# Vital Signs Report

A Scorecard of Metro's

Key Performance Indicators (KPI)

2012 1st Quarter Results



**Chief Performance Officer** 

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#### Introduction to this report

As a regional transportation system, Metro's system-wide performance is captured in the Vital Signs Report. The Vital Signs Report provides analysis of a small number of key performance indicators (KPI's) that monitor long term progress in the strategic areas of safety, security, service reliability and customer satisfaction.

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, worsening 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 drive improvement.

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

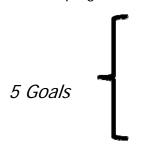
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#### **Strategic Framework Overview**

There are five strategic goals that provide a framework to quantify and measure how well Metro is performing. Each of the goals has 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.



Objectiv

Goals 1. Create a Safer Organization

- 2. Deliver Quality Service
- 3. Use Every Resource Wisely
- 4. Retain, Attract and Reward the Best and Brightest
- 5. Maintain and Enhance Metro's Image

	Goal	Objecti	ve
		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	<u>Increase</u> service and capacity to relieve overcrowding and meet future demand
	2	2.3	<u>Maximize</u> rider satisfaction through convenient, comfortable services and facilities that are in good condition and easy to navigate
ves -		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	<u>Use</u> natural resources efficiently and reduce environmental impacts

<sup>\*</sup>WMATA Board of Directors System Safety Policy states:

<sup>1.</sup> To avoid loss of life, injury of persons and damage or loss of property;

<sup>2.</sup> To instill a commitment to safety in all WMATA employees and contractor personnel; and

<sup>3.</sup> 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.

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

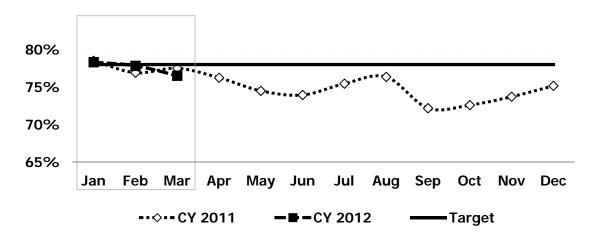
#### Objective 2.1 Improve Service Reliability

**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. For this measure higher is better.

#### Why Did Performance Change?

- First quarter (Q1/2012) on-time performance (OTP) averaged 78% which meant more than three out of four buses arrived on-time. This met Metro's performance target for the quarter and was on par with performance in Q1/2011. The months of January through March historically outperform the remaining months of the year. In correlation with the National Capital Region Congestion Report, the first quarter results typically reflected lower delay per traveler.
- Although the performance outcomes were similar between Q1/2012 and Q1/2011, Metro had to address 29% more bus incidents in Q1/2012 than Q1/2011 including double the amount of bus detours (381 versus 164).
- When compared to the Q1/2011, buses running early decreased by 5% in Q1/2012; however, buses running late increased by 3%. The increase and decrease of earlies/lates nearly offset one another.
- To further improve OTP, Service Operation Manager assignments were continually realigned to provide the most effective coverage of bus service on the street. This effort attempted to address the key service disruptions and short delays that develop. Additionally, the OTP Center continued to focus on high ridership bus routes using new technology and this has proven effective at helping OTP on the 90's and 74 lines.

### **Bus On-Time Performance**



#### Actions to Improve Performance

- Continue to identify alternative routes that provide the least inconvenience to customers during the occurrence of bus detours.
- Continue to conduct public meetings such as the 14<sup>th</sup> Street Line community meeting- to solicit suggestions on how to resolve recurring service problems.
- Develop plans to enhance OTP Center staffing to expand oversight of key routes throughout the system.
- Continue to conduct in-person traffic checks for 20 to 30 minutes (minimum of two per day are required) to identify and address service delivery challenges.
- Strategically place Service Operation Managers on routes that routinely run late.

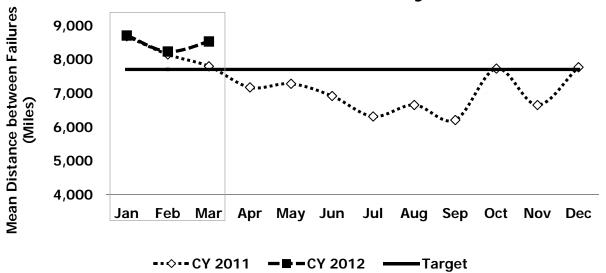
<u>Conclusion</u>: First quarter on-time performance averaged 78%, meeting Metro's performance target and matching Q1/2011 results. Effective deployments of Service Operation Managers assignments and OTP center enhancements have proven to have a positive impact on selected routes.

**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 is better.

#### Why Did Performance Change?

- Bus fleet reliability for the first quarter outperformed the target by 10% and exceeded Q1/2011 performance.
   In comparison to Q1/2011, buses ran on average an additional 281 miles in Q1/2012 before experiencing a mechanical failure that caused removal of a bus from service.
- During the months of January through March, performance tends to improve as there is less atmospheric condensation. Moisture in electrical connections tends to cause components to fail.
- Nevertheless, Q1/2012 bus fleet reliability results are impressive given Metro recently raised the bus fleet reliability target 4%, from 7,400 miles to 7,700 miles between failures to reflect the solid performance last year and future assumptions (e.g. the receipt of additional new Hybrid buses).
- During the month of March, which was a particularly good month, buses ran 7% farther between breakdowns compared to the prior month as a result of corrective actions (e.g. 319 out of 351 cooling system-related components were replaced on Metro's new Hybrid buses).

