

Part I Crime



Part I Crime, per million passengers



The Part I crime rate decreased 19% compared to last year, best in a decade

Key Actions:

- Continue investment in closed circuit television (CCTV) and real-time monitoring
- Adjust tactics and officer deployments based on crime data analysis
- Sustain fare evasion initiative

Safety Focus

Rail improving, bus an area of focus

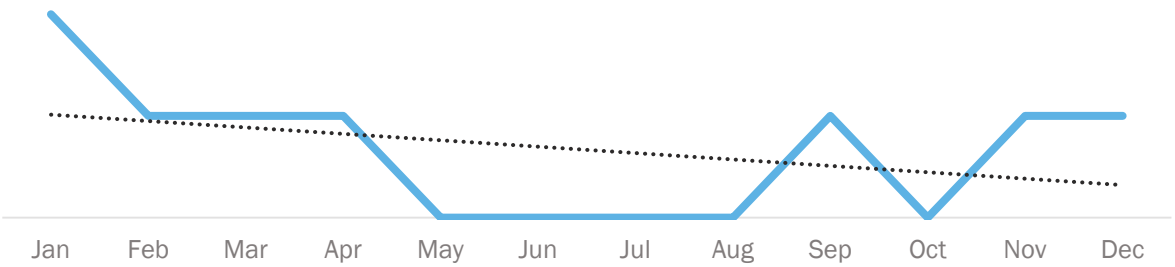
Red Signal Overruns

Red Signal Overruns

Desired Direction

Decreased compared to prior year

12-Month Trend



70% decrease in Red Signal Overruns

Key Actions:

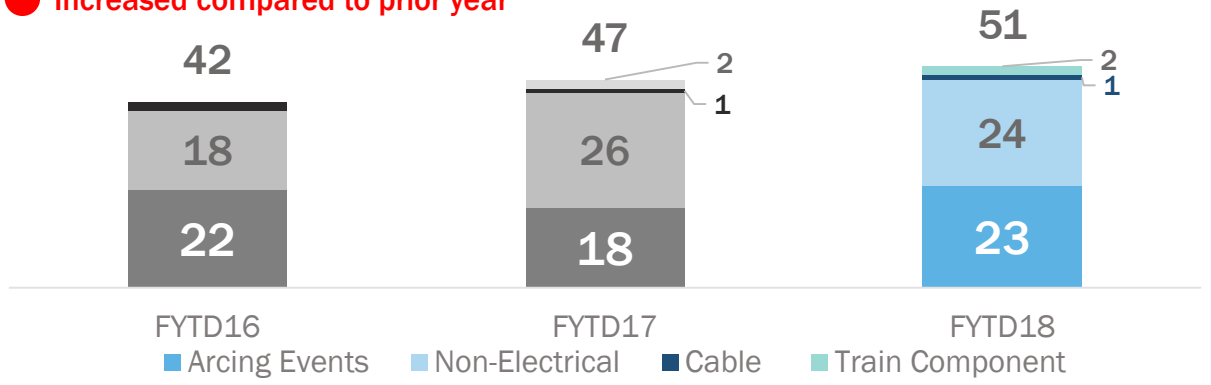
- Sign maintenance (cleaning, replacement)
- Yard safety briefing on each shift by Interlocking Operator
- Signal Head upgrades (LEDs/Lenses/Name Plates)
- “Stop and Proceed Operating Mode” solution
- Right-side signal configuration
- Diverging route signal consistency
- Line familiarization training for train and equipment operators
- Improved communications for Roadway Maintenance Machines (headsets)

Fire Incidents

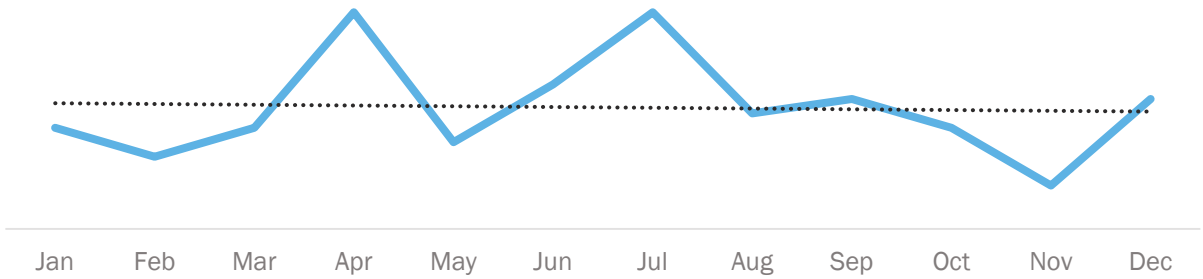
Fire Incidents

Desired Direction

Increased compared to prior year



12-Month Trend



Increase in fire incidents driven by high rainfall in July, which led to a spike in arcing insulators; no arcing insulators in November or December

Key Actions:

- Tunnel leak mitigation project
- Expanded cleaning programs
- Replaced insulators
- Additional inspections (e.g., stray current testing)
- Completed Cable Connector Refurbishment on mainline
- Completed cable securement project in all tunnel sections

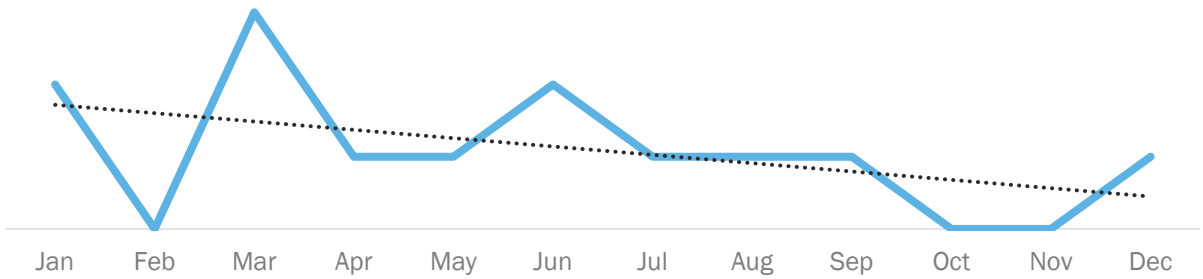
Rail Collisions

Rail Collisions

Desired Direction

Decreased compared to prior year

12-Month Trend



Four total collisions since July; one in the last three months of 2018

Key Actions:

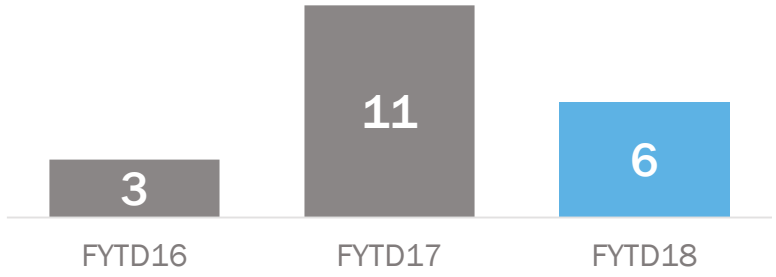
- Operator training on safe train movement in yard
- Efficiency testing
  - Speed compliance
  - Yard safety stops
  - Shop/yard moves
- Improved Roadway Maintenance Machine communication procedures
- Revitalized Line familiarization training for Train and Equipment Operators
- Deployed new training program for Flagman and any personnel who may perform this task (e.g. Equipment Operators, Track Repairers)

Derailments

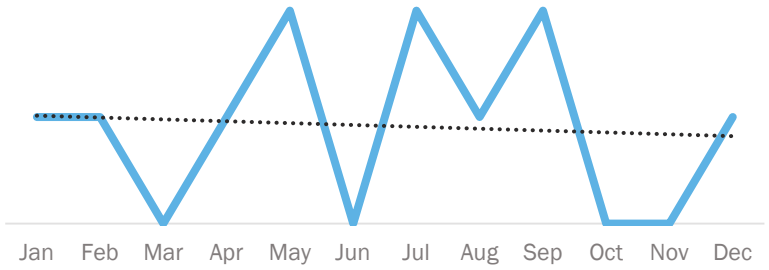
Derailments

Desired Direction

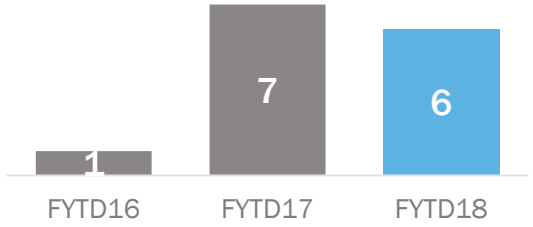
Decreased compared to prior year



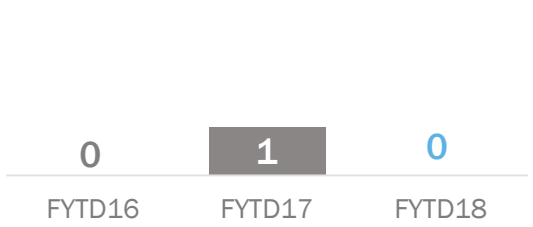
12-Month Trend



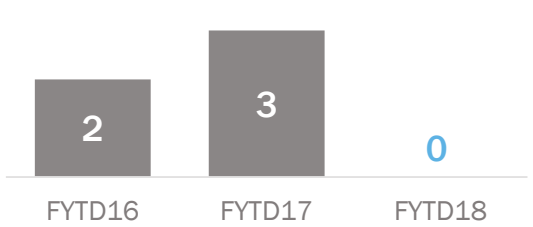
Roadway Maintenance Machines



Trains Carrying Customers



Trains with No Customers



45% reduction in derailments compared to FYTD 2017

Key Actions:

- Hi-rail vehicle inspection and approval process
- Associated FTA/TOC CAP closed
- Tie scanning
- Base of rail scanning
- Lateral load testing
- HD Cameras

