

 *Maryland Department of Transportation*

2006

Annual Attainment Report on Transportation System Performance

*Implementing the Maryland
Transportation Plan & Consolidated
Transportation Program*

Robert L. Ehrlich, Jr.
Governor of Maryland



A Message from the Governor



Three years ago, I laid out my Vision for a *More Mobile Maryland*, built upon a balanced transportation system that complements the way people live and how and where they work. Since that time, the Maryland Department of Transportation (MDOT) and Maryland Transportation Authority (MdTA) have been aggressively pursuing this vision, with projects and programs designed to have a meaningful impact on the transportation system that Maryland citizens rely upon everyday.

The door to progress was opened by passage of my transportation funding package during the 2004 General Assembly. This initiative generates an additional \$238 million each year for the Transportation Trust Fund. As a result, we have been able to add 123 major new projects to our capital transportation program, touching every region of the State. Critical highway projects are now underway including: the Hughesville Bypass in Southern Maryland, I-70 improvements in Frederick, safety projects on the Eastern Shore along both MD 404 and US 113, capacity enhancements on the Capital Beltway at MD 4 and MD 5 in the Washington region, and Beltway improvements in the Baltimore region. To maintain this momentum, MDOT and MdTA are quickly advancing key projects such as the Intercounty Connector, expansion of I-95, and development of Express Toll Lanes.

At the same time, MDOT is focused on improving transit service for our customers today, while developing Maryland's transit network of tomorrow. To provide better service immediately, we are upgrading our MARC system and completing the Light Rail double track project. We have accomplished the first comprehensive restructuring of bus service in the Baltimore region in 35 years with our Greater Baltimore Bus Initiative. We have added new routes and more buses to our busiest routes to take people where they need to go today given the changes in employment centers, health care, education and entertainment. Looking to tomorrow, we have received Federal authorization for four major transit initiatives that will add additional capacity and reach to our systems in the Washington and Baltimore regions. MDOT also has taken steps to strengthen the State's economic engines by aggressively completing the \$1.8 billion expansion of Baltimore/Washington Thurgood Marshall Airport (BWI) and by negotiating key long-term contracts to ensure continued success at Maryland's Port of Baltimore.

This 2006 Annual Attainment Report begins to communicate the benefits of our aggressive program and documents Maryland's progress towards creating a *More Mobile Maryland*. The report presents performance measures that are linked to the goals and objectives outlined in the Maryland Transportation Plan. The performance measures are designed to focus on MDOT's and MdTA's core mission – to facilitate the safe and efficient movement of people and goods across all transportation modes.

Implementing my ambitious vision is not an easy task given the growth in travel demand and significant need for re-investment in core infrastructure. However, with current and planned improvements, we are well positioned to deliver a comprehensive transportation system that *works* for Maryland.

Robert L. Ehrlich, Jr.
Governor of Maryland



This fifth Annual Attainment Report on Transportation System Performance presents measures that the Maryland Department of Transportation (MDOT), its five modal administrations, and the Maryland Transportation Authority (MdTA) are using to evaluate their progress in implementing the Maryland Transportation Plan (MTP) and the Consolidated Transportation Program (CTP). MDOT has responsibilities for capital investments, operations, and planning that reach across all modes of transportation. To provide information to MDOT managers, elected officials, and the general public, this annual report explains why the selected performance measures are tracked, why performance changed, and future performance strategies.

MDOT's performance is summarized by the four goals in the MTP – Efficiency, Mobility, Safety & Security, and Productivity & Quality.

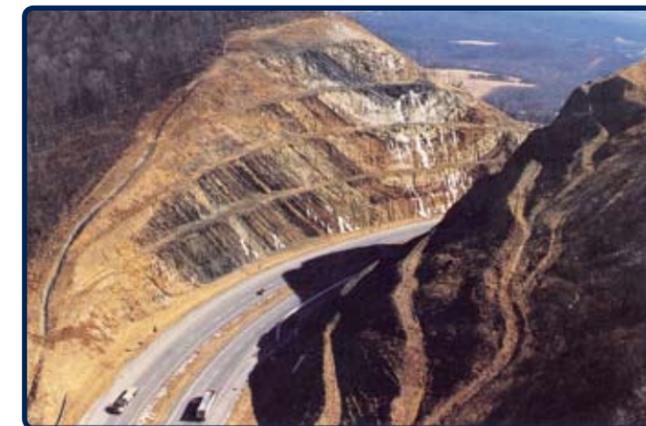


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Maryland's Five Modal Administrations

Name	Abbreviation
Maryland Aviation Administration	MAA
Maryland Port Administration	MPA
Maryland Transit Administration	MTA
Motor Vehicle Administration	MVA
State Highway Administration	SHA



Efficiency

MDOT strives to enhance mobility for passengers and goods in a manner that is as safe and cost effective as possible. From a customer standpoint, more efficient travel implies less time and cost-spent getting from one place to another. From a statewide or agency standpoint, efficiency means increased commerce, productivity, and competitiveness; decreased agency administrative and service delivery costs; and cost reductions from avoided accidents or incidents.

MDOT has made important steps in achieving substantial operational benefits from existing systems through sound management of its resources and facilities. In some areas, achievements have been offset by variables over which MDOT has less control, such as steadily increasing user demands, fiscal constraints, and increasing material costs.

Efficiency Performance Trends:

- All National Highway System (NHS) bridges have carried legally loaded vehicles without weight restrictions since 1995.
- The average MVA branch customer visit time has decreased by 11 minutes – or almost 20 percent – between FY2004 and FY2005.
- Transit on-time service has improved for Maryland Area Rail Commuter (MARC) service, remained steady for Light Rail service, and declined for MTA Metro service between FY2004 and FY2005.

Mobility

Increased mobility creates public and social benefits by expanding access to places, people, and goods. Adequate – and ideally – exceptional levels of mobility along the State’s infrastructure, ports, and aviation facilities allow Maryland to maintain its attractiveness for residents and visitors. Additionally, a strong transportation infrastructure helps businesses retain a solid employee force, as well as distribute products and receive goods in a timely manner, thereby enhancing the economic outlook and competitiveness of the State as a whole.

As stated in *Governor Ehrlich’s Vision for Transportation*, MDOT’s role is to provide for a “More Mobile Maryland” that complements the way people live, and how they work. To fulfill this vision, MDOT strives to provide mobility choices for all citizens. In the context of increasingly congested highway conditions, MDOT’s agencies are aggressively pursuing projects, such as the new Woodrow Wilson Bridge and I-270 multi-modal corridor improvements, as well as the Intercounty Connector (ICC) in partnership with MdTA.

Mobility Performance Trends:

- The amount of toll transactions being collected electronically has risen by almost six percent over the past year to more than 50 percent – providing a more efficient flow of traffic through MdTA toll facilities and continuing to reduce delay to the traveling public.
- The share of arterials that are congested has decreased slightly, while freeways showed a small increase in congested levels.
- Between FY2004 and FY2005, the annual vehicle revenue miles of Paratransit service have increased by more than one-third; remained stable for MARC service; and increased for Core Bus, Commuter Bus, and Metro services. In contrast, the annual vehicle revenue miles decreased by almost one-third for Light Rail, primarily due to the double tracking project.
- MAA has seen the expansion of the number of non-stop airline markets served by more than a ten percent increase between 2002 and 2004.

Safety and Security

Continuing to provide safe and secure transportation services and facilities is a key part of MDOT’s mission. MDOT incorporates safety and security measures into the design and operational activities of Maryland’s multimodal transportation



system, which includes thousands of miles of highways and bridges, public transit services, a major international airport, and a thriving port. MDOT also conducts intensive and high-level coordination among transportation, law enforcement, motor vehicle, and emergency services. To further enhance the security of travelers and transportation assets, MDOT is committed to applying new technologies and cost-effective countermeasures to reduce transportation system vulnerabilities and to planning emergency response efforts.

MDOT consistently delivers on its promise to provide a safe and secure transportation system for its users. MDOT’s commitment to advanced training, public outreach, and funding of safety enhancements has resulted in demonstrated successes.

Safety and Security Performance Trends:

- Between 2004 and 2005, both the number of fatalities and injuries decreased on Maryland roadways. The State’s 2005 fatality rate remains well below the national average.
- Baltimore/Washington International Thurgood Marshall (BWI) Airport and Maryland’s Port of Baltimore public terminals (managed by MPA) continue to fulfill their respective Federal security requirements. This year, the Federal government has found BWI to have zero discrepancies in meeting the airport safety standards, an extremely rare achievement for an airport. MDOT and MdTA continue to implement enhanced surveillance, enforcement programs, and emergency response training and coordination at both facilities.
- Customer perception of safety on the MTA system remained the same; however, new safety and security programs (e.g., incident tracking, system security monitors, and training courses) will better enable law enforcement officials to respond to crime on MTA facilities and potentially improve customer sense of safety.

Productivity and Quality

Fiscal constraints on top of an increasing demand for transportation services and facilities challenge MDOT to do more with less. The State’s expanding and diversifying needs require a continuous search for new resources and approaches. MDOT strives to contain costs and maximize available resources by creating new partnerships, outsourcing where efficiencies can be achieved, and implementing advanced technologies. Streamlining environmental and regulatory processes has decreased project delays while maintaining stewardship of Maryland’s resources. Modal administrations also seek to improve productivity and enhance customer service with several agencies including MVA, SHA, MAA, and MTA actively collecting feedback to better respond to customer needs.

In order to accomplish its mission—to facilitate the safe and efficient movement of people and goods across all transportation modes—MDOT has focused its resources on programs and projects that provide the greatest level of productivity and service quality to its customers.

Productivity and Quality Performance Trends:

- Between 2004 and 2005, customer satisfaction ratings increased for MAA, MVA, and all MTA services.
- MVA transaction costs significantly decreased from FY2004 to FY2005, partially due to an increase in the number of alternative service transactions and an increase in overall transactions even though budgets remained stable.
- MTA operating costs remained relatively stable, except for Paratransit services, which notably increased between FY2003 and FY2004.
- Airport revenue per enplaned passenger increased in FY2005, and the trend is expected to continue as a result of the new Concourse A and concession programs at BWI.
- Although MPA’s revenue decreased in FY2005, total revenue generated exceeded MPA operating costs (excluding debt service).



INTRODUCTION

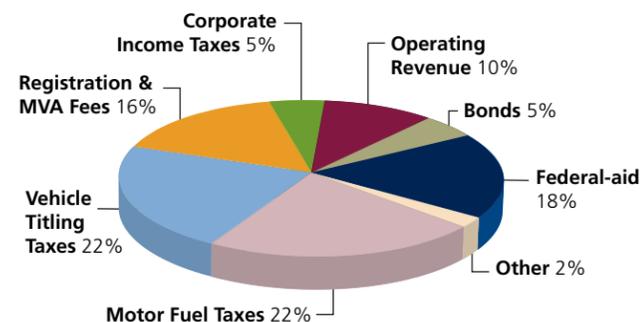
This fifth Annual Attainment Report on Transportation System Performance presents measures that Maryland's transportation agencies are using to evaluate the status of the State's transportation system and to assess the State's implementation of the Maryland Transportation Plan (MTP) and the Consolidated Transportation Program (CTP). The Maryland Department of Transportation (MDOT) has responsibilities for capital investments, operations, and planning activities that reach across all modes of transportation. The Transportation Secretary's Office (TSO) establishes transportation policy and oversees five modal administrations: the Maryland Aviation Administration (MAA), Maryland's Port Administration (MPA), the Maryland Transit Administration (MTA), the Motor Vehicle Administration (MVA), and the State Highway Administration (SHA). The Secretary of the Department also serves as Chairman of the Maryland Transportation Authority (MdTA), an independent State agency that is responsible for Maryland's toll facilities as well as for financing new revenue producing projects for MDOT, ensuring closely coordinated State transportation policy.

MDOT and MdTA's Funding Framework

MDOT is funded by an integrated Transportation Trust Fund (TTF) – a dedicated revenue source supported by Federal aid, operating revenues, registration fees, taxes, and bond sales. As a separate State agency, MdTA is independently funded through its own trust fund comprised of tolls, concessions, investment income, revenue bonds, and miscellaneous sources. MdTA revenue covers the construction, operation, and maintenance of its facilities.

The MDOT and MdTA FY2006-FY2011 capital and operating budgets are shown in the charts on page 5. The first two charts detail how the TTF is distributed across MDOT and its modal administrations and the Washington Metropolitan Area Transit Authority (WMATA). Maryland is one of only two states that fully support the non-Federal operating subsidy of its major urban transit systems (WMATA and MTA). The last two charts reflect the use of funds in the capital and operating budget for MdTA.

**Transportation Trust Fund Sources
FY2006–FY2011**



Maryland Facts

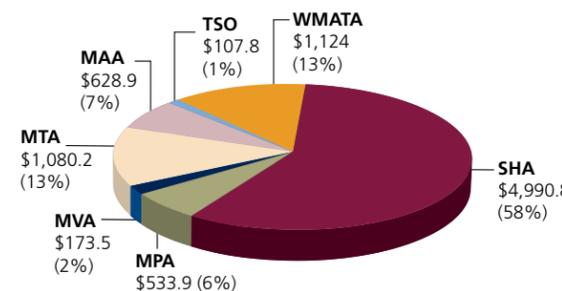
Annual vehicle miles of travel: 55.1 billion	Percentage growth in vehicle miles of travel (VMT) since 1995: 20% growth
Annual enplaned passengers at BWI: 20.3 million	Daily Motor Vehicle Administration transactions: 54,602
Number of public-use airports: 35	Number of transit systems: 31
Maryland's Port of Baltimore foreign cargo tonnage: 31.8 million tons	Annual transit ridership: 245 million
Annual toll transactions: 118 million	Percentage of VMT on State-owned facilities: 68%
Number of licensed drivers: 3,788,807	Number of registered vehicles: 4,538,389
Number of autos per household: 1.8	Miles of State-owned highways with designated bike lanes/routes: 186

To address growing transportation needs within the State, MDOT has identified "innovative funding" mechanisms to augment the TTF such as toll financing, the sale of underutilized and unnecessary Department assets, tax advantage leasing, GARVEE bonds (bonds supported by future Federal funds), and self-supporting projects at Baltimore/Washington International Thurgood Marshall (BWI) Airport and Maryland's Port of Baltimore. The partnership between MDOT and MdTA will result in more reliable travel times and user-generated revenue to help pay for construction, maintenance, and operation of Maryland's transportation system. Innovative financing is particularly important for top priority projects, such as the Intercounty Connector (ICC) and Express Toll Lanes.

Since 1985, MDOT has partnered with MdTA to provide funding assistance and/or access to the revenue bond market for joint development and delivery of approximately \$1.2 billion in capital construction projects including the expansion of BWI Airport, improvements to the port facilities, and Light Rail projects.

