# Vital Signs Report

A Scorecard of Metro's

Key Performance Indicators (KPI)



**Chief Performance Officer** 

Published: May 2011

Page Left Intentionally Blank

## **Table of Contents**

Executive Summary4
Strategic Framework5
Metro Facts at a Glance
KPI's that Score How Metro is Performing8
Bus On-Time Performance (March)8
Bus Fleet Reliability (March)9
Rail On-Time Performance (March)10
Rail Fleet Reliability (March)11
MetroAccess On-Time Performance (March)12
Escalator System Availability (March)13
Elevator System Availability (March)14
Customer Injury Rate (February)15
Employee Injury Rate (February)16
Crime Rate (February)17
Arrests, Citations and Summonses (February)18
Customer Comment Rate (March)19
Definitions
Performance Data22

Metro performance is moving in the right direction. Twelve out of thirteen Vital Signs Key Performance Indicators improved this month and the one that declined still out-performed its target.

Metrobus on-time performance continued to steadily improve as a result of better departure/arrival time monitoring and effective alternate route scheduling for special events. Bus fleet reliability in March declined slightly, but remained above target.

Rail on-time performance improved for the third month in a row, with March showing the best result since November 2009. Improvements were largely due to conclusion of mid-day track work on the Red Line, and better on-time train dispatching from terminals. Rail fleet reliability improved largely due to better 2000-3000 series railcars reliability.

MetroAccess on-time performance improved in March as staff maximized scheduling and route efficiencies.

Escalator availability improved slightly in March primarily due to quicker resolution of unscheduled service calls. Elevator availability also improved, with an average of 230 of 237 elevators available. Both escalator and elevator availability have declined from last year's performance.

The total number of Part I crimes in the Metro system hit a two year low in February, with crime down on bus, rail and in parking facilities. Metro Transit Police have been actively adapting policing strategies and the results are now showing.

Customer injuries decreased in February with the Metrobus customer injury rate reaching its lowest level since January 2010 as a result of improved safe driving behavior. The employee injury rate also improved in February.

Future Performance Action Highlights:

- Conduct studies of bus service provided along Martin Luther King Avenue, Georgia Avenue, Rhode Island Avenue and 14<sup>th</sup> Street to improve the quality of service.
- The Rail Operations Control Center will monitor incident response times to identify ways of improving communication between control center staff and response teams stationed throughout the system to resolve incident delays quicker.
- Metro will begin an initiative to evaluate and revise escalator maintenance procedures with an emphasis on "getting things right the first time."
- Metrobus will start a DriveCam campaign ("Keep it Green") to remind bus operators to drive safely all day to prevent triggering a DriveCam red light that indicates a risky driving occurrence.
- Jurisdictional police officers who patrol areas around Metro stations will receive passes allowing access to Metro parking facilities so officers can monitor the lots as part of their regular patrol.

#### 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.

Goals 1. Create a Safer Organization



			2. <u>Deliver</u> Quality Service						
5 Goals			3. <u>Use</u> Every Resource Wisely						
0 00013			4. Retain, Attract and Reward the Best and Brightest						
	L		5. Maintain and Enhance Metro's Image						
	Goal	Object	ive						
		1.1	Improve customer and employee safety and security ("prevention")*						
	1	1.2	Strengthen Metro's safety and security response ("reaction")						
		2.1	Improve service reliability						
		2.2	Increase service and capacity to relieve overcrowding and meet future demand						
	2	2.3	Maximize rider satisfaction through convenient, comfortable services and facilities that are in good condition and easy to navigate						
12 Objectives		2.4	Enhance mobility by improving access to and linkages between transportation options						
		3.1	Manage resources efficiently						
	3	3.2	Target 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						
		5.1	Enhance communication with customers, employees, Union leadership, Board, media and other stakeholders						
	5	5.2	Promote the region's economy and livable communities						
		5.3	Use 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 Service Area	1
Size	1,500 sq. miles
Population	3.5 million
Ridership	

Indership		
Mode	FY 2010	Average Weekday
Bus	124 million	439,648 (March 2011)
Rail	217 million	753,469 (March 2011)
MetroAccess	2.4 million	7,932 (March 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 Docombor 2010	

