GOAL

Deliver System Quality

Deliver a Reliable, High-Quality, Integrated Transportation System

KEY OUTCOMES: By investing to achieve system quality, MDOT will work to create an infrastructure program that is financially sustainable, environmentally resilient, and maintains a state of good repair.

MDOT works strategically to provide Marylanders with a transportation system that is reliable, high-quality, and provides integrated experience to its users. To deliver on this goal, MDOT seeks to maintain infrastructure in a state of good repair, improve reliability in the transportation system, create a truly resilient transportation system, and effectively deliver projects on time and on budget. In January 2025, MDOT published the updated Strategic Asset Management Plan (SAMP), a five-year guide to apply best practices that improve asset management knowledge, enhance system reliability, and promote financial stewardship. As the asset management program continues to mature, MDOT gains better insight into the condition of our assets, which leads to MDOT identifying the additional needs to maintain a state of good repair.

In 2024, Marylanders faced a tragic loss with the collapse of the Key Bridge that connected thousands of Maryland commuters and commercial vehicles, serving as a vital link in the State. MDOT has been diligently working to rebuild the Key Bridge on I-695 and restore the connection to the community and improve both accessibility and economic growth. In February 2025, Governor Moore unveiled the new design concept for the Key Bridge. Pre-construction of the bridge began in January 2025, and construction is expected to begin in winter 2026.

MDOT has also received several grants in the past year to improve and preserve the existing transportation system. In fall 2024, Maryland was awarded $38.4 million under the Infrastructure for Rebuilding America (INFRA) grant for critical transportation and port infrastructure. In spring 2025, SHA received $1.6 million in funding under the Bridge Investment Program for the project on the I-68 Viaduct. Additionally, MDOT will be investing $1.05 billion over the six-year capital program that will allow the SHA to improve the pavement condition of State highways across Maryland.

MDOT continues to implement resilience projects across the State in support of increased safety and reduced impact from changing conditions. MDOT received approval from the Federal Highway Administration (FHWA) for the agency's first Transportation Resilience Improvement Plan (TRIP) in August 2024. This Plan provides guidance and a framework for integrating resilience considerations throughout the project planning process.

OBJECTIVE: Provide a Multimodal System Resilient to Changing Conditions and Hazards

PERCENTAGE OF LANE-MILES/FIXED GUIDEWAY TRANSIT-MILES SUSCEPTIBLE TO FLOODING AND STORM SURGE

FACING CHALLENGES

The percent of lane-miles/ fixed guideway transit-miles susceptible to flooding and storm surge has remained constant at

11%

from FY 2023 to FY 2025.

TARGET: OVERALL DECREASE

LOWER IS BETTER

What Is the Trend?

- SHA has over 120 drainage sites in some stage of design and construction. These sites encompass state of good repair improvements to keep drains operating and prevent flooding resulting from blockages and climate change. They also include system upgrades to accommodate increased flows resulting from climate change and urban development.

What Are Future Strategies?

- SHA is undertaking an effort to update the Climate Change Vulnerability Viewer to develop a Risk and Resilience Assessment for all transportation assets that can be used enterprise-wide to identify assets with the highest risk of natural hazards impact under future conditions.
- MDTA is advancing resiliency and rehabilitation improvements to the Curtis Creek Drawbridge on I-695 as part of a coordinated response to improving travel experiences in rebuilding the Francis Scott Key Bridge.
- MTA recently completed a Resiliency Feasibility Study at their Shot Tower/ Market Place Metro station. The results from this assessment will be used to inform enhancements for the station and support MTA's efforts to increase the resiliency of their assets.

OBJECTIVE: Increase the Percentage of State-Owned or Funded Facilities and Assets in a State of Good Repair

