Maryland Department of Transportation

2010 Annual Attainment Report

on Transportation System Performance

Implementing the Maryland Transportation Plan &
Consolidated Transportation Program

Martin O'Malley, Governor
Anthony G. Brown, Lt. Governor
Beverley K. Swaim-Staley, Secretary

Message FROM THE SECRETARY OF TRANSPORTATION

Beverley K. Swaim-Staley

Maryland Secretary of Transportation

On behalf of Governor Martin O'Malley, I am pleased to present Maryland's 2010 Annual Attainment Report on Transportation System Performance. Governor O'Malley's coordinated and balanced approach to transportation helps MDOT deliver a safe, secure and sustainable transportation system that connects people to places and improves the quality of life for Maryland's citizens. We strive to preserve and enhance the quality of our communities and the environment while improving the efficiency and performance of our multimodal transportation network.

Under Governor O'Malley's leadership, Maryland uses performance measurement to effectively and resourcefully manage our transportation investments. Each year we develop our Attainment Report to measure and illustrate how Maryland's transportation agencies are working toward achieving our shared transportation goals. In 2009, we updated the Maryland Transportation Plan (MTP), a Statewide 20-year vision for Maryland's transportation network that guides future policy, program, and project decisions. The MTP charts a course and the Attainment Report helps us track our progress.

At the federal level, Congress is working on reauthorizing federal surface transportation legislation. Much of the policy discussion surrounding reauthorization has concentrated on using performance measures and targets in federal funding programs to more sharply focus on key outcomes. Given Maryland's strong history with performance management, we are well positioned to meet anticipated new federal performance measurement requirements and to benefit from associated funding opportunities, much as we have done through the American Recovery and Reinvestment Act. We understand that providing transparency with regard to our performance is part of being good stewards of our transportation system.

We invite you to review the results of our performance as contained in this 2010 Attainment Report. In these challenging economic times, it is more important than ever that we evaluate our performance and make strategic adjustments so that our transportation network can continue to fuel Maryland's economy, enhance communities, move people and goods, and help businesses maintain their competitiveness. We remain committed to providing our customers with a world-class multimodal transportation system and will continue to explore 21st-century solutions to 21st-century challenges.

TABLE OF CONTENTS

Summary

MARYLAND'S TRANSPORTATION AGENCIES

ACRONYM	AGENCY
MDOT	Maryland Department of Transportation
MAA	Maryland Aviation Administration
MPA	Maryland Port Administration
MTA	Maryland Transit Administration
MDTA	Maryland Transportation Authority
MVA	Motor Vehicle Administration
SHA	State Highway Administration

Below are some of the performance results over the past year contained in this Report.

GOAL – QUALITY OF SERVICE

- SHA maintenance activities improved the condition of SHA's network by 1.9%.
- MTA on-time performance improved across all modes, and remained stable on MARC.
- Customer branch office visit time decreased 2 minutes per person, and MVA customer rating remained "good."
- Truck turn-around time at the Seagirt Marine Terminal decreased by 8.5 minutes for cargo drop-offs and container pick-ups.
- Electronic toll collections increased by 4%, and satisfaction of *E-ZPass*® customers remained high.

GOAL – SAFETY & SECURITY

- Fatalities and injuries on Maryland roadways decreased by nearly 4% and almost 7%, respectively.
- MVA achieved a 66% compliance rate with the Real ID Act, enacting 12 of 18 benchmarks.
- Preventable MTA bus accidents remained stable.
- The crime rate at BWI Marshall continues to remain low and meet targets.

GOAL – SYSTEM PRESERVATION & PERFORMANCE

- SHA reduced the structurally deficient bridge inventory to 4%.
- SHA's incident management program saved Marylanders an estimated $980 million due to reduced delay.
- Operating cost per passenger trip and per revenue mile fluctuated modestly across MTA services.
- MVA maintained alternative service transactions levels.
- Non-airline revenue per enplaned passenger decreased slightly while the cost per enplaned passenger rose modestly.
- Remaining dredged material placement capacity at Bay and Harbor placement sites each declined by 1 year.

GOAL – ENVIRONMENTAL STEWARDSHIP

- SHA more than doubled the amount of wetland acreage restored and expanded stream restoration by over 1/2 mile.
- Fuel use by SHA's light duty vehicle fleet was reduced by 22,012 gallons from the previous year.
- MVA's wait time for the Vehicle Emissions Inspection Program (VEIP) remained stable, while the number of vehicles tested decreased slightly.
- MPA improved over 100 acres of wetlands and wildlife habitat.

GOAL – CONNECTIVITY FOR DAILY LIFE

- Congestion on Maryland's freeways and arterials decreased.
- Weekday transit ridership grew by 4% compared to last fiscal year.
- The number of nonstop markets served from BWI Marshall Airport remains high.
- International cruises using MPA's terminal tripled to 81.

Introduction

TRANSPORTATION NETWORK HIGHLIGHTS

SURFACE TRAVEL

- Transit ridership reached 151 million in FY2009, including Locally Operated Transit Systems (LOTS), in addition to over 128 million riders who used the Washington Metropolitan Area Transit Authority (WMATA) system in Maryland in CY2009.
- Major Maryland trail corridors include: the Chesapeake & Ohio Canal National Historic Park, the Torrey C. Brown Trail (Northern Central Railroad Trail) and the Baltimore & Annapolis Trail (B&A Trail).
- Coordinated Highways Action Response Team (CHART) integrated 26 new closed-circuit television (CCTV) cameras and added 40 portable traffic monitoring sensors on the Eastern Shore, totaling 589 devices throughout the State.
- SHA completed 15 major highway/bridge projects in FY2009 at a total cost of $1.53 billion; which includes such projects as the $1.3 billion replacement of the Woodrow Wilson Bridge, the replacement of 9 other bridges, interchange improvements at I95/I495 interchange with Branch Avenue Metro Station in Prince George's County and the construction of the Hampstead Bypass in Carroll County.
- In FY2009, over 117 million toll transactions were conducted in Maryland and there were nearly 560,000 active Maryland *E-ZPass*® accounts.
- Nearly 12.3 million MVA transactions were processed in FY2009, including eMVA and walk-in transactions at MVA's 24 branch office locations.

AIR TRAVEL

- More than 20 million passengers flew through BWI Marshall Airport in 2009 to U.S. and international destinations.
- Five scheduled cargo airlines serve BWI Marshall Airport and 14 airlines provide commercial passenger service.
- 18 publicly-owned airports and 18 privately-owned airports with public use are available to Marylanders.

WATERBORNE TRAVEL

- For the first time, general cargo through MPA's public terminals in FY2008 reached nine million tons.
- 81 international cruise ships and about 329,000 passengers embarked and debarked at MPA's terminal in CY2009.

Delivering the Annual Attainment Report on Transportation System Performance to Maryland's citizens has been a tradition of the Maryland Department of Transportation (MDOT) since 2002. Each year, performance information is updated and evaluated to assess progress toward achieving strategic goals and objectives that guide Maryland's transportation network. Continuing this practice, the 2010 Report offers performance results across Maryland's multimodal transportation system, including roads, bridges, transit, rail, airports, seaports, and bicycle and pedestrian facilities.

GUIDING MARYLAND'S TRANSPORTATION NETWORK: 2009 MARYLAND TRANSPORTATION PLAN

The 2009 Maryland Transportation Plan (MTP) establishes Maryland's 20-year vision of *a world-class multimodal transportation system that supports a vibrant economy and an excellent quality of life for all Marylanders.* The MTP sets Statewide goals and objectives to guide multimodal transportation policy, program, and project decisions and investments. Based on the MTP goals and objectives, the Annual Attainment Report presents performance results that evaluate the State's implementation of the MTP and delivery of the Consolidated Transportation Program (CTP), which lists capital projects proposed for construction or development, and evaluation over the next six years.

OFFERING SUSTAINABLE TRANSPORTATION CHOICES: MULTIMODAL TRANSPORTATION

Maryland's transportation network offers customers a range of travel options, with MDOT divided into five Modal Administrations responsible for different modes of travel: Maryland Aviation Administration (MAA), Maryland Port Administration (MPA), Maryland Transit Administration (MTA), Motor Vehicle Administration (MVA), and State Highway Administration (SHA). The Secretary of Transportation also serves as Chairman of the Maryland Transportation Authority (MDTA), an independent agency responsible for Maryland's toll facilities and financing new revenue-producing transportation projects. MDOT oversees these agencies and is responsible for building, operating, and maintaining a safe and seamless transportation network that links people and goods to Maryland destinations and beyond.

Sustainable transportation implies making decisions that allow today's transportation needs to be efficiently met, while taking steps to mitigate and minimize negative impacts on the environment and future generations. MDOT has made great progress in advancing its sustainability agenda through key efforts (e.g., SmarTrip and Commuter Bus Transit Link Card initiatives to improve transit transfers and information) and is considering future investments to enhance Maryland's economy, communities, and environment. Potential sustainable efforts include the use of innovative design to minimize energy consumption and implementation of new technologies to capture greater efficiencies.

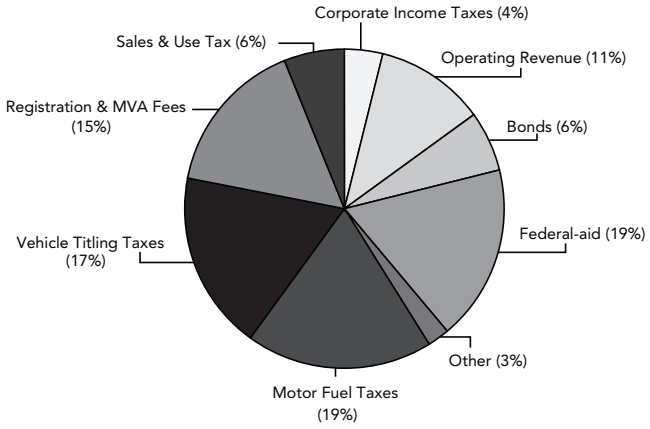
EVALUATING PERFORMANCE: PERFORMANCE MANAGEMENT

Performance measurement is a valuable tool used by Maryland's transportation agencies to inform decisions and provide better services. Maryland has long used performance measurement to effectively and resourcefully manage its transportation investments. This 2010 Attainment Report provides a window into how well the Maryland transportation system is performing, promotes accountability, provides valuable feedback to our customers on our programs and projects, and identifies strategies to help us attain our goals.

INVESTING IN TRANSPORTATION: MDOT'S FINANCIAL FRAMEWORK

Continued investment in Maryland's extensive transportation network is important to enhancing and strengthening the State's economy and Marylanders' high quality of life. Funding for Maryland's transportation services, including planning, construction, operations, and maintenance activities comes from an integrated Transportation Trust Fund (TTF) and the State's General Fund. The TTF is a revenue source dedicated to transportation and supported by Federal-aid, operating revenues, registration fees, several dedicated taxes, and bond sales. Maryland's motor fuel and vehicle titling taxes make up the majority of MDOT revenue, in addition to Federal assistance. As a separate agency, MDTA is financially independent from the TTF and State General Funds, supporting the construction, operation, and maintenance of all MDTA facilities through tolls, concessions, investment income, revenue bonds, and miscellaneous sources.

TRANSPORTATION TRUST FUND SOURCES FY2010-FY2015 CTP



MDOT revenue projections have been reduced by the national economic downturn and weak TTF revenues. For example, MDOT deferred $2.1 billion in State funds from the FY2009-FY2014 capital program in response to the economic climate. Though Governor O'Malley's revenue increase to the TTF in 2007 helped greatly to offset these impacts, future TTF revenues are expected to be weaker than in the recent past. At the same time, construction costs (e.g., labor, materials, and diesel fuel) have risen recently. Estimates by the Bureau of Labor Statistics show construction costs up as much as 43% from 2002 to 2007. Though recent construction costs may be moderating, they remain high by historical standards. In addition, project costs and scope often change over the life of a project due to a number of factors, including addressing community issues, refinements to project scope, and responding to new information and conditions.

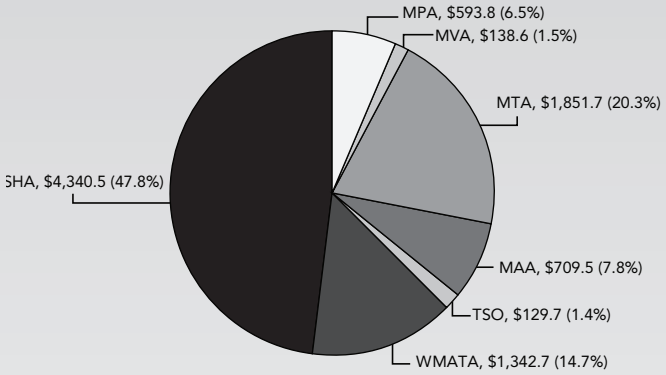
MDOT has made conservative projections for future Federal-aid funding given that Congress will be reauthorizing Federal surface transportation legislation within the next year. Transportation in Maryland is largely funded through motor fuel taxes and vehicle titling fees and impacts to both of these sources are being felt. Reduced tax receipts are due to a combination of declining fuel purchases and lower sales of light-duty vehicles (e.g., minivans, sport utility vehicles). Moreover, purchases of fuel-efficient vehicles spurred by gas price volatility and the federal government's Car Allowance Rebate System (CARS) or "cash for clunkers" program contribute to diminished revenue for transportation.

Federal "stimulus" funding through the American Recovery and Reinvestment Act (ARRA) of 2009 has enabled the State to deliver $532 million in State highway and transit projects; $141 million in local highway and transit projects; and $72 million in transit projects in the Washington, D.C. metropolitan region. Maryland's economic recovery focuses on delivering projects in every region of the State and repairing and rebuilding existing roads, bridges, transit and other transportation infrastructure. The State is also pursuing discretionary funding opportunities from both existing and new grant programs, such as the federal Transportation Investments Generating Economic Recovery (TIGER) discretionary grants.

MDOT strives to maximize the return on the State's existing transportation investments. System preservation efforts aimed at maintaining and preserving Maryland's existing roadway, bridge, and transit assets will receive $864 million for FY2010. MDOT also tracks the "percentage of budgeted dollars expended" in order to carefully manage budgets and borrowing levels. In FY2009, MDOT exceeded its 90% goal and spent approximately 91% of the estimated budget (total Federal and State dollars), which helps to avoid unnecessary borrowing of funds in the future.

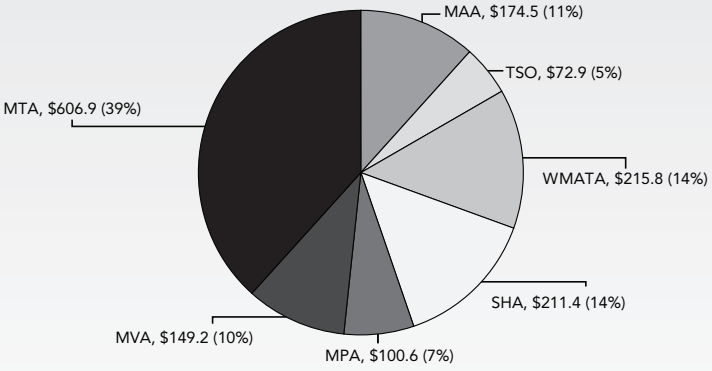
MDOT's capital and operating budgets illustrate how the TTF is allocated across Maryland's transportation agencies and the WMATA, which provides Metrorail and Metrobus transit services in Maryland, Washington, D.C., and Virginia communities. MDOT's total capital program levels demonstrate MDOT's funding commitments over time. Because MDTA is an independent agency, its capital and operating budgets are shown separately on page 3.

MDOT CAPITAL BUDGET *(Millions)* FY2010-FY2015 CTP



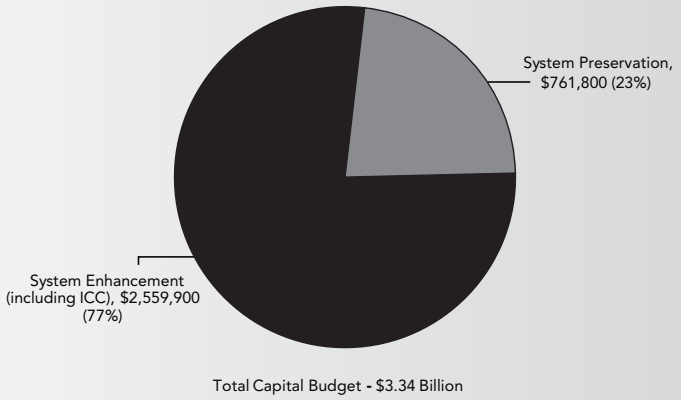
Total Capital Budget: $9.1 Billion

MDOT OPERATING BUDGET APPROPRIATION *(Millions)* FY2010



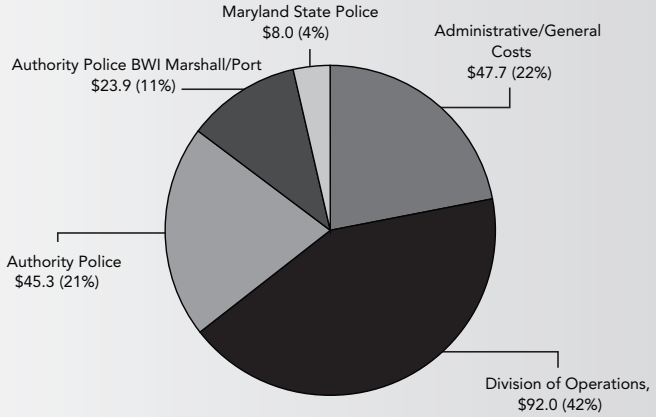
Total Operating Budget: $1.5 Billion

MDTA CAPITAL BUDGET *(Millions)* FY2010-FY2015 CTP



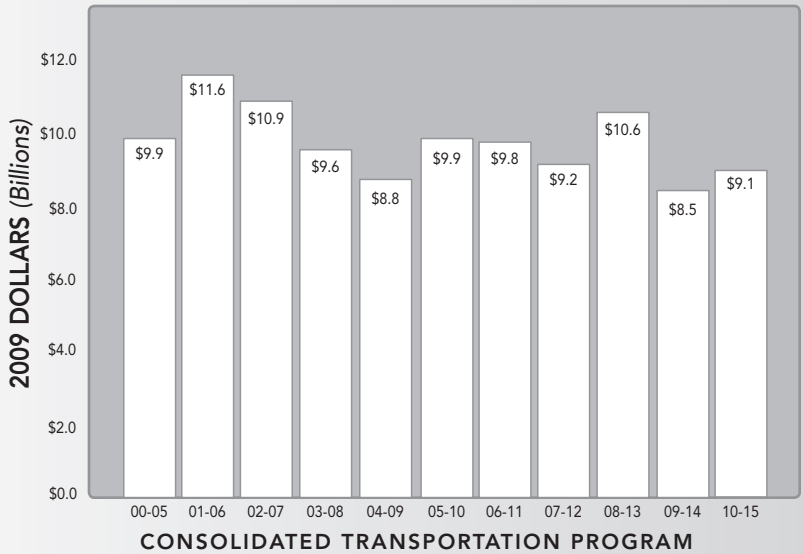
Total Capital Budget - $3.34 Billion

MDTA OPERATING BUDGET *(Millions)* FY2010



Total Operating Budget- $216.9 Million

MDOT TOTAL CAPITAL PROGRAM LEVELS *(Billions)*



ACCOMMODATING GROWING PASSENGER & FREIGHT TRANSPORTATION DEMAND

Travel needs change as Maryland's population and economy grows. For example, nearly 20% of the population is projected to be over 65 by 2030, and that will mean that transportation services will need to consider the special needs of these users. With Maryland's population steadily rising since 2000 and expected to grow to over 7 million by 2030 according to the U.S. Census Bureau, the State will contend with more cars and trucks sharing the road, more transit riders, more commercial airplane passengers, and more goods to move. Together, dispersed land use patterns and new demand, such as that brought on due to the Base Realignment and Closure (BRAC) process, mean that Maryland must be strategic in planning for the efficient movement of people and goods. In the coming years, Maryland stands to gain between 45,000 and 60,000 new jobs — the greatest economic growth the State will have experienced since World War II — as a result of the BRAC program and other Department of Defense location decisions. Five Maryland military installations are expected to have significant increases in personnel, including Fort George G. Meade in Anne Arundel County, Aberdeen Proving Ground in Harford County, the National Naval Medical Center at Bethesda in Montgomery County, Fort Detrick in Frederick County, and Andrews Air Force Base in Prince George's County.

MDOT has been diligently coordinating with Federal, State and local governments to prepare for BRAC, developing and implementing key transportation projects to accommodate this new demand. MDOT programmed $361.4 million in transportation improvements for FY2009 to support the Governor's BRAC Action Plan.

MVA serves as the gateway to transportation in Maryland, providing critical services that facilitate the mobility of Maryland's citizens. As seen below, MVA has historically experienced growth in the number of licenses and vehicle registrations issued.

MVA TRANSACTIONS

	2004	2005	2006	2007	2008	2009
			(Thousands)			
Registered Vehicles	4,538	4,604	4,690	4,752	4,774	4,736
Driver's Licenses Issued	3,789	3,846	3,895	3,937	3,995	4,049
Commercial Driver's Licenses	151	153	160	164	167	168
Motorcycle Licenses	213	221	230	237	244	252
MVA Transactions Per Year	11,993	11,991	12,562	12,542	12,338	12,141

FREIGHT ORIGINATING AND TERMINATING IN MARYLAND (CY2008)

METHOD FOR MOVING FREIGHT	TOTAL VALUE *(Millions)*	TOTAL TONNAGE *(Thousands)*
Air	$3,069	43
Other*	$19,446	1,135
Rail	$8,866	32,689
Truck	$383,714	301,426
Water**	$45,300***	47,500
All Freight	$415,095	382,793

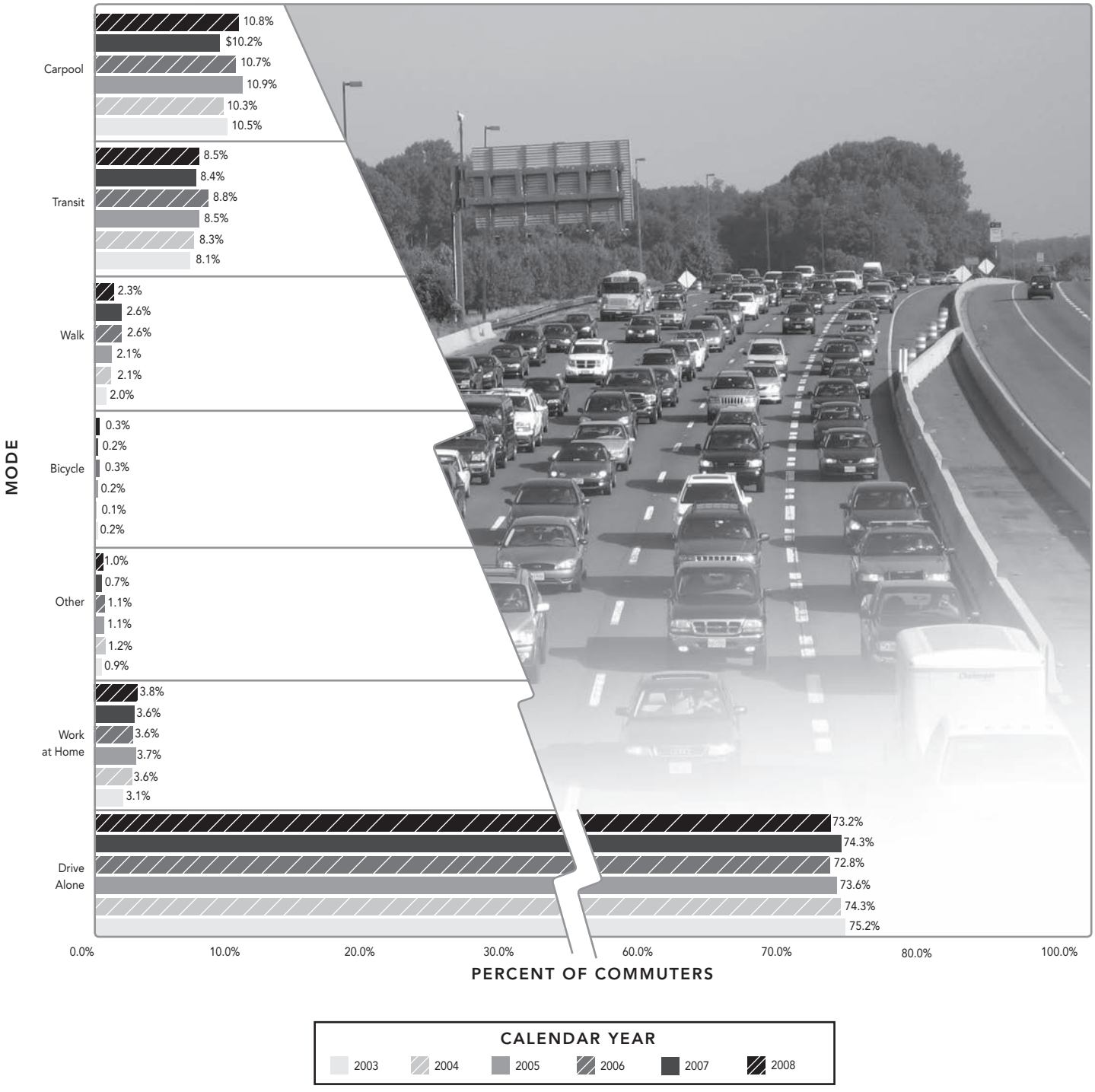
Source: Provisional 2008 data from the Freight Analysis Framework, U.S. Department of Transportation.
** Freight consists largely of postal and courier service.*
*** Source: U.S. Army Corps of Engineers and MPA.*
**** Value of international cargo only.*

Growth in freight shipments across the State's highways, bridges, railways, airports, and seaports is also anticipated in the coming years. To address freight needs in the region, MDOT actively participates in the I-95 Corridor Coalition, an alliance of transportation agencies, toll authorities, and related organizations aimed at coordinated strategies to improve network performance throughout the I-95 Corridor. MDOT has conducted an extensive analysis of the impact of freight through its recently completed Statewide Freight Plan and is in the process of developing a State Rail Plan to address future freight and passenger rail operations.

