# Vital Signs Report

A Scorecard of Metro's

Key Performance Indicators (KPI)



**Chief Performance Officer** 

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### Vital Signs Report – January 2011 Executive Summary

In November, Metrobus on-time performance continued to improve as Service Managers were deployed to monitor AM and PM garage pull-outs. Bus fleet reliability also continued an upward trend as all of the 148 new buses were added to the active fleet. Bus Transportation's employee workers' compensation claims have decreased by 30% when compared to their 2007 reduction goal but bus operator straining injuries continue to account for the largest portion of injuries. During the month of October (most recent available data), the bus passenger injury rate declined to its previously low August 2010 rate.

November Metrorail on-time performance decreased slightly due to declines on the Red, Orange, and Green lines, but increased slightly on the Blue and Yellow lines. New operators graduated from the three classes held since the beginning of the fiscal year, causing minor delays as they became familiar with the system. The reliability of the rail fleet improved as both operations and maintenance staff increased efforts to reduce door malfunctions.

MetroAccess on-time performance improved in November as staff continued to streamline the communication between scheduling and dispatching staff. During the month of October (most recent available data), 99.999% of MetroAccess passengers were safely transported but there were three passenger injuries, two of which occurred during a non-preventable vehicle collision.

Escalator availability declined as maintenance staff inspected the remaining 518 units in response to VTX's audit findings. On a positive note the rate of unexpected escalator maintenance problems declined as efforts at preventive maintenance increased. Unexpected service calls for elevators decreased for the third month in a row, indicating that a successful staffing deployment change implemented in July 2010 has resulted in improved preventive maintenance work.

Overall crime notably declined in October (22%) and reached the lowest level since February 2010. As part of Crime Prevention month, MTPD officers distributed literature to Metro customers with crime prevention tips and distributed steering wheel locks to customers parking in Metro lots.

Metro complaints were fewer overall in November; however, ridership was also down from October resulting in a slightly higher complaint rate per million passengers. The commendations were down for bus and rail, but the rate remained unchanged. The number and rate of commendations increased for MetroAccess.

Future Performance Action Highlights:

- Receive 152 new buses between March and December 2011. As these new buses are put into service, older less reliable buses will be retired.
- Conduct "campaigns" where Railcar engineering staff take 10-20 cars out of service to proactively solve subsystem issues to improve fleet reliability and on-time service delivery.
- Provide step-by-step training for escalator and elevator maintenance technicians emphasizing proper preventive maintenance procedures and trouble-shooting skills.
- Continue to utilize DriveCam to capture risky driving behavior as well as monitor the quantity and quality of safety conversations.

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

\*WMATA Board of Directors System Safety Policy states:

1. To avoid loss of life, injury of persons and damage or loss of property;

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

3. To provide for the identification and control of safety hazards, the study of safety requirements, the design, installation and fabrication of safe equipment, facilities, systems, and vehicles, and a systematic approach to the analysis and surveillance of operational safety for facilities, systems, vehicles and equipment.

Washington Metropolitan Area Transit Authority January 2011

Metro Service Area				
Size	1,500 sq. miles			
Population 3.5 million				
Ridership				

Mode	FY 2010	Average Weekday
Bus	124 million	409,365 (November 2010)
Rail	217 million	699,231 (November 2010)
MetroAccess	2.4 million	7,791 (November 2010)
Total	343.4 million	

Fiscal Year 2011 Budget				
Operating	\$1.5 billion			
Capital	\$0.7 billion			
Total	\$2.2 billion			

### Metrobus General Information

Size	11,750 bus stops
Routes	320
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 (455), Electric Hybrid (398), Clean Diesel (116) and All Other (522)
Average Fleet Age*	6.4 years
Bus Garages	9 – 3 in DC, 3 in MD and 3 in VA
*As of Novombor 2010	

\*As of November 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	1,118
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	236
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 ADA core service area - \$3.00; Outside ADA core service area - \$2.00 to \$4.00 supplemental fare
Paratransit Vehicle Fleet**	600
Average Fleet Age**	3.6 years
Paratransit Garages	7 (1 in DC, 4 in MD and 2 in VA)
Contract Provider	MV Transportation
** la of Novamber 2010	

\*\*As of November 2010.

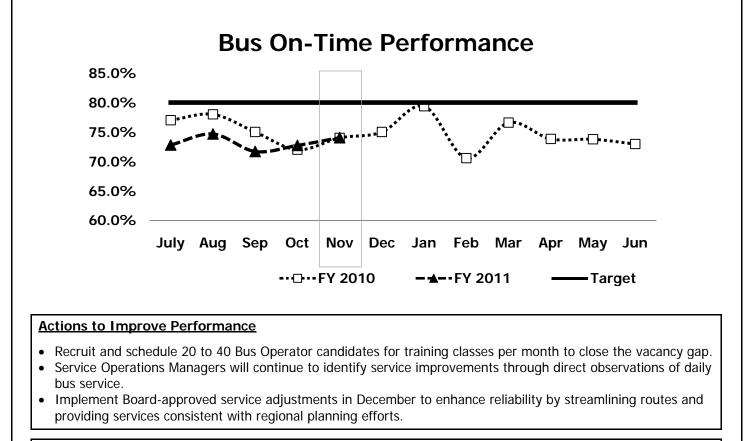
## KPI: Bus On-Time Performance (November)

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

**<u>Reason to Track</u>**: 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 has now improved for two consecutive months and has reached the second highest level since the beginning of the fiscal year.
- To decrease late and early arrivals, Service Operations Managers were logistically deployed to monitor the A.M. and P.M. pull out at bus garages and routes where performance has been a challenge.
- The shortage of bus operators has sometimes prevented the dispatch of service on some routes.
- Metro had additional buses on standby to address challenges due to Thanksgiving holiday travel patterns.