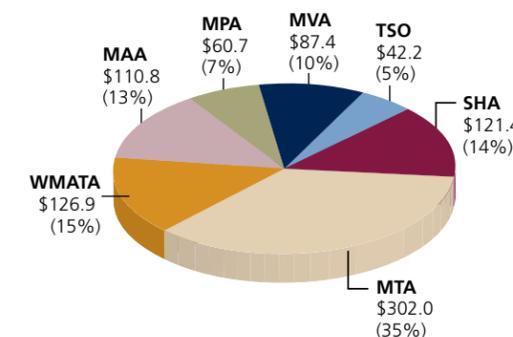
MDOT is concerned that all projects are delivered within expected scope, timeframe, and budget. To improve the management of the capital transportation program, MDOT evaluates the delivery of the projects listed in the CTP. As an indicator of project delivery, MDOT tracks the "percentage of budgeted dollars expended." MDOT strives to spend 90 percent of budgeted dollars to prevent unnecessary borrowing of funds in the future. In FY2005, MDOT spent 113 percent of the estimated budget due to additional SHA spending as part of the Revenue Enhancement.

**MDOT Capital Budget
FY2006–FY2011
(Millions)**



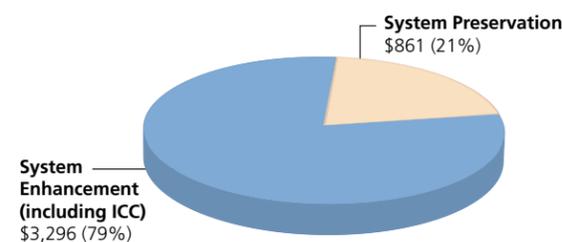
Total Capital Budget – \$8.6 Billion

**MDOT Operating Budget
FY2006–FY2011
(Millions)**



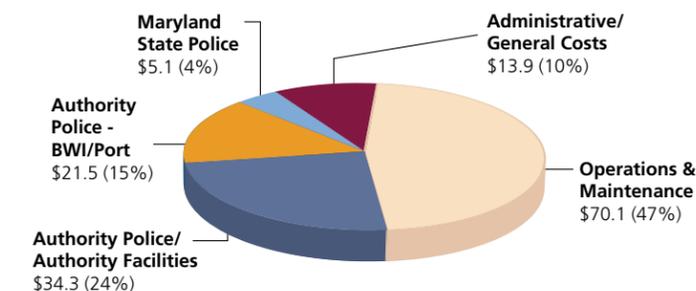
Total Operating Budget – \$851.4 Million

**MdTA Capital Budget
FY2006–FY2011
(Millions)**



Total Capital Budget – \$4.1 Billion

**MdTA Operating Budget
FY2006
(Millions)**



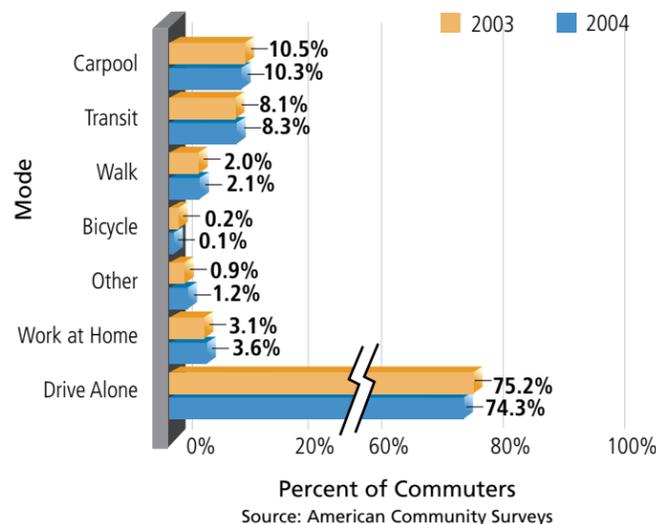
Total Operating Budget – \$145 Million

Growing Transportation Demand in Maryland

Managing the State's large multimodal transportation system is especially challenging given the trend of steadily increasing user demands across all modes.

A significant portion of personal travel in Maryland occurs by automobile, light truck, or sport utility vehicle. However, a comparison of the 2003 and 2004 American Community Surveys illustrates a modest shift from drive alone trips to transit, walking, and working from home. MDOT's target is to maintain the share of public transportation and other non-single-occupant vehicle modes over the six-year period and to increase this share over the next 20 years.

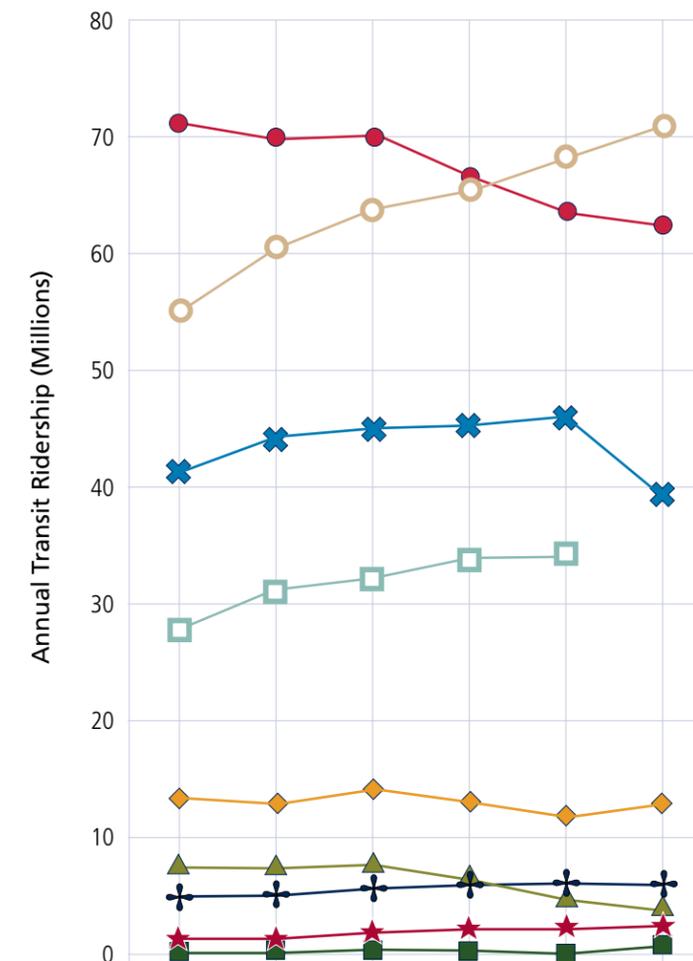
Mode Split for Maryland Commuters (2003 and 2004)



Between 2004 and 2005, transit ridership increased on MARC, Commuter Bus, and MTA Metro services. Paratransit also experienced notable growth (46 percent) between 2004 and 2005 due to improved service delivery. Since 2000, WMATA rail service has experienced ridership growth, while MTA bus and Light Rail ridership has fallen consistently since 2003.

In addition to MTA and WMATA, MDOT financially supports 29 Locally Operated Transit Systems (LOTS). MDOT funds these transit services with State and Federal grants, which totaled \$72.1 million in FY2005 (\$54.9 million in operating grants plus \$17.2 million in capital grants). In FY2004, LOTS carried 34.7 million transit trips. LOTS systems submit annual performance reports of service efficiency and effectiveness to MDOT.

Maryland Annual Ridership by Mode



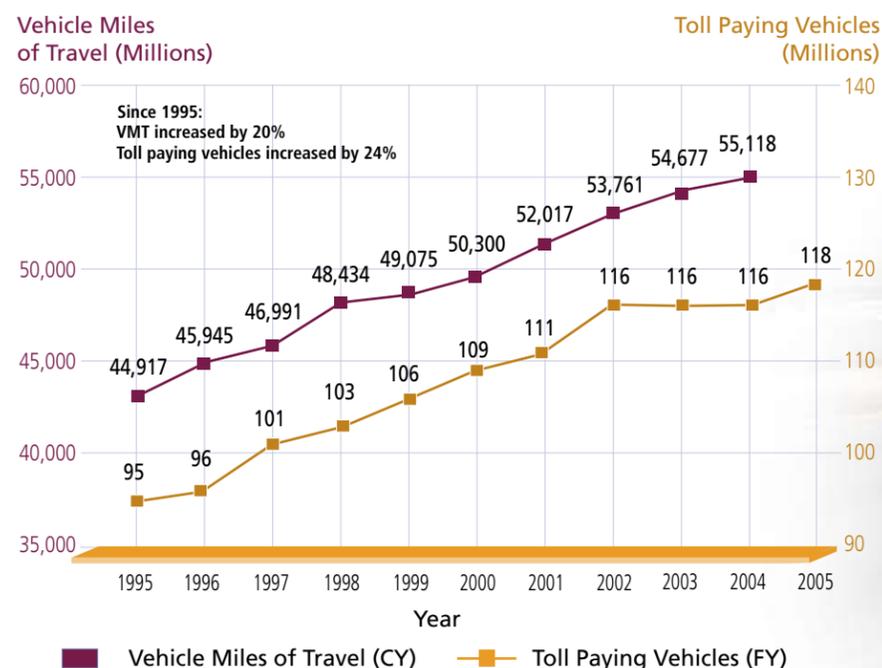
Travel in Maryland – On the Ground

Between 1995 and 2004, vehicle miles of travel have grown by 20 percent at an average rate of two percent per year and now total more than 55 billion vehicle miles. However, vehicle lane miles minimally increased during the same period. Similarly, the number of toll paying vehicles has increased by 24 percent since 1995 on facilities operated by MdTA, with minimal capacity expansion.

Vehicle miles of travel increases have been coupled with an increase in transactions processed at MVA, the agency

responsible for the registration of vehicles and the licensing of drivers. In FY2005, MVA processed 16.2 million transactions. Despite a decrease in staff levels of 129 positions, MVA was able to process an additional 2 million transactions in FY2005 than in FY2002. Between 2006 and 2025, Maryland's driving age population is expected to increase by about 14 percent, the number of licensed drivers by 24 percent, and the number of registered vehicles by 38 percent. As a result, the demand for MVA services will increase.

Annual Vehicle Miles of Travel and Toll Paying Vehicles in Maryland

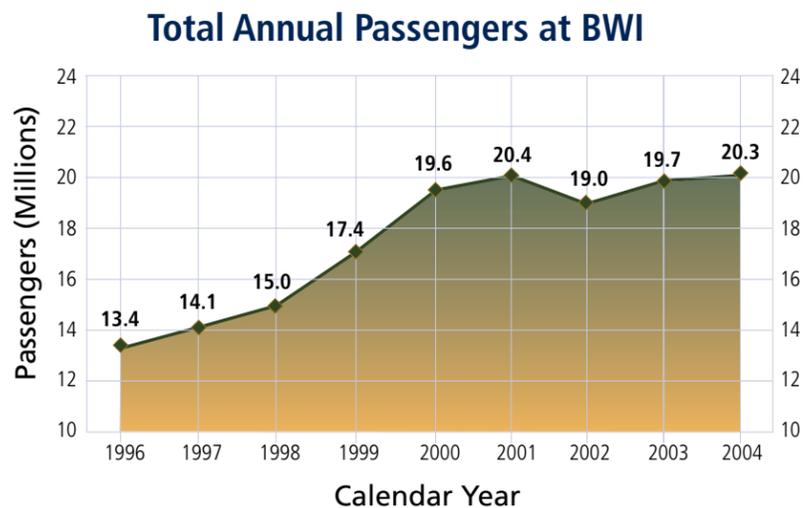


Fiscal Year	2000	2001	2002	2003	2004	2005
(Thousands)						
Bus	71,509	70,145	70,127	66,736	63,793	63,241
Metro	13,609	13,597	14,240	13,196	12,426	12,863
Light Rail	8,664	8,519	8,548	7,387	5,818*	4,295*
MARC (Commuter Rail)	5,317	5,735	6,063	6,336	6,727	6,884
Commuter Bus (Contracted)	1,571	1,828	2,170	2,562	2,703	2,929
Paratransit	523	573	570	564	542	791
LOTS	28,943	31,745	32,179	34,108	34,745	not available
Rail	55,203	60,827	63,742	64,896	68,395	70,949
Bus	41,563	43,662	44,479	45,401	46,139	39,645

Note: WMATA ridership estimated based on Maryland's share of WMATA's operating subsidy.
* Reflects partial closures for double tracking projects.

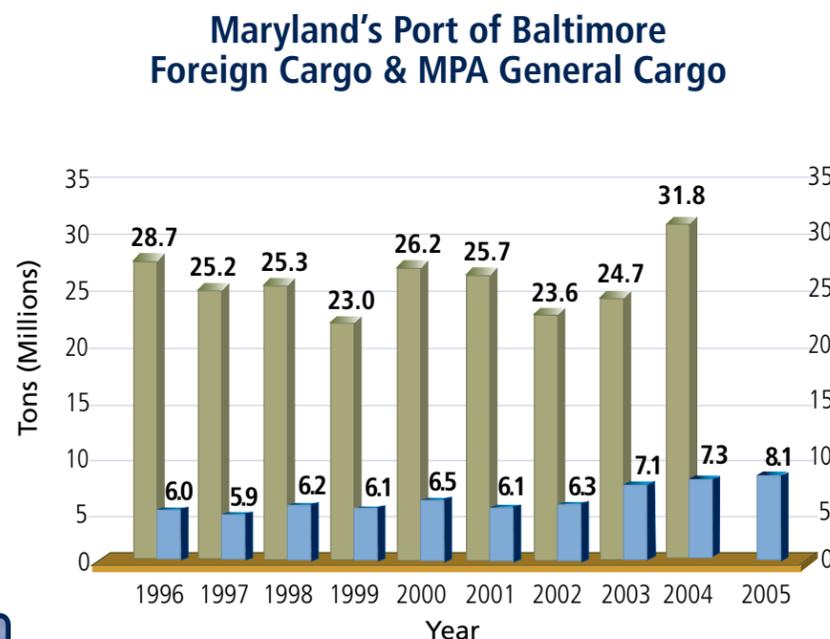
Travel in Maryland – In the Air

Serving more than 20 million domestic and international passengers in 2004, BWI passenger traffic rebounded from the sharp downturn experienced in the aviation industry post 9/11. MAA also owns and operates Martin State Airport – a general aviation and support facility for the Maryland Air National Guard and Maryland State Police. In addition to BWI and Martin State Airports, there are 33 public-use general aviation airports in Maryland that have received a total of \$27.65 million (excluding Federal funds and local airport funds) in State funding assistance between 1996 and 2005. The grants are used for projects, such as the installation of Pilot Information Centers at all public-use airports, which foster aviation and preserve the State’s air transportation system.



Travel in Maryland – Waterborne Commerce

As one of only two ports on the U.S. East Coast that has a 50-foot deep channel, Maryland’s Port of Baltimore is one of the State’s most valuable economic engines. General cargo moving through MPA facilities reached a record level of 8.1 million tons (up 11 percent) in FY2005, and foreign cargo tonnage (bulk and general cargo) also showed remarkable growth, reaching 31.8 million tons in CY2004, a 28.4 percent increase from CY2003. Maryland’s Port of Baltimore is well positioned for continued growth as it expands terminal and storage capacity, generates long-term leases, and focuses on container, niche, and bulk cargoes. However, additional land will be needed for continued growth in the future.



■ Maryland’s Port of Baltimore Foreign Cargo (CY)
■ MPA General Cargo (FY)

Note: Maryland’s Port of Baltimore Foreign Cargo tonnage for CY2005 will not be available until CY2006.