MODE SPLIT FOR MARYLAND COMMUTERS

Maryland supports many alternatives to driving alone, such as transit, ridesharing and bicycling. In CY2008, over one percent fewer commuters chose to drive alone compared to CY2007. These commuters chose non-motorized transportation alternatives like teleworking and walking. Carpooling realized the greatest percentage gain, and a slight mode shift to transit also occurred. Maryland's transportation agencies continue to encourage alternatives to driving alone by offering a variety of programs through Commuter Choice Maryland, an incentive program that encourages Maryland employees to choose alternatives instead of driving to work. MTA's Commuter Choice Maryland program works with employers and employees to take advantage of consumer-friendly alternatives to driving alone to work. However, while encouraging alternatives to single-occupancy vehicles is one component of Maryland's transportation strategy, it should be noted that personal trips (e.g., social, recreational) make up the majority of all trips and continue to have implications for traffic congestion, land use, parking demand, and air quality.

MODE SPLIT FOR MARYLAND COMMUTERS



Source: American Community Surveys, U.S. Cencus Bureau

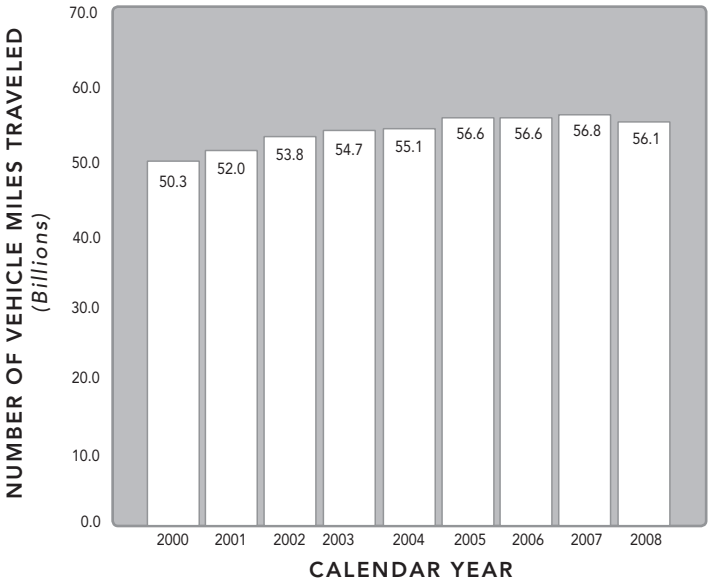
SURFACE TRAVEL IN MARYLAND

Travel behavior can be influenced by many forces, including gas prices, availability of real-time traffic information, and access to alternative transportation options. With most trips being made in personal automobiles and high numbers of vehicles per household, reducing VMT can be very challenging. However, VMT actually declined by 1.2% in CY2008, reversing a nearly decade-long trend. Lower VMT may provide a number of benefits to Marylanders, including improved air quality from lower emissions, congestion relief, and reduced maintenance needs. While reducing VMT has clear benefits, it also significantly impacts funding sources for MDOT, and as we have seen, has been another consequence of the national economic downturn.

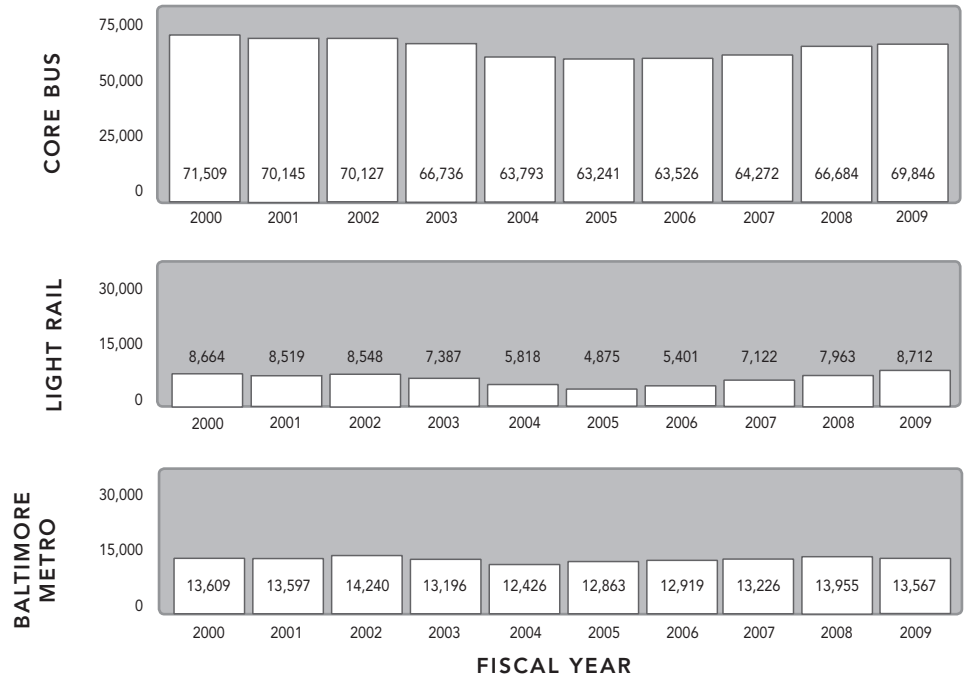
Maryland offers an extensive network of on- and off-road bicycle facilities, as well as hundreds of miles of sidewalks. This network not only facilitates mobility, but it also improves public health and access to transit and retail centers. To demonstrate its commitment to bicycle and pedestrian mobility, MDOT has committed $118.5 million in the FY2010-FY2015 CTP. Maryland has also developed a coordinated trail initiative to promote trails as a viable transportation option through Maryland Trails: A Greener Way To Go. MDOT also supports Maryland's *Smart Green & Growing* initiative, a coordinated multi-agency effort to help Maryland grow in a more compact and sustainable fashion. Other MDOT efforts include promoting dense, mixed-use development near rail transit stations, known as Transit-Oriented Development (TOD), and promoting "complete streets" that serve vehicles, transit, pedestrians, and bicycles throughout corridors, making a more multimodal and coordinated investment in transportation.

In addition to its MTA Direct-Operated transit and Contracted services, MDOT supported over 20 Locally Operated Transit Systems (LOTS) with approximately $77.6 million in Federal and State grants in FY2009. Total transit ridership on MTA and LOTS systems carried over 151 million passengers in FY2009, while WMATA Metrorail and Metrobus carried over 128 million Maryland riders in CY2009. With the exception of Baltimore Metro, ridership grew on all MTA systems (both MTA Direct-Operated and Contracted services). On MTA Direct-Operated systems, Core Bus service experienced the highest absolute growth, serving 3 million more passengers in FY2009 than in FY2008.

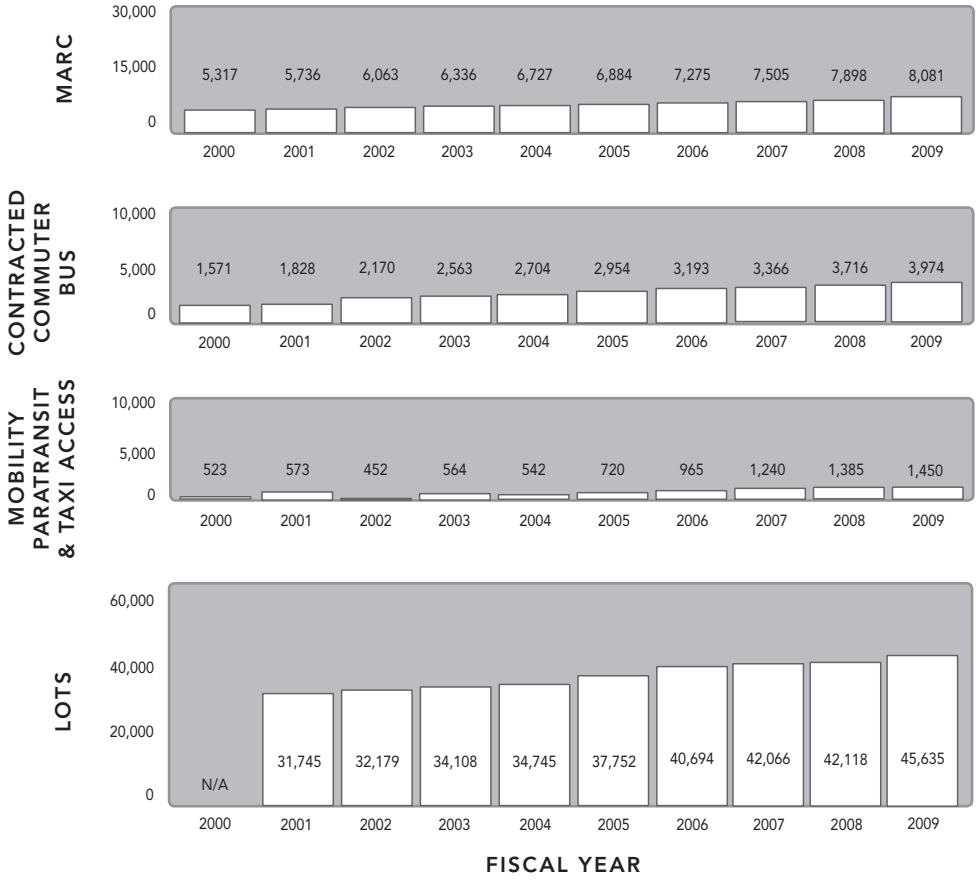
ANNUAL NUMBER OF VEHICLE MILES DRIVEN



TRANSIT RIDERSHIP–MTA DIRECT-OPERATED SERVICES *(Thousands)*



TRANSIT RIDERSHIP–CONTRACTED SERVICES AND LOTS *(Thousands)*

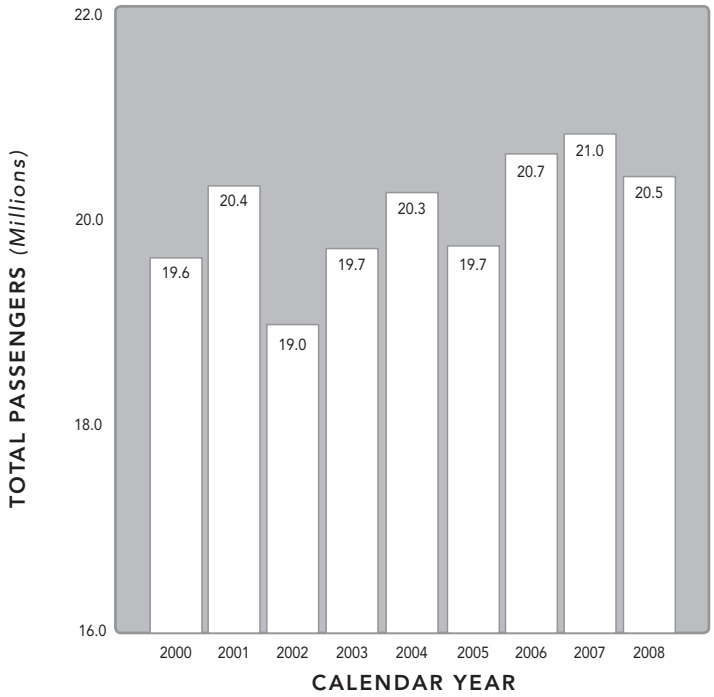


AIR TRAVEL IN MARYLAND

To remain competitive in the region, MAA offers state-of-the-art airport facilities to move domestic and international passengers and cargo to destinations internal to Maryland and beyond. Baltimore/Washington International Thurgood Marshall Airport (BWI Marshall Airport) also provides access to ground transportation options ranging from taxi service to Light Rail to MARC and Amtrak. As the State's most heavily used airport, BWI Marshall Airport provides safe, convenient, and affordable access to the metropolitan areas of Baltimore and Washington, D.C. and to other Mid-Atlantic destinations, making it the "Easy Come, Easy Go" gateway to the world. MAA is responsible for operating BWI Marshall Airport and Martin State Airport, a general aviation and support facility for the Maryland Air National Guard and Maryland State Police. Maryland's complete aviation system includes 18 publicly-owned general aviation airports and 18 private airports open for public use, with commercial air service available at BWI Marshall Airport, Hagerstown, and Salisbury. Not including BWI Marshall Airport and Martin State Airport, public-use general aviation airports in Maryland received approximately $34.6 million in State funding assistance between 2000 and 2009 (excluding Federal funds and local airport funds).

Air travel often fluctuates with economic conditions, and the recent national economic downturn contributed to fewer commercial passengers in CY2008. MAA continues to explore opportunities to expand commercial and freight traffic by working with business organizations and airlines to explore new business development activities.

TOTAL ANNUAL COMMERCIAL PASSENGERS AT BWI MARSHALL AIRPORT



WATERBORNE TRAVEL IN MARYLAND

For more than 300 years, the Port of Baltimore has served as a driving force behind the trade-based aspect of Maryland's economy. MPA is now also rapidly expanding its cruise line offerings to Marylanders and visitors. The Port's growing cruise business is an asset to Maryland's local economy. On the cargo side, the Port of Baltimore continues to employ thousands and is a significant revenue generator for the State. A study based on cargo activity determined that nearly 120,000 jobs are linked to the Port, with 50,000 jobs in Maryland dependent upon the cargo and vessels that travel through the Port and another 68,300 jobs related to activity at the Port. Port activities provide for $3.6 billion in personal income, $1.9 billion in business revenues, $1.3 billion in local purchases, and $388 million in State and local taxes each year.

MPA maintained its competitive edge and for the first time general cargo through MPA terminals reached 9 million tons in FY2008, marking the seventh consecutive record-breaking year for general cargo. However, due to the current global economic conditions, MPA's cargo for FY2009 is estimated to be at about FY2003 levels. The Port ranks first in the nation in roll on/roll off (farm and construction equipment), trucks, imported forest products, imported gypsum, imported iron ore and imported sugar. The Port also has favorable logistics for imports and exports, with rail connections and near proximity to major Interstate highways that facilitate direct transport to overnight and national marketplaces.

The Port is one of only two U.S. East Coast ports with a 50-foot deep channel accessing its marine terminals, including Seagirt. In November 2009, Governor O'Malley announced a public-private partnership with Ports America Chesapeake to operate Seagirt. Under the agreement, Ports America Chesapeake will build a 50-foot berth and make other capital improvements. In FY2009, the U.S. Army Corps of Engineers dredged 4.2 million cubic yards of material to maintain safe and unimpeded access to these channels. MPA provides placement facilities for dredged materials and is pursuing opportunities for the beneficial use of these materials (e.g., restoring eroding islands and wetland habitats in the Chesapeake Bay).

Quality of Service

OBJECTIVES:

- Enhance customer experience and service
- Provide reliable and predictable travel time across modal options for people and goods
- Facilitate coordination and collaboration with agency partners and stakeholders

PERFORMANCE MEASURES

MONITORING AGENCY	PERFORMANCE MEASURE	PAGE
MAA	Percent of BWI Marshall customers rating the airport "good" or "excellent" on key services	13
MPA	Average truck turn-around time at Seagirt Marine Terminal	13
MTA	Percent of service provided on time	11
MTA	Customer satisfaction rating	12
MDTA	Overall customer satisfaction of *E-ZPass*® customers	14
MDTA	Percent of toll transactions collected electronically	14
MVA	Branch office customer visit time versus customer satisfaction rating	12
SHA	Maryland driver satisfaction rating	10
SHA	Percentage of the Maryland SHA network in overall preferred maintenance condition	10

Maryland's extensive transportation system continues to offer residents, visitors, and businesses a high level of customer service, even in the face of tough financial constraints due to the national economic downturn. Maryland has responded to these challenging times by pursuing investment decisions that offer long-lasting solutions aimed at striking a balance between roads and transit.

In order to maximize transportation benefits for users at a minimum cost, Maryland's transportation agencies leverage limited resources to achieve shared interests in system preservation, economic opportunity, mobility enhancement, and healthier lifestyle choices. Partnerships with sister State agencies provide an opportunity to apply a comprehensive approach to complex issues. For example, MDOT's partnership with the Maryland Department of the Environment helps advance air quality efforts through the Climate Action Plan.

Each day presents new challenges to operating and managing a state-of-the-art multimodal transportation system. Maryland must keep up with increasing demand and aging infrastructure, while maintaining a high level of service that preserves and enhances the quality of life that Marylanders enjoy. Together, Maryland's transportation agencies accomplish this by encouraging coordination of State transportation investments with local land-use policies, working with railroad companies and Amtrak to manage passenger and freight demand, and making cost-effective infrastructure investments.

KEY INITIATIVES

MDOT: Pursue coordinated and collaborative planning strategies across modes through the Statewide Freight Plan, Statewide Rail Plan, Strategic Highway Safety Plan, Maryland BRAC Action Plan, Maryland Climate Action Plan, and Maryland Trails: A Greener Way to Go.

MAA: Upgrade parking services to include varying payment and ticket options ($8.8 million for Parking Revenue Control System in the FY2010-FY2015 CTP).

MPA: Expand Seagirt Marine Terminal capacity and implement industry technologies to improve truck turn-around times and overall productivity.

MTA: Advance the Red Line and Purple Line to improve mobility.

MDTA: Continue construction of the Intercounty Connector (MD 200) and the I-95 Electronic Toll Lanes℠ (ETLs℠) to provide travel reliability and enhanced mobility for people and goods.

MVA: Continue to invest in electronic delivery technologies to provide MVA services through the Internet, kiosks and customer call centers.

SHA: Update website with tools to keep the public informed and connected to real-time traffic information, innovations in highway safety, environmental initiatives, and construction projects.

SHA: MARYLAND DRIVER SATISFACTION RATING

Customer Satisfaction Surveys help determine if SHA services are better than average in the eyes of its customers. SHA strives to achieve a "B" grade, which is equivalent to 4 out of 5.

CALENDAR YEAR*	2006	2008
Rating	3.93	3.90

TARGET: 4 out of 5

** Survey administered biennially.*

WHY DID PERFORMANCE CHANGE?

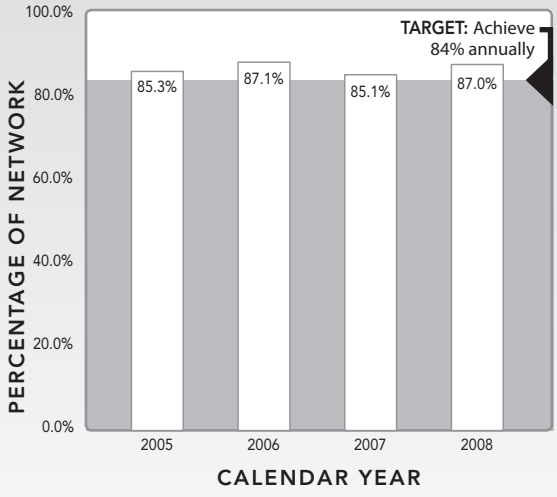
- Created a Customer Bill of Rights and customer service standards for all employees
- Redesigned the SHA website to make it more user-friendly
- Achieved an average turn-around time of 95% on customer requests where the customer requested follow-up
- Implemented a customer service strategic plan to guide long-term customer-based initiatives
- Upgraded and institutionalized a customer request tracking system to address customer needs
- Focused funding and performance results on core functions (e.g., maintenance, incident management, bridge safety, and snow removal)

WHAT ARE FUTURE PERFORMANCE STRATEGIES?

- Analyze customer request data and identify opportunities to better align internal work processes with customer needs
- Provide training to managers to better recognize and acknowledge customer responsiveness behavior in employees

SHA: PERCENTAGE OF THE MARYLAND SHA NETWORK IN OVERALL PREFERRED MAINTENANCE CONDITION

The overall condition of the network reflects how well asset management strategies, improved operations, and technology have sustained the quality and safety of existing roadways.



WHY DID PERFORMANCE CHANGE?

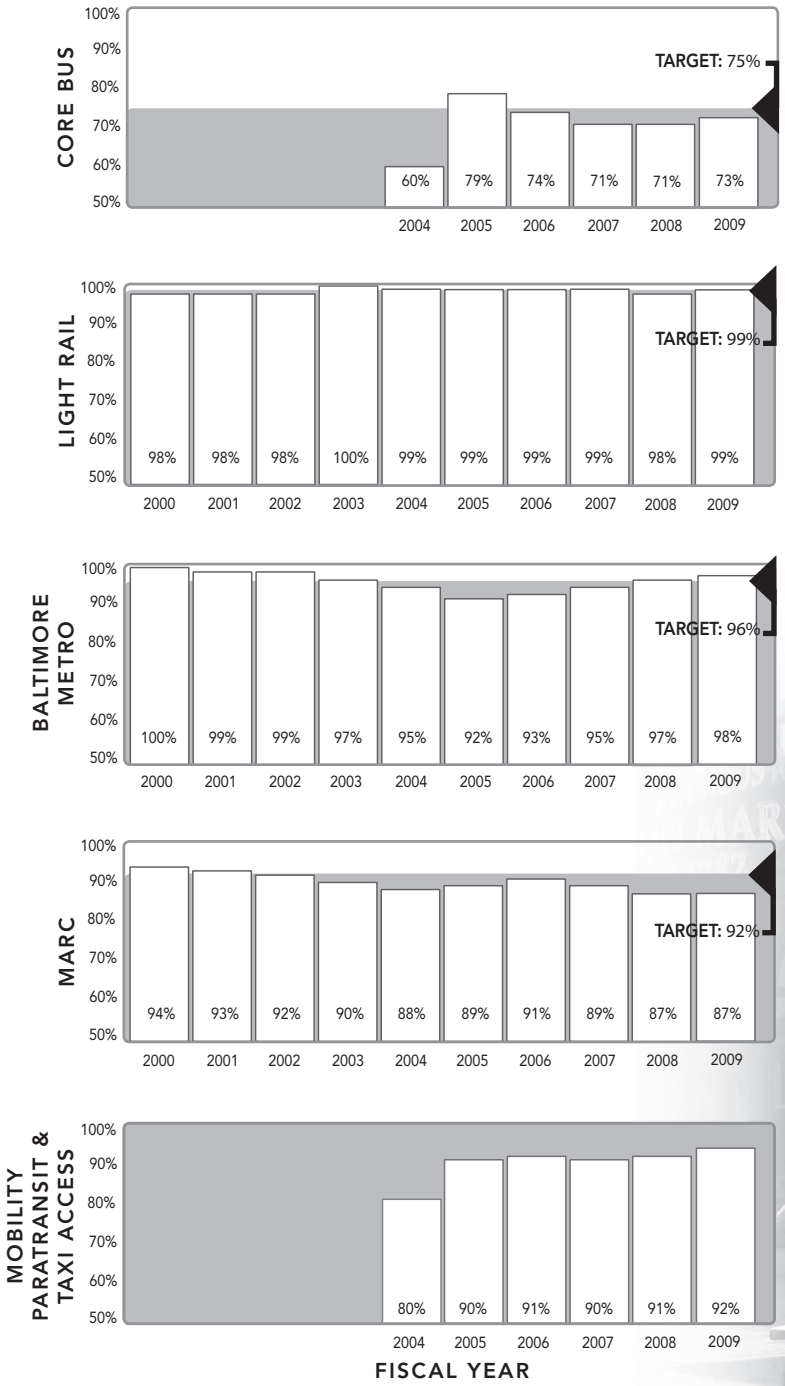
- In FY2007, SHA's Maintenance Operating Budget received an increase of $13.3 million ($5.8 million enhancement plus 10% of FY2006) as a direct result of demonstrating the relationship between the maintenance enhancement proposal and the performance goals
- Maintenance budgets are distributed throughout SHA's District Offices, partially based on condition ratings, helping them to perform some additional preventive maintenance; the cumulative benefit is now showing positive results
- SHA made some process improvements in how maintenance activities are performed (e.g., crews are streamlining activities and targeting resources on the most critical activities)

WHAT ARE FUTURE PERFORMANCE STRATEGIES?

- Future performance is expected to decline to 84% due to the tight economic situation, which translates to about 500 lane-miles of road that would be affected
- Maintenance activities are being reallocated (e.g., reduce funding in areas that are mostly aesthetic, like mowing) to focus on traffic safety items (e.g., line-striping)
- Track maintenance accomplishments more frequently throughout the year and adjust work plans as necessary to meet changing demand (e.g., volume of customer requests, weather patterns, contractor availability, roadway damage caused by traffic crashes and the impact of deferring planned maintenance to handle emergency activities)

MTA: PERCENT OF SERVICE PROVIDED ON TIME

On time performance is an important indicator of service quality and efficiency, and correlates highly with system usage and customer satisfaction.



WHY DID PERFORMANCE CHANGE?

- Made regular schedule and route adjustments to ensure maximum efficiency
- Improved scheduling of required maintenance resulted in fewer delays to Baltimore Metro trains
- Increase in usage by Amtrak and CSX traffic left less time for MARC commuter trains
- Implementation of new guidelines and measures for Mobility Paratransit and Taxi Access

WHAT ARE FUTURE PERFORMANCE STRATEGIES?

