



# **EXCELLERATOR**

**Performance Management System**

4th Quarter of CY2018



January 2019



# A Message From the Governor



“Our administration is committed to developing innovative solutions that deliver what Marylanders want – an affordable and reliable transportation system. By implementing a comprehensive program of accountability and continual improvements, we will deliver a better transportation system for the citizens of Maryland.”

“This is another step our administration is taking to Change Maryland for the Better!”

– **Larry Hogan**, *Governor*



The Maryland Department of Transportation and its Transportation Business Units proudly present the official mission statement.



## MISSION STATEMENT

**“The Maryland Department of Transportation is a customer-driven leader that delivers safe, sustainable, intelligent, and exceptional transportation solutions in order to connect our customers to life’s opportunities.”**

# A Message From the Secretary

My Fellow Marylanders,

I am proud that the Maryland Department of Transportation Excellerator Performance Management System is in its third year. We have made great strides in developing and implementing performance measures, refining strategies and focusing on delivering results for our customers.

We have created more than 150 individual performance measures that touch every aspect of our business throughout the organization. Whether we are building and maintaining our roads and bridges, running safe and efficient bus and rail systems, operating an international port and airport or improving the vehicle and driver registration process for Marylanders, we stand strong in our commitment and responsibility to deliver the best transportation products and services for our customers.

Every quarter we review our progress and share our results online for public inspection and within the organization through a live stream of our quarterly review meeting.

This allows all 10,271 MDOT employees the opportunity to see the impact of the work they do each day and how they contribute to running a safe and secure transportation system.

Most importantly, we are delivering results. As we respond faster to customer inquiries, become increasingly efficient in using our resources wisely and providing a stronger foundation for economic development for the State, we will continue to deliver exceptional customer service and create more value for those who live and travel throughout Maryland.

I invite you to continue to review our MDOT Excellerator program as we continue down the path of constant progress towards outstanding results.



**Pete K. Rahn**  
*Secretary*

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## Tangible Results

## Frequency Driver

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	1.2a - Average Number of Days for Correspondence in the MDOT IQ System	Quarterly	Trey Hanna, MAA
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	2.7f - Overall Satisfaction of MDOT Road Network	Annually	Sejal Barot, SHA
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<b>Tangible Result # 3: Provide a Safe and Secure Transportation Infrastructure</b>			<b>Sarah Clifford, MDTA</b>
3.1	Number of Crimes Against Persons and Property Committed at MDOT Facilities	Quarterly	Bud Frank, TSO
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	4.4c - Interstate Preservation	Annually	Jim Harkness, MDTA
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	5.1b - Average Truck Turn Time per at Seagirt	Annually	Jeffrey Gutowski, MPA
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5.4	Functionality of Real-Time Information Systems (RTIS)		
	5.4a - Percent of Functional Real-Time Information Systems Provided	Annually	Ralign Wells, MAA
	5.4b - Customer Satisfaction with Helpfulness and Accuracy of Real-Time Systems Provided	Annually	Ralign Wells, MAA
<b>Tangible Result # 6: Communicate Effectively With Our Customers</b>			<b>Kelly Tarver, TSO</b>
6.1	Communicate Effectively Utilizing Social Media		
	6.1a - Social Reach	Quarterly	Kat Cahill, MVA
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6.2	Satisfaction with Communication at Public Meetings	Semi-Annually	Juan Torrico, MTA
6.3	Communicate Effectively through News Releases		
	6.3a - Number of News Stories Generated from Major Releases	Quarterly	Jonathan Dean, MAA
	6.3b - Earned Media Value of Print and Broadcast Coverage Generated by News Releases	Quarterly	Valerie Burnette Edgar, SHA
	6.3c - Evaluate Tone of News Stories by Publications Generated from MDOT Releases	Quarterly	Valerie Burnette Edgar, SHA
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	6.4a - Reach of Pickups of Proactive Stories	Quarterly	Jonathan Dean, MAA
	6.4b - Reach of MDOT – Produced Content	Quarterly	Jonathan Dean, MAA
	6.4c - Reach of Proactive Stories Published on Social Media	Quarterly	Jonathan Dean, MAA
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<b>Tangible Result # 7: Be Fair and Reasonable To Our Partners</b>			<b>Wanda Dade, SHA</b>
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7.2	Number and Percent of Contracts Awarded to MBE Firms as the Prime Contractor	Quarterly	William Villanueva, MAA
7.3	Percent of Payments Awarded to Small Business Reserve (SBR) Contracts	Quarterly	Trisha O’Neal, MPA
7.4	Percent of Veteran Owned Small Business Enterprise (VSBE) Participation	Annually	Cheryl Stambaugh, MVA
7.5	Level of Satisfaction of Our Business Partners	Quarterly	Walida Johnson, MDTA
7.6	Number and Percent of Invoices Properly Paid to Partners in Compliance with State Requirements	Quarterly	Ken Haynie, MTA
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<b>Tangible Result # 8: Be a Good Neighbor</b>			<b>Anthony Crawford, SHA</b>
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8.2	Percent of MDOT Facilities that are ADA Compliant	Annually	Mark Burkhardt, MTA Terri Whitehead, MVA
8.3	Number of Traffic Violations While Driving a State Vehicle	Quarterly	David Seman, TSO
8.4	Charity Campaign Participation	Annually	Jill Lemke, MPA
<b>Tangible Result # 9: Be a Good Steward of Our Environment</b>			<b>Dorothy Morrison, TSO</b>
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	9.1b - Water Quality Treatment to Protect and Restore the Chesapeake Bay	Annually	Sonal Ram, SHA
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9.2	Land Pollution Prevention		
	9.2a - Office Waste Recycled	Annually	Hargurpreet Singh, MVA
	9.2b - Non-Office Waste Recycled	Annually	Hargurpreet Singh, MVA
	9.2c - Recycled/Reused Materials from Maintenance Activities and Construction/ Demolition Projects	Annually	Chandra Chithaluru, MPA
	9.2d - Litter Pickup	Semi-Annually	Robert Frazier, MTA
9.3	Fuel Efficiency		
	9.3a - Miles Per Gallon	Annually	Paul Truntich Jr., MDTA
	9.3b - Total Gallons Consumed	Annually	Paul Truntich Jr., MDTA
	9.3c - Utility Electricity Use	Quarterly	Laura Rogers, TSO
	9.3d - Renewable Energy Generation	Quarterly	Laura Rogers, TSO

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9.4	Air Quality		
	9.4a - Publicly Available Electric Vehicle Charging Infrastructure & Total Electric Vehicles Registered in Maryland	Quarterly	Colleen Turner, TSO
	9.4b - Air Quality Emissions	Quarterly	Colleen Turner, TSO
<b>Tangible Result # 10: Facilitate Economic Opportunity in Maryland</b>			<b>Jim Dwyer, MPA</b>
10.1	Economic Return from Transportation Investment (Jobs Generated by Total Capital Program Construction Investments)	Annually	Karuna R. Pujara, SHA
10.2	Maryland's Ranking in National Transportation Infrastructure Assessment	Annually	Karuna R. Pujara, SHA
10.3	Freight Mobility		
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	10.3b - Port of Baltimore International Cargo Market Share and Rankings	Quarterly	Cole Greene, MTA
	10.3c - MPA Total General Cargo Tonnage including these Strategic Commodities: Containers, Autos, RoRo and Imported Forest Products	Monthly	Deborah Rogers, MVA
10.4	Number and Percentage of Bridges on the State-Owned System that are Weight-Posted	Annually	Rafael Espinoza, MDTA
10.5	Change in Market Access due to Improvements in the Transportation Network	Annually	Corey Stottlemeyer, TSO
10.6	Change in Productivity due to Improvements in the Transportation Network	Annually	Corey Stottlemeyer, TSO
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	10.7a - Total User Cost Savings for the Traveling Public due to Congestion Management	Annually	Subrat Mahapatra, SHA
	10.7b - Average Cost per Branch Customer due to Wait Time	Annually	Deborah Rogers, MVA
	10.7c - Opportunity Cost Savings to Customer for ASD Usage	Annually	Deborah Rogers, MVA
10.8	Percent of VMT in Congested Conditions on Maryland Freeways and Arterials in the AM/PM Peak Hours	Annually	Subrat Mahapatra, SHA
10.9	Market Share		
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	10.9c - Percent of Passengers and Departing Flights Relative to Benchmark Airports	Quarterly	Jack Cahalan, MAA
10.10	Percent of Roadway Access Permits Issued within 21 Days or Less	Quarterly	Glen Carter, TSO

## TANGIBLE RESULT #1

# Provide Exceptional Customer Service



Every MDOT employee is responsible for delivering exceptional customer service by providing customers with respectful, timely and knowledgeable responses to all inquiries and interactions.

### RESULT DRIVER:

Leslie Dews

*Motor Vehicle Administration (MVA)*

# Provide Exceptional Customer Service

## TANGIBLE RESULT DRIVER:

Leslie Dews

Motor Vehicle Administration (MVA)

## PERFORMANCE MEASURE DRIVER:

Sean Adgeron

Maryland Transit Administration (MTA)

## PURPOSE OF MEASURE:

To track MDOT's progress towards its mission of providing exceptional customer service.

## FREQUENCY:

Annually (in February)

## DATA COLLECTION METHODOLOGY:

Data is collected through a standardized survey of randomly selected Marylanders.

## NATIONAL BENCHMARK:

N/A

## PERFORMANCE MEASURE 1.1

### Percent of Overall Customer Satisfaction

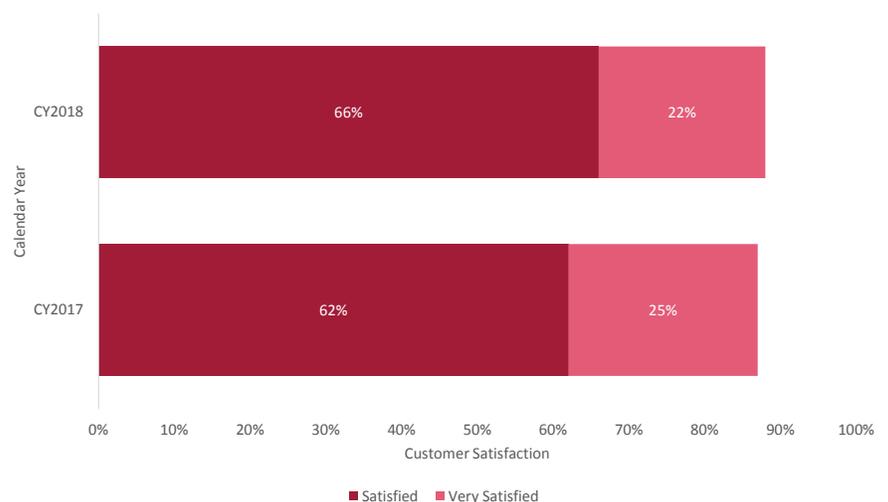
Maryland residents expect MDOT will deliver exceptional services and products. Measuring our percent of overall customer satisfaction is the best way to determine if we are delivering exceptional customer service. It also identifies areas of strength, opportunity, and weakness that should be addressed.

From August of 2018 through October of 2018, a survey was conducted by the Schaefer Center for Public Policy at the University of Baltimore to gauge the satisfaction with and opinions of MDOT services across the State. A little over 800 Marylanders over the age of 18 participated in the telephone survey.

The results of the survey revealed that 88 percent of Marylanders are satisfied with the services received from MDOT. This represents a 1 percent improvement over 2017's results and continues the positive trend in MDOT's overall customer satisfaction rating.

In addition to the overall customer satisfaction results, we were able obtain more information on the MDOT services that matter the most to Marylanders. We were able to obtain feedback related to how they feel MDOT is doing with how our employees interact with them, how safe they feel on the highway system, how we are doing with data security, how robust are our online services, and how well are we doing with the use of innovative technologies.

