



GOAL: Facilitate Economic Opportunity and Reduce Congestion in Maryland through Strategic System Expansion



Invest in and pursue opportunities to promote system improvements that support economic development, reduce congestion, and improve the movement of people and goods

OBJECTIVES:

- Pursue capital improvements to the transportation system that will improve access to jobs and tourism and leverage economic growth opportunities
- Improve the movement of goods within and through Maryland by investing in intermodal connections and improvements to reduce freight bottlenecks
- Strategically invest in expansion and operational improvements to reduce congestion along the multimodal transportation system

Maryland's varied and extensive transportation system fosters economic growth across the State. Freight trains, cargo planes, trucks, and giant post-Panamax cargo ships transport goods throughout Maryland. Those who work in, live in, and visit Maryland use the passenger rail, buses, and highways to get to their destinations. These same highways, airports, railways, and port activities carry billions of dollars of goods and talent within Maryland.

As of 2018, \$8.8 billion of motor vehicle, airport, highway, transit, bicycle, and port projects were underway. The FY 2020-FY 2025 CTP outlines \$3.8 billion in funds set aside to improve the movement of goods. These funds address the rapid growth in freight activities from 2017 to 2018, such as the 51% increase in air cargo volume.

MDOT MPA continues to facilitate its record-breaking growth by investing in channel maintenance and berth rehabilitation. The Port of Baltimore handled a record 43.0 million tons of cargo in 2018 and nearly a million cars and light trucks. The FY 2020-FY 2025 CTP lists six major Port-related projects for a total of \$281.1 million. Sixty-five million dollars alone is set aside for berth-specific improvements such as reconstruction and expansion. To address rapid growth in air cargo, MDOT MAA has set aside \$177.0 million for concourse extensions and improvements.



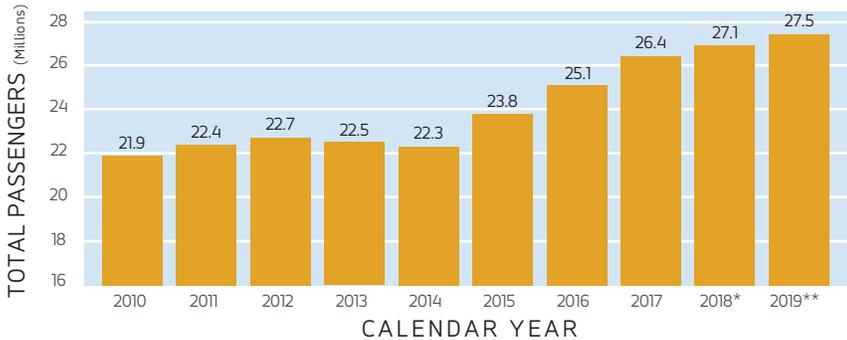
OBJECTIVE:

Pursue capital improvements to the transportation system that will improve access to jobs and tourism, and leverage economic growth opportunities

BWI MARSHALL AIRPORT TOTAL ANNUAL PASSENGERS



BWI Marshall Airport is a crucial point of entry and export for cargo and people. The following measure accounts for the number of annual passengers using the BWI Marshall Airport.



* 2018 data revised from previous report.

** 2019 data is preliminary and subject to change.

What Are Future Performance Strategies?

- BWI Marshall Airport continues to meet with both potential new entrants and current carriers to promote air service opportunities
- Promote BWI Marshall Airport advertising programs and awareness campaigns to passengers on the advantages and options the airport offers, such as air service, parking, and ground transportation services
- Continue to highlight BWI Marshall Airport as the “Easy Come, Easy Go,” gateway to the Baltimore and Washington, D.C. region

Why Did Performance Change?

- In CY 2019, several airlines experienced strong passenger growth with international passenger traffic increasing 16% over the previous year and domestic passengers increasing 3%, supported in part by the addition of new non-stop service to destinations including Mexico, Canada, Cayman Islands, Florida, Texas, California, North Carolina, South Carolina, and Tennessee



INTERNATIONAL CRUISES USING THE PORT OF BALTIMORE



The Port of Baltimore is one of the busiest cruise ports on the eastern seaboard. This measure illustrates cruise-related business activity departing from the Port of Baltimore to foreign destinations.

FISCAL YEAR	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019*
Number of International Cruises using MDOT MPA's Terminal	96	111	100	93	99	75	94	86	94	95

Target: Maintain two year-round cruise line operations at the Port

*2019 data is preliminary and subject to change.

Why Did Performance Change?