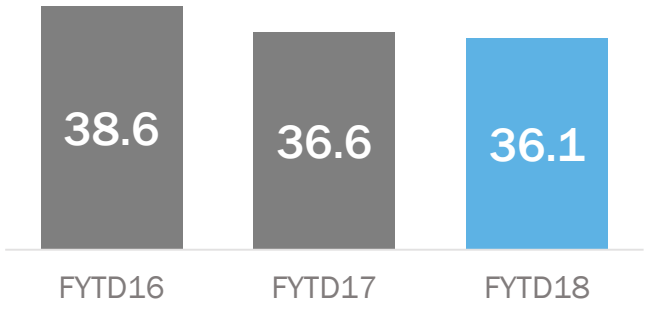
Bus Collisions

Bus Collisions, per million miles

Non-Preventable

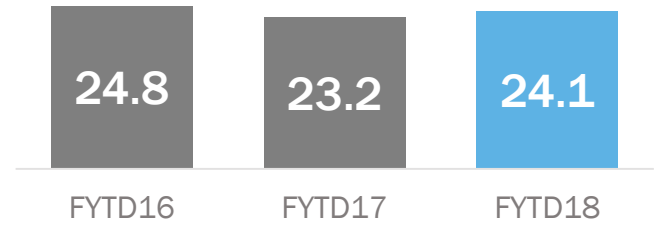
Desired Direction

Decreased compared to prior year

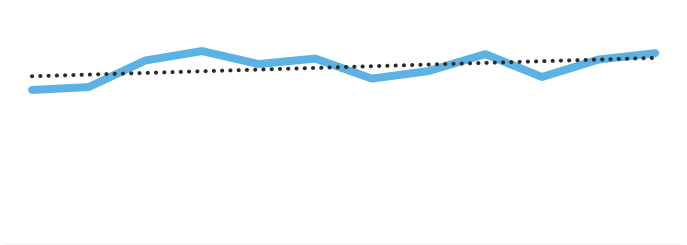


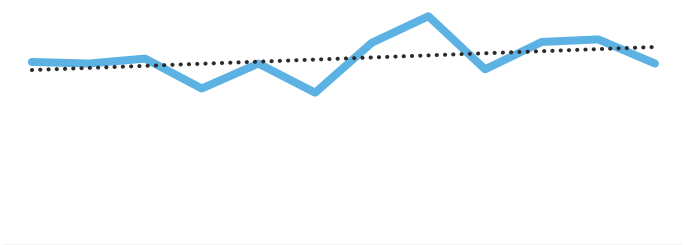
Preventable

Increased compared to prior year



12-Month Trend





Bus Collision Rate increased slightly compared to FYTD 2017

Key Actions:

- Line observations by BTRA and SAFE personnel
- Deceleration light and strobe installation
- Mirror adjustments/lowering
- Additional ride-alongs by supervision
- Review of collision reports and data analysis

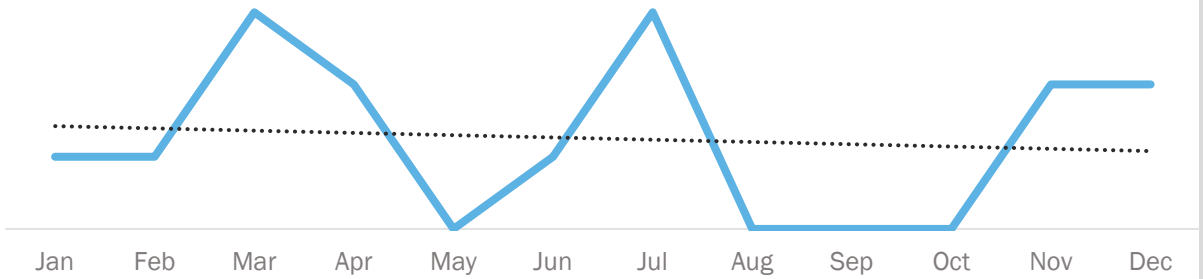
Bus Pedestrian Strikes

Bus Pedestrian Strikes

Desired Direction

Decreased compared to prior year

12-Month Trend



22% decrease compared to FYTD 2017

Key Actions:

- Front strobe/marker light installation
- Line observations by BTRA and SAFE personnel
- Ride-alongs by supervisory staff
- Review of DriveCam Incidents
- Mirror lowering/adjustment
- Electronic messaging at the Divisions to reinforce safe operations

Rail Customer Injuries

Rail Customer Injuries, per million passengers

Non-Preventable

Met target

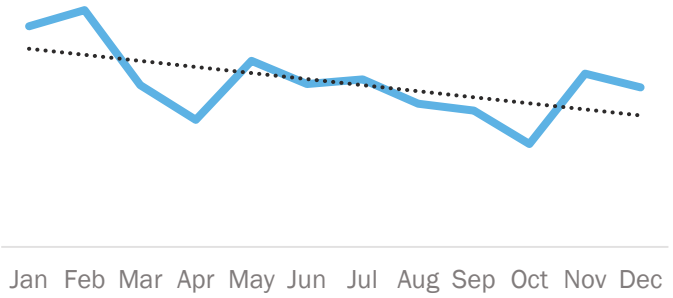
Target 1.75

Preventable

Desired Direction

12-Month Trend

All Rail Customer Injuries were preventable



8% decrease compared to FYTD 2017

Key Actions:

- Improved lighting at stations and on platforms
- Continued installation of optimal boarding location signage for ADA
- Installation of platform cameras at Train Operator's position at Silver Spring and Brookland-CUA stations to assist with platform observations
- Automated escalator announcements pilot implemented with additional location planned

Bus Customer Injuries

Bus Customer Injuries, per million passengers

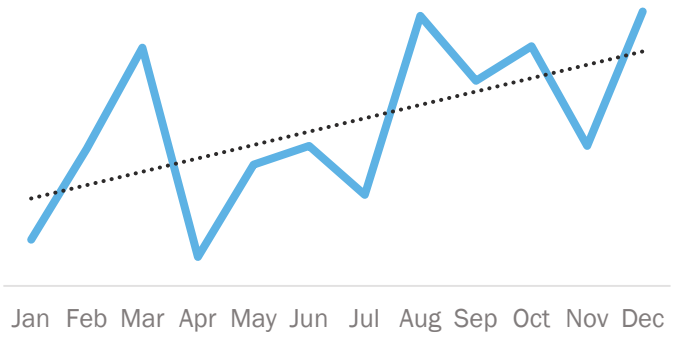
Non-Preventable | **Preventable**

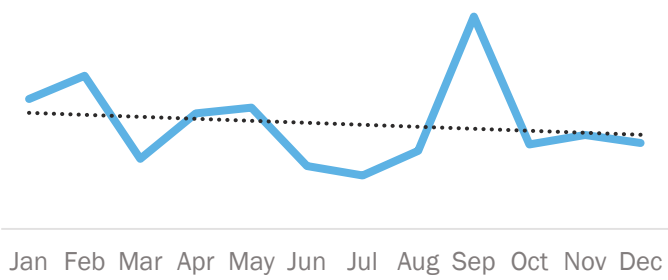
Desired Direction

Target not met

Target 2.45

12-Month Trend





Primary cause of bus customer injuries continues to be motor vehicle collisions

Key Actions:

- 8000-series hazard mitigation campaign
- Line observations by BTRA and SAFE personnel
- Deceleration strobe installation
- Emphasis on proper approach angle and berthing position at bus stops
- Installation of on-board video monitors on all new buses

MetroAccess Customer Injuries

MetroAccess Customer Injuries, per 100,000 passengers

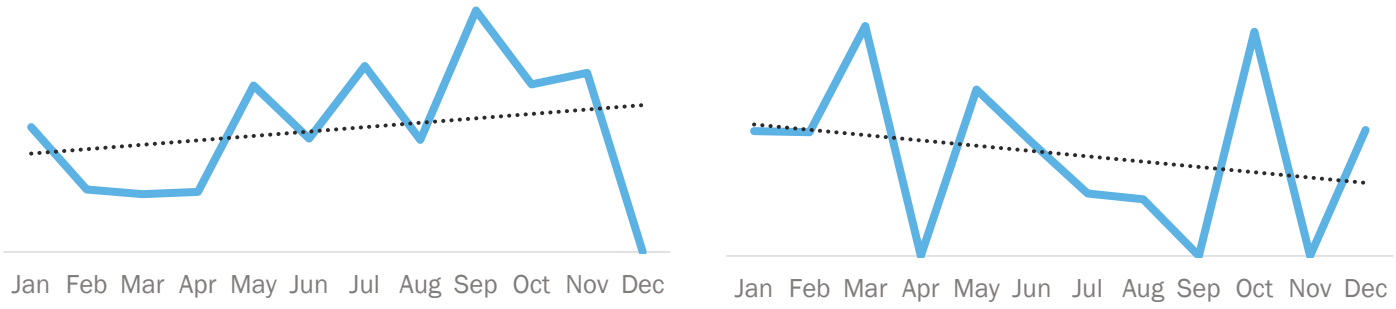
Non-Preventable | **Preventable**

Desired Direction

Met target

Target 3.00

12-Month Trend



31% decrease in customer injuries compared to FYTD 2017

Key Actions:

- Operator training
- Occupational therapist
- Acquisition of new vehicles with improved design
- Vehicle modifications based on customer feedback

Rail Employee Injuries

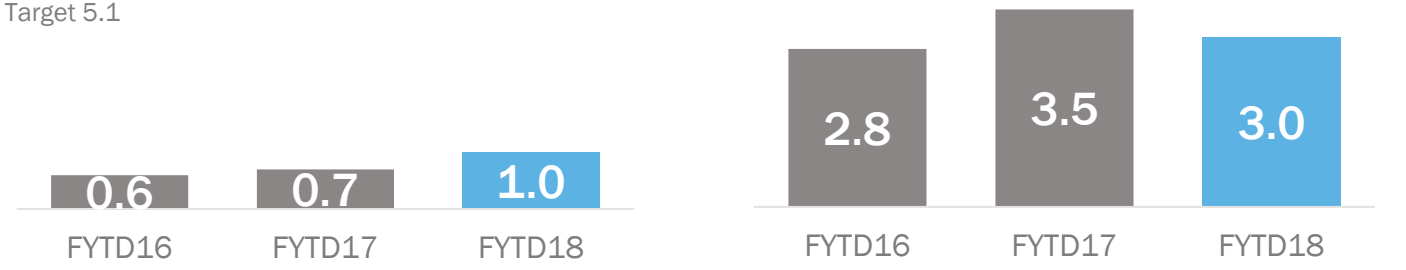
Rail Employee Injuries, per 100 employees