## **Bus Fleet Reliability**



#### **Actions to Improve Performance**

- Continue to retrofit the energy storage system of 47 Hybrids which were voluntarily recalled to avoid electrical shorts; the retrofits will be complete by the end of May.
- Continue to retire older less reliable buses with new Hybrids, while also focusing on the preventative maintenance of older diesel buses that are still in service.
- Continue to resolve CNG engine shutoff problems by retrofitting engines during the on-going midlife overhaul. Approximately 46% of this initiative has already occurred.

**Conclusion**: Bus fleet reliability for the first quarter outperformed the target by 10% and exceeded Q1/2011 performance due to corrective and preventive maintenance actions.

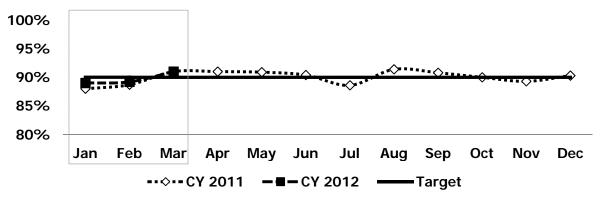
March)

**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. For this measure higher is better.

#### Why Did Performance Change?

- Rail on-time performance in Q1/2012 improved slightly compared to the same three months in 2011 despite
  more train delays (up 8%) and more planned track work. Proactive management of OTP enabled Metro to
  accomplish solid Q1/2012 results.
- During this quarter, delay minutes were highest in January 2012, due to 4 cracked rails, a broken track part ("frog") and a train losing a friction ring (part of the brake assembly). These events required single-tracking around the incidents, dragging down OTP.
- Track work intensified this quarter, expanding from primarily during late nights to all non-rush weekday periods (mid-day and early evening) and at multiple locations in the core where service is more frequent. For example, Red Line OTP decreased in January and February as trains single-tracked around work areas during mid-day and in two locations in the evenings. In contrast, Red Line OTP improved 4% in March during the "spring break" from track work.
- Despite these challenges, Metrorail delivered solid on-time performance this quarter by focusing on improving
  OTP during "track work free" rush service. Staff identified areas of low OTP, determined the cause and
  implemented solutions. For example, after identifying issues with Blue Line trains arriving at terminal stations
  interacting with Yellow line trains, placing supervisors at strategic locations resulted in Yellow Line OTP
  improvements in March.

## **Rail On-Time Performance**



#### **Actions to Improve Performance**

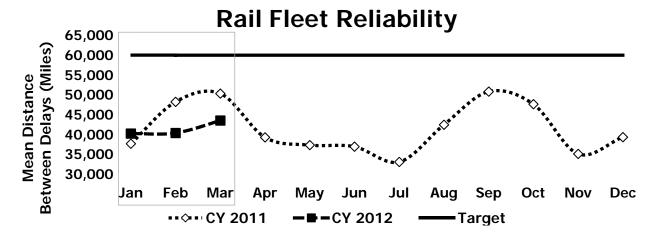
- Continue to conduct mid-day and early evening track-work. As track work is increasingly located in core/interlined areas, OTP will reduce more significantly due to the frequency of service in these areas. Long-term, track work will improve safety and reliability of the rail system. Short-term this will be an inconvenience to our customers as headways are widened to accommodate single-tracking around work areas.
- Utilize newly installed clocks at terminal locations so that operators may synchronize their watches with OCC to encourage on-time terminal departure and on-time arrivals at stations.
- Expand access to a real-time OTP tracking tool so that OCC controllers can direct operators to improve performance.
- Supervisors will monitor operators and provide additional training as needed to new operators who begin work in May and June. New operators are more likely than experienced operators to have trouble maintaining schedules while they build their skill with experience, reducing OTP.

<u>Conclusion</u>: Despite more train delays and more planned track work, rail on-time performance for Q1/2012 was higher than last year due to more proactive management of OTP.

**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. For this measure higher is better.

#### Why Did Performance Change?

- Railcar reliability steadily improved during the first quarter of 2012, but was 7% worse overall than Q1/2011.
   During Q1/2011 there was a brief, temporary uptick in reliability as troubles with brakes decreased but brake troubles returned the following quarter. Brake delays dropped after electronic control units were replaced.
   Brake related delays were consistent between Q1/2012 and Q1/2011, with only one more delay for the quarter.
- During Q1/2012, there were 17% more delays due to railcar issues than in Q1/2011. This increase was mainly
  due to persistent door problems. During Q1/2012 new troubleshooting procedures were implemented and door
  failures decreased. Two thirds of delays on the 2-3K fleet, and 47% of delays on the 6K fleet were doorrelated delays, which after peaking in December 2011 have continued to be the single most frequent type of
  delay > 3 minutes in the rail system.
- The 6K fleet continued to be the most reliable in the system although slightly down from the same quarter last year, operating 20% of the miles (21% last year) while contributing only 11% of the delays (10% last year). In March 2012, the 6K fleet delivered over 93,000 miles before experiencing a mechanical issue that caused a delay of > 3 minutes.
- The 5K fleet has experienced notable improvement in reliability with 13% of the delays (compared with 19% for the quarter last year) while operating 16% of the miles.