Chart 1.1.1: Overall MDOT Customer Satisfaction Rating CY2018



# Provide Exceptional Customer Service

## PERFORMANCE MEASURE 1.1

### Percent of Overall Customer Satisfaction

Chart 1.1.2: Overall Customer Satisfaction with Phone Contact MDOT-Wide CY2018

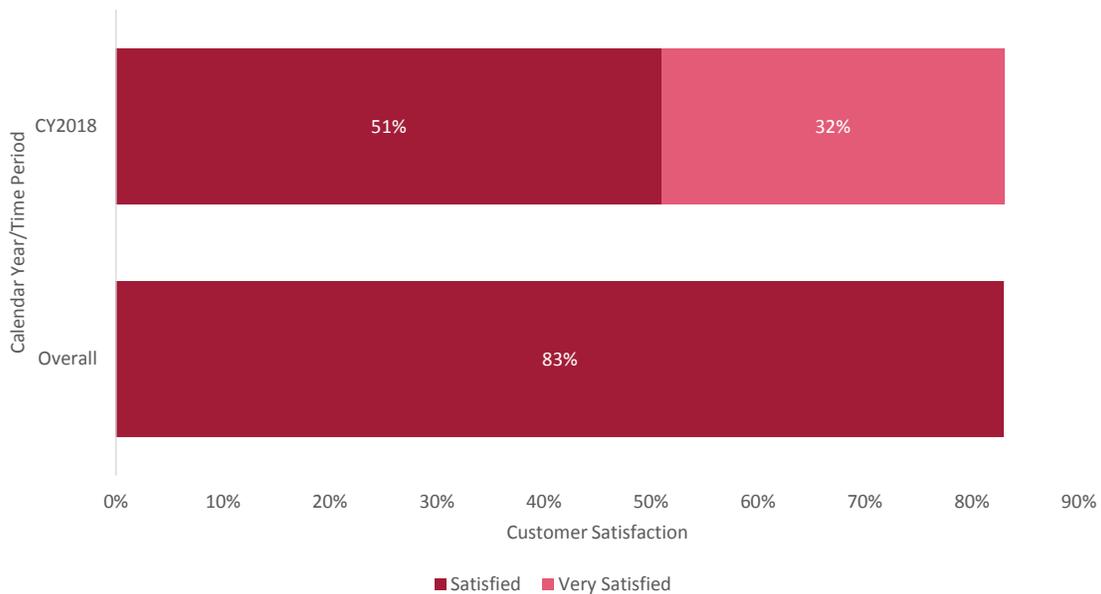
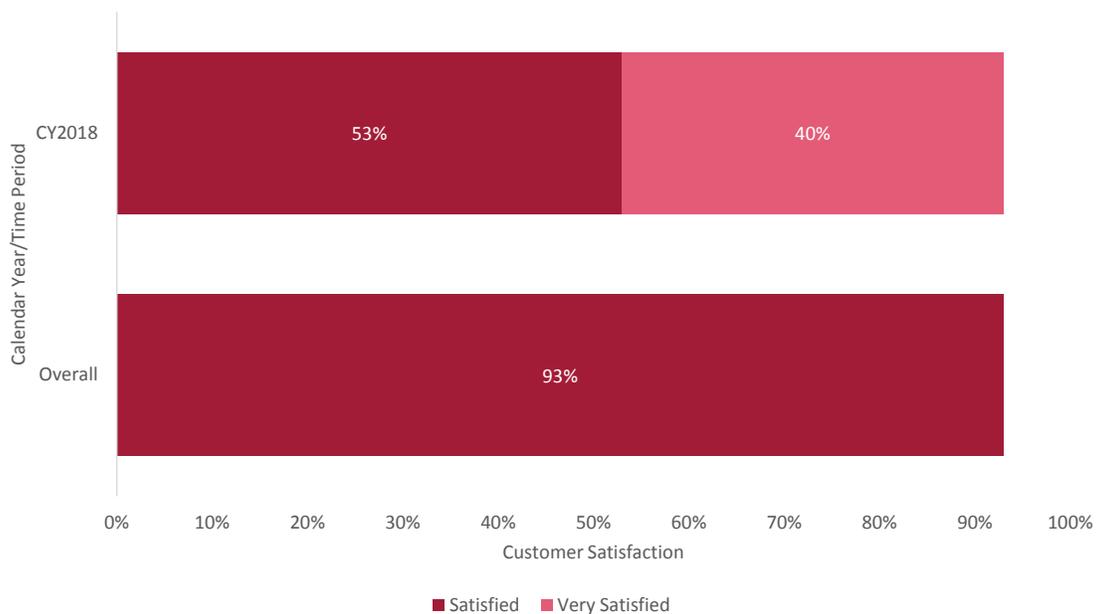


Chart 1.1.3: Overall Customer Satisfaction with Online Services MDOT-Wide CY2018



# Provide Exceptional Customer Service

## TANGIBLE RESULT DRIVER:

Leslie Dews  
*Motor Vehicle Administration (MVA)*

## PERFORMANCE MEASURE DRIVER:

Trey Hanna  
*Maryland Aviation Administration (MAA)*

## PURPOSE OF MEASURE:

To track responsiveness to customer inquiries.

## FREQUENCY:

Quarterly (Data is Monthly)

## DATA COLLECTION METHODOLOGY:

MDOT IQ system.

## NATIONAL BENCHMARK:

30 days (MDOT established benchmark).

## PERFORMANCE MEASURE 1.2A

### Responsiveness to MDOT Customer Correspondence: Average Number of Days for Correspondence in the MDOT IQ System

Timely responses to customer correspondence communicates the importance MDOT places on addressing customer needs and demonstrates the organization's commitment to exceptional customer service. Inquiries, service requests, ideas, and concerns conveyed in customer correspondence often identify opportunities to improve the overall customer experience and satisfaction with MDOT.

This measure identifies MDOT's performance in responding to letters from customers sent directly to the Governor's Office. For the period of October 1, 2018 through December 31, 2018, MDOT closed 577 responses to customer correspondence assigned by the Governor's Office. The average number of days for MDOT response was 27 days compared to 35 days in Q4 2017. Total volume increased by 10 letters from Q4 2017 to Q4 2018.

Several variables have a role in determining MDOT response time to customer correspondence. While some responses to customers can be easily researched and turned around quickly, other letters involving legislative issues, proposed projects, studies, or other complicated concerns can impact the required approvals and turnaround times. MDOT processed 3,095 letters referred by the Governor's Office for CY2018 compared to only 2,379 letters in CY2017.

MDOT has invested in both people and training to improve response times and addressed the increased volume. MDOT will continue to invest where needed to ensure employees are responsive to all customers. Improvements include identifying training needs and providing one-on-one training where needed, working with MDOT leaders to address specific issues impacting turnaround times within the TBUs, and coordinating with the Governor's Office for writing responses.

MDOT is developing and testing an online training module designed to improve writing quality and adherence to correspondence guidelines for all employees and contractors. This training, combined with the annual correspondence meeting, illustrates MDOT's commitment to enhance management standards and best practices.

## PERFORMANCE MEASURE 1.2A

Responsiveness to MDOT Customer Correspondence: Average Number of Days for Correspondence in the MDOT IQ System

Chart 1.2A.1: Average Number of Days to Respond to Correspondence in MDOT IQ System by TBU Q4 CY2017-CY2018

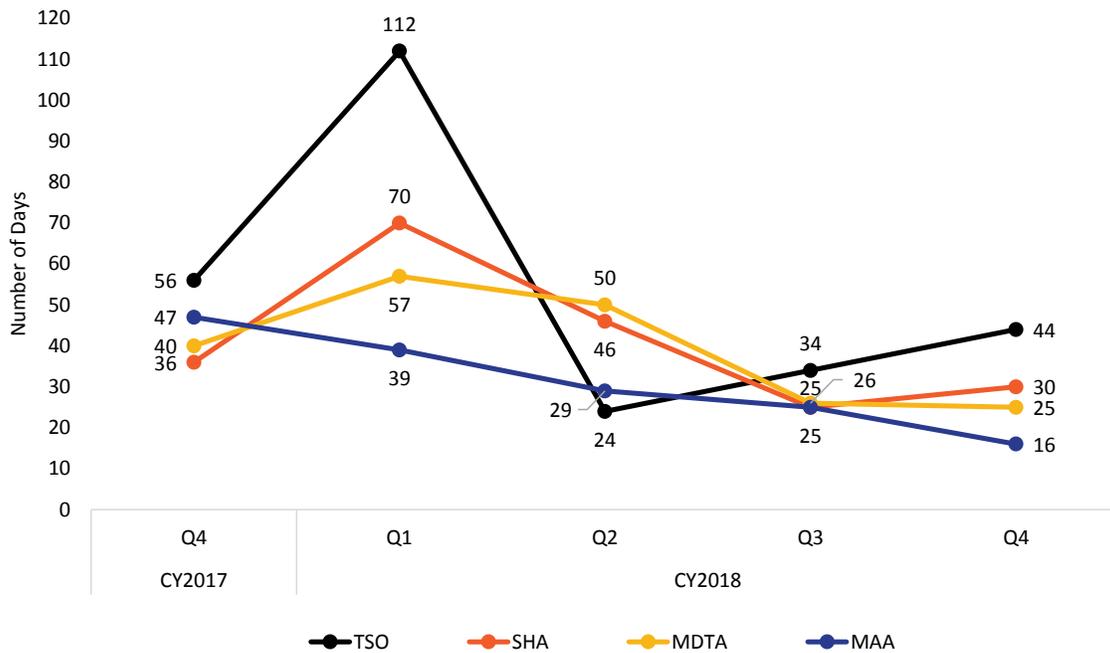
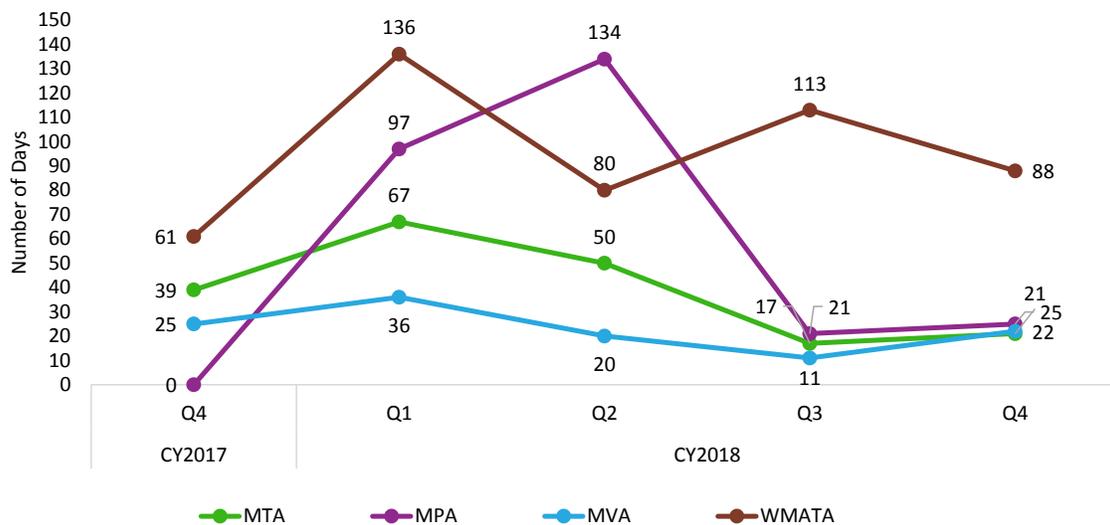


Chart 1.2A.2: Average Number of Days to Respond to Correspondence in MDOT IQ System by TBU Q4 CY2017-CY2018

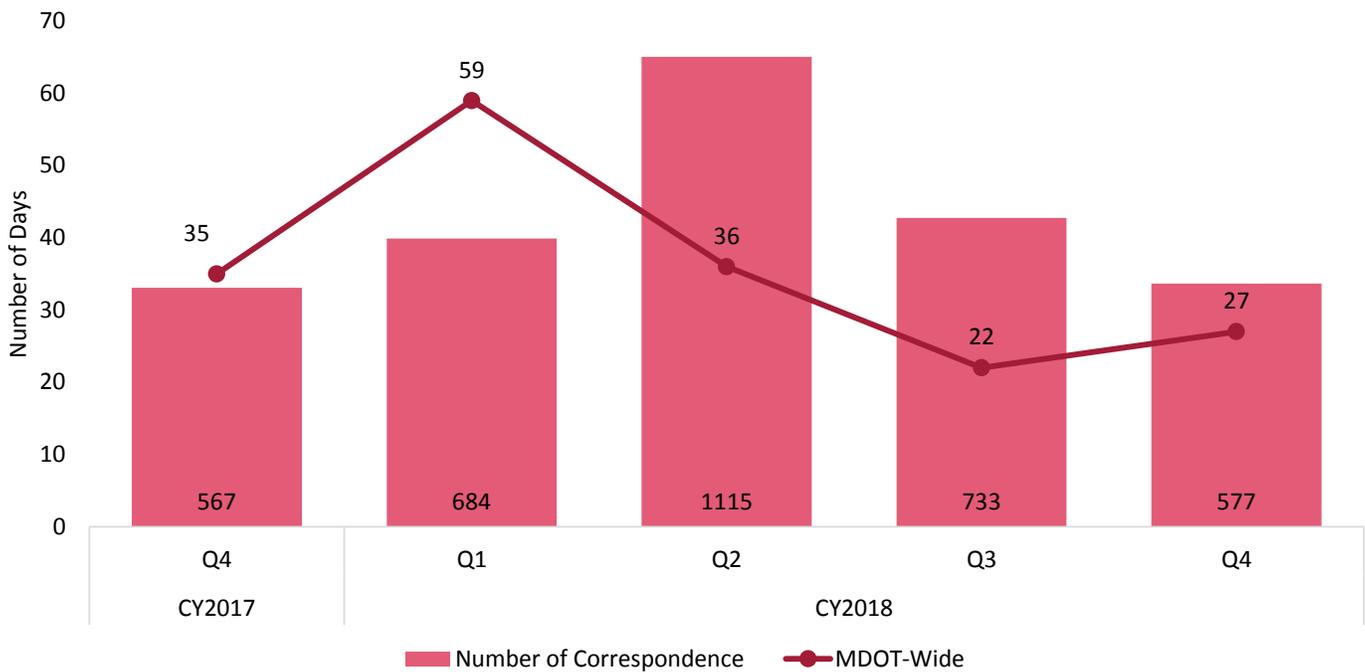


# Provide Exceptional Customer Service

## PERFORMANCE MEASURE 1.2A

Responsiveness to MDOT Customer Correspondence: Average Number of Days for Correspondence in the MDOT IQ System

Chart 1.2A.3: Average Number of Days to Respond to Correspondence in MDOT IQ System MDOT-Wide Q4 CY2017-CY2018



# Provide Exceptional Customer Service

## TANGIBLE RESULT DRIVER:

Leslie Dews

*Motor Vehicle Administration (MVA)*

## PERFORMANCE MEASURE DRIVER:

John Timmins

*Maryland Port Administration (MPA)*

## PURPOSE OF MEASURE:

To track the rate of the responsiveness to direct customer contact.

## FREQUENCY:

Quarterly (Data is Monthly)

## DATA COLLECTION METHODOLOGY:

Database metrics provided by TBUs.

## NATIONAL BENCHMARK:

N/A

## PERFORMANCE MEASURE 1.2B

### Responsiveness to MDOT Customer Correspondence: Percent of Customer Contact Responded to within 24 hours (One Business Day)

MDOT customers interact directly with TBUs in many ways (e.g., phone, email, letters, social media, etc.) and each have an expectation for the response time. Regardless of the contact method, MDOT is committed to ensuring a rapid and accurate response to customer inquiries, requests and issues. As such, MDOT intends to respond to customers within one business day regardless of their method of communication.

The establishment of a standard of 24 hours/one business day for response to all customer contact and achieving that goal demonstrates to customers the organization's commitment to exceptional customer service and ensures a workforce that is highly proficient in and knowledgeable about our business and focused on the needs of our customers.

The realization of this standard, while challenging given that TBUs currently use different systems for collection and reporting and have varying standards for response to customer contact, will set the organization on a sustainable path of exceptional customer service.

Analysis of existing systems, policies and procedures has been ongoing with the goal to have reportable data on customer contact from all TBUs.