Non-Preventable | **Preventable**

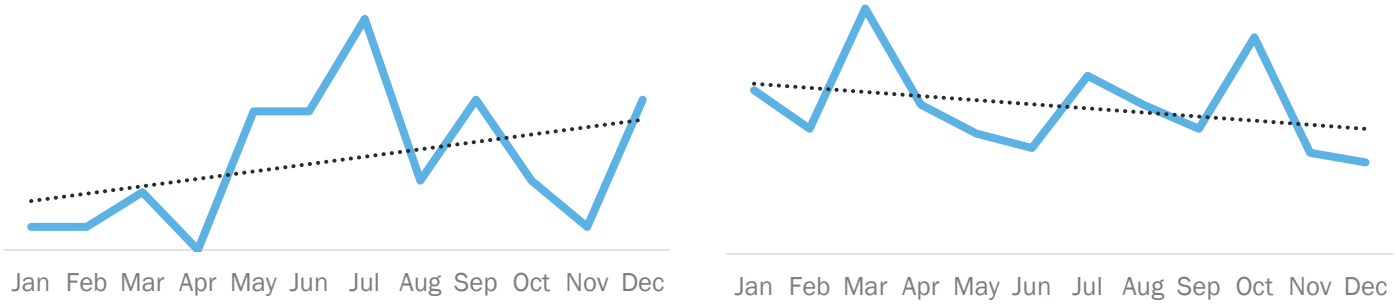
Desired Direction

Met target

Target 5.1



12-Month Trend



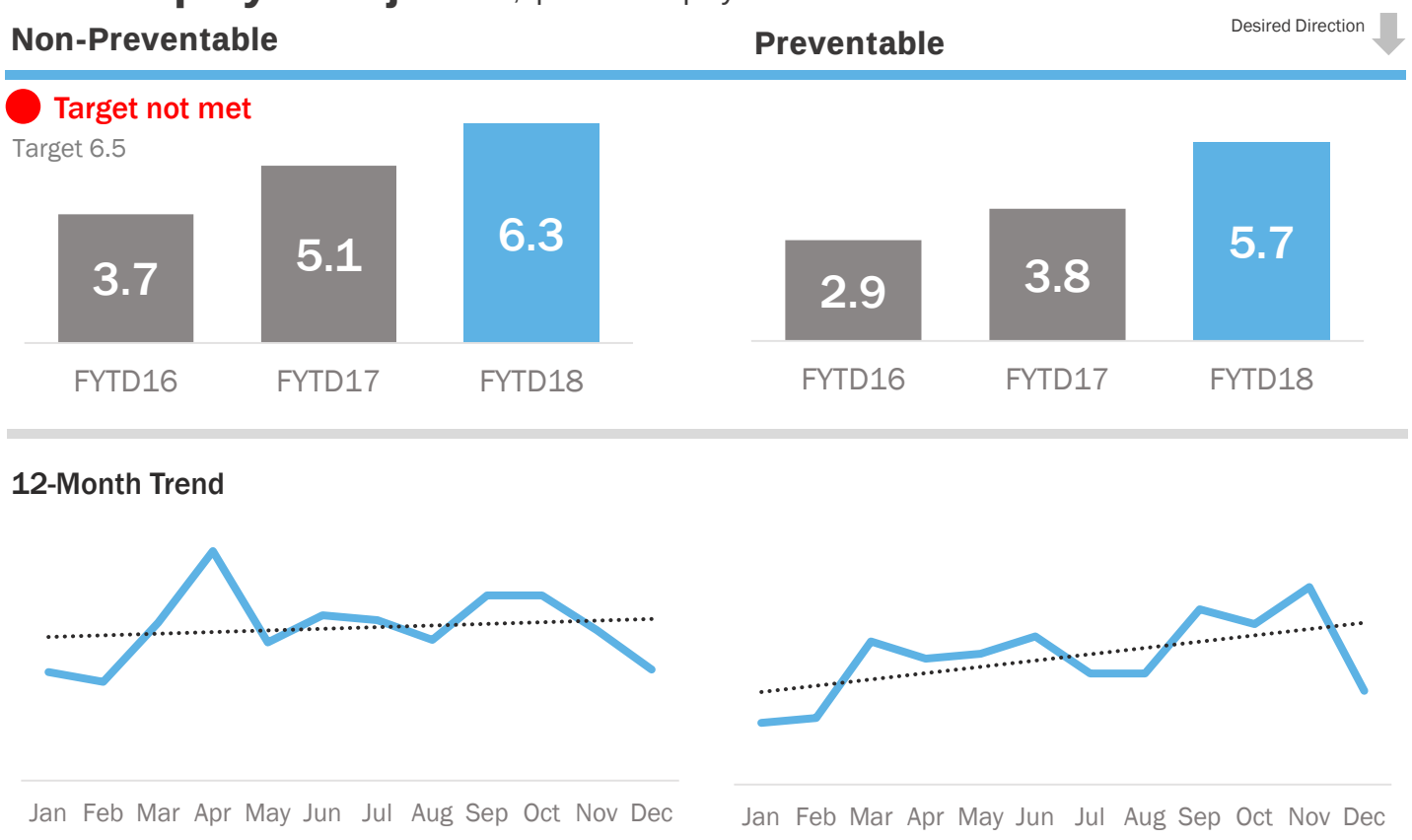
Rail employee injury rate decreased compared FYTD 2017

Key Actions:

- Job Hazard Analyses (45 in review)
- Increased observation and SAFE support during overnight maintenance
- Personal Protective Equipment
  - Electrical Protection Mats
  - Helmets

Bus Employee Injuries

Bus Employee Injuries, per 100 employees



Bus employee injury rate increased compared to FYTD 2017

Key Actions:

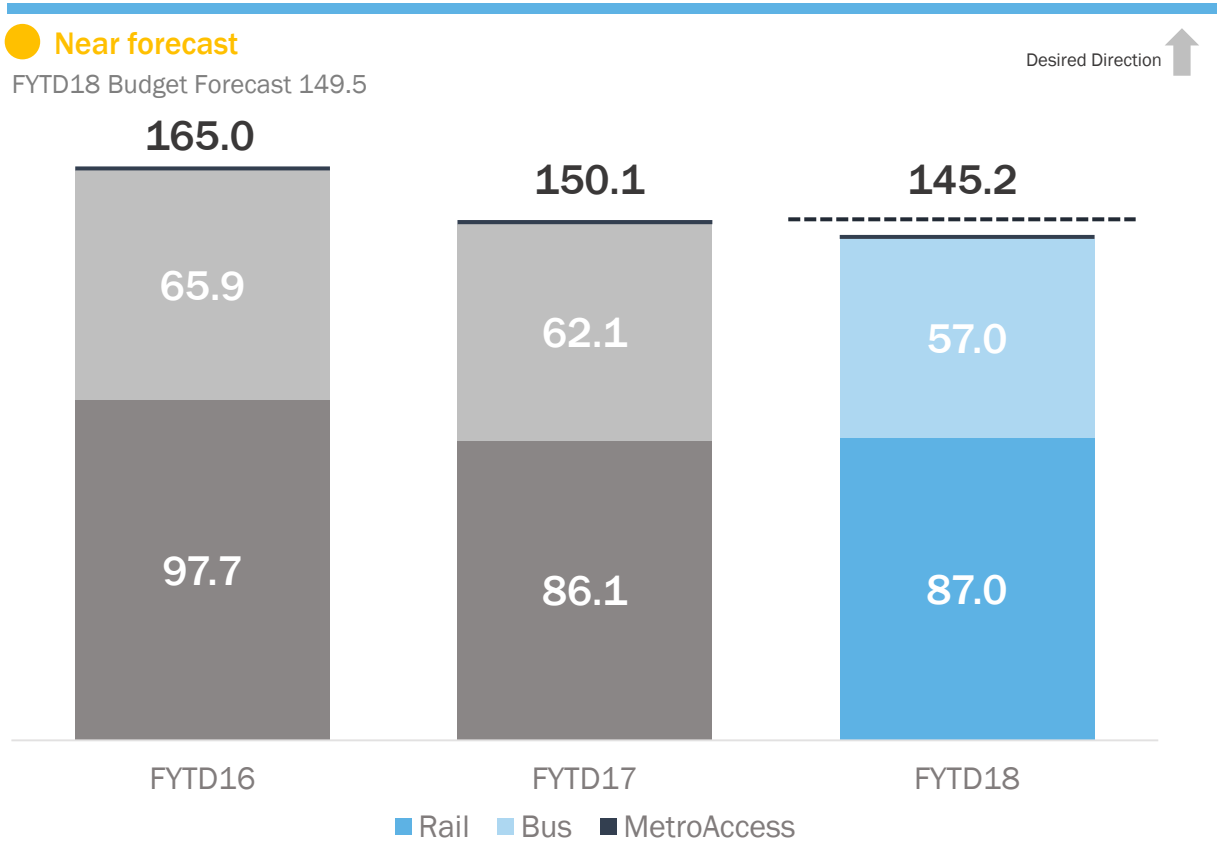
- MTPD partnering with Bus to support late night service
- APTA Peer Review
- Job Hazard Analyses for Bus Maintenance activities
- Assault Prevention Actions
  - Operator Shield installation
  - Scenario-based training for operators
  - Operator Humanizing Campaign
  - Automated Fare Announcement

Fiscal Responsibility Focus

Balancing budget through expense management, as ridership and fare revenues lower than projected