**Conclusion**: On-time-performance improved by 1.3 percentage points during the month of November and exceeded the fiscal year average of 73%.

KPI:

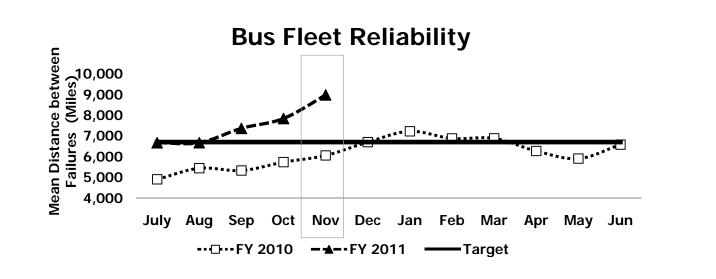
### Bus Fleet Reliability (November) (Mean Distance Between Failures)

# Objective 2.1 Improve Service Reliability

**Reason to Track**: One source of reliability problems is vehicle breakdowns that cause buses to go out of service. This key performance indicator communicates service reliability and is used to monitor trends in vehicle breakdowns 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 is exceeding all expectations and has now outperformed the target for the third time this fiscal year.
- Compared to last November Metrobus Reliability has improved 48%.
- The performance trend is directly related to the deployment of new buses as older, less reliable buses are retired. In the past 6 months, 148 new hybrid electric buses have been put into service.
- In addition, solid maintenance practices, monitoring and mitigating repeat service interruptions and warranty oversight contribute to improved performance.



### Actions to Improve Performance

- Receive 152 new buses between March and December 2011. As these new buses are put into service, older less reliable buses will be retired.
- Include bus maintenance equipment upgrades and the rehabilitation or replacement of old bus garages in the FY12-FY17 Capital Improvement Program.

**Conclusion**: During the holiday season, customers generally anticipate challenges while traveling. Metro prepared by having additional buses on standby during the Thanksgiving week. Bus fleet availability is a key factor in delivering bus service not only during the holidays but every day of the week.

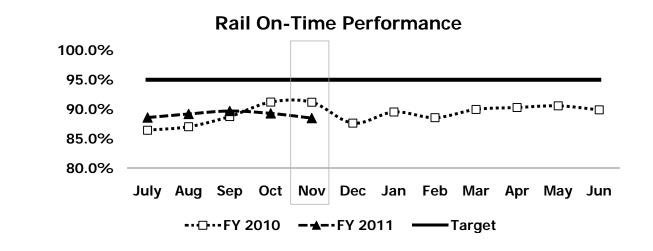
KPI: Rail On-Time Performance (November)

**Objective 2.1 Improve Service Reliability** 

**<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 such as sick passengers or offloads. On-time performance is a component of customer satisfaction.

### Why Did Performance Change?

- System-wide on-time performance declined slightly in November with a decrease in headway adherence on the Red, Orange and Green Lines.
- Three classes of new Rail Operators entering service impacted the on-time performance throughout the system but especially on the Red Line which, as the busiest line in the system, requires more operators.
- Daytime track work on the Red Line to install new running rail between Glenmont and Wheaton began November 15 and lowered on-time performance during the off-peak period. On November 18, track equipment used in this work was left on the tracks, resulting in damage to a Red Line train; however, the train was able to safely move to the platform at Wheaton and no one was injured.
- Speed restrictions were put in place in areas where residue from falling leaves had the potential to cause "slippery rails." These selected areas had speed restricted from 59 mph to 25 mph for much of November.
- Door malfunctions as a cause of delay, which have negatively impacted on-time performance over the last several months, were down significantly in November; however, this improvement was more than offset by the impact of speed restrictions, daytime track work, and new operators getting used to the system.



### Actions to Improve Performance

- Rail Operations continues to aggressively address delays due to door malfunctions during peak periods.
   Operators are trained to perform door diagnostics to quickly and safely address the problem. If the problem is not rapidly resolved, Rail Operations Control Center will direct the operator to offload the train and will move the train out of service to avoid delays. Gap trains are placed in service to reduce the crowding impact of trains with malfunctioning doors during peak periods.
- New operator on-time performance improves with experience. Supervisors and instructors closely monitor new operator on-time schedule adherence during their initial 90 days of service.
- Continue to replace and rehabilitate the Red Line to maintain a stable infrastructure and provide on-time service.

**<u>Conclusion</u>**: Metrorail on-time performance continues to be very stable at around 89 percent even as new operators come into service and trains are operated in manual mode.

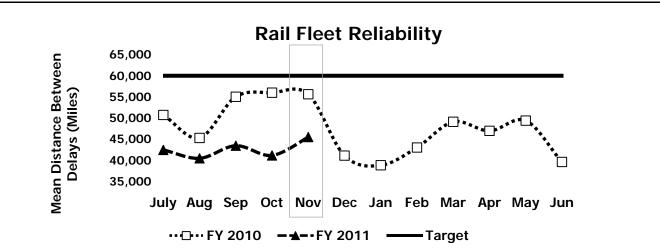
KPI: Rail Fleet Reliability (November) (Mean Distance Between Delays)

### **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?

- System-wide, rail fleet reliability increased by 10% in November, due to improved performance of all but the 4000 Series railcars.
- Overall, in November there were 13 fewer delays. Ten of these fewer delays were on the 2000-3000 Series railcars.
- The average time of delay due to door failures decreased, but the number of failures continued to plague the system.
- Railcars out of service waiting for parts, particularly for older vehicles, continues to create challenges for railcar maintenance staff in maintaining sufficient fleet availability for peak periods, which also impacts on-time performance.