#### Actions to Improve Performance

- Continue to adjust the door system troubleshooting procedure and track the outcomes, including repeat failures and average time in service between failures to identify which new actions are improving reliability.
- Complete installation of new sealed door relays for the 2-3K and 6K fleets by summer 2012. Meanwhile, continue testing of the door control mechanism for a long-term solution to correct door problems. Testing under live operating conditions helps engineers to see how the components perform over time. Once the testing phase is completed successfully, the components can be specified, procured and installed throughout the fleets.
- Continue to assign railcar technicians to critical locations throughout the system to respond quickly to calls of railcar problems to minimize the impact on customers.
- New, stronger hubs are being delivered and installation is underway on the 6K railcars. Replacement of brake discs on the 2-3K railcars is also ongoing. This process will continue throughout 2012.
- Complete seasonal HVAC preparation on all railcars to improve performance during high temperature months, which includes cleaning and optimization of each HVAC system, by May. Continue overhauling the 5K and 1K HVAC systems to improve reliability.

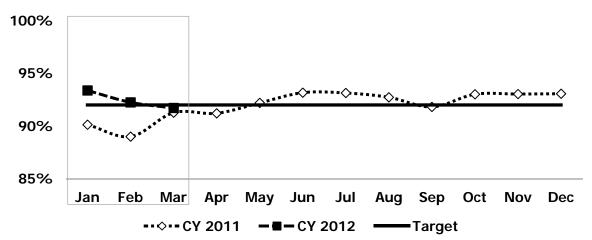
**Conclusion**: Railcar reliability steadily improved in Q1/2012 due to fewer brake and door delays, but was 7% worse than Q1/2011.

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. For this measure higher is better.

#### Why Did Performance Change?

- MetroAccess' on-time performance averaged slightly above the target of 92% for Q1/2012, outperforming the same period last year which was impacted by an ice storm in January, and service disruptions due to flooding in February 2011.
- During Q1/2012, MetroAccess made efficiency improvements while maintaining its service standards. Using a
  higher percentage of dedicated vehicles resulted in more consistent service delivery and improved scheduling
  efficiency, which can impact on-time performance.
- Ridership continued to track below last year falling 10% below the Q1/2011 level with average weekday ridership down 13% from the first quarter of 2011. Lower, steadier demand allows more efficient schedules to be developed, and operated.
- Active management of call center activities and communication with drivers throughout the service day has reduced the number of late trips.

### **MetroAccess On-Time Performance**



#### **Actions to Improve Performance**

- Continue to strive for an optimal balance between on-time performance and efficiency.
- Educate customers about the importance of communicating their personal schedule changes as soon as they are known, including cancelations, so adjustments can be made by dispatchers.
- Communicate broader transit accessibility issues through the Accessibility Advisory Committee to improve system accessibility of all modes of service.

**Conclusion**: MetroAccess delivered 92% of trips provided on-time in Q1/2012 outperforming last year's results due to efficiency improvement and lower ridership.

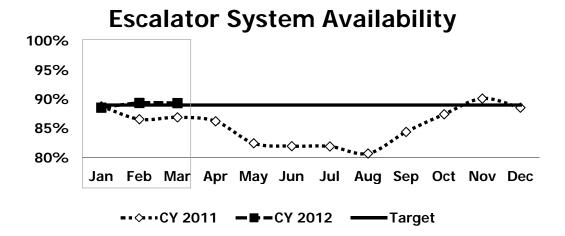
# KPI: Escalator System Availability (January - March)

#### **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. For this measure higher is better.

#### Why Did Performance Change?

- Escalator availability was on target in Q1/2012 giving evidence to prove that actions taken last year are improving performance.
- Availability in Q1/2012 improved 2% compared to the same three months in 2011 showing the positive impact of Metro's preventive maintenance practices, better work planning and more modernization work.
- Escalator preventive maintenance (PM) compliance improved 49% compared with Q1/2011. By proactively identifying and fixing problems, unexpected repairs are less time intensive reflecting an improved baseline condition of Metro's escalators. Mean Time to Repair (MTTR) was 29% better than the same three months in 2011.
- Schedules were revised so that minor repairs (e.g., new handrail, step replacement) were completed at the same time as PM inspections (typically conducted when the system is closed) to minimize the impact on customers and further increase availability.
- In Q1/2012, maintenance work shifted away from addressing unscheduled issues (unscheduled work hours down 26% from Q1/2011) towards scheduled work (hours up 14%).
- Hours to modernize/replace escalators increased significantly from 2011 as Metro worked to improve long-term reliability. In January-March 2012, 34% of out-of-service hours were due to modernization/replacement compared to 23% in 2011. This critical work took 36 units out of service at 14 stations.



#### **Actions to Improve Performance**

- Continue to improve work planning and scheduling, focusing on reducing the time escalators are out of service for major repairs (e.g., reducers, chains, rack and axle).
- Enhance information sharing among inspection and maintenance technicians in order to further reduce the time necessary to make repairs identified in inspections (Mean Time to Repair).
- Continue work at Dupont Circle station south entrance through October 2012 to replace three escalators with new, industrial-strength units. These escalators were among the least reliable and most difficult to maintain of Metro's 588 escalators. Provide on-site maintenance support to quickly resolve any unexpected escalator and elevator outages at the North Entrance.
- Begin escalator modernizations at Pentagon City and L'Enfant Plaza stations.

