

# Vital Signs Report

*A Scorecard of Metro's*

*Key Performance Indicators (KPI)*



**Office of Performance**

Chief Performance Officer

Published: June 2011

*Page Left Intentionally Blank*

## **Introduction**

The Vital Signs Report presents a monthly analysis of a few key performance indicators (KPI's) that monitor long term progress in the strategic areas of safety, security, service reliability and customer satisfaction. Each month the report is presented to our Board of Directors and posted online so the public can monitor Metro's performance.

As a regional transportation system, Metro's system-wide performance is captured in the Vital Signs Report. The report is not designed to measure the experience of individual customers using Metro's services. Instead, the Vital Signs Report communicates if the Metro system's performance is improving, deteriorating, or remaining steady.

Detailed performance analysis is presented in the Vital Signs Report through answers to two prime questions: Why did performance change? What actions are being taken to improve performance? Metro is focused on these two questions to continually push to improve.

The Vital Signs Report demonstrates Metro's commitment to be transparent and accountable to our Board of Directors, jurisdictional stakeholders and the public. The monthly report documents performance results, and strives to hold WMATA's management accountable for what is working, what is not working and why.

*Page Left Intentionally Blank*

# Table of Contents

---

Introduction .....	3
Executive Summary .....	6
Strategic Framework.....	7
Metro Facts at a Glance.....	8
KPI's that Score How Metro is Performing .....	10
Bus On-Time Performance (April) .....	10
Bus Fleet Reliability (April) .....	11
Rail On-Time Performance (April) .....	12
Rail Fleet Reliability (April) .....	13
MetroAccess On-Time Performance (April) .....	14
Escalator System Availability (April) .....	15
Elevator System Availability (April) .....	16
Customer Injury Rate (March) .....	17
Employee Injury Rate (March) .....	18
Crime Rate (March).....	19
Arrests, Citations and Summonses (March) .....	20
Customer Comment Rate (April).....	21
Definitions .....	22
Performance Data.....	24

## Vital Signs Report – June 2011

### Executive Summary

---

Rail on-time performance stayed steady this month at 91% due to schedule monitoring and train spacing management. A corresponding improvement was seen in rail customer complaints, dropping 30% in April. This was particularly notable as the rail fleet reliability worsened by 22% in April.

Metrobus on-time performance was better than April 2010 but declined from March. This was a result of more buses arriving late due to interruptions from special events and road construction. Bus fleet reliability dropped slightly below the target for the first time in six months, primarily due to engine troubles on newly received Hybrid buses. Complaints from Metrobus customers declined slightly in April.

MetroAccess on-time performance remained steady in April 2011 as there were no further changes in fares or major changes to service. Complaints decreased in April as MetroAccess customers became more accustomed to recent schedule and fare adjustments.

Escalator availability reduced slightly in April as Metro focused on modernizing escalators and improving the quality of repairs. Elevator availability declined slightly as decreases in scheduled maintenance were offset by increases in communications and flooring repairs.

Metrorail and Metro parking crime rates hit record lows in March. The Metrorail crime rate reached the lowest level since May 2009. The parking crime rate continues to trend downward, hitting a six year low. Metrobus crime rate however increased in March 2011.

In March customer injuries were above target as a result of an increase in bus passenger injuries. However, customer injuries in rail facilities (stations, escalators and parking facilities) continued to decline. The employee injury rate remained steady during March.

#### Future Performance Action Highlights:

- Railcar Maintenance staff will continue to improve its parts ordering process to reduce the time it takes to repair railcars.
- Metro will work with the District Department of Transportation to identify alternatives that stabilize road traffic patterns and minimize Metrobus wait times.
- Metrobus staff will work with the fleet hybrid manufacturer to resolve engine failures.
- Elevator/Escalator Services will identify additional staffing resources needed to attain 85% preventive maintenance compliance.
- Transit Police will have 14 new officers joining the police force. The recruits recently completed 37 weeks of training.

## Strategic Framework Overview

There are five strategic goals that provide a framework to quantify and measure how well Metro is performing. Each of the goals have underlying objectives intended to guide all employees in the execution of their duties. Although Metro is working on all goals and objectives only a select number of performance measures are presented in the Vital Signs Report to provide a high-level view of agency progress.

5 Goals

- |       |                                                                                                                                                                                                                                                                                                                          |
|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Goals | <ol style="list-style-type: none"> <li>1. <u>Create</u> a Safer Organization</li> <li>2. <u>Deliver</u> Quality Service</li> <li>3. <u>Use</u> Every Resource Wisely</li> <li>4. <u>Retain, Attract</u> and <u>Reward</u> the Best and Brightest</li> <li>5. <u>Maintain</u> and <u>Enhance</u> Metro's Image</li> </ol> |
|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

12 Objectives

Goal	Objective
1	1.1 <u>Improve</u> customer and employee safety and security ("prevention")*
	1.2 <u>Strengthen</u> Metro's safety and security response ("reaction")
2	2.1 <u>Improve</u> service reliability
	2.2 <u>Increase</u> service and capacity to relieve overcrowding and meet future demand
	2.3 <u>Maximize</u> rider satisfaction through convenient, comfortable services and facilities that are in good condition and easy to navigate
	2.4 <u>Enhance</u> mobility by improving access to and linkages between transportation options
3	3.1 <u>Manage</u> resources efficiently
	3.2 <u>Target</u> investments that reduce cost or increase revenue
4	4.1 <u>Support</u> diverse workforce development through management, training and provision of state of the art facilities, vehicles, systems and equipment
5	5.1 <u>Enhance</u> communication with customers, employees, Union leadership, Board, media and other stakeholders
	5.2 <u>Promote</u> the region's economy and livable communities
	5.3 <u>Use</u> natural resources efficiently and reduce environmental impacts

\*WMATA Board of Directors System Safety Policy states:

1. To avoid loss of life, injury of persons and damage or loss of property;
2. To instill a commitment to safety in all WMATA employees and contractor personnel; and
3. To provide for the identification and control of safety hazards, the study of safety requirements, the design, installation and fabrication of safe equipment, facilities, systems, and vehicles, and a systematic approach to the analysis and surveillance of operational safety for facilities, systems, vehicles and equipment.

## Metro Facts at a Glance

---

### Metro Service Area

Size	1,500 sq. miles
Population	3.5 million

### Ridership

Mode	FY 2010	Average Weekday
Bus	124 million	433,508 (April 2011)
Rail	217 million	771,055 (April 2011)
MetroAccess	2.4 million	7,649 (April 2011)
Total	343.4 million	

### Fiscal Year 2011 Budget

Operating	\$1.5 billion
Capital	\$0.7 billion
Total	\$2.2 billion

### Metrobus General Information

Size	11,624 bus stops
Routes*	323
Fiscal Year 2011 Operating Budget	\$538 million
Highest Ridership Route in 2009	30's – Pennsylvania Ave. (16,330 avg. wkdy ridership)
Metrobus Fare	\$1.70 cash, \$1.50 SmarTrip®, Bus-to-bus Transfers Free
Express Bus Fare	\$3.85 cash, \$3.65 SmarTrip®, Airport Fare \$6.00
Bus Fleet*	1,491
Buses in Peak Service	1,244
Bus Fleet by Type*	Compressed Natural Gas (460), Electric Hybrid (401), Clean Diesel (116) and All Other (514)
Average Fleet Age*	6.4 years
Bus Garages	9 – 3 in DC, 3 in MD and 3 in VA

\*As of December 2010.