\*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

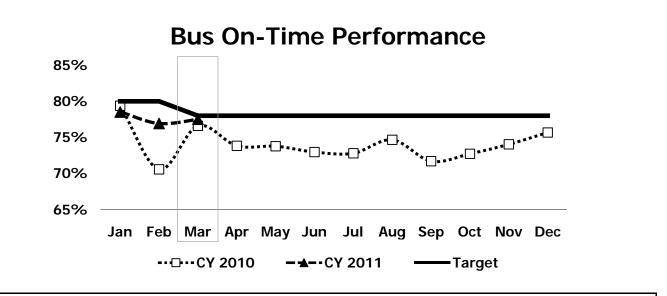
Fiscal Year 2011 Operating Budget	\$104 million
MetroAccess Fare	Within the ADA service area – twice the SmarTrip-based fare up to a \$7 maximum
Paratransit Vehicle Fleet**	600
Average Fleet Age**	3.12 years
Paratransit Garages	7 (1 in DC, 4 in MD and 2 in VA)
Contract Provider	MV Transportation
**As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

#### KPI: Bus On-Time Performance (March)

**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 virtually met target. This is a slight improvement from February. The improvements are a result of: aggressive monitoring of departure and arrival times, organizing effective alternate routes during special events, and the ability of Service Operation Managers to identify real time solutions.
- Bus operator vacancies have reduced, resulting in more dedicated operators on assigned routes. This supports on-time performance as dedicated operators become familiar with their route and schedule.
- Customers used NextBus over 620,000 times in March, setting another record. Because NextBus was designed to help customers be aware of bus arrival times it improves the customer's ride by allowing them to better manage their time.



#### Actions to Improve Performance

- Conduct two studies for service provided along Martin Luther King Jr. Avenue and Georgia Avenue to identify service, operations and customer information enhancements.
- Complete a Rhode Island Avenue and 14<sup>th</sup> Street bus study to help address overcrowding, bus bunching, and delays caused by heavy traffic on these routes.
- Service Operations Managers will continue to monitor delays/detours caused by special events and temporarily adjust schedules as necessary.
- Explore putting some routes on headway schedules rather than the current stop time schedule and identify the resources needed to implement additional Limited Stop services.

**Conclusion**: Metrobus on-time performance has steadily improved since September 2010.

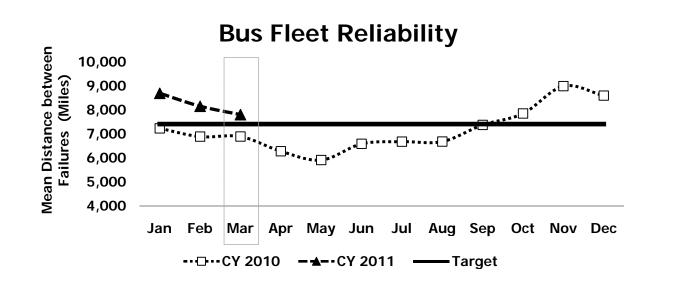
KPI:Bus Fleet Reliability (March)<br/>(Mean Distance Between Failures)

**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 remains above target although it has declined when compared to recent months.
- The decline was largely related to significant changes in temperatures, as wide fluctuations in temperature challenged air systems and subsequently decreased the reliability of the doors, brakes, and wiper systems.
- Coolant system problems also contributed to the decline in bus fleet reliability. There was an increase in leaks which caused the heating and cooling system to contract. Essentially when engine cooling systems are compromised the engine protection system will shut the engine down.
- Hybrid, CNG, and Clean Diesel buses all remained above the target. Although the reliability of the Hybrid and Clean Diesel fleet declined from the previous month, the CNG fleet performed better than the previous month as a result of the mid-life rehabilitation project. The reliability of All Other fleet remained relatively the same.
- The top six service interruptions in order of frequency that occurred this month: engine, warning light, brakes, air, body, and transmission.



#### Actions to Improve Performance

- Bus Maintenance will continue to monitor condensation and coolant problems and make necessary changes to preventative maintenance. For example, coolant systems will be monitored bi-weekly versus every 6,000 miles.
- Evaluate all technology aspects of the Hybrid, Compressed Natural Gas, and Clean Diesel to prepare for the next five year bus procurements.

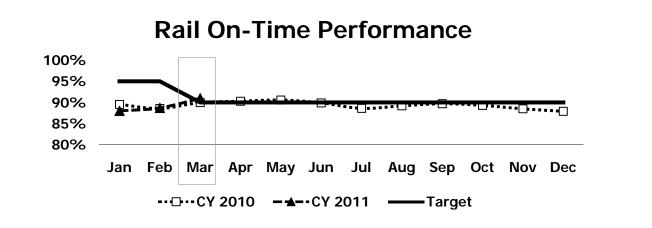
**<u>Conclusion</u>**: Vast temperature fluctuations not only impact people's health, but it can also cause mechanical failures. Bus Maintenance will continue to identify solutions that stabilize bus fleet reliability.

