

TANGIBLE RESULT #5

Provide an Efficient, Well-Connected Transportation Experience



MDOT will provide an easy, reliable transportation experience throughout the system. This includes good connections and world class transportation facilities and services.

RESULT DRIVER:

Phil Sullivan

Maryland Transit Administration (MTA)

Provide an Efficient, Well-Connected Transportation Experience

TANGIBLE RESULT DRIVER:

Phil Sullivan
Maryland Transit Administration (MTA)

PERFORMANCE MEASURE DRIVER:

John O’Neill
Maryland Transportation Authority (MDTA)

PURPOSE OF MEASURE:

To assess average wait time at facilities

FREQUENCY:

Quarterly

DATA COLLECTION METHODOLOGY:

Verification of average wait times at facilities for services based on MDTA reporting the number of vehicles that pass through toll facilities

NATIONAL BENCHMARK:

N/A

PERFORMANCE MEASURE 5.1A

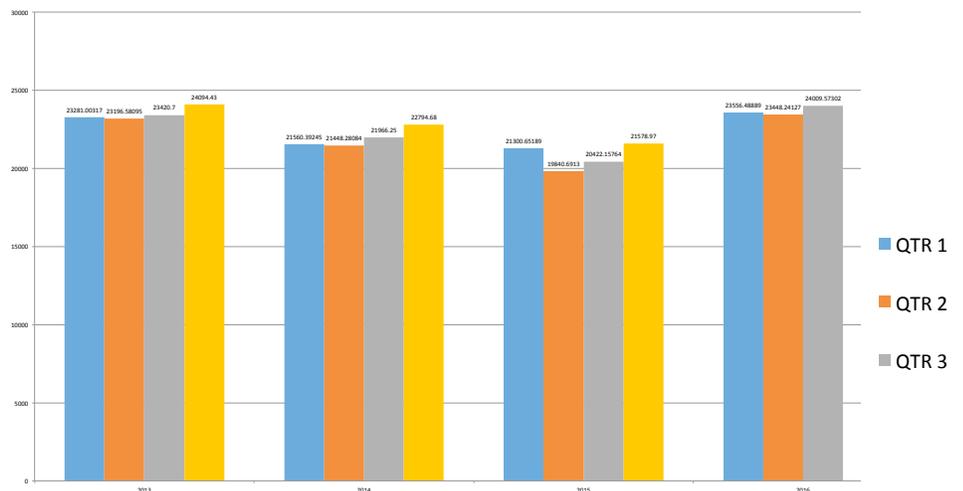
Reliability of the Transportation Experience: Average Volume at the Peak

Customers of MDOT services expect reasonable wait times to obtain needed services. The reliability if transportation experiences were assessed through average wait times for service at MDOT facilities.

This measure will allow MDOT to monitor and improve wait times for service at the facilities and the data will be reported and reviewed quarterly.

The MDTA will report on the number of vehicles that pass through the mixed (Cash and Electronic payment) toll facilities per hour. The number of vehicles that pass through toll facilities per hour tells the level of congestion at the tolls. More vehicles per hour equals less delay. This measure will exclude the MDTA’s All Electronic Facilities (ICC and I95 ETLs).

Average Volume, Peak Hours All Mixed Facilities



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TANGIBLE RESULT DRIVER:

Phil Sullivan

Maryland Transit Administration (MTA)

PERFORMANCE MEASURE DRIVER:

John O'Neill

Maryland Transportation Authority (MDTA)

PURPOSE OF MEASURE:

To assess average wait time at facilities to ensure a pleasant transportation experience for our customers

FREQUENCY:

Annually (in January)

DATA COLLECTION METHODOLOGY:

Verification of average wait times at facilities for services

NATIONAL BENCHMARK:

N/A

PERFORMANCE MEASURE 5.1B

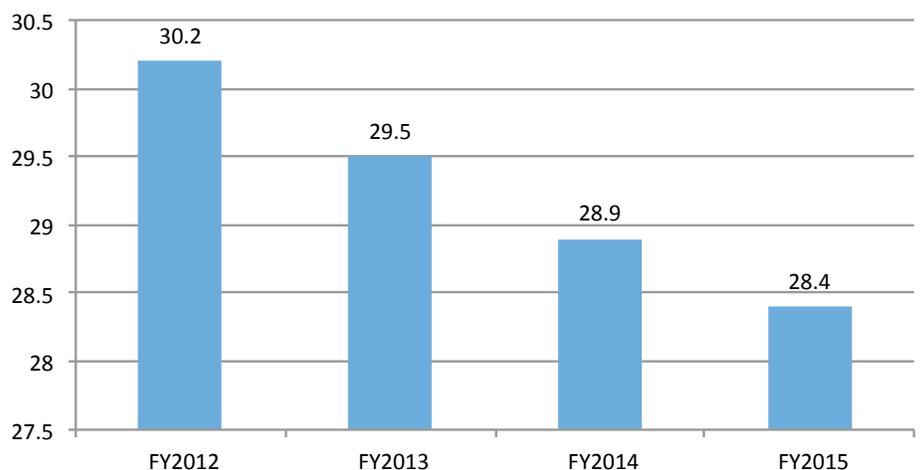
Reliability of the Transportation Experience: Average Annual Truck Turn Around

Customers of MDOT services expect reasonable wait times to obtain needed services. The reliability of transportation experiences was assessed through average wait times for service at facilities to ensure that customers have a pleasant transportation experience.

This measure will allow MDOT to monitor and improve wait times for service at facilities. The data will be reported and reviewed quarterly.

The MPA is reporting on the freight wait (truck turn-around) time for containers loaded at Seagirt Marine Terminal by fiscal year. The gate turnaround time is determined by the gate in and gate out time. The primary objective of the Port is to reduce the truck turnaround times through the smoothing of gate activities to prevent the gate process from becoming a bottleneck into the Port.

**Average Annual Truck Turn Around Time per Unit (Box)
at Seagirt Marine Terminal**



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Maryland Transit Administration (MTA)

PERFORMANCE MEASURE DRIVER:

John O'Neill

Maryland Transportation Authority (MDTA)

PURPOSE OF MEASURE:

To assess average wait time at our facilities

FREQUENCY:

Quarterly

DATA COLLECTION METHODOLOGY:

Verification of average wait times at our facilities for services

NATIONAL BENCHMARK:

N/A

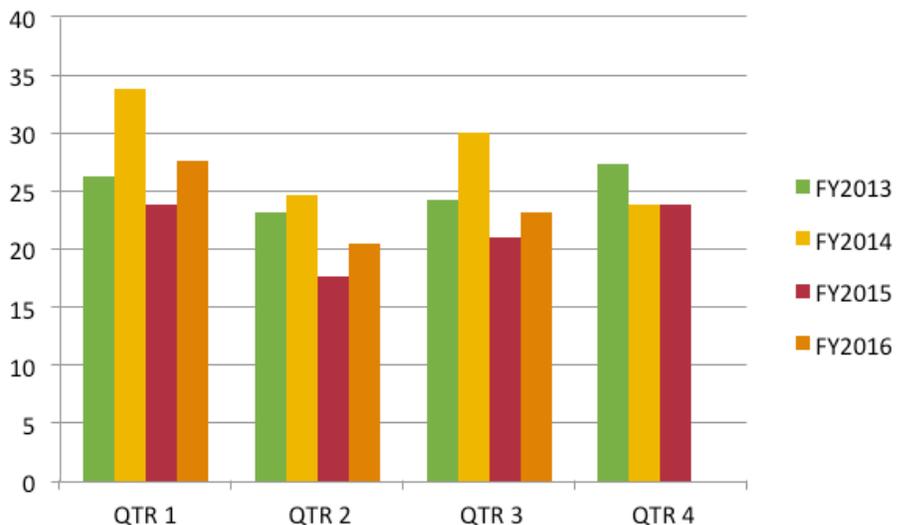
PERFORMANCE MEASURE 5.1C

Reliability of the Transportation Experience: Average Wait Time (MVA)

Customers of MDOT services expect reasonable wait times to obtain needed services. The reliability of transportation experiences was assessed through average wait times for service at our facilities.

This measure will allow MDOT to monitor and improve wait times for service at facilities. The data will be reported and reviewed quarterly.

The MVA will report the average wait time for customers to obtain services at the branches. The goal is 25 minutes.



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TANGIBLE RESULT DRIVER:

Phil Sullivan

Maryland Transit Administration (MTA)

PERFORMANCE MEASURE DRIVER:

Robert Pond

Maryland Transit Administration (MTA)

PURPOSE OF MEASURE:

To assess the percent of on-time performance of our transportation service by mode to ensure a more reliable transportation experience for our customer

FREQUENCY:

Quarterly

DATA COLLECTION METHODOLOGY:

Varies by Mode:

- Bus Data is collected by the CAD/AVL System
- Rail Mode data is collected by the modal control rooms
- Paratransit data is transmitted by on-board MDT to the Scheduling System or validated by a call from vehicle to a Manager upon rider pick up.