### Actions to Improve Performance

- Railcar engineering staff will continue to conduct "campaigns" where 10-20 cars are taken out of service to solve subsystem issues thus preventing future malfunctions.
- Enhance railcar maintenance employee skills so staff can work across different types of equipment to decrease the need to move railcars to specific shops.
- Work with new operators to make sure that they are skilled in operating trains with mixed series cars and understand the braking characteristics of different cars.
- Continue to work with Track and Structures Maintenance and Systems Maintenance to make sure that the interaction between the running rails and the railcar wheels doesn't result in damage to either. For example, wheels running over rail joints can damage the joint, making it rougher. Further, wheel damage occurs as trains travel over the damaged track, making wheels less round. As this occurs, the flat wheels bang on the track resulting in an increasing cycle of damage. Replacement of track with continuous welded rail, which is underway, will also improve railcar reliability.

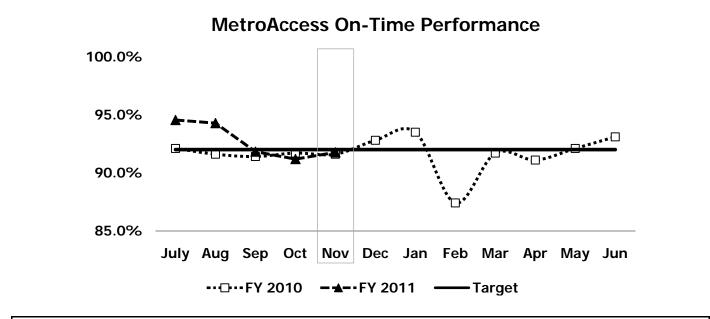
**Conclusion**: For the 5,774,788 miles operated in Revenue Service, there were 127 delays of four minutes or more, a 10% improvement from October.

# KPI: MetroAccess On-Time Performance (November)

**Reason to Track**: On-time performance is a critical measure of MetroAccess service reliability 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.

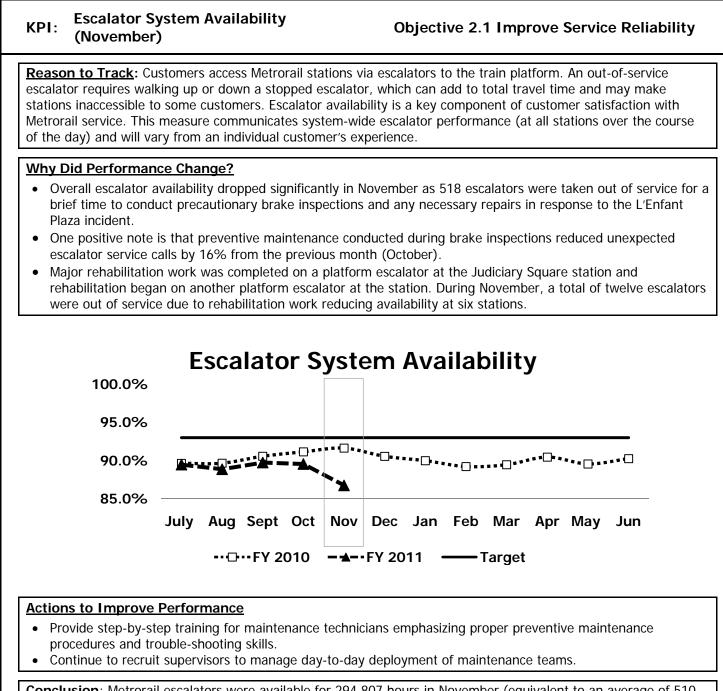
### Why Did Performance Change?

- MetroAccess' on-time performance improved slightly during November as compared to October. This was due to staff working to further streamline the communication between scheduling and dispatching staff.
- Slightly lower demand for service in November also improved flexibility slightly and positively impacted on-time performance.
- No unforeseen technical problems were present during November, allowing communication between functions to return to normal for the month.



### Actions to Improve Performance

- MetroAccess staff will continue to train staff, communicate with customers about service expectations and monitor service performance.
- MetroAccess staff will analyze the scheduling parameters to balance on-time performance and cost effectiveness within federal guidelines. These include driving speeds, the number and capacity of vehicles deployed, anticipated dwell times at pick-up and drop-off locations, and unexpected delays. The continual adjustment to these behind-the-scenes parameters reflects the struggle to balance on-time performance and cost while providing service to a diverse customer base.
- Staff reviews and adjusts the schedule daily to ensure customers can expect to be picked up on-time.
- <u>Conclusion</u>: MetroAccess is continually working to maximize on-time performance. On-time pick-ups, on-time drop-offs, and reasonable on-board travel times for all customers are considered in an effort to maintain a high level of scheduling efficiency and a high level of customer service.



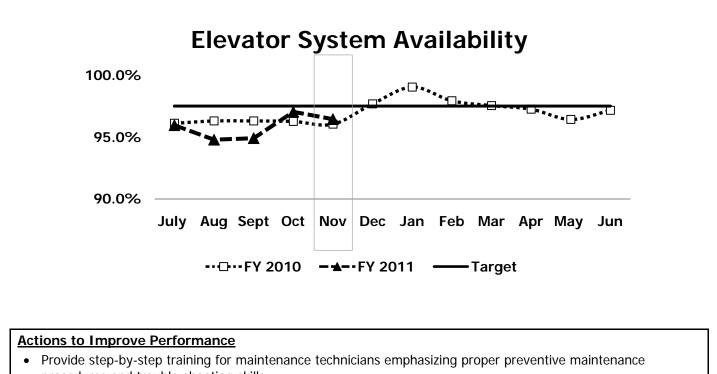
<u>Conclusion</u>: Metrorail escalators were available for 294,807 hours in November (equivalent to an average of 510 out of 588 escalators in operation systemwide). This represents a decrease of 2.8% in availability from October when 526 units were available.