Ridership

Ridership by Mode, millions



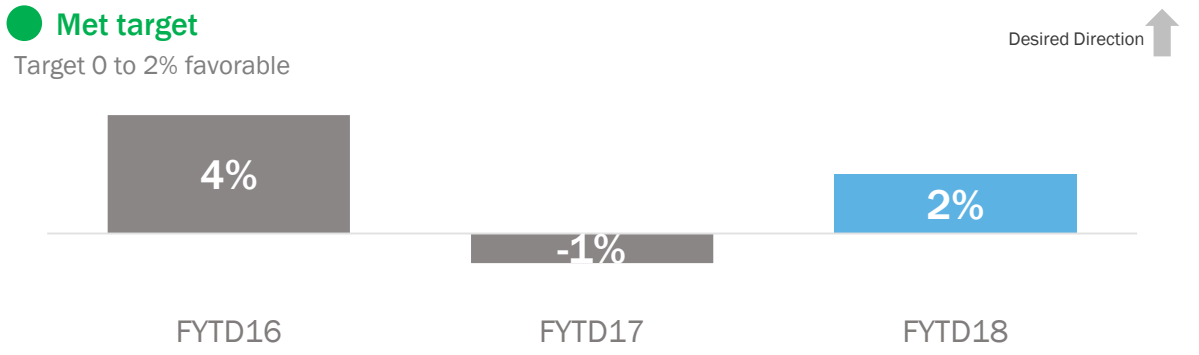
Rail ridership has stabilized; Bus ridership has continued to decline, in part driven by the fare increase

Key Actions:

- Sustain improvements in bus and rail on-time performance
- Promote monthly SelectPass and weekly bus pass products and encourage more customers to register SmarTrip® cards and use online offerings such as auto-reload
- Launch Rush Hour Promise, crediting riders experiencing delays of 15 minutes or more during rush hour periods
- Strengthen SmartBenefits and regional employer relationships

Operating Budget Management

Operating Budget Management



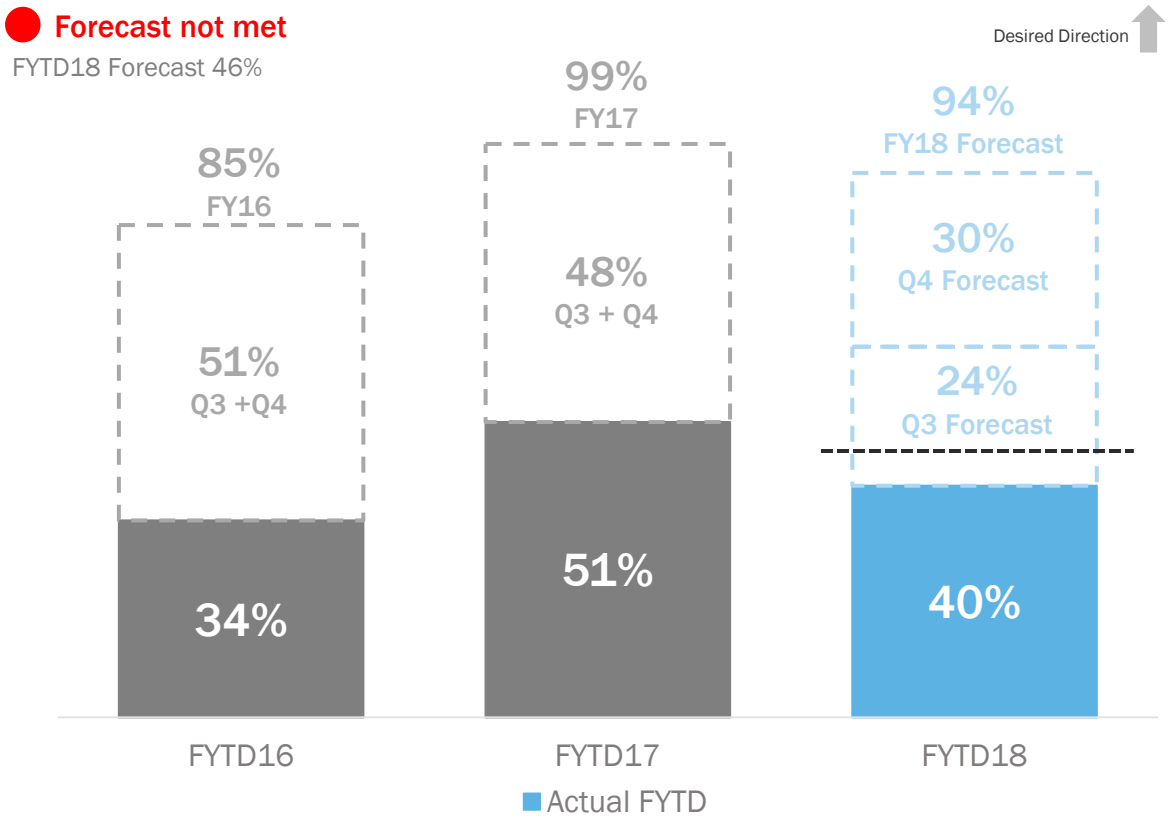
FYTD18	Budget	Actual	Favorable (Unfavorable)
Expenses	**$907M**	**$876M**	**$31M**
Revenues	**$907M**	**$897M**	**($10M)**
Operating Rev.	*$419M*	*$410M*	*($10M)*
Net Subsidy	*$487M*	*$487M*	-
Net Position	**0**	**$21M**	**$21M**

Below budget expenses exceeded revenue shortfalls, resulting in projected balanced budget

- Expenses were under budget by $31 million, primarily due to vacant positions and lower spending on services
- Revenue was below budget by $10 million, primarily due to ridership below forecast
- The net operating position is $21 million favorable year-to-date; the year-end forecast projects a balanced budget with a $5 million favorable position (0.2%)

Capital Funds Invested

Capital Funds Invested



40% of capital funds invested FYTD; forecasted pace of investment to increase in Q3 and Q4

Railcar

- Continued delivery of 7000 series railcars

Rail Systems

- Radio and cell service projects

Track & Structure

- Red Line Water Mitigation Pilot

Station & Passenger Facilities

- Station Lighting program
- Replaced escalators and rehabilitated elevators

Bus & Paratransit

- Rehabilitated buses; delayed delivery of new buses
- Building new Andrews Federal Center bus garage

Q2 FY2018 Metro Performance Report

Fiscal-Year-To-Date
July - December 2017

QUALITY SERVICE

MY TRIP TIME - RAIL

87% of customers arrived on-time

- Target ≥ 88% on-time

BUS ON-TIME PERFORMANCE

78% of buses arrived on-time

- Target ≥ 79% on-time

METROACCESS ON-TIME PERFORMANCE

92% of vehicles arrived on-time

- Target ≥ 92% on-time

SAFETY & SECURITY

RED SIGNAL OVERRUNS

3 red signal overrun incidents

- FYTD Prior Year 10

BUS COLLISIONS

60.2 collisions per million miles

- FYTD Prior Year 59.8

PART I CRIME

639 4.4 per million passengers

- FYTD Target ≤ 875 Part I Crimes

FINANCIAL RESPONSIBILITY

RIDERSHIP

145.2 million passengers

- Budget Forecast 149.5 million passengers

BUDGET MANAGEMENT

2% favorable

- Target 0 to 2% favorable

CAPITAL FUNDS INVESTED

40% of capital budget invested

- FYTD Forecast ≥ 46%

KPI: METRORAIL CUSTOMER ON-TIME PERFORMANCE [TARGET 88%]

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	FYTD
FY 2016							70%	72%	78%	80%	69%	71%	N/A
FY 2017	71%	69%	64%	65%	61%	63%	66%	71%	70%	75%	76%	79%	66%
FY 2018	86%	89%	87%	88%	87%	86%							87%

KPI: METRORAIL CUSTOMER ON-TIME PERFORMANCE BY LINE

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	FYTD
Red Line	87%	88%	89%	88%	84%	80%							86%
Blue Line	82%	87%	81%	84%	85%	86%							84%
Orange Line	83%	87%	79%	86%	85%	87%							84%
Green Line	92%	93%	94%	94%	92%	95%							93%
Yellow Line	85%	92%	91%	90%	88%	91%							89%
Silver Line	82%	88%	81%	86%	86%	88%							85%

KPI: METRORAIL CUSTOMER ON-TIME PERFORMANCE BY TIME PERIOD

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	FYTD
AM Rush (5AM-9:30AM)	87%	92%	90%	91%	88%	86%							89%
Mid-day (9:30AM-3PM)	90%	90%	89%	90%	89%	88%							89%
PM Rush (3PM-7PM)	89%	88%	87%	90%	88%	87%							88%
Evening (7PM-9:30PM)	92%	92%	93%	92%	92%	92%							92%
Late Night (9:30PM-12AM)	90%	92%	93%	89%	88%	90%							90%
Weekend	72%	79%	77%	76%	72%	81%							76%

continued

KPI: RAIL INFRASTRUCTURE AVAILABILITY [PILOT KPI]													
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	FYTD
FY 2017							98%	97%	96%	96%	96%	95%	N/A
FY 2018	98%	95%	94%	95%	93%	94%							95%

KPI: FTA REPORTABLE SPEED RESTRICTIONS [TARGET 2.2%]													
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	FYTD
FY 2017	3%	2%	4%	6%	6%	6%	1%	0%	4%	2%	2%	5%	5%
FY 2018	0%	3%	10%	10%	12%	14%							8%

TRAIN ON-TIME PERFORMANCE (HEADWAY ADHERENCE) [TARGET 91%]													
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	FYTD
FY 2016	84%	83%	79%	76%	80%	82%	78%	82%	86%	87%	80%	80%	81%
FY 2017	78%	76%	78%	80%	74%	76%	76%	82%	80%	84%	83%	82%	77%
FY 2018	90%	92%	89%	92%	89%	88%							90%

TRAIN ON-TIME PERFORMANCE BY LINE (HEADWAY ADHERENCE)													
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	FYTD
Red Line	91%	92%	92%	93%	87%	81%							90%
Blue Line	86%	89%	85%	89%	88%	88%							88%
Orange Line	89%	90%	87%	90%	90%	90%							89%
Green Line	93%	95%	96%	96%	94%	95%							95%
Yellow Line	91%	94%	93%	94%	93%	93%							93%
Silver Line	88%	91%	86%	89%	89%	89%							89%