- Carnival Cruise Lines and Royal Caribbean International Cruise Lines offer year-round service from the Port of Baltimore; Royal Caribbean had an annual count of 44 cruises, with 5-night, 7-night, 9-night, and 12-night voyages and Carnival offered 51 cruises with the majority of them being 7-night cruises
- Carnival and Royal have submitted long-term cruise schedules through 2021 and both cruise lines report that their ships are sailing at over 100% capacity (more than two people per cabin)

What Are Future Performance Strategies?

- Enhance consumer-side facility capacity and comfort such as improved vehicular circulation and exterior signage
- Continue pursuing opportunities to bring additional regularly scheduled cruise lines to the Port of Baltimore
- Continue promoting the Port as an accessible, comfortable hub of cruise activity for consumers

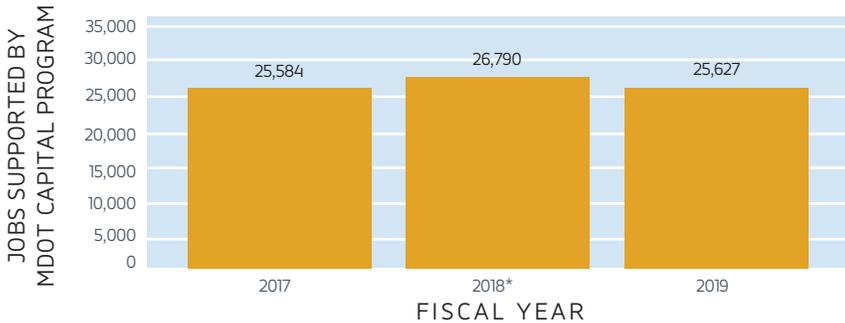


JOBS SUPPORTED BY MDOT CAPITAL PROGRAM



Annually, the CTP lists MDOT’s planned investments by Transportation Business Unit (TBU). These investments drive the creation of direct construction jobs, bolster manufacturing jobs, and support businesses directly affected by the patronage of construction staff. Construction and maintenance projects support economic activity beyond the project location, and even beyond Maryland.

Economic return from transportation investment is based on the estimated number of jobs created as a result of MDOT investments in capital projects. The decrease in jobs from FY 2018 to FY 2019 is attributed to the increased cost of labor and a decrease in the capital program.



* FY 2018 data is updated from the previous report due to revised estimate using TREDIS 5 model.



OBJECTIVE:

Improve the movement of goods within and through Maryland by investing in intermodal connections and improvements to reduce freight bottlenecks

IMPROVING GOODS MOVEMENT: FREIGHT ORIGINATING AND TERMINATING IN MARYLAND

Maryland’s position in the Mid-Atlantic makes it a crucial crossroad of goods, services, and people. Maryland is a gateway to the bustling Washington, D.C. region and the highly active northeast corridor. The State’s main supply chains are comprised of mining, agriculture, pharmaceuticals, manufacturing, and retail travel. These industries rely on the safe operation and maintenance of Maryland’s multimodal freight network. To keep up with demand while maintaining safety and efficiency, the State cooperates with select freight partners to inform its planning and strategic investment efforts.

FREIGHT ORIGINATING AND TERMINATING IN MARYLAND (2018)*

METHOD FOR MOVING FREIGHT	TOTAL VALUE (MILLIONS)	TOTAL TONNAGE (THOUSANDS) SATISFIED
Air	\$6,393	88
Other	\$1,589	65
Rail	\$13,679	33,302
Truck	\$298,185	198,361
Water	\$59,300	42,993
All Freight	\$385,451	265,782

* Source: U.S. Department of Transportation Freight Analysis Framework (FAF4) Version 4.4.5, that was refactored using 2017 data. To report 2018 data, a 3% annual growth rate was applied. FAF generates estimates based on a base year of data. Therefore, tonnage and values represented are estimates, not exact amounts. The water tonnage data based is for 2018, based on U.S. Army Corp of Engineers reporting.

Facilitating efficient and safe freight movement is one of MDOT’s focuses. As of the 2017 update of the Strategic Goods Movement Plan (SGMP), MDOT is in compliance with the requirements of the Fixing America’s Surface Transportation (FAST) Act. This enables MDOT to apply for funding derived from the FAST Act, including Infrastructure for Rebuilding America (INFRA) and Better Utilizing Investments to Leverage Development (BUILD) grants. MDOT has sought and will continue to seek opportunities to apply for funding from these sources. So far, MDOT MPA has received a \$6.6 million BUILD grant for a project related to the Seagirt Marine Terminal, and in March 2019 MDOT was awarded an \$125 million INFRA grant to expand the Howard Street Tunnel, eliminating a critical bottleneck.