- Implement computer-aided dispatching and track the location of all buses on a real-time basis with Automatic Vehicle Locator (AVL) system
- Begin the overhaul of Light Rail cars
- Begin overhaul of MARC diesel and electric locomotives
- Perform efficiency improvements on all MARC lines

MTA: CUSTOMER SATISFACTION RATING

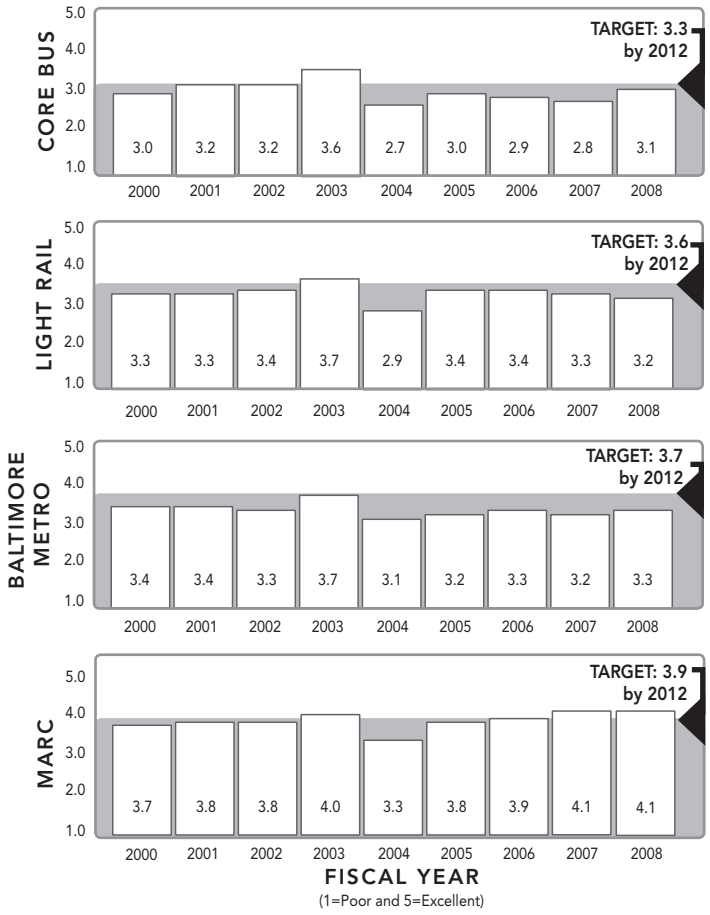
Reliable, safe, and convenient service are key factors in attracting ridership. Customer satisfaction reflects whether MTA is meeting its customer service standards and signals which modes require improvement. (1 = Poor and 5 = Excellent)

WHY DID PERFORMANCE CHANGE?

- 2009 survey data was unavailable at the time of printing

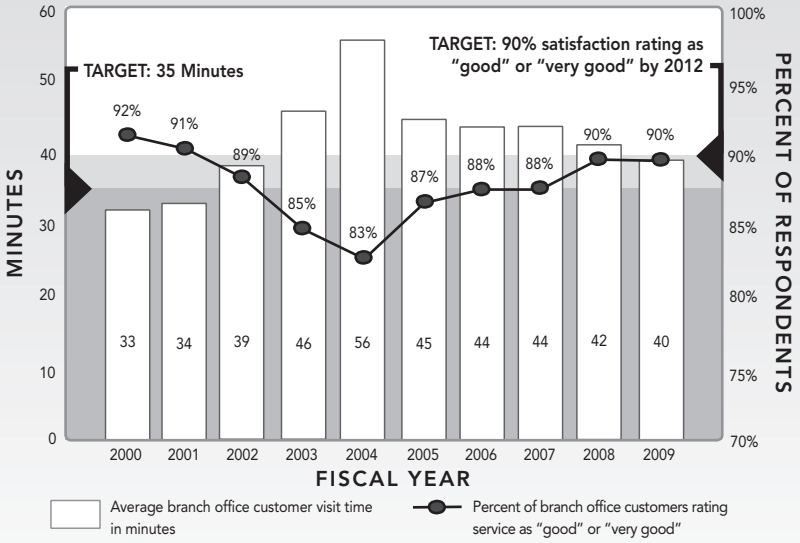
WHAT ARE FUTURE PERFORMANCE STRATEGIES?

- Continue Core Bus service improvements
- Obtain additional MARC locomotives
- Implement a new Service Quality Division to assist all operators and promote professionalism and customer service
- Expand facilities with additional parking at park-and-ride lots, and hybrid bus fleet replacements



MVA: BRANCH OFFICE CUSTOMER VISIT TIME VERSUS CUSTOMER SATISFACTION RATING

Average customer visit time is a key indicator of the quality and efficiency of service delivery to customers and is directly related to customer satisfaction (i.e., as MVA branch customer visit time decreases, customer satisfaction increases).



WHY DID PERFORMANCE CHANGE?

- The strongest factor influencing customer service ratings is visit time
- Average branch office customer visit time decreased 2 minutes and service ratings remain high

WHAT ARE FUTURE PERFORMANCE STRATEGIES?

- Continue to employ innovative strategies and technologies to reduce the average branch office customer visit time as appropriate to the level of transactions conducted at Branch offices ($13.9 million for Title and Registration Information System 2 (TARIS 2) in the FY2010-FY2015 CTP)
- Implement initiatives to improve customer satisfaction and service measures (e.g., train all Customer Service Representatives and Driver License Examiners to provide timely, consistent and effective service)

MAA: PERCENT OF BWI MARSHALL CUSTOMERS RATING THE AIRPORT "GOOD" OR "EXCELLENT" ON KEY SERVICES

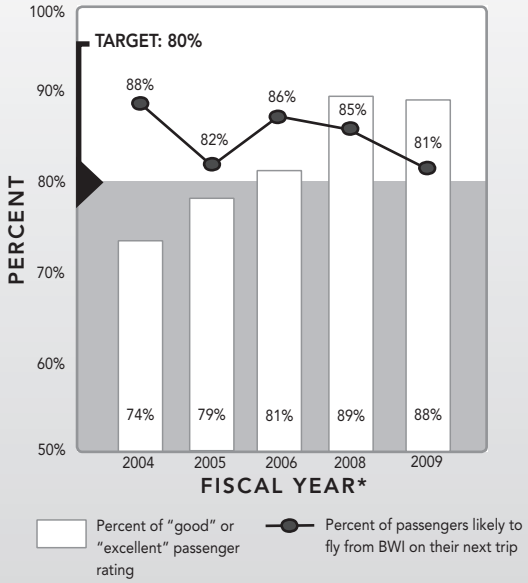
Customer surveys provide valuable feedback to agencies regarding service delivery, enabling them to continuously respond to customer needs. The percentage of BWI Marshall Airport passengers providing a rating of "Satisfied"exceeds 99%.

WHY DID PERFORMANCE CHANGE?

- Customer satisfaction with BWI Marshall Airport remains high

WHAT ARE FUTURE PERFORMANCE STRATEGIES?

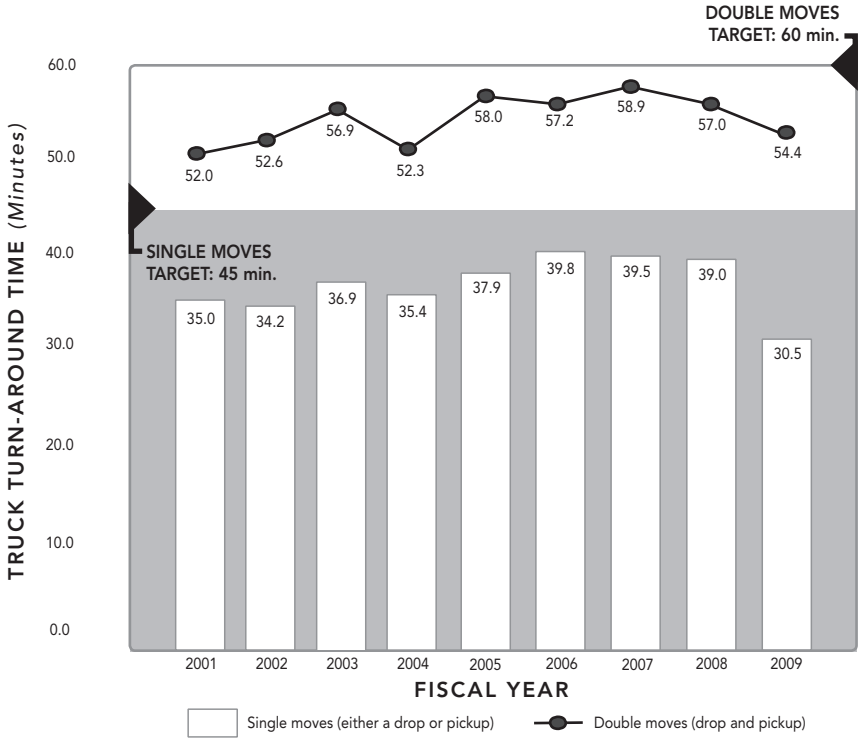
- Survey program has been suspended due to budgetary constraints



** Survey not completed in FY2007. The 2009 rating only reflects first quarter 2009 data, not the full fiscal year.*

MPA: AVERAGE TRUCK TURN-AROUND TIME AT SEAGIRT MARINE TERMINAL

Truck turn-around time is a gross measure of the efficiency and operations of the terminal. Reductions in turn-around times improve throughput capacity and result in incremental environmental benefits.



WHY DID PERFORMANCE CHANGE?

- Volume fluctuations due to the national economic downturn led to quicker turn-around times
- Implemented equipment and technology enhancements that improved gate processing
- Fully implemented the Transportation Worker Identification Credential (TWIC) program to facilitate secure entry to MPA facilities

WHAT ARE FUTURE PERFORMANCE STRATEGIES?

- Advance the Port-wide quality program QCHAT (Quality Cargo Handling Action Team) to improve handling of containerized cargo
- Focus on managing truck turn-around times through process adjustments and investments in equipment and technology
- Continue to evaluate business processes and explore additional process-enhancing technologies to improve gate and terminal performance

MDTA: OVERALL CUSTOMER SATISFACTION OF *E-ZPass*® CUSTOMERS

Tracks the satisfaction of *E-ZPass*® private account holders.

FISCAL YEAR*	2007	2009**
Percent Satisfied	87%	N/A

TARGET: 87%

** Survey administered biennially and baseline data established September 2007.*

*** Data currently unavailable, but will be updated in future Attainment Report.*

WHY DID PERFORMANCE CHANGE?

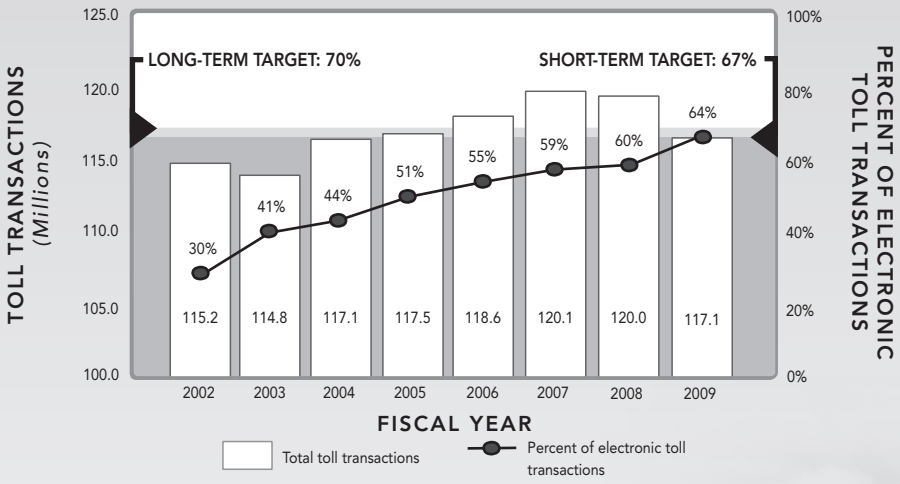
- The *E-ZPass*® Customer Satisfaction Survey planned for the Spring of 2009 was postponed due to the implementation of the Toll Cost Recovery Initiative. MDTA responded to more than 3,000 public comments regarding the proposed fee structure changes, and there was a concern that the results of a survey conducted during the cost recovery initiative might be unduly biased by the public response to the proposed *E-ZPass*® fee increases. MDTA's *E-ZPass*® Customer Satisfaction Survey efforts resumed in December 2009, and data is expected to be available in Spring 2010.

WHAT ARE FUTURE PERFORMANCE STRATEGIES?

- The MDTA adopted new regulations through COMAR to set out a 60-day comment period and a minimum requirement for public meetings in advance of changes to tolls and to system-wide service charges and administrative fees. The regulations deal both with traditional fixed-price toll faclities and with setting the range of possible tolls on variably-priced facilities such as the ICC and the I-95 ETL project.
- Disseminate survey analyses to the appropriate MDTA Divisions in order to initiate improvements to service and performance

MDTA: PERCENT OF TOLL TRANSACTIONS COLLECTED ELECTRONICALLY*

Electronic toll collection systems expedite the toll collection process, reduce delays at toll plazas, decrease emissions, and are available at all seven toll facilities across the State.



** Toll collections are paid as cash, ticket or electronic transaction.*

WHY DID PERFORMANCE CHANGE?

- Electronic toll transactions increased by 4%, which resulted in higher hourly throughput
- Marketing increased customer awareness and usage of *E-ZPass*®
- Discontinued the ticket book program for commuters

WHAT ARE FUTURE PERFORMANCE STRATEGIES?

- Continue *E-ZPass*® lane improvements, including higher speed tolling improvements on selected lanes
- Continue project planning, development and construction of the I-95 Express Toll Lanes℠ (ETLs℠) and the Intercounty Connector (ICC)
- Continue marketing of *E-ZPass*® at public events, toll plazas, and Stop-In Centers
- Expand the "*E-ZPass*® On The Go" retail transponder sales program to new retailers

Safety & Security

OBJECTIVES:

- Reduce the number and rate of transportation-related fatalities and injuries
- Secure transportation assets for the movement of people and goods
- Coordinate and refine emergency response plans and activities

PERFORMANCE MEASURES

MONITORING AGENCY	PERFORMANCE MEASURE	PAGE
MAA	BWI Marshall crime rate	19
MAA	Number of repeat discrepancies in the annual Federal Aviation Administration's Federal Aviation Regulation inspection	20
MAA	Rate of airfield ramp incidents and accidents per 1,000 operations	19
MPA	MPA compliance with the Maritime Transportation Security Act of 2002	20
MTA	Customer perceptions of safety on the MTA system	18
MTA	Preventable accidents per 100,000 vehicle miles	18
MVA	Percent of Homeland Security Real ID Act benchmarks achieved	18
SHA	Number of bicycle and pedestrian fatalities and injuries on all Maryland roads	17
SHA & MDTA	Annual number and rate of traffic fatalities and personal injuries on all roads in Maryland	16

Maryland's transportation agencies incorporate safety and security considerations into all planning, construction, and operational activities related to Maryland's highway, transit, maritime, and aviation facilities. A safe and secure network is integral to seamlessly connecting people and goods to destinations in Maryland, the rest of the country, and the world. Achieving a safe and secure transportation system requires close coordination with law enforcement, emergency responders, and incident response teams. For example, Maryland's Coordinated Highways Action Response Team (CHART) combines proven operational procedures with sophisticated technological tools to quickly respond to traffic incidents through emergency response, road/debris clearing, and real-time communication of information.

Roadway safety is one of Maryland's highest customer commitments. Working with partner State agencies like the Maryland State Police, MDOT has developed a data-driven Strategic Highway Safety Plan (SHSP), which provides a framework to reduce transportation related injuries and fatalities. The SHSP uses performance measures to evaluate key safety areas (i.e., those that generate the greatest number of injuries and fatalities) and to identify life-saving educational programs, enforcement strategies, and engineering solutions. This results-oriented approach maximizes the number of lives that can be saved and reduces injuries by strategically investing in the areas where the greatest gains can be achieved.

Maryland's transportation agencies address security through emergency response plans and regular exercises to help prepare for, respond to, and recover from natural and man-made emergencies. To protect MDOT's assets, Maryland's transportation agencies employ advanced technologies to drivers' licenses, secure air and sea ports of entry, patrol transit stations, and monitor commercial traffic and cargo.

KEY INITIATIVES

MDOT: Maintain leadership in the Maryland Bicycle and Pedestrian Advisory Committee, which provides guidance to State agencies on matters directly relating to bicyclists and pedestrians, including safety.

MAA: BWI Marshall Airport Fire and Rescue Department will continue to provide mutual aid service to nearby communities. The Department responded 748 times for mutual aid in FY2009.

MPA: Fully implement the Transportation Worker Identification Credential (TWIC) at all MPA terminals—a tamper-resistant biometric credential issued to workers who require unescorted access to secure Port terminals and vessels (MPA has $9.7 million dedicated to Security projects in the FY2010-FY2015 CTP).

MTA: Strategically deploy a team of highly trained K9 units that travel throughout the transit system to support security and law-enforcement services.

MDTA: Conduct commercial-vehicle enforcement activities throughout all MDTA facilities. During FY2009 a total of 20,348 commercial vehicle inspections were conducted by MDTA Police; 1,431 drivers were taken out of service and 3,508 unsafe commercial vehicles were placed out of service.

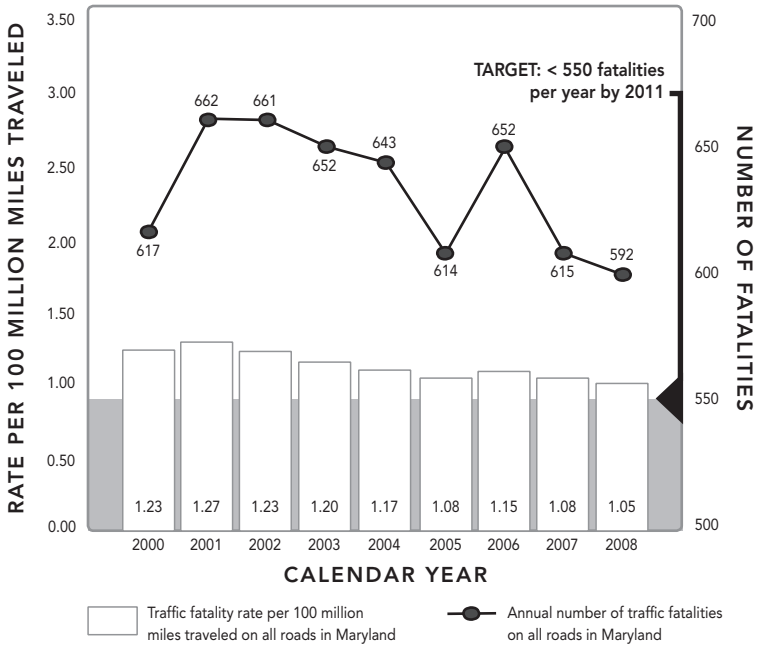
MVA: Deploy system enhancements and explore new technologies to comply with Federal identification requirements stipulated by the Real ID Act.

SHA: Continue driver safety programs to improve public understanding of the rules of the road for all users—bicyclists, pedestrians and motorists—through training, education, and enforcement.

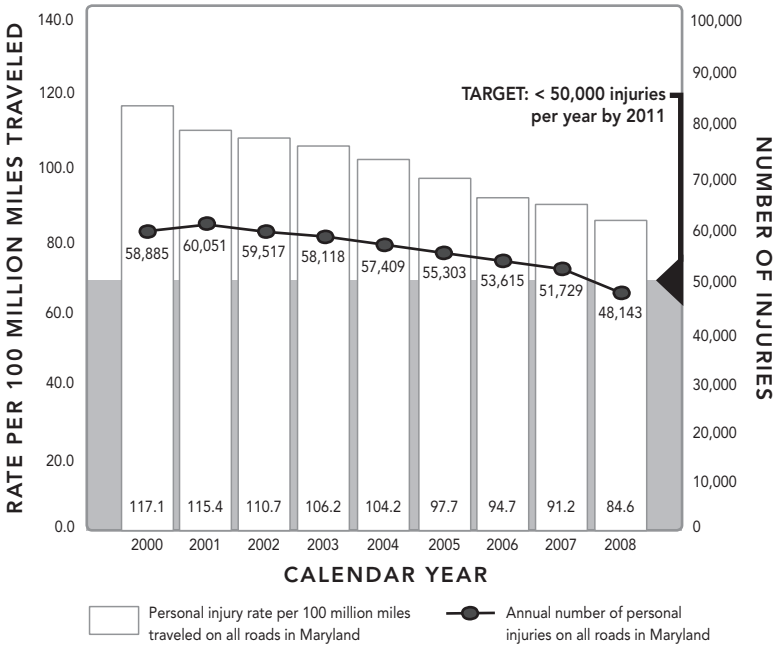
SHA & MDTA: ANNUAL NUMBER AND RATE OF TRAFFIC FATALITIES AND PERSONAL INJURIES ON ALL ROADS IN MARYLAND

In line with international trends, Maryland uses reductions in the actual numbers of traffic fatalities and injuries as desired safety outcomes. Injury and fatality data help to assess the effectiveness of the Maryland Strategic Highway Safety Plan and to identify tendencies and trends that assist in implementing a wide variety of countermeasures.

ANNUAL NUMBER AND RATE OF TRAFFIC FATALITIES ON ALL ROADS IN MARYLAND



ANNUAL NUMBER AND RATE OF PERSONAL INJURIES ON ALL ROADS IN MARYLAND



WHY DID PERFORMANCE CHANGE?

- Decreasing traffic fatalities and personal injuries due to: higher seat belt use (93% in CY2008), highway engineering and operations enhancements, improvements to vehicle safety design and equipment, safety education, law enforcement and adjudication, driver monitoring and control, and commercial vehicle operation "surprise" inspections and enforcement
- In 2009, Maryland enacted 33 traffic and safety bills, including four that were recommended by the Task Force to Combat Driving Under the Influence of Drugs and Alcohol and bills that strengthened the Graduated Licensing process, authorized the Statewide use of speed cameras in school and work zones, and banned text messaging in moving vehicles
- Increase use of centerline and edgeline rumble strips to alert drivers when they are drifting outside of their travel lane
- Supported safety media messages (e.g., Motorcycle Safety Media campaign) conducted by Maryland law enforcement agencies and local community traffic safety program coordinators
- Initiated partnership with Maryland Association of Health Officers to educate about the importance of viewing motor vehicle crashes, deaths, and personal injuries as public health concerns
- Focused on interagency emphasis area teams to review performance data and plan where to target mutually beneficial activities

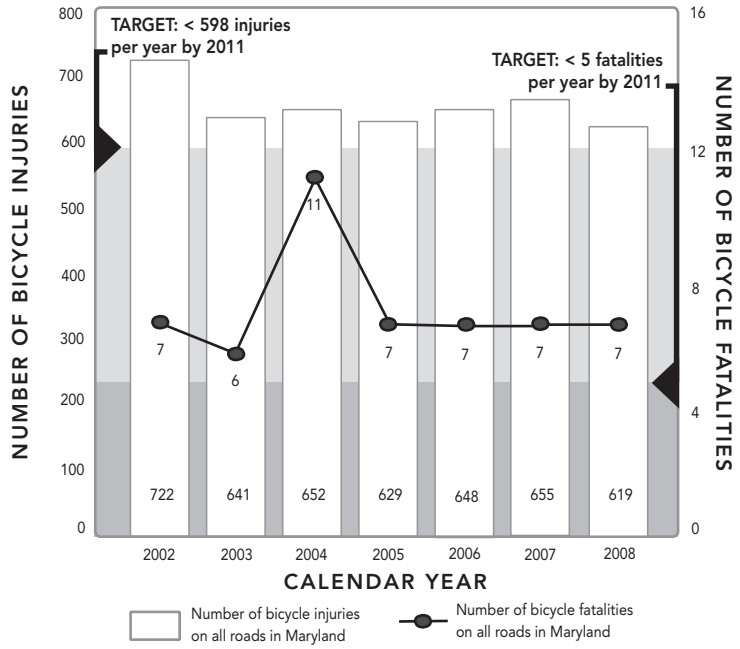
WHAT ARE FUTURE PERFORMANCE STRATEGIES?