NATIONAL BENCHMARK:

Per APTA Standards Modal OTP Benchmarks are as follows:

Bus – 78%

Rail – 90%

Para-Transit – 92%

PERFORMANCE MEASURE 5.1D

Reliability of the Transportation Experience: On-Time Performance (MTA & MAA)

Reliability of transportation services is important to MDOT customers. Many rely on posted arrival and departure times to make needed connections and for critical appointments. This measure will allow the TBUs to focus resources where needed to improve on-time performance.

The public timetable has been referred to as “our contract with our riders.” On-Time Performance (OTP) is the measurement of our adherence to that contract. Maintaining a high level of OTP is of critical importance when providing ground transportation.

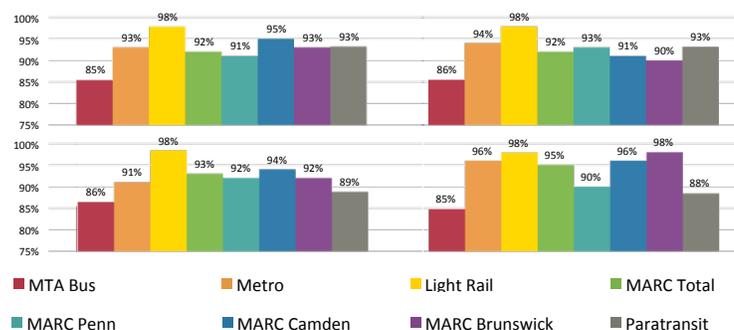
Whether a customer has a one-seat ride or needs to make a complex intermodal connection, the rider has an expectation that services will be provided reliably and as scheduled. MTA & MAA schedule adherence drives not only customer perception of the service we provide directly, but our efficient use of taxpayer dollars, management processes, and the efficiency and reliability of State Government.

Our commitment to continual improvement of OTP is evident in our current efforts to build routes that travel more efficiently throughout our service area utilizing schedules that accurately reflect passenger travel times.

The implementation of the BaltimoreLink bus system will result in bus service that is easier for riders to use, while simultaneously being easier to manage and get “back on time” in the event that challenges related to delivering urban mass transit cause service disruptions.

The results will be a more user-friendly, reliable system, as well as marked improvement in service delivery and the perception of mass transit services.

MTA Mode & MAA Ground Transportation On-Time Performance



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TANGIBLE RESULT DRIVER:

Phil Sullivan

Maryland Transit Administration (MTA)

PERFORMANCE MEASURE DRIVER:

John O'Neill

Maryland Transportation Authority (MDTA)

PURPOSE OF MEASURE:

To provide customers reliable travel times on State highways to key destinations

FREQUENCY:

Annually (in January)

DATA COLLECTION METHODOLOGY:

Formula based.

NATIONAL BENCHMARK:

A Planning Time Index (PTI) which is ≤ 1.5

PERFORMANCE MEASURE 5.1E

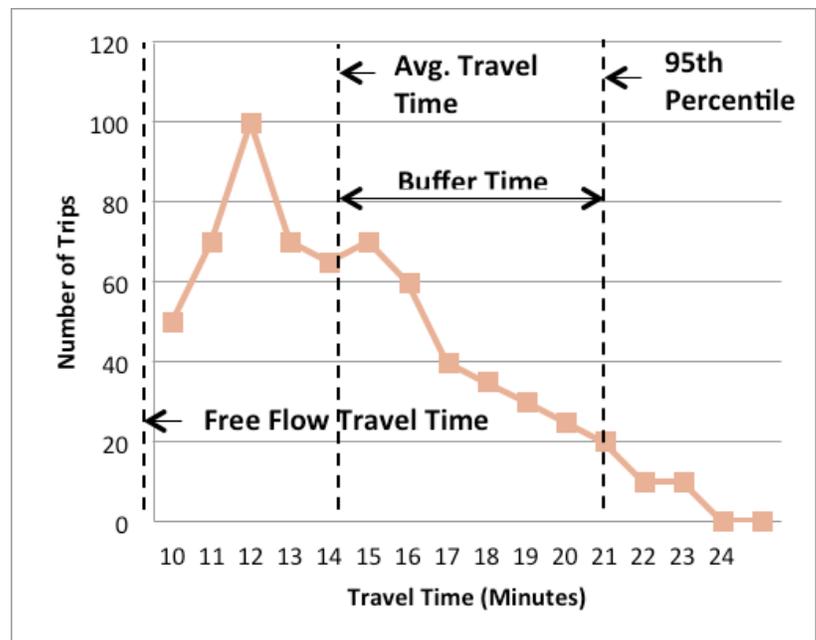
Reliability of the Transportation Experience: Planning Time Index for Highway Travel