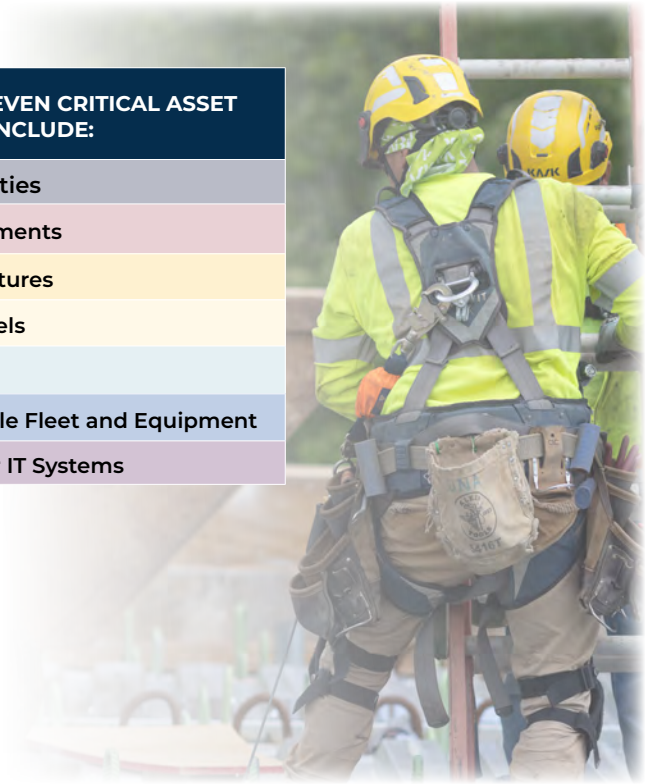
UNFUNDED STATE OF GOOD REPAIR BACKLOG

LOWER IS BETTER

	FY 2023	FY 2024	FY 2025
Unfunded State of Good Repair Backlog	$2.2 billion	$4.8 billion	$7.1 billion

TARGET: NONE

MDOT'S SEVEN CRITICAL ASSET CLASSES INCLUDE:	
1	Facilities
2	Pavements
3	Structures
4	Tunnels
5	Rail
6	Vehicle Fleet and Equipment
7	Major IT Systems



What Is the Trend?

- Based on the seven critical asset classes, in FY 2025, there were $7.1 billion in projects that were still unfunded from the state of good repair backlog, compared to $4.8 billion in FY 2024. This is due to limited State funds and increasing cost of goods and materials, as well as inflation.
- As of 2025, the percent of transit assets (by value) in the state of good repair backlog was 20%. This is double the targeted value in MTA's 2025 Regional Transit Plan (10%).

What Are Future Strategies?

- MDOT published an updated Tactical Asset Management Plan, which outlines the steps MDOT is taking to deliver the goals outlined in the SAMP.
- With the increased revenues, according to MTA's 10-year Capital Needs Inventory Report, MTA will be able to address over 90% of its state of good repair needs through 2030.
- MPA has programmed 64% of its FY 2026 – FY 2031 budget for system preservation projects. These projects include the repairs of Fairfield Marine Terminal Pier 4, the reconstruction of Dundalk Marine Terminal Berths 11-13, and projects associated with maintaining the 50-foot channel, which include Mid-Bay and Poplar Island ecosystem restoration projects and Cox Creek and Masonville Dredged Material Containment Facilities (DMCFs).

PERCENTAGE OF THE MARYLAND STATE HIGHWAY NETWORK IN OVERALL PREFERRED MAINTENANCE CONDITION

ON TARGET

HIGHER IS BETTER

TARGET: 2030: 85%

What Is the Trend?

- The overall preferred maintenance condition of the Maryland State highway network has remained steady over the past years, with an 84% average for the last eight years from CY 2016 to CY 2024.

What Are Future Strategies?

- SHA is utilizing an asset management approach for maintenance activities. New guard rail and street lighting portals are being created within a new GIS-based system that will be used to track maintenance work, needs, and expenditures moving forward.

OVERALL ACCEPTABLE PAVEMENT CONDITION

MAKING PROGRESS

ACCEPTABLE PAVEMENT CONDITION*

HIGHER IS BETTER

TARGET: 2030: 90%; 2050: 95%

OVERALL REMAINING SERVICE LIFE**

TARGET: 2030: 20 years; 2050: 20 years

** "Acceptable" pavement condition includes pavements in both "Fair" and "Good" condition.*

*** Remaining Service Life represents condition on a scale of 0 to 50 years, where 0 years is "Poor," "Fair" is 0 to 20 years, and "Good" is 20 to 50 years.*

What Is the Trend?

- The percent of pavements in "Acceptable" condition is expected to decline from 90% in CY 2024 to 86% after CY 2028, with the Remaining Service Life deteriorating from 16.5 years to 15.6 years.
- The percent of "Poor" pavements is expected to increase from 10% in CY 2024 to 13% in CY 2028 with the current funding projections. Since the percentage of pavements in "Poor" condition is expected to increase due to budget shortfalls, it will likely cost more to restore pavements to a state of good repair as a result of more pavements needing costly reconstruction.
- In CY 2024, SHA resurfaced about 3.8% of its pavement network, and preventive maintenance covered an additional 9.6% of the network, both lower than reported in CY 2023.

What Are Future Strategies?

- During FY 2026, SHA is improving almost 1,700 lane miles of pavement across the State through patching and resurfacing efforts, which would improve safety and ride quality for hundreds of thousands of daily commuters and visitors.
- SHA continues to increase the use of non-traditional and innovative pavement preservation treatments to extend the service life of SHA roadways at the lowest possible cost. For every dollar spent on pavement preservation treatments on pavements in fair or better condition, there is a saving of $6 to $12 on rehabilitation or reconstruction on pavements in poor condition.