Travel in Maryland – Bicycle and Pedestrian Access

During the 2000 legislative session, the Maryland General Assembly created the Bicycle and Pedestrian Access Act which mandated a 20-Year Bicycle and Pedestrian Access Master Plan.

This plan, completed in 2002, established a vision along with five goals for bicycle and pedestrian access in Maryland. Below are the five goals and MDOT’s recent accomplishments.

Goals	Actions in 2004
Goal 1: Facility Integration and Expansion	<ul style="list-style-type: none"> Completed 19.69 miles of new trails – including Georges Creek, Wiles Branch, Western Maryland Rail, Little Pipe Creek, and Union Bridge Trails Added 114 miles of marked on-road bike lanes Improved bicycle access on MARC trains by revising regulations Provided funding for planning and construction of new bicycle trails
Goal 2: Facility Preservation and Maintenance	<ul style="list-style-type: none"> Rehabilitated bikeways and sidewalks Expanded Americans with Disabilities Act (ADA) evaluation of sidewalks Installed signs along bike trails
Goal 3: Safety	<ul style="list-style-type: none"> Distributed bicycle safety brochures Trained school staff to teach bicycle safety classes Organized public information campaigns (e.g., Street Smart)
Goal 4: Education and Encouragement	<ul style="list-style-type: none"> Conducted Walkable Communities Workshops Provided bicycle and pedestrian information for the new Nutrition and Physical Activity State Plan
Goal 5: Smart Growth	<ul style="list-style-type: none"> Assisted the cities of Frederick and Hagerstown, and Washington County with bikeway plan development

The Bicycle and Pedestrian Access Act also mandated annual bicycle and pedestrian performance measures. Maryland's bicycle and pedestrian program fulfills the Federal Highway Administration (FHWA) guidelines on establishing and tracking performance using quantitative performance measures and targets. The table below and charts on page 11 list key performance measures developed to track MDOT's success in attaining the vision and goals of the Bicycle and Pedestrian Access Master Plan.

Other Measures MDOT Tracks:

- Number of local jurisdictions implementing ordinances that support bicycling and walking, which currently stands at twenty-three.
- Percent of appropriate MTA transit vehicles that can accommodate bicycles, currently at 31 percent, which is an increase from 29 percent in 2004.
- Estimated funding for bicycle and pedestrian improvements contained in the FY2006-FY2011 CTP is \$242 million.

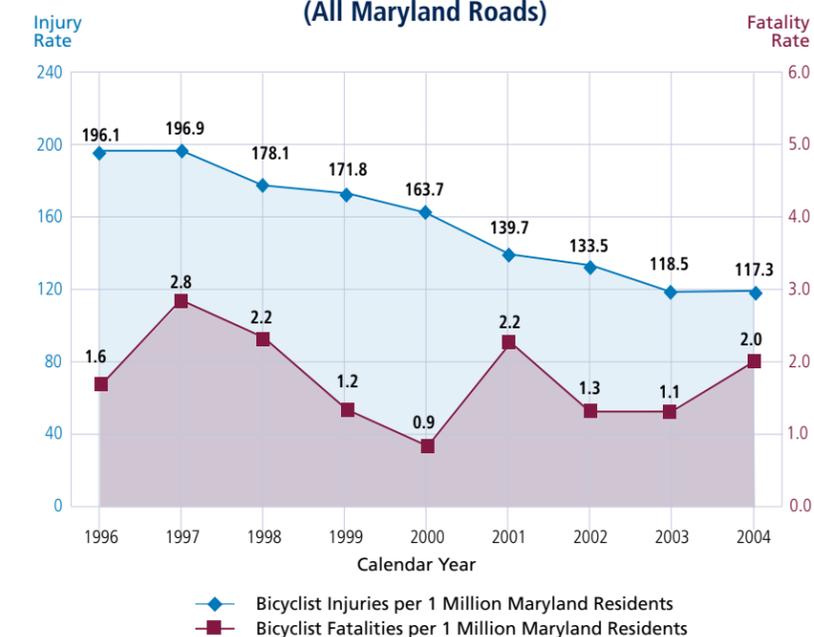
Bicycle/Pedestrian Measures	2002	2003	2004	Target	Target Date
Percentage of State-owned roadway centerline miles with a bicycle level of comfort (BLOC) grade of "D" or better (Scale "A" to "F")	77%	78%	81%	80%	12/06
Centerline mileage of State-owned highways with designated bicycle lanes/routes	8 miles	40.6 miles	186 miles	300 miles	12/06
Percentage of State-owned roadway centerline miles within urban areas that have sidewalks	20%	24.6%	26%	20%	6/07
Number of bicycle fatalities and injuries on all Maryland roads	7 fatalities 722 injuries	6 fatalities 641 injuries	11 fatalities 652 injuries	<5 fatalities <409 injuries	2009
Number of pedestrian fatalities and injuries on all Maryland roads	101 fatalities 2,566 injuries	118 fatalities 2,724 injuries	95 fatalities 2,481 injuries	<90 fatalities <2,400 injuries	12/06

Safety for the State's pedestrians and bicyclists is of particular concern for MDOT.

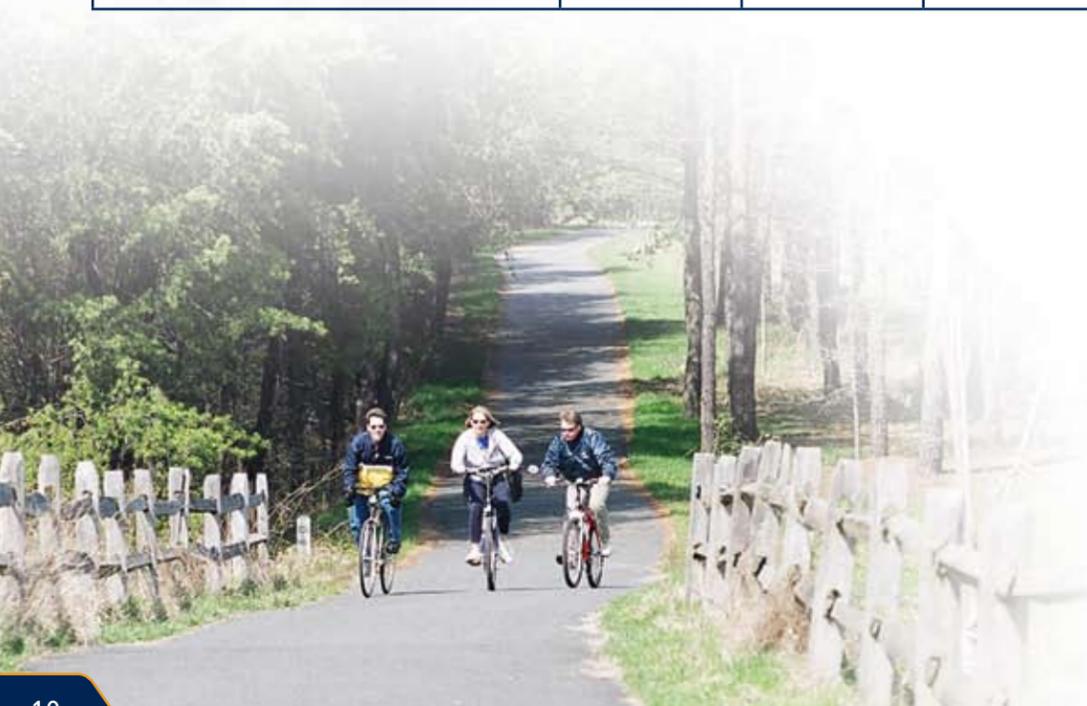
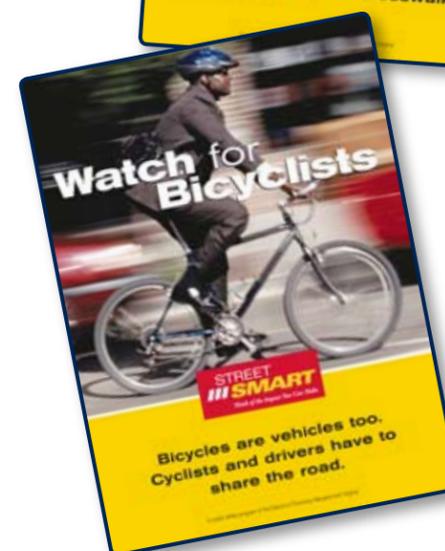
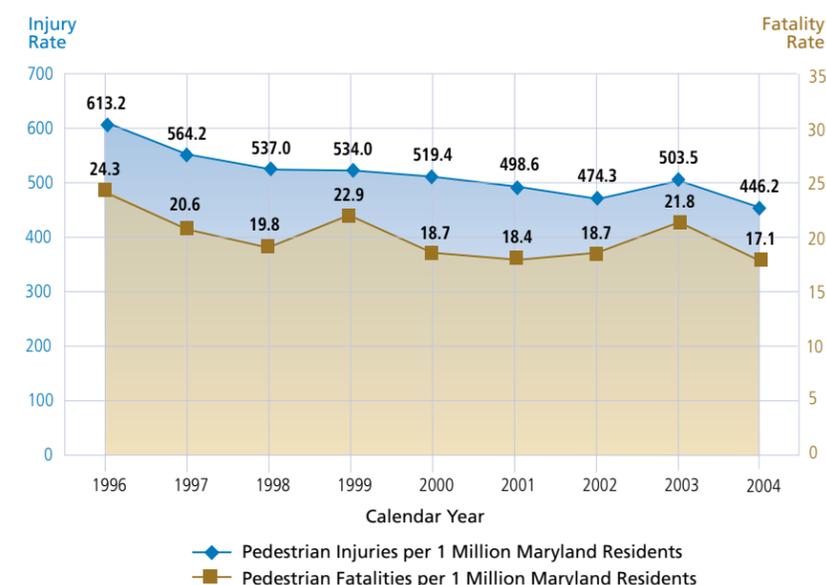
Maryland will continue to improve pedestrian and bicyclists' safety through the following strategies:

- Support higher penalties for drivers not yielding to pedestrians;
- Continue public information and education campaigns (e.g., Safe Routes to School, Street Smart Campaign, and bicycle safety guides);
- Train State and local agencies to use "Pedestrian Toolbox," a list of techniques and recommendations to improve pedestrian safety and access;
- Analyze pedestrian and bicycle accident data to identify remedial treatments;
- Improve intersection signals to accommodate pedestrians with disabilities; and
- Install marked bikeways on State highways.

Bicyclist Injuries and Fatalities per 1 Million Maryland Residents (All Maryland Roads)



Pedestrian Injuries and Fatalities per 1 Million Maryland Residents (All Maryland Roads)



EFFICIENCY

POLICY OBJECTIVES:

- ▶ *Extend the useful life of existing facilities and equipment*
- ▶ *Maximize the operational performance and capacity of existing systems*



MDOT strives to enhance mobility for passengers and goods in a manner that is as safe and cost-effective as possible. From a customer standpoint, more efficient travel implies less time and cost spent getting from one place to another. From a statewide or agency standpoint, efficiency implies increased commerce, productivity, and competitiveness; decreased agency administrative and service delivery costs; and cost reductions from avoided accidents or incidents.

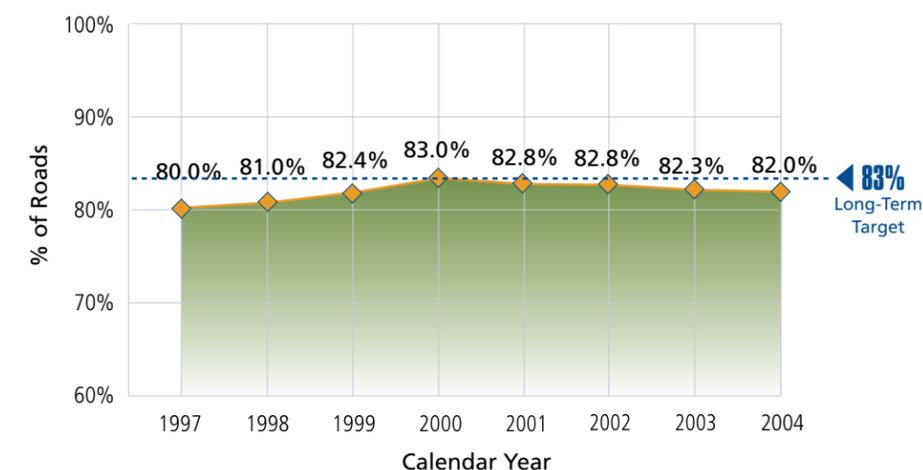
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Efficiency Performance Trends:

- All National Highway System (NHS) bridges have carried legally loaded vehicles without weight restrictions since 1995.
- The average MVA branch customer visit time decreased by 11 minutes – or almost 20 percent – between FY2004 and FY2005.
- The percentage of MVA transactions, completed by alternative services (e.g., mail, Internet, and telephone) increased by about eight percent between FY2004 and FY2005, contributing to customer time and cost savings.
- Transit on-time service has improved for MARC service, remained steady for Light Rail service, and declined for MTA Metro service between FY2004 and FY2005.
- The Coordinated Highways Action Response Team (CHART) incident management program produced benefits to Maryland travelers, but on a slightly smaller scale in 2004, partially due to the occurrence of more serious incidents in 2004.
- Pavement conditions have deteriorated slightly over the past five years.

Percentage of SHA-Maintained Roads with Acceptable Ride Quality

Ride quality facilitates mobility, efficiency, and the safe movement of people and goods within Maryland.



Why Did Performance Change?

- *Implemented stricter ride quality standards for newly constructed pavements*
- *Utilized a pavement management program to maximize roadway performance through optimized use of available funding*

What Are Future Performance Strategies?

- *Address upcoming shortfalls resulting from sharp increases in material costs*
- *Increase the percentage of system preservation funds allocated to paving items through more efficient contracts and supplemental funding sources for non-paving related items (e.g., drainage repairs)*

PERFORMANCE MEASURES: Efficiency

Performance Measure	Monitoring Agency
Percentage of SHA roadway mileage with acceptable ride quality	SHA
Percentage of bridges along Maryland SHA and MdTA portions of the NHS that will allow all legally loaded vehicles to safely traverse	SHA & MdTA
Percent of MTA service provided on time	MTA
Average branch office customer visit time vs. customer rating	MVA
Alternative service delivery transactions as percent of total transactions	MVA
Total reduction in incident congestion delay	SHA

Why Did Performance Change?

- *Inspected 91 percent of bridges within one month of due date and 99.6 percent of bridges within Federal guidelines (four months of due date)*
- *Repaired NHS system bridges within six months of identifying potential structural issues to avoid posting weight limits*
- *Enhanced the bridge inspection process by utilizing technology such as laptops and digital cameras*

What Are Future Performance Strategies?

- *Continue to address bridge conditions through timely inspections and the use of standard procedures*
- *Prioritize the replacement of bridge decks in high traffic areas and avoid multiple repair projects*
- *Pursue additional bridge funds to maintain current performance without sacrificing the condition of non-NHS bridges*

Percentage of SHA & MdTA NHS Bridges That Will Allow Legally Loaded Vehicles to Traverse

Bridges that do not have weight restrictions enable goods to move safely and efficiently, ensure the safety of the traveling public, and facilitate a rapid response to any emergency throughout Maryland.