KPI: Rail On-Time Performance (March)

**<u>Reason to Track</u>**: 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 improved to 91% in March, the highest since November 2009. Four out of five lines had performance improvements, while the fifth (Yellow) stayed consistent with February. There were 171 fewer minutes of system-wide train delay during the month.
- Improvement in March was largely due to the conclusion of mid-day track work on the Red Line, and better ontime dispatching of trains from terminals throughout the rail system.
- Red Line on-time performance increased to 91%, the highest since May 2010. Because the Red Line provides service nearly twice as frequently as other lines it weighs heavily on the overall system-wide calculation of on-time performance.
- Orange Line on-time performance increased to 93% in March largely due to a 10% reduction in train delay associated with customers, Metro personnel and track work. Orange Line performance was also boosted in the PM peak period by the addition of trains in between scheduled trains called "gap trains" or "trippers."



#### Actions to Improve Performance

- The Rail Operations Control Center will monitor incident response times to identify ways of improving communication between control center staff and response teams stationed throughout the system to resolve incident delays quicker.
- To keep trains running on time, customers may experience a train holding at a station for "schedule adjustment." This is done to improve system-wide on-time performance, as trains running ahead of schedule can result in larger gaps between trains. Even spacing of trains also minimizes platform overcrowding through consistent "dwell times" (time for passengers to board).
- Mid-day track work is planned during April on the Orange Line between East Falls Church and West Falls Church stations in preparation for the Dulles rail extension.

**<u>Conclusion</u>**: March was the third month in a row of improved rail on-time performance. 91% was the best on-time performance result for Metrorail since November 2009.

KPI:

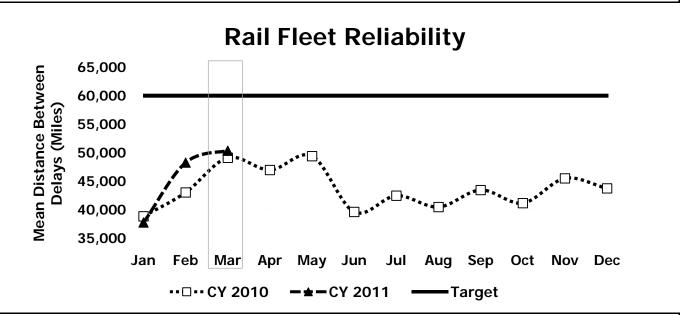
#### Rail Fleet Reliability (March) (Mean Distance Between Delays)

#### **Objective 2.1 Improve Service Reliability**

**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 improved 4% from February largely due to the 2000-3000 series railcars which not only provided a large share of Metro's service but also experienced improved performance.
- The 2000-3000 Series railcars reliability improved due to continued improvement in door systems. The biggest improvement came from the 4000 Series which had fewer delays due to ATC, brakes and doors. Both the 5000 Series and 6000 Series cars experienced more delay-causing events than in February. Pneumatic system failures impacted the 5000 Series cars more than other types of cars, and doors caused the most delays for the 6000 Series cars. Even so, the 6000 series continued to be Metro's most reliable cars.
- The 1000 Series cars had an increase in failures due to brakes for the month of March. Most of these failures can be attributed to wearing out of Electronic Brake Control Unit valves more frequently while under manual operation. Even so, the mean distance between delays for this car type remained above average for the last 12 months.



#### Actions to Improve Performance

- Railcar Maintenance will continue to improve the parts ordering process through asset tracking procedures. This will ensure that component parts are available to make repairs.
- Staff will continue to work with Alstom and IFE (door sub-system contractors) on the 2000-3000 & 6000 Series vehicles in an effort to improve reliability of the door systems on these cars. Metro's maintenance staff and vehicle engineers are researching the root cause and developing suitable corrective actions for 1000 Series brake failures.

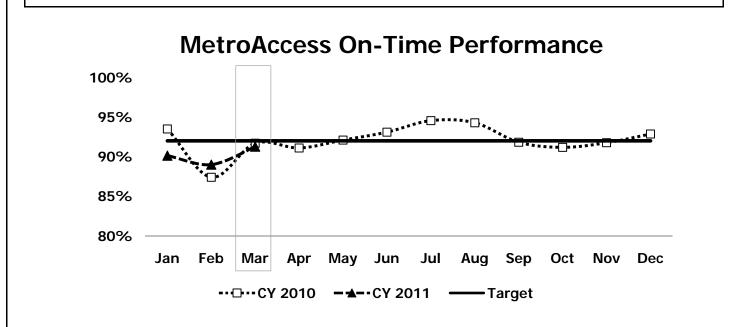
<u>Conclusion</u>: For the 6,089,696 miles operated in March, the mean distance between delays improved slightly as staff continues to focus on the reasons for breakdowns and search for ways to prevent failures.