- Improve signing and markings in advance of curves and expand use of raised pavement markers, rumble strips, and rumble stripes to reduce roadway departures
- Expand use of low-cost safety improvements
- Convert problematic conventional intersections to roundabouts
- Pursue safety countermeasures to address special groups (e.g., younger and older drivers, pick-up truck drivers)
- Continue implementing existing educational, engineering and enforcement programs such as occupant protection, impaired driving prevention, aggressive driving prevention, inattentive driving prevention, and motorcycle safety
- Conduct a motorcycle safety awareness campaign that focuses on outreach to sport bike riders
- Implement the SHSP through a cooperative interagency approach, focusing the plan to further reduce traffic-related fatalities and injuries over the next 4 years
- Participate in studies of legislative proposals to deal with highway safety issues and continue to build relationships with the law enforcement community
- Raise motorcycle safety awareness (e.g., sport bike riders) and public awareness of work zone safety (e.g., install speed cameras in work zones), and launch a "DUI Is For Losers" social norming campaign focusing on the danger of impaired driving
- Explore new opportunities for reaching younger audiences through social media and web applications and pursue better placement and coverage of outdoor media

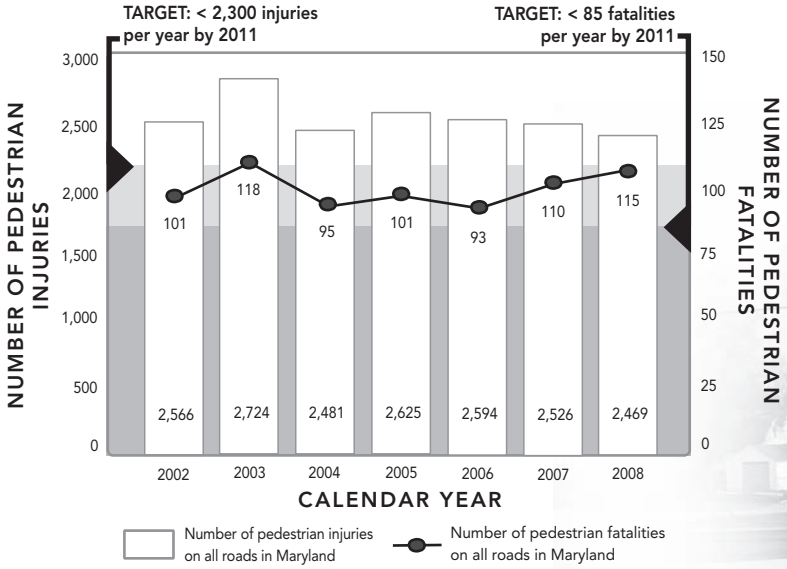
SHA: NUMBER AND RATE OF BICYCLE AND PEDESTRIAN FATALITIES AND INJURIES ON ALL MARYLAND ROADS

Maryland uses reductions in the actual numbers of bicycle and pedestrian fatalities and injuries as desired safety outcomes. Injury and fatality data help to assess the effectiveness of the Maryland Strategic Highway Safety Plan and to identify tendencies and trends that assist in implementing a wide variety of countermeasures.

NUMBER OF BICYCLE FATALITIES AND INJURIES ON ALL MARYLAND ROADS



NUMBER OF PEDESTRIAN FATALITIES AND INJURIES ON ALL MARYLAND ROADS



WHY DID PERFORMANCE CHANGE?

- Developed a new bicycle safety awareness campaign targeting motorists
- Conducted the StreetSmart awareness and enforcement campaign
- Conducted road safety audits in jurisdictions with a high number of pedestrian crashes
- Received $1.74 million in "Safe Routes to School" funds, totaling $9.25 million to date
- Installed accessible pedestrian signals at more than 400 intersections on state highways during FY2009
- Invested $5.3 million in Americans with Disabilities Act (ADA) improvements in FY2009
- Illegal street-racing during CY2008 resulted in a crash that killed 8 on-lookers; this single incident caused an increase in pedestrian fatalities above the previous year

WHAT ARE FUTURE PERFORMANCE STRATEGIES?

- Add wayfinding signage and pavement markings to a network of 1,700 miles of State highways identified on the State Bicycle Map
- Develop a new public education concept for sharing the road that incorporates bicycle and pedestrian awareness
- Identify state-of-the-practice design techniques to improve bicycle and pedestrian safety
- Increase pedestrian safety enforcement during critical times of day (e.g., Tuesday–Friday, 3–8 p.m.)
- Promote the Bicycle Level of Comfort planning "calculator" to assess bicycle impacts from road improvements and opportunities to improve bicycle access
- Expand the StreetSmart program into Baltimore
- Focus enforcement and education funds for areas with a history of high pedestrian injuries and fatalities
- Perform an inventory of shoulder widths, outside lane widths, and trails or multi-use paths, and map locations of these facilities with appropriate bicycle compatibility
- Expand intersections with pedestrian "count down" signals, safety signage, and ADA features ($31.9 million for BRAC Intersections near Fort Meade in the FY2010-FY2015 CTP)

MTA: CUSTOMER PERCEPTIONS OF SAFETY ON THE MTA SYSTEM

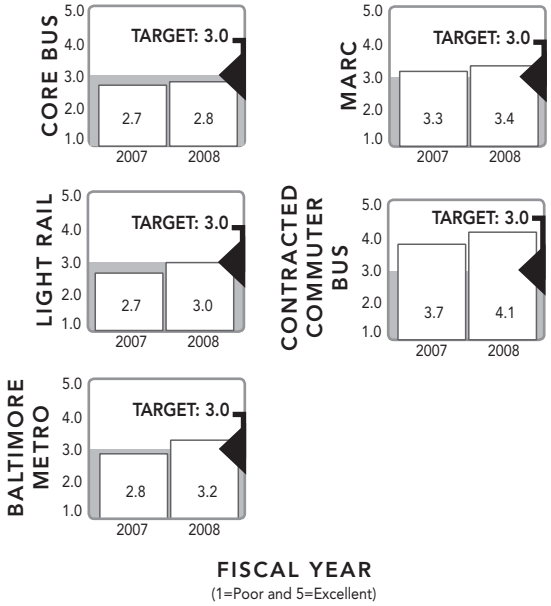
A positive perception of personal safety is correlated with higher ridership and stronger commitment to transit as a mode of travel.

WHY DID PERFORMANCE CHANGE?

- Continued the Zone Enforced Uniform Sweeps (ZEUS)—unannounced and highly visible police sweeps of MTA facilities
- Maintained the CompStat program, a weekly review of all reported incidents on the MTA, to develop effective strategies to combat crime

WHAT ARE FUTURE PERFORMANCE STRATEGIES?

- Continue ZEUS and CompStat programs
- Replace Baltimore Metro fire and security management systems with state-of-the-art technologies
- Install a CCTV facility with start-of-the-art monitoring capabilities at additional Baltimore Metro stations and Light Rail stations ($7.4 million for CCTV Improvements in the FY2010-FY2015 CTP)



MTA: PREVENTABLE ACCIDENTS PER 100,000 VEHICLE MILES

Provides a benchmark to reduce preventable accidents, increase efficiency, and provide a safer ride to customers.

CALENDAR YEAR	2007	2008	2009
Bus Accident Rate	2.5	2.5	2.5

TARGET: 7% reduction by 2012

(Baseline year = 2008)

WHY DID PERFORMANCE CHANGE?

- Baltimore Metro has had zero preventable accidents so far this calendar year—bus preventable accidents have remained the same and mobility preventable accidents have decreased by 43%
- Light Rail preventable accidents decreased by 50% in the calendar year-to-date
- Emphasized defensive driving techniques in bus operator training programs

WHAT ARE FUTURE PERFORMANCE STRATEGIES?

- Review accidents to determine trends in operators, time of day, accident location, and intersections
- Develop an Accident Review Board to look at preventable trends
- Develop a sub-committee to review Standard Operating and Safety Procedures
- Determine whether the operators need additional training

MVA: PERCENT OF HOMELAND SECURITY REAL ID ACT BENCHMARKS ACHIEVED

The Federal Real ID Act of 2005 sets new standards for issuing driver licenses and identification cards and is intended to improve the integrity and security of State-issued driver licenses and identification cards. All states must enact and comply with Real ID regulations, which include 18 Federal benchmarks established by the U.S. Department of Homeland Security. To comply with this mandate, on January 15, 2008, Governor O'Malley directed MDOT to create a State driver's license that fully complies with the Federal Real ID regulations.

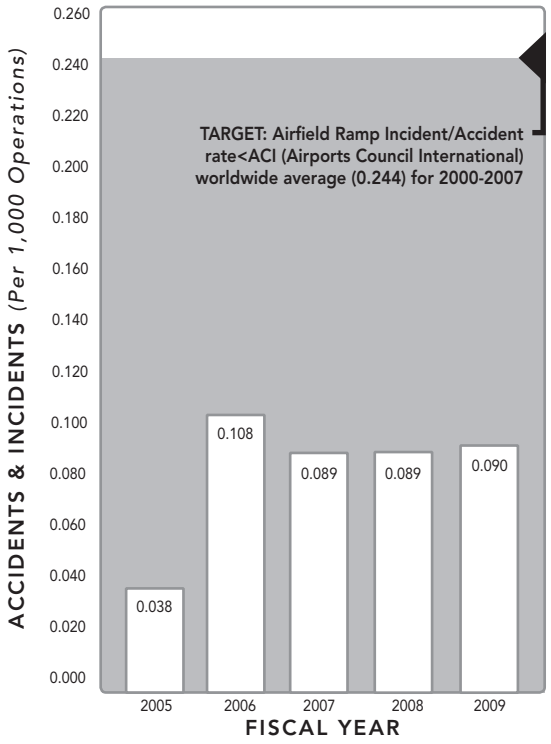
Since then, MVA has been proactively implementing the 18 Federal benchmarks and regularly monitors compliance progress. As of July 2009, the MVA fulfilled 12 of the 18 benchmarks, reaching a 66% compliance rate. Maryland is on track to begin issuing Real ID licenses and ID cards on January 1, 2010. MVA will continue making progress towards benchmark achievement, with full compliance expected for people under age 50 by 2014 and over age 50 by 2017.

WHAT ARE FUTURE PERFORMANCE STRATEGIES?

- Sustain a Real ID Executive Committee to provide direction and enact policies to ensure Maryland's compliance with the Federal Real ID Act
- Enhance system processes and business practices to comply with legislation that requires individuals to provide proof of lawful presence in the U.S.
- Continue to proactively implement and strictly monitor progress toward completion of the 18 Federal Real ID benchmarks

MAA: RATE OF AIRFIELD RAMP INCIDENTS & ACCIDENTS PER 1,000 OPERATIONS

This measure provides an indication of the safety and security of operations at BWI Marshall Airport.



WHY DID PERFORMANCE CHANGE?

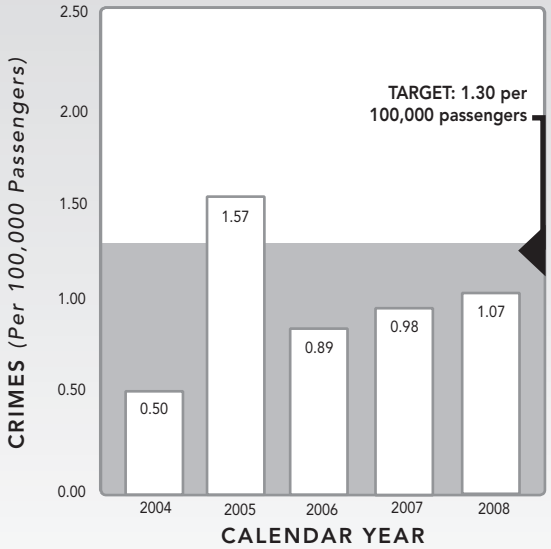
- Rate of airfield incidents and accidents has remained steady and is well below the average rate as reported by the Airports Council International (ACI)

WHAT ARE FUTURE PERFORMANCE STRATEGIES?

- Implement a proactive Safety Management System to address safety issues/concerns before they develop into accidents/incidents
- Address safety concerns of airport tenants through monthly ramp safety meetings

MAA: BWI MARSHALL CRIME RATE*

This measure provides an indication of the relative safety passengers experience when traveling through BWI Marshall Airport. Poor performance in this area could result in a decline in passenger numbers.



** Crimes include all thefts at BWI Marshall Airport, as well as vehicles stolen from the BWI Marshall Airport car rental facility.*

WHY DID PERFORMANCE CHANGE?

- The crime rate at BWI Marshall continues to remain low and meet targets

WHAT ARE FUTURE PERFORMANCE STRATEGIES?

- Continue to expand the CCTV coverage to better monitor, record, and respond to security and safety incidents
- Conduct random security inspections by MDTA law enforcement personnel of airfield vehicles and employees entering/exiting the Sterile Area

MPA: MPA COMPLIANCE WITH THE MARITIME TRANSPORTATION SECURITY ACT OF 2002

The MPA is required to maintain and execute a Facility Security Assessment and Plan. MPA terminals can be closed down if found in non-compliance.

As required by the Maritime Transportation Security Act (MTSA) of 2002, all MPA terminals' Facility Security Assessment and Facility Security Plans currently meet MTSA requirements and have been approved by the U.S. Coast Guard. The U.S. Coast Guard will issue an order to cease operations if an MPA facility is not in compliance and closure is required, which has never occurred at MPA. In MPA's most recent U.S. Coast Guard annual inspection, MPA met or exceeded all aspects of the inspection. MPA will continue to assess its security plans and make adjustments or additions where appropriate to assets, personnel, equipment, and technology in order to maintain security at MPA.

MAA: NUMBER OF REPEAT DISCREPANCIES IN THE ANNUAL FEDERAL AVIATION ADMINISTRATION'S FEDERAL AVIATION REGULATION INSPECTION

The passing of Federal Acquisition Regulation (FAR) Part 139, which governs the certification and operation of US commercial airports, is requisite for the airport to remain open and operational.

Each year, MAA works closely with the Federal Aviation Administration (FAA) to ensure that BWI Marshall Airport remains in compliance with the provisions of FAR Part 139 and maintains its FAA issued operating certificate. Compliance is determined by annual inspections conducted by the FAA. Work orders are generated when Letters of Correction are issued and are given high priority with urgent resolution. BWI Marshall Airport successfully completed the 2009 FAA safety and certification inspection with zero repeat discrepancies. MAA will continue to address all discrepancies in accordance with the Federally prescribed timeline.

FUTURE PERFORMANCE STRATEGIES FOR SAFETY & SECURITY AT MPA AND MAA	
MPA COMPLIANCE MARITIME TRANSPORTATION SECURITY ACT OF 2002	NUMBER OF REPEAT DISCREPANCIES IN THE ANNUAL FEDERAL AVIATION ADMINISTRATION'S FEDERAL AVIATION REGULATION INSPECTION
Expand the capabilities of eModal Trucker Check System and facilitate U.S. Customs and Border Patrol's use of high-tech devices (e.g., radiation portal monitors at access control points)	Continue to work closely with FAA to ensure that the airport passes its annual FAA Part 139 safety and certification inspection
Fully implement TWIC at all MPA facilities and integrate TWIC credentialing into MPA credentialing	Continue to work toward a goal of 100% compliance with FAA certification requirements
Coordinate maritime and homeland security and exchange information with all Port partners at the Federal, State, and local level	Work toward developing and initiating a Safety Management System (SMS) to address safety issues and concerns before they develop into accidents/incidents; the FAA is expected to issue a Notice to Proceed for Rulemaking for a SMS policy for airports in mid-2010 and to issue the final rule after receiving comments from U.S. airports
Maintain certification in the Customs-Trade Partnership Against Terrorism (C-TPAT) program, which involves secure and safe handling of containerized cargo	Immediately address and resolve noted discrepancies and pursue strategies to reduce airfield safety incidents involving aircraft, vehicles, and personnel
Submit Port Security grant proposals to address security needs and conduct vulnerability assessments	Explore emerging technologies, such as biometrics, to maintain safe and secure airport facilities
Coordinate security initiatives with U.S. Coast Guard, Maryland Emergency Management Agency, law enforcement agencies, and private/public maritime stakeholders	
Complete capital projects to enhance security (e.g., gate and lighting improvements, expansion of CCTV capabilities, Terminal Access Visitor Control Center, and Remote Video Surveillance System projects to improve voice/data interoperability during emergency and day-to-day operations)	

System Preservation & Performance

OBJECTIVES:

- Preserve and maintain the existing transportation network
- Maximize operational performance and efficiency of existing systems

PERFORMANCE MEASURES

MONITORING AGENCY	PERFORMANCE MEASURE	PAGE
MAA	Airline cost per enplaned passenger (CPE)	28
MAA	Non-airline revenue per enplaned passenger (RPE)	28
MPA	Dredge material placement capacity remaining for Harbor and Bay maintenance dredging	29
MPA	Revenue versus operating expense	30
MTA	Operating cost per passenger trip	25
MTA	Operating cost per revenue vehicle mile	26
MTA	Passengers per revenue vehicle mile	24
MVA	Cost per transaction	27
MVA	Alternative service delivery transactions as percent of total transactions	27
SHA	User cost savings for the traveling public due to incident management	23
SHA & MDTA	Number of bridges and percent that are structurally deficient	22
SHA & MDTA	Percent of roadway miles with acceptable ride condition	22

Maryland's extensive multimodal transportation network is a valuable State asset, providing mobility to Maryland's citizens and visitors and contributing to the health of the State economy. To ensure that Maryland's investments in transportation retain their value and remain safe, MDOT allocates funds for activities aimed at preserving existing transportation assets before pursuing costly capacity expansion projects. For example, Maryland's transportation agencies engage in regular maintenance, such as roadway re-paving, implementing safety improvements, and replacing aging equipment. Agencies also use recycled materials and innovative techniques and technologies to manage assets.

Recent cost increases for many of the materials used in transportation, such as asphalt and cement, have outpaced the funds available for transportation infrastructure. Though Maryland is currently experiencing lower vehicle miles traveled (VMT), maintenance and system preservation needs remain. System preservation activities are essential not only to sustaining the quality of Maryland's infrastructure, but also to optimizing the lifespan of existing facilities in order to avoid major rehabilitation or replacement of infrastructure. Using an asset management approach, Maryland is able to utilize limited funds to achieve the greatest value from existing investments in roadways, transit systems, railways, airports, building facilities, and seaports.

Maryland's transportation agencies also pursue approaches that improve the operational performance of the transportation network through strategies like real-time traveler information and incident response. Access management techniques also improve operational performance because they help to coordinate land use and access to a roadway. Access management is commonly used to limit conflicts between vehicles by limiting the number of access points off of major roadways—improving both safety and congestion at appropriate locations.

KEY INITIATIVES

MDOT: Implement aspects of the BRAC Action Plan by programming transportation projects (e.g., intersection improvements, direct transit service) that address safety, capacity and operational issues.

MAA: Supplement current retail, food and beverage concessions with recognized local and national new concepts.

MPA: Initiate new landside projects to improve infrastructure and cargo capacity.

MTA: Focus resources on strategies that maintain assets in a state of good repair.

MDTA: Advance the Hatem Memorial Bridge (US 40) Preservation Project through the next construction phase to maintain motorists' safety and help improve the ride condition.

MVA: Pursue upgrades and expansion of services and products available by Internet, kiosk, and phone to service more customers.

SHA: Participate in the I-95 Corridor Coalition's Truck Parking Initiative to develop a real-time information dissemination system to make the most efficient use of available public and private truck parking capacity.

SHA & MDTA: NUMBER OF BRIDGES AND PERCENT THAT ARE STRUCTURALLY DEFICIENT

The structurally deficient rating is an early warning sign to prioritize funding and to initiate repairs or to begin the bridge replacement process. The rating applies to three main elements of a bridge: 1) deck (riding surface); 2) superstructure (main supporting element of the deck); and 3) substructure (supports to hold up the superstructure and deck). These elements are rated on a scale from zero (closed to traffic) to 9 (relatively new). If any of the three elements is rated as a four or less, the bridge is categorized as structurally deficient by Federal standards. This does not mean that the bridge is unsafe. If a bridge becomes unsafe, it is closed.

NUMBER OF BRIDGES AND PERCENT THAT ARE STRUCTURALLY DEFICIENT				
CALENDAR YEAR	2006	2007	2008	2009
Number deficient	145	132	133	117
Percent deficient	5.2%	4.7%	4.7%	4.0%

TARGET: 122 total bridges by 2012

WHY DID PERFORMANCE CHANGE?

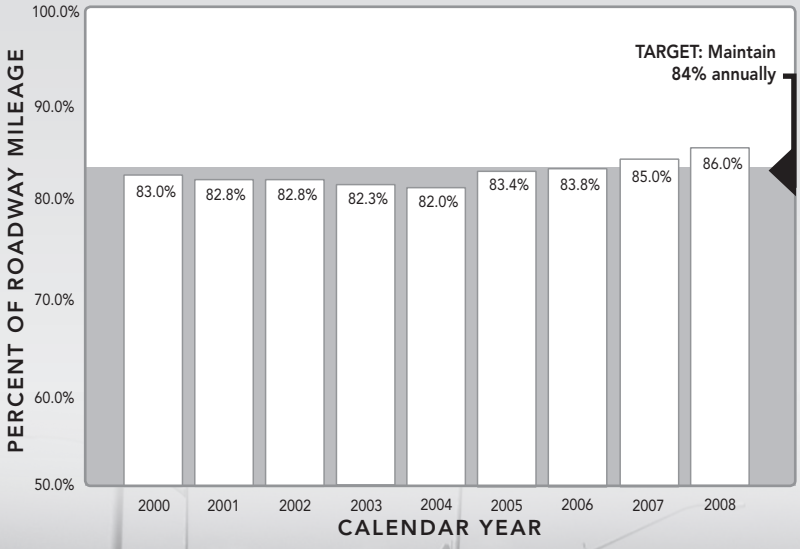
- Eliminated many small structurally deficient bridges and minimized the potential for other bridges to become deficient
- Pursued an aggressive maintenance program and secured funding to address structurally deficient bridges through repair or replacement

WHAT ARE FUTURE PERFORMANCE STRATEGIES?

- Address costly bridge projects on I-70/South Street and I-695/MD 26
- Coordinate roadway bridge replacement with roadway redesign funding where possible
- Complete the Bay Bridge deck rehabilitation
- Continue to deploy bridge inspection teams to thoroughly examine bridge assets

SHA & MDTA: PERCENT OF ROADWAY MILES WITH ACCEPTABLE RIDE CONDITION

The traveling public has identified acceptable ride quality (i.e., the smoothness or roughness of the pavement) as a priority. Ride quality facilitates mobility, efficiency, and safe movement of people and goods within Maryland.



WHY DID PERFORMANCE CHANGE?

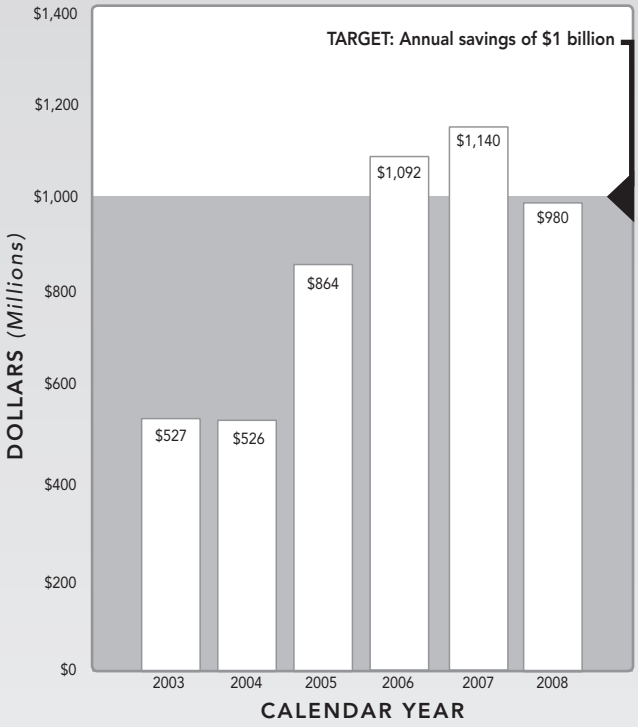
- Implemented several standard procedural operations and business plan strategies to maintain ride quality with limited resources (e.g., optimization process to achieve a high benefit-cost ratio)
- Used thin, smaller overlays of pavement on roads to keep projects within budget

WHAT ARE FUTURE PERFORMANCE STRATEGIES?

- Continue to use a Statewide Investment Program to maximize pavement performance
- Expand use of recycled materials for highway applications
- Inspect ride quality of bridge approaches biannually
- Utilize the Project Selection Tool to meet ride quality goals and revise specifications where appropriate
- Implement standardized schedules for preventative maintenance

SHA: USER COST SAVINGS FOR THE TRAVELING PUBLIC DUE TO INCIDENT MANAGEMENT

The total user cost savings to motorists and commercial traffic (from reduced delay) reflects the tangible benefits of the CHART incident management program.



WHY DID PERFORMANCE CHANGE?