NUMBER OF ALL MARYLAND BRIDGES THAT ARE IN POOR CONDITION

TARGET ACHIEVED

TARGET: 2030: 30; 2050: 50

What Is the Trend?

- SHA recorded 20 poor-rated State bridges during their annual condition submission to the FHWA in March 2025. This is the lowest number ever recorded and represents less than 1% of SHA's bridge inventory. This reduction can be attributed to the efficient use of federal funds for current bridge replacement projects, the successful bridge rehabilitation and preservation program, and the enhancement of asset management strategies. All 20 of these bridges are under construction or in design to address the poor rating.
- In 2025, SHA completed several bridge rehabilitations and replacements to enhance safety and durability. This included ten bridges at the I-95/I-695 interchange in southwestern Baltimore County for $42.3 million, a bridge rehabilitation on MD 75 over I-70 for $5.1 million, along with bridge replacements on I-70 over Creek Road for $16.9 million and MD 42 over Buffalo Run for $6.8 million.
- MDTA was awarded a $7.5 million INFRA grant for resiliency and maintenance improvements to the Curtis Creek Drawbridge as part of the Key Bridge replacement effort.

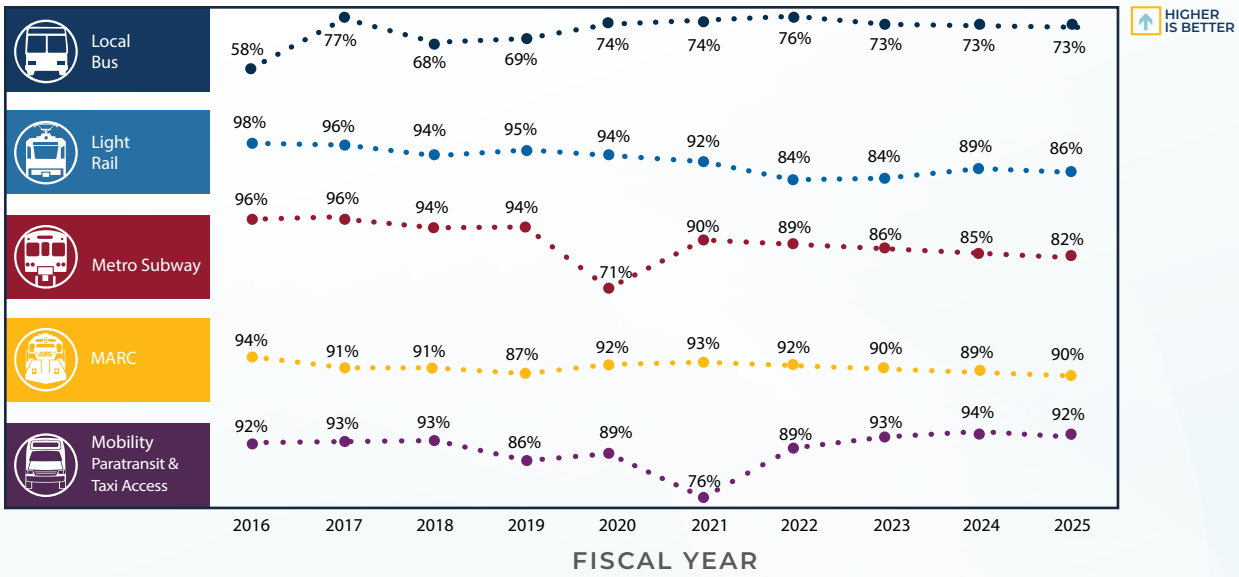
What Are Future Strategies?

- SHA is prioritizing major rehabilitation or replacement of fair-rated bridges that are on high-volume roadways, including the National Highway System, that have the potential to become poor-rated in the near future. This is a proactive approach to have projects ready so that mobility is not impacted by structural conditions.
- SHA will utilize improved bridge asset management procedures to more efficiently manage our infrastructure assets through lifecycle optimization. These techniques track maintenance needs, forecast deterioration, and prioritize projects, resulting in extending the longevity of our bridge infrastructure.

OBJECTIVE: Minimize Travel Delays and Improve Reliability and Quality

PERCENTAGE OF ALL MDOT TRANSIT SERVICE PROVIDED ON-TIME

MAKING PROGRESS



TARGET: 2030: 99% for all except Local Bus (85%) and Paratransit (95%); 2050: 90% for all except Local Bus

What Is the Trend?