KPI: MetroAccess On-Time Performance (March)

**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 improved in March. Efforts to maximize scheduling and route efficiencies while preserving on-time performance yielded positive results.
- Improved processes and procedures designed to increase efficiencies during the pre-trip and post-trip inspection cycles, combined with enhanced monitoring by road and yard supervisors at each garage location, has improved pull-out performance resulting in better adherence to schedules.



#### Actions to Improve Performance

- MetroAccess staff will continue to work on maximizing the schedule efficiency while meeting the on-time performance target. Maintaining efficiency and quality requires constant monitoring not only when developing the schedule, but also in managing service on the street.
- While Schedulers will continue to work to develop efficient daily schedules, Dispatchers will continue to improve management of service changes that occur throughout the day and that can impact on-time performance.

**Conclusion**: MetroAccess on-time performance improved during March as a result of improved processes and procedures. Staff continues to seek ways to manage service demands and reduce costs while meeting performance standards.

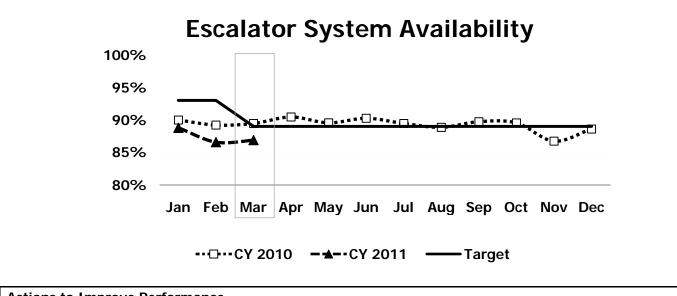
KPI: Escalator System Availability (March)

**Objective 2.1 Improve Service Reliability** 

**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?

- Escalator preventive maintenance inspection compliance continued at a high level in March (65% completed ontime), consistent with February (66%) and well above January (41%).
- 511 out of 588 Metrorail escalators were operating in March (based on hours of available service). This represents a minor increase primarily due to quicker resolution of unscheduled service calls (time to repair was 24% faster in March than February).
- Availability gains were offset by a 75% increase in maintenance hours for repairs resulting from regulatory inspections required by jurisdictions. As technicians perform these required inspections, follow-up repairs are identified which take units out of service.
- Modernization (aka overhaul) work continued at a significantly higher pace than 2010. In March 2011, hours out of service for modernizations (including corresponding "walkers") were 98% higher than March 2010 (23% of escalator out-of-service hours in March 2011 were due to modernization work).
- Three track-work weekends in March (4-6, 11-13 and 18-20) caused temporary closure of stations along Metro's Orange Line. Maintenance staff leveraged this opportunity to maximize escalator/elevator inspections and repairs at these seven stations without impacting Metro customers.



#### Actions to Improve Performance

- Begin an initiative to evaluate and revise maintenance procedures with an emphasis on "getting things right the first time," followed by training for elevator/escalator employees.
- Increase inventory for critical components to reduce units out of service due to parts availability.

**<u>Conclusion</u>**: Escalator availability slightly increased in March primarily due to quicker resolution of unscheduled service calls.

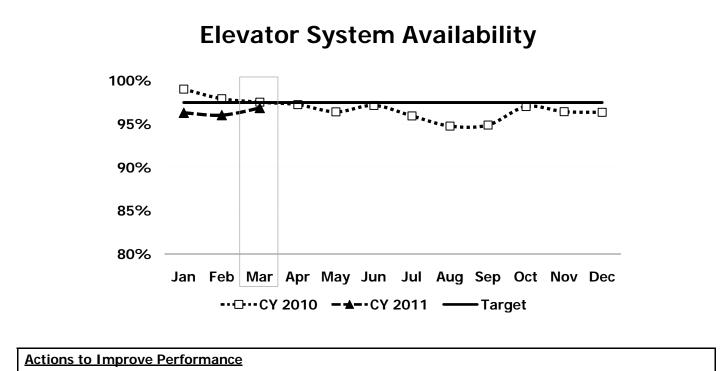
KPI: Elevator System Availability (March)

**Objective 2.1 Improve Service Reliability** 

**<u>Reason to Track</u>**: 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?

- March 2011 system-wide elevator availability was 96.9%, an improvement of two additional units in operation compared to February (96.0%). On average, 230 of 237 elevators were available for the month.
- The March availability gain is the result of quicker resolution of inspections/repairs following customer incidents (time of repair was 59% faster in March than February).
- Out-of-service hours associated with station maintenance work (lighting, communications, alarm testing, etc.) were also down 50% from February.
- Three track-work weekends in March caused temporary closure of stations along Metro's Orange Line. Maintenance staff leveraged this opportunity to maximize escalator/elevator inspections and repairs at these seven stations without impacting Metro customers.