## Metrorail General Information

Fiscal Year 2011 Operating Budget	\$822 million
Highest Ridership Day	Obama Inauguration on Jan. 20, 2009 (1.1 million)
Busiest Station in 2010	Union Station (34,713 average weekday boardings in April)
Regular Fare (peak)	Minimum - \$2.20 paper fare card, \$1.95 SmarTrip® Maximum - \$5.25 paper fare card, \$5.00 SmarTrip®
Reduced Fare (non-peak)	Minimum - \$1.85 paper fare card, \$1.60 SmarTrip® Maximum - \$3.00 paper fare card, \$2.75 SmarTrip®
Peak-of-the-peak Surcharge	\$.20 - weekdays 7:30 – 9 a.m. and 4:30 – 6 p.m., depending on starting time of trip
1 <sup>st</sup> Segment Opening/Year	Farragut North-Rhode Island Avenue (1976)
Newest Stations/Year	Morgan Boulevard, New York Avenue, and Largo Town Center (2004)
Rail Cars in Revenue Service	1,104
Rail Cars in Peak Service	850
Rail Cars by Series	1000 Series (288), 2000/3000 (362), 4000 (100), 5000 (184) and 6000 (184)
Lines	5 – Blue, Green, Orange, Red and Yellow
Station Escalators	588
Station Elevators	237
Longest Escalator	Wheaton station (230 feet)
Deepest Station	Forest Glen (21 stories / 196 feet)
Rail Yards	9 – 1 in DC, 6 in MD and 2 in VA

## MetroAccess General Information

Fiscal Year 2011 Operating Budget	\$104 million
MetroAccess Fare	Within the ADA service area – twice the equivalent SmarTrip-based fare up to a \$7 maximum
Paratransit Vehicle Fleet**	600
Average Fleet Age**	3.12 years
Paratransit Garages	7 (1 in DC, 4 in MD and 2 in VA)
Contract Provider	MV Transportation

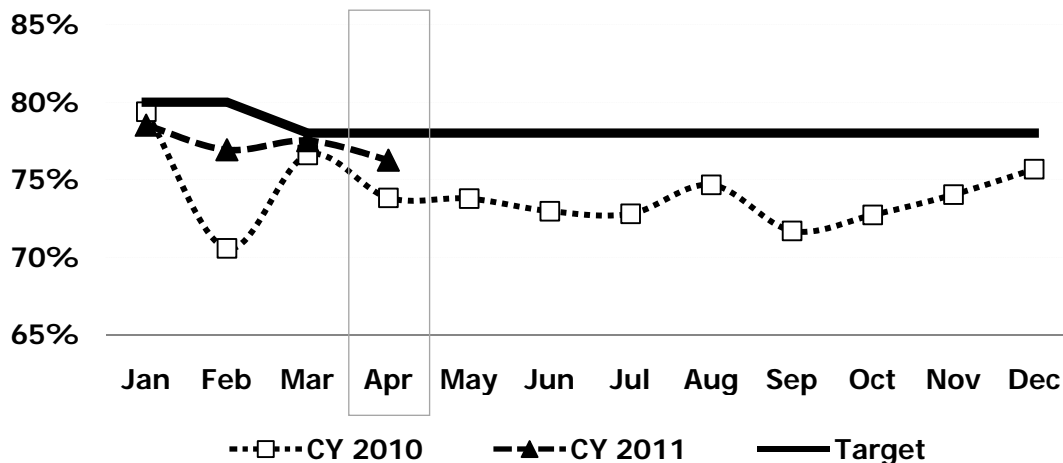
*\*\*As of February 2011.*

**Reason to Track:** This indicator illustrates how closely Metrobus adheres to published route schedules on a system-wide basis. Factors which affect 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.

**Why Did Performance Change?**

- Bus on-time performance was better than April 2010 but declined from the prior month. The decline was primarily a result of more buses arriving late (nearly a 2 percentage point increase in buses running behind schedule).
- Spring marks the start of increased delays caused by a greater number of special events in the region. There were at-least five walks/races during the month of April, in addition to the International Monetary Fund (IMF) spring meeting and Cherry Blossom events which always result in road closures and detours.
- Additional roadway construction also drove the decline of on-time performance, such as the Constitution Avenue road construction project (an 8 month project) and the 11<sup>th</sup> Street bridge project. Roadway construction tends to peak during the spring.

**Bus On-Time Performance**



**Actions to Improve Performance**

- Dispatch Service Operation Managers to monitor interruptions caused by special events and road construction. Service Operation Managers will implement real time solutions and/or recommend service detours.
- Adapt to special events and construction street closings by implementing route detours that create the least amount of inconvenience to the customer while attempting to adhere to the schedule.
- Bus Planning and Government Relations will work with the District Department of Transportation to review and discuss alternatives that stabilize traffic patterns and minimize extended wait times.

**Conclusion:** April's on-time performance declined as a result of increased roadway construction and special events; these activities tend to increase during the spring season causing extended wait times for customers. Metro is committed to identifying route alternatives that accommodate the customer and reduce wait times.

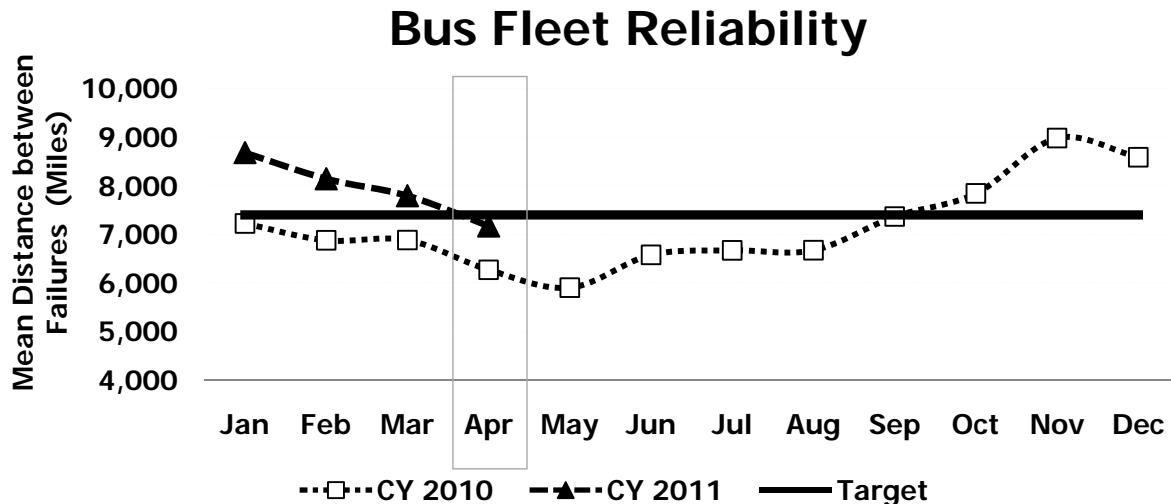
**KPI: Bus Fleet Reliability (April)**  
**(Mean Distance Between Failures)**

**Objective 2.1 Improve Service Reliability**

**Reason to Track:** This key performance indicator communicates service reliability and 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 are the vehicle age, quality of a maintenance program, original vehicle quality, and road conditions affected by inclement weather and road construction. For this measure higher miles are better, meaning that the vehicle goes farther without breaking down.

**Why Did Performance Change?**

- Bus fleet reliability dropped slightly below the target for the first time in six months. The declining performance was primarily due to engine troubles on newly received hybrid buses.
- Cooling system problems caused many of the engine failures. Bus Maintenance investigated the issue and obtained a new warranty from the manufacturer.
- Weather fluctuations also continued to cause problems with on board air pressure systems fleet wide and drove down overall fleet reliability. Air system failures were among the top two service interruptions, the other being engine failures.



**Actions to Improve Performance**

- Bus Maintenance will work with the manufacturer to replace coolant sensors and reprogram affected engine control.
- Continue to monitor month to month random fluctuations and address problems that arise.
- Bus Maintenance will revise a few standard operating procedures and develop action plans to aid in quickly identifying and resolving manufacturing problems as well as air system failures.

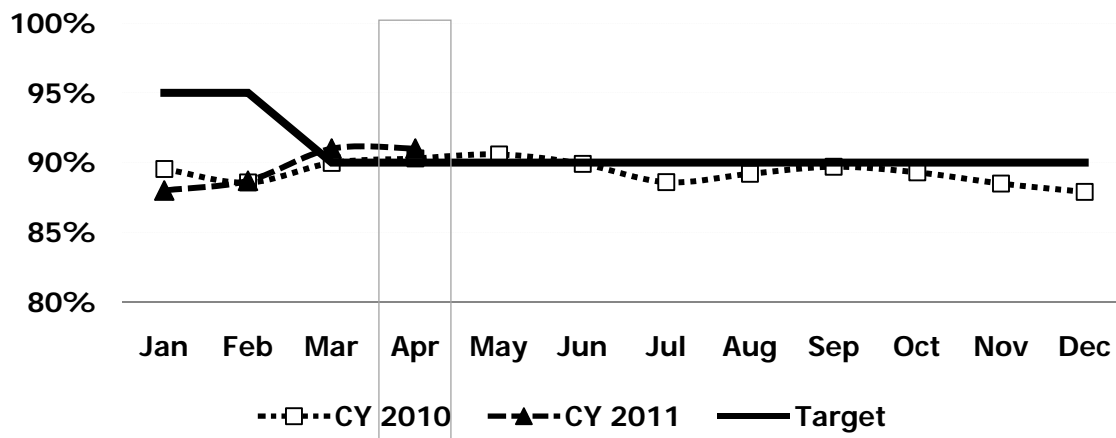
**Conclusion:** Bus fleet reliability fell below the target for the first time since the beginning of the calendar year. Staff will work with the hybrid fleet manufacturer to resolve engine failures.