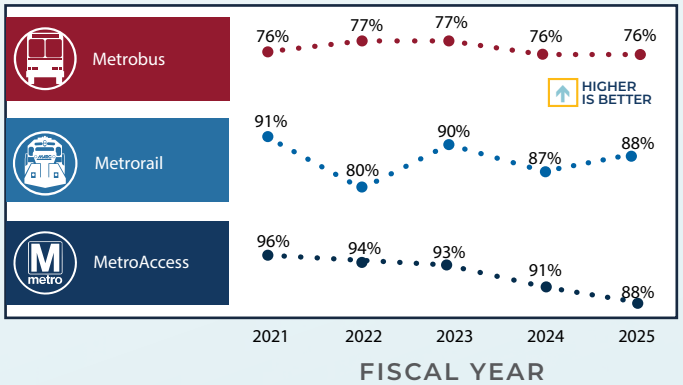
- In FY 2025, on-time performance (OTP) for Light Rail, Metro Subway, and Mobility Paratransit & Taxi Access declined by 2-3%.
- In spring 2025, MDOT and SHA, in coordination with Montgomery County and WMATA, implemented permanent curbside bus lanes on nearly seven miles of MD 97 (Georgia Avenue) between Silver Spring and Glenmont as well as five miles of MD 193 (University Boulevard) between Wheaton and Northwood Park.
- Between 2020 and 2025, the number of dedicated bus lane miles nearly tripled from 5.8 to 17 miles, leading to an increase in local bus speeds from 12 to 12.8 mph.

What Are Future Strategies?

- MTA has launched a $1.4 billion Light Rail Modernization Project, replacing the current fleet with modern vehicles and upgrading stations, systems, and maintenance.
- MTA continues to make infrastructure investments such as dedicated bus lanes, transit signal priority, and other improvements that will help reduce delay caused by traffic and intersections moving forward.
- MTA completed the BMORE BUS transit plan in June 2025, which will ultimately help MTA strengthen its service reliability, expand existing services, and potentially establish new services in the Baltimore region.

WMATA ON-TIME PERFORMANCE (OTP)*

MAKING PROGRESS



TARGET: 78% for Metrobus, 91% for Metrorail, and 92% for MetroAccess

**This performance measure is new to the AR.*

What Is the Trend?

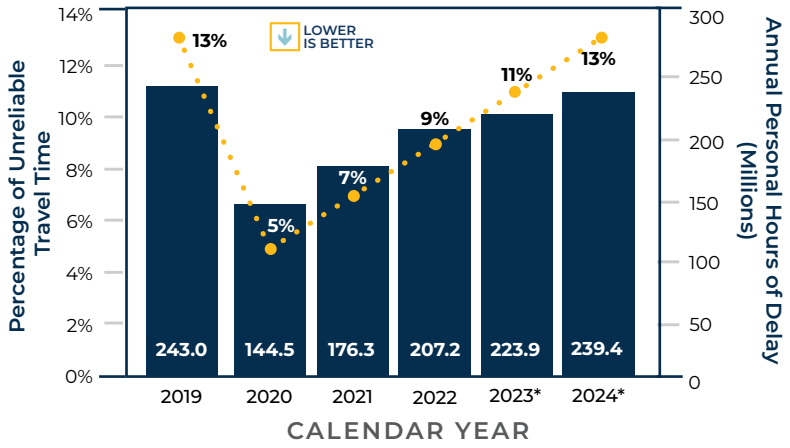
- Metrorail OTP improved slightly in FY 2025 relative to FY 2024; service disruptions account for most late trips. Metrobus OTP has declined by 1% since FY 2023. MetroAccess OTP fell in FY 2025 as Metro transitioned to a new contracting model, which reduced the number and geographical dispersion of garages, leading to more late pick-ups.

What Are Future Strategies?

- WMATA continues to invest in rail fleet and infrastructure to reduce the frequency of disruptions, partner with regional jurisdictions to implement more bus priority to reduce the impact of congestion, and pilot headway management strategies on select routes to more evenly space vehicles. WMATA will also continue to work with contractors to improve operational performance.