MDOT highway customers expect reliable travel times on State highways to reach key destinations. Customers make decisions on when to depart for daily commute, travel connections and critical appointments based on the highway travel times.

The planning time index is a good tool to gauge the reliability of travel on these heavily utilized routes. Providing an index for travel times allows customers to plan extra time if the Planning Time Index is higher to arrive at their destination on time.

A PTI of < 1.5 is considered reliable and a PTI > 1.5 and < 2.5 is considered moderately unreliable and a PTI of > 2.5 is considered highly to extremely unreliable. The goal is to maintain travel times for customers to less than 1.5 times the expected free flow travel time for peak periods.

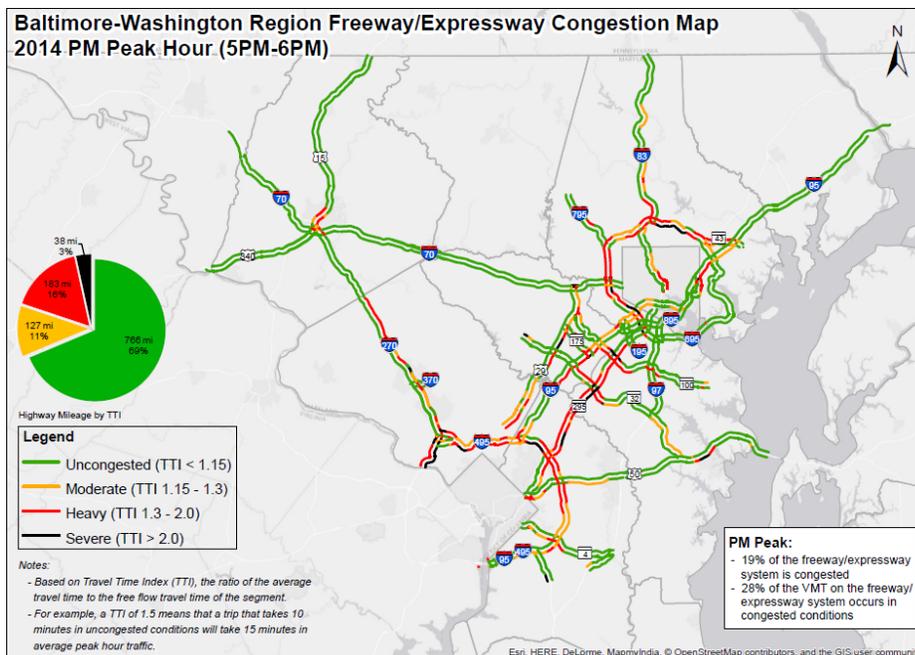
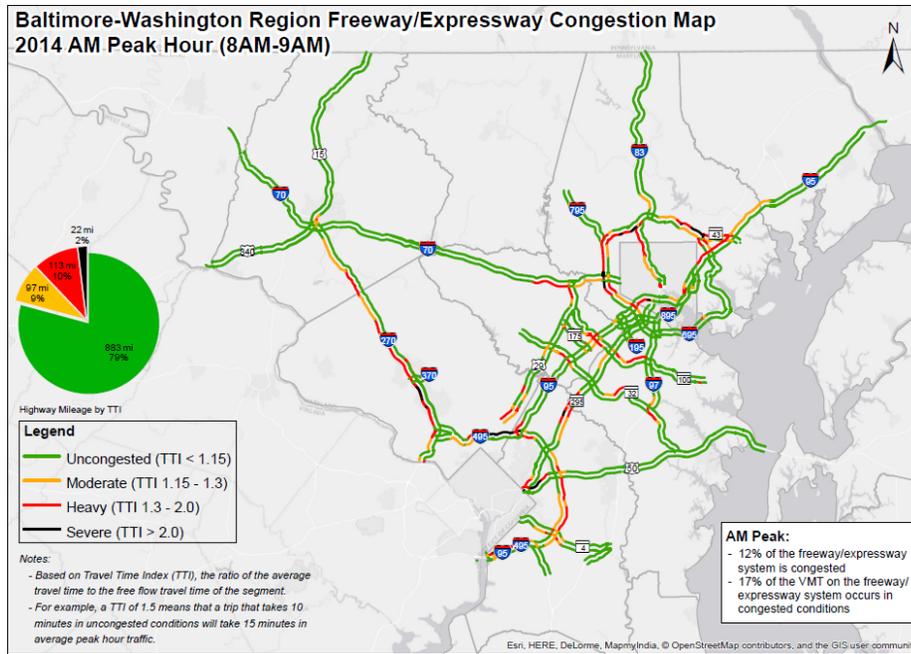
$$PTI = \frac{\text{95th percentile travel time}}{\text{free flow travel time}}$$