Performance Measure	Calendar Year					Target
	2000	2001	2002	2003	2004	
Number of SHA NHS bridges	1,340	1,336	1,340	1,308	1,144*	100%
Number of MdTA NHS bridges	251	251	253	253	253	
Percentage that will allow all legally loaded vehicles to traverse	100%	100%	100%	100%	100%	

*Method of counting SHA bridges adjusted to more accurately reflect bridges that carry NHS roads.

Why Did Performance Change?

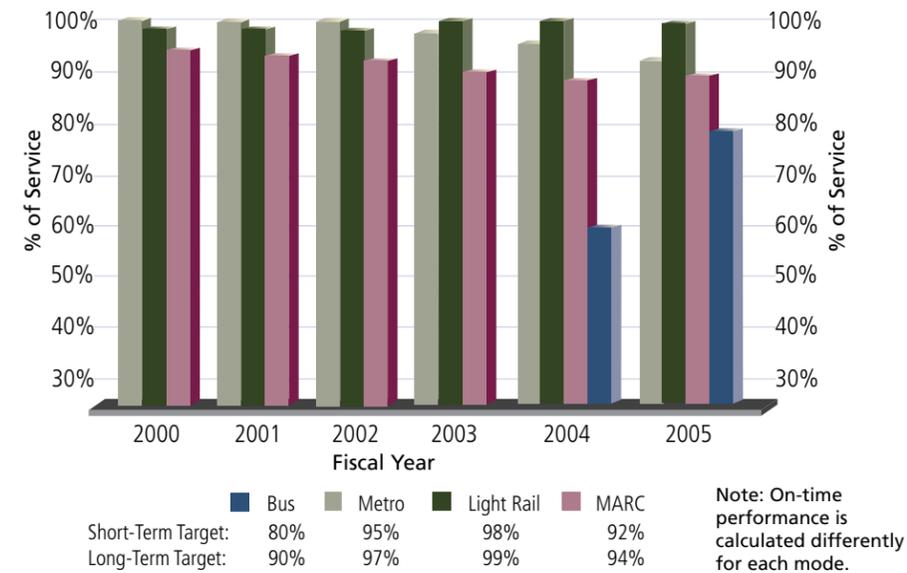
- **MARC:** Improved performance due to better management of speed restrictions caused by summer heat
- **MTA Metro:** Decreased on-time performance due to major tunnel construction projects and an aging car fleet
- **MTA Light Rail:** Performance has remained steady at 99 percent since FY2003

What Are Future Performance Strategies?

- **MARC:** Efficiency improvements on Camden, Brunswick, and Penn Lines (\$52.5 million)
- **MTA Metro:** Complete safety installation, open new maintenance facility, and perform mid-life overhaul of 100 railcars
- **MTA Light Rail:** Finish the double track projects in FY2006
- **MTA Bus:** Conclude the Greater Baltimore Bus Initiative (GBBI)

Percentage of MTA 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.



In analyzing the bus data, MTA believes a revised methodology can improve the reliability and completeness of the data being collected as compared to the current methodology.

Why Did Performance Change?

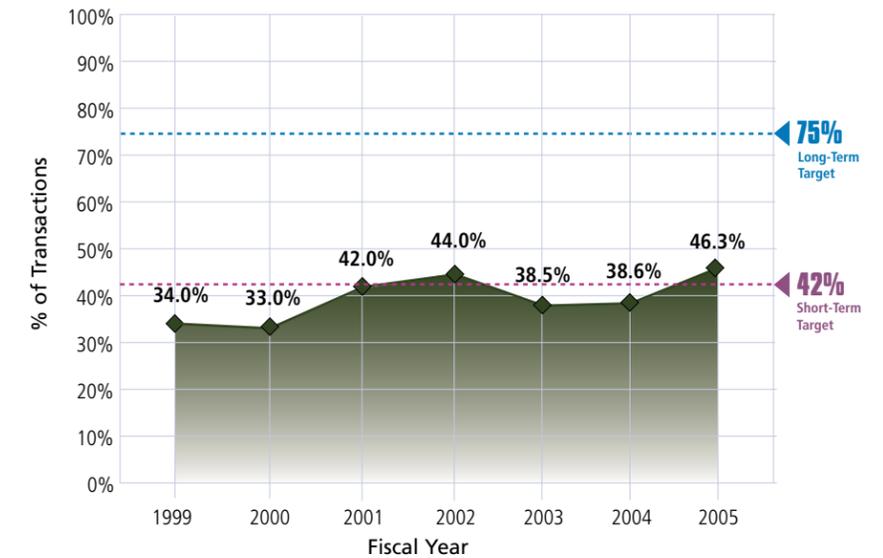
- **Motor vehicle records sales over the Internet** increased through MVA's Direct Access Records system

What Are Future Performance Strategies?

- **Shift less complex transactions to alternative services**
- **Invest \$13.3 million (FY2006-FY2011 CTP) in E-MVA Service Delivery Systems (Internet, kiosks, and telephone Interactive Response Systems)**
- **Increase marketing effort and identify effective incentive mechanisms**

Alternative Service Delivery Transactions as Percent of Total Transactions

Alternative services offer the ability to provide fast and convenient service delivery to the customer.



MVA Branch Customer Visit Time vs. Customer Rating

Average customer visit time is a key indicator for the quality and efficiency of service delivery to customers and is inversely related to customer satisfaction (i.e., as MVA branch customer visit time decreases, customer satisfaction increases). The branch customer visit times do not include visit times for VEIP Station customers, which currently average under 15 minutes.



Why Did Performance Change?

- **Improved familiarity with the new driver license system** decreased branch visit time by 11 minutes between FY2004 and FY2005
- **Expanded E-MVA Service Delivery Systems** saved customer time and provided service convenience
- **Invested in existing facilities, which resulted in higher customer rating of MVA physical surroundings**

What Are Future Performance Strategies?

- **Continue to aggressively fill vacancies to maintain a reasonable customer visit time**
- **Continue to promote the advantages of non-branch service delivery (e.g., telephone, mail, and Internet)**
- **Utilize new full-service branch office in Montgomery County, Maryland (\$3.1 million of the \$5.6 million total cost included in FY2006-FY2011 CTP)**
- **Utilize surveys, best practice models, and policy input to further improve the delivery of MVA products and services**

Total Reduction in Incident Congestion Delay

The reduction in incident congestion delay is a direct benefit of Maryland's Coordinated Highways Action Response Team (CHART) program. The CHART system saves motorists' time by clearing incidents, assisting stranded motorists, and reducing secondary incidents. These congestion reduction strategies translate into \$570 million per year in cost savings to drivers and commercial traffic.

Performance Measure	Calendar Year		
	2003	2004	Target
Reduction in incident congestion delay	26.8 million vehicle hours saved	26.0 million vehicle hours saved	30.0 million vehicle hours saved

Why Did Performance Change?

- **Reduced incident clearance times** due to better coordination with other agencies and technology upgrades
- **Improved reliability of traveler information on major commuter routes**
- **Slight decrease in vehicle hours saved** due to staffing shortages and more serious traffic incidents

What Are Future Performance Strategies?

- **Enhance CHART's evaluative capability** by including a new performance measure to more effectively determine the benefits of CHART vehicle assists
- **Install new and upgraded CHART components, including cameras and dynamic message signs (FY2006-FY2011 CTP contains \$66.7 million)**
- **Open traffic operations center and service patrols in Frederick**



MOBILITY

POLICY OBJECTIVES:

- ▶ **Relieve congestion by adding key system links**
- ▶ **Support varied modal needs with cost-effective options**



Increased mobility creates public and social benefits by expanding access to places, people, and goods. Adequate – and ideally – exceptional levels of mobility along the State’s infrastructure, ports and aviation facilities allow Maryland to maintain its attractiveness for residents and visitors. Additionally, a strong transportation infrastructure helps businesses retain a solid employee force, as well as distribute products and receive goods in a timely manner, thereby enhancing the economic outlook and competitiveness of the State as a whole.

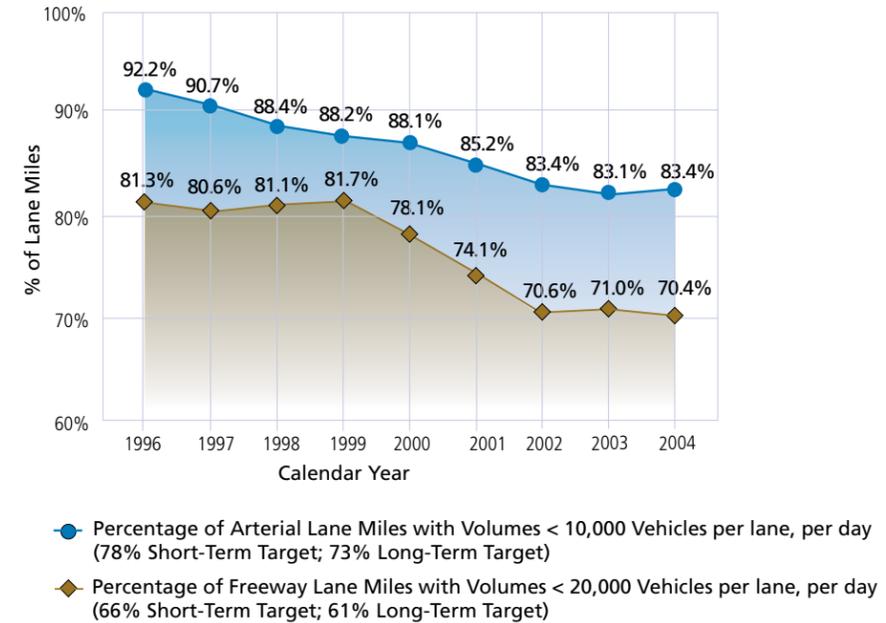
As its core mission, MDOT continues to improve mobility for current drivers while striving to provide options for those who elect to use other modes of travel. In the context of increasingly congested highway conditions, MDOT’s agencies are aggressively pursuing projects, such as the new Woodrow Wilson Bridge and I-270 multi-modal corridor improvements, as well as the Intercounty Connector (ICC) in partnership with MdTA.

Mobility Performance Trends:

- The amount of toll transactions being collected electronically has risen by almost six percent over the past year to more than 50 percent – providing a more efficient flow of traffic through MdTA toll facilities and continuing to reduce delay to the traveling public.
- The share of arterials that are congested has decreased slightly, while freeways showed a small increase in congested levels.
- Between FY2004 and FY2005, the annual vehicle revenue miles of Paratransit service have increased by more than one-third; remained stable for the Maryland Area Rail Commuter (MARC) service; and increased for Core Bus, Commuter Bus, and Metro services. In contrast, the annual vehicle revenue miles decreased by almost one-third for Light Rail, primarily due to the double tracking project.
- MAA has seen the expansion of the number of non-stop airline markets served by more than a ten percent increase between 2002 and 2004.

Percentage of Lane Miles with Average Annual Volumes Below Congested Levels

Congestion imposes a variety of costs – to individuals, to the environment, and to the economy. Vehicles per lane per day volumes based on road facility 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?

- Completed several major capacity expansion projects (e.g., MD 216, US 29 widening, I-70/MD 85 interchange, MD 85/MD 355, MD 32)
- Optimized traffic lights timing on approximately 550 signals
- Vehicle miles of travel (VMT) continued to increase at an annual rate of approximately two percent

What Are Future Performance Strategies?

- Continue to implement innovative construction and contract management techniques to expedite construction
- Open following projects for bids: I-95/I-495 @ MD 5 (Phase 1 congestion relief around Branch Avenue Metro station), MD 30 Hampstead Bypass, and MD 404 dualization
- Continue current construction projects to alleviate traffic: MD 43, I-70 @ MD 85 Phase 2, MD 5 Hughsville Bypass, US 113, US 29 @ MD 198, US 29 @ Briggs Chaney, and US 29 @ Randolph Road
- Complete the National Environmental Policy Act (NEPA) process for the ICC
- Provide alternative modes of transportation through MTA, WMATA, and travel demand strategies (see page 34)

PERFORMANCE MEASURES: Mobility

Performance Measure	Monitoring Agency
Percentage of lane miles with average annual volumes below congested levels	SHA
Peak-period congestion of freeways in Baltimore/Washington regions	SHA & MdTA
Percentage of electronic toll transactions	MdTA
Annual vehicle revenue miles of MTA service provided	MTA
Number of non-stop airline markets served	MAA



Why Did Performance Change?

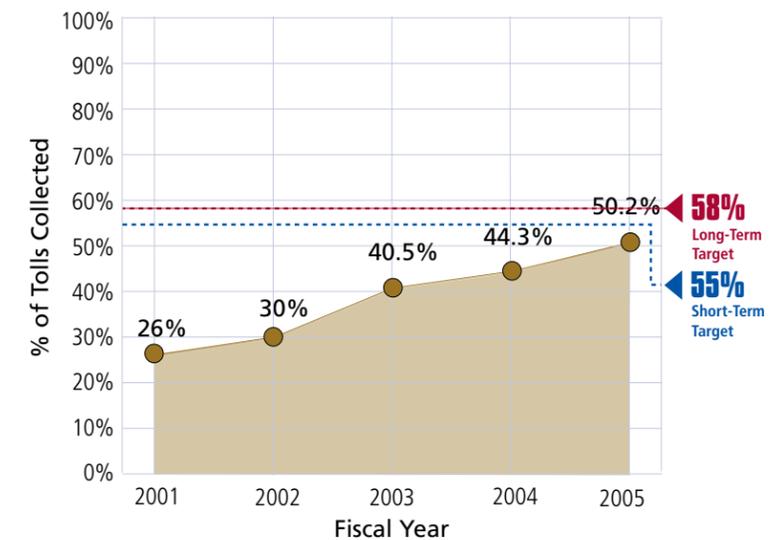
- Expanded the number of E-ZPassSM lanes at the Bay Bridge and improved lane configuration at other toll facilities
- Increased customer awareness and usage by expanding marketing initiatives – including television and radio advertisements, brochures, and printed advertisements

What Are Future Performance Strategies?