TRAIN ON-TIME PERFORMANCE BY TIME PERIOD (HEADWAY ADHERENCE)													
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	FYTD
AM Rush	85%	89%	86%	89%	85%	84%							86%
Mid-day	94%	95%	93%	95%	94%	92%							94%
PM Rush	88%	89%	87%	90%	88%	86%							88%
Evening	94%	93%	96%	91%	90%	94%							93%

continued

RAIL FLEET RELIABILITY (RAIL MEAN DISTANCE BETWEEN DELAYS) [TARGET 85,000 MILES]													
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	FYTD
FY 2016	56,446	59,196	60,872	65,900	63,564	51,599	39,657	47,239	59,131	80,943	81,278	85,389	59,049
FY 2017	55,850	73,246	65,416	86,174	66,697	76,244	79,105	85,489	80,348	118,958	101,585	104,461	69,466
FY 2018	92,927	83,133	83,890	99,876	80,687	85,310							87,225

RAIL FLEET RELIABILITY (RAIL MEAN DISTANCE BETWEEN DELAYS BY RAILCAR SERIES)													
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	FYTD
2000/3000 series	115,528	69,136	108,413	85,808	67,832	67,537							82,371
5000 series	43,257	48,454	38,808	51,192	67,836	48,036							48,230
6000 series	75,405	132,930	102,604	73,596	92,913	77,281							88,645
7000 series	147,371	116,557	87,191	199,484	95,131	134,596							121,689

RAIL FLEET RELIABILITY (RAIL MEAN DISTANCE BETWEEN FAILURE) [TARGET 7,500 MILES]													
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	FYTD
FY 2016	4,576	4,802	4,738	5,326	4,970	5,693	5,020	4,813	5,336	5,307	5,596	5,259	4,994
FY 2017	4,333	4,606	5,538	6,321	6,355	6,819	6,787	7,723	6,878	7,902	8,425	8,215	5,502
FY 2018	7,438	8,218	9,666	10,437	10,376	10,496							9,271

RAIL FLEET RELIABILITY (RAIL MEAN DISTANCE BETWEEN FAILURE BY RAILCAR SERIES)													
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	FYTD
2000/3000 series	8,169	7,731	10,325	9,453	9,912	8,903							8,965
5000 series	2,809	3,230	3,234	4,143	5,088	4,367							3,609
6000 series	8,062	12,085	11,954	8,873	9,369	8,587							9,606
7000 series	14,936	16,229	17,315	21,527	16,925	20,366							17,828

TRAINS IN SERVICE [TARGET 98%]													
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	FYTD
FY 2017			94%	96%	92%	99%	94%	98%	97%	97%	96%	97%	95%
FY 2018	98%	98%	98%	100%	98%	98%							99%

continued

RAIL LOADING [OPTIMAL PASSENGERS PER CAR (PPC) OF 100, WITH MINIMUM OF 80 AND MAXIMUM OF 120 PPC]									
AM Rush Max Load Points		Jul-16	Aug-16	Sep-16	Oct-16	Jul-17	Aug-17	Sep-17	Oct-17
Gallery Place	Red	**117**	82	88	88	96	91	**110**	**104**
Dupont Circle		**118**	81	91	87	95	85	93	93
Pentagon	Blue	72	93	94	86	77	72	77	86
Rosslyn		81	85	100	85	69	60	63	68
L'Enfant Plaza		60	57	63	68	49	44	52	44
Court House	Orange	**102**	85	96	81	82	74	97	**101**
L'Enfant Plaza		66	64	69	68	75	74	63	76
Pentagon	Yellow	78	65	82	84	**117**	**124**	**117**	**126**
Waterfront	Green	74	86	90	93	98	90	100	94
Shaw-Howard		76	67	76	76	**118**	**113**	**109**	**119**
Rosslyn	Silver	**101**	70	**105**	90	96	94	98	**104**
L'Enfant Plaza		59	58	71	56	54	51	65	58
PM Rush Max Load Points									
Metro Center	Red	88	95	92	91	95	88	**101**	98
Farragut North		90	92	82	**103**	80	87	86	87
Rosslyn	Blue	95	**103**	**110**	91	85	76	84	91
Foggy Bottom-GWU		87	**109**	**101**	91	89	84	78	98
Smithsonian		50	44	73	39	56	49	50	49
Foggy Bottom-GWU	Orange	**116**	98	83	78	97	85	89	90
Smithsonian		74	57	73	69	67	72	61	68
L'Enfant Plaza	Yellow	82	74	72	74	**120**	**124**	**114**	**123**
L'Enfant Plaza	Green	80	73	**103**	85	**106**	**116**	96	**103**
Mt. Vernon Square		62	63	63	69	**120**	**108**	**104**	**103**
Foggy Bottom-GWU	Silver	**107**	90	85	72	76	62	64	70
L'Enfant Plaza		81	59	73	69	58	48	50	55

continued

KPI: METROBUS ON-TIME PERFORMANCE [TARGET 79%]													
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	FYTD
FY 2016	79%	80%	76%	76%	77%	78%	77%	78%	78%	77%	77%	75%	78%
FY 2017	77%	77%	72%	73%	73%	76%	77%	78%	77%	76%	76%	76%	75%
FY 2018	80%	80%	76%	76%	76%	78%							78%

KPI: METROBUS ON-TIME PERFORMANCE BY TIME PERIOD													
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	FYTD
AM Early (4AM-6AM)	89%	90%	89%	89%	87%	88%							89%
AM Peak (6AM-9AM)	84%	84%	79%	80%	80%	82%							81%
Mid Day (9AM-3PM)	79%	79%	77%	78%	77%	79%							78%
PM Peak (3PM-7PM)	75%	75%	69%	68%	67%	71%							71%
Early Night (7PM-11PM)	80%	80%	78%	78%	79%	81%							79%
Late Night (11PM-4AM)	77%	79%	78%	78%	80%	81%							79%

BUS FLEET RELIABILITY (BUS MEAN DISTANCE BETWEEN FAILURES) [TARGET 8,000 MILES]													
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	FYTD
FY 2016	6,518	7,352	7,542	7,307	9,185	7,893	8,422	8,332	8,359	9,138	8,711	7,736	7,519
FY 2017	7,540	7,425	8,428	8,378	8,262	8,421	7,962	9,881	9,254	8,499	7,784	8,350	8,039
FY 2018	7,555	7,764	7,571	6,923	7,492	7,776							7,504

BUS FLEET RELIABILITY (BUS MEAN DISTANCE BETWEEN FAILURE BY FLEET TYPE)													
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	FYTD
CNG *Average Age 8.4*	7,633	8,270	6,636	6,673	7,020	6,312							7,092
Hybrid *Average Age 6.2*	8,201	8,483	8,940	7,949	9,015	9,466							8,634
Clean Diesel *Average Age 10.3*	5,072	4,111	4,981	4,014	4,662	7,212							4,823
All Other *Average Age 17.5*	3,058	6,673	3,643	3,464	3,050	2,493							3,398

continued

BUS LOADING - Q2/FY 2018 TOP 10 ROUTES BY JURISDICTION

Service Code	Line Name	Route Name	Time Period	Highest Passenger Load	Max Load Factor
DC	Georgia Ave - 7th Street	79	AM Peak	78	**2.0**
	14th Street	52	AM Peak	79	**2.0**
	Wisconsin Avenue	33	PM Peak	79	**2.0**
	Georgia Ave - 7th Street	79	PM Peak	78	**2.0**
	Deanwood - Alabama Avenue	W4	AM Peak	91	**2.0**
	14th Street	53	PM Peak	79	**2.0**
	Friendship Heights - Southeast	30S	PM Peak	79	**2.0**
	Georgia Ave - 7th Street	70	PM Peak	111	**2.0**
	14th Street	54	PM Peak	79	**2.0**
	Deanwood - Alabama Avenue	W4	PM Peak	83	**2.0**
MD	New Carrollton - Silver Spring	F4	PM Peak	78	**2.0**
	New Hampshire Ave - Maryland	K6	PM Peak	77	**1.9**
	Viers Mill Road	Q4	PM Peak	75	**1.9**
	New Hampshire Ave - Maryland	K6	Midday	76	**1.9**
	Greenbelt-Twinbrook	C4	Midday	75	**1.9**
	Georgia Avenue - Maryland	Y7	PM Peak	75	**1.9**
	Greenbelt-Twinbrook	C2	PM Peak	74	**1.9**
	New Carrollton - Silver Spring	F4	Midday	74	**1.9**
	Greenbelt-Twinbrook	C2	Midday	73	**1.8**
	Georgia Avenue - Maryland	Y8	Midday	73	**1.8**
VA	Leesburg Pike	28A	PM Peak	71	**1.8**
	Columbia Pike - Farragut Square	16Y	AM Peak	71	**1.7**
	Leesburg Pike	28A	AM Peak	67	**1.7**
	Leesburg Pike	28A	Midday	66	**1.7**
	Burke Center	18P	PM Peak	64	**1.6**
	Lincolnia - North Fairlington	7Y	PM Peak	65	**1.6**
	Columbia Pike - Farragut Square	16Y	PM Peak	64	**1.6**
	Ballston - Farragut Square	38B	PM Peak	62	**1.5**
	Richmond Highway Express	REX	PM Peak	60	**1.5**
	Lincolnia - North Fairlington	7Y	AM Peak	61	**1.5**

Performance Threshold	Max Load Factor
Below Threshold	< 0.3
Standards Compliant	0.3 - 0.5
Occasional Crowding	0.6 - 0.7
Recurring Crowding	0.8 - 0.9
Regular Crowding	1.0 - 1.3
Continuous Crowding	> 1.3

Highest passenger load = the average of all the highest max loads recorded by route, trip and time period

Passenger Loads:

40' Bus (standard size) accommodates 40 sitting and 69 with standing

60' Bus (articulated) accommodates 61 sitting and 112 with standing

* Route has articulated buses, allowing for passenger load above 100

Load Factor = highest passenger load divided by actual bus seats used

continued

KPI: METROACCESS ON-TIME PERFORMANCE [TARGET 92%]													
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	FYTD
FY 2016	95%	95%	94%	93%	93%	94%	94%	93%	93%	93%	93%	92%	94%
FY 2017	92%	91%	84%	83%	84%	87%	88%	87%	85%	88%	87%	92%	87%
FY 2018	89%	91%	90%	93%	93%	94%							92%

ESCALATOR SYSTEM AVAILABILITY [TARGET 93%]													
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	FYTD
FY 2016	93%	93%	93%	93%	93%	93%	94%	93%	94%	94%	93%	93%	93%
FY 2017	93%	92%	93%	94%	94%	94%	95%	95%	96%	96%	96%	95%	93%
FY 2018	95%	94%	95%	94%	94%	94%							94%

ELEVATOR SYSTEM AVAILABILITY [TARGET 97%]													
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	FYTD
FY 2016	97%	97%	96%	96%	96%	97%	97%	97%	97%	97%	97%	97%	97%
FY 2017	96%	97%	97%	97%	97%	97%	96%	97%	97%	97%	98%	97%	97%
FY 2018	97%	97%	97%	97%	97%	98%							97%

KPI: METROBUS CUSTOMER SATISFACTION RATING					
	Q1	Q2	Q3	Q4	FYTD
FY 2016	82%	81%	74%	78%	81%
FY 2017	78%	79%	74%	76%	79%
FY 2018	76%	N/A			N/A

KPI: METRORAIL CUSTOMER SATISFACTION RATING					
	Q1	Q2	Q3	Q4	FYTD
FY 2016	67%	69%	68%	66%	69%
FY 2017	66%	66%	69%	72%	66%
FY 2018	74%	N/A			N/A

continued

RED SIGNAL OVERRUNS

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	FYTD
FY 2017	4	2	1	1	1	1	2	1	1	1	0	0	10
FY 2018	0	0	1	0	1	1							3

FIRE AND SMOKE INCIDENTS

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	FYTD
FY 2017	4	15	9	8	3	8	7	5	7	15	6	10	47
Non-Electrical	3	9	6	3	1	4	3	2	1	4	2	3	26
Cable	0	0	1	0	0	0	0	0	1	0	0	0	1
Arcing Insulator	1	6	2	5	2	2	4	3	5	11	4	7	18
Train Component	0	0	0	0	0	2	0	0	0	0	0	0	2
FY 2018	15	8	9	7	3	9							51
Non-Electrical	4	2	4	3	3	7							23
Cable	1	1	0	2	0	0							4
Arcing Insulator	9	5	5	2	0	0							21
Train Component	1	0	0	0	0	2							3

RAIL COLLISIONS

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	FYTD
FY 2017	1	1	1	2	3	0	2	0	3	1	1	2	8
FY 2018	1	1	1	0	0	1							4

continued

DERAILMENTS

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	FYTD
FY 2017	4	0	3	2	2	0	1	1	0	1	2	0	11
Trains Carrying Customers	1	0	0	0	0	0	0	0	0	0	0	0	1
Trains with No Customers	2	0	1	0	0	0	0	0	0	1	0	0	3
Roadway Maintenance Machines	1	0	2	2	2	0	1	1	0	0	2	0	7
FY 2018	2	1	2	0	0	1							6
Trains Carrying Customers	0	0	0	0	0	0							0
Trains with No Customers	0	0	0	0	0	0							0
Roadway Maintenance Machines	2	1	2	0	0	1							6

BUS COLLISION RATE [PER MILLION VEHICLE MILES]

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	FYTD
FY 2017	52.9	59.7	60.2	68.4	56.5	61.4	53.2	53.7	59.6	57.9	58.3	55.9	59.8
Non-Preventable	30.4	35.6	35.6	44.7	34.2	39.3	31.2	31.8	37.1	39.0	36.4	37.5	36.6
Preventable	22.5	24.1	24.5	23.8	22.4	22.0	22.1	21.9	22.5	18.9	21.9	18.4	23.1
FY 2018	57.9	62.7	59.6	58.3	62.0	60.6							60.2
Non-Preventable	33.5	35.0	38.4	33.8	37.3	38.6							36.1
Preventable	24.4	27.6	21.2	24.5	24.8	21.9							24.1

BUS PEDESTRIAN STRIKES [PEDESTRIAN / CYCLIST STRIKES]

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	FYTD
FY 2017	1	1	3	3	0	1	1	1	3	2	0	1	9
FY 2018	3	0	0	0	2	2							7

continued

CUSTOMER INJURY RATE (PER MILLION PASSENGERS) [TARGET ≤ 1.75]

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	FYTD
FY 2016	0.81	2.53	1.70	2.05	1.37	1.35	3.29	2.22	1.75	2.13	1.91	2.15	1.63
FY 2017	1.78	1.79	2.01	1.73	1.68	2.63	2.14	2.59	2.17	1.41	2.19	1.71	1.92
FY 2018	1.57	2.03	2.61	1.87	1.92	2.15							2.02

*Includes Metrobus, Metrorail, rail transit facilities (stations, escalators and parking facilities) and MetroAccess customer injuries

RAIL CUSTOMER INJURY RATE (PER MILLION PASSENGERS)

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	FYTD
FY 2016	0.58	1.23	1.49	1.05	1.45	0.75	2.25	1.96	1.05	1.13	1.46	1.36	1.07
Non-Preventable	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Preventable	0.58	1.23	1.49	1.05	1.45	0.75	2.25	1.96	1.05	1.13	1.46	1.36	1.07
FY 2017	0.79	1.13	1.62	1.07	1.36	2.33	1.91	2.05	1.40	1.10	1.61	1.41	1.36
Non-Preventable	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Preventable	0.79	1.13	1.62	1.07	1.36	2.33	1.91	2.05	1.40	1.10	1.61	1.41	1.36
FY 2018	1.45	1.24	1.18	0.82	1.50	1.37							1.25
Non-Preventable	0.00	0.00	0.00	0.00	0.00	0.00							0.00
Preventable	1.45	1.24	1.18	0.82	1.50	1.37							1.25

BUS CUSTOMER INJURY RATE (PER MILLION PASSENGERS)

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	FYTD
FY 2016	0.85	4.01	1.86	3.31	1.17	1.96	4.35	2.14	2.69	3.21	1.67	3.07	2.21
Non-Preventable	0.68	2.14	0.80	1.48	0.88	0.78	1.93	0.61	1.70	1.13	0.46	1.72	1.13
Preventable	1.17	1.87	0.97	1.66	0.49	1.17	2.41	1.53	0.99	2.26	1.21	1.44	1.06
FY 2017	2.28	2.35	2.22	2.22	1.56	2.56	2.11	3.07	2.62	1.80	2.52	1.84	2.19
Non-Preventable	0.85	1.27	1.85	0.74	0.78	0.53	0.32	0.95	1.65	0.20	0.84	0.97	1.02
Preventable	1.42	1.09	0.37	1.48	0.88	1.92	1.80	2.12	0.97	1.60	1.68	0.87	1.18
FY 2018	1.37	2.96	4.36	2.84	2.27	3.09							2.82
Non-Preventable	0.63	1.87	1.42	1.66	0.97	1.90							1.41
Preventable	0.74	1.08	2.94	1.17	1.30	1.19							1.41

continued

METROACCESS CUSTOMER INJURY RATE (PER 100,000 PASSENGERS)													
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	FYTD
FY 2016	2.06	2.64	1.05	1.50	0.55	1.58	3.37	2.73	0.96	3.06	5.08	1.49	1.57
Non-Preventable	1.55	0.00	0.52	1.50	0.55	0.53	1.35	2.19	0.48	2.04	2.03	0.99	0.79
Preventable	0.52	2.64	0.52	0.00	0.00	1.05	2.02	0.55	0.48	1.02	3.05	0.50	0.79
FY 2017	5.26	1.90	2.00	2.49	3.09	2.60	2.15	1.61	2.98	0.52	2.88	1.95	2.86
Non-Preventable	2.11	0.95	1.00	1.49	1.03	1.04	1.08	0.54	0.50	0.52	1.44	0.98	1.26
Preventable	3.16	0.95	1.00	0.99	2.06	1.56	1.08	1.07	1.99	0.00	1.44	0.98	1.60
FY 2018	2.14	1.46	2.09	3.39	1.55	1.09							1.97
Non-Preventable	1.61	0.97	2.09	1.45	1.55	0.00							1.29
Preventable	0.54	0.49	0.00	1.94	0.00	1.09							0.69

continued

EMPLOYEE INJURY RATE (PER 200,000 HOURS) [TARGET ≤ 5.1]													
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	FYTD
FY 2016	5.1	6.0	3.7	4.8	4.3	3.7	6.2	5.4	4.4	5.7	5.0	4.9	4.6
FY 2017	5.9	5.3	6.0	5.7	4.1	6.5	4.6	4.0	7.9	7.1	6.3	6.6	5.6
FY 2018	7.3	6.0	8.1	8.3	6.5	5.3							6.9

RAIL EMPLOYEE INJURY RATE (PER 100 EMPLOYEES)													
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	FYTD
FY 2016	4.7	3.4	2.7	3.4	3.9	2.4	4.7	4.2	2.8	4.2	3.9	3.7	3.4
Non-Preventable	1.0	0.4	1.0	0.4	0.8	0.0	0.2	0.2	0.7	1.4	0.9	1.3	0.6
Preventable	3.7	3.0	1.7	3.0	3.1	2.4	4.5	4.0	2.1	2.8	3.0	2.4	2.8
FY 2017	5.5	4.8	3.8	3.8	2.9	3.9	3.6	2.8	5.7	3.1	3.7	3.4	4.1
Non-Preventable	0.6	1.3	0.4	0.8	0.6	0.4	0.2	0.2	0.5	0.0	1.2	1.2	0.7
Preventable	4.9	3.5	3.4	3.1	2.3	3.5	3.4	2.6	5.1	3.1	2.5	2.2	3.5
FY 2018	5.7	3.7	3.9	5.1	2.4	3.2							4.0
Non-Preventable	2.0	0.6	1.3	0.6	0.2	1.3							1.0
Preventable	3.7	3.1	2.6	4.5	2.1	1.9							3.0