Provide an Efficient, Well-Connected Transportation Experience

PERFORMANCE MEASURE 5.1E

Planning Time Index for Highway Travel



Provide an Efficient, Well-Connected Transportation Experience

TANGIBLE RESULT DRIVER:

Phil Sullivan

Maryland Transit Administration (MTA)

PERFORMANCE MEASURE DRIVER:

Glenn McLaughlin

State Highway Administration (SHA)

PURPOSE OF MEASURE:

To understand the impact on efficiency of quickly restoring transportation services after incidents for customers

FREQUENCY:

Annually (in April)

DATA COLLECTION METHODOLOGY:

The methodology involves an analysis of operational records collected in real-time, and results are contingent on the scale, number and types of incident/disruptions

NATIONAL BENCHMARK:

North Carolina – 69 minutes

Missouri – 24 minutes

PERFORMANCE MEASURE 5.2A

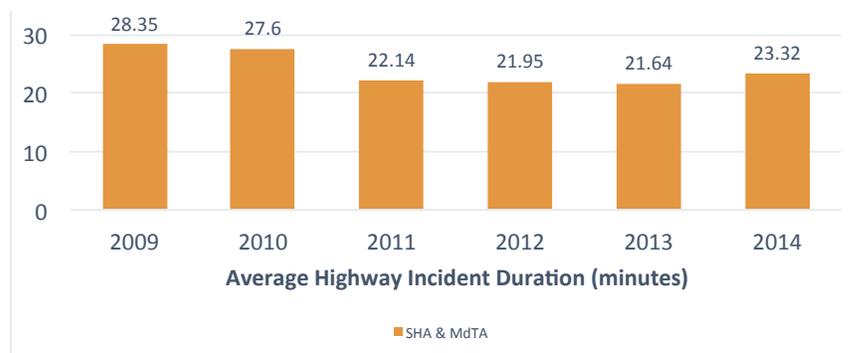
Maintenance of Continuity of Operations: Average Time to Restore Normal Operations After Disruptions

MDOT's customers expect a safe, well-maintained, efficient and reliable transportation system with minimal disruption to travel and rapid response to and management/clearance of incidents/disruptions when they occur. Efforts to enhance operations, improve coordination and cooperation among TBUs, and regional contribution to the reduction in response times and the overall average incident duration, restores the road more quickly for our customers.

To better understand the performance of the agency, SHA, through its Office of CHART & ITS Development, collects (through both in-house and independent evaluations) the average duration of incidents occurring on Maryland highways. The "average incident duration" is a measure of the time it takes a response unit to arrive, plus the elapsed time between the arrival of the first unit and the time stamp in the CHART system denoting the restoration of normal operating conditions. This data is tracked and recorded in real-time by Operators and the CHART system, and is reported on an annual basis.

As shown in the figure below, the average incident duration between calendar years 2009 and 2014 has consistently been less than 30 minutes, and has been less than the lower benchmark value (24 minutes – Missouri) for the last four years (2011 – 2014). Considering this, the desired short-term goal is to continue to identify strategies that will maintain the downward trend and facilitate further improvement in this area.