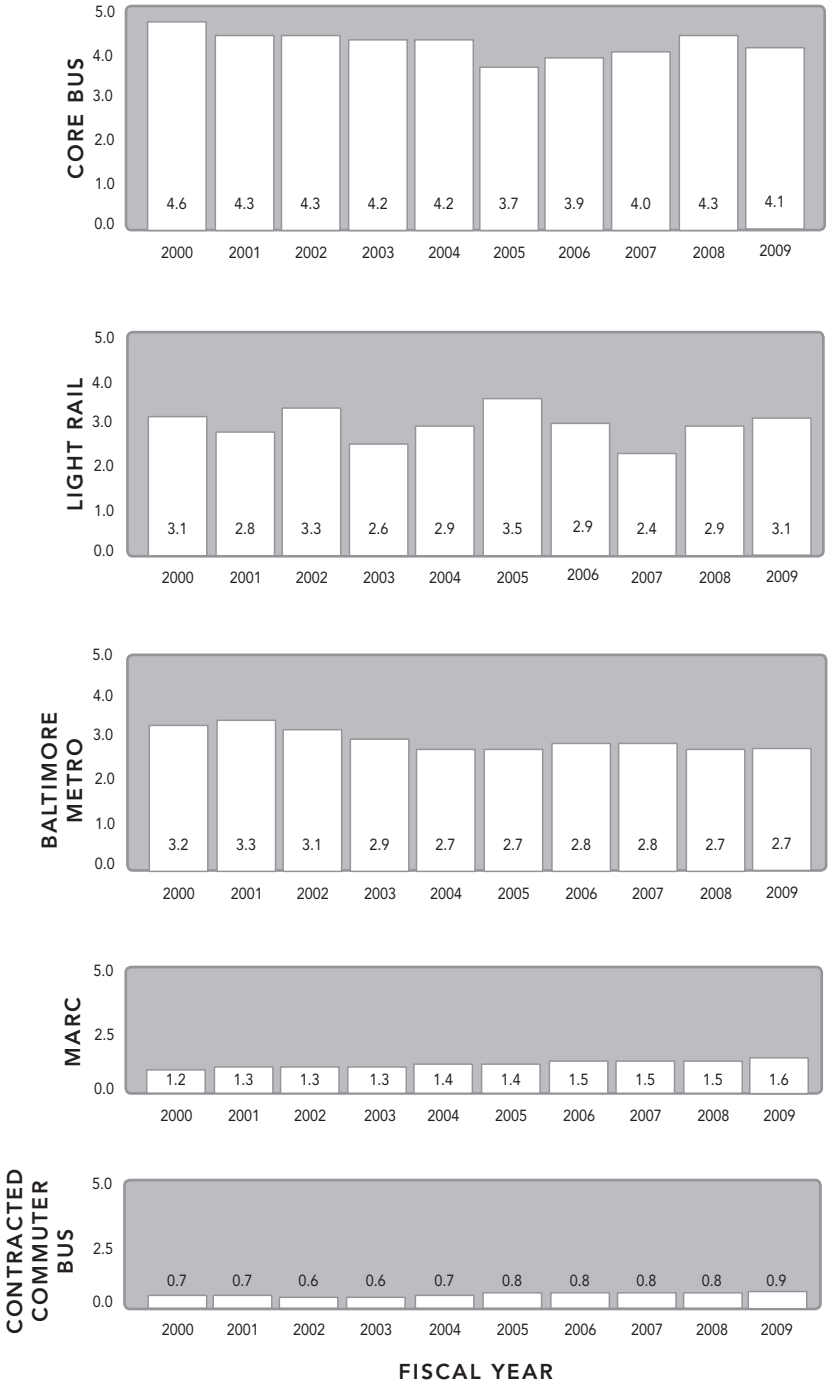
- Lower VMT has helped to reduce traffic delay
- Installed 26 new closed-circuit television (CCTV) cameras and added 40 new portable traffic monitoring sensors on the Eastern Shore
- Camera video feed interoperability with regional agencies provides access to over 300 camera sites
- Hosted inter-agency training sessions and promoted CHART awareness to emergency responders
- CHART responded to and cleared more than 15,000 incidents and assisted more than 17,000 stranded motorists

WHAT ARE FUTURE PERFORMANCE STRATEGIES?

- Budget reductions due to the economic downturn are projected to result in reduced savings from CHART
- Explore opportunities for cost-effective use of limited resources

MTA: PASSENGERS PER REVENUE VEHICLE MILE

Passengers per revenue vehicle mile, or service productivity, is a function of the frequency of service and total ridership, which are typically related. Growth in service productivity may be restricted on certain modes by existing and planned service levels and capacity.



WHY DID PERFORMANCE CHANGE?

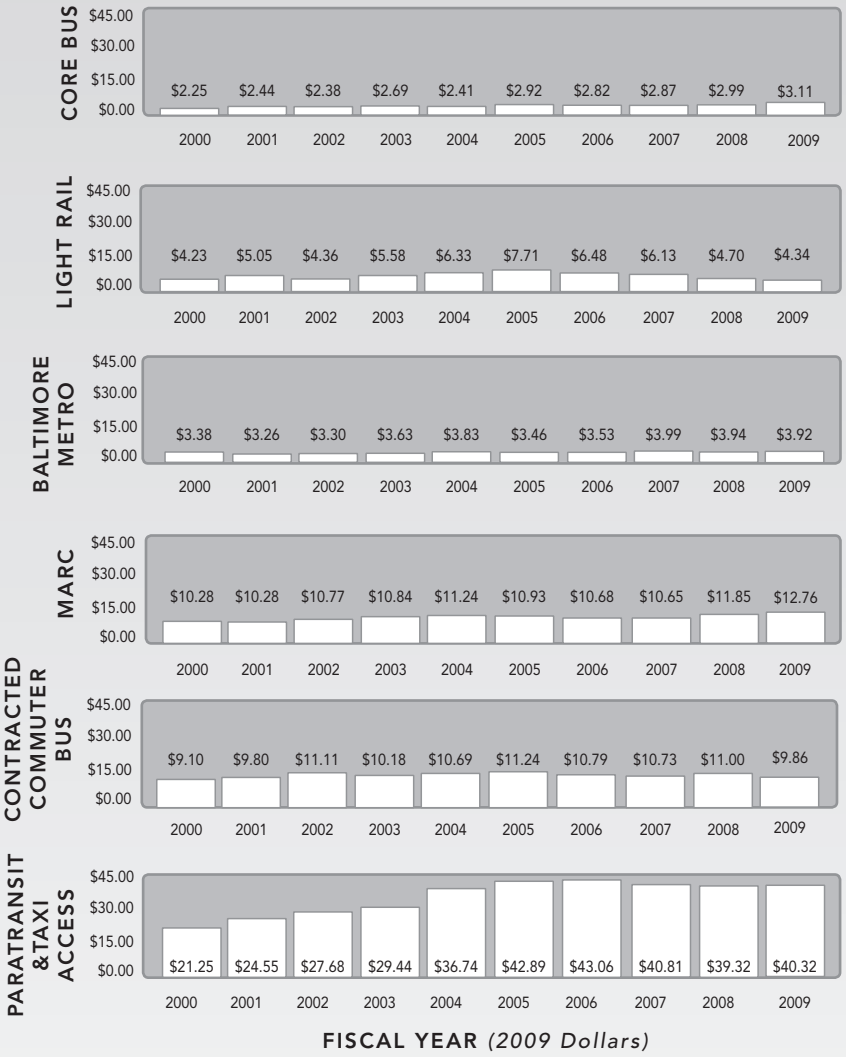
- Service productivity on most MTA modes increased in FY2009 due to better scheduling and increased demand
- Current capacity and schedules restrict service productivity growth

WHAT ARE FUTURE PERFORMANCE STRATEGIES?

- Continue performance-based evaluation of Baltimore-area bus and rail schedules
- Evaluate the per-rider efficiency of contracted commuter services (e.g., MARC and Commuter Bus)
- Manage overall service offerings to effectively meet existing and future demand

MTA: OPERATING COST PER PASSENGER TRIP

Together, the operating cost per passenger trip and operating cost per revenue vehicle mile are key industry performance measures and shows MTA's ability to effectively and efficiently provide service to passengers on various modes of travel.



TARGET: Cost per passenger for Bus, Balitmore Metro, and Light Rail to increase at a rate no higher than the Consumer Price Index (CPI)*

** The CPI provides information about price changes in the national economy over time. MTA uses the CPI to better understand general prices relative to the cost of providing certain MTA goods and services.*

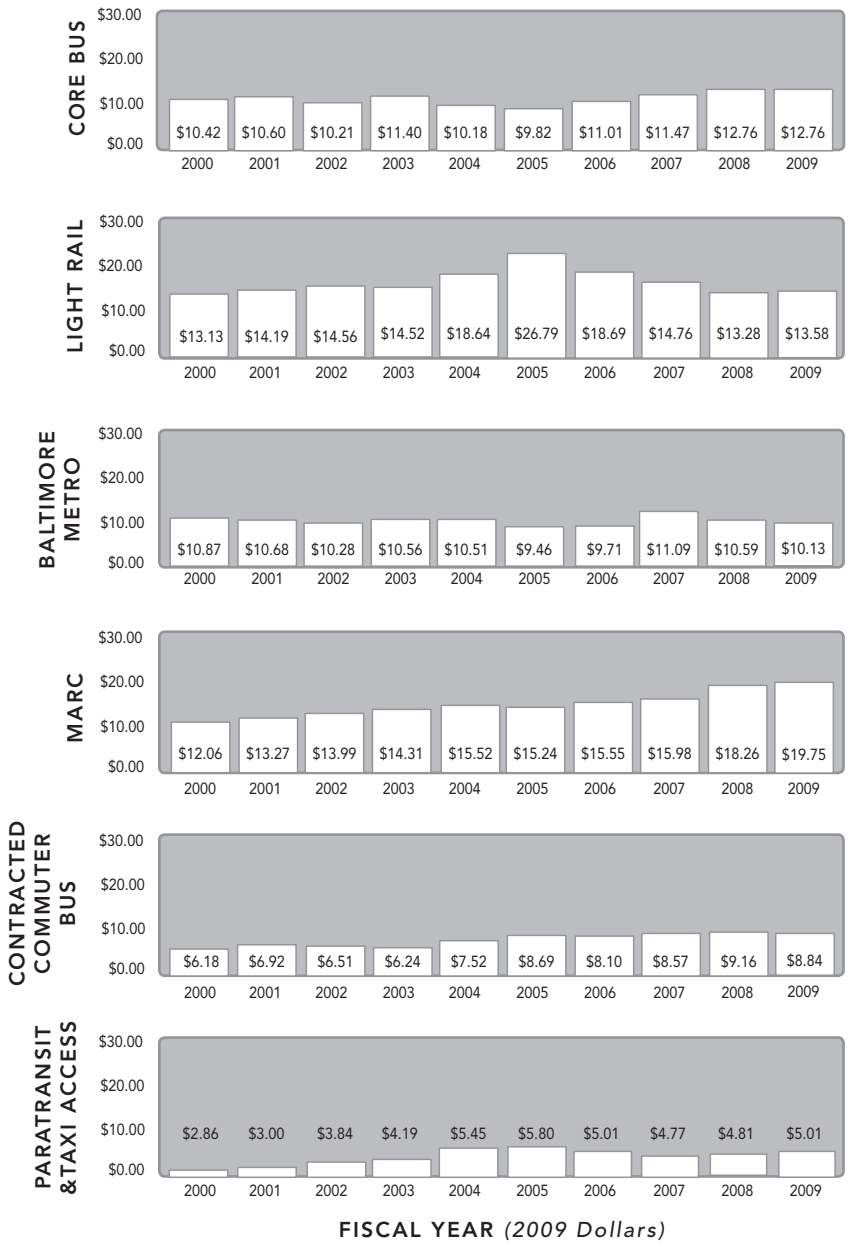
WHY DID PERFORMANCE CHANGE?

- Transit ridership (excluding LOTS) rose 4% as a result of congestion, higher fuel costs, and service quality improvements in the Baltimore area
- Overall costs increased slightly due to increased costs for labor, fuel, insurance and contracted services
- Improvements in operating efficiency helped to control growth in MTA spending and reduce growth in cost per trip and cost per mile

WHAT ARE FUTURE PERFORMANCE STRATEGIES?

- Continue to improve efficiency through overtime management and other operational improvements
- Use the scheduling and planning process to improve cost effectiveness
- Increase ridership through Commuter Choice Maryland, College Pass, and Maryland Transit Pass
- Build and lease additional commuter service park-and-ride lots where parking is at capacity

MTA: OPERATING COST PER REVENUE VEHICLE MILE



TARGET: Cost per passenger for Bus, Baltimore Metro, and Light Rail to increase at a rate no higher than the Consumer Price Index (CPI)*

** The CPI provides information about price changes in the national economy over time. MTA uses the CPI to better understand general prices relative to the cost of providing certain MTA goods and services.*

WHY DID PERFORMANCE CHANGE?

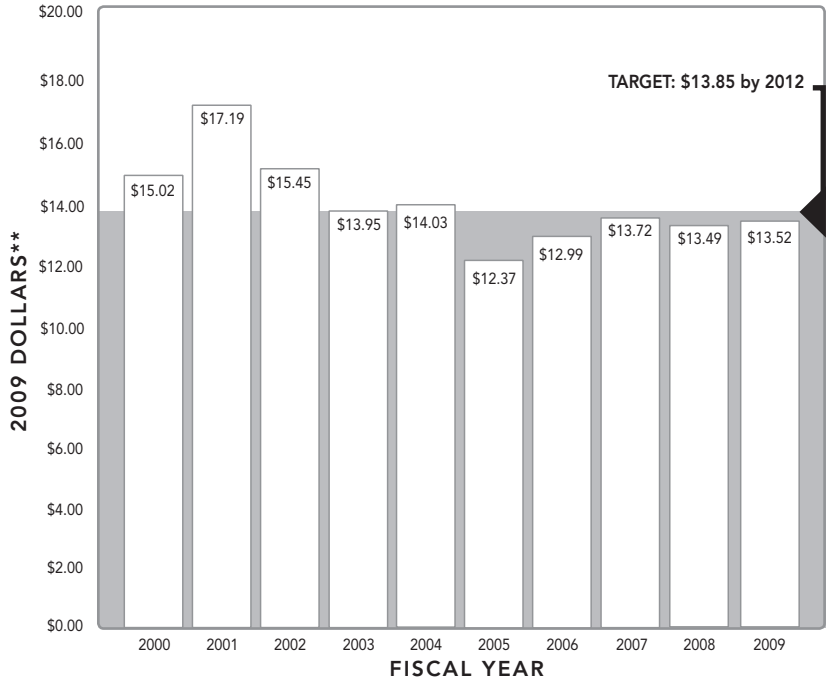
- Improved performance through schedule efficiencies, overtime controls, and improved fuel economy
- Increased Baltimore-area service mileage by 2.3% in FY2009, while costs increased at a lower rate
- Ridership on all services increased at record rates

WHAT ARE FUTURE PERFORMANCE STRATEGIES?

- Continue to take advantage of opportunities to achieve savings on overtime, diesel fuel, and administrative expenses
- Examine scheduled service to ensure cost-effective operations, including realignment of Core Bus routes and changes to headways across services
- Purchase commodities at the lowest available prices and negotiate service contracts focused on cost-effectiveness
- Use resources efficiently, including replacing diesel buses with hybrid-electric coaches ($234 million for Bus Procurement in the FY2010-FY2015 CTP)

MVA: MVA COST PER TRANSACTION*

Cost per transaction is an indication of whether MVA business practices and programs are increasingly cost-effective through the employment of better technology and operational practices.



** Includes all transactions (e.g., licensing, registration, titling).*
***The cost per transaction data is adjusted for inflation.*

WHY DID PERFORMANCE CHANGE?

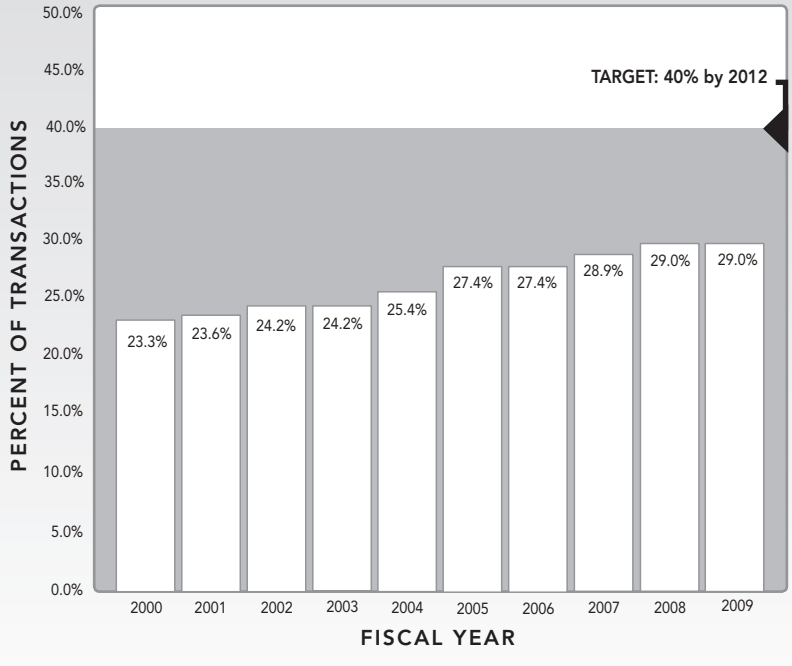
- Investments in information technology and facility infrastructure continue to reduce the rate at which transaction costs increase

WHAT ARE FUTURE PERFORMANCE STRATEGIES?

- Employ cost saving measures and identify efficiencies that can be gained within business processes
- Utilize surveys, best practices models, and policy input to develop projects for continued service delivery improvements ($2.1 million for Customer Traffic Management System 2 in the FY2010-FY2015 CTP)
- Fully implement the Strategic and Business Plans that outline actions and measures to realize business efficiencies and manage future costs

MVA: ALTERNATIVE SERVICE DELIVERY TRANSACTIONS AS PERCENT OF TOTAL TRANSACTIONS

Alternative services offer the ability to provide fast and convenient service delivery to the MVA customer. These transactions do not involve a walk-in interaction and require development of new information technology systems and changes in customer behavior, which may be offset by new legislation and programs that require a walk-in transaction.



WHY DID PERFORMANCE CHANGE?

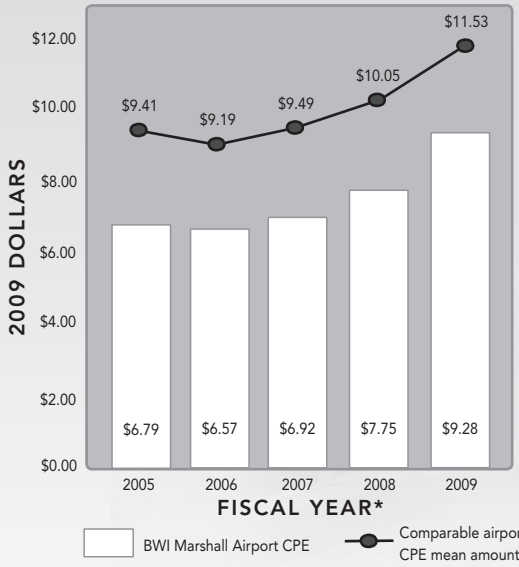
- Continued to promote public awareness of MVA's alternative service options

WHAT ARE FUTURE PERFORMANCE STRATEGIES?

- Deploy a customer-friendly web-enabling plan to progressively add MVA services over the Internet
- Develop and execute a public awareness campaign to promote use of alternative service delivery options

MAA: AIRLINE COST PER ENPLANED PASSENGER (CPE)

Airline cost and non-airline revenue measures allow BWI Marshall Airport to remain competitive in a region that is unique because it has four proximate airports.

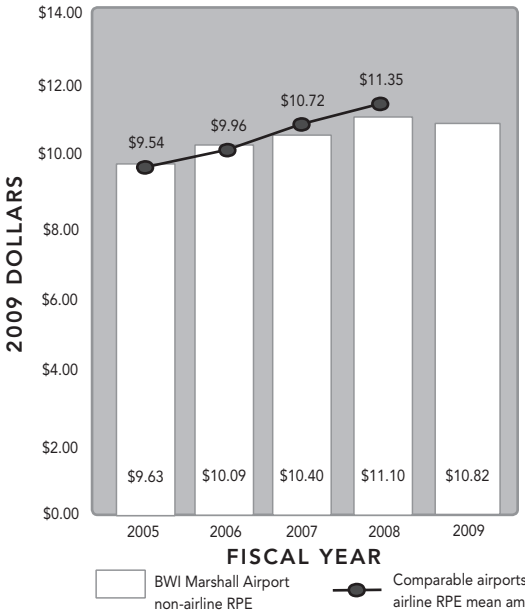


TARGET: BWI Marshall Airport CPE below the mean CPE of large comparable airports**

** 2009 comparable airports CPE mean amount is preliminary.*

*** Comparable airports are used for benchmarking purposes and include: Washington Reagan National, Washington Dulles, and Philadelphia International.*

MAA: NON-AIRLINE REVENUE PER ENPLANED PASSENGER (RPE)*



TARGET: BWI Marshall Airport non-airline RPE* to be at or above the mean of large comparable airports**

** RPE is based on non-airline revenue (e.g., parking, concessions, ground transportation).*

*** Comparable airports are used for benchmarking purposes and include: Washington Reagan National, Washington Dulles, and Philadelphia International.*

WHY DID PERFORMANCE CHANGE?

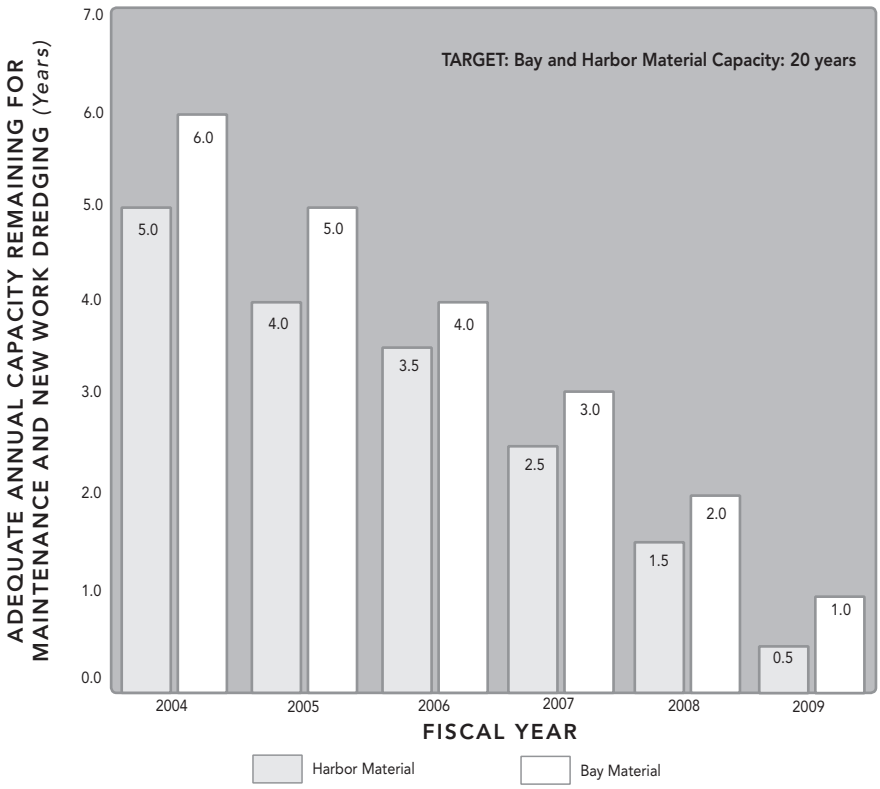
- BWI Marshall Airport's CPE continues to compare favorably with peer airports, despite rate increases to recover higher operating costs
- BWI Marshall Airport's non-airline RPE continues to increase and remains competitive with peer airports

WHAT ARE FUTURE PERFORMANCE STRATEGIES?

- Continue to implement cost containment initiatives in order to keep BWI Marshall Airport's rates competitive with other regional airports
- Focus discussions with airline tenants on continued full recovery of operating costs within the new use and lease agreement now in effect
- Supplement current retail, food and beverage concessions in the terminal with recognized local and national new concepts

MPA: DREDGE MATERIAL PLACEMENT CAPACITY REMAINING FOR HARBOR AND BAY MAINTENANCE DREDGING

MPA gauges remaining capacity because it is responsible for obtaining dredged material placement sites.

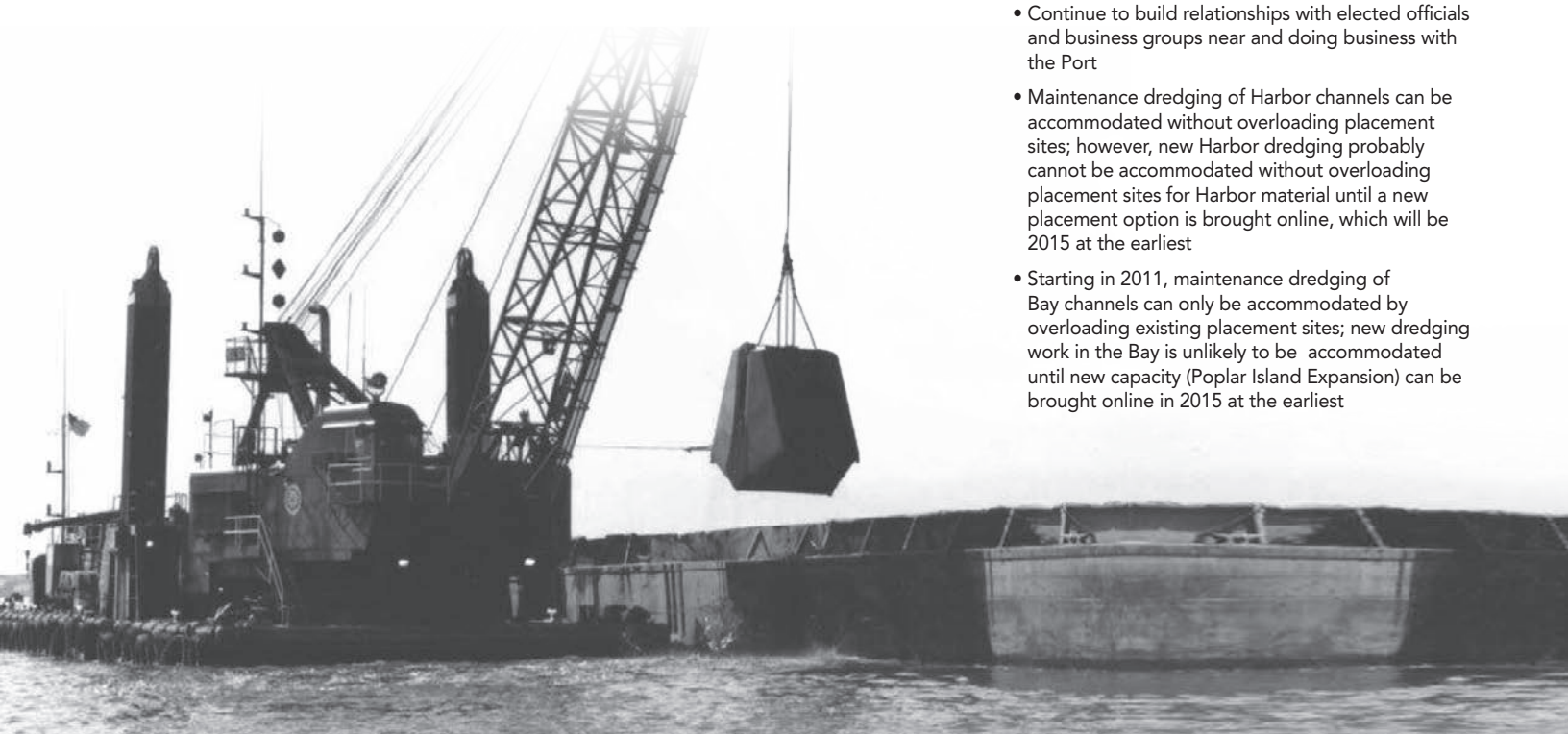


WHY DID PERFORMANCE CHANGE?