### KPI: Elevator System Availability (November) 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?

- Overall elevator availability dropped slightly in November (.6%, which "equals" 1 unit) largely due to four elevators that were taken out of service for an extended period of time to make repairs identified during inspections. These four units represented over 30% of unscheduled maintenance hours in November.
- Following three months of improvement, unexpected elevator service calls continued to improve in November (down 8% from October), indicating that preventive maintenance inspections are keeping units in service longer. This follows a successful staffing deployment change in July of this year that focused elevator maintenance staff on preventive maintenance inspection work during non-peak operating hours.
- Major rehabilitation work was completed ahead of schedule on two elevators at Union Station, making the units available for the busy Thanksgiving travel period.



- procedures and trouble-shooting skills.
- Continue to recruit supervisors to manage day-to-day deployment of maintenance teams.

<u>Conclusion</u>: Metrorail elevators were available for 132,667 hours in November (equivalent to an average of 230 out of 238 elevators in operation systemwide). This represents a decrease of .6% in availability from October when 231 units were available.

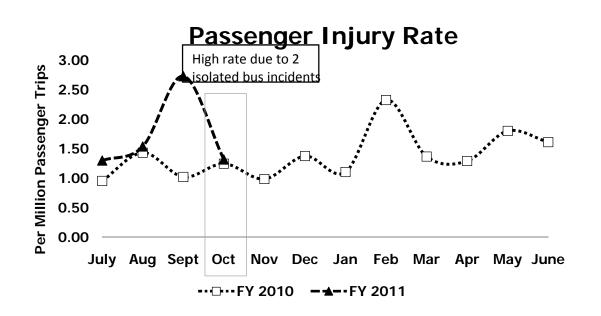
KPI: Passenger Injury Rate (October)

### 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?

- Passenger injury rate notably declined due to a reduction in rail passenger injuries and a lower than average bus passenger injury rate.
- Bus Transportation expanded the use of DriveCam as a driving behavior management tool used to coach bus operators.
- Although several rail station safety improvements were implemented (e.g., new platform tiles at the Bethesda station), one escalator incident at L'Enfant Plaza resulted in an increase in rail facility injuries.
- There were three passenger injuries on MetroAccess in October. Two injuries occurred during a non-preventable vehicle collision. The other injury occurred when a MetroAccess operator drove over a speed bump, jostling the passenger. In October, 207,572 MetroAccess passengers (99.99%) were safely transported.



### Actions to Improve Performance

- Continue major rehabilitation projects of system escalators, track and structures, and platforms to reduce injuries that occur as a result of aging infrastructure.
- Continue to utilize DriveCam to capture risky driving behavior as well as monitor the quantity and quality of safety conversations.
- Complete escalator brake inspections to ensure units are operating safely for customers.
- MetroAccess Safety Awareness campaigns are ongoing, including campaigns specifically targeted at recognizing and rewarding operators for safe performance.

**Conclusion**: Metro will continue to push down the passenger injury rate. As one Board member stated, "Safety improvements will remain our top priority, and will be funded together with necessary infrastructure upgrades that are critical to maintaining, safe and reliable daily services."

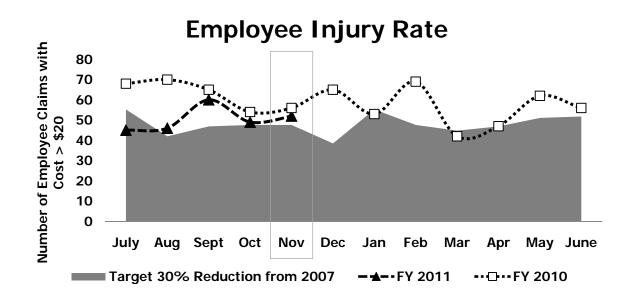
Employee Injury Rate (November) KPI: (Worker's Compensation Claims with Cost of More than \$20)

Objective 1.1 Improve Customer and Employee Safety and Security

**<u>Reason to Track</u>**: Worker's compensation claims are a key indicator of how safe employees are in the workplace. This measure captures all of the types of claims filed where there is a cost of more than \$20.

### Why Did Performance Change?

- Employee injuries continue to run below last year's, but increased by 6% when compared to the prior month.
- Sixty-four percent of the departments have met their workers compensation reduction goal so far this year.
- Bus Transportation's total claims have decreased by 30% when compared to their 2007 reduction goal. Straining injuries account for the largest portion of remaining injuries (27%) and are most commonly related to steering and improper form.
- "Champions of Safety" event was held November 16 to honor frontline Metrobus, Metrorail and MetroAccess employees who had played an exceptional role in keeping employees, riders and facilities safe.



### Actions to Improve Performance

- A new dedicated resource, the Bus Transportation At Risk Coordinator, will help reduce Bus Transportation worker's compensation claims by centralizing the responsibility of developing and implementing At Risk Plans. At Risk Plans are intended to reduce on duty injuries by working with employees to address issues which impact their ability to work safely.
- Complete the functionality of the At Risk database to enhance the usability.
- Remind Bus Operators to properly adjust their seat for healthier form.

**Conclusion**: Employee injuries continue to be much lower than last year's. The first five months of FY 2011 workers compensation claims have gone down by 20%, compared to the first five months of FY 2010.