BUS EMPLOYEE INJURY RATE (PER 100 EMPLOYEES)													
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	FYTD
FY 2016	7.4	10.6	4.6	7.3	5.1	4.4	9.4	9.8	7.2	8.7	6.7	8.3	6.6
Non-Preventable	4.7	4.9	2.8	4.4	2.5	3.0	4.1	4.7	3.7	5.3	3.9	6.2	3.7
Preventable	2.7	5.8	1.8	2.9	2.5	1.5	5.3	5.0	3.5	3.4	2.7	2.1	2.9
FY 2017	7.0	8.3	9.0	11.5	7.0	7.3	6.9	6.7	12.2	14.4	10.9	12.7	8.9
Non-Preventable	4.3	4.9	5.7	6.1	5.2	4.6	4.4	4.0	6.4	9.3	5.6	6.7	5.1
Preventable	2.7	3.5	3.3	5.5	1.8	6.1	2.5	2.7	5.8	5.1	5.3	6.0	3.8
FY 2018	11.0	10.2	14.6	14.0	14.2	8.3							12.0
Non-Preventable	6.5	5.7	7.5	7.5	6.1	4.5							6.3
Preventable	4.5	4.5	7.1	6.5	8.0	3.8							5.7

continued

KPI: PART I CRIME RATE [PER MILLION PASSENGERS]													
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	FYTD
FY 2016	4.7	5.5	6.2	6.9	5.4	4.7	6.1	4.4	4.3	4.1	6.1	5.0	5.6
FY 2017	6.3	6.2	5.4	4.9	4.5	4.9	4.5	3.8	3.5	4.2	4.6	4.5	5.4
FY 2018	4.6	4.8	5.2	4.1	3.9	3.8							4.4

KPI: PART I CRIMES [TARGET ≤ 1,750 PART I CRIMES]													
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	FYTD
FY 2016	144	153	172	199	135	119	129	109	122	114	161	137	922
FY 2017	160	163	140	126	107	111	110	87	92	107	120	119	807
FY 2018	113	122	127	108	90	79							639

PART I CRIMES BY TYPE													
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	FYTD
Property Crime	69	85	98	77	68	58							455
Larceny (Snatch/ Pickpocket)	12	21	11	11	19	22							96
Larceny (Other)	51	59	83	62	47	31							333
Burglary	0	0	0	0	0	0							0
Motor Vehicle Theft	6	4	3	3	2	4							22
Attempted M V Theft	0	1	1	1	0	1							4
Arson	0	0	0	0	0	0							0
Violent Crime	44	37	29	31	22	21							184
Aggravated Assault	13	11	10	9	6	6							55
Rape	1	1	0	0	0	0							2
Robbery	30	25	19	22	16	15							127
FY 2018 Part1 Crimes	113	122	127	108	90	79							639
FY 2018 Homicides	0	0	0	0	0	0							0

* Homicides that occur on WMATA property are investigated by other law enforcement agencies. These cases are shown for public information; however, the cases are reported by the outside agency and are not included in MTPD crime statistics.

continued

KPI: RIDERSHIP BY MODE [BUDGET FORECAST 341.5 MILLION]

		Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	FYTD
Rail	Forecast	15,529,935	15,886,945	14,994,420	15,708,440	13,566,380	13,209,370							88,895,490
	Actual	15,195,047	15,291,378	14,446,237	15,760,054	13,957,496	12,382,372							87,032,584
Bus	Forecast	9,942,000	10,481,000	10,060,100	10,503,000	9,346,000	9,076,000							59,408,000
	Actual	9,375,256	10,042,871	9,798,585	10,182,688	9,171,025	8,384,448							56,954,873
Access	Forecast	195,000	210,000	201,000	214,000	192,000	197,000							1,209,000
	Actual	186,699	206,014	191,051	206,407	193,974	182,911							1,167,055
Total	Forecast	25,666,935	26,577,945	25,255,420	26,425,440	23,104,380	22,482,370							149,512,490
	Actual	24,757,002	25,540,263	24,435,872	26,149,149	23,322,495	20,949,731							145,154,512

KPI: BUDGET MANAGEMENT [TARGET 0–2 % FAVORABLE]

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	FYTD
Expense Variance ($)	($7)	($25)	($27)	($31)	($32)	($31)							($31)
Revenue Variance ($)	($2)	($5)	($9)	($10)	($9)	($10)							($10)
Net Subsidy Variance ($)	($5)	($20)	($19)	($22)	($23)	($21)							($21)
Expense Variance (%)	-5%	-8%	-6%	-5%	-4%	-3%							-3%
Revenue Variance (%)	-2%	-4%	-4%	-3%	-2%	-2%							-2%
Net Subsidy Variance (%)	-6%	-13%	-8%	-7%	-6%	-4%							-4%
Favorable (+) / Unfavorable (-)	4%	7%	4%	4%	3%	2%							2%

continued

KPI: CAPITAL FUNDS INVESTED [TARGET 95% OF CAPITAL BUDGET]													
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	FYTD
FY 2016	1%	6%	16%	17%	25%	34%	38%	44%	55%	58%	66%	85%	34%
FY 2017	5%	14%	25%	33%	41%	51%	59%	66%	74%	82%	89%	99%	51%
FY 2018	5%	12%	18%	26%	33%	40%							40%

*FY2017 includes capital budget amendment ($1.175 billion)

VACANCY RATE [TARGET 5%]													
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	FYTD
FY 2016	7%	6%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%
FY 2017	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	6%	7%	5%
FY 2018	7%	7%	7%	6%	7%	6%							6%

OPERATIONS CRITICAL VACANCY RATE [TARGET 9%]													
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	FYTD
FY 2016							11%	11%	12%	12%	10%	11%	N/A
FY 2017	10%	10%	10%	8%	8%	8%	7%	7%	7%	8%	8%	11%	8%
FY 2018	13%	12%	13%	12%	12%	12%							12%

continued

WATER USAGE (GALLONS PER VEHICLE MILE) [TARGET 0.84]													
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	FYTD
FY 2016	1.21	1.30	1.47	0.97	0.57	0.52	0.70	0.73	0.60	0.69	0.64	0.94	1.01
FY 2017	1.37	1.29	1.56	1.05	0.61	0.50	0.69	0.52	0.64	0.66	0.67	1.13	1.06
FY 2018	1.25	1.39	1.39	N/A	N/A	N/A							N/A

ENERGY USAGE (BTU/VEHICLE MILE) [TARGET 39,399]													
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	FYTD
FY 2016	40,193	41,349	39,798	39,262	37,639	42,240	47,371	43,640	37,952	38,660	37,365	39,565	40,108
FY 2017	42,404	39,734	44,477	37,665	38,352	40,112	45,493	42,813	39,927	40,877	36,782	41,244	40,437
FY 2018	41,548	38,877	40,337	36,266	38,773	40,066							39,284

GREENHOUSE GAS EMISSIONS PER VEHICLE MILE [TARGET 4.00]													
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	FYTD
FY 2016	4.15	4.18	4.18	4.06	3.79	4.31	4.47	4.14	3.56	3.75	3.57	3.79	4.12
FY 2017	4.11	3.80	4.34	3.63	3.66	3.81	4.54	4.34	3.95	4.22	3.77	4.29	4.15
FY 2018	4.34	4.03	4.22	3.78	4.08	4.02							4.19

Definitions

KPI	How is it measured?	What does this mean and why is it key to our strategy?
QUALITY SERVICE		
Metrorail Customer On-Time Performance	Percentage of customer journeys completed on time Number of journeys completed on time ÷ Total number of journeys	Rail Customer On-Time Performance (OTP) communicates the reliability of rail service, which is a key driver of customer satisfaction. OTP measures the percentage of customers who complete their journey within the maximum amount of time it should take per WMATA service standards. The maximum time is equal to the train run-time + a headway (scheduled train frequency) + several minutes to walk between the fare gates and platform. These standards vary by line, time of day, and day of the week. Actual journey time is calculated from the time a customer taps a SmarTrip® card to enter the system, to the time when the SmarTrip® card is tapped to exit. Factors that can effect OTP include: railcar availability, fare gate availability, elevator and escalator availability, infrastructure conditions, speed restrictions, single-tracking around scheduled track work, railcar delays (e.g., doors), or delays caused by sick passengers.
Rail Infrastructure Availability	Percentage of track available for customer travel during operating hours	Rail Infrastructure Availability is a key driver of customer on-time performance. Planned and unplanned maintenance of track, signaling, and traction power can result in single-tracking and/or speed restrictions that slow customer travel throughout the system. This measure includes both the duration and distance of restrictions. Single-tracking events reduce availability to zero for the portion of track impacted. Slow speed restrictions reduce availability of affected track segments by 85%, while medium restrictions reduce availability by 40%.
FTA Reportable Speed Restrictions (Federal Transit Administration Transit Asset Management Performance Measure)	Percentage of track segments with performance restrictions at 9:00 AM the first Wednesday of every month Number of track miles with performance restrictions ÷ 234 total miles	In 2016, the Federal Transit Administration (FTA) issued its Final Rule on Transit Asset Management, which requires transit properties to set targets and report performance on a variety of measures, including guideway condition. Guideway includes track, signals and systems. A performance restriction occurs when there is a speed restriction: the maximum train speed is set below the guideway design speed. Performance restrictions may result from a variety of causes, including defects, signaling issues, construction zones, and maintenance causes. FTA considers performance restrictions to be a proxy for both track condition and the underlying guideway condition.
Train On-Time Performance	Number of station stops delivered within the scheduled headway plus 2 minutes during rush (AM/PM) service ÷ Total station stops delivered Number of station stops delivered up to 150% of the scheduled headway during non-rush (midday and evening) ÷ Total station stops delivered	Train on-time performance measures the adherence to weekday headways, or the time customers wait between trains. Factors that can effect on-time performance include: infrastructure conditions, missed dispatches, railcar delays (e.g., doors), or delays caused by sick passengers. Station stops are tracked system-wide, with the exception of terminal and turn-back stations.