- Maintained and improved the shipping channels for safe, unimpeded access to the Port
- Completed 50-foot deep access channel and three 45-foot deep berths at Seagirt Marine Terminal
- Construction nearing completion for Baltimore Harbor dredged material containment facility (DMCF) at Masonville
- Pursued innovative reuse of dredged material with two on-going projects
- Finalized the Closure Plan for Hart-Miller Island
- Provided technical guidance on the State's and the U.S. Army Corps of Engineers' Dredged Material Management Program (DMMP), including the Mid-Chesapeake Bay Island feasibility studies

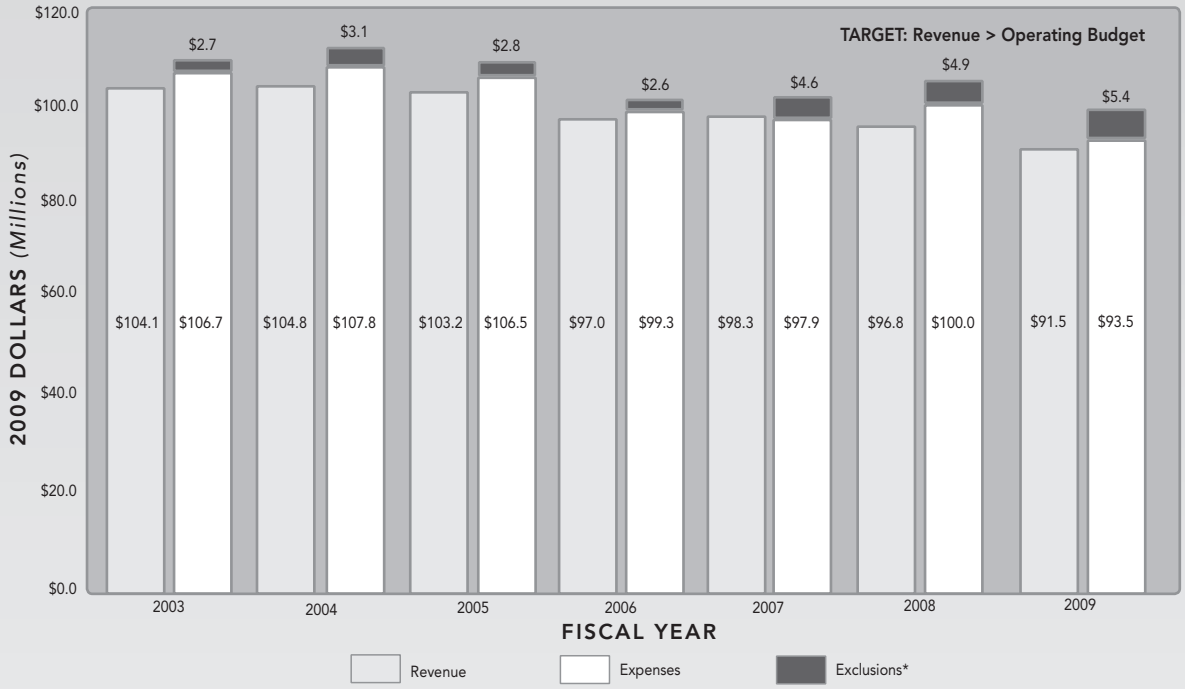
WHAT ARE FUTURE PERFORMANCE STRATEGIES?

- Ensure the dredging program provides adequate placement capacity to meet dredging demand, removes access channel restrictions, and improves navigation (MPA has $362 million dedicated to dredging projects in the FY2010-FY2015 CTP)
- Conclude and implement Bay Channels Placement Site Studies and Harbor Sites Studies
- Develop innovative reuse options of dredged material and evaluate demonstration projects
- Continue to work with the U.S. Army Corps of Engineers on the Cox Creek DMCF user fee agreement
- Resolve scheduling, legal, and community enhancement issues for another Harbor placement option (e.g., Sparrows Point DMCF)
- Complete the Baltimore Harbor DMCF at Masonville in 2010
- Continue to build relationships with elected officials and business groups near and doing business with the Port
- Maintenance dredging of Harbor channels can be accommodated without overloading placement sites; however, new Harbor dredging probably cannot be accommodated without overloading placement sites for Harbor material until a new placement option is brought online, which will be 2015 at the earliest
- Starting in 2011, maintenance dredging of Bay channels can only be accommodated by overloading existing placement sites; new dredging work in the Bay is unlikely to be accommodated until new capacity (Poplar Island Expansion) can be brought online in 2015 at the earliest



MPA: REVENUE VERSUS OPERATING EXPENSE

Revenues are important as a measure of activity at the terminals. Most of MPA's operating expenses are recovered by its revenues.



** Exclusions include: MDTA lease payments for Masonville terminal, Certificate of Participation (COPs) for M-real facility, and MPA operating costs for new/replacement equipment.*

WHY DID PERFORMANCE CHANGE?

- Global economic downturn reduced international trade activity (e.g., billable cargo tonnage decreased 13% and total cargo revenues decreased 6.6%) in FY2009
- Total revenues decreased by 5.4% and net operating expenses were less than budgeted projections
- Expenses increased due to higher salaries/benefits, a new maintenance/janitorial contract at the World Trade Center, operating lease at Seagirt Marine Terminal, and higher energy costs
- Implemented cost controls (e.g., decreased operating expenditures) due to limited revenues
- Set all-time cruise passenger records for single sailings (2,598 people onboard the Carnival Pride)
- Carnival Cruise Lines became the first cruise carrier to offer year-round service from the Port of Baltimore

WHAT ARE FUTURE PERFORMANCE STRATEGIES?

- Focus on long-term agreements with carriers and manufacturers to attract and retain cargo volumes (e.g., evaluate options for Seagirt Marine Terminal)
- Grow the cruise business from 27 sailings in CY2008 to an estimated 114 sailings by CY2011. Implement increased Royal Caribbean cruise service
- Improve Port financial reporting mechanisms for better financial and operational analysis
- Continue to manage expenditures and focus on improving efficiency and effectiveness in contract management and project delivery

Environmental Stewardship

OBJECTIVES:

- Coordinate land use and transportation planning to better promote Smart Growth
- Preserve and enhance Maryland's natural, community, and historic resources
- Support initiatives that further our commitments to environmental quality

PERFORMANCE MEASURES

MONITORING AGENCY	PERFORMANCE MEASURE	PAGE
MDOT	Transportation-related emissions by region	34
MDOT	Transportation-related greenhouse gas emissions	34
MDOT & MTA	Transportation Emission Reduction Measures (TERMs)	36
MPA	Acres of wetlands or wildlife habitat created, restored, or improved since 2000	35
MVA	Compliance rate and number of vehicles tested for Vehicle Emissions Inspection Program (VEIP) versus customer wait time	33
SHA	Acres of wetlands restored and miles of streams restored	32
SHA	Total fuel usage of the light fleet	33
SHA & MTA	Travel Demand Management	35-36

Maryland's transportation agencies recognize that transportation operates within sometimes delicate ecological boundaries. MDOT pursues projects and operates the transportation system to both minimize environmental impacts and restore environmental conditions. Maryland's *Smart, Green & Growing* initiative provides a framework for addressing transportation challenges and future growth in a more sustainable manner by implementing environmental strategies that are both responsive and adaptive. For example, Maryland's transportation agencies are examining ways to link transportation improvements with community revitalization, economic development, Smart Growth, and environmental restoration efforts to support a more sustainable transportation system.

By expanding access to transportation options—transit, ridesharing, telecommuting, biking, walking, and intercity passenger rail—Maryland's transportation agencies contribute to reducing the use of fossil fuels and lowering greenhouse gas (GHG) emissions. A few key examples of MDOT's efforts include expanding bicycle and pedestrian access, implementing programs to lower single-occupancy vehicle usage (e.g., Commuter Choice Maryland), and transitioning to more "green" transit vehicles. MDOT also supports efforts to coordinate land use at the local level and promotes Smart Growth and Transit-Oriented Development (TOD). These efforts create opportunities to preserve and improve the environment, while strengthening Maryland's economy at the same time. Maryland has made great environmental progress, with passage of the Clean Cars Act, which adopts cleaner car standards beginning with the 2011 model year, and 2009's Greenhouse Gas Reduction Act, which commits to reducing GHG emissions 25% from 2006 levels by 2020. MDOT continues to engage with partner agencies to improve air quality and reduce the State's carbon footprint by conducting analyses in support of the Maryland Climate Action Plan.

KEY INITIATIVES

MDOT

- *Smart, Green & Growing*: Implement programs that support the State's sustainability and Smart Growth agenda.
- Climate Change: Assist in evaluating adaptation and mitigation policy options for reducing Maryland's vulnerability to sea level change and GHG footprint.
- Smart Sites: Support TOD with local and private partners through planning, joint development partnerships, and infrastructure investments.

MAA

- Energy Conservation: Conduct an energy audit at BWI Marshall Airport to establish a baseline for developing conservation goals.
- Recycle: Continue to recycle at least 20% of BWI solid waste.

MPA

- Preservation: Preserve Swann Creek, an undeveloped shoreline area, through local and State Land Trusts, and establish wetland habitats through community partnerships.
- Air Quality: Apply a $3.5 million diesel emissions reduction grant from the U.S. Environmental Protection Agency to fund retrofitting, repowering and replacing cargo handling equipment, drayage trucks, locomotives and harbor craft operating at the Port of Baltimore.
- Energy Efficiency: Install energy efficient equipment (e.g., motion detectors, automatic water dispensers) at MPA facilities.

MTA

- Air Quality: All MTA buses are equipped with particulate traps on the exhaust systems, catching up to 90% of all soot and harmful particles.
- Hybrid Buses: Purchase 100 hybrid diesel electric transit buses, which use 20 percent less fuel and are up to 50% quieter than older diesel buses.
- Green Locomotives: Introduce 26 new MARC "green" locomotives to reduce emissions and fuel consumption.

MDTA

- Water Quality: Engage in public-private partnerships to improve the quality of water flowing into the Chesapeake Bay (e.g., Asquith Creek Oyster Reef).
- Environmental Services Office: Implement environmental standard operating procedures to consistently handle environmental issues.
- Coordination: Implement an integrated environmental management and sustainability approach for all Divisions.

MVA

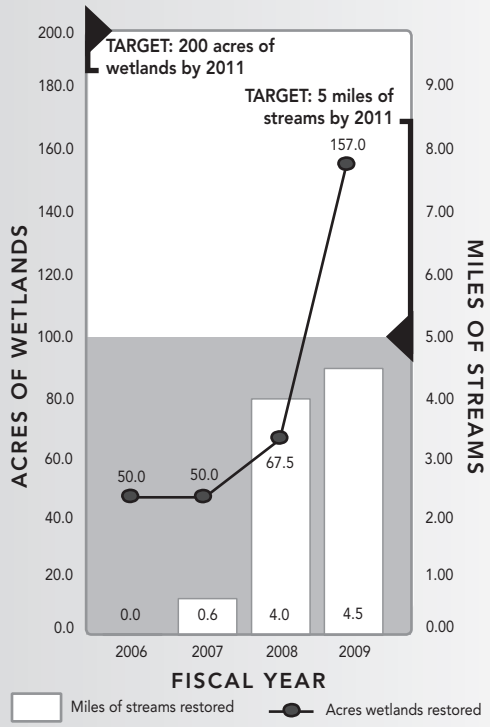
- Vehicle Emissions Inspection Program (VEIP): Continue program to ensure that registered vehicles comply with Maryland's emission requirements.
- eMVA: Expand MVA alternative service delivery options to reduce trips to MVA offices.
- Energy Savings: Deploy electrical, HVAC and plumbing strategies to reduce energy consumption at the MVA Headquarters complex by 10%.

SHA

- Recycled Construction Materials: Continued to increase the percent of recycled asphalt base used in roadway construction/ reconstruction.
- Fuel Usage: Completed conversion to bio-diesel fuel, virtually eliminating the use of diesel fuel at SHA.
- Environmental Beautification: Enhance roadside vegetation and tree planting programs (e.g., planted 152,000 trees along Maryland roadsides, in State right-of-way, and at State parks through the *One Million Tree* initiative).
- Wind Energy: Determine the feasibility of using wind energy to help power SHA facilities (e.g., wind turbine pilot project at the Westminster Maintenance Facility).
- Stormwater Management: Continue to use Best Management Practices (BMP) to safeguard the water quality of local waterways and health of aquatic ecosystems. Ensure proper function of all of the BMP's by performing routine inspection and remediation or retrofit as necessary.

SHA: ACRES OF WETLANDS RESTORED AND MILES OF STREAMS RESTORED

SHA wetland and stream restoration efforts exceed specific project environmental requirements. These efforts are intended to mitigate for past impacts to wetlands and streams due to highway construction projects. Providing wetlands are also among the most effective of SHA's water quality Best Management Practices. SHA's efforts contribute to the Statewide goals of the Chesapeake 2000 Agreement and Maryland's Tributary Strategy Plan for the restoration of Chesapeake Bay. By the end of FY2009, SHA completed 157 acres of wetland improvements and has projects planned that would increase that by 300 acres, to a total of 457 acres, by the end of FY2010. SHA has also completed restoring 4.5 miles of streams.



WHY DID PERFORMANCE CHANGE?

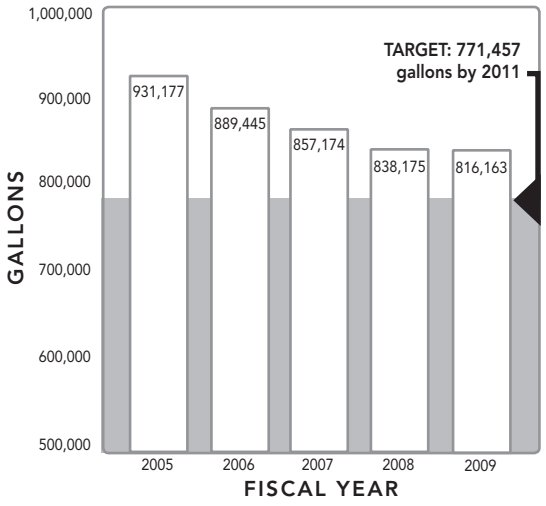
- Through FY2009, 157 acres of wetlands were created and 4.5 miles of streams restored toward the overall goal of 200 acres and five miles respectively by 2011
- 3,750 feet of streams were restored
- Continued to provide environmental enhancements beyond what is required for project mitigation

WHAT ARE FUTURE PERFORMANCE STRATEGIES?

- A large wetland creation project in Worcester County is under design and construction will be completed by the end of 2010
- Identify funding for 5,000 feet of streams for restoration
- Continue to partner with sister State agencies to provide value-added enhancements to the natural environment through creative and cost-effective solutions
- Plan for a pace for this program, that is tied to funding availability

SHA: TOTAL FUEL USAGE OF THE LIGHT FLEET

This measure is tracked Statewide to monitor success in reducing consumption of gasoline through conservation strategies including scheduled fleet replacements by higher efficiency vehicles.



WHY DID PERFORMANCE CHANGE?

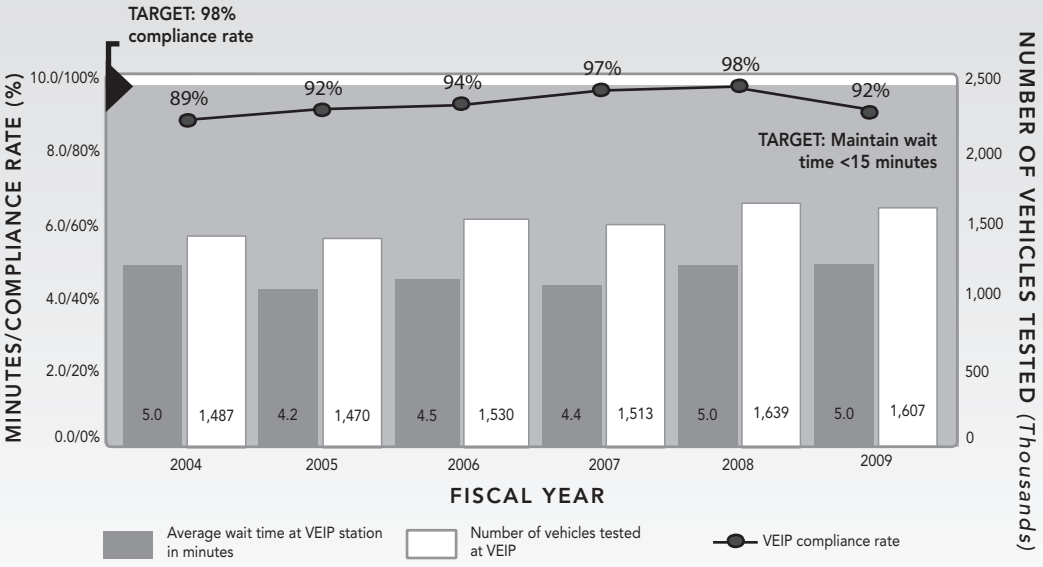
- Met goal to convert all gasoline to 10% ethanol-based (E10) gasoline
- Converted heavy equipment from using diesel fuel to using bio-diesel fuel
- Converted one fueling station to dispense E85 gasoline
- Installed video conferencing to link central offices with eastern and western regions to reduce auto trips for in-person meetings
- Developed automobile idling policy for all employees and consultants that operate vehicles and equipment
- Restructured staffing of construction inspection to assign inspectors on projects that are closer to their homes, reducing travel for these employees

WHAT ARE FUTURE PERFORMANCE STRATEGIES?

- Analyze historical trends to determine baseline to inform future fuel usage reduction initiatives
- Acquire smaller, more fuel-efficient vehicles and hybrids as older vehicles qualify for replacement
- Support actions to lower the cost per gallon of E85 fuel to reduce overall fuel costs

MVA: COMPLIANCE RATE AND NUMBER OF VEHICLES TESTED FOR VEHICLE EMISSIONS INSPECTION PROGRAM (VEIP) VERSUS CUSTOMER WAIT TIME*

Monitoring the VEIP testing compliance rate ensures system effectiveness and identifies vehicles exceeding allowable standards. Tracking the average wait time at a VEIP station ensures that the 15-minute average wait time requirement is met. Timely and efficient customer service helps the State meet Federal clean air standards by identifying pollutants and encouraging vehicle maintenance.



WHY DID PERFORMANCE CHANGE?

- MVA is responsible for monitoring the number of registered vehicles in non-attainment counties and ensuring VEIP testing compliance, but MVA does not control the number of vehicles tested

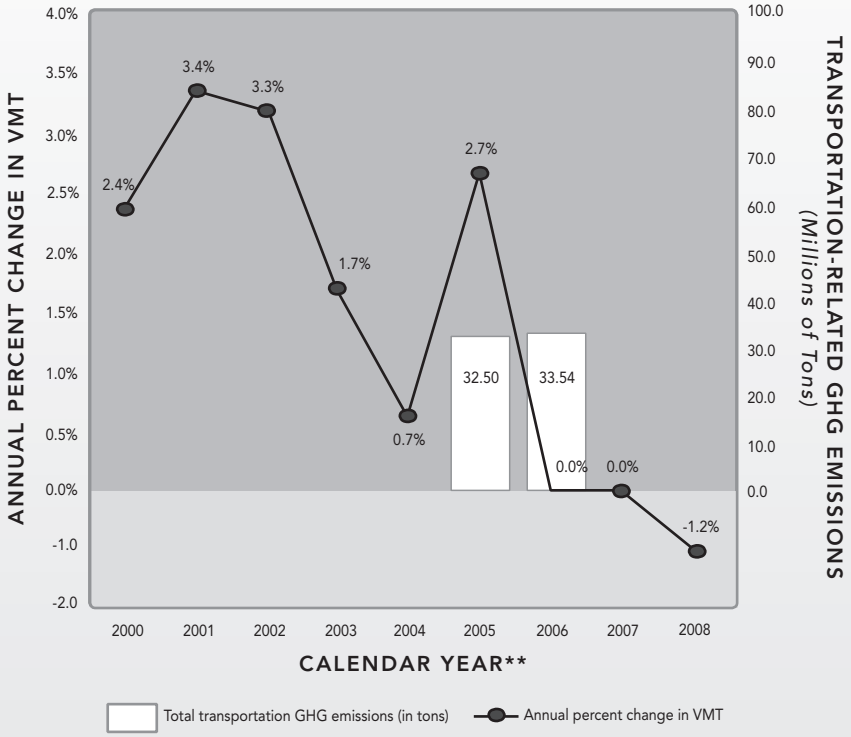
WHAT ARE FUTURE PERFORMANCE STRATEGIES?

- Implement new technologies and initiatives to reduce customer wait time
- Continue to monitor registered vehicles in non-attainment counties to ensure VEIP testing compliance
- Fully implement improvements to VEIP, including revising idle test standards for certain model year vehicles and mandatory gas cap testing

** 14 counties offer VEIP tests: Anne Arundel, Baltimore, Baltimore City, Carroll, Harford, Howard, Queen Anne's, Cecil, Washington, Calvert, Charles, Frederick, Montgomery, and Prince George's.*

MDOT: TRANSPORTATION-RELATED GREENHOUSE GAS EMISSIONS*

Vehicle miles of travel (VMT) reduction is one of several strategies that MDOT is pursuing to address climate change. Reducing VMT has other potential benefits to Marylanders, such as reduced congestion and improved travel time reliability.



** GHG emissions affect the temperature and climate of the earth's surface. GHG emissions primarily include carbon dioxide, methane, nitrous oxide, carbon monoxide, oxides of nitrogen, and non-methane volatile organic compounds.*

*** Implemented new methodology in modeling 2006 GHG emissions.*

WHY DID PERFORMANCE CHANGE?

- Increased financial support for alternative modes of transportation at the State and local levels
- Implemented emission-reduction strategies in non-attainment areas to foster transportation alternatives to single occupancy vehicles
- Vehicle emissions decreased nationwide due to improved vehicle technologies and reductions in VMT caused by increased fuel prices

WHAT ARE FUTURE PERFORMANCE STRATEGIES?

- Support growth in transit ridership through system enhancements and outreach
- Support GHG reduction strategies recommended by the Maryland Commission On Climate Change
- Support mobile source emission reduction efforts and invest in alternative transportation
- Pursue strategies to meet the GHG emission reduction goals of the Greenhouse Gas Reduction Act of 2009
- Implement the Clean Car Bill requirements and standards passed by the 2007 General Assembly
- Execute regional emission reduction strategies recommended by the Ozone Transport Commission
- Focus growth around transit stations to both increase transit ridership and reduce congestion, sprawl and GHG emissions through TOD

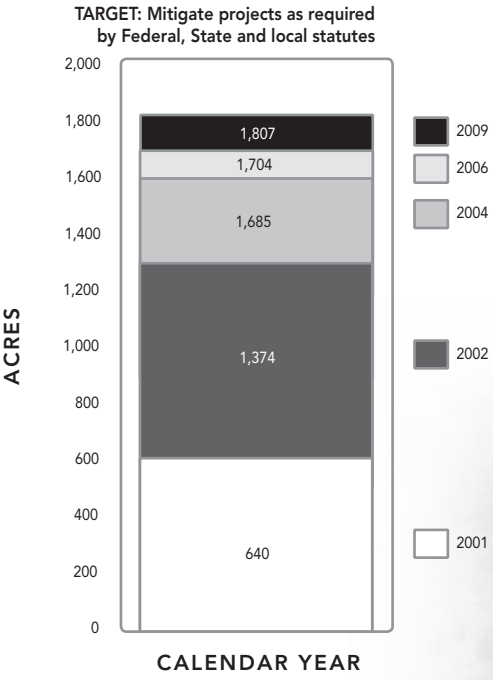
MDOT: TRANSPORTATION-RELATED EMISSIONS BY REGION

Reducing vehicle emissions improves air quality in compliance with Federal regulations and provides health benefits for Maryland residents.