Freight in Maryland encompasses varied modes, including airports, railways, highways, and waterways. Goods movement in Maryland contributed \$385.5 billion to economic development in 2018. \$298.2 billion of that was contributed by the trucking industry via Maryland’s highways and roadways, meaning that congestion mitigation remains a major focus in freight movement projects. By laying out funding for congestion reduction projects, MDOT is actively ensuring that freight providers are able to move their goods and people in a timely, efficient, and safe manner. Currently, active projects are long-term investments rather than short-term reactionary measures. This enables Maryland to remain competitive in freight movement, but also benefits non-freight roadway users. MDOT continues to collaborate with the State Freight Advisory Committee to communicate and understand where projects would be most useful along freight corridors.

PORT OF BALTIMORE FOREIGN CARGO AND MDOT MPA GENERAL CARGO TONNAGE*



Measures the amount of foreign and general cargo moving through the Port of Baltimore.*



* MDOT MPA cargo data is provided by fiscal year, but The Port information is reported using the latest full calendar year because The Port statistics combine data for public and private marine terminals that use different fiscal year reporting timeframes. Therefore, 2019 data cannot be reported until early 2020.

** 2018 data for The Port is revised from previous report.

*** MDOT MPA general cargo includes both foreign and domestic waterborne cargo, whereas, Port-wide data includes only foreign waterborne cargo. Port-wide data for calendar year 2019 is an estimate.



Why Did Performance Change?

- The Port of Baltimore’s public and private marine terminals handled a record 43.0 million tons of international cargo, breaking the previous mark of 41.0 million tons set in 1974, and the Port also handled more containers and cars/light trucks in 2018 than any previous year in its history
- Liquefied Natural Gas (LNG) exports through the Port of Baltimore started in March 2018 as Dominion Energy completed construction of its facility in Lusby, Maryland
- There were 2,058 ship calls at the Port in 2019, which is 86 more than 2018
- Ports America continues to invest in Seagirt with new capital investments in equipment, and is currently planning to deepen Berth Three to 50 feet by 2021; the MDOT MPA was awarded a BUILD grant for nearly \$6.6 million towards this \$32.8 million project
- For the first half of CY 2019, Baltimore’s international cargo tonnage increased by 12.3% compared to the same period of the prior year; if this trend holds, it will be another new Port record

What Are Future Performance Strategies?

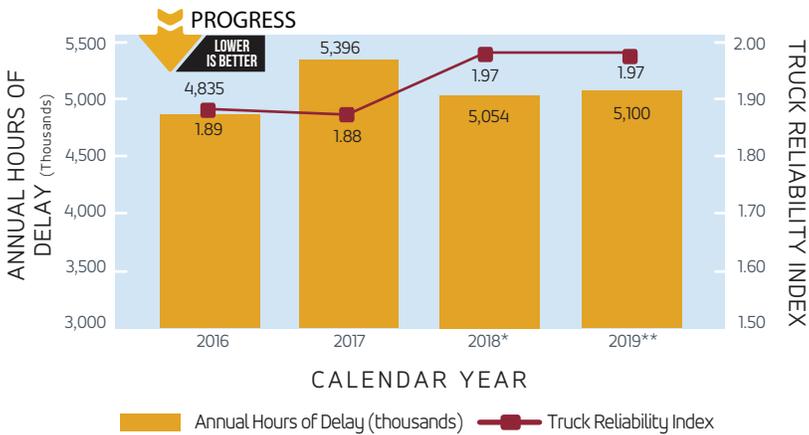
- Remain an active leader in the Baltimore Port Alliance and assist private port partners to increase waterborne commerce on behalf of the Port
- Work with the U.S. Army Corps of Engineers to ensure the Port’s channels are adequately dredged
- Ensure adequate dredged material placement capacity is available at MDOT MPA’s Dredged Material Containment Facility (DMCF) sites to handle future dredging needs
- Work with the City of Baltimore and Maryland counties to efficiently manage highway permits for over-sized loads coming to/from the Port
- Work with Trade Point Atlantic to ensure that the new automobile terminal will open as planned
- Work with Baltimore City to encourage land use practices and zoning efforts that preserve industrial land and freight routes leading to/from the private and State-owned terminals in the Port
- Construct terminal facilities to attract new cargo and maintain existing customers
- Negotiate with manufacturers and international logistics providers to obtain long term contracts



GOAL: FACILITATE ECONOMIC OPPORTUNITY AND REDUCE CONGESTION IN MARYLAND THROUGH STRATEGIC SYSTEM EXPANSION



Delay and reliability can affect many things in a supply chain beyond the truck transporting the goods. An efficient and reliable system translates to improved goods movement and can impact economic development. Federal regulations provide guidance on how to measure reliability by mandating tracking of the Truck Reliability Index as a measure of truck freight efficiency throughout Maryland.