Average Highway Incident Duration (minutes)



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TANGIBLE RESULT DRIVER:

Phil Sullivan

Maryland Transit Administration (MTA)

PERFORMANCE MEASURE DRIVER:

Glenn McLaughlin

State Highway Administration (SHA)

PURPOSE OF MEASURE:

To understand the impact on efficiency of quickly restoring transportation services after weather events

FREQUENCY:

Annually (in April)

DATA COLLECTION METHODOLOGY:

The methodology involves an analysis of operational records collected in real-time, and results are contingent on the scale, number and types of weather events

NATIONAL BENCHMARK:

Missouri – 3.8 hours

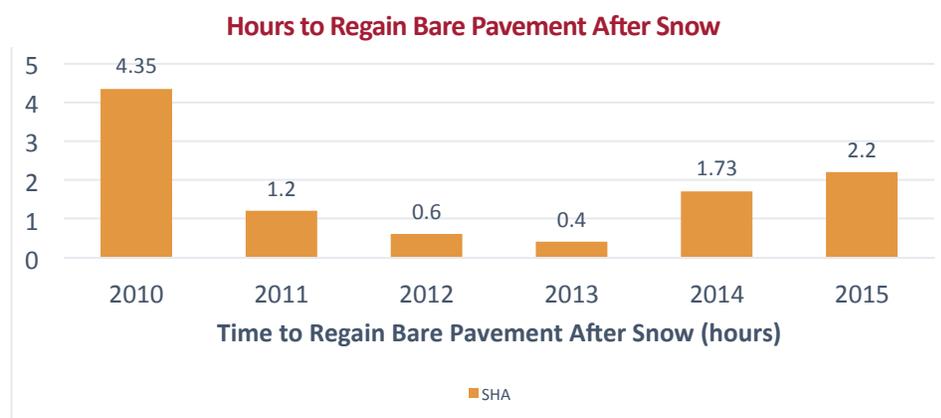
PERFORMANCE MEASURE 5.2B

Maintenance of Continuity of Operations: Average Time to Restore Normal Operations After a Weather Event

MDOT's customers expect a safe, well-maintained, efficient and reliable transportation system with minimal disruption to travel. Disruptions in travel due to inclement weather (snow, ice, etc.) require specialized operations experience and rapid response to restore normal operating conditions. This is important to customers who need to do business or take care of family and need access to the transportation system.

To better understand the performance of the agency, SHA, through its Office of Maintenance, collects data on the "average time to restore normal operations after weather events." Performance is tracked and measured against prior years to identify trends and improve statewide and local operations. The performance measure is calculated by identifying the lapse in time from the ending of frozen precipitation in a maintenance shop's area of responsibility and the occurrence of bare (wet or dry) pavements on the interstate and primary highways it maintains. The latest SHA-wide datum reported was for FY 2015 and is 2.2 hours (4 hours was the target).

As shown in the figure below, the average time to restore normal operations after weather events for the years 2011 through 2014 have consistently been less than the benchmark value (3.8 hours – Missouri). Considering this, the desired short-term goal is to continue to identify strategies to reduce time to restore normal operations after these events.



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TANGIBLE RESULT DRIVER:

Phil Sullivan

Maryland Transit Administration (MTA)

PERFORMANCE MEASURE DRIVER:

Sharon Rutzebeck

Motor Vehicle Administration (MVA)

PURPOSE OF MEASURE:

To measure percentage of services through alternate methods other than in-person visit as an indicator of easy and reliable access to MDOT services and products

FREQUENCY:

Semi-Annually (in April and October)

DATA COLLECTION METHODOLOGY:

Formula accounts for total customer transportation services and products compared to those acquired by alternate methods

NATIONAL BENCHMARK:

FY2018 - 68%

PERFORMANCE MEASURE 5.3

Percent of Transportation Services and Products Provided Through Alternative Service Delivery (ASD) Methods

MDOT customers want easy and reliable access to acquire transportation services and products. According to a 2015 Pew Research Center study, nearly two-thirds of Americans now own smartphones, and for many, these devices are a key entry point to the online world of securing services and goods.

Presently, MVA, SHA, MDTA and MTA provide transportation related services and products to customers through alternative service delivery (ASD) methods such as web, kiosk, call service center/IVR and mail-in. TSO and MAA are researching the possibility of providing alternate customer access where applicable.