**Reason to Track:** On-time performance measures the adherence to weekday headways, the time between trains. Factors that can affect on-time performance include track conditions resulting in speed restrictions, the number of passengers accessing the system at once, dwell time at stations, equipment failures and delays caused by sick passengers or offloads. On-time performance is a component of customer satisfaction.

**Why Did Performance Change?**

- Overall Metrorail on-time performance was maintained at 91% in April, the same as March. This is slightly above April performance last year, and exceeds the target of 90% while operating in manual mode.
- The Rail Operations Control Center continued to hold trains at stations for “schedule adjustments” in order to keep trains running on time. In addition, when controllers identified operators struggling to maintain schedules, supervisors conducted ride-alongs and provided coaching/training as needed. This level of monitoring and managing train spacing has resulted in improved on-time performance throughout the Metrorail system.
- Red Line on-time performance increased to 90.7%, the highest since May 2010. Adjustments to running time and supervisor monitoring have resulted in improved train spacing.
- The Orange Line performance was the highest of all lines for the second straight month, thanks to augmented service in the afternoons, and in spite of track work associated with the Dulles Metrorail extension.

**Rail On-Time Performance**



**Actions to Improve Performance**

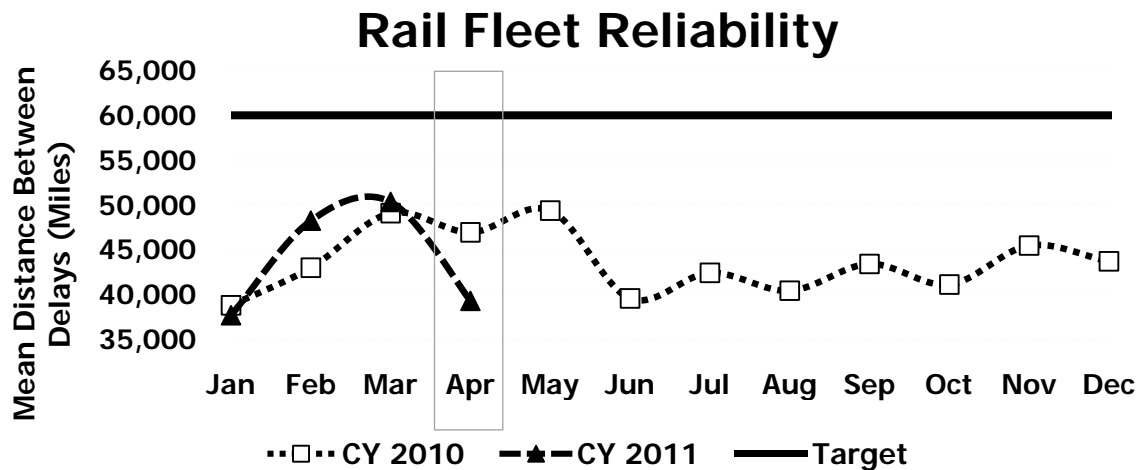
- All levels of Rail Transportation supervisors and managers are monitoring train headways to improve on-time performance. Train operators are being encouraged to closely monitor their train arrival/departure schedule, supervisors are on the platforms monitoring on-time performance and superintendents are reviewing trend information regularly to identify specific issues and develop targeted responses.
- In May, Metro will conduct major weekend, weeknight and weekday track maintenance work which could lead to declines in on-time performance for the duration of the work.
- On Memorial Day weekend, Metro will replace four rail switches at the Eastern Market station, a National Transportation Safety Board recommendation. Over the long run these types of major trackwork projects will lead to improved performance.

**Conclusion:** April on-time performance stayed steady this month at 91% due to schedule monitoring and train spacing management.

**Reason to Track:** Mean distance between delays communicates the effectiveness of Metro’s railcar maintenance program. This measure reports the number of miles between railcar failures resulting in delays of service greater than three minutes. Factors that influence railcar reliability are the age of the railcars, the amount the railcars are used, and the interaction between railcars and the track. The higher the mileage for the mean distance between delays, the more reliable the railcars.

**Why Did Performance Change?**

- Overall fleet reliability worsened significantly from March, with 23% more delay incidents > three minutes. The increase in delays was driven by increases in failures due to brakes, doors and ATC systems.
- Brake problems resulting in delays of > three minutes had the largest increase as maintenance staff continued to troubleshoot faults in the electronic brake control units on the 1000 Series railcars. Maintaining electronic brake control units as the parts wear out is dependent on finding replacement parts for the oldest cars in the fleet. Brake failures increased on the 4000 Series and 6000 Series cars during April as well, resulting in 15 more delays during the month.
- Even though staff is continuing to work with door system contractors to address door failures on the 2000-3000 and 6000 Series railcars, the rate of failure for these cars continues to outpace the remainder of the fleet. Increased incidents of customers holding doors also resulted in the increased door malfunctions for the 1000, 4000 and 5000 Series railcars.
- 28 of the 4000 Series cars were out of service due to circuit breakers tripping because of their age, and 40 5000 Series cars were out of service due to lack of compressor parts.



**Actions to Improve Performance**

- Railcar Maintenance staff will improve its parts ordering process to make sure that sufficient stores of component parts are available at each railcar shop to reduce the time it takes to repair railcars.
- Railcar Maintenance staff will install new circuit breakers in the 4000 Series cars, returning 28 cars to service.
- Maintenance and engineering personnel will gather repeat work order data to analyze the frequency of component failures and whether the repairs are solving the identified subsystem problems effectively.
- Railcar Maintenance staff will continue to address the maintenance impact of trains made up of mixed car types. The restriction to operate the 1000 Series railcars in a belly-only configuration will continue to impact overall railcar reliability as cars operate better with other cars of the same type.

**Conclusion:** For the 5,855,934 miles operated in April, the mean distance between delays worsened for April, due to an increase in brake problems, and lack of component parts to make repairs, keeping cars out of service.

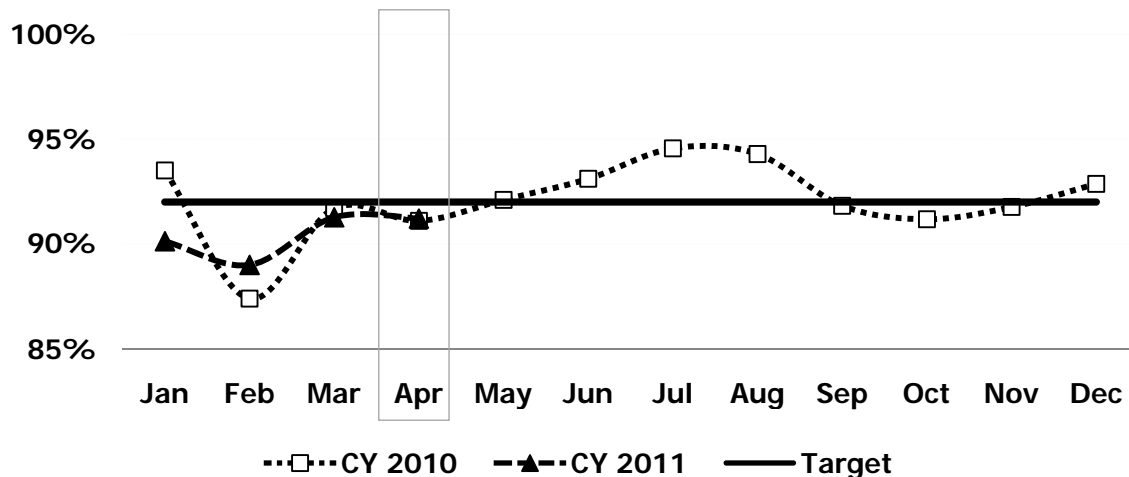
**KPI: MetroAccess On-Time Performance (April) Objective 2.1 Improve Service Reliability**

**Reason to Track:** On-time performance is a measure of MetroAccess service reliability and how well service meets both regulatory and customer expectations. Adhering to the customer's scheduled pick-up window is comparable to Metrobus adhering to scheduled timetables. Factors which affect 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 customers, and meeting service criteria established through Federal Transit Administration regulatory guidance.