- Complete additional capacity improvements to dedicated E-ZPassSM lanes
- Continue marketing efforts to increase the number of electronic toll customers

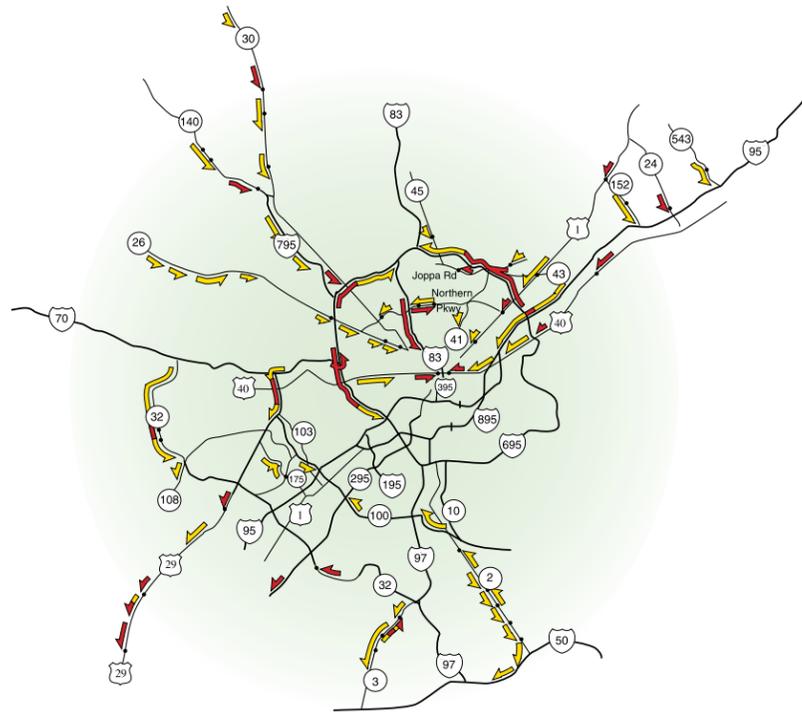
Percentage of Electronic Toll Transactions

Electronic toll collection reduces delay to the traveling public and lowers agency transaction costs.

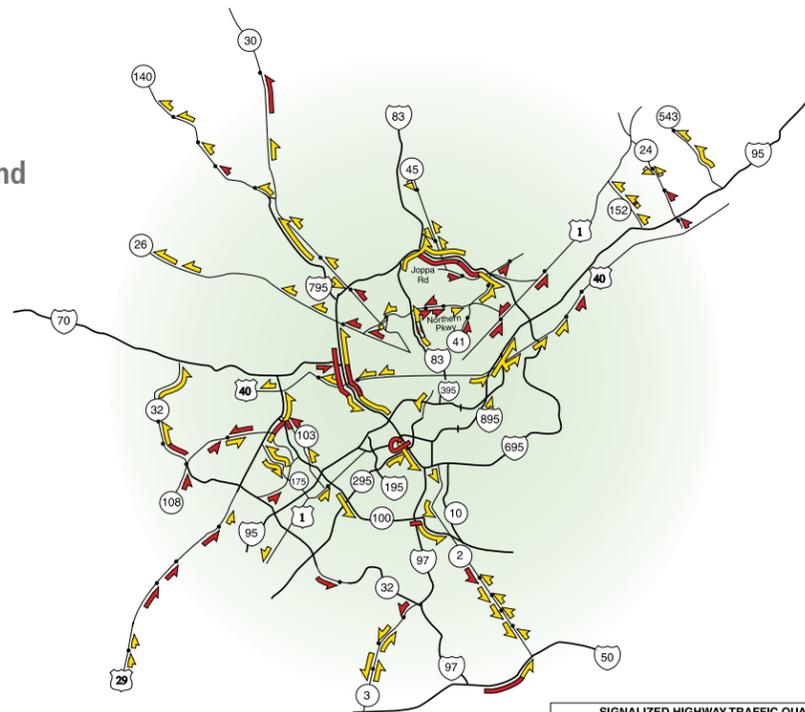


Peak-Period Congestion of Freeways Baltimore Region

Morning:
Location Where
Congestion Was Found
(Spring 2002)



Evening:
Location Where
Congestion Was Found
(Spring 2002)

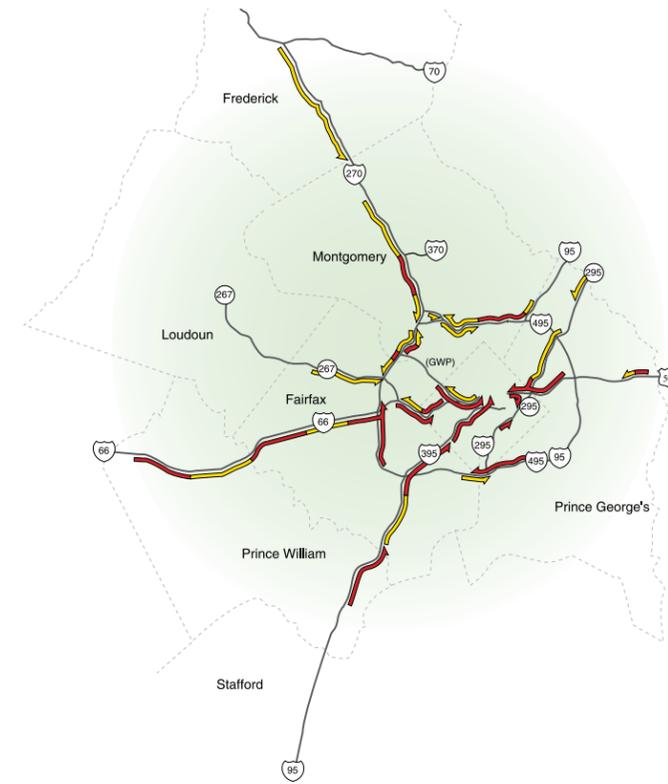


FREWAY TRAFFIC QUALITY
 Congested flow (Estimated average speed 30-50 mph)
 Congested flow (Estimated average speed < 30 mph)

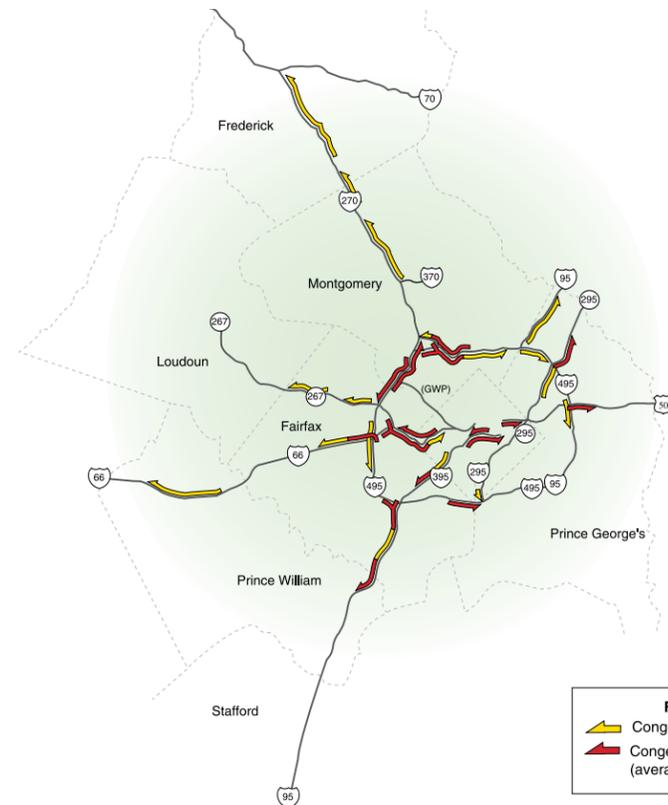
SIGNALIZED HIGHWAY TRAFFIC QUALITY
 Intermittent congestion or slow moving platoons along a highway segment
 Congested Signalized Intersection (intermittent)
 Congested Signalized Intersection (continuous)

Peak-Period Congestion of Freeways Washington Region

Morning:
Location Where
Congestion Was Found
(Spring 2002)



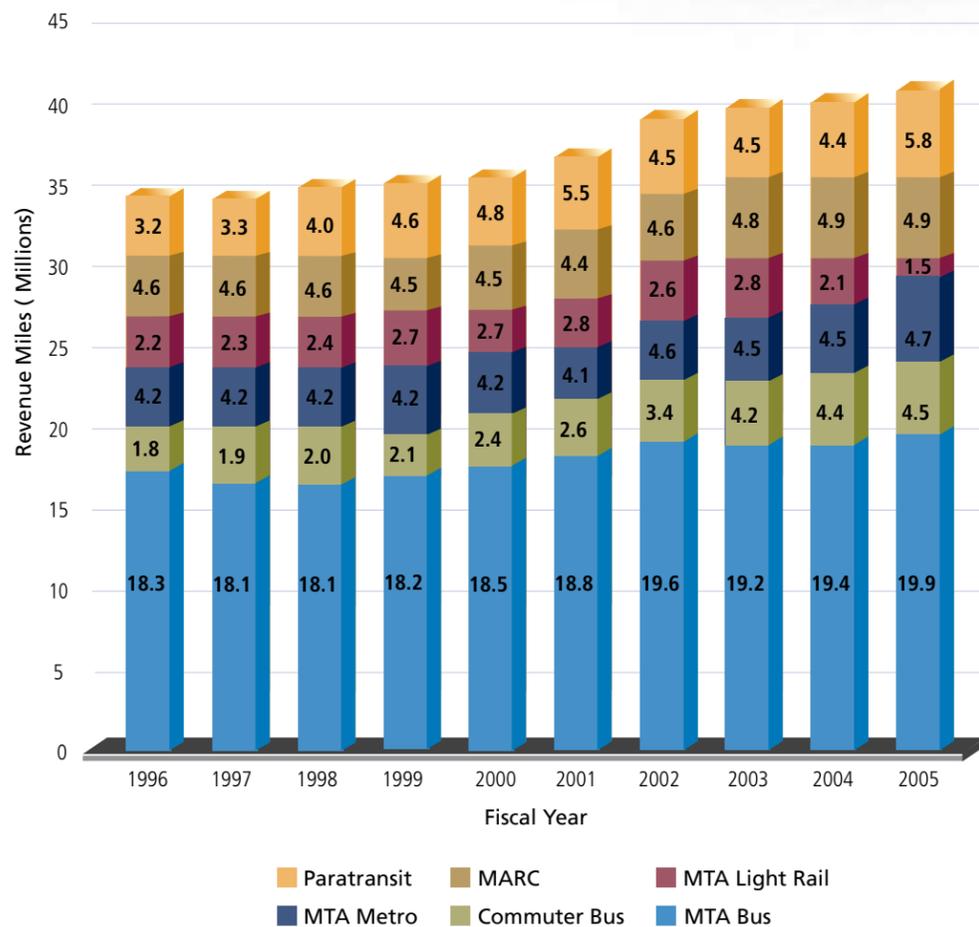
Evening:
Location Where
Congestion Was Found
(Spring 2002)



FREWAY TRAFFIC QUALITY
 Congested flow at average speeds of 30-50 mph
 Congested flow involving varying degrees of stop-and-go (average speeds < 30 mph)

MTA Annual Vehicle Revenue Miles of Transit Service Provided (Excluding Locally Operated Transit Systems)

Annual vehicle revenue mileage indicates the level of transit service available to, and in use by, the general public.



Why Did Performance Change?

- Between FY2004 and FY2005, Light Rail annual vehicle revenue miles declined almost 30 percent due to temporary construction-related shutdowns
- Paratransit mileage increased by 33 percent between FY2004 and FY2005 due to higher ridership
- Improved connectivity between different transit systems as a result of the Maryland Transit Pass, a rechargeable farecard

What Are Future Performance Strategies?

- Complete the MTA Light Rail double track project in FY2006
- Finish the Greater Baltimore Bus Initiative (GBBI)

Why Did Performance Change?

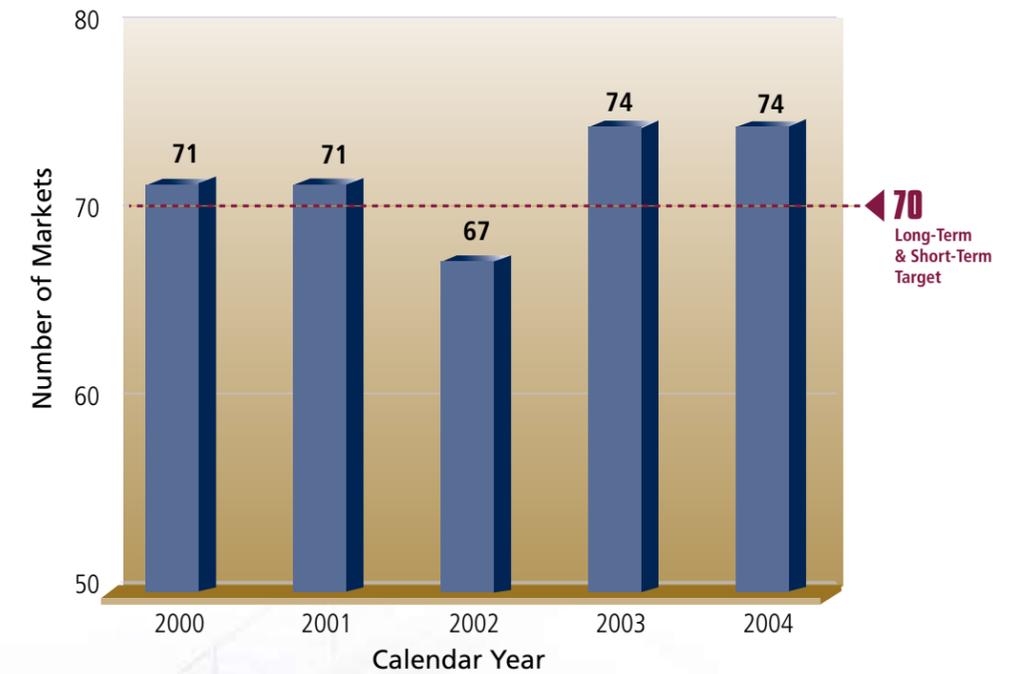
- Increased the number of non-stop markets served by adding three new destinations (Sarasota, Florida; Nassau, Bahamas; and La Ramona, Dominican Republic)

What Are Future Performance Strategies?

- Expand the number of non-stop markets served (e.g., Mexicana service to Mexico City)
- Maximize available terminal space for international carriers through Common Use Terminal Equipment (CUTE) technology

Number of Non-Stop Airline Markets Served

Growth in the number of non-stop airline markets served provides enhanced mobility options to passengers traveling to select cities in the U.S. and around the world; increases the attractiveness of Baltimore/Washington International Thurgood Marshall (BWI) Airport as the airport of choice; and reflects the success of MAA's marketing efforts to increase the competitiveness of BWI Airport for business and leisure travel.



SAFETY & SECURITY

POLICY OBJECTIVES:

- ▶ Reduce injuries, fatalities, and risks
- ▶ Ensure security of the public

Continuing to provide safe and secure transportation services and facilities is a key part of MDOT's mission. MDOT incorporates safety and security measures into the design and operational activities of Maryland's multimodal transportation system, which includes thousands of miles of highways and bridges, public transit services, a major international airport, and a thriving port. A selected series of performance measures provides MDOT with valuable information to make strategic adjustments that improve the safety and security of Maryland residents. MDOT also conducts intensive and high-level coordination among transportation, law enforcement, motor vehicle, and emergency services. To further enhance the security of travelers and transportation assets, MDOT is committed to applying new technologies and cost-effective countermeasures to reduce transportation system vulnerabilities and to planning emergency response efforts.