For Q3 2018, MDOT was able to report on the performance of three TBUs (MVA, MTA and MDTA) related to this measure. The charts show MDOT performance in responding to customer contact within 24 hours related to phone calls, email/web contact and social media for January through September CY2018. For Q3 2018, 72 percent of telephone contacts, 66 percent of email/web contacts and 100 percent of social media contacts were responded to within 24 hours.

MDOT continues to work on both short-term and long-term solutions to develop a comprehensive approach for managing customer contact across all TBUs. The goal is to provide consistent, exceptional service to our customers in a manner that is responsive and timely. This work entails analysis of existing systems, policies and procedures and other barriers to the achievement of this measure.

# Provide Exceptional Customer Service

## PERFORMANCE MEASURE 1.2B

Responsiveness to MDOT Customer Correspondence: Percent of Customer Contact Responded to within 24 hours (One Business Day)

Chart 1.2B.1: Percent of Customer Telephone Contacts Responded to within 24 Hours (One Business Day) CY2018

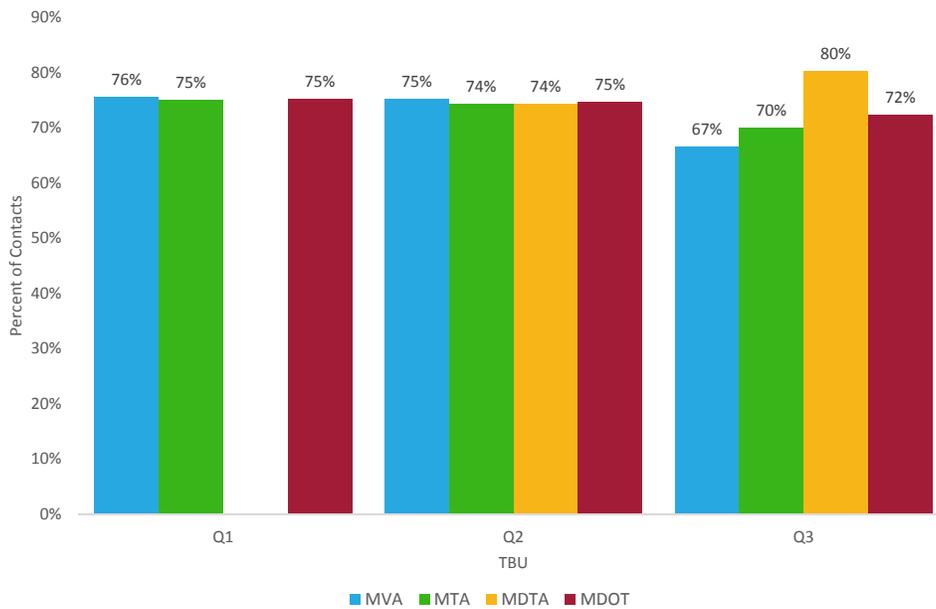
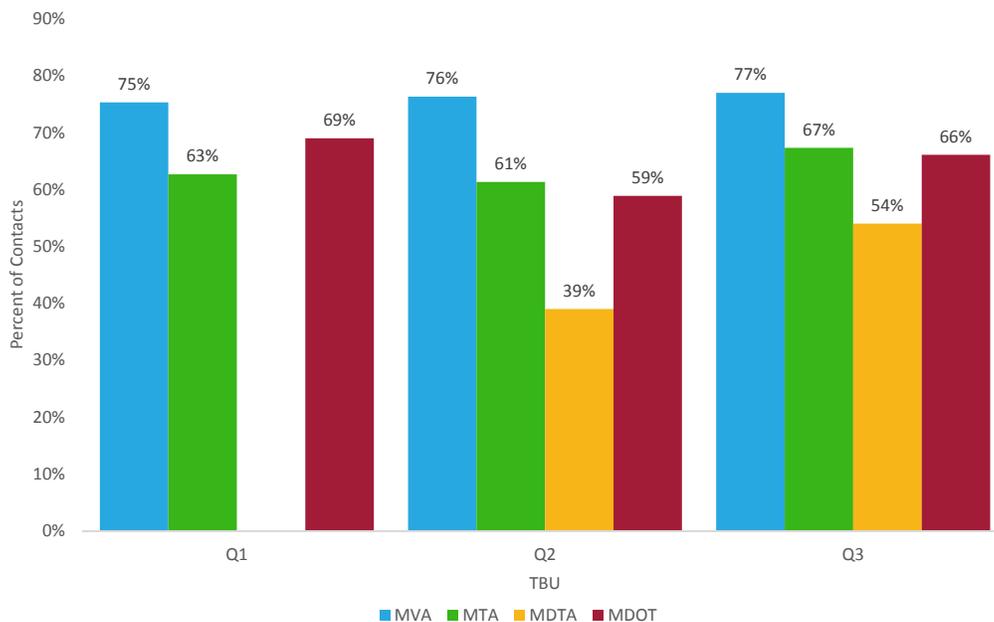


Chart 1.2B.2: Percent of Customer Email/Eweb Contacts Responded to within 24 Hours (One Business Day) CY2018

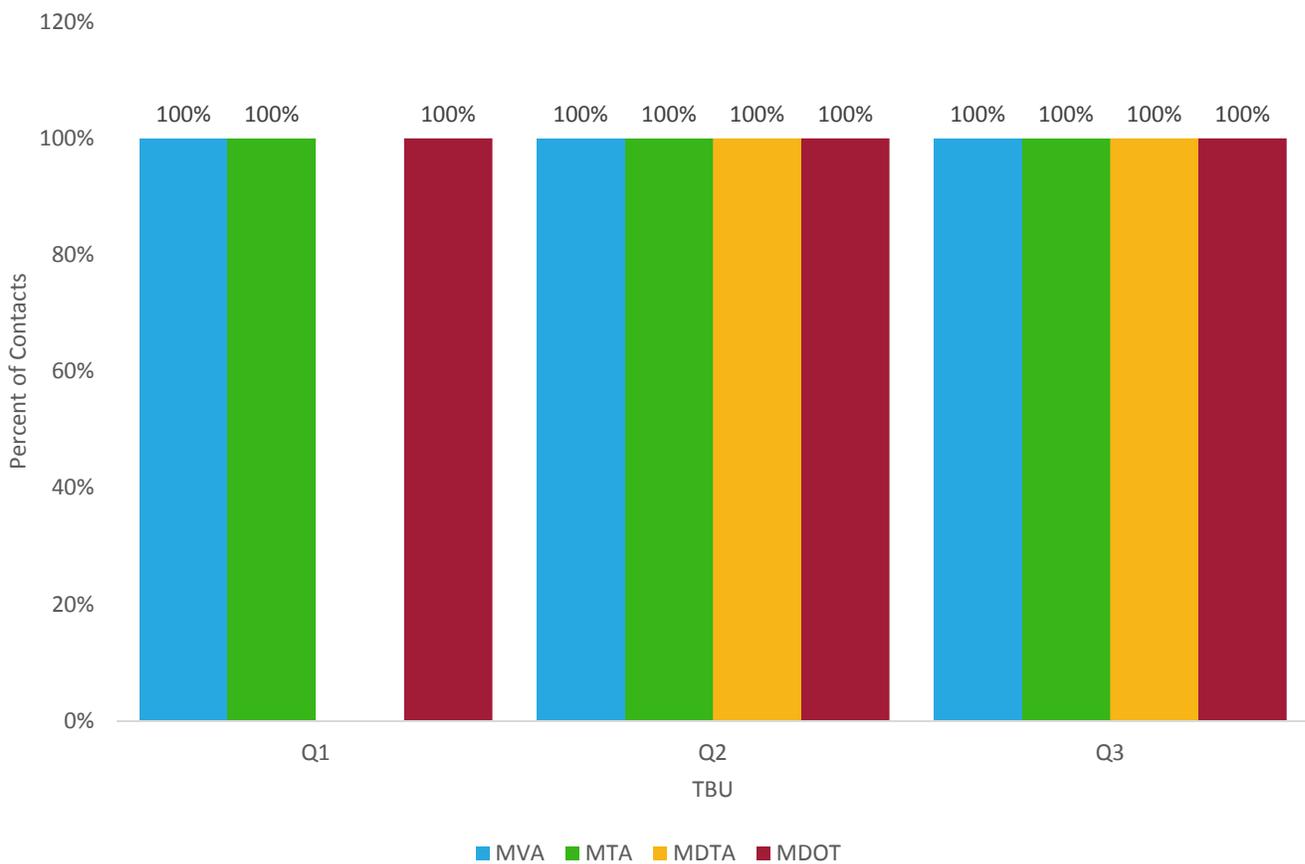


# Provide Exceptional Customer Service

## PERFORMANCE MEASURE 1.2B

Responsiveness to MDOT Customer Correspondence: Percent of Customer Contact Responded to within 24 hours (One Business Day)

Chart 1.2B.3: Percent of Customer Social Media Contacts Responded to within 24 Hours (One Business Day) CY2018



# Provide Exceptional Customer Service

## TANGIBLE RESULT DRIVER:

Leslie Dews

*Motor Vehicle Administration (MVA)*

## PERFORMANCE MEASURE DRIVER:

Darol Smith

*Maryland Transportation Authority (MDTA)*

## PURPOSE OF MEASURE:

To identify the percentage of customers not connecting or speaking with call centers resulting from not receiving goods or services from MDOT.

## FREQUENCY:

Quarterly

## NATIONAL BENCHMARK:

Seven percent average sampled industry leader (no national industry standard available).

## PERFORMANCE MEASURE 1.3A

### Customer Satisfaction with Receiving Goods and Services: Percent of Abandoned Calls at Call Centers

Reducing the rate of abandoned calls to MDOT call centers will ensure that more customers reach MDOT to address their needs. The longer the time customers must wait before being connected to a call center agent, the higher the abandon rate. The inability of customers to connect with MDOT representatives negatively impacts their level of satisfaction with the goods and services received from the organization.

As shown in Chart 1.3A.1, for the period of October 1 – December 31, 2018, the abandonment rate was 9 percent, slightly higher than the benchmark of 7 percent. This is due largely to an increase at two TBUs. In comparison to previous years, the 9 percent in Q4 CY2018 is significantly higher than the 4 percent achieved in Q4 CY2017 but is equal to the 9 percent in Q4 in CY2016 and slightly lower than the 10 percent in CY2015.

Targeted process improvements and other changes are influencing the results at individual TBU call center operations. They are evaluated continuously to determine effectiveness and to ensure improvements in call center performance. Changes implemented to enhance the performance of MDOT call center operations include:

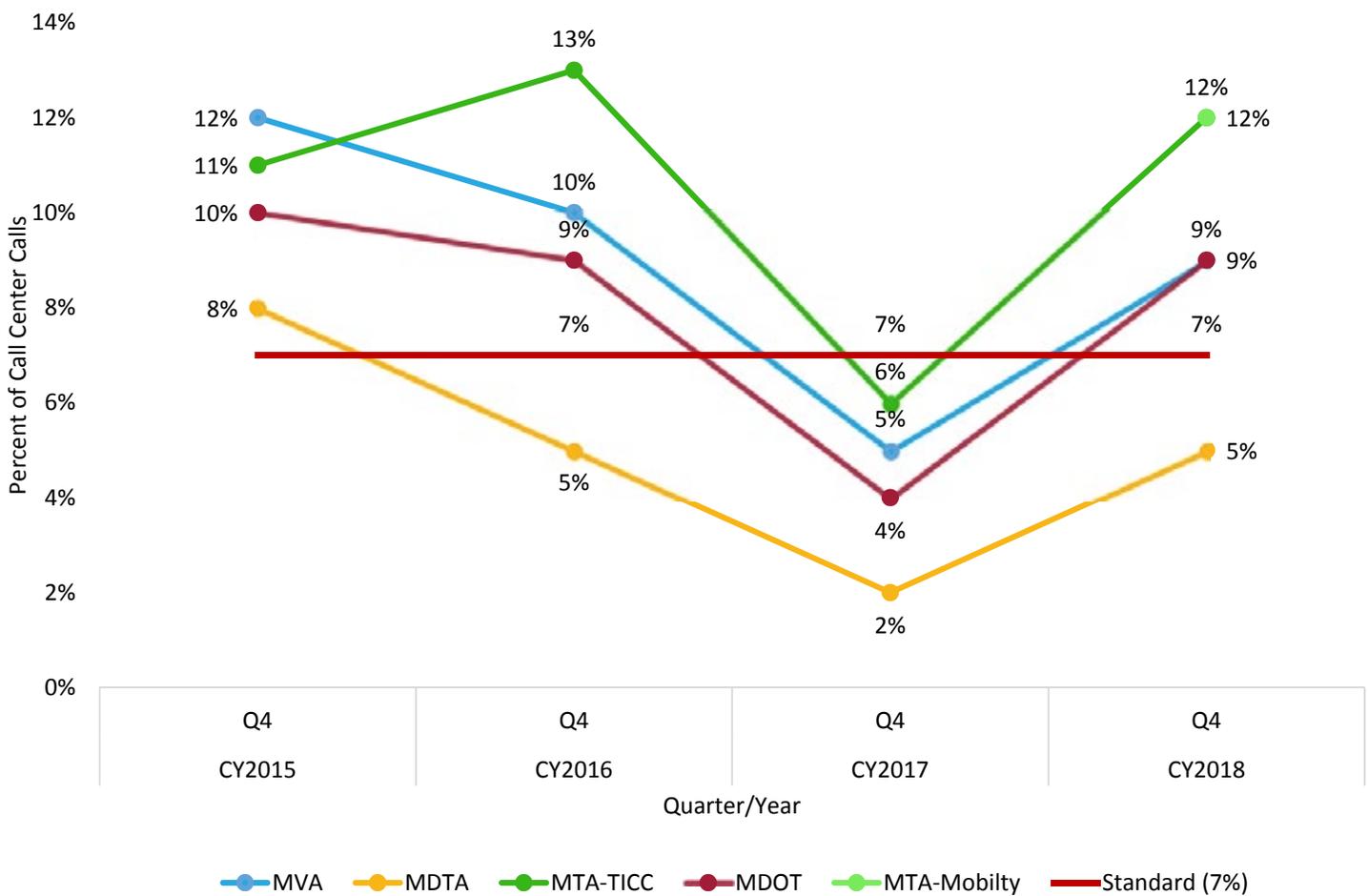
- Conducting biweekly meetings with call center representatives across TBUs to discuss issues and best practices.
- Continuing a triage process to reduce call wait times;
- Revamping Interactive Voice Response (IVRs) so that customers can reach agents or conduct phone transactions more rapidly; and
- Expanding hours.