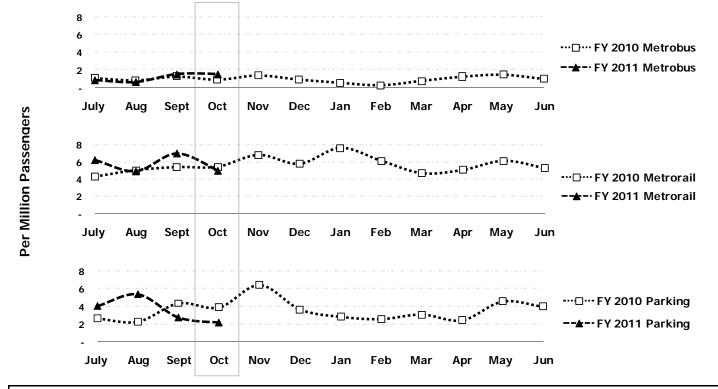
### KPI: Crime Rate (October) Per Million Passengers

### 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?

- Crime notably declined in October (22%) and reached the lowest level since February of this year.
- The Metrorail crime rate went down from September due to a notable decrease in bike thefts (September: 40, October: 18), a type of larceny crime. Overall robberies decreased (September: 83, October: 76), and of this total, the share of robberies where force was used also decreased (September: 47%, October: 33%). As part of Crime Prevention month, MTPD officers distributed literature to Metro customers with tips on how to secure personal property.
- The parking lot crime rate (e.g., thefts from auto and thefts of vehicle parts and accessories) reduced from September and is below the same month of last year despite motor vehicle thefts increasing (September: 9, October: 17). To discourage vehicle theft, steering wheel locks were distributed to customers parking in Metro lots as part of Crime Prevention Month.
- The Metrobus crime rate remained consistent with September, as rocks thrown at buses continued to be a problem. MTPD continued outreach to schools with training for students about appropriate public behavior in the transit system.



### Actions to Improve Performance

- MTPD will redeploy officers to respond to recent crime trends, with criminal activity shifting from end of line stations in Prince George's County to stations approaching downtown.
- Continue mobile midnight patrols in select parking lots, using MTPD vehicles with red and blue lights flashing to deter criminal activity.

**<u>Conclusion</u>**: Overall crime in the transit system is down for October 2010, reaching the lowest level since February of this year.

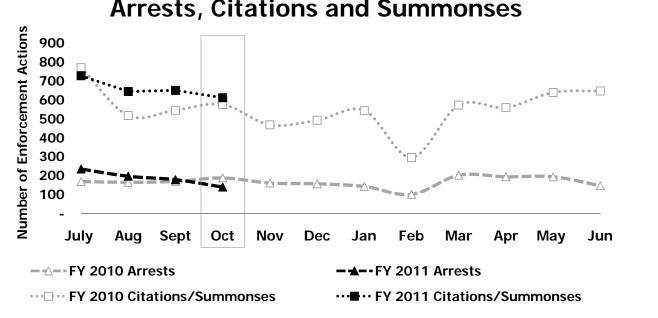
#### Arrests, Citations and Summonses KPI: (October)

### **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, citations and summonses continue to decline with arrests falling below FY2010 levels. A key arrest was made at the Capitol Heights station, where officers arrested a subject who became combative during a traffic stop and resulted in the recovery of illegal drugs and two handguns.
- Citations for fare evasion are up about 17% from October of last year, as MTPD officers focus enforcement of Metro's fare collection ordinances.



### Arrests, Citations and Summonses

### **Actions to Improve Performance**

- In response to growing concerns about bus operator assaults (11 in October 2010), MTPD will assign uniformed officers to bus routes where assaults are concentrated.
- MTPD's Criminal Investigation Division is reaching out to schools in a proactive manner to encourage positive interactions with police in order to avoid arrest or citations in the Metro system.

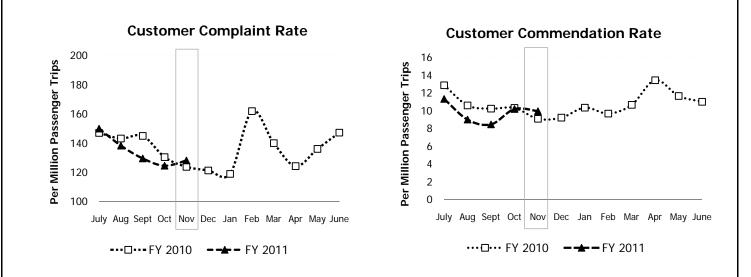
Conclusion: Arrests are consistent with the same month in 2009 and citations/summonses are on pace with Fiscal Year 2010.

### KPI: Customer Comment Rate (November)

**<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?

- Metro complaints were fewer overall in November, however ridership was also down from October resulting in a slightly higher complaint rate per million passengers. On-time performance is the single largest contributor to complaints.
- **Rail:** The number of Metrorail complaints was down slightly from October, especially complaints related to inadequate service, delays and late trains. Complaints about criminal activity were 50% lower than in October. The commendation rate declined slightly for rail, but was slightly higher than last year.
- **Bus:** The number of bus complaints declined from October with the largest decline in late bus complaints, and the second largest decline in rude or discourteous employee complaints. Failure to service stop complaints increased slightly to the level observed in July, and no-show and unsafe operation complaints remained at the low levels seen in October. These trends correspond with fewer trips being operated late, and improvements in vehicle reliability reducing the amount of delays in service.
- **MetroAccess:** MetroAccess' rate of complaints (per million passengers) declined slightly from October, with 22% fewer complaints for early or late pick-ups, which corresponds with a slight improvement in on-time performance for November. Complaints about no-shows and vehicles not waiting long enough were up 13% from October. Commendations increased 10% from October.