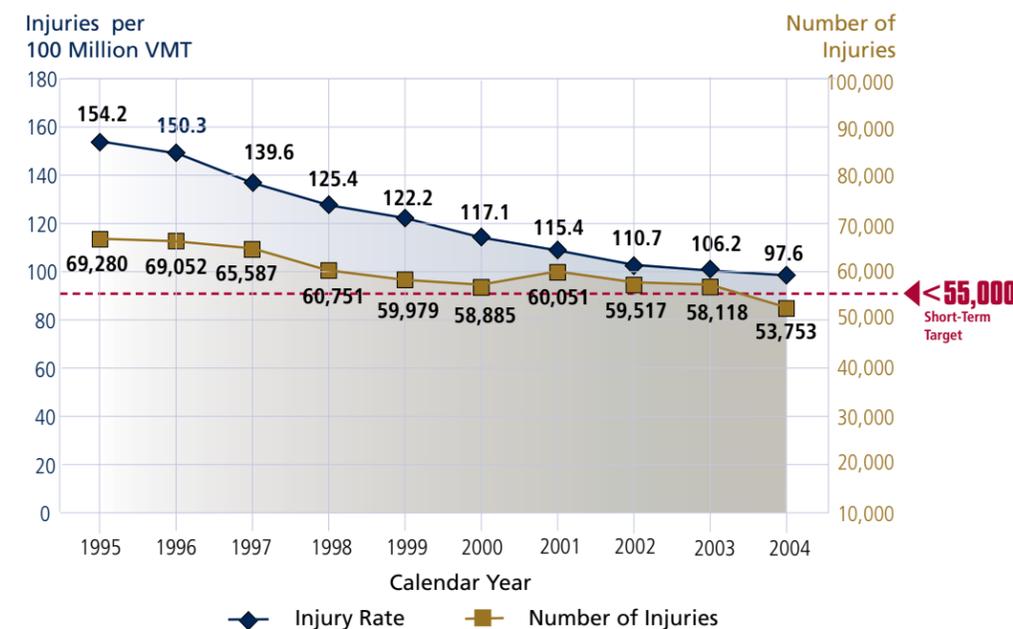


Safety and Security Performance Trends:

- Between 2004 and 2005, both the number of fatalities and injuries decreased on Maryland roadways.
 - Injury rates have declined almost 40 percent in the past 10 years to 97.6 per 100 million vehicle miles of travel.
 - Since 2001, roadway fatalities have continued to decline and the State's 2005 fatality rate of 1.17 per 100 million vehicle miles of travel remains well below the national average of 1.48.
- Baltimore/Washington International Thurgood Marshall (BWI) Airport and Maryland's Port of Baltimore public terminals (managed by MPA) continue to fulfill their respective Federal security requirements. This year the Federal government has found BWI to have zero discrepancies in meeting the airport safety standards, an extremely rare achievement for an airport. MDOT and MdTA continue to implement enhanced surveillance, enforcement programs, and emergency response training and coordination at both facilities.
- Customer perception of safety on the MTA system remained the same; however, new safety and security programs (e.g., incident tracking system, security monitors, and training courses) will better enable law enforcement officials to respond to crime on MTA facilities and potentially improve customer sense of safety.
- MVA's Commercial Driver Licensing continues to be a national model in its fulfillment of the Federal Motor Carrier Safety Administration (FMCSA) requirements for HAZMAT Endorsement background checking in conjunction with the Transportation Security Administration (TSA), as well as knowledge/qualification certification for School Bus Endorsements.

Annual Number and Rate of Personal Injuries on All Maryland Roads

Injury and fatality numbers and rates are key indicators about the safety of Maryland's transportation system.



Why Did Performance Change?

- Started a new educational program, "Crashes Are No Accident. You Hold the Key!"
- Focused engineering improvements at intersections with high crash histories
- Pursued truck driver and equipment safety programs to reduce truck-related accidents
- Directed public information, legislation, and law enforcement activities toward reducing fatalities

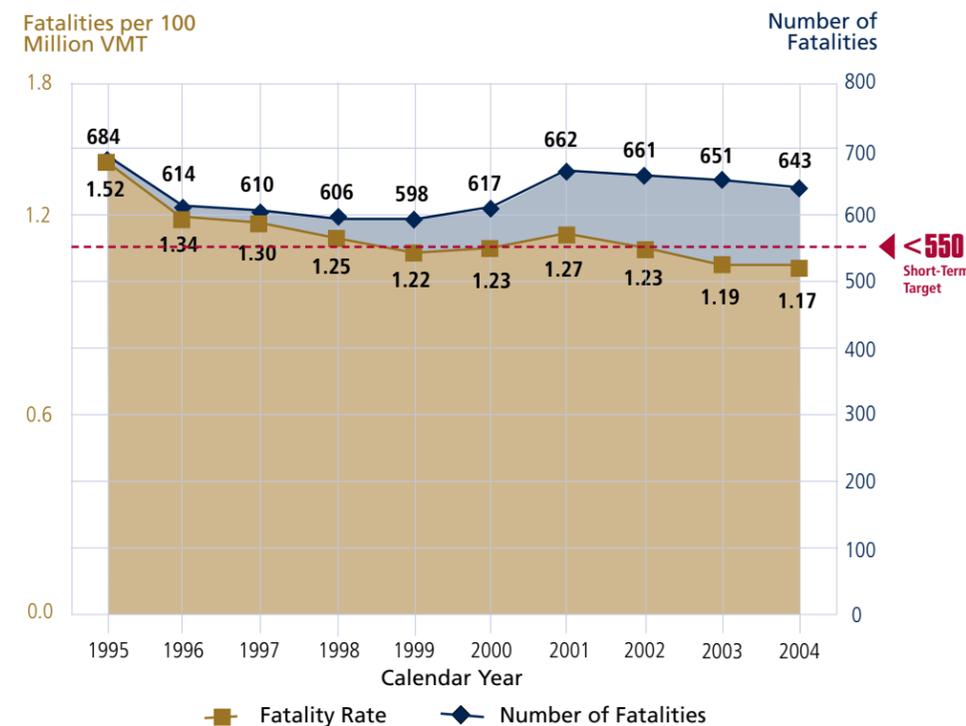
What Are Future Performance Strategies?

- Increase law enforcement efforts targeting weekday evening roadway travel
- Work with counties to set safety targets
- Implement a safety audit program on select construction projects
- Expand public outreach efforts through partnerships with the Offices of Governor and Secretary, and elected officials
- Develop design guidelines for the specific needs of older drivers
- Continue "Click-It or Ticket" and "You Drink and Drive, You Lose" campaigns

PERFORMANCE MEASURES: Safety & Security

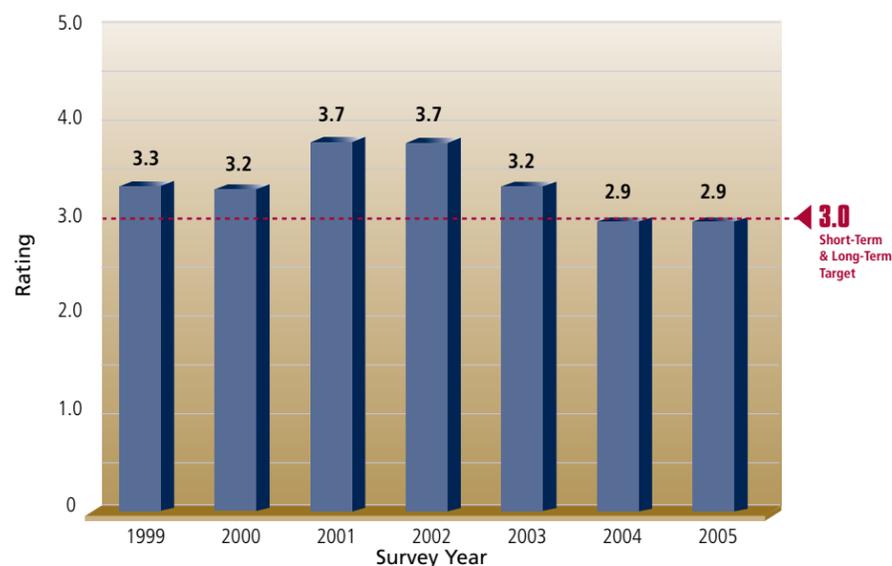
Performance Measure	Monitoring Agency
Annual number and rate of personal injuries on all roads in Maryland and MdTA facilities	SHA, MdTA
Annual number and rate of traffic fatalities on all roads in Maryland and MdTA facilities	SHA, MdTA
Customer perceptions of safety on the MTA system	MTA
Bus incidents per million vehicle revenue miles	MTA
Compliance with annual FAA Part 139 safety certification (Pass/Fail)	MAA
Maryland's Port of Baltimore compliance with the Maritime Transportation Security Act of 2002	MPA

Annual Number and Rate of Traffic Fatalities on All Maryland Roads



Customer Perception of Safety on the MTA System (1 = Poor and 5 = Excellent)

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



Note: Survey covers MTA bus, Metro, Light Rail and MARC services only.

Why Did Performance Change?

- **MTA began two safety and security programs in FY2005:**
 - **Zone Enforced Unified Sweeps (ZEUS): unannounced and highly visible police sweeps of MTA facilities**
 - **CompStat a weekly review of all reported incidents on MTA systems**
- **FY2005 customer survey results indicate that the benefits of the new safety and security program are not yet realized by transit users**

What Are Future Performance Strategies?

- **Develop quick response strategies based on CompStat**
- **Implement additional safety and security training courses for transit supervisors**
- **Employ additional Light Rail fare inspectors to enable MTA Police to concentrate on other policing activity**
- **Install motion detectors and static activity monitors to identify suspicious actions and unattended packages**

Why Did Performance Change?

- **Increase in reported incidents during 2004 due to improved CompStat data reporting, centralized data collection to capture all incidents, and operational factors (e.g., training new drivers as senior drivers retired)**
- **Recent decrease due to a quarterly monitoring and corrective action program, including counseling and retraining, as well as a recognition program for bus garages with the lowest quarterly incident rate**

What Are Future Performance Strategies?

- **Reactivate MTA's bus simulator system for new drivers, driver refresher training and post accident instruction**
- **Expand driver courses at Washington Boulevard bus garage**
- **Ensure safety bulletins (e.g., winter driving) distributed to bus operators and used by supervisors during employee meetings**

MTA Bus Incidents per Million Vehicle Revenue Miles

Incident rates provide information on the impact of operator experience, vehicle maintenance, and driver training programs on transit service safety.

Performance Measure	Calendar Year		
	2003	2004	2005
Bus incidents per million vehicle revenue miles	102.9	144.9	107.4*

*CY2005 number based on seven months of data.



MdTA Police provide law enforcement at MdTA's highways, tunnels, bridges, BWI Thurgood Marshall Airport, and Maryland's Port of Baltimore. They are the lead agency for the security of the MARC train, which was assigned by Governor Ehrlich. The MdTA Police K-9 Unit consists of bomb detection dogs and narcotic detection dogs, which are utilized on the trains, at the airport, and on regular patrol throughout the State. MdTA Police Marine Unit patrols the waterways surrounding Maryland's Port of Baltimore and Authority property. The MdTA Police is the 7th largest police force in the state of Maryland.

The role of MAA and MPA in providing security at Maryland's airport and port facilities is critically important given the concentration of travelers and asset value of these transportation facilities. Security performance measures include MAA's fulfillment of Federal Aviation Administration (FAA) safety certification requirements at BWI and MPA's compliance with Maritime Transportation Security Act of 2002 mandates. In 2005, MAA passed the FAA safety certification requirement and MPA fulfilled the 2002 mandate. At the request of Customs, MdTA Police perform cargo inspections of commercial vehicles at the Port utilizing K-9 units when deemed necessary.

To further improve airport and port safety and security, MAA and MPA have identified the following performance strategies.



Future Performance Strategies for Safety and Security at MAA and MPA	
MAA	MPA
<ul style="list-style-type: none"> ● Implement Runway Safety Area improvements ● Continue consolidating operations, safety, and security under one Deputy Administrator and organizational structure ● Install an integrated radio system for safety and security organizations to communicate and expand closed-circuit television coverage ● Develop and implement an Airport Risk Management Program Manual and an employee safety awareness program 	<ul style="list-style-type: none"> ● Modify the Port Security Plan as conditions change; improve security in conjunction with U.S. Coast Guard recommendations; and execute Federal grant projects ● Ensure channel improvements and maintenance to accommodate large vessels for safe and unimpeded access to terminals ● Execute the Terminal Security Program (protection against unauthorized intrusions); secure access gates with electronic identification systems; enhance information technology systems to detect and forecast threats to MPA seaport security and safety (\$11.11 million programmed for FY2006)



PRODUCTIVITY & QUALITY

POLICY OBJECTIVES:

- ▶ **Reduce project implementation time through process improvements**
- ▶ **Incorporate environmental stewardship into all projects and activities**
- ▶ **Contain costs and leverage resources with business-like organization and innovative approaches to funding and service delivery**

Fiscal constraints, on top of increasing demand for transportation services and facilities, challenge MDOT to do more with less. The State's expanding and diversifying transportation needs require a continuous search for new resources and approaches. MDOT strives to contain costs and maximize available resources by creating new partnerships, outsourcing where efficiencies can be achieved, and implementing advanced technologies. Streamlining environmental and regulatory processes have decreased project delays while maintaining stewardship of Maryland's resources. Modal administrations also seek to improve productivity and enhance customer service with several agencies collecting feedback to better respond to customer needs.

Productivity and Quality Performance Trends:

- Between 2004 and 2005, customer satisfaction ratings increased for MAA, MVA, and all MTA services.
- MVA transaction costs significantly decreased from FY2004 to FY2005, partially due to an increase in the number of alternative service transactions and an increase in overall transactions even though budgets remained stable.
- MTA operating costs remained relatively stable, except for Paratransit services, which notably increased between FY2003 and FY2004.
- Airport revenue per enplaned passenger increased in FY2005, and the trend is expected to continue as a result of the new Concourse A and concession programs at Baltimore/Washington International Thurgood Marshall (BWI) Airport.
- Although MPA's revenue decreased in FY2005, total revenue generated exceeded MPA operating costs (excluding debt service).



PERFORMANCE MEASURES: Productivity & Quality

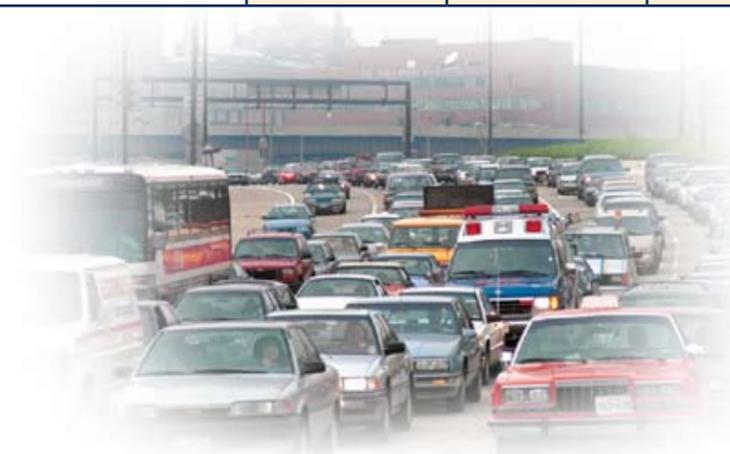
Performance Measure	Monitoring Agency
Transportation-related emissions by region	MDOT
Percent of overall Maryland driver satisfaction rating "A" or "B"	SHA
Percent of excellent/good passenger rating	MAA
MVA customer service rating "good" or "very good"*	MVA
Customer service with MTA	MTA
Maintenance expenditures per lane mile	SHA
MVA cost per transaction	MVA
Operating cost per passenger	MTA
Operating cost per passenger mile	MTA
Airline cost per enplaned passenger	MAA
Airport revenue per enplaned passenger	MAA
MPA Revenue versus Operating expense	MPA

* MVA customer service rating performance data is presented on page 14 in graph "MVA Branch Customer Visit Time vs. Customer Rating"

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	2002	2005
Volatile Organic Compound (VOC) Tons per Day	Baltimore	72.8	54.1
	Washington	125.5	91.8
Nitrogen Oxide (NO _x) Tons per Day	Baltimore	176.2	142.9
	Washington	290.8	218.1



Customer Satisfaction Survey Results

Customer surveys provide valuable feedback to agencies regarding service delivery, enabling them to continuously respond to customer needs.