# Provide Exceptional Customer Service

## PERFORMANCE MEASURE 1.3A

Customer Satisfaction with Receiving Goods and Services: Percent of Abandoned Calls at Call Centers

Chart 1.3A.1: Percent Abandoned Calls at MDOT Call Centers in Q4 CY2015-CY2018

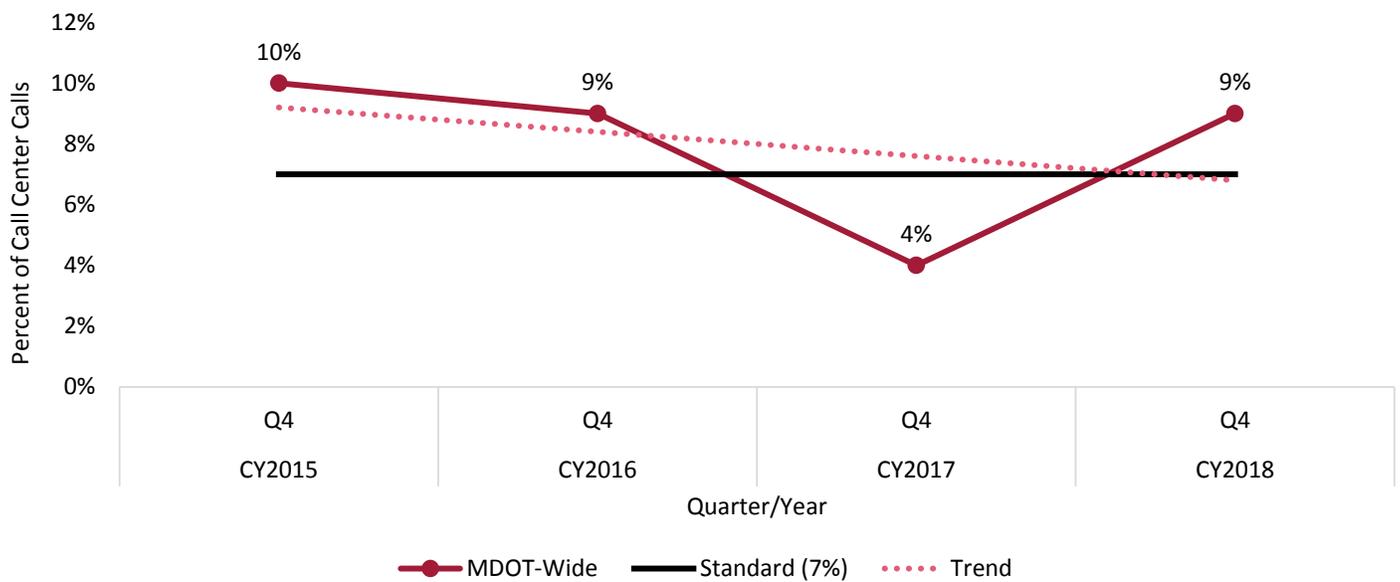


# Provide Exceptional Customer Service

## PERFORMANCE MEASURE 1.3A

Customer Satisfaction with Receiving Goods and Services: Percent of Abandoned Calls at Call Centers

Chart 1.3A.2: MDOT-Wide Percent of Abandoned Calls at Call Centers vs. Call Center Volume in Q4 CY2015-CY2018



# Provide Exceptional Customer Service

## TANGIBLE RESULT DRIVER:

Leslie Dews  
*Motor Vehicle Administration (MVA)*

## PERFORMANCE MEASURE DRIVER:

Darol Smith  
*Maryland Transportation Authority (MDTA)*

## PURPOSE OF MEASURE:

To collect and evaluate the time it takes the average customer to wait before speaking with the call center to answer phone inquiries.

## FREQUENCY:

Quarterly

## DATA COLLECTION METHODOLOGY:

Database metrics provided by TBUs. Average amount of time caller waits.

## NATIONAL BENCHMARK:

60 seconds average sampled industry leaders (no national industry standards available).

## PERFORMANCE MEASURE 1.3B

### Customer Satisfaction with Receiving Goods and Services: Average Call Wait Times at Call Centers

Providing consistent and responsive service to our customers is a top priority for MDOT. Reducing the time it takes for customers to reach MDOT call center representatives ensures customer needs are addressed more rapidly and increases their satisfaction with the support and overall customer service provided by MDOT. It can also identify areas of opportunity for improvement in call center operations.

The current performance result of 1:51 for Q4 CY2018 remains higher than the benchmark of 60 seconds, and higher than the 1:29 results for same period Q3 CY2018. MDOT's performance for CY2018 was 1:38, slightly higher than CY2017 results of 1:24 in this critical measure of customer service.

When evaluating the same four quarter results for CY2017 and CY2016, the average call wait time was 1:24 and 3:23 respectively versus 1:38 for CY2018.

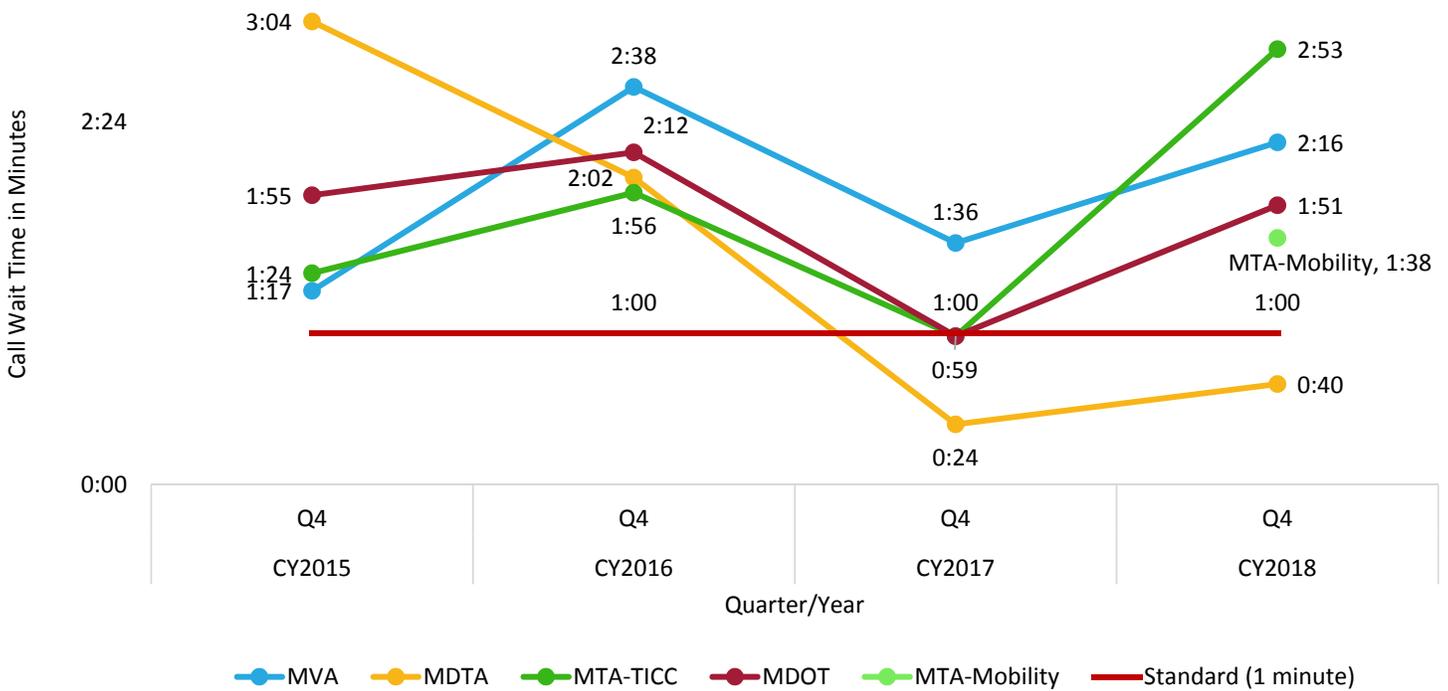
Targeted process improvements such as collaboration across TBU call centers, staff augmentation, adoption of best practices and other operational and technology changes are influencing the direction for MDOT call center operations.

# Provide Exceptional Customer Service

## PERFORMANCE MEASURE 1.3B

Customer Satisfaction with Receiving Goods and Services: Average Call Wait Times at Call Centers

Chart 1.3B.1: Average Call Wait Times at MDOT Call Centers in Q4 CY2015-CY2018

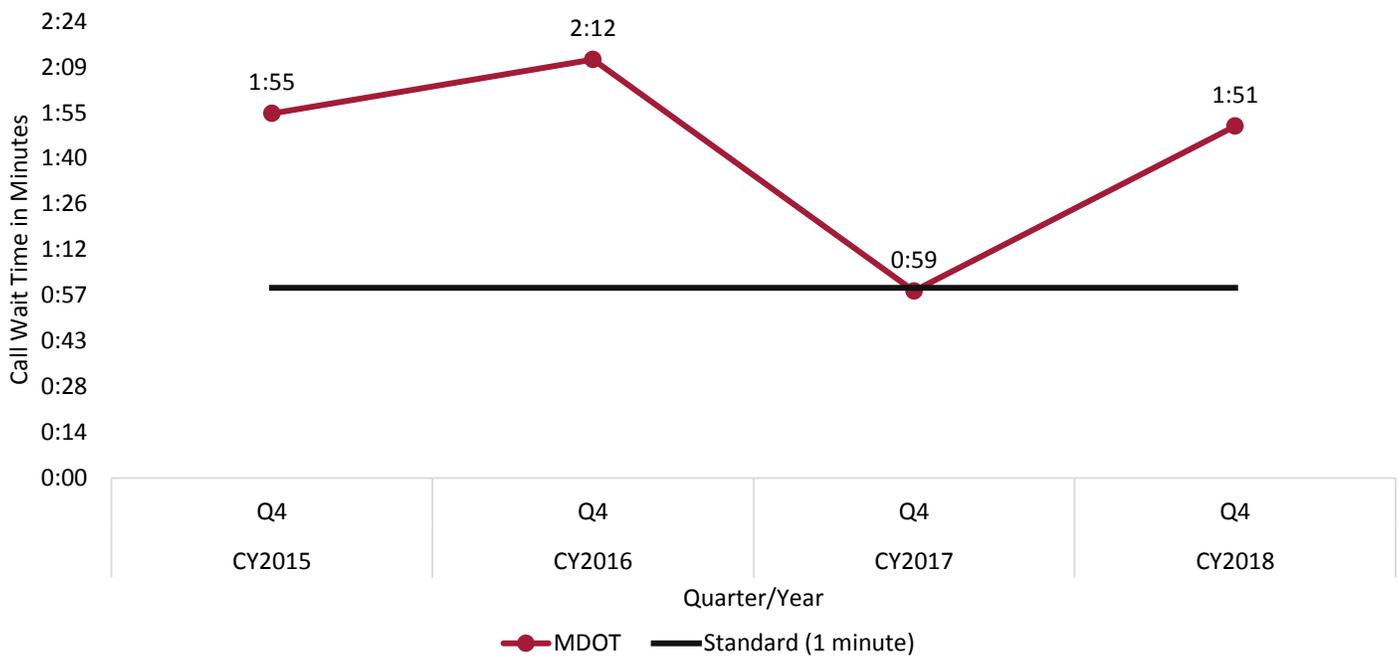


# Provide Exceptional Customer Service

## PERFORMANCE MEASURE 1.3B

Customer Satisfaction with Receiving Goods and Services: Average Call Wait Times at Call Centers

Chart 1.3B.2: Average Call Wait Times at MDOT Call Centers MDOT-Wide in Q4 CY2015-CY2018



# Provide Exceptional Customer Service

## TANGIBLE RESULT DRIVER:

Leslie Dews  
*Motor Vehicle Administration (MVA)*

## PERFORMANCE MEASURE DRIVER:

Darol Smith  
*Maryland Transportation Authority (MDTA)*

## PURPOSE OF MEASURE:

To assess customer satisfaction with call centers in resolving call inquiries.

## FREQUENCY:

Quarterly

## DATA COLLECTION METHODOLOGY:

Phone survey of call center customers.

## NATIONAL BENCHMARK:

82 percent average sampled industry leaders (no national industry standard available).

## PERFORMANCE MEASURE 1.3C

### Customer Satisfaction with Receiving Goods and Services: Level of Satisfaction with Resolving Call Inquiries at Call Centers

The level of satisfaction with resolving call inquiries is an indicator of whether MDOT is meeting customer expectations. MVA is currently the only call center that has a data collection mechanism for this performance measure.