**Why Did Performance Change?**

- MetroAccess on-time performance remained steady in April and there were no major impacts to service provision.
- Staff continued to optimize efficiency and schedule adherence when building the daily schedule, and dispatchers were able to control and manage vehicles on the street effectively; resulting in steady on-time performance.

**MetroAccess On-Time Performance**



**Actions to Improve Performance**

- MetroAccess on-time performance is within a percentage point of the target of 92% through effective management of the service each day.
- MetroAccess staff will continue to monitor service provision and improve efficiency by continuing to educate customers about the impact of customer-driven changes to the schedule like cancelations and no-shows.

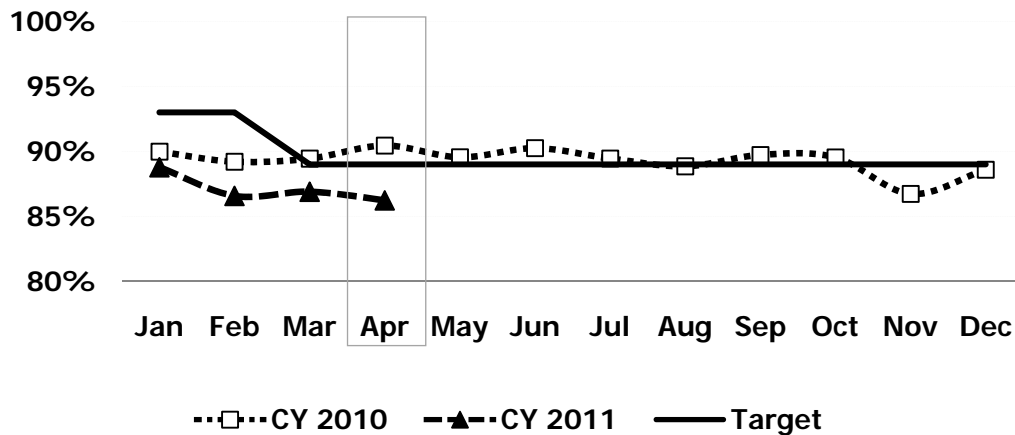
**Conclusion:** MetroAccess on-time performance was steady during April. Staff continues to implement measures designed to reduce costs while closely monitoring efficiencies and maintaining reliable service for customers.

**Reason to Track:** Customers access Metrorail stations via escalators to the train platform. An out-of-service escalator requires walking up or down a stopped escalator, which can add to total travel time and may make stations inaccessible to some customers. Escalator availability is a key component of customer satisfaction with Metrorail service. This measure communicates system-wide escalator performance (at all stations over the course of the day) and will vary from an individual customer’s experience.

**Why Did Performance Change?**

- Metro is modernizing (overhauling) more escalators in 2011 than 2010, reducing escalator availability in the short term. April 2011 escalator out-of-service hours for modernization are 40% higher than the same month in 2010. Modernization work accounted for twenty percent of all escalator out-of-service hours in April 2011 (including corresponding “walker” units).
- The time to repair escalators out of service for unscheduled maintenance increased by 12% in April, particularly service calls and inspection repairs. This is due in part to new processes put in place to improve maintenance quality. Metro inspectors are now checking the quality of inspection repairs before units go back into service. If items are identified by the inspector, the unit stays out of service for additional repair until re-inspected.
- 509 out of 588 escalators were operating in April 2011 (based on hours of available service). This represents a very small decrease from March, with three less escalators in operation for the month.

**Escalator System Availability**



**Actions to Improve Performance**

- Decrease the time escalators units are out of service for handrail repair by enhancing Metro’s in-house capability to join handrail material. In the past, contractors conducted this work for some escalator models, requiring units to stay out of service until contractors were available. Training will be conducted in May for escalator maintenance technicians.
- Elevator/Escalator Services will identify additional staffing resources needed to attain 85% preventive maintenance compliance.

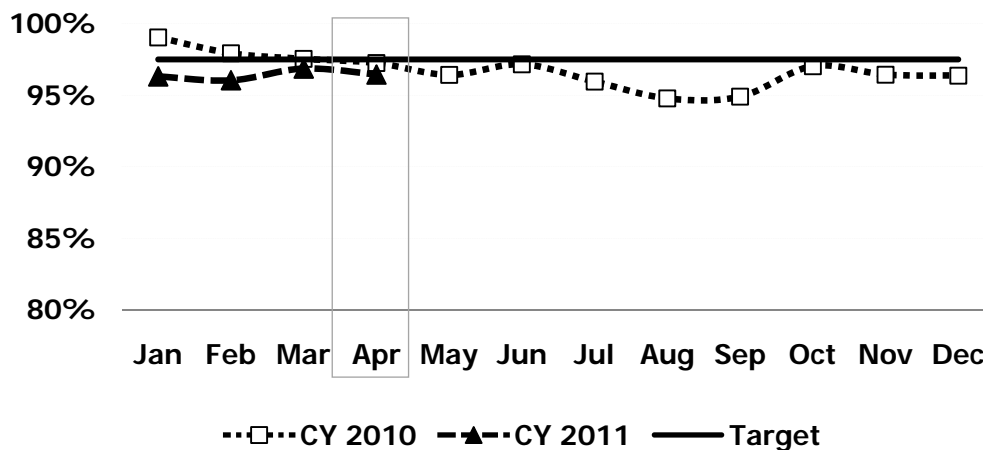
**Conclusion:** Escalator availability reduced slightly in April as Metro focuses on modernizing escalators and improving the quality of escalator repairs.

**Reason to Track:** Metrorail elevators provide an accessible path of travel for persons with disabilities, seniors, customers with strollers, travelers carrying luggage and other riders. When an elevator is out of service, Metro is required to provide alternative services, which may include a shuttle bus service to another station.

**Why Did Performance Change?**

- Elevator system-wide availability was 96% in April 2011, a small decrease from March (equivalent to one less elevator available). On average, 229 of 237 elevators were available for the month.
- A decrease in unscheduled elevator out-of-service hours in April (down 7% due to fewer service calls) was offset by an increase in scheduled maintenance. This was driven primarily by units taken out of service for communication (intercom and networking) and flooring repairs. These types of repairs are conducted by other departments in Metro with specialized experience in these areas.

### Elevator System Availability



**Actions to Improve Performance**

- Elevator/Escalator Services (ELES) is working cooperatively with different Metro departments responsible for communication systems (networking and infrastructure) to establish a more efficient process of reporting elevator communication repairs, reducing the time units are out of service.
- ELES will identify additional staffing resources needed to attain 85% preventive maintenance compliance.

**Conclusion:** Elevator availability decreased slightly in April as decreases in unscheduled maintenance were offset by increases in scheduled support for communications and flooring repairs.