SHA	
Percentage of Maryland Drivers Rating SHA Performance as "Outstanding" (A) or "Very Good" (B)	
Survey Data	Target
1993 – 87%	80%
1996 – 74%	
2000 – 81%	
2003 – 69%	

MAA	
Percentage of Excellent or Good Passenger Rating for BWI Airport Facilities and Services	
Survey Data	Target
2004 – 74%	80%
2005 – 79%	

Why Did SHA Performance Change?

- *SHA is currently conducting a new customer survey*
- *Decreased services provided during the FY2003 fiscal crisis*

What Are Future SHA Performance Strategies?

- *Complete analysis of 2005 statewide survey to identify strategies to improve customer satisfaction*
- *Create customer focus groups to work with on a regular basis in each district*

Why Did Performance Change?

- *Integrated environmental stewardship as a component of planning, design, and operations of transportation projects and services*
- *Improved vehicle emissions on a national level*
- *Increased financial support for alternative modes of transportation*
- *Implemented emissions-reduction strategies in non-attainment areas*

What Are Future Performance Strategies?

- *Contribute to additional non-mobile emission reduction efforts*
- *Continue to invest in alternative transportation (e.g., Transportation Emission-Reduction Program)*

Why Did MAA Performance Change?

- *Awarded new contract for performance-based shuttle bus service at BWI*
- *Implemented new food service, retail, and consumer services concession programs*
- *Expanded BWI facilities (new Concourse A)*

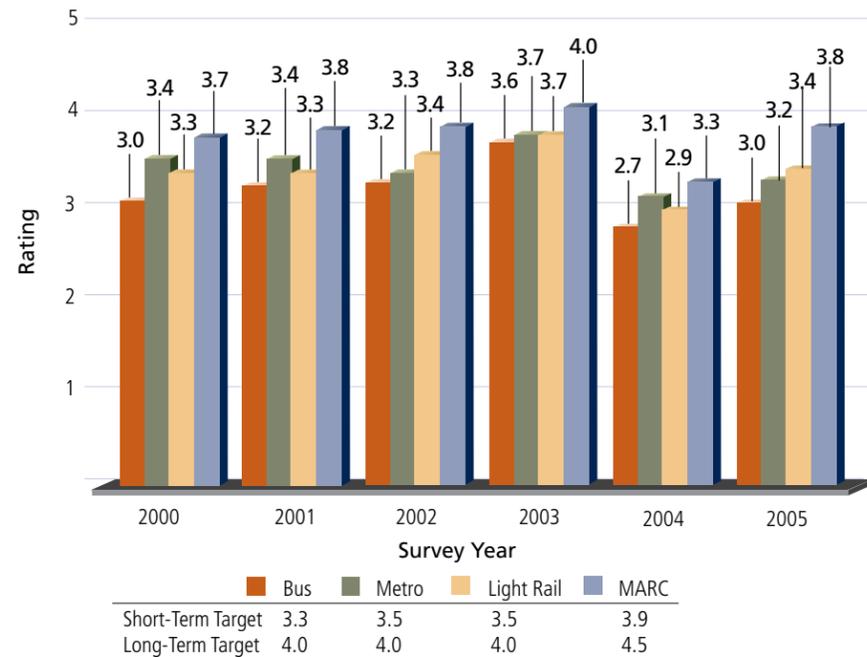
What Are Future MAA Performance Strategies?

- *Improve customer information delivery through the replacement of flight and baggage information monitors, new standardized terminal signage, and automated parking guidance system*
- *Complete terminal roadway expansion and terminal enhancements*

Customer Satisfaction with MTA

(1 = Poor and 5 = Excellent)

Providing reliable, safe, and convenient service is a key factor in attracting ridership. Customer satisfaction reflects whether MTA is meeting its customer service standards and signals which modes require improvement.



Why Did Performance Change?

- On-time performance on MARC commuter trains improved due to better management of weather-related delays
- Added 125 new buses to the MTA fleet in 2005 and improved bus maintenance practices resulted in fewer service disruptions
- Improved maintenance and cleanliness of bus shelters due to Viacom Transit Advertising Shelter Program

What Are Future Performance Strategies?

- Consolidate bus routes through the Greater Baltimore Bus Initiative (GBBI)
- Replace older bus fleet with 107 new buses in 2006 and complete Mid-Life Overhaul programs of MARC and Metro railcars
- Build/lease more Park-and-Ride lots, and complete Light Rail double track



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.



Why Did Performance Change?

- MVA budget remained stable while the number of transactions increased
- Increased percentage of total transactions completed by alternative services

What Are Future Performance Strategies?

- Increase alternative services transactions by developing new technology systems and focused marketing efforts
- Invest in additional technology such as Drivers Licensing Point-of-Sale System and E-MVA Service Delivery Systems (\$2.5 million budgeted for FY2006)

Why Did Performance Change?

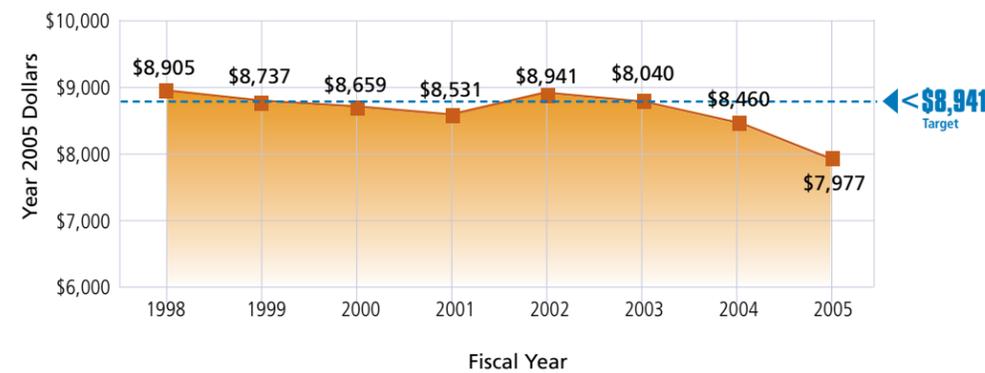
- Reforestation and conversion to meadows reduced the number of acres mowed
- Redistributed maintenance work between outside contractors and SHA to improve cost efficiency

What Are Future Performance Strategies?

- Explore the cost saving benefits of corporate sponsorship of roadways and rest areas
- Evaluate leasing versus owning heavy maintenance equipment
- Assess alternative maintenance work schedules to lower costs

SHA Maintenance Expenditures per Lane Mile

Maintenance expenditure per lane mile reflects how well asset-management strategies, improved operations, and technology have sustained the quality and safety of existing roadways.



Why Did Performance Change?

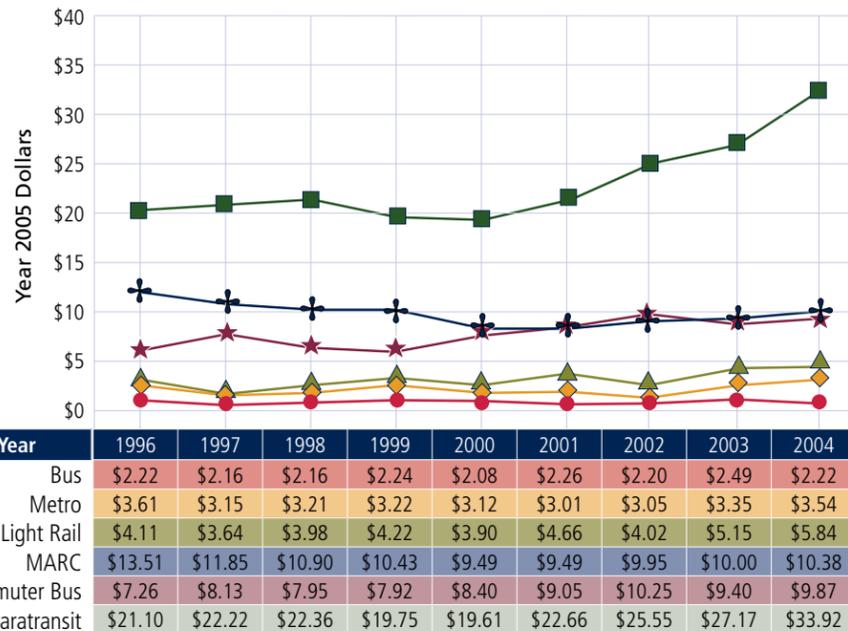
- Increased costs for labor, fuel, insurance, and contracted services
- Light Rail improvement projects reduced revenue service to one track
- Old Paratransit contract expired; new contract had higher rates, but is performance-based with penalties for poor service and incentives for excellent service

What Are Future Performance Strategies?

- Review maintenance and operation costs annually and institute preventative maintenance practices to reduce road calls and overtime repairs
- Consolidate unproductive bus routes via the GBBI
- Increase ridership through Commuter Choice Maryland College Pass programs and Maryland Transit Pass program
- Build and lease additional Park-and-Ride lots where parking is already at capacity

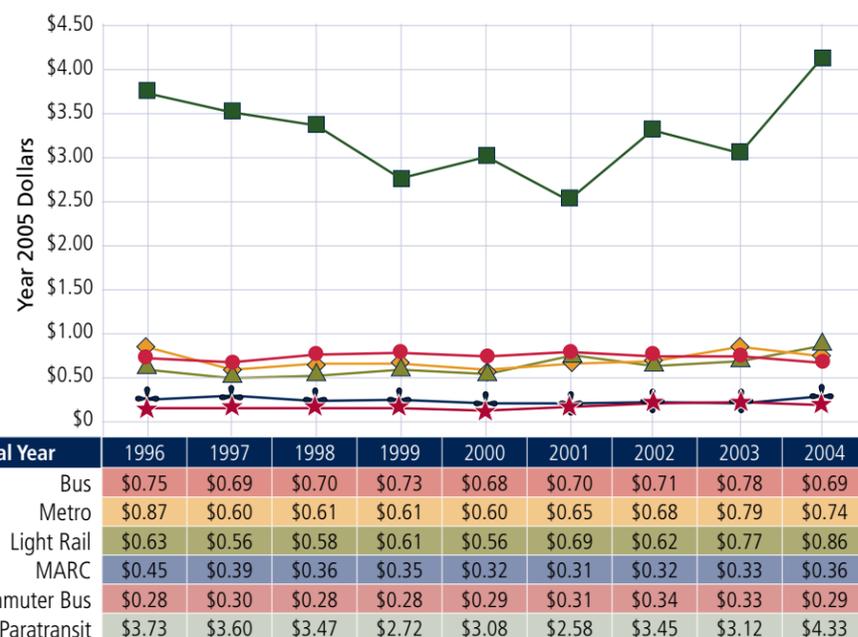
MTA Operating Cost per Passenger

The combination of operating cost per passenger and cost per passenger mile illustrates MTA's ability to provide transit services across the range of its transit systems.



Short-Term and Long-Term Targets: Overall Cost per Passenger to increase at a rate no higher than the Consumer Price Index (CPI)

MTA Operating Cost per Passenger Mile



Short-Term and Long-Term Targets: Overall Cost per Passenger to increase at a rate no higher than the Consumer Price Index (CPI)



Airline Cost per Enplaned Passenger

Airline cost and Airport revenue measures allow BWI to remain competitive in a region which is unique because it has four proximate airports.



Short-Term & Long-Term Targets: BWI CPE below median CPE of comparable airports

Why Did Performance Change?

- Increased debt service and operating expenses associated with new facilities and equipment were partially offset by an aggressive cost containment program
- Increased flight activity and higher landing fees generated an additional \$11 million of operating revenue in FY2005

What Are Future Performance Strategies?

- Continue aggressive cost containment program
- Grow non-airline revenue by five percent annually
- Implement additional parking initiatives and improve marketing of BWI parking facilities

Airport Revenue per Enplaned Passenger

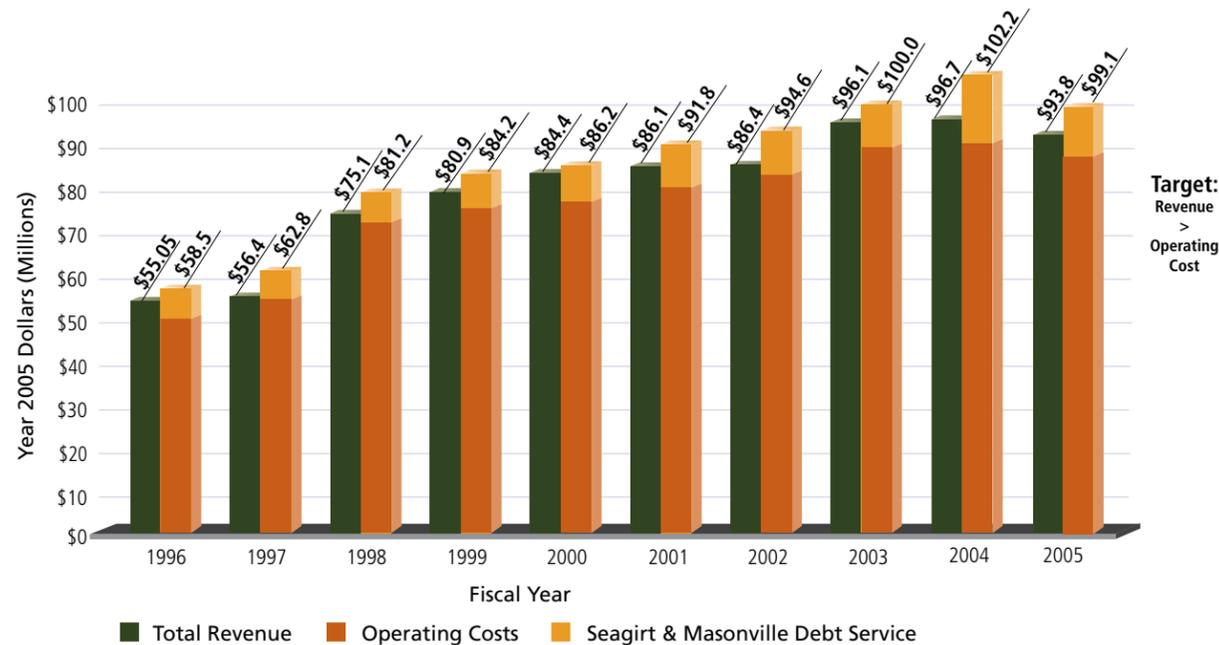


Short-Term & Long-Term Targets: Achieve or exceed the airport revenue per enplaned passenger (RPE) at BWI at or above comparable airports



MPA Revenue Versus Operating Expense

This performance measure gauges how well MPA is raising revenue and managing operating expenses necessary to maintain a competitive port.