ANNUAL PERSON HOURS OF DELAY AND TRAVEL TIME RELIABILITY ON THE MARYLAND PUBLIC ROADWAY NETWORK

FACING CHALLENGES

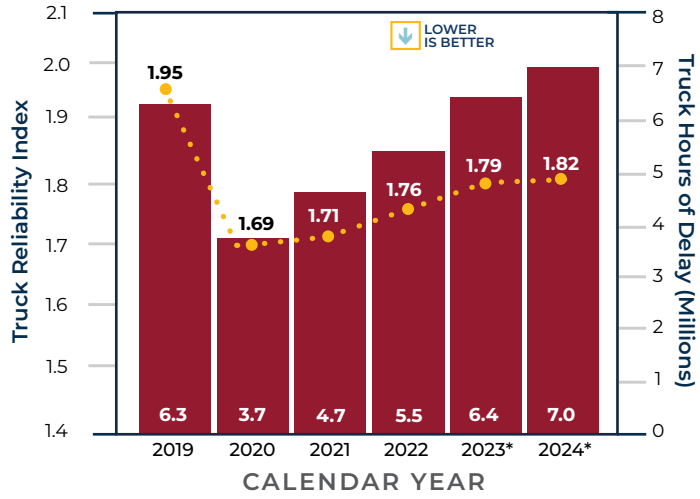


TARGET: 2030: 202 MILLION HOURS; 2050: 201 MILLION HOURS

** 2023 and 2024 data have been revised from previous report.*

TRUCK HOURS OF DELAY AND TRUCK RELIABILITY ON THE MARYLAND PUBLIC ROADWAY NETWORK

FACING CHALLENGES



TARGET: 2030: 5.3 MILLION HOURS; 2050: 5.3 MILLION HOURS

** 2023 and 2024 data have been revised from previous report.*

Note: The methodology used for reporting the 2022 (and prior years) delay values was updated to reflect recent refinements in the Office of Planning and Preliminary Engineering's Maryland Roadway Performance Tool and because the trends calculated seem to more reasonably reflect Average Daily Traffic (ADT)/VMT and congestion trends. The methodology for reliability indices remain the same.

What Is the Trend?

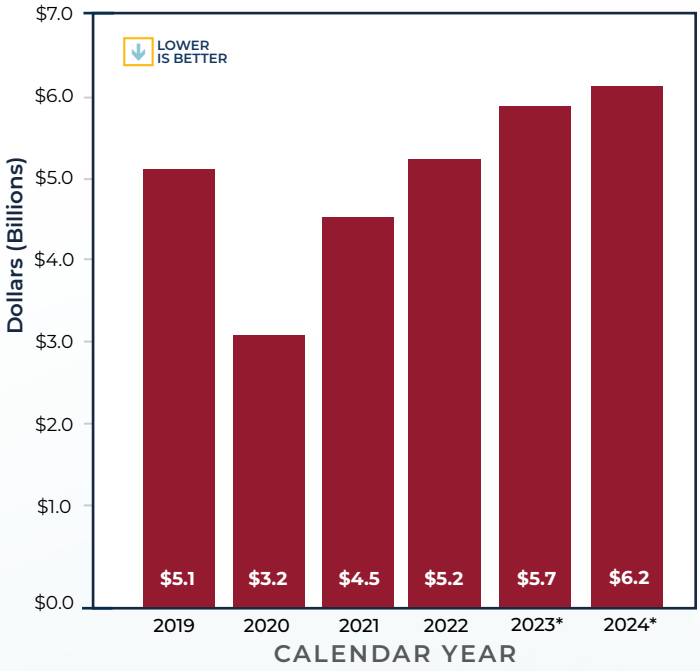
- Gradual increases in person hours of delay continue from previous years. CY 2024 marks the highest number of annual person hours of delay since 2019, rising to 239.4 million hours. The percentage of unreliable travel time saw an increase of 2% from CY 2023 to CY 2024.
- In 2024, the increase in delay was likely impacted by the changes in congestion and routing that came from the loss of the transportation connection on I-695 over Patapsco River and construction along I-695 around Security Blvd with a lane reduction.
- Truck delays continue to rise, with total truck hours of delay increasing by 0.6 million from CY 2023 to CY 2024. During the same period, the Truck Reliability Index rose slightly from 1.79 to 1.82.

What Are Future Strategies?

- SHA is coordinating with the Office of Traffic and Safety and District 7 to implement low-cost countermeasures in fall 2025 to significantly reduce excessive queuing and congestion during the AM peak period at the I-70 and MD 32/MD 144 junction.
- In 2024, SHA started the next phase of its Transportation Systems Management and Operations (TSMO) project on the Baltimore Beltway. The multi-year project is converting the median shoulder between I-70 and MD 43 (White Marsh Boulevard) into a travel lane, primarily for morning and evening rush hour use.
- The 2022 State Freight Plan identified projects for initial National Highway Freight Program funding to improve freight movement in the State. The State Freight Plan is anticipated to be updated by end of 2026.
- MDOT is continuing to employ TDM strategies in the Baltimore area to relieve congestion including Commuter Choice Maryland, which encourages alternatives to solo driving and the Guaranteed Ride Home program for regsitered commuters.