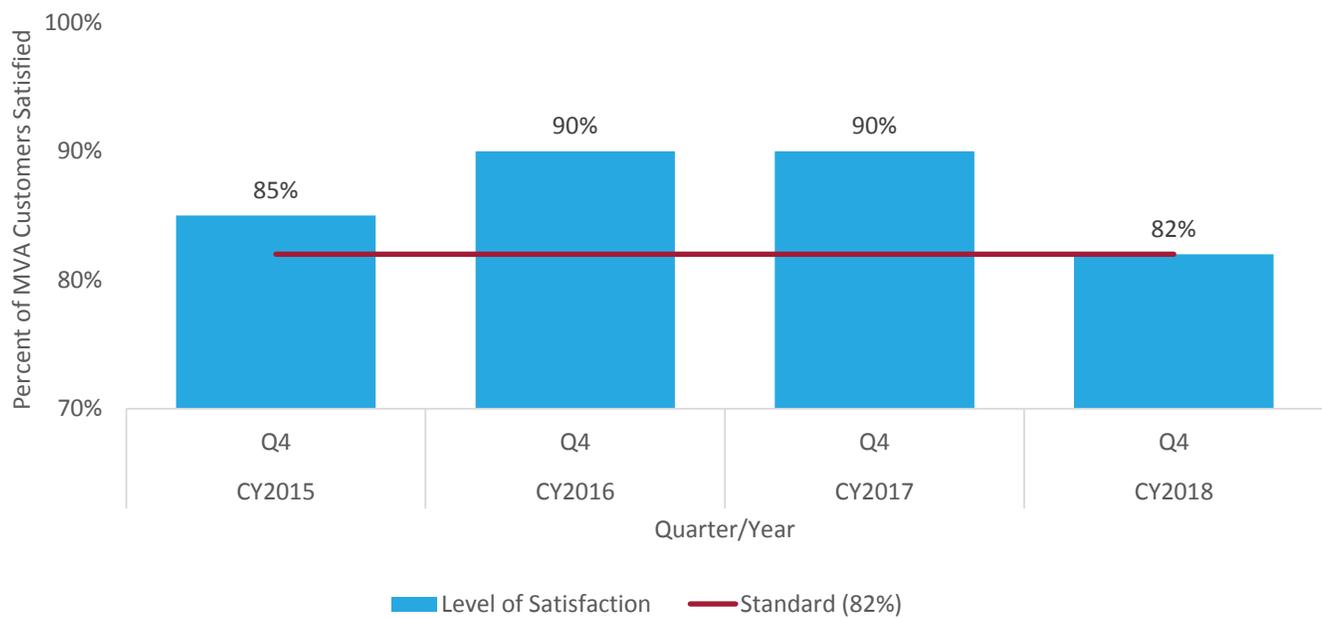
As shown in Chart 1.3C.1, for Q4 CY2018, MVA achieved 82 percent average level of satisfaction with resolving call inquiries which is equal to the benchmark of 82 percent. The average level of satisfaction is lower in comparison to the same period in CY2017 where the average level of satisfaction was 89 percent and lower than the same period in CY2016 where the average level of satisfaction was 90 percent. CY2018 continues to track above or equal to the benchmark.

A focus on process improvement and other changes is influencing the positive results at MDOT call centers. We continue to work on a mechanism to capture customer satisfaction for all TBU call centers. Changes to the MVA call center to enhance customer service and performance include consolidating call center operations, expanding hours and implementing a call triage process to reduce call wait times.

## PERFORMANCE MEASURE 1.3C

Customer Satisfaction with Receiving Goods and Services: Level of Satisfaction with Resolving Call Inquiries at Call Centers

Chart 1.3C.1: Level of Satisfaction with Resolving MVA Call Inquiries in Q4 CY2015-CY2018



# Provide Exceptional Customer Service

## TANGIBLE RESULT DRIVER:

Leslie Dews  
*Motor Vehicle Administration (MVA)*

## PERFORMANCE MEASURE DRIVER:

Sabrina Bass  
*The Secretary's Office (TSO)*

## PURPOSE OF MEASURE:

To better determine how satisfied MDOT customers are when interacting with MDOT representatives.

## FREQUENCY:

Annually (in February)

## DATA COLLECTION METHODOLOGY:

Data was collected through a telephone survey conducted by the University of Baltimore.

## NATIONAL BENCHMARK:

N/A

## PERFORMANCE MEASURE 1.4

### Customer Satisfaction with Interactions with MDOT Representatives

Ensuring that every customer contacting MDOT has access to knowledgeable, professional and courteous MDOT representatives improves the overall customer experience and builds trust in the organization and its products and services.

The Schaefer Center for Public Policy at the University of Baltimore conducted a survey to gauge the satisfaction with and opinions of MDOT services across the State. Chart 1.4.1 shows that for CY2018, 89 percent rated the thoroughness and accuracy of information provided by MDOT representatives as good or excellent, representing a 4 percent increase from CY2017. The survey also revealed that 83 percent of respondents believed MDOT personnel provided friendly and courteous service, an increase of 3 percent from CY2017. The survey also showed a 4 percent improvement in the timeliness in our services from CY2017 to CY2018 with 71 percent of respondents rating the speed of service provided as good or excellent.

MDOT continues to implement strategies to improve customer service. Each TBU has a customer service plan that includes mandatory customer service training for all employees, which aligns with the Governor's statewide customer service initiative. The results will be used to enhance training and improve customer service provided by MDOT representatives.

# Provide Exceptional Customer Service

## PERFORMANCE MEASURE 1.4

### Customer Satisfaction with Interactions with MDOT Representatives

Chart 1.4.1: Customer Satisfaction with MDOT Representatives - Friendliness or Courteousness of Staff CY2018

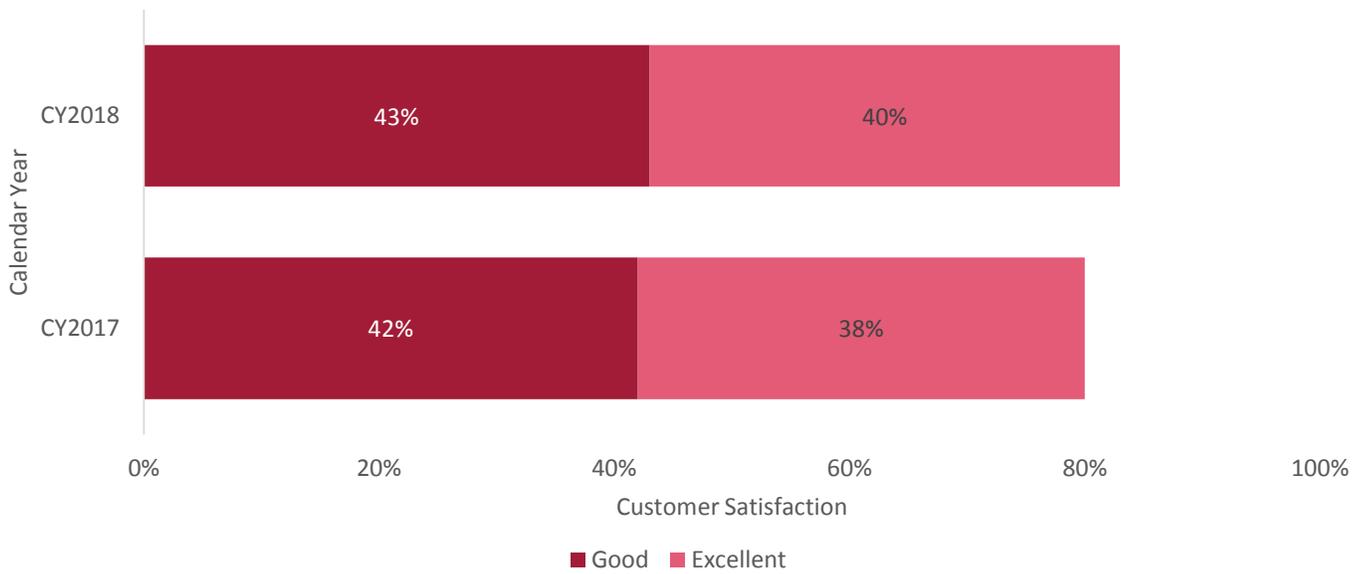
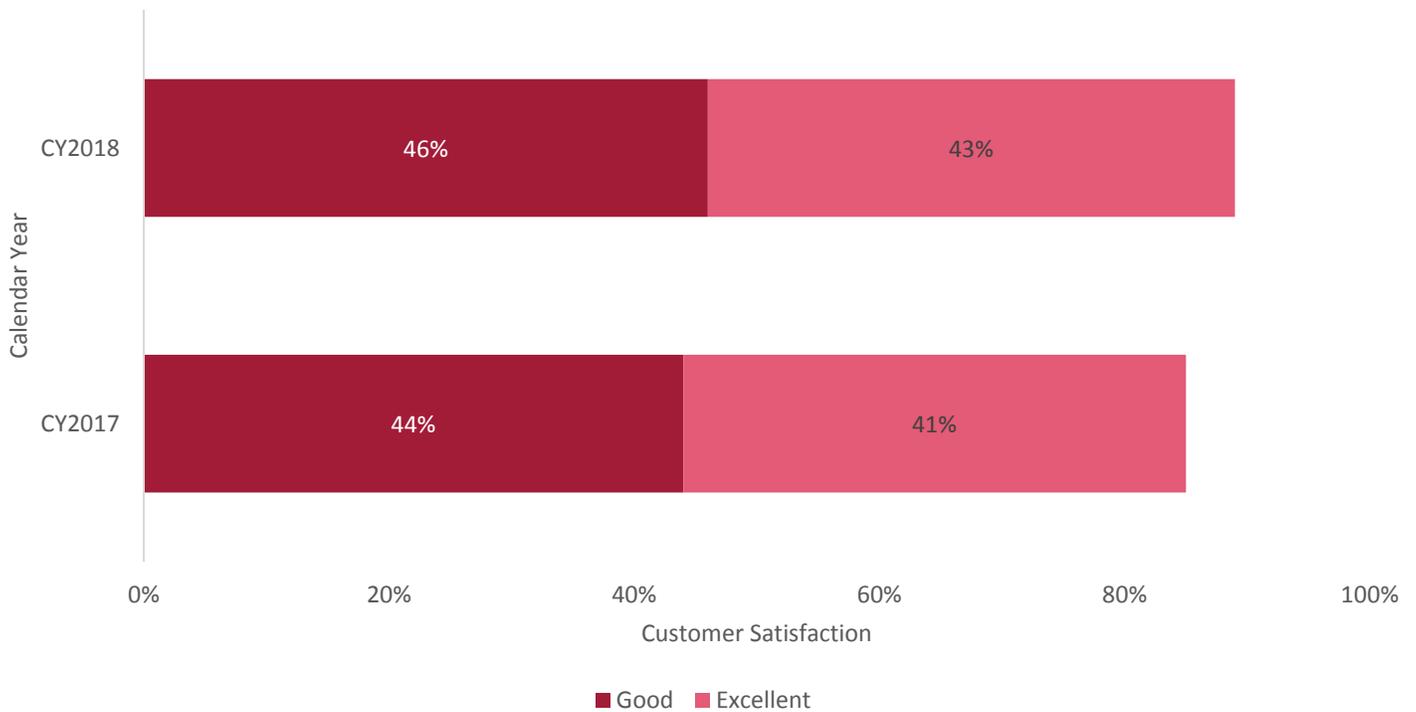


Chart 1.4.2: Customer Satisfaction with MDOT Thoroughness and Accuracy of Information or Service CY2018

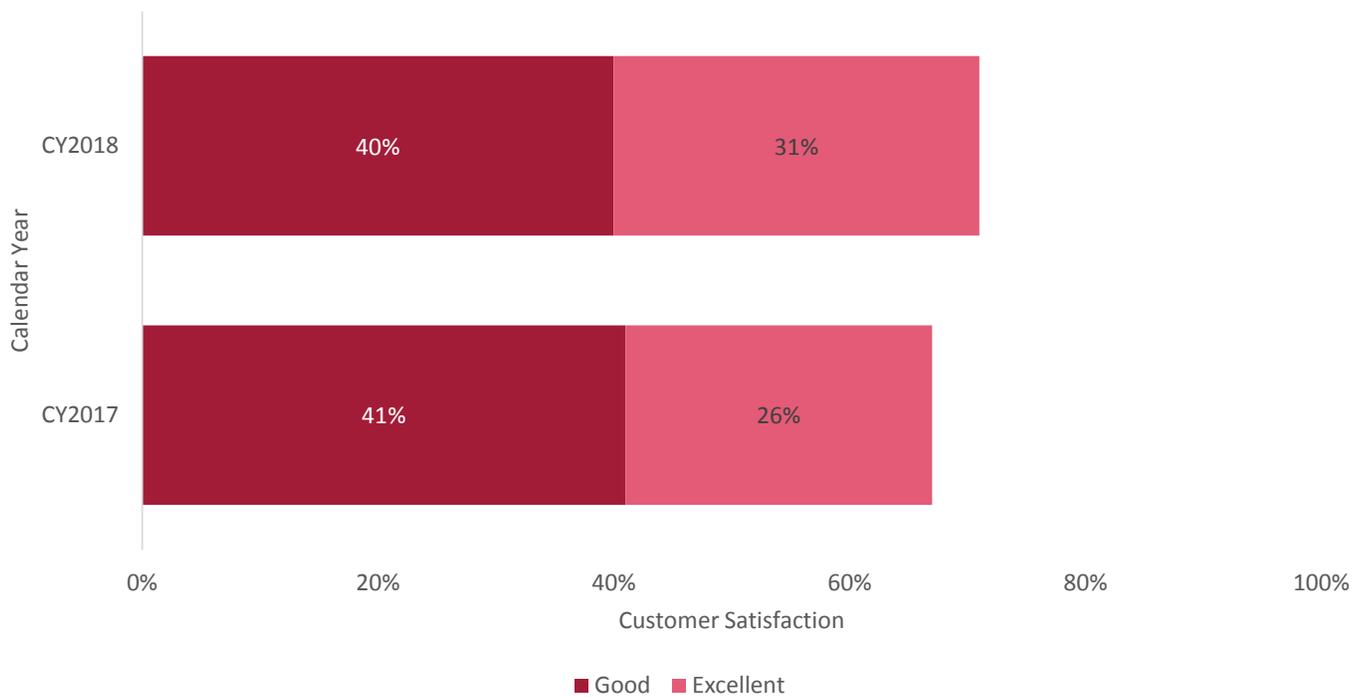


# Provide Exceptional Customer Service

## PERFORMANCE MEASURE 1.4

### Customer Satisfaction with Interactions with MDOT Representatives

Chart 1.4.3: Customer Satisfaction with MDOT - Timeliness or Speed of the Service Provided CY2018



# Provide Exceptional Customer Service

## TANGIBLE RESULT DRIVER:

Leslie Dews

*Motor Vehicle Administration (MVA)*

## PERFORMANCE MEASURE DRIVER:

Lindsey Franey

*State Highway Administration (SHA)*

## PURPOSE OF MEASURE:

To show how satisfied MDOT customers are when interacting with the website and the usefulness of the information.