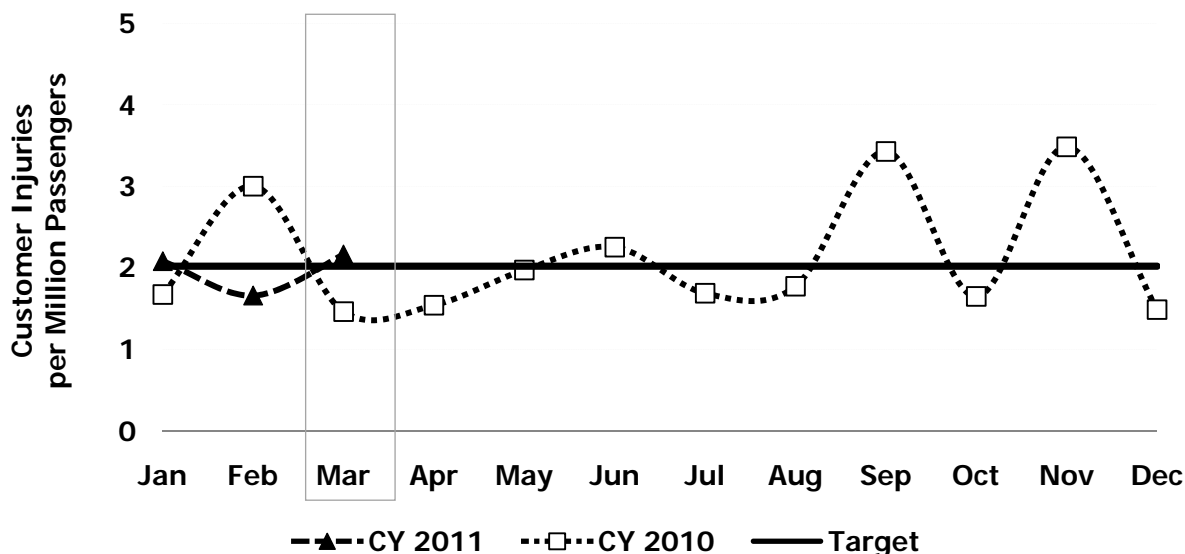
**KPI: Customer Injury Rate (March) Per Million Passengers**      **Objective 1.1 Improve Customer and Employee Safety and Security**

**Reason to Track:** 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.

**Why Did Performance Change?**

- March customer injuries did not improve and were slightly above target as a result of an increase in Bus Passenger injuries which got worse as a result of 1 preventable and 2 non-preventable collisions. Bus customer injuries represent over half (57%) of the overall customer injuries.
- Rail Transit Facility (stations, escalators and parking) injuries declined with a 21% reduction in March due to better weather conditions. Slips/Falls generally account for the largest cause of injury; however, slips/falls declined due to less slippery weather conditions.
- Of the three MetroAccess passenger injuries, two were the result of 2 non-preventable collisions; one other injury was due to a passenger assistance incident.

### Customer Injury Rate



**Actions to Improve Performance**

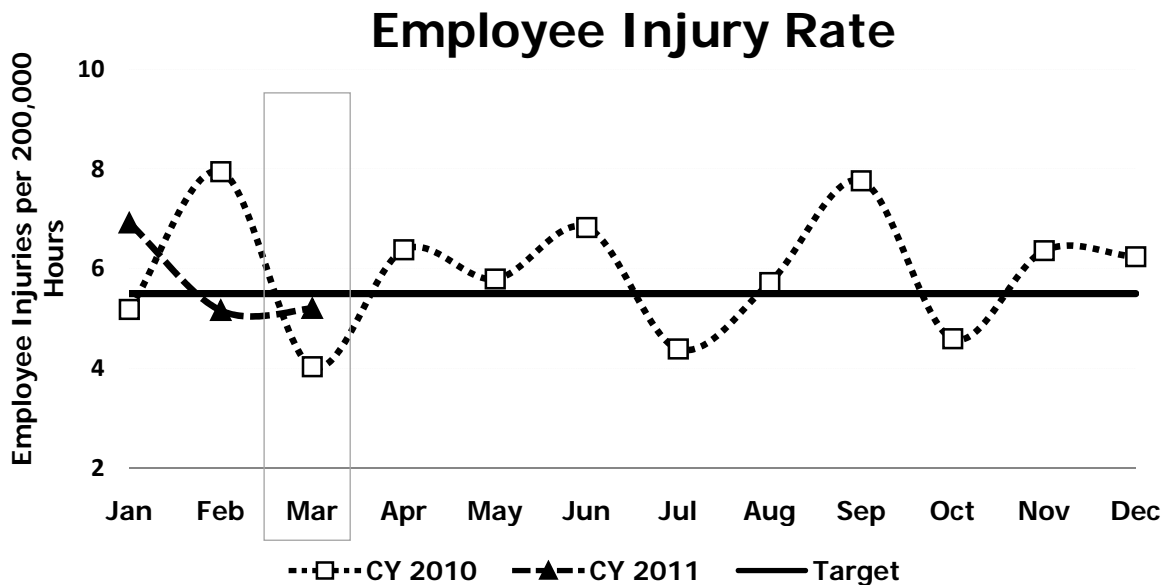
- Bus Services will install safety signs to remind Bus Operators that the use of cell phones is prohibited, and continue to identify and reiterate training for Bus Operators who engage in risky driving behaviors through the use of DriveCam.
- The Department of System Safety and Environmental Management (SAFE) will develop the root cause analysis feature of its safety measurement system to help identify trends and pinpoint areas for specific solutions. A recently hired Safety Analyst will be solely dedicated to performing root cause analysis.
- SAFE will also develop a hazard management system which will be designed to include risk assessments, hazard identification and elimination.
- Continue Metrorail repairs such as: replace tracks, track fasteners, rail ties, and complete station improvements such as replacing broken paver tiles.

**Conclusion:** March customer injuries were slightly above target. Metro will continue to be vigilant in training operators to always exercise safe driving practices as well as focus on preventive tactics.

**Reason to Track:** Worker's compensation claims are a key indicator of how safe employees are in the workplace.

**Why Did Performance Change?**

- Employee injuries virtually remained steady during the month of March. Straining and slips/falls continued to represent the largest type of employee injuries.
- Departments focused on the quality of incident investigations and safety conversations which are intended to prevent future incidents.
- All required frontline employees have received bridge training in the new Roadway Worker Protection rules and procedures.
- Bus and Rail Transportation continued to account for the majority of employee injuries; however, Rail Transportation injuries notably decreased by 8% due to the reinforcement of safety training.



**Actions to Improve Performance**

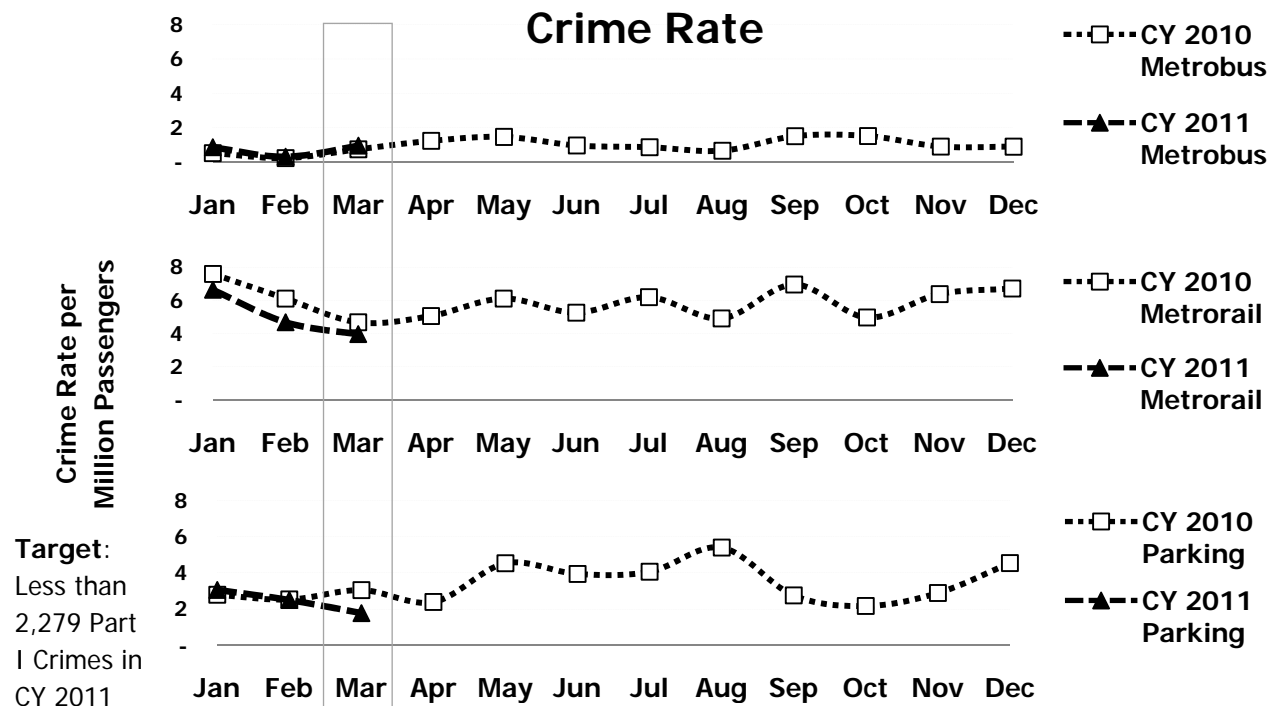
- The focus on productive safety committee meetings, quality incident investigations, and the reinforcement of the "At Risk" program has been the cornerstone for reducing the employee injury rate. Departments will continue to execute these actions and improve upon them.
- Develop and follow-up on At Risk Action Plans. Of the At Risk Bus cases, 93% of the action plans have been submitted.
- Assess how to regain DriveCam momentum. After the implementation of DriveCam, the Bus collision rate decreased by 17%; however, recently collisions have returned to post DriveCam percentages.
- Create coaching options for DriveCam repeat offenders and work to control the effects of non-preventable and preventable collisions through the implementation of Smith Defensive Driving training.