KPI	How is it measured?	What does this mean and why is it key to our strategy?
Rail Fleet Reliability	Mean Distance Between Delays (MDBD) Total railcar revenue miles ÷ Number of failures during revenue service resulting in delays of four or more minutes Mean Distance Between Failure (MDBF) Total railcar revenue miles ÷ Total number of failures occurring during revenue service	The number of miles traveled before a railcar experiences a failure. Some car failures result in inconvenience or discomfort, but do not always result in a delay of service (such as hot cars). Mean Distance Between Delay includes those failures that had an impact on customer on-time performance. Mean Distance Between Failure and Mean Distance Between Delay communicate the effectiveness of Metro's railcar maintenance and engineering program. Factors that influence railcar reliability are the age and design of the railcars, the amount the railcars are used, the frequency and quality of preventive maintenance, and the interaction between railcars and the track.
Trains in Service	Percentage of required trains that are in service at 8:15 AM and 5:00PM Number of Trains in service ÷ Total required trains	Trains in Service is a key driver of customer on-time performance and supports the ability to meet the Board standard for crowding. WMATA's base rail schedule requires 140 trains during rush periods. Fewer trains than required results in missed dispatches, which leads to longer wait times for customers and more crowded conditions. Key drivers of train availability include the size of the total fleet and the number of "spares", railcar reliability and average time to repair, operator availability, and balancing cars across rail yards to ensure that the right cars are in the right place at the right time.
Rail Loading	Number of rail passengers per car Total passengers observed on-board trains passing through a station during a rush hour ÷ Actual number of cars passing through the same station during the rush hour Trained Metro observers are strategically placed around the system during its busiest times to monitor and report on crowding. Counts are taken at select stations where passenger loads are the highest and in the predominant flow direction of travel on one to two dates each month (from 6 AM to 10 AM and from 3 PM to 7 PM). In order to represent an average day, counts are normalized with rush ridership.	The Board of Directors has established Board standards of rail passengers per car to measure railcar crowding. Car crowding informs decision making regarding asset investments and scheduling. Additional Board standards have been set for: ▲ Hours of service—the Metrorail system is open to service customers ▲ Headway—scheduled time interval between trains during normal weekday service
Metrobus On-Time Performance	Adherence to Schedule Number of time points that arrived on time by route based on a window of 2 minutes early and 7 minutes late ÷ Total number of time points scheduled (by route)	This indicator illustrates how closely Metrobus adheres to published route schedules on a system-wide basis. Factors that effect on-time performance are traffic congestion, inclement weather, scheduling, vehicle reliability, and operational behavior. Bus on-time performance is essential to delivering quality service to the customer.
Bus Fleet Reliability	Mean Distance Between Failures (MDBF) The number of total miles traveled before a mechanical breakdown requiring the bus to be removed from service or deviate from the schedule	Mean Distance Between Failures is used to monitor trends in vehicle breakdowns that cause buses to go out of service and to plan corrective actions. Factors that influence bus fleet reliability include vehicle age, quality of maintenance program, original vehicle quality, and road conditions affected by inclement weather and road construction.

KPI	How is it measured?	What does this mean and why is it key to our strategy?
Bus Loading	Ratio of bus seats filled Top load recorded on a route during a time period ÷ actual bus seat capacity	Bus crowding is a factor of bus customer satisfaction. This measure can inform decision making regarding bus service plans.
MetroAccess On-Time Performance	Adherence to Schedule Number of vehicle arrivals at the pick-up location within the 30 minute on-time widow ÷ Total trips delivered	This indicator illustrates how closely MetroAccess adheres to customer pick-up windows on a system-wide basis. Factors that effect on-time performance are traffic congestion, inclement weather, scheduling, vehicle reliability, and operational behavior. MetroAccess on-time performance is essential to delivering quality service to the customer.
Elevator and Escalator Availability	In-service percentage Hours in service ÷ Operating hours Hours in service = Operating hours – Hours out of service Operating hours = Operating hours per unit × number of units	Escalator/elevator availability is a key component of customer satisfaction with Metrorail service. This measure communicates system-wide escalator and elevator performance (at all stations over the course of the day) and will vary from an individual customer's experience. Availability is the percentage of time that Metrorail escalators or elevators in stations and parking garages are in service during operating hours. Customers access Metrorail stations via escalators to the train platform, while elevators provide an accessible path of travel for persons with disabilities, seniors, customers with strollers, and travelers carrying luggage. An out-of-service escalator requires walking up or down a stopped escalator, which can add to travel time and may make stations inaccessible to some customers. When an elevator is out of service, Metro is required to provide alternative services which may include shuttle bus service to another station.
Customer Satisfaction	Survey respondent rating Number of survey respondents with high satisfaction ÷ Total number of survey respondents	Surveying customers about the quality of Metro's service delivery provides a mechanism to continually identify those areas of the operation where actions to improve the service can maximize rider satisfaction. Customer satisfaction is defined as the percent of survey respondents who rated their last trip on Metrobus or Metrorail as "very satisfactory" or "satisfactory." The survey is conducted via phone with approximately 400 bus and 400 rail customers who have ridden Metro in the past 30 days. Results are summarized by quarter (e.g., January–March).
SAFETY AND SECURITY		
Customer Injury Rate	Customer injury rate: Number of injuries ÷ (Number of passengers ÷ 1,000,000)	The customer injury rate is based on National Transit Database (NTD) Reporting criteria. It includes injury to any customer caused by some aspect of Metro's operation that requires immediate medical attention away from the scene of the injury. Customer safety is the highest priority for Metro and a key measure of quality service. Customers expect a safe and reliable ride each day. The customer injury rate is an indicator of how well the service is meeting this safety objective.

KPI	How is it measured?	What does this mean and why is it key to our strategy?
Employee Injury Rate	Employee injury rate: Number of injuries ÷ (Total work hours ÷ 200,000)	An employee injury is recorded when the injury is (a) work related; and, (b) one or more of the following happens to the employee: 1) receives medical treatment above first aid, 2) loses consciousness, 3) takes off days away from work, 4) is restricted in their ability to do their job, 5) is transferred to another job, 6) death. OSHA recordable injuries are a key indicator of how safe employees are in the workplace.
Crime	Reported Part I Crimes	Part I crimes reported to Metro Transit Police Department for Metrobus (on buses), Metrorail (on trains and in rail stations), or at Metro-owned parking lots in relation to Metro's monthly passenger trips. This measure provides an indicator of the perception of safety and security customers experience when traveling the Metro system. Increases or decreases in crime statistics can have a direct effect on whether customers feel safe in the system.
PEOPLE AND ASSETS		
Ridership	Total Metro ridership Metrorail passenger trips + Metrobus passenger boardings + MetroAccess passenger trips	Ridership is a measure of total service consumed and an indicator of value to the region. Drivers of this indicator include service quality and accessibility. Passenger trips are defined as follows: ▲ Metrorail reports passenger trips. A passenger trip is counted when a customer enters through a faregate. In an example where a customer transfers between two trains to complete their travel one trip is counted. ▲ Metrobus reports passenger boardings. A passenger boarding is counted at the farebox when a customer boards a Metrobus. In an example where a customer transfers between two Metrobuses to complete their travel two trips are counted. ▲ MetroAccess reports passenger trips. A fare paying passenger traveling from an origin to a destination is counted as one passenger trip. *For performance measures and target setting, Metro uses total ridership numbers including passengers on bus shuttles to more fully reflect total passengers served. Metro does not include bus shuttle passenger trips in its budget or published ridership forecasts.
Operating Budget Management	Percentage surplus or deficit comparing actual revenues and subsidy to actual expenses (actual revenues + subsidy –actual expenses) ÷ actual expenses	This indicator tracks Metro's progress managing its operating revenues and expenses.

KPI	How is it measured?	What does this mean and why is it key to our strategy?
Capital Funds Invested	Percentage of capital budget spend Cumulative monthly capital expenditures ÷ fiscal year capital budget, including actual rollover from previous fiscal year	This indicator tracks spending progress of the Metro Capital Improvement Program.
Vacancy Rate	Percentage of budgeted positions that are vacant (Number of budgeted positions – number of employees in budgeted positions) ÷ number of budgeted positions	This measure indicates how well Metro is managing its human capital strategy to recruit new employees in a timely manner, in particular operations-critical positions. Factors influencing vacancy rate ca recruitment activities, training schedules, availability of talent, promotions, retirements, among other factors.
Water Usage	Rate of gallons of water consumed per vehicle mile Total gallons of water consumed ÷ Total vehicle miles	This measure reflects the level of water consumption Metro uses to run its operations. Water consumption is a key area of Metro's Sustainability Initiative, which brings focus to Metro's efforts to provide stewardship of the environmental systems that support the region.
Energy Usage	Rate of British Thermal Units (BTUs) consumed per vehicle mile MBTU(Gasoline + Natural Gas + Compressed Natural Gas + Traction Electricity + Facility Electricity) × 1000 ÷ Total vehicles miles	This measure reflects the level of various types of energy Metro uses to power its operations. Energy consumption is a key area of Metro's Sustainability Initiative, which brings focus to Metro's efforts to provide stewardship of the environmental systems that support the region.
Greenhouse Gas Emissions	Rate of metric tons of CO_2 emitted per vehicle mile (CO_2 metric tons generated from gas, CNG and diesel used by Metro revenue and non-revenue vehicles + CO_2 metric tons generated from electricity and natural gas used by facilities and rail services) ÷ Total vehicle miles	Greenhouse Gas emissions reflect how Metro sources its energy used to power its operations, as well as the amount of energy it uses. Reducing Greenhouse Gas emissions is a key area of Metro's Sustainability Initiative, which brings focus to Metro's efforts to provide stewardship of the environmental systems that support the region.