**Conclusion**: Escalator availability improved 2% compared to last year, exceeding Metro's performance target (89%) for two months of Q1/2012. Maintenance work shifted from reactive to proactive as a result of increased emphasis on preventive maintenance and improved work planning.

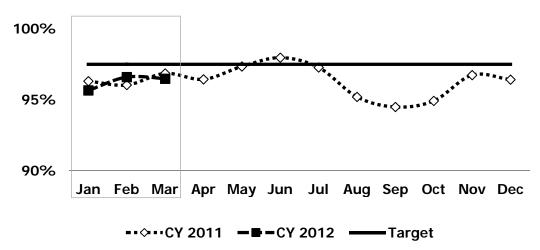
March)

**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. For this measure higher is better.

#### Why Did Performance Change?

- Elevator availability in Q1/2012 was on par with the same period in 2011, particularly notable given the
  increase in scheduled modernizations. Systemwide availability remained stable due to better preventive
  maintenance that improved the condition of elevators and led to fewer, less time-intensive unscheduled
  outages.
- Elevator preventive maintenance compliance improved 49% compared with Q4/2011 and 42% compared to Q1/2011 as technicians proactively identified and fixed problems.
- Unscheduled maintenance calls were down 8% from Q1/2011 and unscheduled out-of-service hours were down 26%, indicating that the baseline condition of Metro's elevators is improving due to better preventive maintenance.
- Mean Time to Repair (MTTR) was 16% better than Q1/2011 as mechanics received specialized training on trouble-shooting the cause of elevator outages.
- Hours to modernize elevators accounted for 38% of out-of-service hours from Q1/2012 as Metro worked to improve long-term reliability. There were no elevator modernizations in Q1/2011.

# **Elevator System Availability**



#### Actions to Improve Performance

- Continue modernizations at Metro Center and Cleveland Park stations and elevator cab replacement at Congress Heights station (unit significantly damaged in September while in use).
- Provide on-site maintenance support at Dupont Circle station to quickly resolve any unexpected escalator and elevator outages at the North Entrance during South Entrance escalator replacement.
- Promote adoption of FY13 Proposed Operating Budget that includes additional elevator maintenance technicians to resolve outages more quickly with reduced use of overtime (currently 1 technician per 48 elevators, compared with the proposed 1 per 14 escalators).
- Maintain two additional elevators with the opening of a new parking garage at the Glenmont station.

**Conclusion**: Elevator availability was on-par with last year, which is particularly notable given the significant increase in scheduled modernization work to improve long-term reliability of units.

KPI: Customer Injury Rate Per Million Passengers (December - February)

# 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. For this measure lower is better.

#### Why Did Performance Change?

- The customer injury rate continues to be better than target and performance for Q1/2012 improved slightly (1%) compared to Q1/2011. The improvement was driven by the reduction of MetroAccess and rail/parking facility customer injuries. Rail/parking facility customer injuries are generally related to slips and falls; MetroAccess customer injuries are generally collision and/or slip and fall related.
- A number of initiatives such as the rail station audits (where Safety Officers look for potential safety hazards) and the Safety Communication Campaign (reminding customers to remain alert) have helped to reduce customer injuries.
- This winter was the fourth warmest on record, according to NOAA. Winter hazards such as snow and ice generally cause customers to slip/fall. These typical winter hazards did not occur this year, which may account for the improvement in this injury rate.
- Although the overall customer injury rate improved, the bus customer injury rate increased by slightly less than 1 more injury per million passengers compared to Q1/2011. These injuries were driven by an increase in preventable collisions.



#### **Actions to Improve Performance**

- Metro Safety Officers will continue to conduct bus confidential ride along audits in response to various customer complaints. Safety Officers will report safety concerns and follow-up to ensure that the concerns have been addressed.
- Continue to broadcast safety messages on the public address system to increase customer awareness and avoid injuries. For example, WMATA initiated a safety communication campaign that will focus on risky customer behavior and inform customers on how to avoid routine injuries.
- Continue to trim back trees near bus stops that block customer visibility and continue to work with jurisdictions to repair various street storm grates (some street storm grates have caused unexpected jolts on board buses) to help prevent customer injuries.

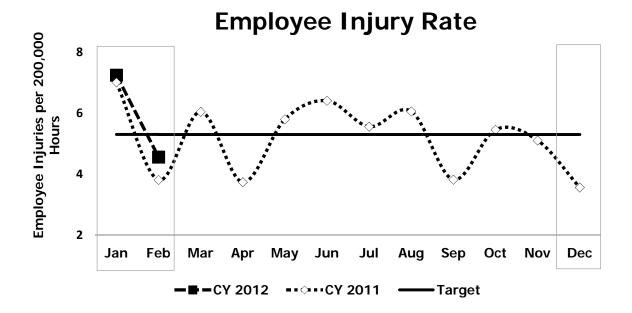
**Conclusion**: The customer injury rate for Q1/2012 improved slightly by 1% when compared to the performance of Q1/2011. The improvement was driven by the decline in rail/parking facilities slip and fall injuries.