Target: 5,300 (\$5.3 million) Thousand Hours Of Truck Delay In 2023, Truck Reliability Index of 2.00 in 2023

*2018 data is revised from previous report.

**2019 data is preliminary and subject to change.

OBJECTIVE:

Strategically invest in expansion and operational improvements to reduce congestion along the multimodal transportation system

Why Did Performance Change?

- With the lowest unemployment rates in a decade, a steadily growing national and regional economy, and relatively low levels of gas prices, vehicle miles traveled (VMT) has continued to grow slightly, although VMT per capita has remained relatively steady since 2016
- MDOT SHA completed 108 projects (including 21 major projects) in 2019 and has 423 active projects, including a significant number of system preservation and capital projects. While construction led to additional delay in work zones, it will improve long-term performance

What Are Future Performance Strategies?

- \$125 million in federal funds has been approved for the Howard Street Tunnel in Baltimore, which will ease truck traffic, boost the economy, and create jobs
- Continue to collaborate with metropolitan planning organizations (MPOs), local agencies, State entities, and the private sector to deliver projects that address reliability and efficiency
- Modernize transportation infrastructure by incorporating Intelligent Transportation System (ITS) technology
- In June 2019, the Board of Public Works voted to advance the I-495 and I-270 Public-Private Partnership (P3) Program, which will reduce traffic congestion for millions of travelers in Maryland

ANNUAL COST OF CONGESTION (BILLIONS) ON THE MDOT HIGHWAY NETWORK



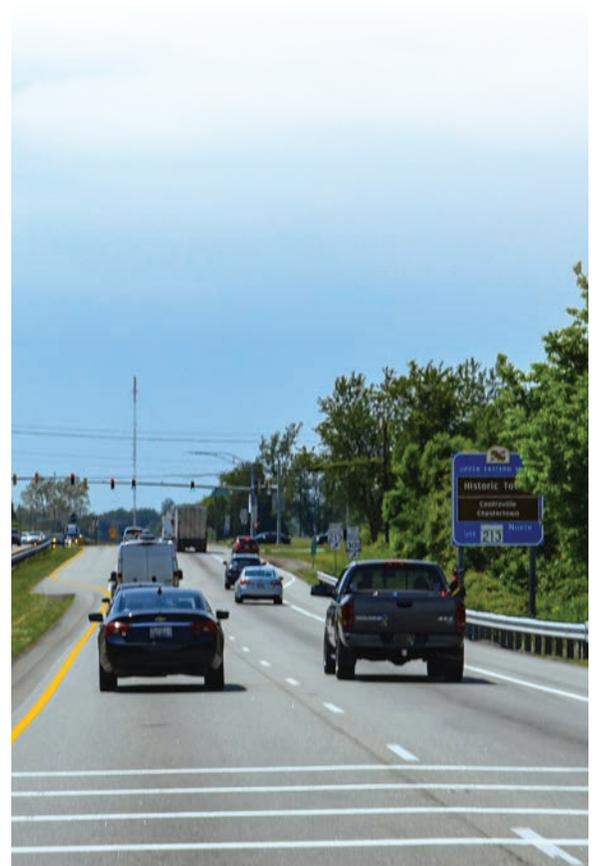
A reliable and efficient multimodal transportation system goes beyond convenience. Efficiency and reliability are important parts of economic growth, development and quality of life. Quantifying the cost of congestion helps MDOT measure the impact of congestion.



Target: \$4.1 billion in 2023

*2018 data is revised from previous report.