- Begin an initiative to evaluate and revise maintenance procedures with an emphasis on "getting things right the first time," followed by training for elevator/escalator employees.
- Increase inventory for critical components to reduce units out of service due to parts availability.

**<u>Conclusion</u>**: Elevator availability slightly increased in March primarily due to quicker resolution of unscheduled service calls.

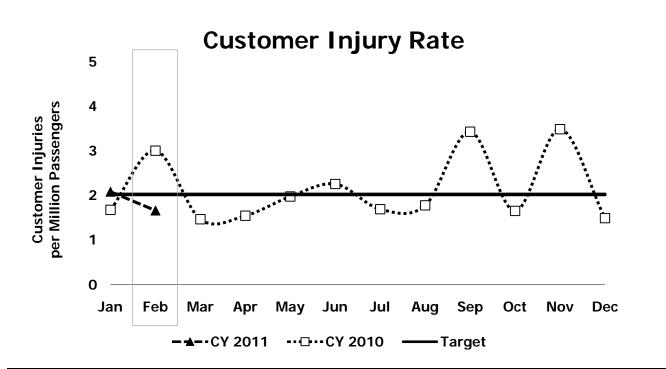
#### KPI: Customer Injury Rate (February) Per Million Passengers

#### **Objective 1.1 Improve Customer and Employee Safety and Security**

**<u>Reason to Track</u>**: 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?

- This month the customer injury rate improved due to fewer incidents on Metrobus, MetroAccess, and in Metro rail facilities.
- The Bus customer injury rate was at its lowest since January 2010, ~ 1 customer injury for every 1 million passenger trips. An improvement in safe driving behavior continued to contribute to the reduction of Bus customer injuries. For those displaying a need for improvements in their driving patterns, training instructors were sent to accompany Bus Operators.
- Rail facility injuries accounted for 67% (18 stations/parking facilities, 11 escalators) of the overall passenger injuries; however, February's performance improved due to the reduction of slips and falls. Improved weather conditions in February resulted in fewer slip and fall incidents in Metro's rail facilities.



#### Actions to Improve Performance

- Resolve emergency escalator repairs that are found after safety incidents.
- Continue to address National Transportation Safety Board recommendations and close corrective action plans designed to rebuild safety.
- Bus Service will start a DriveCam campaign, "Keep it Green." This campaign is intended to remind Operators to drive safely all day to prevent triggering a DriveCam red light that indicates a risky driving occurrence.
- Use Smith Systems to train Metro's drivers who have higher DriveCam incidents. Smith Systems is intended to complement DriveCam and ultimately prevent passenger injuries.

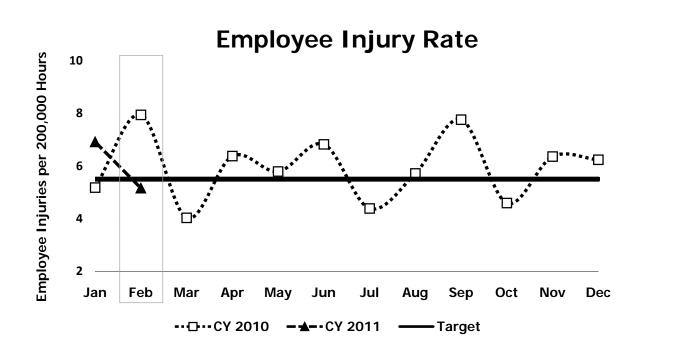
**<u>Conclusion</u>**: The customer injury rate declined to its lowest rate since January 2010 as Metro continues to build its core safety fundamentals.

KPI: Employee Injury Rate (February)

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

#### Why Did Performance Change?

- This month performance improved because of a decline in straining and slips/falls. A decrease in these injuries positively impacts employee safety because straining and slips/falls represent the largest cause of employee injuries, 27% and 23% respectively.
- Overall performance has improved mainly due to the implementation of proper footwear policies across the agency and improved weather conditions.
- Although Bus Transportation has a larger proportion of employee injuries than any other group of employees, they have been able to consistently meet their reduction target. Performance has largely improved in this area as a result of a new At Risk program, aggressive investigations, and training.
- Metrorail developed a rail instructor training certification program to maintain highly skilled employees and create a safer work environment. The program is provided by the Transportation Safety Institute and designed to prepare instructors to better train front line employees in the areas of safety and customer service.