## FREQUENCY:

Annually (in April)

## DATA COLLECTION METHODOLOGY:

On-line survey

## NATIONAL BENCHMARK:

N/A

## PERFORMANCE MEASURE 1.5A

### Percent of Customers Who Felt MDOT Websites Met Their Needs

Customers expect 21st century interactions with MDOT. Improving the quality of MDOT websites ensures customers have access to information, can request services and process transactions at their convenience. This further enhances the level of customer service provided by the organization.

For CY2017, an MDOT survey was placed on each TBU website to gather feedback from customers regarding their satisfaction with MDOT websites. Results from the survey revealed that customer satisfaction on MDOT websites meeting their needs ranged from 30.5 percent to 61.5 percent.

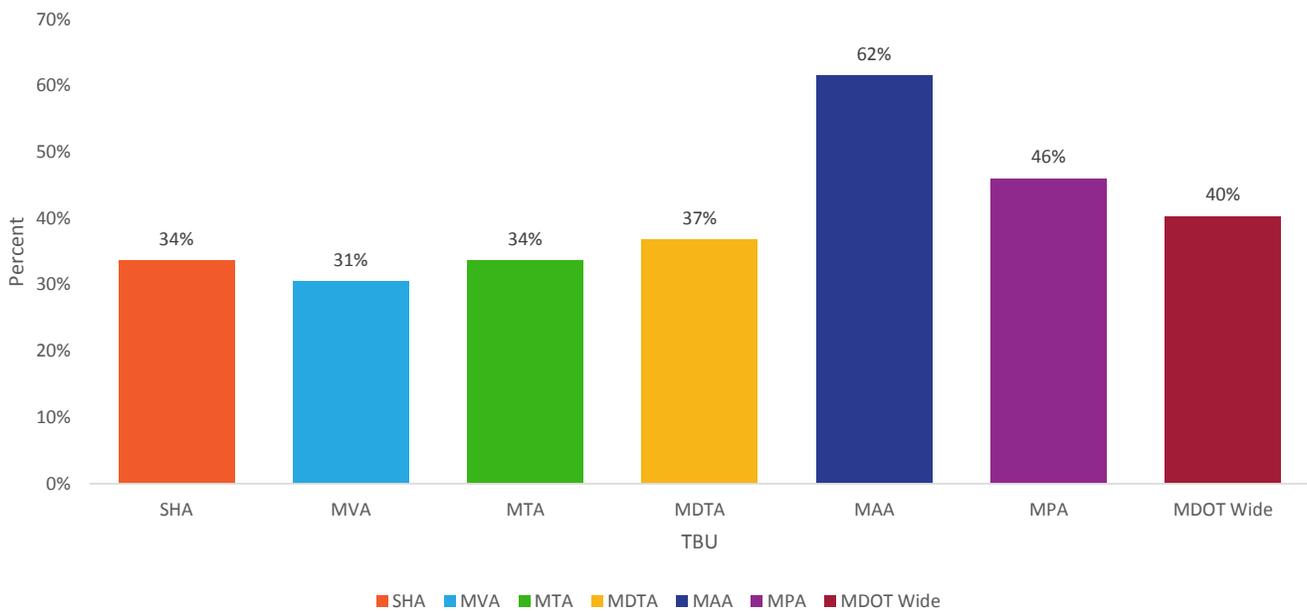
To ensure continuous improvement, representatives from each TBU met to discuss survey results and to develop strategies to ensure MDOT websites meet the needs of customers. The working team has reviewed survey data and implemented survey modifications to obtain more precise data. CY2017 survey results indicated that MDOT websites were difficult to navigate, not mobile device friendly, and that it was difficult to locate basic information such as contact information or hours of operations. Customers also expressed concerns about technical jargon, difficulty finding job notices and expressed that TBU websites are in general not user friendly. Each TBU is making strides to improve their websites, including adding functionality for mobile devices.

# Provide Exceptional Customer Service

## PERFORMANCE MEASURE 1.5A

### Percent of Customers Who Felt MDOT Websites Met Their Needs

Chart 1.5A.1: Percent of Customers Who Felt MDOT Websites Met Their Needs CY2017



**TANGIBLE RESULT DRIVER:**

Leslie Dews

*Motor Vehicle Administration (MVA)*

**PERFORMANCE MEASURE DRIVER:**

Lindsey Franey

*State Highway Administration (SHA)*

**PURPOSE OF MEASURE:**

To show how satisfied MDOT customers are when interacting with the website and usefulness of the information.

**FREQUENCY:**

Annually (in April)

**DATA COLLECTION METHODOLOGY:**

On-line Survey

**NATIONAL BENCHMARK:**

N/A

## **PERFORMANCE MEASURE 1.5B**

### **Percent of Customers Who Felt that it was Easy to Find Desired Information on MDOT Websites**

MDOT's considerable online presence enables customers to report and obtain information on our goods and services as well as process transactions. The quality of our websites is a key component in providing exceptional customer service. To improve customer satisfaction, websites must be structured, and information presented, in a way to ensure customers find what they want quickly.

Results of the CY2017 survey reveal that the percent of MDOT customers who felt that it was easy to find the information they were looking for on MDOT websites ranged from 31 percent to 60.9 percent. MDOT websites require improvement to ensure customers can easily retrieve desired information.

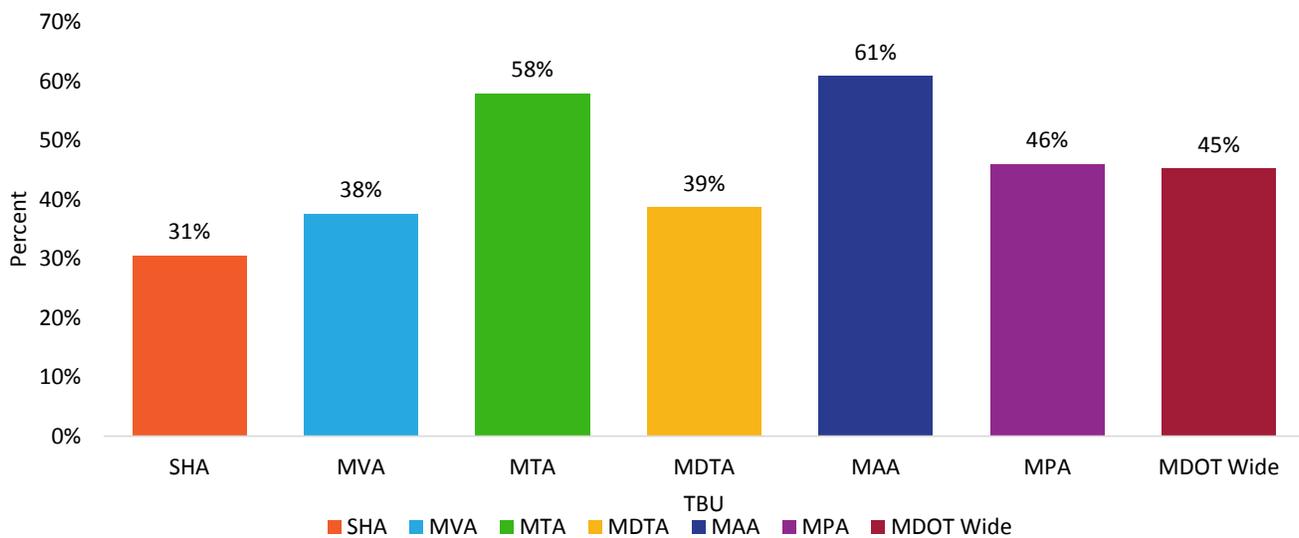
As mentioned previously, representatives from each TBU are working together to address survey feedback from customers and the identification of strategies to improve our websites, with focus on those issues the survey identified such as the challenge with navigation and finding basic information concerning MDOT operations. Recommendations for improvement from the working team will be shared across TBUs to ensure continuous improvement in MDOT websites.

# Provide Exceptional Customer Service

## PERFORMANCE MEASURE 1.5B

Percent of Customers Who Felt that it was Easy to Find Desired Information on MDOT Websites

Chart 1.5B.1: Percent of Customers Who Felt that it was Easy to Find Desired Information on MDOT Websites CY2017



## TANGIBLE RESULT #2

# Use Resources Wisely



MDOT receives resources from our customers and they expect products and services in return. To better serve our customers, MDOT must maximize the value of every dollar we spend.

### RESULT DRIVER:

Corey Stottlemeyer

*The Secretary's Office (TSO)*

**TANGIBLE RESULT DRIVER:**

Corey Stottleyer  
The Secretary's Office (TSO)

**PERFORMANCE MEASURE DRIVER:**

Jacob Dunkle  
Maryland Transit Administration (MTA)

**PURPOSE OF MEASURE:**

To track the efficiency of capital spending.

**FREQUENCY:**

Quarterly

**DATA COLLECTION METHODOLOGY:**

Track capital project spending versus the CTP programmed funds.

**NATIONAL BENCHMARK:**

N/A

## PERFORMANCE MEASURE 2.1

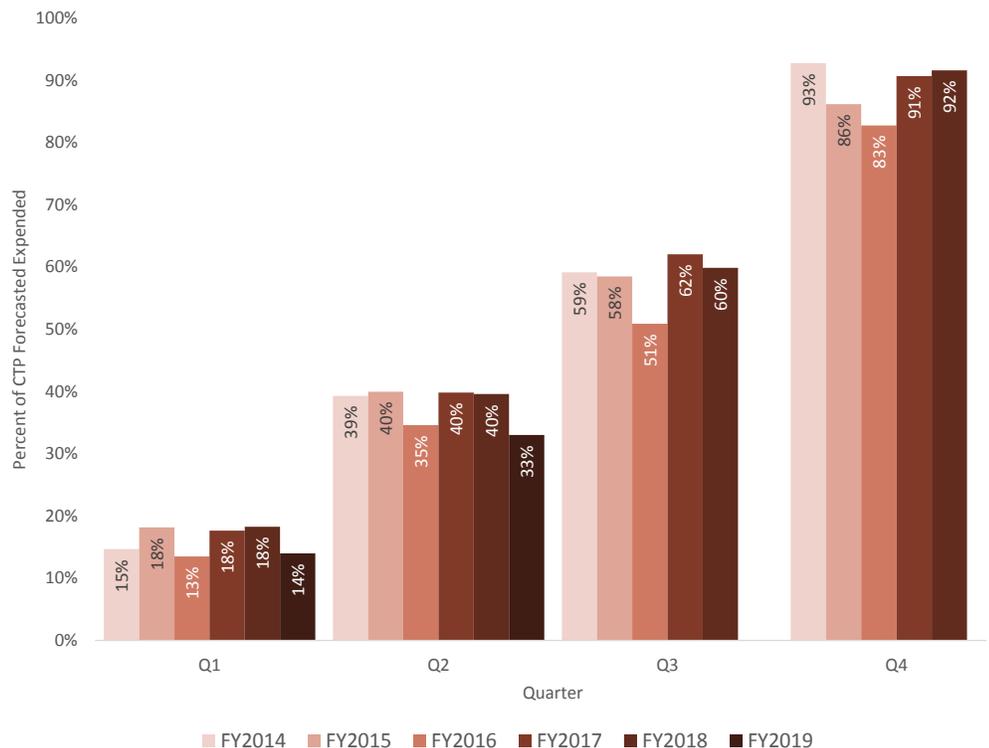
### Percent Capital Dollars Spent as Programmed & Project Delay Analysis and Reasoning

*"What we need to do is paint a vision for customers, promise them deliverables, and go hit at it." — Sanjay Kumar*

The purpose of this measure is to show MDOT's customers that MDOT is delivering on the capital projects and funding programmed in the annual Consolidated Transportation Program (CTP). MDOT evaluates this measure by tracking capital funding expenditure rates and monitoring the reasons why expenditure levels are falling short or exceeding CTP programmed amounts.

At the close of Q2 FY2019, MDOT's capital program spending rate was at 33 percent of CTP forecasted funds expended, which is 6 percent lower than this time last year