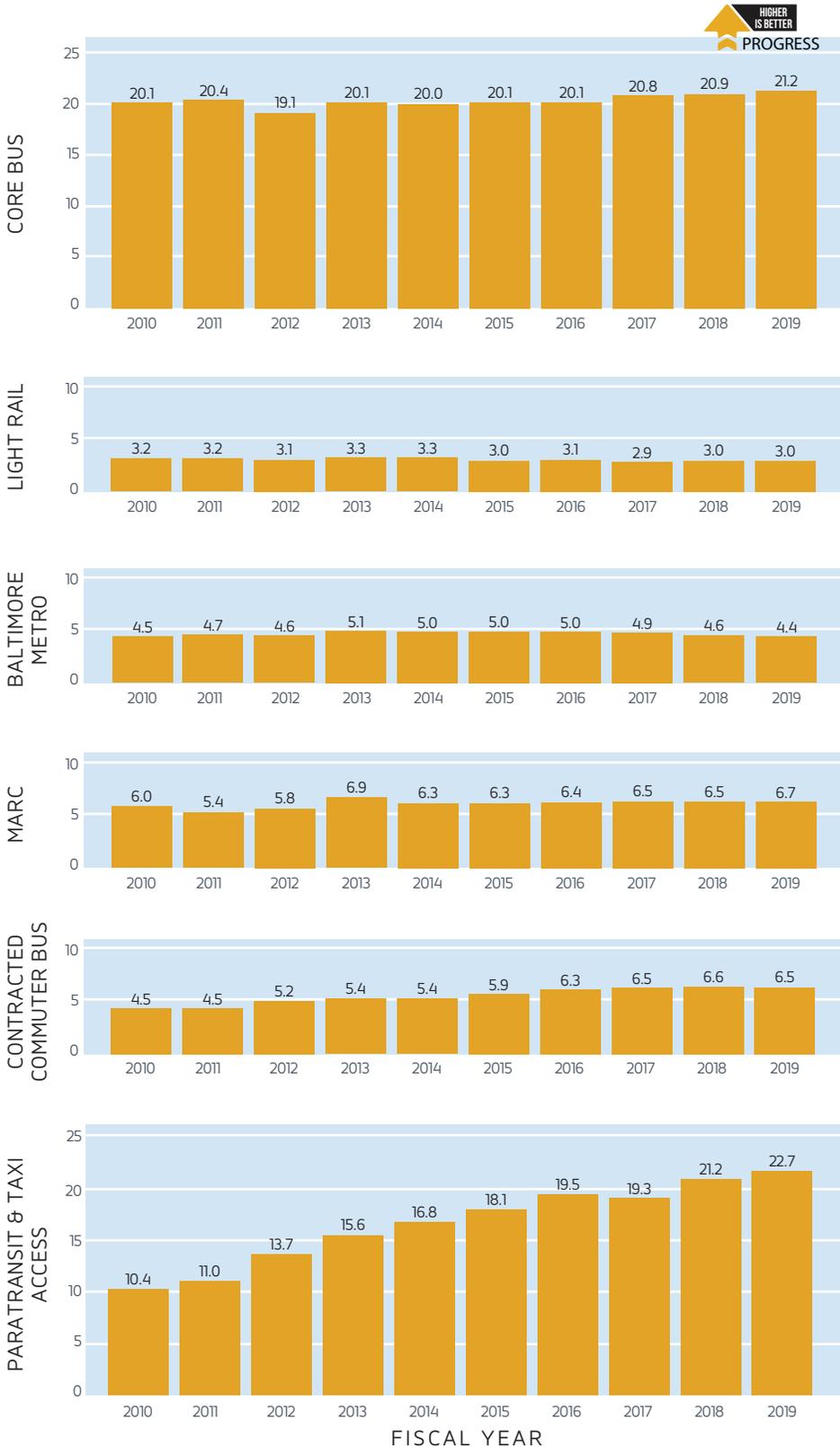
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ANNUAL REVENUE VEHICLE MILES OF TRANSIT SERVICE PROVIDED*



Revenue vehicle miles measure each mile for which a transit vehicle is in service and accepting customers. This measure indicates transit's level of service.



*All units are revenue miles (millions). Excludes Locally Operated Transit Systems (LOTS) and WMATA.

Why Did Performance Change?

- MDOT MTA expanded scheduled trips on BaltimoreLink, thereby increasing the vehicle revenue miles
- Supplemental bus service to select Baltimore City Public Schools was established, increasing service and vehicle revenue miles
- Since we have an aging population, more people are qualifying for and using MobilityLink (paratransit)
- Baltimore Metro SubwayLink continued to perform scheduled track repair and maintenance, having an impact on the revenue miles but little impact on the riding public

What Are Future Performance Strategies?

- MDOT MTA will continue renewing its rolling stock of transit vehicles to ensure future reliability
- The Purple Line, a 16-mile Light Rail line that will connect Bethesda to New Carrollton, will increase vehicle revenue miles via increased service
- MDOT MTA plans to increase MobilityLink paratransit service and thereby increase vehicle revenue miles