ANNUAL COST OF CONGESTION (BILLIONS) ON THE MARYLAND PUBLIC ROADWAY NETWORK

FACING CHALLENGES



TARGET: 2030: $6.0 BILLION; 2050: $10.0 BILLION HOURS

** Data has been revised from previous report.*

What Is the Trend?

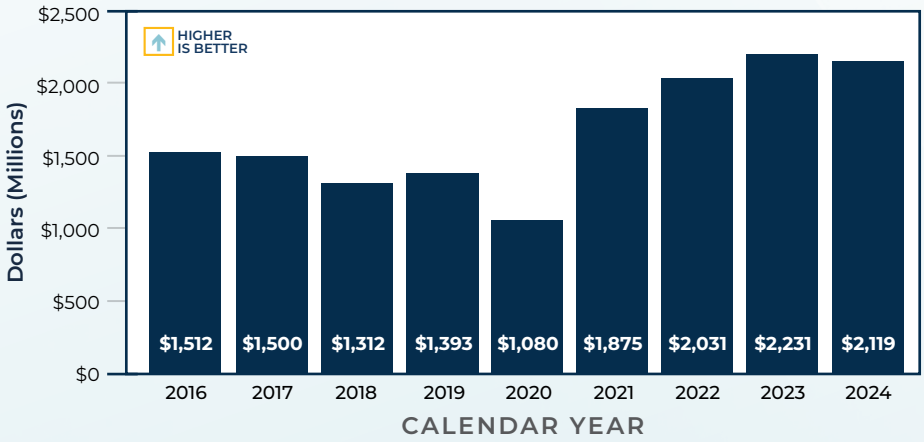
- Annual cost of congestion peaked in CY 2024, jumping to an all-time high of $6.2 billion dollars. There was a pandemic-related drop in cost of congestion in CY 2020, but this cost has continued to rise since.

What Are Future Strategies?

- Investments in I-695 transportation system maintenance and operational improvements will deploy the use of peak-hour shoulder use to reduce congestion.
- MDOT aims to reduce congestion on the US 50 corridor by deploying cutting-edge software, sensors, trafficcameras, and message signs.
- Potential Travel Demand Management (TDM) strategies are being explored to address the increase in delays associated with the loss of the transportation connection on I-695 over Patapsco River.

USER COST SAVINGS FOR THE TRAVELING PUBLIC DUE TO INCIDENT MANAGEMENT

ON TARGET



TARGET: 2030: $2.2 BILLION ; 2050: $3.0 BILLION

What Is the Trend?

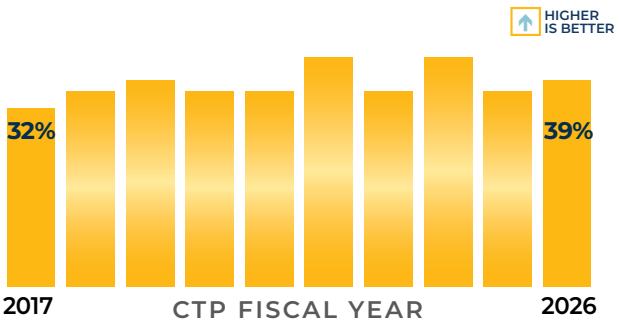
- In CY 2024, OTMO's CHART program responded to 65,710 incidents and disabled vehicle events on Maryland roads. The CHART operations led to a total saving of $2.1 billion in CY 2024.
- SHA's OTMO and Office of Traffic and Safety successfully developed traffic incident signal timing plans for over 30 signalized intersections within the TSMO System 1 Corridor to support parallel freeway-arterial operations during the agency's response to crashes.
- SHA established the capability to monitor major arterial corridors and over 1,000 signalized intersections statewide using third-party Connected Vehicle (CV) data ("Signal Analytics").

What Are Future Strategies?

- SHA will select additional corridors for freeway incident traffic management plan updates and evaluate the need for traffic incident signal timing plan development to support statewide parallel freeway-arterial operations. Additionally, SHA will evaluate and expand the Signal Analytics application to cover all 3,000+ signalized intersections in the State to support enhanced signal operations monitoring and maintenance.
- SHA will conduct a pilot to evaluate the use of tethered Unmanned Aerial Systems (UAS) on CHART vehicles for enhanced situational awareness during incident response operations.
- SHA will ensure US 1 CV equipment is fully operational and develop a plan of action to transition the pilot to a public testing phase.

OBJECTIVE: Accelerate Project Completion Through Improved Project Delivery

PERCENTAGE OF CTP PROGRAM THAT IS FUNDED WITH FEDERAL DOLLARS



TARGET: NONE

What Is the Trend?