**Conclusion:** Employee injuries remained virtually steady when compared to the previous month. Metro will continue to focus on the cornerstones of success in this area: productive safety committees, quality incident investigations, and the reinforcement of the "At Risk" program.

**Reason to Track:** This measure provides an indication 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.

**Why Did Performance Change?**

- The parking lot crime rate was down 29% to less than 2 crimes per million riders in March 2011, the lowest rate in six years. More patrol cars were used to monitor parking lots, along with officers on bicycles and the 3-wheeled T3 vehicle.
- While rail ridership grew significantly in March (up 23%), rail crime did not experience a parallel increase. The rail crime rate was down 15% in March, reaching the lowest level since May 2009. MTPD patrolled hot spot stations, including round-the-clock details at L'Enfant Plaza and Gallery PI stations. Officers paid particular attention to the Smithsonian station as visitors used Metrorail to/from the Cherry Blossom Festival.
- The bus crime rate continued to be consistently low with only 11 crimes being committed in March while almost 11 million customers rode Metrobus.



**Actions to Improve Performance**

- MTPD's Metrobus Enforcement Division officers will ride on buses based on review of crime trends, particularly north and northwest of the Capitol. To reduce assaults on bus operators, officers are providing a visible police presence on buses and discussing safety tips with operators.
- On April 13<sup>th</sup>, MTPD will partner with municipal and County Police Departments in Prince George's County and University of Maryland Police Department in a show of force. The event at 15 Prince George's County Metrorail stations, called Blue Tide, will focus on promoting crime prevention awareness and deterring terrorist activity.
- As the weather improves, Metro customers increasingly use bicycles to commute to/and from stations and on Metrobuses. Bike thefts at stations historically increase during the summer months. MTPD will be reaching out to customers on how to reduce bike thefts, and will be tracking where thefts occur to redeploy resources as needed.

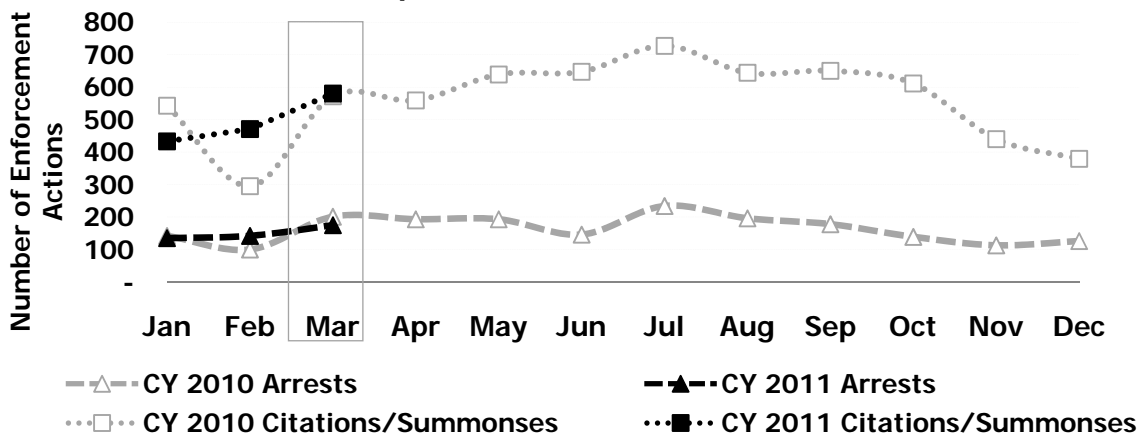
**Conclusion:** Metrorail and Metro parking crime rates hit record lows in March. The parking crime rate reached the lowest level in six years, and the Metrorail crime rate is at an almost two-year low.

**Reason to Track:** This measure reflects actions by the Metro Transit Police Department to keep the Metro system safe. This includes arrests of individuals breaking the law within the Metro system and citations/summonses issued by transit police officers. Examples of citations/summonses include fare evasion and public conduct violations.

**Why Did Performance Change?**

- Arrests were up 23% in March 2011. Three of these arrests were made simultaneously at the New Carrollton station Kiss-and-Ride. During an arrest of a subject in possession of a knife and a second arrest for marijuana possession, officers observed a third subject committing a parking violation. Upon investigation, the third subject was in possession of 57 grams of marijuana hidden in the vehicle dashboard and was subsequently arrested.
- Round-the-clock details at L'Enfant Plaza have been in place since January to curtail youth disorder and prevent assaults and robberies. Of the twenty offenses committed at the station since January, twelve have been closed by arrest.
- Citations/summonses were also up 23% in March, and are above the same month last year. Officers completing field training focused their activities on enforcement of public conduct ordinances, including fare evasion and consumption of food/drink in the paid areas of Metro stations. In addition, Metrobus Enforcement Division staffing is 59% larger than March of last year, resulting in more citations issued for public misconduct on buses and at stops.

**Arrests, Citations and Summonses**



**Actions to Improve Performance**

- MTPD is working in partnership with DC government to reduce youth disorder in the transit system. DC will be piloting a student ID card/transit pass that may enable MTPD to suspend passes for young people who misbehave in the transit system.
- MTPD will have 14 new officers join the police force in April. The recruits completed 37 weeks of training on the rules, regulations and laws governing DC, Maryland and Virginia.
- In addition to cameras for station entrances, MTPD is working with Metro's Office of Long Range Planning to identify appropriate locations for camera surveillance monitoring systems at selected bike racks and high-crime areas outside of stations.

**Conclusion:** MTPD is using every resource available to keep the Metro system safe for our customers, with enforcement actions (arrests, citations and summonses) focused on crimes in parking lots and robberies in stations.

**KPI: Customer Comment Rate (April) Per Million Passengers**

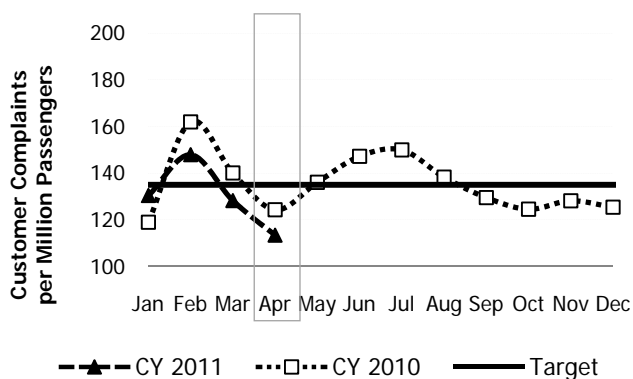
**Objective 2.3 Maximize Rider Satisfaction**

**Reason to Track:** Listening to customer feedback about the quality of service provides a clear roadmap to those areas of the operation where actions to improve the service can best help to maximize rider satisfaction.

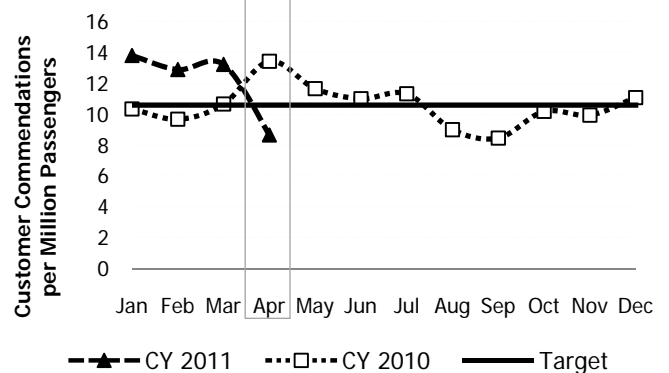
**Why Did Performance Change?**

- Complaints for rail dropped by 30% from March in all of the top five categories. Most notable were reduction in complaints for timeliness (50%) and for inadequate service (60%). These correspond with efforts by Rail Transportation to improve on-time performance, which is the highest it has been in almost a year (See page 10). Rail commendations also declined significantly due to processing delays.
- Bus complaints also declined slightly overall, but increased 5% in each of the timeliness related categories (delay/late, failure to service stop, and no shows). Bus commendations were also down from March's increase due to reduction in visitor ridership. Visitors and special event patrons make more commendations than Metro's regular riders.
- MetroAccess experienced a typical level of commendations in April, average for the year so far. Complaints dropped in each of the top five categories as customers became more accustomed to schedule and fare adjustments made during February and March. For information on MetroAccess on-time performance, please see page 12.