**Chart 2.1.1: 6-Year Expenditure Rate Analysis (Federal & State) FY2014-FY2019**

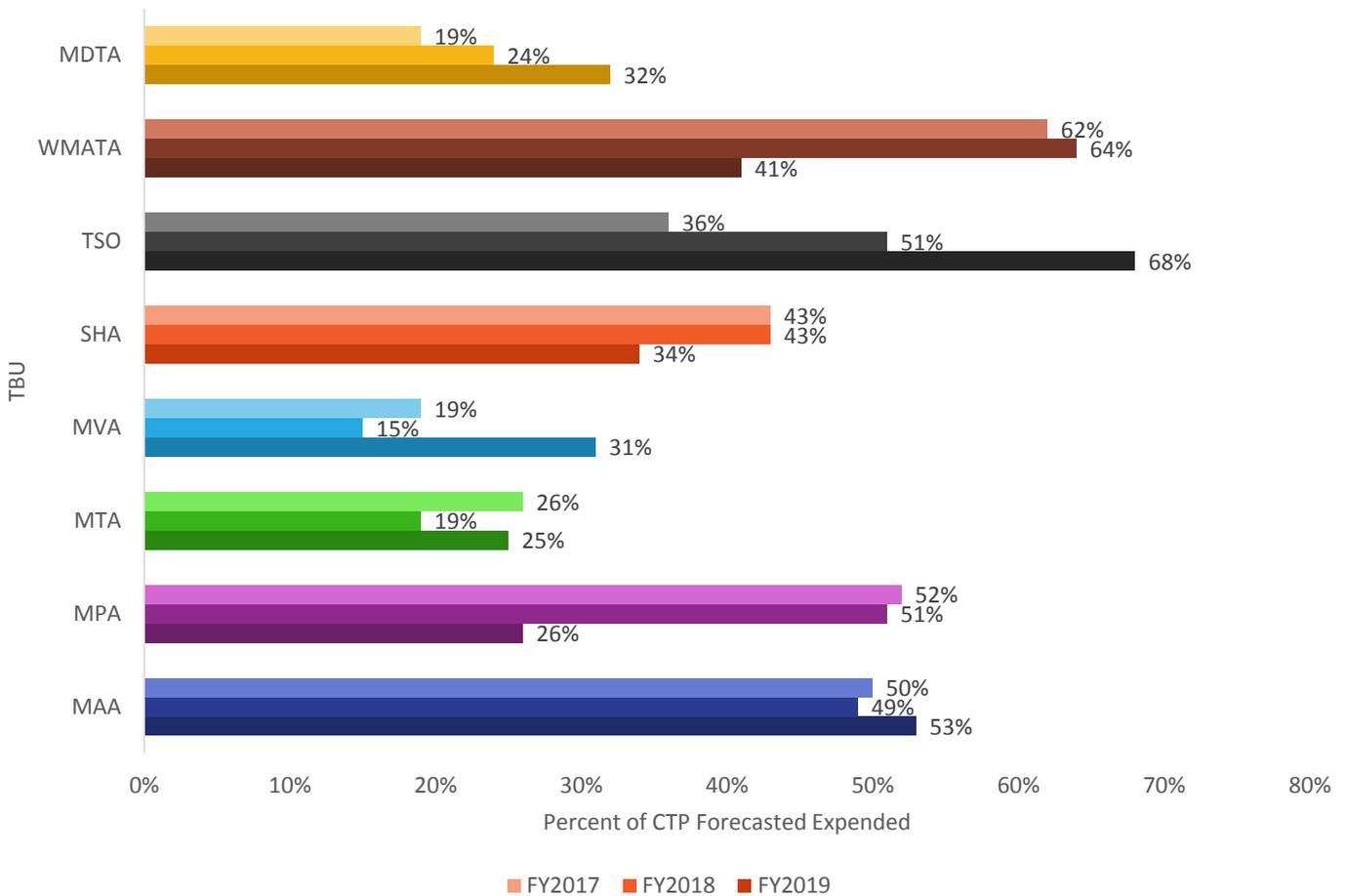


## PERFORMANCE MEASURE 2.1

### Percent Capital Dollars Spent as Programmed & Project Delay Analysis and Reasoning

Listed below is a breakdown of the FY2019 expenditure rate for each individual TBU, as compared to the last two fiscal years.

**Chart 2.1.2: 3-Year Expenditure Rate by TBU at Q2 (State/Federal/Toll) FY2017-FY2019**



**TANGIBLE RESULT DRIVER:**

Corey Stottlemeyer  
The Secretary's Office (TSO)

**PERFORMANCE MEASURE DRIVER:**

Tony Moore  
Maryland Port Administration (MPA)

**PURPOSE OF MEASURE:**

To track other sources of dollars utilized to fund capital projects as an indicator of MDOT's success at leveraging its finite resources.

**FREQUENCY:**

Annually

**DATA COLLECTION METHODOLOGY:**

This measure tracks county/local contributions, private contributions, and federal discretionary funding received each year for projects.

**NATIONAL BENCHMARK:**

N/A

## PERFORMANCE MEASURE 2.2

### Projects Leveraging Other Funding Sources

*"When we leverage, we aggregate and organize existing resources to achieve success." — Richie Norton*

The purpose of this measure is to track and highlight the success at leveraging Transportation Trust Fund (TTF) dollars with federal, local, and private dollars.

MDOT leveraged \$122M in other funding in FY2018. Most of this funding was leveraged by MTA through county contributions toward the construction of Purple Line projects; by SHA through private contributions, by TSO through the private contributions for the development of the MAGLEV project; and discretionary funds received by the MTA.

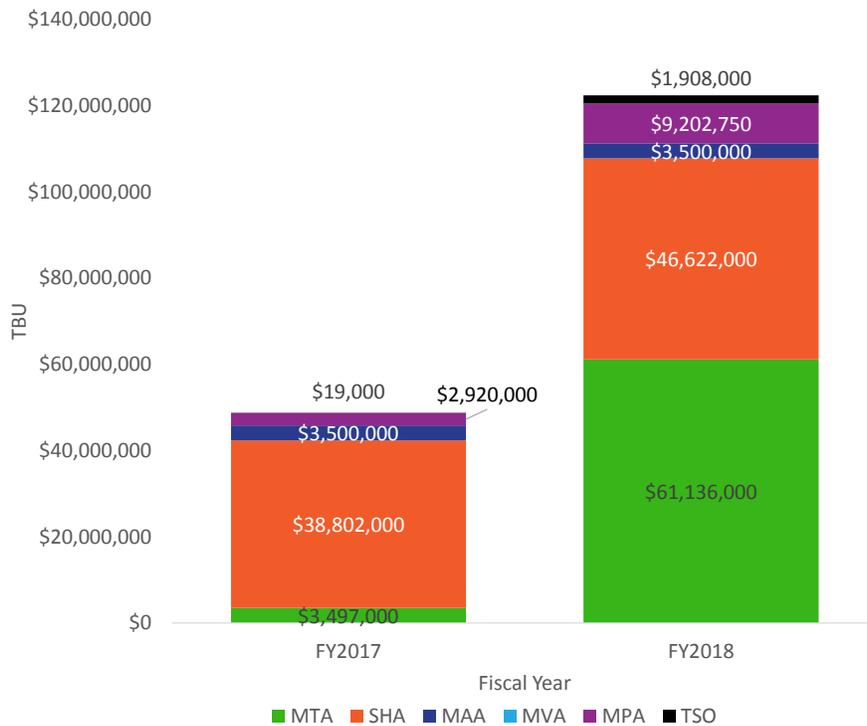
During FY2018 \$68M of the leveraged funds were from county/local contributions. \$49M in funds were from private contributions.

In FY2017 a total of \$49M in leveraged contributions were received. The variance in FY2017 and FY2018 leveraged funds is due to increased construction for the MAGLEV project; additional SHA private contribution projects activity; increases in Purple Line construction and the receipt of a federal discretionary grant at the MPA and airport improvement grants at MAA.

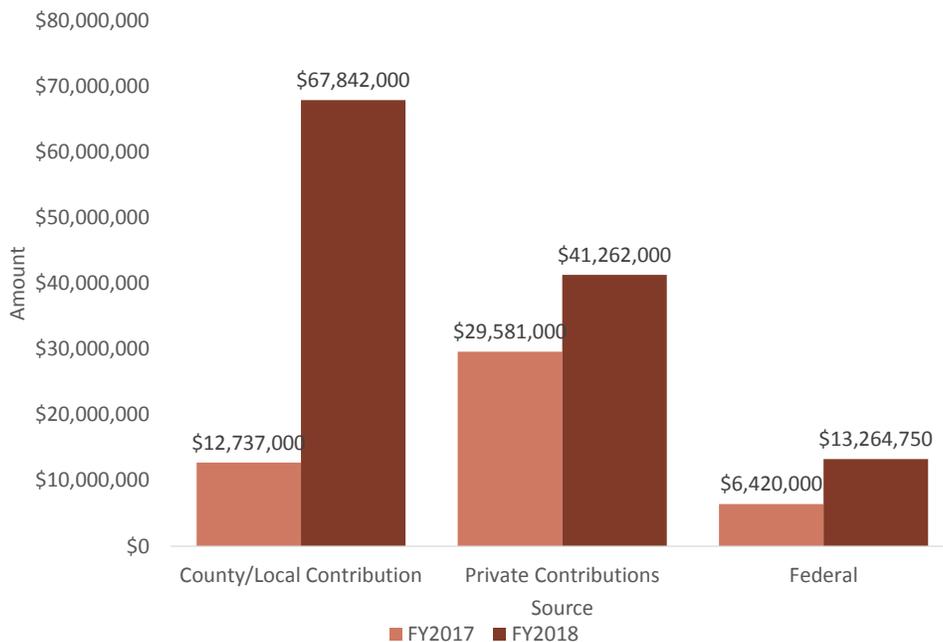
## PERFORMANCE MEASURE 2.2

### Projects Leveraging Other Funding Sources

**Chart 2.2.1: Other Funding Leveraged by TBU FY2017-FY2018**



**Chart 2.2.2: Amount of Other Funding Leveraged by Sources FY2017-FY2018**



**TANGIBLE RESULT DRIVER:**

Corey Stottleyer  
The Secretary's Office (TSO)

**PERFORMANCE MEASURE DRIVER:**

Ellery Loomis  
Maryland Vehicle Administration  
(MVA)

**PURPOSE OF MEASURE:**

To track the commitment of our employees in furthering MDOT's reputation, mission and interests by identifying key motivators and obstacles in the workplace.

**FREQUENCY:**

Annually

**DATA COLLECTION METHODOLOGY:**

MDOT employee feedback survey administered to all employees.

**NATIONAL BENCHMARK:**

\*GALLUP 2015 national engagement percentages:  
  
32 percent engaged employees  
  
50.8 percent not engaged  
  
17.2 percent actively disengaged

## PERFORMANCE MEASURE 2.3

### Employee Engagement

*"There are only three measurements that tell you nearly everything you need to know about your organization's overall performance: employee engagement, customer satisfaction, and cash flow." — Jack Welch*

Engagement accounts for the emotional commitment an employee has for MDOT and the amount of discretionary effort the employee expends on behalf of the Department. Engaged employees go beyond what they "have to do" to what they "want to do" for MDOT and its customers.

MDOT completed its first ever department-wide Employee Feedback Survey that eliminated redundant efforts and minimized expense by combining talent and resources, ensured a systematic and consistent approach to employee engagement across all TBUs, and accurately gauged the workforce climate to develop and prioritize new business strategies. The results of the survey were positive, but also pointed to areas of improvement on which to focus strategies.

## PERFORMANCE MEASURE 2.3 Employee Engagement

Chart 2.3.1: Responses to “Would You Consider MDOT to Have a Positive Workplace Environment?” CY2017

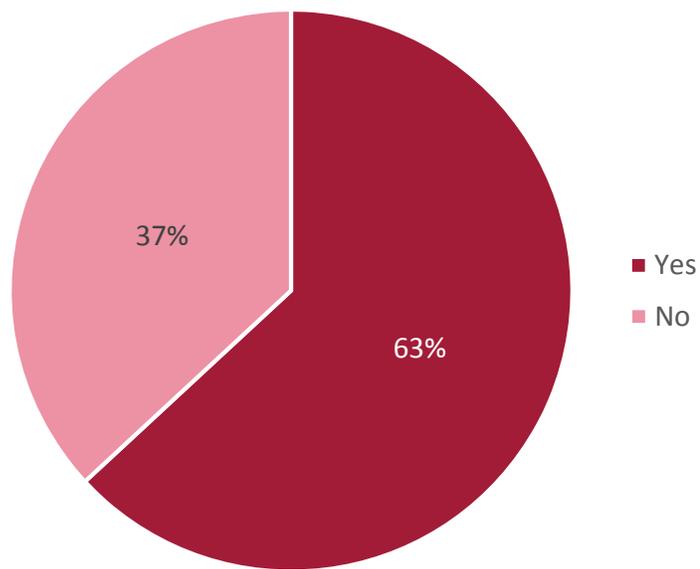
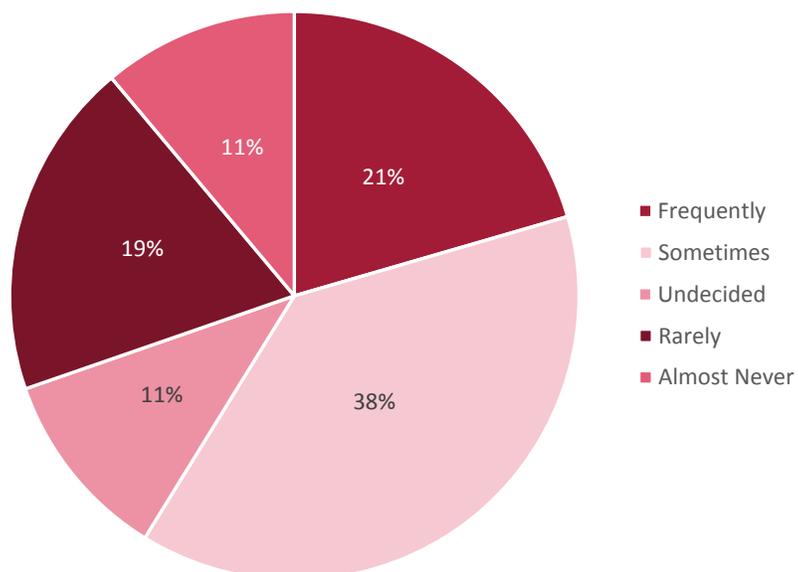


Chart 2.3.2: Responses to “How Often Do You Feel Valued at Work?” CY2017



## TANGIBLE RESULT DRIVER:

Corey Stottlemeyer  
The Secretary's Office (TSO)

## PERFORMANCE MEASURE DRIVER:

Bret A. Dousharm  
Maryland Transportation Authority  
(MDTA) Police

## PURPOSE OF MEASURE:

To identify the percentage of employees who leave MDOT and analyze trends in voluntary and involuntary separations.

## FREQUENCY:

Quarterly

## DATA COLLECTION METHODOLOGY:

Quarterly reports of employee separations are provided by TSO HRIS Unit. These reports show the number of separations during a given period of time for each TBU broken down by all available separation codes (i.e. reasons).

## NATIONAL BENCHMARK:

U.S. Department of Labor (DOL)  
Bureau of Labor Statistics

## PERFORMANCE MEASURE 2.4

### Employee Turnover Rate

*"Having to re-recruit, rehire, and retrain, and wait for a new employee to get up to speed is devastating in terms of cost." – Patrick Lencioni*

Annual employee turnover rate is the ratio of total separations, both voluntary and involuntary, compared to the average number of employees during the given timeframe, expressed as a percentage. The Human Resource Information System (HRIS) Unit in the Human Resources Division of the TSO provided the total number of employees and total number of separations for each TBU on a quarterly basis. The national benchmark was determined by utilizing the U.S. Bureau of Labor Statistics' Job Opening and Labor Turnover Survey (JOLTS) data for U.S. state and local governments (excluding education, seasonally adjusted) total employee separations.