- For the FY 2026 – FY 2031 CTP, MDOT expects to receive 39% of CTP funding from federal sources, which is a slight increase from 37% in FY 2025.
- SHA is leveraging more than $500 million in additional federal resources since the FY 2025 – FY 2030 CTP to address critical bridge rehabilitation and resurfacing state of good repair needs.

What Are Future Strategies?

- MDOT will continue to seek federal grants whenever appropriate and pursue opportunities for maximizing federal match to supplement State and local funds.

PROJECT DELIVERY ACROSS MDOT*

FY 2024
29%
Percentage of Projects Delivered On Time and On Budget

FY 2024
17%
Percentage of Projects Delivered Late and Over Budget

FY 2024
54%
Percentage of Projects Delivered Late and On Budget

TARGET: NONE

Note: Measure only tracks completed major capital projects from the FY 2025–FY 2030 CTP.

** The measure names have been updated from last report.*

What Is the Trend?

- The percent of projects delivered on time and on budget have decreased from 31% in FY 2023 to 29% in FY 2024. The percent of projects delivered late and over budget also decreased from 23% in FY 2023 to 17% in FY 2024. The percent of projects delivered late and on budget increased from 46% in FY 2023 to 54% in FY 2024.
- This is still a new performance measure with only two years of data and the sample size is small as the scope includes only major project completions and projects with system preservation designation completions.

What Are Future Strategies?

- MDOT will continue to track the project delivery of major capital projects which will eventually help determine actions to improve performance.

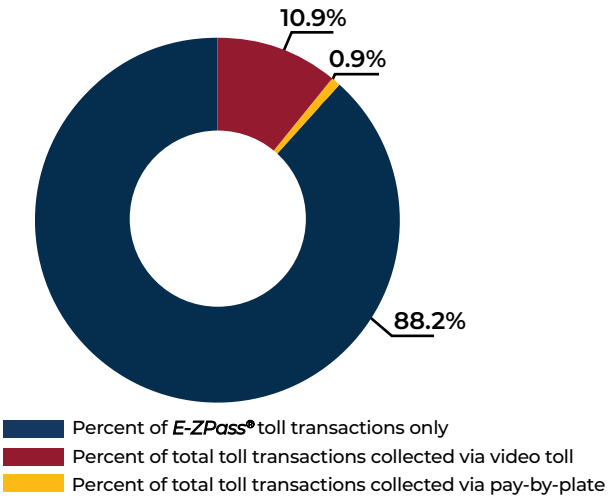
PERCENTAGE OF MDTA TOLLING TRANSACTIONS COLLECTED VIA *E-ZPASS*® VS. VIDEO TOLLS VS. PAY-BY-PLATE

PERCENTAGE OF *E-ZPASS*® TOLL TRANSACTIONS ONLY

What Is the Trend?

- The percentage of toll transactions continue to show an increasing trend since FY 2021. In FY 2025, 88.2% of toll transactions were collected by *E-ZPass*®. The remaining 10.9% and 0.9% of toll transactions were collected via video toll and pay-by-plate, respectively.
- In December 2024, MDTA completed the extension of Northbound Express Toll Lanes℠ along I-95, providing travelers with a more reliable travel experience and enhancing the resilience of the existing infrastructure.
- The MDTA, in collaboration with PayByCar, launched the Driven by *E-ZPass*® initiative, which is a non-toll program that uses toll transponders to facilitate touch-free payments at gas stations and off-street parking facilities.