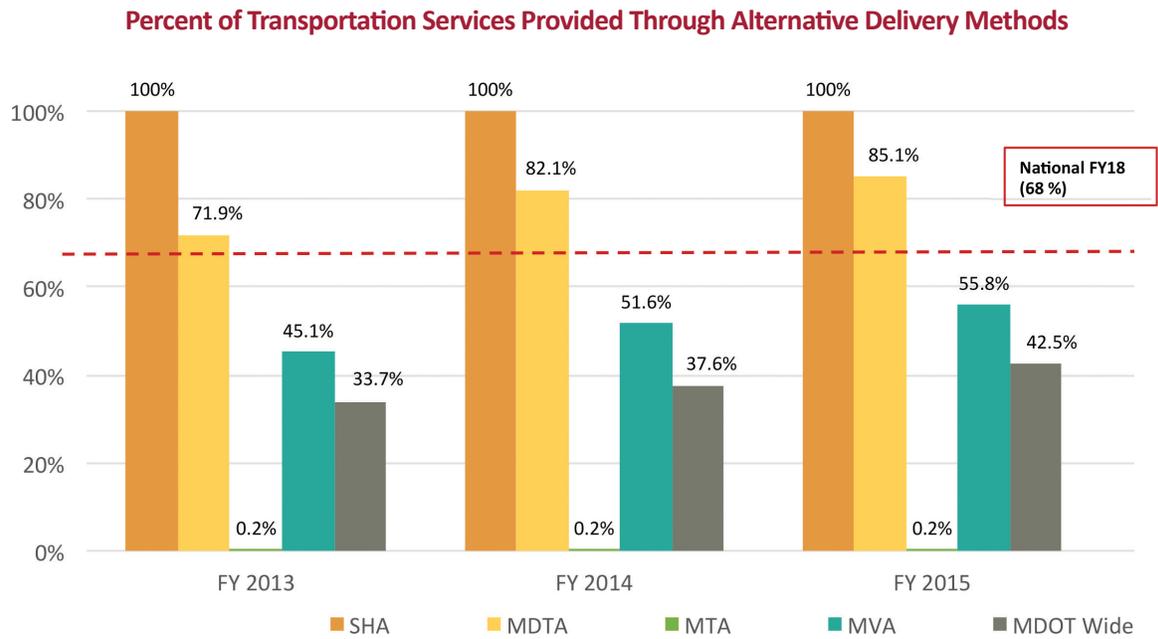
For the reporting period FY 2015 (July 2014 – June 2015), MVA conducted 57% of its customer transactions through ASD; SHA achieved 100% and MDTA was 84% of its total eligible services and products via alternate methods. Combined, these TBUs achieved an ASD rate of 78% which exceeds the FY 2018 national standard of 68%.



Provide an Efficient, Well-Connected Transportation Experience

PERFORMANCE MEASURE 5.3

Percent of Transportation Services Provided Through Alternate Service Delivery (ASD) Methods



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TANGIBLE RESULT DRIVER:

Phil Sullivan
Maryland Transit Administration (MTA)

PERFORMANCE MEASURE DRIVER:

Ralign T. Wells
Maryland Aviation Administration (MAA)

PURPOSE OF MEASURE:

To assess the functionality and value of real-time signage and information systems offered

FREQUENCY:

Quarterly for functionality
Annually for customer satisfaction (in July)

DATA COLLECTION METHODOLOGY:

Sampling of real-time signage or IVR systems to determine a percentage of functionality.

Survey users to assess their opinion of usefulness and satisfaction with Real-Time Information Systems

NATIONAL BENCHMARK:

85%-90% Functionality¹

¹ According to Clever Devices, Industry experts on Real-Time Information technologies

PERFORMANCE MEASURE 5.4A AND 5.4B

Percent of Functional Real-Time Information Systems Provided; Reliance and Customer Satisfaction with the Accuracy of Real-Time Signage Provided

MDOT customers of MTA, MVA, MAA, SHA and MDTA, benefit from “real-time” information systems installed throughout the transportation network offering users the most accurate information available to help them prepare for, and manage their time while using, statewide transportation services. For example, MTA Light Rail and bus services and MAA shuttles have or will soon offer next vehicle arrival information signage. MVA offers Interactive Voice Response (IVR) systems, providing users with predicted wait time information. CHART, a joint effort of MDOT, MDTA, SHA and the Maryland State Police (MSP) in cooperation with federal, state and local agencies, uses a teamwork approach and state of the art technology to provide “real-time” travel information to highway network users.

These real-time systems must be operational at all times to ensure that users have access to the best available information. System inspections are critical to ensuring that the information systems are functioning as designed. Further, annual surveys are being developed to assess customer satisfaction with the real-time information system.

5.4 Percent(%) of Functional Real-Time Information Systems Provided FY2016