**Customer Complaint Rate**



**Customer Commendation Rate**



**Actions to Improve Performance**

- Rail Transportation will continue to focus on providing timely service and continue running 8-car trains that were added in March. These efforts reflect in the on-time performance and customer comment measures.
- Process customer commendations more timely with the help of two interns and a limited duration employee.
- Bus transportation supervisors will monitor bus time-points in an effort to improve on-time performance and maintain vehicle spacing as we move into construction season. Superintendents will continue to use customer comments as part of their management data used to monitor performance.
- MetroAccess will continue to manage efficiency and customer expectations by providing service within regulatory guidelines, which includes responsive customer service.

**Conclusion:** Customer feedback declined in April resulting in lower complaint and commendation rates.

## Vital Signs Report

### Definitions for Key Performance Indicators

---

**Bus On-Time Performance** – Metrobus adherence to scheduled service.

**Calculation:** For delivered trips, difference between scheduled time and actual time arriving at a time point based on a window of no more than 2 minutes early or 7 minutes late. Sample size of observed time points varies by route.

**Bus Fleet Reliability (Bus Mean Distance between Failures)** – The number of revenue miles traveled before a mechanical breakdown. A failure is an event that requires the bus to be removed from service or deviate from the schedule.

**Calculation:** Number of failures / miles

**Rail On-Time Performance by Line** – Rail on-time performance is measured by line during weekday peak and off-peak periods. During peak service (AM/PM), station stops made within the scheduled headway plus two minutes are considered on-time. During non-peak (mid-day and late night), station stops made within the scheduled headway plus no more than 50% of the scheduled headway are considered on-time.

**Calculation:** Number of Metrorail station stops made up to the scheduled headway plus 2 minutes / total Metrorail station stops for peak service. Number of Metrorail station stops made up to 150% of the scheduled headway / total Metrorail station stops for off-peak service.

**Rail Fleet Reliability (Railcar Mean Distance between Delays)** – The number of revenue miles traveled before a railcar failure results in a delay of service of more than three minutes. Some car failures result in inconvenience or discomfort, but do not always result in a delay of service (such as hot cars).

**Calculation:** Number of failures resulting in delays greater than three minutes / total railcar miles

**MetroAccess On-Time Performance** – The number of trips provided within the on-time pick-up window as a percent of the total trips that were actually dispatched into service (delivered). This includes trips where the vehicle arrived, but the customer was not available to be picked up. Vehicles arriving at the pick-up location after the end of the 30-minute on-time window are considered late. Vehicles arriving more than 30 minutes after the end of the on-time window are regarded as very late.

**Calculation:** The number of vehicle arrivals at the pick-up location within the 30-minute on-time window / the total number of trips delivered

**Elevator and Escalator System Availability** – Percentage of time that Metrorail escalators or elevators in stations and parking garages are in service during operating hours.

**Calculation:** Hours in service / operating hours. Hours in service = operating hours – hours out of service (both scheduled and unscheduled). Operating hours = revenue hours per unit \* number of units.

**Customer Injury Rate (per million passengers<sup>1</sup>)** – Injury to any customer caused by some aspect of Metro's operation that requires immediate medical attention away from the scene of the injury.

**Calculation:** Number of injuries ÷ (number of passengers ÷ 1,000,000)

**Employee Injury Rate (per 200,000 hours)** – 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.

**Calculation:** Number of injuries ÷ (total work hours ÷ 200,000)

**Crime Rate (per million passengers)** – Crimes reported to Metro Transit Police Department on bus, rail, or at parking lots, Metro facilities, bus stops and other locations in relation to Metro's monthly passenger trips. Reported by Metrobus, Metrorail, and Metro parking lots.

**Calculation:** Number of crimes / (number of passengers / 1,000,000)

**Arrests, Citations and Summonses** – The number of arrests and citations/summonses issued by the Metro Transit Police Department. Examples of citations/summonses include minor misdemeanors, fare evasion and public conduct violations.

**Customer Comment Rate (per million passengers)** – A complaint is defined as any phone call, e-mail or letter resulting in investigation and response to a customer. This measure includes the subject of fare policy but excludes specific Smarttrip matters handled through the regional customer service center. A commendation is any form of complimentary information received regarding the delivery of Metro service.

**Calculation:** Number of complaints or commendations / (number of passengers / 1,000,000)

<sup>1</sup> Passengers are defined as follows:

- Metrobus reports unlinked passenger trips. An unlinked trip is counted every time a customer boards a Metrobus. In an example where a customer transfers between two Metrobuses to complete their travel two trips are counted.
- Metrorail reports linked passenger trips. A linked trip is counted every time a customer enters through a faregate. In an example where a customer transfers between two trains to complete their travel one trip is counted.
- MetroAccess reports completed passenger trips. A fare paying passenger traveling from an origin to a destination is counted as one passenger trip.

Vital Signs Report  
Performance Data

June 2011

KPI: Bus On-Time Performance / Target = 78%

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg. Thru Apr.
CY 2010	79.4%	70.6%	76.6%	73.8%	73.8%	73.0%	72.8%	74.7%	71.7%	72.7%	74.0%	75.7%	75.1%
CY 2011	78.5%	76.9%	77.5%	76.3%									77.3%

KPI: Bus Fleet Reliability (Bus Mean Distance Between Failures) / Target = 7,400 Miles

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg. Thru Apr.
CY 2010	7,223	6,878	6,882	6,270	5,902	6,578	6,670	6,673	7,366	7,842	8,982	8,587	6,813
CY 2011	8,681	8,144	7,794	7,171									7,948

Bus Fleet Reliability (Bus Mean Distance Between Failure by Fleet Type)

Type (~ % of Fleet)	May	Jun	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Avg.
CNG (30%)	7,905	9,059	9,093	6,680	9,165	9,939	10,410	9,520	10,242	8,480	9,802	7,790	9,007
Hybrid (27%)	8,844	9,944	10,161	11,378	11,361	13,526	14,198	12,474	11,853	11,158	10,433	9,536	11,239
Clean Diesel (8%)	7,345	7,933	10,547	7,931	10,300	12,118	12,290	12,958	11,473	8,042	7,637	9,442	9,835
All Other (35%)	4,102	4,517	4,332	4,921	4,798	4,698	5,718	5,699	5,751	6,191	5,340	5,012	5,090

KPI: Rail On-Time Performance by Line / Target = 90%

	May	Jun	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Avg.
Red Line	91.0%	90.1%	88.5%	88.3%	88.0%	88.3%	87.5%	87.9%	85.1%	87.2%	90.7%	90.7%	88.6%
Blue Line	88.3%	87.5%	86.0%	86.1%	88.3%	87.3%	87.9%	86.3%	88.0%	86.4%	88.9%	88.8%	87.5%
Orange Line	91.4%	90.4%	88.8%	90.5%	92.1%	91.6%	91.0%	90.0%	91.7%	91.4%	93.0%	93.3%	91.3%
Green Line	91.0%	90.8%	90.3%	91.9%	91.9%	91.0%	88.3%	86.5%	90.2%	90.1%	91.3%	91.2%	90.4%
Yellow Line	90.7%	89.8%	89.0%	91.4%	92.0%	90.7%	91.2%	91.0%	91.5%	92.4%	92.3%	92.6%	91.2%
Average (All Lines)	90.6%	89.9%	88.6%	89.2%	89.7%	89.3%	88.5%	87.9%	88.0%	88.7%	91.0%	91.0%	89.4%

KPI: Rail Fleet Reliability (Rail Mean Distance Between Delays by Railcar Series) / Target = 60,000 miles

	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Avg.
1000 series railcars	41,859	32,241	32,258	46,370	43,908	40,517	45,595	45,557	54,137	46,302	43,866	29,118	41,811
2000/3000 series railcars	44,354	49,175	65,428	39,911	49,582	31,572	35,820	42,065	28,076	40,431	45,169	41,760	42,779
4000 series railcars	41,703	18,166	21,553	17,893	18,645	36,587	25,073	25,195	31,393	31,646	58,442	31,054	29,779
5000 series railcars	55,967	29,265	28,290	29,410	34,094	44,462	54,016	47,509	30,078	47,868	41,251	46,561	40,731
6000 series railcars	80,046	93,631	57,029	107,198	77,921	88,918	119,427	56,172	74,865	110,928	94,443	57,550	84,844
Fleet average	49,375	39,573	42,424	40,435	43,420	41,121	45,471	43,712	37,703	48,241	50,328	39,302	43,425



Vital Signs Report  
Performance Data (cont.)