KPI: Employee Injury Rate (December - Objective 1.1 Improve Customer and Employee Safety and Security

**Reason to Track:** Worker's compensation claims are a key indicator of how safe employees are in the workplace. For this measure lower is better.

#### Why Did Performance Change?

- The employee injury rate for the months of December 2011 February 2012 improved compared to the same period of the prior calendar year from 6 employee injuries to 5 employee injuries for every 200,000 hours worked. A particularly notable decline in employee injuries occurred in January 2012 compared to January 2011; there were 14 more injuries in January 2011 than January 2012.
- The calendar year started off with straining as the #1 cause of injuries (32% of all injuries). However, compared to the same period of the prior year, straining injuries declined by 18%.
- The observable decline in the February 2012 employee injury rate was caused by a drop across multiple employee injury categories. For example, "struck by" injuries declined 57% and "overexertion/lifting injuries declined by 83% when compared to January 2012.
- The SAFE Department conducted Body Mechanic training classes (which were filled to capacity) during the month of February. The overall objective of this course is to ultimately reduce straining injuries by educating employees on how to prevent back injuries.



#### **Actions to Improve Performance**

- As of January 2012, the Federal Transit Administration (FTA) closed out all Metro safety recommendations.
   Metro addressed and/or is addressing identified safety deficiencies and will continue commitment to addressing FTA concerns and re-building a strong safety culture.
- Deploy blood borne pathogen training program to field personnel who may be expected to come into contact with blood during the performance of their duties.
- Perform Roadway Worker Protection safety blitz in March to ensure roadway employees are aware of safety mechanisms in place to protect them as well as to answer any field employee questions.
- Host Health and Safety Fairs in March at Brentwood Yard and the Northern Bus Division.
- Continue to develop safety newsletters and share with attendees of local safety committee meetings. The newsletter is used to highlight injury trends and possible ways to prevent those injuries in the future.

**Conclusion**: The employee injury rate for the months of December 2011 – February 2012 improved compared to the same period of the prior calendar year from 6 employee injuries to 5 employee injuries for every 200,000 hours worked.

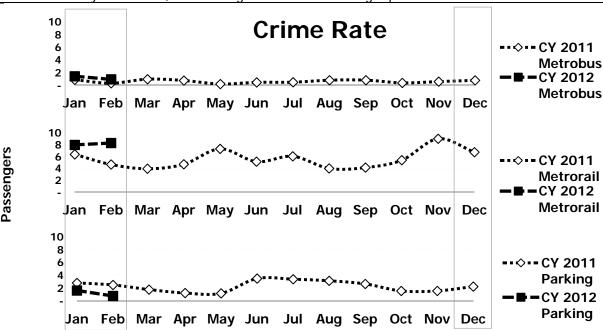
KPI: Crime Rate (December - February)
Per Million Passengers

Objective 1.1 Improve Customer and Employee Safety and Security

**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. For this measure lower is better.

#### Why Did Performance Change?

- Parking crime hit an unprecedented low in February 2012 of .78 crimes/million riders and was down 53% for the three month period (December 2011-February 2012) from last year. MTPD used a variety of tactics to reduce crime: patrolling on Gators and bikes, installing variable messaging signs to advise customers to secure valuables in vehicles out of sight and notifying customers via mail outs when valuables were observed in vehicles.
- On-the-spot arrests by plain clothes officers were up during the three month period as MTPD targeted individuals who snatch small electronic devices on the Metrorail system using decoy operations. This resulted in a higher Metrorail crime rate as suspects were arrested (128 snatch/pickpocket arrests December 2011-February 2012, up from 14 similar arrests the previous year).
- Bus crime rate was slightly higher in Q1/2012 (Dec. 2011 Feb. 2012) than Q1/2011 (Dec. 2010 Feb. 2011) to 1.04 crimes per million riders, led by an increase in snatches of electronic devices and aggravated assaults. In January, MTPD shifted enforcement resources to the D12-14 routes as a result of an increase in crime on that route. New procedures were established to encourage bus operators to share incidents and security concerns directly with MTPD, contributing to more crimes being reported.



Target: Less than 2,050 Part I Crimes in CY 2012

#### Actions to Improve Performance

Crimes per Million

- Continue undercover police decoy operations targeting snatches of small electronic devices on the Metrorail system.
- Identify physical vulnerabilities at high-crime stations, including bus bays, and apply solutions that minimize the opportunity for crime.
- In anticipation of warm weather and historical spikes in parking lot crime, examine potential redeployment of officers to parking facilities.
- Increase police visibility during spring special events (e.g., Cherry Blossom Festival, Nationals baseball).

<u>Conclusion</u>: Parking crime hit an unprecedented low, and decoy operations lead to an increase in arrests for snatches on the Metrorail system. The bus crime rate was slightly higher in Q1/2012 (Dec. 2011 - Feb. 2012) than Q1/2011 (Dec. 2010 - Feb. 2011).

KPI: Customer Comment Rate (January – March) Per Million Passengers

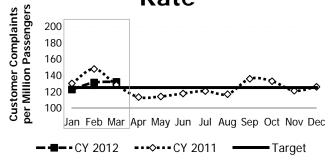
#### Objective 2.3 Maximize Rider Satisfaction

<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. For the Customer Complaint Rate lower is better.