#### Actions to Improve Performance

- Continue to focus on quality incident investigations, local safety committees, the At Risk program, and safety conversations.
- Reinforce rail yard speed and driving restrictions, and begin training roadway access employees on the new Roadway Worker Protection guidelines. Familiarize roadway access employees with the changes in the new manual.
- Enforce new agency wide cell phone policy restrictions which focus on the safety of Metro's customers and employees alike.

**Conclusion**: Each and every department in the agency has a professional responsibility to be safe. This month's employee injury rate improvement illustrates Metro's commitment to actions that keep employees safe.

KPI: Crime Rate (February) Per Million Passengers

#### Objective 1.1 Improve Customer and Employee Safety and Security

**<u>Reason to Track</u>**: 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 total number of Part I crimes in the Metro system hit a two-year low in February.
- The Metrobus crime rate was down 64% from January, the lowest rate since February 2010. There were only three Part I crimes across all 1,491 buses and all 323 routes in February as MTPD continued bus crime suppression efforts east and south of the Capitol, particularly along the DC/MD line.
- The crime rate for Metrorail was down 29% from January, a one-year low. This was driven by a 42% reduction in robbery snatches of small electronic devices. Police patrols addressed robberies and youth disorder at identified stations in February. MTPD worked cooperatively with Metropolitan Police and DC DOT to support the safe passage of students from school to home, reducing the potential for youth disorder.
- The crime rate in Metro's parking facilities continued to decrease in February, down 18% from January. The February rate of 2.50 was well below the 2010 average of 3.42.



Target: Less than 2,279 Part I Crimes in Calendar Year 2011

#### Actions to Improve Performance

- Specialized officers will coordinate schedules with patrol officers to ensure coverage during gap times between shift assignments.
- MTPD is identifying stations that could benefit from improved lighting conditions to prevent crime.
- Jurisdictional police officers who patrol areas around Metro stations in Prince George's County will receive passes allowing access to Metro parking facilities so officers can monitor the lots as part of their regular patrol.
- Metro will install 153 additional cameras at the entrances of all 86 Metro stations with a \$2.8 million federal grant. Installation will begin this spring and will be completed within the year.

**Conclusion**: In February, crime was down system-wide (bus, rail and parking facilities), reaching the lowest level in two years.

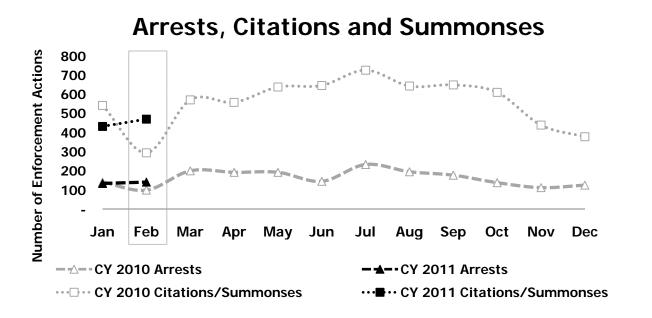
# KPI: Arrests, Citations and Summonses (February)

# **Objective 1.2 Strengthen Metro's Safety and Security Response**

**<u>Reason to Track</u>**: 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 continued to increase in February (up 5% from January) as a result of increased officer presence in rail stations and on trains.
- Eight arrests were made as a result of one event at the Stadium-Armory station where officers observed a large fight onboard a train. The officers intervened to separate the parties and then determined the altercation was a robbery in progress. Following on-site investigation, two adults and six juveniles were arrested.
- February saw an increase in citations/summonses (up 9% from January) issued as officers conducted sweeps of stations during peak crime periods. MTPD's focus on fare evasion, disorder and other minor offenses has had a positive impact on overall station safety.



#### Actions to Improve Performance

- As the busy tourism season begins, officers will shift from an enforcement focus to assisting visitors travel safely though the Metro system. MTPD will be providing crowd control as the region welcomes large numbers of visitors for events like the Cherry Blossom Festival and Washington Nationals Opening Day.
- MTPD will be hosting a roundtable for regional Police Chiefs to discuss strategies for reducing crime on the Metro system and identifying opportunities for collaboration.
- MTPD is researching how other law enforcement agencies are utilizing citizen volunteers to supplement Metro's police force.

**<u>Conclusion</u>**: Arrests and citations increased in February, reflecting aggressive action by MTPD to keep the Metro system safe for our customers.