TOLL TRANSACTIONS COLLECTED IN FY 2025 BY TYPE



TARGET: NONE

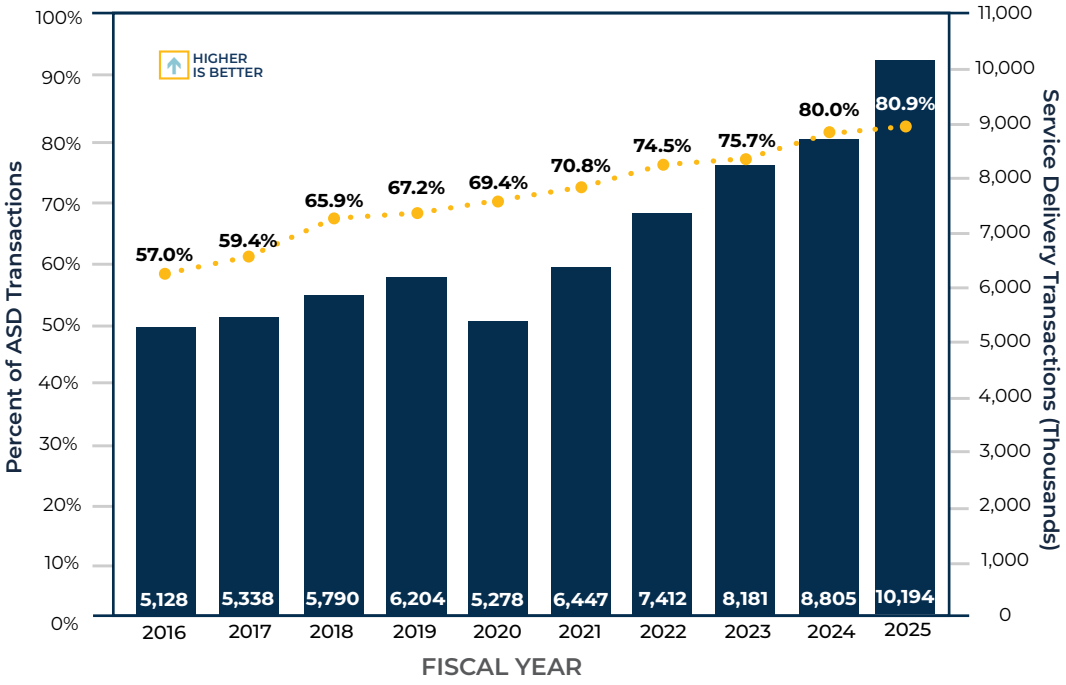
What Are Future Strategies?

- The MDTA Communications & Marketing team continues targeting low-paying zip codes in their ongoing educational campaigns that encourage customers to sign up for *E-ZPass*® accounts.
- The MDTA plans to issue a Request For Proposal for the debt collection services for out-of-state tolls and violations in December 2026.

MVA ALTERNATIVE SERVICE DELIVERY (ASD) TRANSACTIONS AS A PERCENT OF TOTAL TRANSACTIONS

ON TARGET

ASD allows MVA to operate more efficiently by providing reliable and convenient service delivery to customers without requiring in-person transactions. These services include web transactions, self-serve kiosks, mail-in options and others.



TARGET: 2030: 85%; 2050: 90%

What Is the Trend?

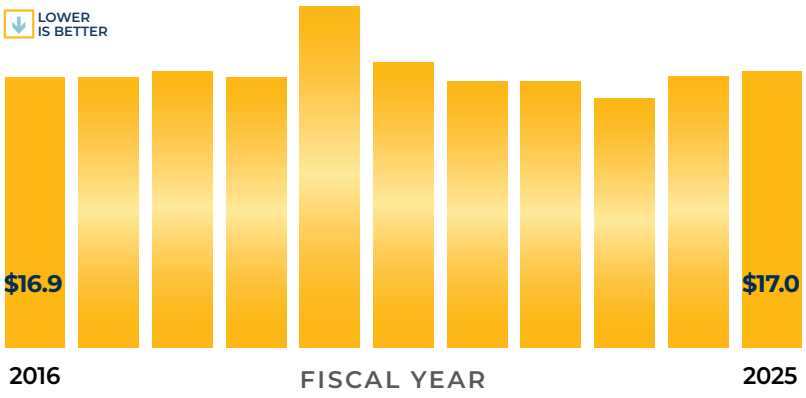
- The percent of ASD transactions continued to increase year over year again this FY, increasing from 80.0% in FY 2024 to 80.9% in FY 2025.
- MVA consistently looks for opportunities to provide customers with the ability to process transactions when and where it is convenient for them. In 2021, MVA completed a system modernization that enhanced the way customers do business (Customer Connect) and has continued to further augment the modernizations since.
- The MyMVA's online account system helps customers manage their business with the MVA by providing more than 60 online transactions. As of October 2025, about 3.8 million MyMVA transactions have been completed online.

What Are Future Strategies?

- MVA will continue to promote materials encouraging Marylanders to create a MyMVA account and participate in ASD with the tagline that more than 60 transactions can be done online. MVA is specifically pushing to increase online license renewals. One strategy is sending emails to those who are one year out from renewals and encouraging them to sign up or log in to see if they can renew online and skip the visit.

MVA AVERAGE COST PER TRANSACTION

ON TARGET



TARGET: 2030: $18.31; 2050: $18.00

What Is the Trend?

- The cost per transaction is a balance between the number of transactions and the agency's operating expenditures. Average cost per transaction increased from $16.8 in FY 2024 to $17.0 in FY 2025. Statewide salary action and inflation affected operating costs across the board. As MVA continues to implement system modernization, integration, and efficiencies, the cost per transaction will normalize.

What Are Future Strategies?

- MVA continues to collaborate with other agencies and identify ways to increase efficiency, internally and for customers. As MVA coordinates with government partners and expands existing partnerships, the agency offers a premier customer experience.
- MVA will engage in cost-effective business practices through the employment of better technology and operational practices.