PERFORMANCE MEASURE	REGION	CALENDAR YEAR		TARGET
		2002	2005	
Volatile Organic Compound (VOC) Tons per Day	Baltimore	70.6	55.1	41.2 by 2009
	Washington	116.9	97.4	66.5 by 2009
Nitrogen Oxide (NOx) Tons per Day	Baltimore	177.1	144.5	106.8 by 2009
	Washington	266.7	234.7	144.3 by 2010
Carbon Monoxide (CO) Tons per Day	Baltimore	2,454.1	N/A	1,689.8 by 2015
	Washington	2,589.5	N/A	1,671.5 by 2015
Particulate Matter (PM) Tons per Day	Baltimore	1,043.5	N/A	1,105.4 by 2009
	Washington	1,724.7	N/A	686.97 by 2009

MPA: ACRES OF WETLANDS OR WILDLIFE HABITAT CREATED, RESTORED, OR IMPROVED SINCE 2000*

MPA is in compliance with the various permits that are granted to construct projects needed for MPA customers (e.g., vessel or landside tenants).



** Represents cumulative mitigation efforts by MPA.*

WHY DID PERFORMANCE CHANGE?

- Cumulative mitigation efforts increased 103 acres in CY2009 due to Masonville Cove mitigation and Upland (phase I)
- Worked with local communities to develop mitigation for the Masonville DMCF to include wetlands and upland habitat and a nature center

WHAT ARE FUTURE PERFORMANCE STRATEGIES?

- When required to mitigate for a construction project, MPA seeks to create and improve wildlife habitat wherever appropriate and in conformance with permit requirements
- Environmental enhancements will continue at Masonville eastern and peninsula uplands
- Over 1,600 trees and 1,900 shrubs and six acres at Hawkins Point will have invasive species removed

TRAVEL DEMAND MANAGEMENT

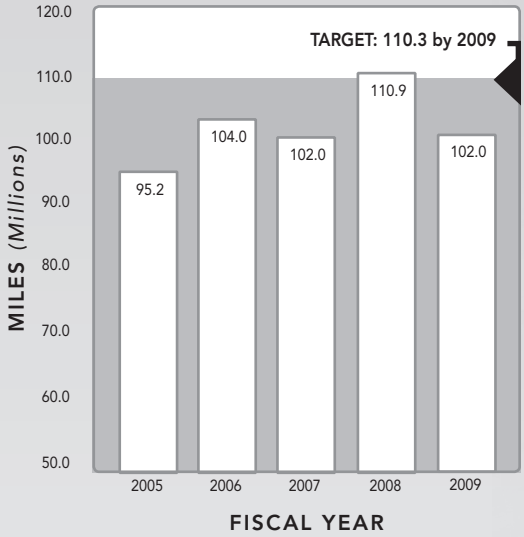
Maryland's transportation agencies offer citizens a broad breadth of travel alternatives through strategies known as Travel Demand Management (TDM). TDM strategies are designed to lower single-occupancy vehicle usage and VMT through programs that promote carpooling, car sharing, flexible work hours and teleworking. These strategies result in a host of benefits including reduced peak-period congestion, lower parking demand, energy savings, lower commuting costs, and cleaner air.

Commuter Choice Maryland, Commuter Connections (in the Washington, D.C. metropolitan area), Statewide park-and-ride facilities, and MDOT's Telework Partnership—which offers professional telework consulting services to Maryland employers—are examples of the TDM programs Maryland supports. Park-and-ride facilities are strategically located throughout the State, typically near transit, to reduce driving alone and encourage commuter carpooling and vanpooling. Facility usage fluctuates due to the economy; weather conditions; special events; emergencies; delays or shutdowns of parallel lines or modes; maintenance and repair; storage of plowed snow; increases in frequency, service, and capacity; and other factors.

STATEWIDE PARK-AND-RIDE FACILITIES (ESTIMATED) 2008		
AGENCY	TOTAL SPACES	AVERAGE WEEKDAY UTILIZATION
SHA	11,925	7,285
MTA Operated	35,000	20,000
Transit Multipurpose*	7,704	5,541

** Includes facilities operated by MTA, Amtrak, WMATA, Penn Station in Baltimore, and Union Station in Washington, D.C.*

SHA: REDUCTION IN VEHICLE MILES TRAVELED THROUGH PARK-AND-RIDE USAGE



2008-2009 MDOT & MTA TRANSPORTATION EMISSION REDUCTION MEASURES (TERMs)*			
PROGRAM	**PROGRAM DESCRIPTION**	**DAILY REDUCTION IN VEHICLE TRIPS***	**DAILY REDUCTION IN VEHICLE MILES OF TRAVEL***
Guaranteed Ride Home	Provides transit users or carpoolers up to four rides home per year in a taxi or rental car in the event of an unexpected personal or family emergency	8,680	227,428
Employer Outreach (Including Employer Outreach for Bicycles)	Supports marketing efforts to increase employee awareness and use of alternatives to driving alone to work every day	59,351	970,301
Integrated Rideshare	Promotes traveler information and other alternative transportation services to employers and to the general public. Commuter information system documentation is provided with comprehensive commute information, to include regional TDM software updates, transit, telework, park-and-ride, and interactive mapping	7,363	199,079
Commuter Operations and Ridesharing Center	Updates and maintains the Commuter Connections database for ride-matching services and provides information on carpooling, transit, Guaranteed Ride Home services, and alternative mode choices for the Baltimore/Washington metropolitan region	17,950	575,237
Telework Resource Center	Provides information to employers on the benefits of telecommuting and assists in setting up new or expanded telework programs for employers	21,866	413,703
Mass Marketing	Promotes and communicates the benefits of alternative commute methods to single-occupant vehicle commuters through the media and other wide-reach communications	2,577	69,274
MTA College Pass	Offers a subsidized monthly transit pass to full- or part-time students enrolled in greater Baltimore metropolitan area colleges or universities	2,752	14,615
MTA Commuter Choice Maryland Pass	Baltimore region program that allows employers to purchase transit passes and vouchers for their employees. Employers can subsidize these for their employees or allow employees to purchase passes or vouchers with pre-tax income	8,818	120,900
Transit Store in Baltimore	Provides customer access to transit information and for purchases of transit passes. Some 15-20% of total transit pass sales occur through this outlet	2,727	37,383

** Emission factors for the 2008-2009 time period changed due to the changes in the region's vehicle fleet mix and the vehicle trip and vehicle miles of travel changed for some of the measures due to the spike in gasoline prices during the evaluation period. Overall, the impacts shown reflect the latest data available for each of the measures.*

Connectivity for Daily Life

OBJECTIVES:

- Provide balanced, seamless, and accessible multimodal transportation options for people and goods
- Facilitate linkages within and beyond Maryland to support a healthy economy
- Strategically expand network capacity to manage growth

PERFORMANCE MEASURES

MONITORING AGENCY	PERFORMANCE MEASURE	PAGE
MAA	Number of nonstop airline markets served	41
MPA	International cruises using the Port of Baltimore	42
MPA	Port of Baltimore foreign cargo and MPA general cargo tonnage	42
MTA	Annual vehicle revenue miles of service provided	40
MTA	Average weekday transit ridership	40
MVA	Percent of information system availability compared to total number of records maintained	41
SHA	Percentage of State-owned roadway centerline miles within urban areas that have sidewalks and percent of sidewalks that meet Americans with Disabilities Act (ADA) compliance	39
SHA	Percentage of State-owned roadway centerline miles with a bicycle level of comfort (BLOC) grade "D" or better and mileage of SHA-owned highways with marked bike lanes	39
SHA & MDTA	Percent of freeway lane-miles and arterial lane-miles with average annual volumes at or above congested levels	38

Maryland's multimodal transportation network offers customers a wealth of travel options when determining how to connect with destinations down the street or on the other side of the world. Transportation agencies work together to integrate their systems, so that residents, visitors, and businesses have numerous choices for making trips and moving shipments. This balanced approach to transportation offers customers a diverse array of transportation options from daily transit service to the I-95 Express Toll Lanes℠ that are currently under construction.

MDOT's services also contribute to goals beyond mobility such as improving air quality and supporting active lifestyles. Agencies are exploring opportunities to link transportation improvements with community revitalization, economic development, Smart Growth, and environmental restoration efforts to support Maryland's *Smart, Green & Growing* initiative. For example, Maryland has taken steps to improve both the safety of and access to bicycling facilities. These efforts range from developing a Statewide trail initiative, constructing dedicated bicycle lanes, and equipping 100% of transit buses to accommodate bicycles.

Efficient freight movement is important for businesses to thrive in today's global economy. Maryland's transportation agencies are planning for the doubling of freight volume expected by 2030 through the Statewide Freight Plan and the State Rail Plan, which identify projects and strategies to address freight and passenger rail operations. Plans are underway to strategically expand the system to better connect people with destinations and to support a healthy economy. For example, Maryland has identified projects to support jobs and promote economic recovery through the American Recovery and Reinvestment Act of 2009.

KEY INITIATIVES

MDOT: Coordinate with the Maryland Department of Planning to implement *Plan Maryland* and support the *Smart, Green & Growing* initiative by fostering smarter and more sustainable patterns of growth.

MAA: Meet with targeted airlines to promote air service opportunities to BWI Marshall Airport.

MPA: Work with the Panama Canal Authority to promote economic growth and commercial activity through an "all-water route"- a shipping route to Asia from the Port of Baltimore via the Canal.

MTA: Continue implementation of the MARC Growth and Investment Plan to improve access to Washington, D.C., and BRAC-related job opportunities at Fort Meade and Aberdeen. Advance the Red Line in Baltimore, as well as the Purple Line and Corridor Cities Transitway in Metropolitan Washington, D.C. to provide high quality transit alternatives in these highly traveled corridors.

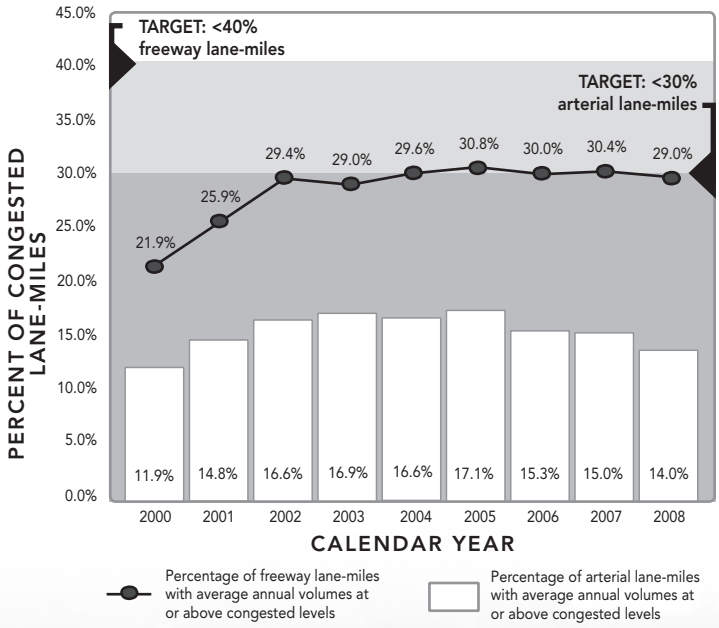
MDTA: Remain a member of the *E-ZPass®* Interagency Group and accept all valid electronic-toll transponders affiliated with the *E-ZPass®* system at Maryland's toll plazas.

MVA: Enable access to MVA system data (e.g., driver's licenses, identification cards, vehicle registration) to better support law enforcement and other partner agencies.

SHA: Continue CHART to improve traffic flow by responding to and clearing incidents and assisting stranded motorists.

SHA & MDTA: PERCENT OF FREEWAY LANE-MILES AND ARTERIAL LANE-MILES WITH AVERAGE ANNUAL VOLUMES AT OR ABOVE CONGESTED LEVELS

Vehicles per lane per day volumes provide insight into whether congestion is improving or worsening across the State. Given Maryland's growing economic vitality, the increase in vehicle miles traveled and the growing size of the driving population, MDOT is focusing its efforts where it can be most effective, which is to slow the pace of congestion growth, and have targets set accordingly.



WHY DID PERFORMANCE CHANGE?

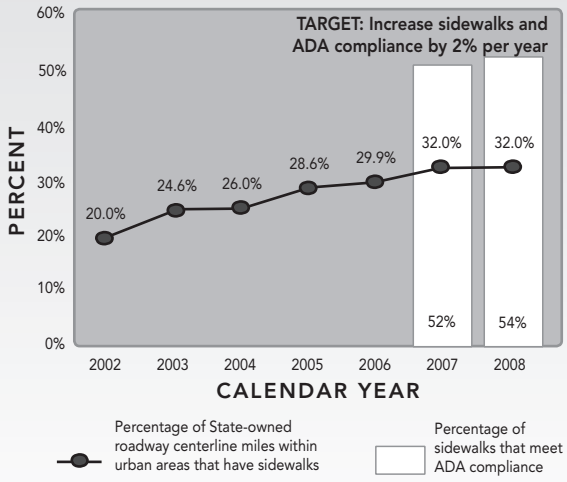
- Retimed 403 signals to reduce delay at intersections by 7%
- Opened a new route (MD 30) to allow traffic to bypass the historic town of Hampstead in Carroll County
- Completed the first phase of the I-95/I-495 access to the Branch Avenue Metro Station in Prince George's County
- Completed I-95/I-495 Woodrow Wilson Bridge improvement project

WHAT ARE FUTURE PERFORMANCE STRATEGIES?

- Eight projects to improve congested intersections and other capacity improvements have been identified, but budget constraints will limit funding of most new efforts
- Complete construction of the Intercounty Connector
- Continue to focus on optimizing traffic signal system operations

SHA: PERCENTAGE OF STATE-OWNED ROADWAY CENTERLINE MILES WITHIN URBAN AREAS THAT HAVE SIDEWALKS AND PERCENT OF SIDEWALKS THAT MEET AMERICANS WITH DISABILITIES ACT (ADA) COMPLIANCE

Available sidewalk facilities provide mobility for pedestrians. Tracking the percent that are ADA compliant helps ascertain whether Maryland's sidewalk program meets Federal benchmarks.



WHY DID PERFORMANCE CHANGE?

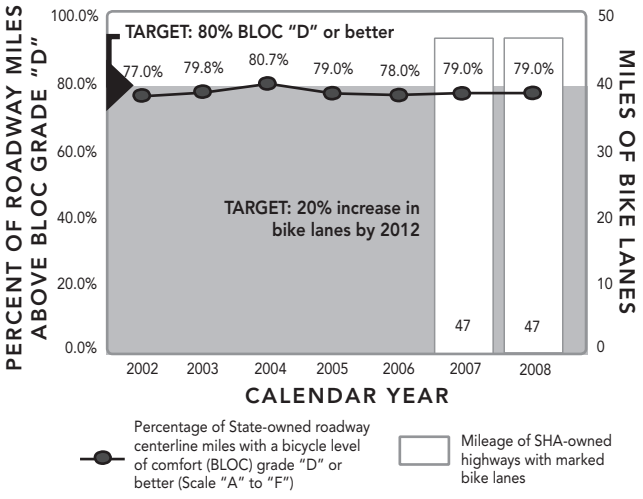
- Invested $4.8 million in FY2008 for sidewalk improvements to increase ADA compliance
- Continued to increase ADA compatibility by 2% per year

WHAT ARE FUTURE PERFORMANCE STRATEGIES?

- Continue efforts to upgrade sidewalks with ADA features (e.g., audible pedestrian and countdown signals, wheelchair access, textured curbs)
- Support *Smart, Green & Growing* initiative by incorporating sidewalks in SHA projects
- Provide for safe pedestrian activity along State highways ($5.4 million for Sidewalk Program in the FY2010-FY2015 CTP)
- Continue to implement pedestrian projects through the Transportation Enhancements Program (e.g., FY2010-FY2015 CTP programs North Gate Park at the Paint Branch in Prince George's County, Herring Run Greenway in Baltimore City, and Three Notch Trail in St. Mary's County)

SHA: PERCENTAGE OF STATE-OWNED ROADWAY CENTERLINE MILES WITH A BICYCLE LEVEL OF COMFORT (BLOC) GRADE "D" OR BETTER AND MILEAGE OF SHA-OWNED HIGHWAYS WITH MARKED BIKE LANES

BLOC (scale "A" to "F") is a useful measure for assessing the Statewide roadway system for its comfort and compatibility with bicycle users. Marked bike lanes are designated by pavement markings for the preferential or exclusive use of bicyclists and may be supplemented with signage. Shoulder width is a key element for improving BLOC, even more than a marked bicycle lane.



WHY DID PERFORMANCE CHANGE?

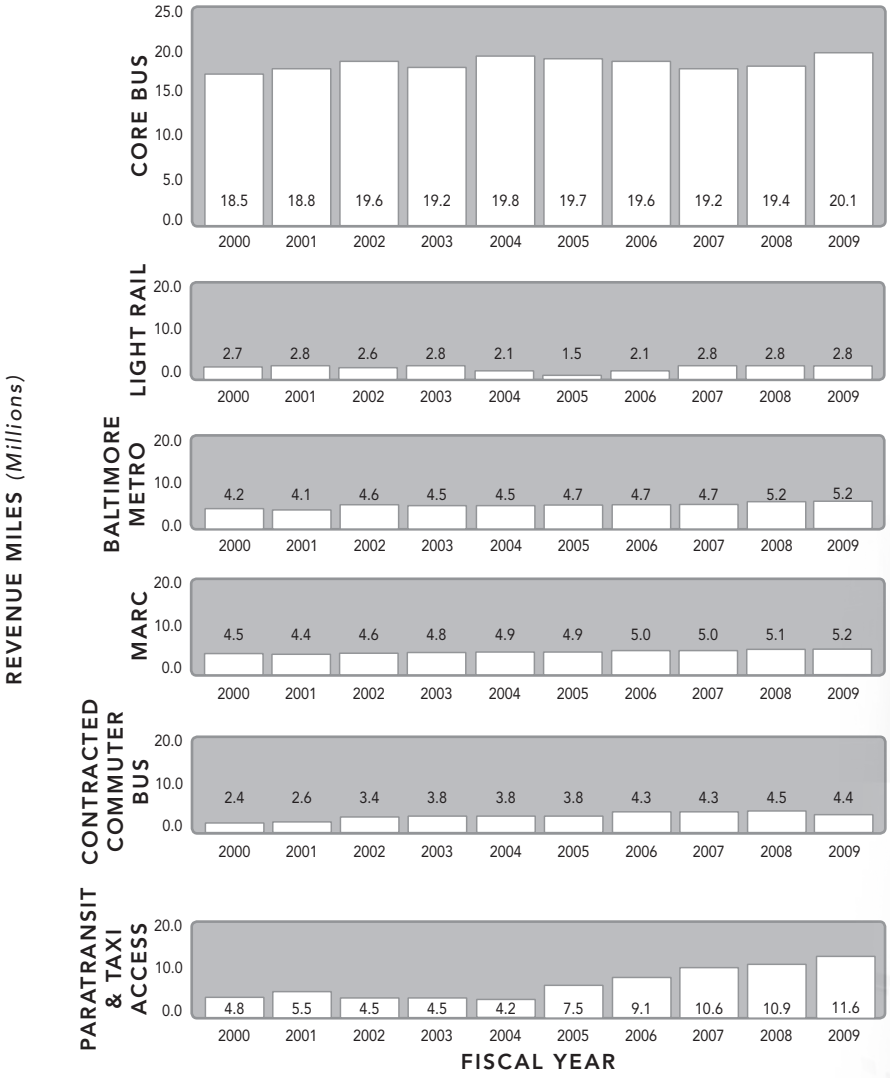
- Shoulder width and traffic volume growth continues to impact BLOC
- Promoted the BLOC planning "calculator" to assess bicycle impacts from road improvements and opportunities to improve bicycle access

WHAT ARE FUTURE PERFORMANCE STRATEGIES?

- Add wayfinding signage and pavement markings to a network of 1,700 miles of State highways identified on the State Bicycle Map
- Map bicycle facility inventory for strategic placement of future improvements
- Develop measures to evaluate connectivity for targeting funding to highest value uses
- Implement the action steps identified in the SHSP emphasis areas

MTA: ANNUAL VEHICLE REVENUE MILES OF SERVICE PROVIDED*

Vehicle revenue miles, or each mile for which a transit vehicle is in service and accepting customers, indicates the level of transit service available to, and in use by, the general public.



** Excludes Locally Operated Transit Systems and WMATA.*

WHY DID PERFORMANCE CHANGE?

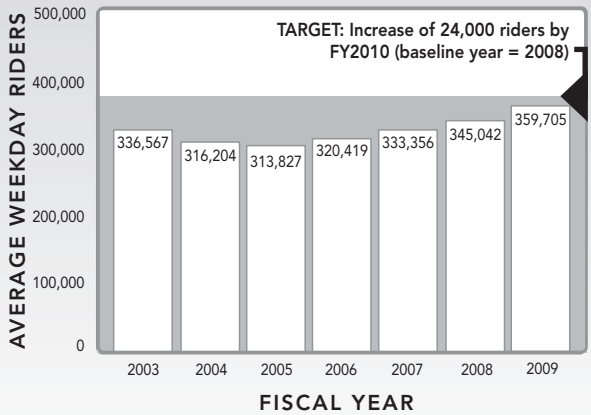
- Core Bus and Paratransit and Taxi Access trips increased
- MTA used schedule changes and operational improvements to maximize service provided

WHAT ARE FUTURE PERFORMANCE STRATEGIES?

- Continue to find scheduling efficiencies for bus service

MTA: AVERAGE WEEKDAY TRANSIT RIDERSHIP

Measures progress in increasing average daily ridership across MTA services.



WHY DID PERFORMANCE CHANGE?

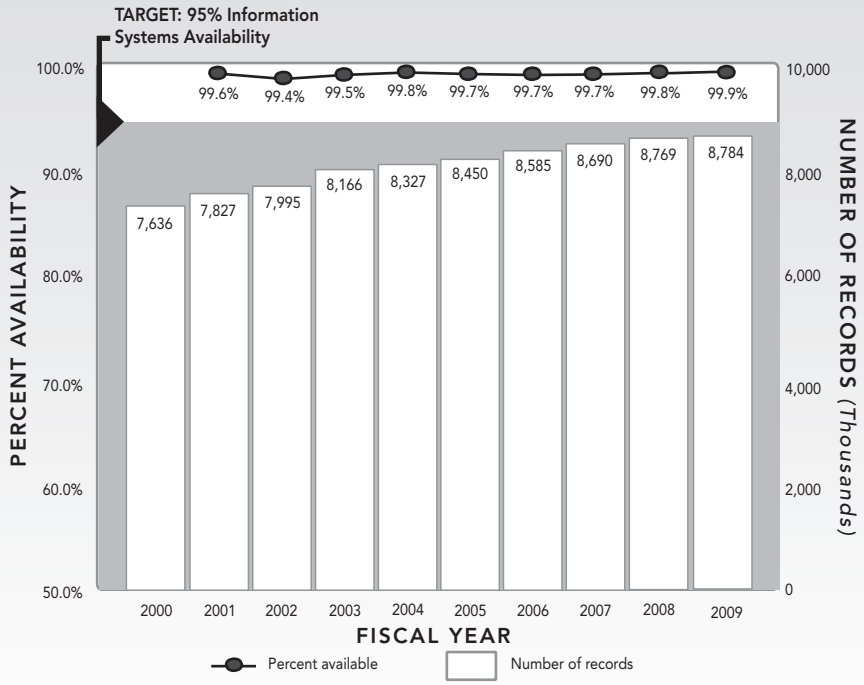
- Stable fares and rising gasoline prices increased the attractiveness of transit relative to other options

WHAT ARE FUTURE PERFORMANCE STRATEGIES?

- Continue to find additional parking for commuter bus service
- Implement passenger rail corridor infrastructure improvements ($101.8 million for MARC Improvements on Camden, Brunswick and Penn Lines in the FY2010-FY2015 CTP)
- Continue to offer value for Baltimore-area riders and commuters

MVA: PERCENT OF INFORMATION SYSTEM AVAILABILITY COMPARED TO TOTAL NUMBER OF RECORDS MAINTAINED

This measures progress in maintaining the availability, integrity, and security of MVA data because access to driver and vehicle data is critical to law enforcement and government agencies, 24 hours a day, 7 days a week.



WHY DID PERFORMANCE CHANGE?

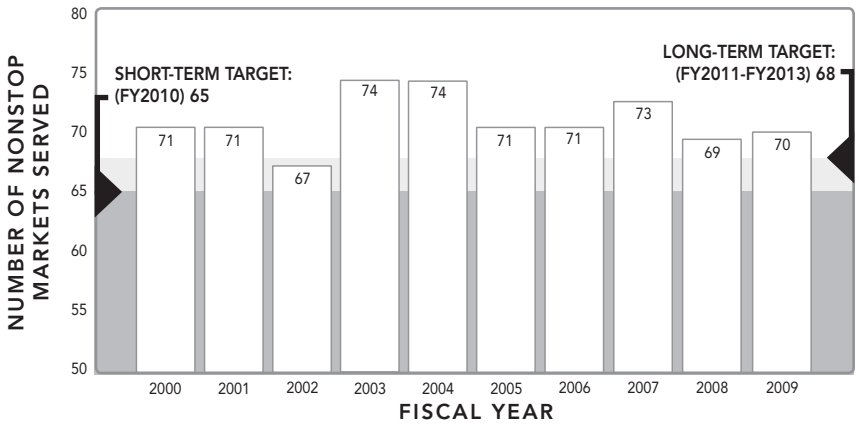
- Minimized both planned and unplanned outages through management of, and investment in, information technology systems
- Mainframe record capacity is driven by demographic changes (e.g., growing population)

WHAT ARE FUTURE PERFORMANCE STRATEGIES?