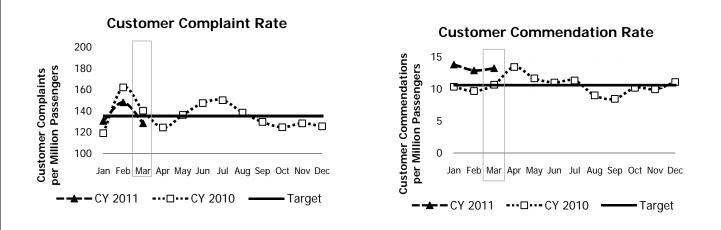
#### KPI: Customer Comment Rate (March) Per Million Passengers

**Objective 2.3 Maximize Rider Satisfaction** 

**<u>Reason to Track</u>**: 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?

- The complaint rate dropped 13% across all modes and the commendation rate increased for both bus and rail during March.
- Commendations on bus operation assistance and professionalism were up in March.
- Complaints about inadequate service increased slightly while customers expressed frustration with the train capacity, the amount of time the trip is taking and the amount of available parking in some locations. Metrorail commendations regarding professionalism and expert customer assistance increased along with more visitors using the system.
- MetroAccess customer complaints increased along with commendations. More than a third of MetroAccess complaints were about vehicles arriving either early or late and scheduling errors. These comments reflect the continued effort MetroAccess has placed on adjusting the scheduling parameters to operate more efficiently. For information on MetroAccess on-time performance, please see page 12.



#### Actions to Improve Performance

- Metrobus will continue to fill Service Operations Manager positions to make sure buses leave the garage on time and to support operators in maintaining and monitoring schedule adherence.
- As Metro moves into its busiest season, Metrorail supervisors will be stationed on platforms to communicate with the Operations Control Center to make adjustments to and maintain train spacing.
- MetroAccess will continue to adjust its scheduling parameters and work with the contractor to ensure that service is provided efficiently and within expectations. MetroAccess will continue to provide options for customers to communicate with MetroAccess personnel and to get information about their scheduled trips.

**<u>Conclusion</u>**: The system-wide complaint rate improved in March and the number of commendations increased for bus, rail and MetroAccess services.

**<u>Bus On-Time Performance</u>** – 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

<u>MetroAccess On-Time Performance</u> – 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

<u>Elevator and Escalator System Availability</u> – 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.

<u>Customer Injury Rate (per million passengers</u><sup>1</sup>) – Injury to any person (customers or non-customer, but not employees) 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)

<u>Crime Rate (per million passengers)</u> – 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)

<u>Arrests, Citations and Summonses</u> – 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 Smartrip 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:

<sup>•</sup> 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.

<sup>•</sup> 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.

<sup>•</sup> *MetroAccess reports completed passenger trips. A fare paying passenger traveling from an origin to a destination is counted as one passenger trip.* 

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

	Jan	Feb	Mar	Apr	Мау	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg. Thru Mar.
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%	75.5%
CY 2011	78.5%	76.9%	77.5%										77.6%

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

	Jan	Feb	Mar	Apr	Мау	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg. Thru Mar.
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	6,994
CY 2011	8,681	8,144	7,794										8,206

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

Type (~ % of Fleet)	Apr	May	Jun	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Avg.
CNG (30%)	7,842	7,905	9,059	9,093	6,680	9,165	9,939	10,410	9,520	10,242	8,480	9,802	9,011
Hybrid (27%)	9,499	8,844	9,944	10,161	11,378	11,361	13,526	14,198	12,474	11,853	11,158	10,433	11,236
Clean Diesel (8%)	7,990	7,345	7,933	10,547	7,931	10,300	12,118	12,290	12,958	11,473	8,042	7,637	9,714
All Other (35%)	4,562	4,102	4,517	4,332	4,921	4,798	4,698	5,718	5,699	5,751	6,191	5,340	5,052

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

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

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

	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Avg.
1000 series railcars	33,487	41,859	32,241	32,258	46,370	43,908	40,517	45,595	45,557	54,137	46,302	43,866	42,175
2000/3000 series railcars	52,011	44,354	49,175	65,428	39,911	49,582	31,572	35,820	42,065	28,076	40,431	45,169	43,633
4000 series railcars	27,659	41,703	18,166	21,553	17,893	18,645	36,587	25,073	25,195	31,393	31,646	58,442	29,496
5000 series railcars	47,952	55,967	29,265	28,290	29,410	34,094	44,462	54,016	47,509	30,078	47,868	41,251	40,847
6000 series railcars	110,522	80,046	93,631	57,029	107,198	77,921	88,918	119,427	56,172	74,865	110,928	94,443	89,258
Fleet average	46,943	49,375	39,573	42,424	40,435	43,420	41,121	45,471	43,712	37,703	48,241	50,328	43,493