### Actions to Improve Performance

- To counter complaints about safety and security, Metro Transit Police are stepping up their security efforts by realigning deployment to increase their presence in stations and on trains.
- Metrobus real-time bus information is being used by Customer Relations to help customers address their service schedule complaints more quickly.
- MetroAccess is monitoring on-street supervision and dispatch to improve its service delivery efficiency while maintaining its service quality. Minimizing no-shows is a major component of this activity.

**<u>Conclusion</u>**: The number of complaints decreased in November, but the rate remained in line with last year. The commendations were down for bus and rail, but the rate remained unchanged. The number and rate of commendations increased for MetroAccess.

	Nov	Dec	Jan	Feb	Mar	Apr	Mav
eate a Safer Organization							
Increase safety training							Γ
Continue the accelerated close out of open safety-related audit findings	✓			<u> </u>			
Develop strategy in response to Corporate Executive Board safety survey results	y						
Address system-wide vulnerability							
Begin analysis of incident tracking and safety measurement system							
Encourage near miss reporting agreement with union							
Complete actions regarding Elevator and Escalator operations							
Complete radio and communications system upgrade							
liver Quality Service							
Increase training for front-line employees and supervisors							
Produce Annual Performance Report							
Increase Bus Operator Recruitment							
Improve the availability of operations information for customer travel planning							
Improve responsiveness to customer comments							
Prepare for expansion of Metrorail system to accommodate changing travel patterns and launch of service to Dulles							
e Every Resource Wisely			•				
Manage the transition to our next six-year program, currently being developed	<ul> <li>✓</li> </ul>						
Initiate a discussion with regional and federal stakeholders on Metro's long-term fiscal outlook to identify both challenge and solution	✓		1	1			
Financial Systems Integration							
Reduce paper fare media							
Develop, implement and manage procurement, inventory and management of assets							
Address parking asset management							
Summary of results to date: Each action has been assigned to specific members of the executive staff. Detailed execution steps have been laid out with clear due-dates. The GM is constantly monitoring the progress being made on each task and maintaining accountability for results.			Red	Acc Or	oreca compli n sche s attei	shed edule	V

Actions Through:

<b>Output:</b> Metrorail Metrobus	Revenue Vehicle Miles (Thousands)	66,699 37,648
<b>Output:</b> Metrorail Metrobus	Passengers Per Revenue Vehicle Mile	3.26 3.28
<b>Efficiency:</b> Metrorail Metrobus	Operating Cost Per Revenue Vehicle Mile	\$11.84 \$12.99
Efficiency: Metrorail Metrobus MetroAccess WMATA Systemwide	Farebox Recovery Ratio	62.1% 22.9% 4.4% 44.0%
<b>Efficiency:</b> Metrorail Metrobus MetroAccess	Operating Cost Per Passenger Trip	\$3.64 \$3.96 \$41.39
<b>Outcome:</b> Metrorail (linked trips) Metrobus (unlinked tr MetroAccess		217,219 123,847 2,377
Outcome: Metrorail Metrobus MetroAccess	Maryland Annual Ridership (Thousands)	85,736 35,767 1,429
Outcome: Metrorail Metrobus MetroAccess	District of Columbia Annual Ridership (Thousands)	66,056 67,271 634
Outcome: Metrorail Metrobus MetroAccess	Virginia Annual Ridership (Thousands)	65,448 20,809 314

### **Jurisdictional Measures**

Metrobus in Fairfax County	FY07	FY08	FY09	FY10	FY11
	Actual	Actual	Actual	Estimate	Estimate
Metrobus Routes	87	100	91	75 <sup>1</sup>	75
Trips Originating in Fairfax County	9,272,000	10,040,500	9,440,351	10,445,132	9,629,158
Platform Hours	372,266	395,999	407,844	371,721	395,662
Platform Miles	7,065,260	7,310,086	6,565,966	6,662,941	7,330,351
Operating Subsidy	\$36,723,400	\$36,744,578	\$42,761,346	\$40,219,382	\$40,650,118
Operating Subsidy/ Platform Mile	\$5.20	\$5.03	\$6.51	\$6.04	\$5.55
Operating Subsidy/ Platform Hour	\$98.65	\$92.79	\$104.85	\$108.20	\$102.74
Operating Subsidy Per Trip	\$3.96	\$3.66	\$4.53	\$3.85	\$4.22
Percent Change in Fairfax County Trips	0.0%	8.3%	-6.0%	3.0%	-7.8%

Metrorail in Fairfax County	FY07 Actual	FY08 Actual	FY09 Actual	FY10 Estimate	FY11 Estimate
Fairfax County Ridership	28,815,191	28,432,596	29,012,470	30,164,141	29,592,719
Operating Subsidy	\$17,496,099	\$19,266,866	\$17,334,537	\$24,137,403	\$16,999,647
Operating Subsidy Per Metrorail Passenger	\$0.61	\$0.68	\$0.60	\$0.80	\$0.57
Percent Change in Metrorail Ridership	-3.3%	-1.3%	2.0%	3.0%	3.0%

<sup>1</sup> FY10 Metrobus Routes as of April 2010

Produced by jurisdictional request based on available data.

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

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

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

Calculation: Number of failures / miles

**<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.

**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 Passenger Trips)</u> – The number of customers injured and requiring medical transport from the transit system (rail, bus and MetroAccess) for every one million passenger trips. Customer injuries per million passenger trips is used to demonstrate the relative proportion of safe service which is provided.

**Calculation:** Bus passenger injuries, rail passenger injuries, rail facility injuries (including escalator injuries) and MetroAccess injuries / (passenger trips / 1,000,000).