- Full-time system access is ensured with minimal business disruptions by employing the latest technological system conventions and security techniques
- Continue to provide data for Child Support Enforcement, Arrest Warrants, Courts Point System, Board of Elections, Organ Donor, and Chesapeake Bay and Agriculture Programs

MAA: NUMBER OF NONSTOP AIRLINE MARKETS SERVED

Growth in the number of nonstop destinations served provides enhanced mobility options to passengers traveling to cities in the U.S. and around the world; increases the attractiveness of BWI Marshall Airport as the airport of choice in the region; and reflects the success of MAA's marketing efforts to increase the competitiveness of BWI Marshall Airport for business and leisure travel.



WHY DID PERFORMANCE CHANGE?

- Nonstop markets served was slightly higher than forecast
- JetBlue Airways and Cape Air began new service at BWI Marshall Airport
- Carriers continue to cut capacity in both domestic and international markets due to the national economic downturn which followed a period of high fuel prices
- Aircraft are beginning to be retired from airline fleets

WHAT ARE FUTURE PERFORMANCE STRATEGIES?

- Meet with targeted airlines to promote air service opportunities at BWI Marshall Airport
- Conduct briefings for airlines and passengers, highlighting BWI Marshall Airport as an easy and convenient gateway to Washington D.C.
- Focus advertising and awareness campaigns to passengers on the advantages and services BWI Marshall Airport provides

MPA: INTERNATIONAL CRUISES USING THE PORT OF BALTIMORE

Measures cruise business and options departing from the Port of Baltimore to foreign destinations.

CALENDAR YEAR	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Number of international cruises using MPA's terminal	14	10	32	35	59	28	28	29	27	81

TARGET: 92 by 2010

WHY DID PERFORMANCE CHANGE?

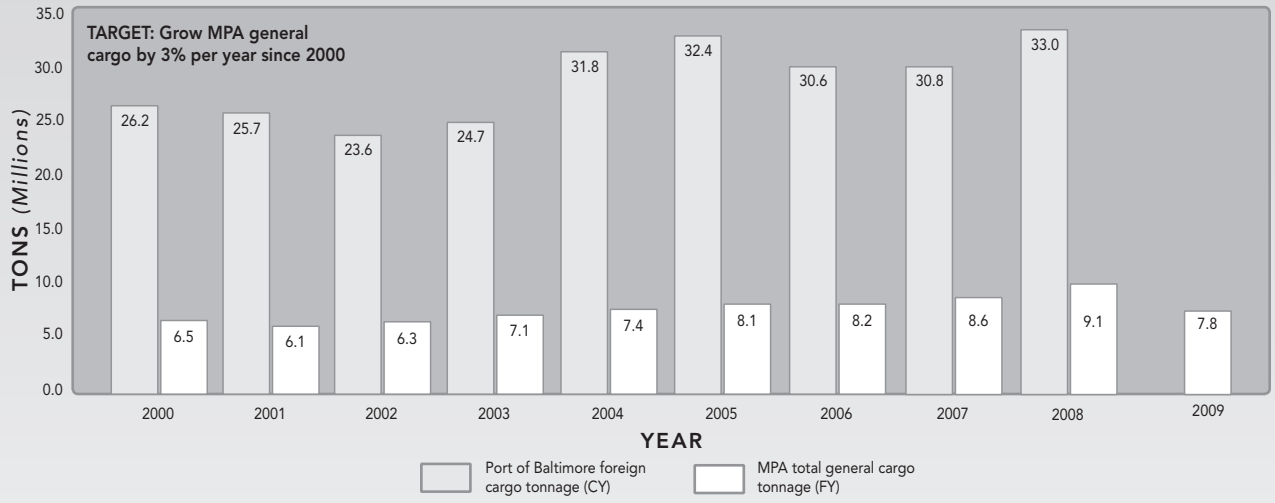
- Developed an extensive marketing program to encourage cruise lines and passengers to choose Baltimore as their port of choice
- Carnival Cruise Lines became the first cruise carrier to launch a year-round cruise schedule, which is expected to carry 115,000 passengers a year from the Port of Baltimore
- Norwegian Cruise Line made 11 Port calls and Royal Caribbean made 16 calls in 2009

WHAT ARE FUTURE PERFORMANCE STRATEGIES?

- Increase the number of homeport calls by marketing Baltimore as a convenient location for cruise lines and passengers
- Expand relationships with cruise lines and tourism organizations
- Attract and maintain additional cruise line commitments, with Carnival and Celebrity joining Royal Caribbean and Norwegian—all four of the world's top cruise lines will serve the Port of Baltimore
- Expand on-site parking to accommodate projected increased cruises
- Expand terminal facilities to be able to handle two cruise ships at once

MPA: PORT OF BALTIMORE FOREIGN CARGO & MPA GENERAL CARGO TONNAGE*

Tracking cargo trends supports management decisions and aids in developing economic impact reports.



** MPA general cargo includes both foreign and domestic waterborne cargo.*

WHY DID PERFORMANCE CHANGE?

- Global economic downturn slowed international cargo volumes
- U.S. auto sales plunged to a record low of 8 million vehicles per year
- Strong local market and diversified trade lanes helped limit container declines
- Signed agreements with M-real, Evergreen, Honda, Toyota Logistics, Mercedes Benz USA and Myllokoski North America
- Hosted the Journal of Commerce's Auto Logistics Conference, providing exposure and recognition as one of the nation's top auto ports
- Attracted additional container cargo by dredging Seagirt Marine Terminal's berths 1-3 to 45 feet

WHAT ARE FUTURE PERFORMANCE STRATEGIES?

- Continue marketing efforts in light of weak international trade projections in future years
- Seek to construct a 50-foot deep berth at Seagirt Marine Terminal by 2015, via a public-private partnership arrangement, to take advantage of the larger vessels that will be able to transit the expanded Panama Canal at that time

Induced Travel

WHAT IS INDUCED TRAVEL?

Induced travel is generally defined as any increase in daily travel (measured as passenger trips or VMT) resulting from improved transportation conditions. Induced travel is commonly associated with capacity increases (roadway and/or transit expansion), but it can be caused by other improvements that:

- reduce travel times and/or costs (e.g., signal coordination, transit service frequency); or
- benefit transportation conditions (e.g., safety, comfort, reliability).

Induced travel can result in longer trips, more frequent trips, and changes in modes (e.g., from transit to driving). Longer trips may result from changes in land use patterns, changes in activity patterns, or travel routes given existing land uses.

Induced travel is more likely to occur in congested urban areas, such as the Washington, D.C. or Baltimore metropolitan areas, where new facilities or increased capacity on existing ones have the potential to substantially reduce travel times. As a result, individuals often take more or longer trips. The amount of induced travel depends on a variety of factors such as existing congestion levels, the travel time benefits of an improvement, the economic climate, and land use policies that affect the potential for development in a corridor. Induced travel may change over time, with a limited amount occurring in the first few years after a roadway expansion and greater amounts occurring over a 10-to-15-year timeframe as new development in the corridor occurs.

HOW IS INDUCED TRAVEL CALCULATED?

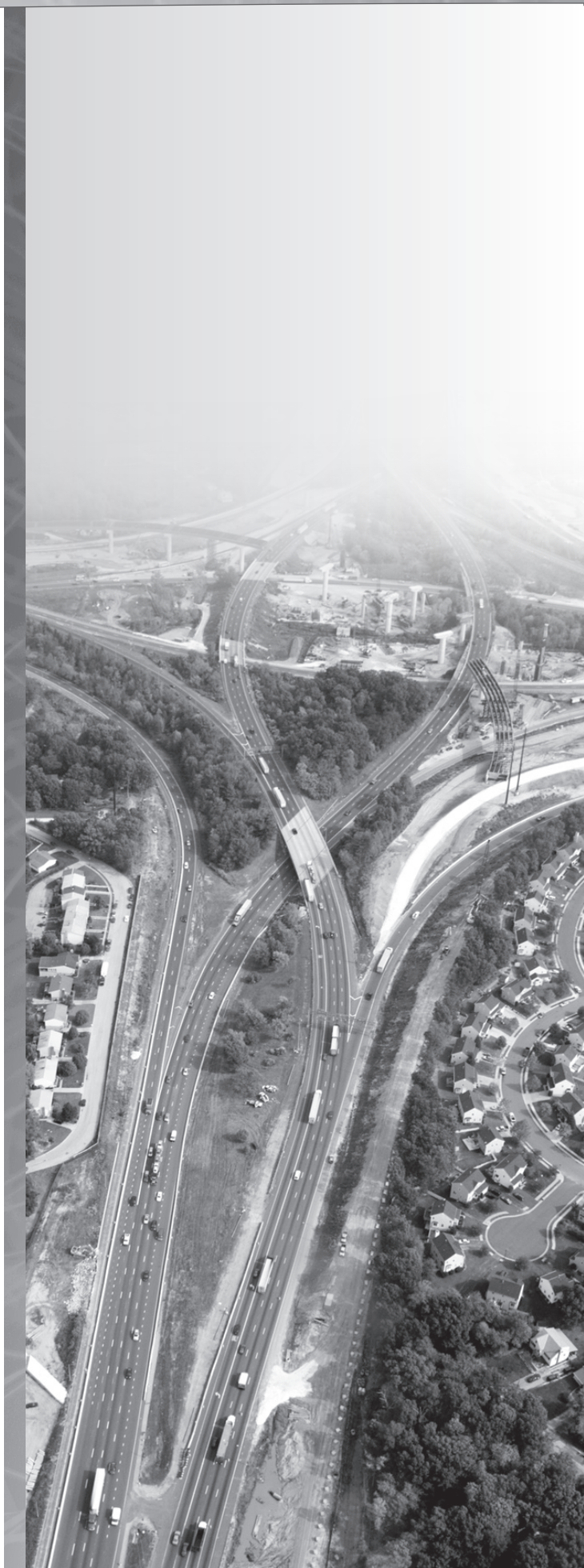
It is extremely difficult to determine the magnitude of induced travel, although recent studies have measured the effect of transportation improvements on total travel. What is sometimes perceived as induced travel may actually be the result of shifts from adjacent roadways and other modes versus an overall increase in system trips, or of more global economic factors, such as increased income levels or reduced fuel costs, that would have raised travel demand regardless of transportation investments. Metropolitan travel demand models that forecast future travel capture some, but not all, components of induced travel and therefore may not fully account for the impacts of a transportation improvement.

Some studies have evaluated the relationship between capacity increases (or travel time decreases) and induced travel. These studies typically measure induced travel as an "elasticity," or a percent change in travel resulting from a percent change in capacity or travel time. For example, an elasticity of VMT with respect to lane-miles of 0.3 means that a 10% increase in highway lane-miles (supply) results in a 3% increase in VMT (demand). This research has typically found capacity elasticities in the range of 0.1 to 0.5 for short-term, and 0.5 to 1.0 for long-term (roughly five years or more after the improvement). A significant limitation of most studies is that they compared changes in VMT to changes in lane-miles instead of some measure of travel time or cost, and therefore do not directly account for congestion.

WHY IS INDUCED TRAVEL IMPORTANT?

Induced demand is not necessarily bad. For example, it can indicate economic success or that people are taking advantage of other travel options. However, induced travel does come with potential negative side effects such as air pollution, energy consumption, and noise. It also means that the expected benefits of capacity improvements, as measured by congestion relief and travel time savings, may not actually materialize.

Induced travel can also occur as a result of transit investments. For example, adding a new rail line often attracts new development that clusters within walking or a short driving distance of stations. Induced travel may also occur as a result of service improvements or capacity expansions on a capacity-constrained system. Generally, transit-induced travel is viewed as less of a concern than highway-induced travel, since it may result in reduced automobile VMT and added environmental benefits.



Glossary

GLOSSARY TERM	DEFINITION
Annual Attainment Report on Transportation System Performance	Pursuant to Transportation Article Section 2-103.1 of the Annotated Code of Maryland, the State is required to develop or update an annual performance report on the attainment of transportation goals and benchmarks in the Maryland Transportation Plan (MTP) & Consolidated Transportation Program (CTP). The Attainment Report must be presented annually to the Governor and General Assembly before they may consider the MTP and CTP.
Calendar Year	The period of 12 months beginning January 1 and ending December 31 of each reporting year.
Coordinated Highways Action Response Team (CHART)	CHART is an incident management system aimed at improving real-time travel conditions of Maryland's highway system. CHART is a joint effort of the State Highway Administration, Maryland Transportation Authority, and the Maryland State Police, in cooperation with other Federal, State, and local agencies.
Consolidated Transportation Program (CTP)	A six-year program of capital projects, which is updated annually to add new projects and reflect changes in financial commitments.
E-ZPass®	An electronic toll collection system utilized to provide a more efficient flow of traffic through MDTA toll facilities. *E-ZPass®* toll collection is available at all seven MDTA toll facilities. The benefits of *E-ZPass®* membership allow travel in Virginia to Maine and as far west as Illinois, with tolls paid from a Maryland *E-ZPass®* account.
Fiscal Year	A yearly accounting period covering the timeframe between July 1 and June 30 of each reporting year.
Locally Operated Transit Systems (LOTS)	Transit systems that provide primarily bus service and demand response within the local areas in which they operate. They are funded through a combination of Federal, State and local money. MDOT provides financial, technical, and operating support for these services.
Maryland Transportation Plan (MTP)	The MTP is MDOT's long-range transportation policy plan and includes the vision, goals and objectives that provide the policy framework and context for Maryland's transportation programs and investments. The MTP sets Department policy for the 20-year period and is updated every five years.
MPA General Cargo	Foreign and domestic waterborne general cargo handled at the public (MPA) terminals.
Port of Baltimore Foreign Cargo	International (Foreign) cargo handled at public and private terminals within the Baltimore Port District. This includes bulk cargo (e.g., coal, sugar, petroleum, ore, etc. shipped in bulk) and all general cargo (e.g., miscellaneous goods shipped in various packaging).
Mode	Form of transportation used to move people or cargo (e.g., truck, rail, air).
Performance Measure	A quantitative or qualitative measurement tool to assess progress toward an outcome or goal.
Real ID	The Federal Real ID Act of 2005 sets new standards designed to improve the integrity and security of state-issued driver's licenses and identification cards. The legislation contains 18 benchmarks for states to meet the requirements of the Real ID Act. The full text of the Real ID Act (including benchmarks) is available on the Department of Homeland Security's web site at **www.dhs.gov**. General information about Maryland's involvement with the Real ID Act is available on MVA's web site at **www.marylandmva.com**.
Smart Growth	Smart Growth directs the State to target programs and funding to support established communities and locally designated growth areas, and to protect rural areas.
Smart Green & Growing	*Smart Green & Growing* is a long-range, Statewide multi-agency initiative to help Maryland achieve a more sustainable future by linking community revitalization, transportation improvements, Smart Growth, and environmental restoration efforts.
Transit-Oriented Development (TOD)	Transit-Oriented Development creates compact, walkable neighborhoods around transit stations.
Travel Demand Management (TDM)	Travel Demand Management (TDM) strategies support the use of alternatives to the traditional single-occupant vehicle through a variety of programs and incentives (e.g., carpooling, car sharing, transit, park-and-ride facilities, teleworking, and flexible work hours).
Vehicle Miles of Travel (VMT)	A measurement of the total miles traveled by all vehicles.

List of Performance Measures

MTP GOAL	PERFORMANCE MEASURE	DEFINITION
MARYLAND DEPARTMENT OF TRANSPORTATION (MDOT)		
Environmental Stewardship	Transportation Emissions Reduction Measures (TERMs) – Commuter Operations and Ridesharing Center – Employer Outreach (including Employer Outreach for Bicycles) – Guaranteed Ride Home – Integrated Rideshare – Mass Marketing – Telework Resource Center	TERMs and Travel Demand Management (TDM) strategies support the use of alternatives to the traditional single-occupant vehicle
Environmental Stewardship	Transportation-related emissions by region	Tons of Volatile Organic Compound (VOCs) and Nitrogen Oxide (NOx), precursors of Ozone, emitted per day for an average weekday from transportation sources in the Baltimore and Washington regions
Environmental Stewardship	Transportation-related greenhouse gas emissions	GHG emissions primarily include carbon dioxide, methane, nitrous oxide, carbon monoxide, oxides of nitrogen and non-methane volatile organic compounds
MARYLAND AVIATION ADMINISTRATION (MAA)		
Quality of Service	Percent of BWI Marshall customers rating the airport "good" or "excellent" on key services	Percent of customers giving a score of 4 or 5 (on a 5 point scale) for "Overall Satisfaction" and "How Likely to fly from BWI Marshall Airport on their next trip"
Safety & Security	BWI Marshall crime rate	Crimes include all thefts at BWI Marshall Airport, as well as vehicles stolen from the BWI Marshall Airport car rental facility.
Safety & Security	Number of repeat discrepancies in the annual Federal Aviation Administration's Federal Aviation Regulation inspection	Annual FAA Part 139 Federal Aviation Regulation (FAR) assessment conducted by the Federal Aviation Administration
Safety & Security	Rate of airfield ramp incidents and accidents per 1,000 operations	Incident reports collected by MAA / 1,000 operations (take offs and landings)
System Preservation & Performance	Airline cost per enplaned passenger (CPE)	Total airline-related fees / Total enplaned passengers at BWI Marshall Airport
System Preservation & Performance	Non-airline revenue per enplaned passenger (RPE)	Total non-airline revenue (ground transportation, parking, concessions, etc.) / Total enplaned passengers at BWI Marshall Airport
Connectivity for Daily Life	Number of nonstop airline markets served	Nonstop flights are direct to destination without connections
MARYLAND PORT ADMINISTRATION (MPA)		
Quality of Service	Average truck turn-around time at Seagirt Marine Terminal	Amount of time for a truck to enter the terminal gate, drop off and/or receive a container, and exit the gate
Safety & Security	MPA compliance with the Maritime Transportation Security Act of 2002	MPA activities in support of a compliance (Pass / Fail) rating from the U.S. Coast Guard

MTP GOAL	PERFORMANCE MEASURE	DEFINITION
MARYLAND PORT ADMINISTRATION (MPA) (CONTINUED)		
System Preservation & Performance	Dredge material capacity remaining for Harbor and Bay maintenance dredging	Monitors existing capacity remaining at Harbor and Bay dredged material placement sites
System Preservation & Performance	Revenue versus operating expense	Total revenues compared to operating expense of MPA, including Seagirt Marine Terminal lease payments, but excluding some exclusions
Environmental Stewardship	Acres of wetlands or wildlife habitat created, restored, or improved since 2000	Cumulative tally of acreage created, restored, or improved for wildlife habitat
Connectivity for Daily Life	International cruises using the Port of Baltimore	Number of international cruises using the Port of Baltimore
Connectivity for Daily Life	Port of Baltimore foreign cargo and MPA general cargo tonnage	MPA general cargo includes foreign and domestic waterborne cargo; Port of Baltimore foreign cargo includes bulk and general cargoes within the Port District, but does not include domestic cargo
MARYLAND TRANSIT ADMINISTRATION (MTA)		
Quality of Service	Customer satisfaction rating	Average score for: Overall satisfaction of each MTA service (Core Bus, Light Rail, Baltimore Metro, and MARC)
Quality of Service	Percent of service provided on time	Number of trips arriving on schedule / Number of trips scheduled
Safety & Security	Customer perceptions of safety on the MTA system	Average score for: Feeling safe while riding, while waiting at stops and stations, and for my vehicle left in an MTA parking lot
Safety & Security	Preventable accidents per 100,000 vehicle miles	Preventable accidents are accidents in which drivers did not do everything they could to avoid an accident / 100,000 vehicle miles
System Preservation & Performance	Operating cost per passenger trip	Total operating expenses / Number of unlinked passenger trips
System Preservation & Performance	Operating cost per revenue vehicle mile	Operating cost for each mode / Total miles when vehicle is in service (not deadheading or downtime)
System Preservation & Performance	Passengers per revenue vehicle mile	Passenger trips by mode / Total revenue miles by mode
Environmental Stewardship	Transportation Emissions Reduction Measures – MTA College Pass – MTA Commuter Choice Maryland Pass – Transit Store in Baltimore	TERMs and Travel Demand Management strategies support the use of alternatives to the traditional single-occupant vehicle
Environmental Stewardship	Travel Demand Management – Number of park-and-ride spaces—MTA Operated – Transit Multipurpose	Transit lots are MTA owned; multipurpose lots are not MTA owned

MTP GOAL	PERFORMANCE MEASURE	DEFINITION
MARYLAND TRANSIT ADMINISTRATION (MTA) (CONTINUED)		
Connectivity for Daily Life	Annual vehicle revenue miles of service provided	Vehicle revenue miles are defined as each mile for which a transit vehicle is in service and accepting customers
Connectivity for Daily Life	Average weekday transit ridership	Ridership for Core Bus, Light Rail, Baltimore Metro, MARC, Contracted Commuter Bus, and Paratransit & Taxi Access
MARYLAND TRANSPORTATION AUTHORITY (MDTA)		
Quality of Service	Overall customer satisfaction of *E-ZPass®* customers	Customer satisfaction based on biennial customer satisfaction survey
Quality of Service	Percent of toll transactions collected electronically	Toll collections by *E-ZPass®* and Automatic Vehicle Identification / Total number of toll transactions
MOTOR VEHICLE ADMINISTRATION (MVA)		
Quality of Service	Branch office customer visit time versus customer satisfaction rating	Average visit time plotted against percentage of customers rating their MVA experience as "good" or "very good" (based on quarterly survey of customers)
Safety & Security	Percent of Homeland Security Real ID Act benchmarks achieved	Benchmarks established by Federal regulations, with additional requirements expected after 2010
System Preservation & Performance	Alternative service delivery transactions as percent of total transactions	Transactions by alternative services (using a means other than a visit to an MVA branch) / Tracked transactions
System Preservation & Performance	Cost per transaction	Operating costs and capitalized costs / Number of transactions
Environmental Stewardship	Compliance rate and number of vehicles tested for Vehicle Emissions Inspection Program (VEIP) versus customer wait time	Registered vehicles in non-attainment counties are scheduled for VEIP testing every two years. Compliance rate is the number of vehicles registered in non-attainment counties scheduled for testing / Number of registered vehicles in non-attainment counties tested.
Connectivity for Daily Life	Percent of information system availability compared to total number of records maintained	Includes availability of data records by type and systems up time
STATE HIGHWAY ADMINISTRATION (SHA)		
Quality of Service	Maryland driver satisfaction rating	Satisfaction rating based on weighted average score for 22 questions
Quality of Service	Percentage of the Maryland SHA network in overall preferred maintenance condition	Internal peer review assessment of roadway features of the total SHA lane-miles
Safety & Security	Number and rate of bicycle and pedestrian fatalities and injuries on all Maryland roads	Number of bicyclists and pedestrians killed / injured in traffic-related crashes in a calendar year
System Preservation & Performance	User cost savings for the traveling public due to incident management	Cost saving calculated using CHART incident response data

MTP GOAL	PERFORMANCE MEASURE	DEFINITION
STATE HIGHWAY ADMINISTRATION (SHA) (CONTINUED)		
Environmental Stewardship	Acres of wetlands restored and miles of streams restored	SHA seeks to mitigate for past impacts to wetlands and streams due to highway construction projects
Environmental Stewardship	Total fuel usage of the light fleet	Fuel used by 3,700-vehicle fleet of State-owned cars, dispensed at SHA facilities that contains ethanol (SHA light fleet consists of sedans, SUVs, half-ton pickup trucks and vans that use gasoline or gasoline/ethanol blends)
Environmental Stewardship	Travel Demand Management – Number of SHA park-and-ride spaces – Reduction in vehicle miles traveled through park-and-ride usage	SHA operates a number of park-and-ride facilities to support TDM
Connectivity for Daily Life	Percentage of State-owned roadway centerline miles with a bicycle level of comfort (BLOC) grade "D" or better and mileage of SHA-owned highways with marked bike lanes	BLOC is an A to F scale based primarily on the width of bicycle travel-way and the speed and volume of adjacent vehicular traffic; marked bike lanes are designated by pavement markings for the preferential or exclusive use of bicyclists and may be supplemented with signage
Connectivity for Daily Life	Percentage of State-owned roadway centerline miles within urban areas that have sidewalks and percent of sidewalks that meet Americans with Disabilities Act (ADA) compliance	On SHA roads where pedestrian access is allowed and within locally-designated urban areas of 5,000 or more
STATE HIGHWAY ADMINISTRATION (SHA) AND MARYLAND TRANSPORTATION AUTHORITY (MDTA)		
Safety & Security	Annual number and rate of traffic fatalities and personal injuries on all roads in Maryland	The annual number of traffic fatalities and personal injuries on all Maryland roads including MDTA and locally owned facilities (the fatality and personal injury rate is calculated as fatalities and personal injuries per 100 million vehicle miles of travel)
System Preservation & Performance	Number of bridges and percent that are structurally deficient	Number of bridges where at least one major structural element has a condition rating of 4 or less (out of 10)
System Preservation & Performance	Percent of roadway miles with acceptable ride condition	Percent of road with acceptable International Roughness Index (IRI) score
Connectivity for Daily Life	Percent of freeway lane-miles and arterial lane-miles with average annual volumes at or above congested levels	Annual average daily traffic / Number of through lanes

MARYLAND
Smart, Green & Growing

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This document is prepared pursuant to Transportation Article Section 2–103.1 of the Annotated Code of Maryland. Additional copies are available by calling (410) 865-1277; Toll Free (888) 713-1414; or from the Internet at www.marylandtransportation.com.

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