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

	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec	Avg. Thru Mar.
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%										90.1%

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

	Jan	Feb	Mar	Apr	Мау	Jun	July	Aug	Sep	Oct	Nov	Dec	Avg. Thru Mar.
CY 2010	90.0%	89.2%	89.5%	90.5%	89.6%	90.3%	89.5%	88. <b>9</b> %	89.7%	89.5%	86.7%	88.6%	89.5%
CY 2011	88.8%	86.6%	86.9%										87.4%

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

	Jan	Feb	Mar	Apr	Mav	Jun	July	Aug	Sep	Oct	Nov	Dec	Avg. Thru Mar.
CY 2010	99.0%		97.5%		- 1		3	94.8%	94.9%	97.0%	_		98.2%
CY 2011	96.3%	96.0%	96.9%										96.4%

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

	Jan	Feb	Mar	Apr	Мау	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg. thru Feb.
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	2.34
CY 2011	2.08	1.66											1.87

\*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 Feb.
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	2.87
CY 2011	1.72	0.93											1.32

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

	Jan	Feb	Mar	Apr	Мау	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg. thru Feb.
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											0.16

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

	Jan	Feb	Mar	Apr	Мау	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg. thru Feb.
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	1.70
CY 2011	2.00	1.81											1.91

\*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 Feb.
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	24.12
CY 2011	16.45	10.55											13.50

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

	Jan	Feb	Mar	Apr	Мау	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg. Thru Feb.
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	6.56
CY 2011	6.92	5.16											6.04

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

													Avg.
	Jan	Feb	Mar	Apr	Мау	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Thru Feb.
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	0.38
CY 2011 Metrobus	0.86	0.31											0.59
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	6.85
CY 2011 Metrorail	6.63	4.68											5.66
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	2.66
CY 2011 Parking	3.06	2.50											2.78

#### May 2011

#### Crimes by Type\*\*

	Mar-10	Apr-10	May-10	June-10	July-10	Aug-10	Sept-10	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11	Avg.
Robbery	86	91	89	71	66	58	83	76	91	97	92	60	80
Larceny	69	66	97	111	131	111	91	50	58	67	44	40	78
Motor Vehicle Theft	6	9	13	13	10	18	9	17	13	10	15	5	12
Attempted Motor Vehicle Theft	6	9	9	5	10	6	9	3	3	3	6	5	6
Aggravated Assault	7	9	15	7	14	15	14	14	11	12	9	11	12
Rape	0	0	0	0	1	0	0	0	1	0	0	0	0
Burglary	0	0	1	0	0	0	1	1	1	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	-
Total	174	184	224	207	232	208	207	161	178	189	166	121	188

\*\*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	Мау	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg. Thru Feb.
CY 2010 Arrests	142	100	201	193	193	146	234	196	178	139	113	126	121
CY 2011 Arrests	135	142											139
CY 2010 Citations/Summonses	543	295	572	559	639	647	727	644	650	611	440	379	419
CY 2011 Citations/Summonses	433	471											452

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

	Jan	Feb	Mar	Apr	Мау	June	July	Aug	Sept	Oct	Nov	Dec	Avg. Thru Mar.
CY 2010	10.3	9.7	10.7	13.4	11.7	11.0	11.3	9.0	8.5	10.2	10.0	11.1	10.2
CY 2011	13.8	12.9	13.2										13.3

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

	Jan		Feb	Mar	Apr	Мау	June	July	Aug	Sept	Oct	Nov	Dec	Avg. Thru Mar.
CY 2010	1	19	162	140	124	136	147	150	138	129	125	128	125	140
CY 2011	1	30	148	128										135

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

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg. Thru Mar.
CY 2010	9.6	7.1	11.0	10.8	10.3	10.5	10.4	10.6	10.5	10.6	10.1	9.0	9.2
CY 2011	9.3	9.7	11.5										10.2

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

	Jan	Feb	Mar	Apr	Мау	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg. Thru Mar.
CY 2010	16.5	13.4	20.3	20.8	18.3	20.3	20.2	18.5	17.8	18.9	16.6	15.7	16.7
CY 2011	16.0	16.0	19.7										17.2

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

	Jan	Feb	Mar	Apr	Мау	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg. Thru Mar.
CY 2010	1.91	1.36	2.32	2.22	2.08	2.15	2.03	2.06	2.03	2.08	1.96	1.95	1.86
CY 2011	1.82	1.90	2.05										1.92

Note: targets are re-evaluated periodically based on operating conditions and performance.