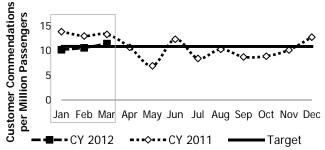
#### Why Did Performance Change?

- Metro's commendation rate averaged 10.7 commendations per million customers for the first quarter of 2012, nearing the target rate of 10.8. Compared with the same period last year, however, the overall commendation rate was driven lower due to fewer commendations for Metrobus (down 33%) and Metrorail (down 23%). MetroAccess showed improvement with an 8% increase over Q1/2011. The lack of commendations is consistent with the mild winter this year, with no major severe weather incidents.
- Metro's commendation rate grew steadily in Q1/2012, led by MetroAccess which had an 8% increase.
- The Metrobus customer complaint rate was steady throughout Q1/2012, but up 9% from last year. The largest change was in the category "failure to service stop," which increased by 62%. Delay/Late complaints, which were up 38% from last year, have been trending downward since this past summer, reflecting the changes in schedules and the focus placed on improving on-time performance. These increases were offset by a decrease in complaints about no-shows of 4%.
- The Metrorail complaint rate declined throughout Q1/2012, but was up 7% from 2011. This was driven by 435 calls in reaction to advertising during February and March, making up 16% of all complaints for the quarter. In Q1/2011, there was an increase in security complaints due to the announcement of random bag checks. Since that time, safety and security complaints are down by half (52%).
- MetroAccess' complaint rate decreased by 11% from the first quarter in 2011, but has been trending upward throughout the quarter. Complaints about driver conduct have decreased 23% since last year, and early/late complaints are also down 15%.

# Customer Complaint Rate



# **Customer Commendation Rate**



#### Actions to Improve Performance

- Continue to increase communication with customers about maintenance activities and weekend track work. As
  more visitors come to the Washington Metropolitan Region over the summer, these communications, including
  MetroAlerts for specific service information and MetroForward for larger capital project information, will be more
  important for helping customers navigate the system.
- Increase customer communication regarding upcoming service changes, especially Rush Plus, which will impact commuters during the peak hours on the Blue, Orange, Green and Yellow Lines.
- Building on several focus groups, develop ongoing customer satisfaction measures to ensure that customers'
  needs are being addressed, and that Metro has the tools to assess its communication strategies.

**Conclusion**: Both the commendation and complaint rates trended upward throughout Q1/2012. Metrorail complaints were significantly impacted by specific complaints about advertising this year compared to last year.

**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.

<u>Bus Fleet Reliability (Bus Mean Distance between Failures)</u> – The number of total 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:** Total Bus Miles / Number of failures.

<u>Rail On-Time Performance by Line</u> – 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.

<u>Rail Fleet Reliability (Railcar Mean Distance between Delays)</u> – 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:** Total railcar revenue miles / number of failures resulting in delays greater than three minutes.

<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:** 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. Operating hours = operating hours per unit \* number of units.

<u>Customer Injury Rate (per million passengers<sup>1</sup>)</u> – 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).

<u>Employee Injury Rate (per 200,000 hours)</u> – 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 passengers¹)</u> – Part I crimes reported to Metro Transit Police Department for Metrobus (on buses), Metrorail (on trains and in rail stations), or at Metro parking lots 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>Customer Comment Rate (per million passengers¹)</u> – 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>&</sup>lt;sup>1</sup> Passengers are defined as follows:

o 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.

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

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg. Thru Mar.
CY 2011	78.5%	76.9%	77.5%	76.3%	74.5%	74.1%	75.5%	76.4%	72.2%	72.6%	73.7%	75.2%	77.6%
CY 2012	78.3%	77.8%	76.5%										77.6%

KPI: Bus Fleet Reliability (Bus Mean Distance Between Failures) -- Target = 7,700 Miles

													YTD
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Thru Mar.
CY 2011	8,681	8,144	7,794	7,171	7,277	6,916	6,312	6,651	6,206	7,727	6,649	7,766	8,206
CY 2012	8,704	8,230	8,527										8,487

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

Type (~ % of Fleet)	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Avg.
CNG (30%)	7,790	8,657	7,835	7,875	7,392	6,946	8,066	7,625	8,246	8,205	8,102	7,184	7,827
Hybrid (27%)	9,536	11,235	8,058	7,321	8,731	8,900	8,792	8,346	12,249	11,371	11,180	12,681	9,867
Clean Diesel (8%)	9,442	7,081	9,866	9,151	6,380	6,021	10,168	5,872	6,852	11,951	8,232	9,897	8,409
All Other (35%)	5,012	4,839	5,102	4,423	4,899	4,300	6,066	4,834	5,066	6,197	5,678	5,973	5,199

KPI: Rail On-Time Performance by Line -- Target better than 90%

													12-Month
	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	ОТР
Red Line	90.7%	90.6%	89.8%	87.8%	91.0%	90.5%	89.6%	89.9%	89.2%	86.4%	86.3%	90.6%	89.5%
Blue Line	88.8%	87.7%	88.2%	85.9%	89.1%	89.2%	87.8%	85.1%	89.8%	87.8%	89.0%	88.2%	88.2%
Orange Line	93.3%	92.5%	92.4%	91.3%	93.2%	93.4%	92.1%	91.7%	93.3%	92.1%	92.7%	91.9%	92.6%
Green Line	91.2%	92.4%	91.1%	90.1%	92.3%	90.5%	90.9%	89.6%	90.4%	91.6%	91.4%	92.3%	91.1%
Yellow Line	92.6%	92.4%	92.4%	87.9%	91.9%	91.3%	90.1%	88.0%	91.6%	91.1%	92.1%	92.6%	91.2%
Average (All Lines)	91.0%	90.9%	90.4%	88.6%	91.4%	90.8%	90.0%	89.3%	90.3%	89.0%	89.2%	91.0%	90.2%