June 2011

**KPI: MetroAccess On-Time Performance / Target = 92%**

	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec	Avg. Thru Apr.
CY 2010	93.5%	87.4%	91.7%	91.1%	92.1%	93.1%	94.6%	94.3%	91.8%	91.2%	91.8%	92.9%	90.9%
CY 2011	90.1%	89.0%	91.3%	91.2%									90.4%

**KPI: Escalator System Availability / Target = 89%**

	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec	Avg. Thru Apr.
CY 2010	90.0%	89.2%	89.5%	90.5%	89.6%	90.3%	89.5%	88.9%	89.7%	89.5%	86.7%	88.6%	89.8%
CY 2011	88.8%	86.6%	86.9%	86.2%									87.1%

**KPI: Elevator System Availability / Target = 97.5%**

	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec	Avg. Thru Apr.
CY 2010	99.0%	97.9%	97.5%	97.3%	96.4%	97.2%	96.0%	94.8%	94.9%	97.0%	96.4%	96.4%	97.9%
CY 2011	96.3%	96.0%	96.9%	96.4%									96.4%

**KPI: Customer Injury Rate (per million passengers) \* / Target = ≤ 2.02 injuries per million passengers**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg. Thru Mar.
CY 2010	1.67	3.00	1.46	1.54	1.97	2.25	1.69	1.78	3.43	1.65	3.49	1.49	2.05
CY 2011	2.08	1.66	2.16										1.97

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

**Bus Customer Injury Rate (per million passengers)**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg. Thru Mar.
CY 2010	2.08	3.66	1.73	1.77	1.84	3.33	2.40	1.61	6.92	1.98	5.91	1.78	2.49
CY 2011	1.72	0.93	3.38										2.01

**Rail Customer Injury Rate (per million passengers)**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg. Thru Mar.
CY 2010	0.06	0.15	0.10	0.19	0.22	0.20	0.10	0.11	0.17	0.11	0.18	0.00	0.10
CY 2011	0.13	0.19	0.15										0.16

Vital Signs Report  
Performance Data (cont.)

June 2011

**Rail Transit Facilities Occupant Injury Rate (per million passengers)\***

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg. Thru Mar.
CY 2010	1.09	2.31	0.99	0.91	1.31	1.03	0.89	1.35	0.95	1.22	1.56	1.09	1.46
CY 2011	2.00	1.81	1.17										1.66

\*Includes station, escalator and parking facility customer injuries.

**KPI: MetroAccess Customer Injury Rate (per million passengers)**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg. Thru Mar.
CY 2010	26.18	22.06	21.57	31.55	48.11	46.48	34.47	38.84	24.61	14.45	25.50	20.53	23.27
CY 2011	16.45	10.55	14.63										13.88

**KPI: Employee Injury Rate (per 200,000 hours) / Target = ≤ 5.05 injuries per 200,000 hours**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg. Thru Mar.
CY 2010	5.18	7.94	4.03	6.38	5.79	6.82	4.39	5.72	7.76	4.59	6.36	6.24	5.72
CY 2011	6.92	5.16	5.20										5.76

**KPI: Crime Rate (per million passengers) / Target = ≤ 2,279 Part I Crimes in Calendar Year 2011**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg. Thru Mar.
CY 2010 Metrobus	0.52	0.23	0.74	1.23	1.46	0.96	0.86	0.66	1.50	1.51	0.90	0.89	0.50
CY 2011 Metrobus	0.86	0.31	0.95										0.71
CY 2010 Metrorail	7.59	6.11	4.68	5.06	6.11	5.26	6.19	4.91	6.95	4.97	6.38	6.71	6.13
CY 2011 Metrorail	6.63	4.68	3.96										5.09
CY 2010 Parking	2.79	2.53	3.05	2.39	4.53	3.94	4.06	5.40	2.75	2.17	2.89	4.54	2.79
CY 2011 Parking	3.06	2.50	1.78										2.45

**Vital Signs Report  
Performance Data (cont.)**

**June 2011**

**Crimes by Type\*\***

	Apr-10	May-10	June-10	July-10	Aug-10	Sept-10	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11	Mar-11	Avg.
Robbery	91	89	71	66	58	83	76	91	97	92	60	77	79
Larceny	66	97	111	131	111	91	50	58	67	44	40	41	76
Motor Vehicle Theft	9	13	13	10	18	9	17	13	10	15	5	6	12
Attempted Motor Vehicle Theft	9	9	5	10	6	9	3	3	3	6	5	1	6
Aggravated Assault	9	15	7	14	15	14	14	11	12	9	11	5	11
Rape	0	0	0	1	0	0	0	1	0	0	0	0	0
Burglary	0	1	0	0	0	1	1	1	0	0	0	0	0
Homicide	0	0	0	0	0	0	0	0	0	0	0	0	-
Arson	0	0	0	0	0	0	0	0	0	0	0	0	-
<b>Total</b>	<b>184</b>	<b>224</b>	<b>207</b>	<b>232</b>	<b>208</b>	<b>207</b>	<b>161</b>	<b>178</b>	<b>189</b>	<b>166</b>	<b>121</b>	<b>130</b>	<b>184</b>

\*\*Monthly crime statistics can change as a result of reclassification following formal police investigation.

**KPI: Metro Transit Police Arrests, Citations and Summonses**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg. Thru Mar.
<b>CY 2010 Arrests</b>	142	100	201	193	193	146	234	196	178	139	113	126	148
<b>CY 2011 Arrests</b>	135	142	175										151
<b>CY 2010 Citations/Summonses</b>	543	295	572	559	639	647	727	644	650	611	440	379	470
<b>CY 2011 Citations/Summonses</b>	433	471	580										495

**KPI: Customer Commendation Rate (per million passengers) / Target =  $\geq$  10.6 per million passengers**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Avg. Thru Apr.
<b>CY 2010</b>	10.3	9.7	10.7	13.4	11.7	11.0	11.3	9.0	8.5	10.2	10.0	11.1	11.0
<b>CY 2011</b>	13.8	12.9	13.2	8.7									12.2

**KPI: Customer Complaint Rate (per million passengers) / Target =  $\leq$  135 complaints per million passengers**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Avg. Thru Apr.
<b>CY 2010</b>	119	162	140	124	136	147	150	138	129	125	128	125	136
<b>CY 2011</b>	130	148	128	113									130

**Vital Signs Report  
Performance Data (cont.)**

**June 2011**

**Metrobus Ridership (millions of unlinked trips)**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg. Thru Apr.
<b>CY 2010</b>	9.6	7.1	11.0	10.8	10.3	10.5	10.4	10.6	10.5	10.6	10.1	9.0	9.6
<b>CY 2011</b>	9.3	9.7	11.5	10.8									10.3

**Metrorail Ridership (millions of linked trips)**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg. Thru Apr.
<b>CY 2010</b>	16.5	13.4	20.3	20.8	18.3	20.3	20.2	18.5	17.8	18.9	16.6	15.7	17.7
<b>CY 2011</b>	16.0	16.0	19.7	19.3									17.7

**MetroAccess Ridership (100,000s of completed trips)**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg. Thru Apr.
<b>CY 2010</b>	1.91	1.36	2.32	2.22	2.08	2.15	2.03	2.06	2.03	2.08	1.96	1.95	1.95
<b>CY 2011</b>	1.82	1.90	2.05	1.87									1.91

Note: Targets are re-evaluated annually and based on changing operating conditions and performance.