Why Did Performance Change?

- Increased billable cargo tonnage over 11 percent in 2005 due to a strategic focus on containers and niche cargoes
- Hurricane Isabel (2003) damage at the World Trade Center (WTC), vacancy rate, and new office space in Baltimore adversely impacted revenue
- Revenue and operation costs dropped slightly in FY2005 due to changes in contractual arrangements with customers

What Are Future Performance Strategies?

- Focus on long-term agreements with carriers and manufacturers and foster development of distribution centers
- Complete landside projects (e.g., North American Paper Hub, Forest Products Shed) to improve port capacity and competitiveness
- Improve port financial reporting mechanism for more efficient and effective decision-making
- WTC sale will provide a large one-time funding source in FY2006, and associated operating expenses and annual revenue will be eliminated

As part of the State Transportation Article, MDOT is required under the Annual Attainment Report provision "to the extent practicable, account for the effect of planned transportation investments on inducing automobile travel." Induced travel is generally defined as any increase in daily travel



(measured as passenger trips or vehicle miles traveled) resulting from a change in the transportation system. Estimating induced travel has been a formal part of highway planning dating back to the 1930s when planners recommended a factor for "induced traffic" to account for the growth in population and employment, increases in vehicle ownership, or other changes that might cause traffic to increase greater than constant trends would suggest. This approach continued until the 1950s when sophisticated travel forecasting methodologies were developed to better account for population and employment growth, development density, and car ownership. As a result, interest in induced travel waned until the 1990s when new research efforts were undertaken.

Although recent strides have been made to measure the effect of capacity increases on total travel, it is still extremely difficult to determine the magnitude of induced travel. Quantifying induced demand across a system is particularly challenging given the lack of "before and after" studies that isolate the effect of transportation system changes on travel demand. In addition, perceived "induced travel" on certain facilities may actually be the result of shifts in travel from adjacent roadways and other modes versus an overall increase in system trips; or of more global economic

factors, such as increases in income levels or reductions in fuel costs, that would have increased travel demand regardless of transportation investments. There remains some disagreement amongst transportation experts if trips shifted from other roads or modes should even be categorized as induced demand.

Induced travel is more likely to occur in highly congested urban areas, such as the Washington, DC, or Baltimore metropolitan areas, where new facilities or increased capacity on existing facilities has the potential to substantially reduce travel times, and hence increase the willingness of individuals to take more trips or longer trips. In urban areas, MDOT currently relies on travel demand models run by local Metropolitan Planning Organizations (MPOs). The distribution step of the four-step travel demand model captures induced travel, to some extent, through an increase in the length of trips. As new or improved facilities are proposed, the modeled trip travel times decrease as a result of reduced congestion, thus reducing the total "cost" of travel. Induced demand is reflected in the model results that demonstrate travelers are willing to take longer distance trips resulting in an increase in vehicle miles traveled.

By contrast, travel models still fail to capture potential changes in the total number of trips based on improvements to the transportation network. Research conducted to date has not provided a reasonable approach to estimate the change in the total number of trips taken due to increased capacity and reduced travel times. Estimates of total trips taken by households are estimated based primarily upon variables such as

household size, number of vehicles, and income. Over the long-term, households changing travel behavior in response to congestion will be reflected in household travel surveys and, in turn, regional models will adjust estimates of total trips per household. However, in the short-term, models cannot prospectively estimate these changes in travel behavior. The Metropolitan Washington Council of Governments (MWCOC) does calculate, to some extent, the effect of modal shifts through its auto ownership model, which estimates household auto ownership based on transit accessibility. As transit accessibility increases, auto ownership estimates for households with improved transit accessibility decline, and the estimates of auto trips generated by these same households will then decrease.

The existing travel-demand forecasting approaches continue to be improved and may, in the long-term, offer the opportunity for MDOT and other transportation planning organizations to isolate the effect of transportation improvements on changes in travel demand. MDOT and MdTA are also beginning to develop a statewide transportation model and, as the model is developed, will have an opportunity to more directly quantify the impact of induced travel. On a program level, MDOT will remain involved in efforts aimed at reducing the number of trips and shortening trip lengths, such as Transit Oriented Development (TOD) and improvements in the job/housing balance in parts of the State.



Travel Demand Management (TDM) strategies strive to reduce our reliance on personal vehicles, number of trips taken, and vehicle emissions. There are many benefits to TDM strategies including lower commuting costs, reduced congestion, decreased parking demand, energy conservation, and improved air quality. The table at the bottom of the page illustrates many of the commuting options, known as Transportation Emission Reduction Measures (TERMs), and benefits of these programs to the Baltimore and Washington regions.

In addition to the listed TERMS programs, MDOT has assumed a leadership role in promoting another TDM strategy known as Transit-Oriented Development

(TOD). TOD is a development form that relies on mixed land uses and urban design concepts to fuse dense residential and commercial areas with transit hubs. A highly regarded TDM strategy, TOD leverages existing and new transit investments to maximize transit ridership. MDOT has sponsored several demonstration projects, including the

award-winning West Hyattsville TOD study that outlines steps to follow when developing TODs.

The State also provides Park-and-Ride facilities as a strategy to encourage public transit utilization and carpooling. The following table indicates the availability and weekday utilization of Park-and-Ride lots operated by MTA and SHA.

Statewide Park-and-Ride Facilities

Operator	Total Spaces	Average Weekday Utilization
SHA	10,875	6,296
MTA – Transit Only	33,354	18,422
MTA – Multipurpose	7,704	5,541

Note: WMATA Park-and-Ride facilities are not included.

2004 – 2005 Transportation Emission Reduction Measures (TERMs)

Program	Program Description	Daily Reduction in Vehicle Trips	Daily Reduction in Vehicle Miles of Travel
Guaranteed Ride Home	Provides users of alternative commute modes up to four rides home per year in a taxi or rental car in the event of an unexpected personal or family emergency	11,850	334,100
Employer Outreach	Supports marketing efforts to increase employee use of alternative commute modes such as ridesharing, transit, and telework	81,150	1,339,800
Employer Outreach for Bicycles	Promotes and offers technical assistance for employers interested in providing bicycle lockers and other amenities to encourage commuting by bicycles	340	3,430
Integrated Rideshare	Provides financial and administrative support to Regional Ride Share Coordinators and Transportation Management Associations who serve private- and public-sector employers	3,832	110,963
MTA College Pass	Offers a subsidized monthly transit pass to full- or part-time students enrolled in Baltimore metropolitan area colleges or universities	678	5,084
Commuter Operations and Ridesharing Center	Updates and maintains the Commuter Connections database for ridematching services and provides information on carpooling, transit, Guaranteed Ride Home services, and alternative mode choices for the Baltimore/Washington Metropolitan region	9,780	279,000
Transit Store in Baltimore	Provides customer access to transit information and for purchases of transit passes	1,403	10,523
Telecommunication Resource Center	Provides information to employers on the benefits of telecommuting and assists in setting up new or expanded telework programs for employers	12,500	946,950
Total		121,533	3,029,850

GLOSSARY TERM

DEFINITION

- Annual Attainment Report of 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)** – 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: CHART is an incident management system aimed at improving real-time travel conditions of Maryland’s highway system.
- 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-ZPassSM** – An electronic-toll collection system where customers open accounts with the Maryland Transportation Authority to pay tolls in advance. Each time a vehicle enters a toll road, a transponder records the amount to be automatically deducted from the customer’s account.
- Fiscal Year** – A yearly accounting period covering the timeframe between July 1 and June 30 of each reporting year.
- Intercounty Connector (ICC)** – The project is intended to link existing and proposed development areas between I-270 and I-95/US 1 corridors within central and eastern Montgomery County and northwestern Prince George’s County with an east-west highway that limits access and accommodates passenger and goods movement.
- 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.
- Long-Term Target** – Long-term targets cover a twenty-year period in conjunction with the MTP timeframe.
- 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 twenty-year period and is updated every three years.
- Managing for Results (MFR)** – MFR is a statewide strategic planning approach to management that incorporates goals, objectives and performance measures. MFR measures largely describe operational facets of each of the modal administrations and report data for four fiscal years (current, previous, and two future years). To create consistency between performance reports, the majority of Attainment Report measures are also contained in the MFR.
- Maryland’s 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 or grain shipped without containers) and all general cargo (e.g., miscellaneous goods shipped in various packaging). Over the last five calendar years, the Port’s foreign cargo ranged between 23.7 and 31.8 million tons. In 2004, three-quarters of the Port’s tonnage was bulk cargo.
- MPA General Cargo** – Foreign and domestic waterborne general cargo handled at the public (MPA) terminals. Over the last five fiscal years, MPA general cargo has ranged between 6.1 and 8.1 million tons.
- National Highway System (NHS)** – Includes the Interstate System, Strategic Highway Network, and other principal arterials.
- Performance Measure** – A quantitative or qualitative measurement tool to assess progress toward an outcome or goal.
- Short-Term Target** – Short-term targets cover a six-year period in conjunction with the CTP timeframe.
- Vehicle Miles of Travel (VMT)** – A measurement of the total miles traveled by all vehicles.

APPENDIX: List of Measures

MTP Goal	Performance Measure	Definition
Maryland Aviation Administration (MAA)		
Mobility	Number of non-stop airline markets served*	Non-stop flights are direct to destination without connections
Safety	Compliance with annual FAA Part 139 safety certification (Pass/Fail)*	Compliance based on Federal Acquisition Regulation (FAR) Part 139 rules governing the certification and operation of US commercial airports
Productivity	Airline cost per enplaned passenger*	Total airline-related fees divided by total enplaned passengers at BWI
Productivity	Airport revenue per enplaned passenger*	Revenue divided by number of passengers who board an aircraft at BWI, including passengers who disembark from other aircraft for connecting flights from BWI
Productivity	Percent of excellent/good passenger rating*	Excellent/Good rating = BWI services / facilities receiving rating of 8, 9, or 10 on a 10-point scale
Maryland Department of Transportation (MDOT)		
Productivity	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
Maryland Transportation Authority (MdTA)		
Mobility	The percentage of electronic toll transactions*	Toll collections by E-ZPass SM and Automatic Vehicle Identification / total number of toll collections
Maryland Port Administration (MPA)		
Safety	Maryland's Port of Baltimore compliance with the Maritime Transportation Security Act of 2002	Pass / Fail rating
Productivity	MPA Revenue versus Operating Expense	Total operating expense of MPA (includes Seagirt and Masonville debt service and equipment expenses); revenues collected through Port fees
Maryland Transit Administration (MTA)		
Efficiency	Percent of service provided on time*	Proportion of MTA services that meet scheduled service times (performance calculated differently for each mode)
Mobility	Annual vehicle revenue miles of MTA service provided	Vehicle revenue miles are defined as each mile for which a transit vehicle is in service and accepting customers
Safety	Customer perceptions of safety on the MTA system*	Average annual customer survey rating of safety (while riding, at stops and stations, and at parking lots) of MTA services (bus, Metro, Light Rail, and MARC) on a 1-to-5 scale (1=poor to 5=excellent)
Safety	Bus incidents per million vehicle revenue miles	Passenger and vehicle incidents reported in MTA data systems, which is not the same as the National Transit Database (NTD) data system / revenue vehicle miles (not total vehicle miles); data for core bus service only
Productivity	Customer service rating from customer satisfaction survey*	Average annual customer survey rating of their overall satisfaction of each MTA service (bus, Metro, Light Rail, and MARC) on a 1-to-5 scale (1=poor to 5=excellent)
Productivity	Operating cost per passenger*	Operating cost for mode of transit service / total passengers: values calculated separately for MTA bus, Metro, Light Rail, MARC, contracted bus, and Paratransit
Productivity	Operating cost per passenger mile*	Operating cost for each mode of transit service / total miles traveled by passengers: values calculated separately for MTA bus, Metro, Light Rail, MARC, contracted bus, and Paratransit

MTP Goal	Performance Measure	Definition
Motor Vehicle Administration (MVA)		
Efficiency	Average branch office customer visit time vs customer rating*	Average visit time plotted against percentage of customers rating their MVA experience as "good" or "very good" (based on quarterly survey of customers)
Efficiency & Productivity	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
Productivity	MVA cost per transaction	Operating cost plus capitalized costs / tracked transactions
State Highway Administration (SHA)		
Efficiency	Percent of SHA roadway mileage with acceptable ride quality*	Percent of Interstate miles with International Roughness Index (IRI) value less than 120 inches per mile and non-Interstate roadways with IRI values less than 170 inches per mile; IRI is a standardized procedure that measures the pavement roughness as the cumulative deviation from a smooth surface in inches per mile
Efficiency	Total reduction in incident congestion delay*	Number of driving hours saved due to the Coordinated Highway Action Response Team (CHART) incident management system
Mobility	Percentage of lane miles with average annual volumes below congested levels	Percentage of freeway lane miles with an average annual density less than 20,000 vehicles per lane per day (vplpd) and percentage of arterial with an average annual density less than 10,000 vehicles per lane per day (vplpd) (facilities with densities greater than those vplpd levels will result in congested conditions)
Productivity	Percent of overall Maryland driver satisfaction rating of "A" or "B"*	Percentage of Maryland driver survey respondents rating their "overall satisfaction" with SHA as a "B" or better on an A to D scale (survey conducted every three to four years)
Productivity	Expenditures per lane mile*	Maintenance expenditures / lane mile: maintenance expenditures include routine landscaping, traffic signing, lighting, and signal upkeep, but exclude resurfacing (e.g., asphalt overlays or patching concrete pavement)
State Highway Administration (SHA) & Maryland Transportation Administration (MdTA)		
Safety	Annual number and rate of traffic fatalities on all roads in Maryland and MdTA facilities*	The annual number of traffic fatalities on all Maryland roads (The fatality rate is calculated as fatalities per 100 million vehicle miles of travel)
Safety	Annual number and rate of personal injuries on all roads in Maryland and MdTA facilities*	The annual number of persons injured on all Maryland roads The injury rate is calculated as injuries per 100 million vehicle miles of travel
Mobility	Peak period congestion of freeways in Baltimore/ Washington regions	Location of congested conditions based on a series of aerial photos
Efficiency	Percentage of bridges along Maryland SHA and MdTA portions of the NHS that will allow all legally loaded vehicles to safely traverse*	Percent of National Highway System bridges that are not posted with a weight limit restricting use by legally loaded vehicles (only bridges that carry NHS roads are included in this measure)

* Performance measures also included in other modal performance documents.





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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. This document is available in alternative formats upon request.