Washington Metropolitan Area Transit Authority January 2011

**Employee Injury Rate (Worker's Compensation Claims with Cost > \$20)** – The number of worker's compensation claims made by employees per month. This measure compares the base year of FY 2007 and the target reduction of 30% fewer than the base year number of claims, and is a measure of improving the safe behavior of employees throughout the agency.

**Calculation:** Number of Worker's Compensation Claims with Cost > \$20 per month as compared with the target of 30% less than the number of claims made in FY 2007 by month.

<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 / (passenger trips / 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.

<u>**Customer Comment Rate**</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 / (passenger trips / 1,000,000)

#### KPI: Bus On-Time Performance / Target = 80%

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Avg. Thru Nov.
FY 2010	77.0%	78.0%	75.0%	72.0%	74.0%	75.0%	79.4%	70.6%	76.6%	73.8%	73.8%	73.0%	75.5%
FY 2011	72.8%	74.7%	71.7%	72.7%	74.0%								73.0%

### KPI: Bus Fleet Reliability (Bus Mean Distance Between Failures) / Target = 6,700 Miles (Revised in July 2010)

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Мау	Jun	Avg. Thru Nov.
FY 2010	4,898	5,437	5,325	5,732	6,054	6,700	7,223	6,878	6,882	6,270	5,902	6,578	5,348
FY 2011	6,670	6,673	7,366	7,842	8,982								7,138

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

Type (~ % of Fleet)	Dec	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sept	Oct	Nov	Avg.
CNG (30%)	12,258	9,347	8,935	8,853	7,842	7,905	9,059	9,093	6,680	9,165	9,939	10,410	9,124
Hybrid (27%)	10,167	11,859	10,666	10,546	9,499	8,844	9,944	10,161	11,378	11,361	13,526	14,198	11,012
Clean Diesel (8%)	11,137	9,806	9,911	11,109	7,990	7,345	7,933	10,547	7,931	10,300	12,118	12,290	9,868
All Other (35%)	4,187	5,225	4,928	4,804	4,562	4,102	4,517	4,332	4,921	4,798	4,698	5,718	4,733

### KPI: Rail On-Time Performance by Line / Target = 95%

	Dec	Jan	Feb	Mar	Apr	Мау	Jun	July	Aug	Sept	Oct	Nov	Avg.
Red Line	88.5%	89.0%	87.9%	<b>88.9%</b>	90.0%	91.0%	90.1%	88.5%	88.3%	88.0%	88.3%	87.5%	88.8%
Blue Line	86.4%	88.2%	87.4%	88.2%	<b>88.9%</b>	88.3%	87.5%	86.0%	86.1%	88.3%	87.3%	87.9%	87.5%
Orange Line	87.1%	90.1%	88.7%	92.2%	92.1%	91.4%	90.4%	88.8%	90.5%	92.1%	91.6%	91.0%	90.5%
Green Line	86.8%	90.5%	89.4%	91.1%	90.7%	91.0%	90.8%	90.3%	91.9%	91.9%	91.0%	88.3%	90.3%
Yellow Line	89.4%	91.6%	91.4%	91.4%	90.4%	90.7%	89.8%	89.0%	91.4%	92.0%	90.7%	91.2%	90.7%
Average (All Lines)	87.6%	89.5%	88.6%	90.0%	90.3%	90.6%	89.9%	88.6%	89.2%	89.7%	89.3%	88.5%	

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

	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Avg.
1K	37,808	35,548	45,404	37,742	33,487	41,859	32,241	32,258	46,370	43,908	40,517	45,595	39,395
AC	41,477	35,395	31,927	56,513	52,011	44,354	49,175	65,428	39,911	49,582	31,572	35,820	44,430
4K	22,346	19,933	24,393	41,982	27,659	41,703	18,166	21,553	17,893	18,645	36,587	25,073	26,328
5K	38,175	47,613	56,609	39,500	47,952	55,967	29,265	28,290	29,410	34,094	44,462	54,016	42,113
6K	74,306	83,567	141,162	78,393	110,522	80,046	93,631	57,029	107,198	77,921	88,918	119,427	92,677
CMNT AVG	41,082	38,798	42,997	49,088	46,943	49,375	39,573	42,424	40,435	43,420	41,121	45,471	

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

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

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Avg. Thru Nov.
FY 2010	92.1%	91.6%	91.4%	91.7%	91.6%	92.8%	93.5%	87.4%	91.7%	91.1%	92.1%	93.1%	91.7%
FY 2011	94.6%	94.3%	91.8%	91.2%	91.8%								92.7%

### KPI: Escalator System Availability / Target = 93%

	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Avg. Thru Nov.
FY 2010	89.6%	89.7%	90.6%	91.1%	91.6%	90.6%	90.0%	89.2%	89.5%	<b>9</b> 0.5%	89.6%	90.3%	90.5%
FY 2011	89.5%	88.9%	89.7%	89.5%	86.7%								88.9%

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

	Jul	Aua	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Mav	Jun	Avg. Thru Nov.
FY 2010	96.1%	- 3	96.3%		96.0%	97.7%				97.3%	- ]	97.2%	-
FY 2011	96.0%	94.8%	94.9%	97.0%	96.4%								95.8%

### KPI: Passenger Injury Rate (per million passenger trips)\*

	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Avg. Thru Oct.
FY 2010	0.95	1.43	1.02	1.25	0.99	1.37	1.10	2.32	1.37	1.29	1.80	1.61	1.16
FY 2011	1.30	1.54	2.73	1.32									1.72

\*Includes Metro Access and escalator injuries

### Bus Passenger Injury Rate (per million passenger trips)

	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Мау	Jun	Avg. Thru Oct.
FY 2010	0.93	1.16	1.23	0.79	1.33	0.75	0.42	1.41	1.46	1.11	1.26	1.43	1.03
FY 2011	1.44	0.95	5.31	0.95									2.16

### Rail Passenger Injury Rate (per million passenger trips)

	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Avg. Thru Oct.
FY 2010	0.10	0.22	0.17	0.16	0.18	0.00	0.06	0.15	0.10	0.19	0.22	0.20	0.16
FY 2011	0.10	0.11	0.17	0.11									0.12

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

	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Мау	Jun	Avg. Thru Oct.
FY 2010	0.58	1.12	0.50	0.68	0.37	1.25	1.09	2.31	0.99	0.91	1.31	1.03	0.72
FY 2011	0.89	1.35	0.95	1.27									1.12

\*Includes escalator injuries.