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

													12-Month
	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	MDBD
1000 series railcars	29,118	28,997	29,206	26,680	35,194	37,775	56,142	32,581	62,224	47,930	47,408	46,781	37,525
2000/3000 series railcars	41,760	31,047	38,769	36,041	44,908	44,777	37,194	27,023	26,800	29,179	30,131	32,197	33,855
4000 series railcars	31,054	52,372	21,733	17,248	22,381	68,341	30,147	26,240	21,426	25,538	34,345	22,688	26,881
5000 series railcars	46,561	45,038	35,451	37,320	38,170	47,304	75,724	58,799	56,294	51,995	43,848	65,551	48,317
6000 series railcars	57,550	61,979	81,549	56,000	110,735	112,619	68,429	60,631	74,084	77,198	64,069	93,097	73,001
Fleet average	39,302	37,355	36,963	33,112	42,475	50,829	47,654	35,135	39,356	40,253	40,399	43,537	40,097

**KPI:** MetroAccess On-time Performance -- Target = 92%

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg. Thru Mar.
CY 2011	90.1%	89.0%	91.3%	91.2%	92.2%	93.2%	93.1%	92.7%	91.8%	93.0%	93.0%	93.1%	90.1%
CY 2012	93.4%	92.3%	91.7%										92.5%

KPI: Escalator System Availability -- Target = 89%

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg. Thru Mar.
CY 2011	88.8%	86.6%	86.9%	86.2%	82.5%	82.0%	81.9%	80.7%	84.4%	87.4%	90.1%	88.6%	87.4%
CY 2012	88.6%	89.4%	89.3%										89.1%

KPI: Elevator System Availability -- Target = 97.5%

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg. Thru Mar.
CY 2011	96.3%	96.0%	96.9%	96.4%	97.4%	98.0%	97.3%	95.2%	94.5%	94.9%	96.7%	96.4%	96.4%
CY 2012	95.7%	96.6%	96.5%										96.2%

KPI: Customer Injury Rate (per million passengers)\* -- Target = ≤ 1.9 injuries per million passengers

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	QTR Thru Feb.
CY 2010	1.67	3.00	1.46	1.54	1.97	2.25	1.69	1.78	3.43	1.65	3.50	1.49	
CY 2011	2.08	1.66	2.16	2.21	1.69	1.99	1.65	1.43	1.67	1.46	2.08	2.37	1.75
CY 2012	1.61	1.24											1.74

<sup>\*</sup>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	QTR Thru Feb.
CY 2010	2.08	3.66	1.73	1.77	1.84	3.33	2.40	1.62	6.92	2.00	5.99	1.79	
CY 2011	1.72	0.93	3.38	2.59	2.01	3.34	1.88	1.32	2.69	1.75	3.02	3.86	1.47
CY 2012	1.60	1.30											2.24

Rail Customer Injury Rate (per million passengers)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	QTR 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	
CY 2011	0.13	0.19	0.15	0.10	0.16	0.20	0.05	0.05	0.00	0.11	0.23	0.12	0.11
CY 2012	0.00	0.00											0.04

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

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	QTR Thru Feb.
CY 2010	1.09	2.31	0.99	0.91	1.31	1.03	0.89	1.35	0.95	1.22	1.57	1.09	
CY 2011	2.00	1.82	1.17	1.61	1.08	0.90	1.03	1.25	0.94	0.87	1.11	1.16	1.64
CY 2012	1.57	1.08											1.27

<sup>\*</sup>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	QTR Thru Feb.
CY 2010	26.18	22.06	21.57	31.55	48.11	46.48	34.47	38.85	24.61	14.45	25.50	20.53	
CY 2011	16.45	10.55	14.63	32.12	27.41	16.72	53.96	22.53	11.65	34.54	17.60	17.70	15.88
CY 2012	5.92	11.69											11.78

KPI: Employee Injury Rate (per 200,000 hours) -- Target = ≤ 5.3 injuries per 200,000 hours

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	QTR 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	
CY 2011	7.01	3.81	6.05	3.74	5.80	6.41	5.56	6.06	3.82	5.46	5.10	3.56	5.79
CY 2012	7.25	4.56											4.96

<sup>\*</sup> Claims reconciled to reflect late reports and claims denied, effective February, 2012.

KPI: Crime Rate (per million passengers) -- Target = ≤ 2,050 Part I Crimes in Calendar Year 2012

													QTR Thru
	Jan*	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	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	
CY 2011 Metrobus	0.86	0.31	0.95	0.65	0.18	0.45	0.47	0.79	0.80	0.37	0.57	0.77	0.68
CY 2012 Metrobus	1.41	0.93											1.04
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	
CY 2011 Metrorail	6.39	4.68	3.96	4.72	7.32	5.16	6.06	4.02	4.16	5.41	9.03	6.76	5.93
CY 2012 Metrorail	7.99	8.31											7.69
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	
CY 2011 Parking	2.82	2.50	1.78	1.24	1.19	3.50	3.39	3.15	2.66	1.57	1.57	2.25	3.28
CY 2012 Parking	1.64	0.78					·			·			1.55

<sup>\*</sup>Minor correction made to Jan 2011 Metrorail and Parking crime rate.