### KPI: Metro Access Passenger Injury Rate (per million passengers trips)

	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Avg. Thru Nov.
FY 2010	30.27	25.66	20.05	62.44	21.01	43.90	31.41	36.76	21.57	27.04	52.92	46.48	31.88
FY 2011	24.62	38.85	9.84	14.45	35.70								24.69

### KPI: Employee Injury Rate (Workers Compensation Claims with Cost > \$20) / Target = 30% Reduction from 2007

	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Мау	Jun	Avg. Thru Nov.
FY 2007	79	60	67	68	68	55	79	68	64	67	73	74	68
FY 2010	68	70	65	54	56	65	53	69	42	47	62	56	63
FY 2011	45	46	60	49	52								50

\* FY11, July - November have been revised to include late reports and exclude denied claims that have a zero indemnity.

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

### KPI: Crime Rate (per million passenger trips)

	Jul	A	Cont	0	Nevi	Dee	Lan	Fah	Max	<b>A</b>	Max	l	Avg. thru Oct.
	Jui	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	001.
FY 2010 Metrobus	1.06	0.80	1.24	0.88	1.37	0.89	0.52	0.23	0.74	1.23	1.46	0.96	1.00
FY 2011 Metrobus	0.86	0.66	1.50	1.51									1.13
FY 2010 Metrorail	4.29	5.03	5.38	5.43	6.78	5.76	7.59	6.11	4.68	5.06	6.11	5.26	5.03
FY 2011 Metrorail	6.19	4.91	6.95	4.97									5.76
FY 2010 Metro Parking Lots	2.59	2.23	4.32	3.85	6.41	3.63	2.79	2.53	3.05	2.39	4.53	3.94	3.25
FY 2011 Metro Parking Lots	4.06	5.40	2.75	2.17									3.60

### Crimes by Type\*\*

	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	June-10	July-10	Aug-10	Sept-10	Oct-10	Avg.
Robbery	104	89	122	81	86	91	89	71	66	58	83	76	85
Larceny	110	59	51	27	69	66	97	111	131	111	91	50	81
Motor Vehicle Theft	12	7	6	5	6	9	13	13	10	18	9	17	10
Attempted Motor Vehicle Theft	7	3	1	1	6	9	9	5	10	6	9	3	6
Aggravated Assault	8	7	10	7	7	9	15	7	14	15	14	14	11
Rape	0	0	2	2	0	0	0	0	1	0	0	0	0
Burglary	0	0	1	0	0	0	1	0	0	0	1	1	0
Homicide	1	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	242	165	193	123	174	184	224	207	232	208	207	161	193

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

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

	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Мау	Jun	Avg. thru Oct.
FY 2010 Arrests	168	164	169	187	160	156	142	100	201	193	193	146	172
FY 2011 Arrests	234	194	178	139									186
FY 2010 Citations/Summonses	770	517	545	575	468	492	543	295	572	559	639	647	602
FY 2011 Citations/Summonses	727	644	650	611									658

### KPI: Customer Commendation Rate (per million passenger trips)

	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Avg. Thru Nov.
FY 2010	12.9	10.6	10.2	10.3	9.1	9.2	10.3	9.7	10.7	13.4	11.7	11.0	10.6
FY 2011	11.3	9.0	8.5	10.2	10.0								9.8

### KPI: Customer Complaint Rate (per million passenger trips)

	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Мау	Jun	Avg. Thru Nov.
FY 2010	147	143	145	130	124	121	119	162	140	124	136	147	138
FY 2011	150	138	129	125	128								134

### Metrobus Ridership (millions)

	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Avg. Thru Nov.
FY 2009	12.1	11.7	11.9		10.2				11.3	<b>קר</b> 11.2	2	11.3	-
FY 2010	11.8	11.2	11.4	11.3	9.8	9.3	9.6	7.1	11.0	10.8	10.3	10.5	11.1
FY 2011	10.4	10.5	10.5	10.5	10.0								10.4

#### Metrorail Ridership (millions)

	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Мау	Jun	Avg. Thru Nov.
FY 2009	21.0	18.5	18.2	19.7	16.1	16.4	18.5	16.6	19.1	20.3	18.4	20.1	18.7
FY 2010	20.5	17.9	17.8	19.0	16.4	16.0	16.5	13.4	20.3	20.8	18.3	20.3	18.3
FY 2011	20.2	18.5	17.8	18.9	16.6								18.4

### MetroAccess Ridership (100,000s)

	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Мау	Jun	Avg. Thru Nov.
FY 2009	1.63	1.62	1.69	1.82	1.57	1.73	1.58	1.72	1.91	1.97	1.90	1.93	1.67
FY 2010	1.98	1.95	1.99	2.08	1.90	1.82	1.91	1.36	2.32	2.22	2.08	2.15	1.98
FY 2011	2.03	2.06	2.03	2.08	1.96								2.03