Crimes by Type

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	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Thru Feb.
Robbery	77	74	75	71	73	39	53	68	115	93	43	22	67
Larceny	41	47	70	87	105	92	69	69	66	60	123	130	80
Motor Vehicle Theft	6	4	5	10	11	4	10	4	5	1	6	2	6
Attempted Motor Vehicle Theft	1	2	0	8	2	3	8	2	0	3	3	1	3
Aggravated Assault	5	10	16	8	10	9	6	3	10	11	10	14	9
Rape	0	0	0	0	0	0	0	0	0	0	0	0	-
Burglary	0	0	0	0	1	0	0	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	ı
Total	130	137	166	184	202	147	146	147	196	168	185	169	165

<sup>\*</sup>In October 2011, a homicide occurred on a Metrobus. Per DC law, the crime will be reported to the FBI by the DC Police Department. As such, the crime is not included in Metro's crime report.

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

<sup>\*\*\*</sup>Beginning in January 2012, snatch and pickpocket crimes are recorded as larcenies in accordance with FBI reporting procedures.

erformance Data (cont.)

May 2012

KPI: Customer Commendation Rate (per million passengers) -- Target = ≥ 10.8 per million passengers

													YTD
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Thru Mar.
CY 2011	13.8	12.9	13.2	10.6	6.9	12.3	8.4	10.2	8.7	8.8	10.1	12.7	13.3
CY 2012	10.1	10.5	11.4								·		10.7

KPI: Customer Complaint Rate (per million passengers) -- Target = ≤ 125 complaints per million passengers

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	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Thru Mar.
CY 2011	130	148	128	113	114	118	121	117	136	133	121	126	135
CY 2012	122	131	132										128

Metrobus Ridership (millions of unlinked trips)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg. Thru Mar.
CY 2011	9.3	9.7	11.5	10.8	10.9	11.1	10.6	11.4	11.2	10.9	10.6	10.4	10.2
CY 2012	10.6	10.7	11.6										11.0

Metrorail Ridership (millions of linked trips)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg. Thru Mar.
CY 2011	16.0	16.0	19.7	19.3	18.4	20.0	19.5	18.4	18.0	18.5	17.2	16.4	17.2
CY 2012	16.5	16.6	19.7										17.6

MetroAccess Ridership (100,000s of completed trips)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg. Thru Mar.
CY 2011	1.82	1.90	2.05	1.87	1.82	1.79	1.67	1.78	1.72	1.74	1.70	1.69	1.92
CY 2012	1.69	1.71	1.85										1.75

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

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INMAtro	<b>Service</b>	Araa
	JCI VICC	AI Ca

Size	1,500 sq. miles
Population	5 million

# Ridership

Mode	FY 2011	Average Weekday
Bus	125 million	451,371 (March 2012)
Rail	217 million	762,653 (March 2012)
MetroAccess	2 million	7,305 (March 2012)
Total	344 million	

# Fiscal Year 2012 Budget

Operating	\$1.5 billion
Capital	\$1.1 billion
Total	\$2.6 billion

# **Metrobus General Information**

Size	11,490 bus stops and 2,398 shelters
Routes*	323
Fiscal Year 2012 Operating Budget	\$535 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*	1,492
Buses in Peak Service	1,244
Bus Fleet by Type*	Compressed Natural Gas (460), Electric Hybrid (548), Clean Diesel (117) and All Other (367)
Average Fleet Age*	7.5 years
Bus Garages	9 – 3 in DC, 3 in MD and 3 in VA

<sup>\*</sup>As of August 2011.

# Metrorail General Information

\$813 million
Obama Inauguration on Jan. 20, 2009 (1.1 million)
Union Station (760,000 entries in November 2011)
Minimum - \$2.20 paper fare card, \$1.95 SmarTrip® Maximum - \$5.25 paper fare card, \$5.00 SmarTrip®
Minimum - \$1.85 paper fare card, \$1.60 SmarTrip® Maximum - \$3.00 paper fare card, \$2.75 SmarTrip®
\$.20 - weekdays 7:30 - 9 a.m. and 4:30 - 6 p.m., depending on starting time of trip
Farragut North-Rhode Island Avenue (1976)
Morgan Boulevard, New York Avenue, and Largo Town Center (2004)
1,104
860
1000 Series (278), 2000/3000 (358), 4000 (100), 5000 (184) and 6000 (184)
5 - Red, Blue, Orange, Green, and Yellow
588
239
Wheaton station (230 feet)
Forest Glen (21 stories / 196 feet)
9 – 1 in DC, 6 in MD and 2 in VA

# MetroAccess General Information

Fiscal Year 2012 Operating Budget	\$116 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**	2.8 years
Paratransit Garages	7 (1 in DC, 4 in MD and 2 in VA)
Contract Provider	MV Transportation

<sup>\*\*</sup>As of December 2011.