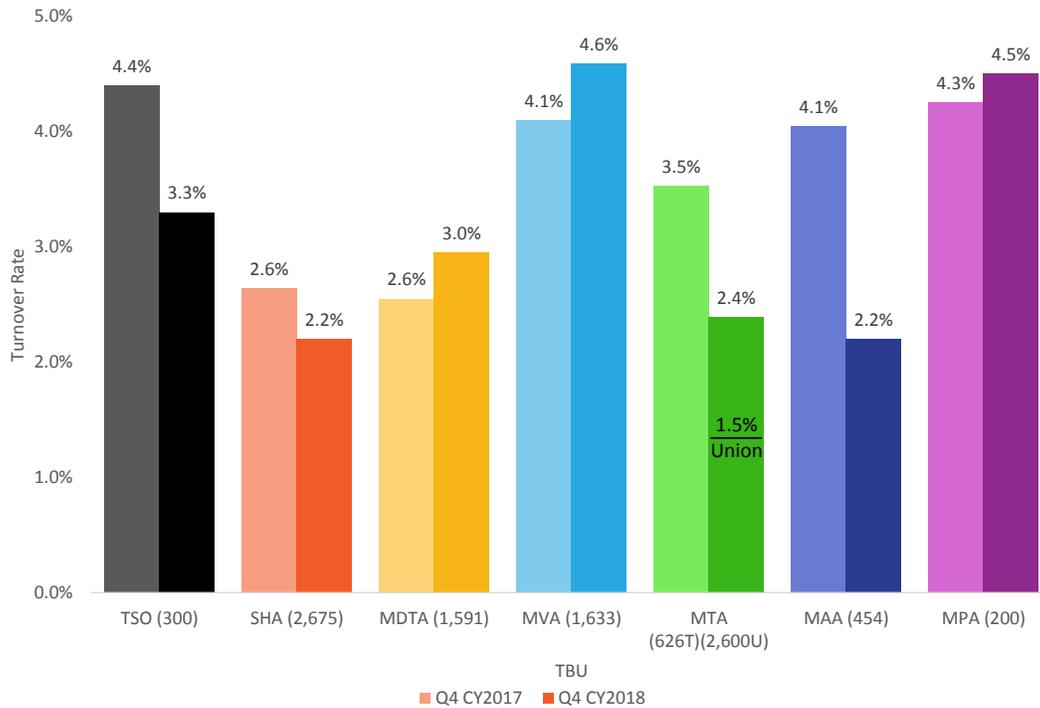
Chart 2.4.1 compares the turnover rate of each TBU for Q4 of CY2017 and Q4 of CY2018.

Chart 2.4.2 compares the MDOT total turnover rate to the national average for state and local governments for Q4 of CY2017 and Q4 of CY2018 of which MDOT is 0.9 percent above the national average.

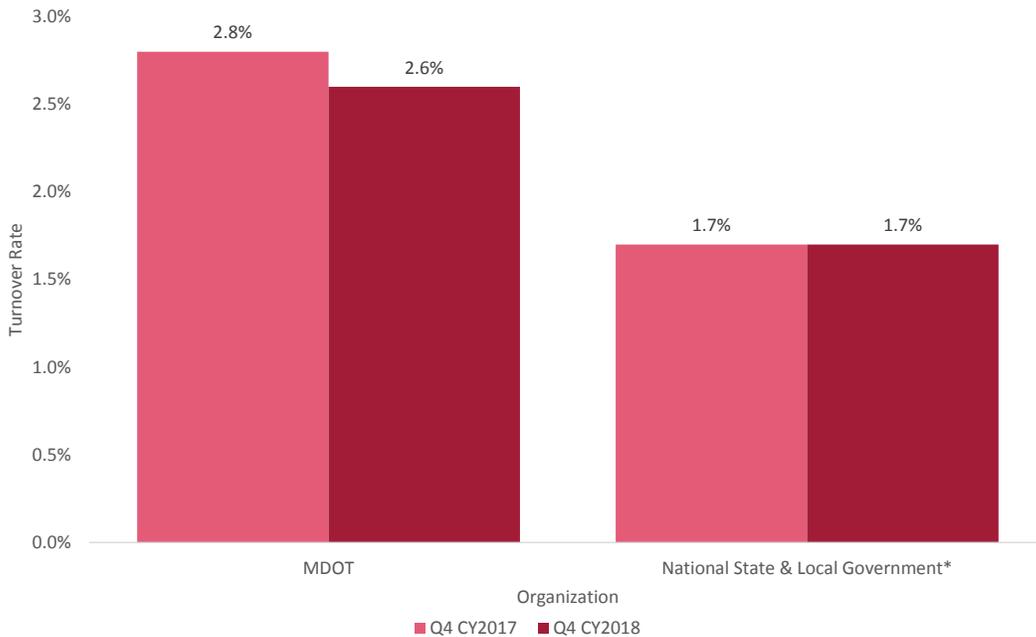
One notable element that continues to be important in analyzing MDOT turnover is the employee separations that occur within one year from the date of hire. The following chart illustrates the number of newly hired employees that have separated from MDOT in comparison to all other separations occurring in Q4 of CY2018. This data reflects that during Q4 approximately 22.7 percent of all employee separations during this timeframe occurred within the first year of hire. This is a 5.0 percent decrease from Q3 of CY2018.

## PERFORMANCE MEASURE 2.4 Employee Turnover Rate

**Chart 2.4.1: Employee Turnover Rate by TBU (Total Employees), Seasonal Comparison of Q4 CY2017-CY2018**

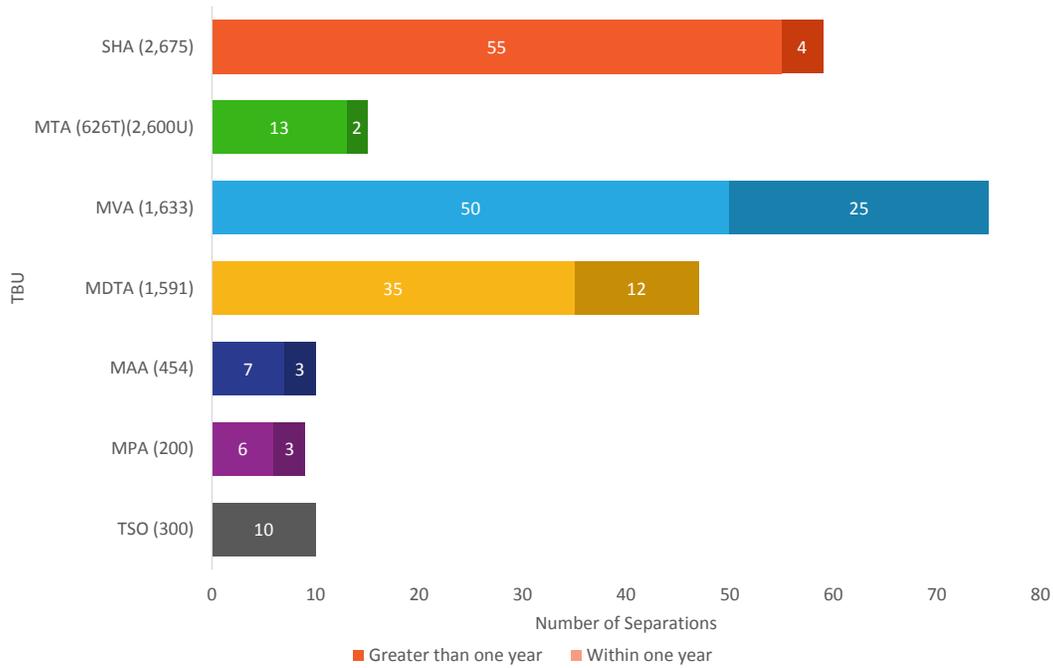


**Chart 2.4.2: Employee Turnover Rate, Seasonal Comparison Q4 CY2017-CY2018**

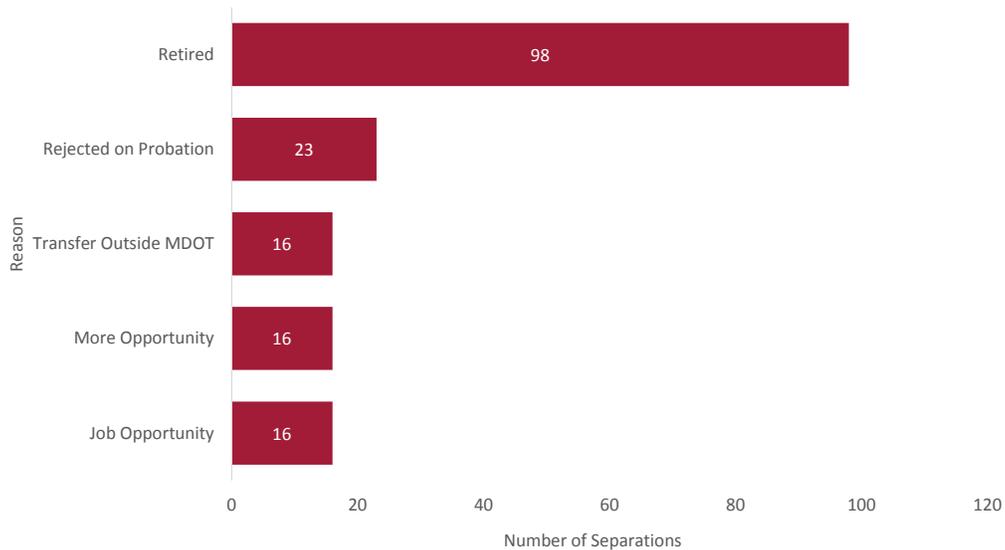


## PERFORMANCE MEASURE 2.4 Employee Turnover Rate

**Chart 2.4.3: Employee Separations Q4 CY2018**



**Chart 2.4.4: Top 5 Most Frequent Separation Reasons MDOT-Wide Q4 CY2018**



**TANGIBLE RESULT DRIVER:**

Corey Stottlemeyer  
The Secretary's Office (TSO)

**PERFORMANCE MEASURE DRIVER:**

Krystal Wilson  
Maryland Aviation Administration  
(MAA)

**PURPOSE OF MEASURE:**

To demonstrate efficient use of available positions and identify opportunities for improvement in our recruitment and selection processes.

**FREQUENCY:**

Quarterly

**DATA COLLECTION METHODOLOGY:**

Quarterly report for MDOT and each TBU from HRIS housed at TSO and spreadsheets completed by TBU Human Resource Offices.

**NATIONAL BENCHMARK:**

N/A

## PERFORMANCE MEASURE 2.5

### Time to Fill Vacancies

*"You should take your time making new hires, I'll give you that -- but how much time do you really have? The people you're interviewing have lives." – Liz Ryan*

Reducing the time it takes to fill our vacant positions will increase MDOT's staffing levels, improving the ability to deliver projects on time and to rapidly address emergencies affecting the transportation system.

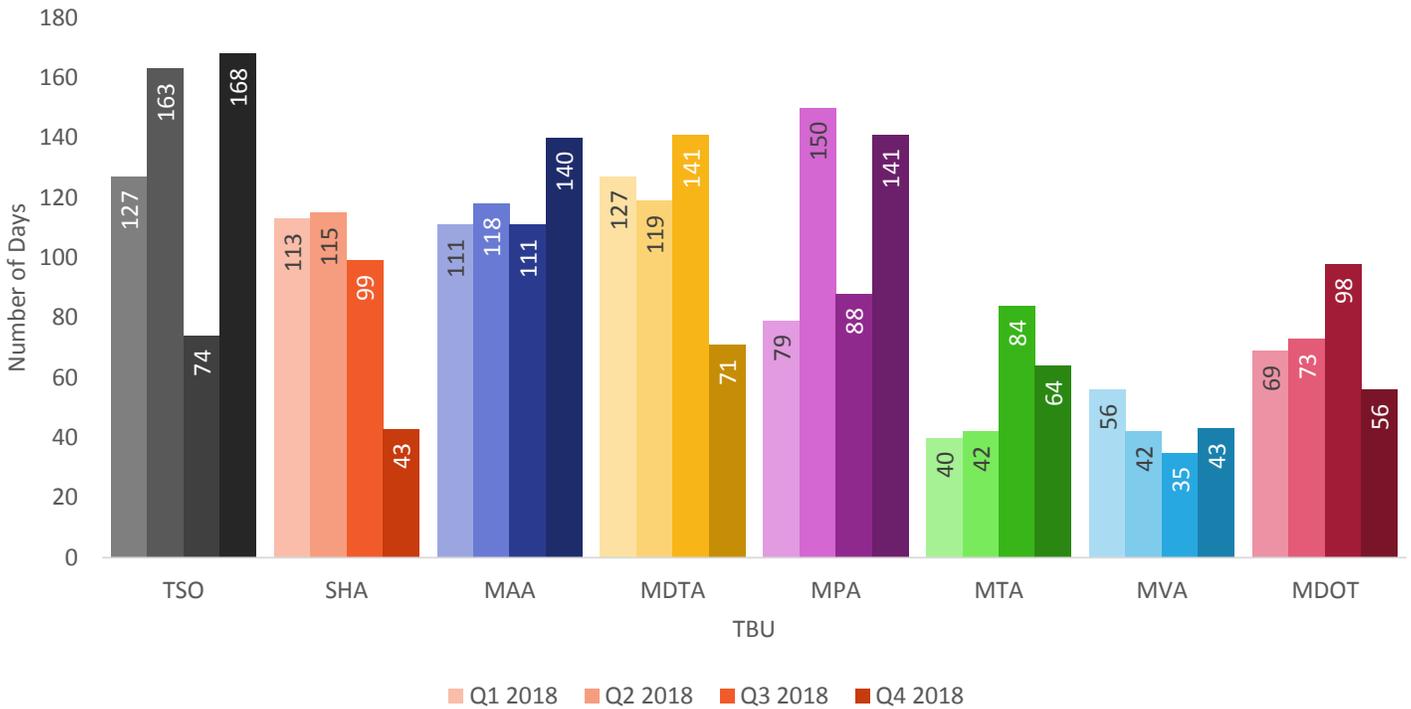
MDOT-wide the median for Q4 CY2018 was 56 days, down from from Q3 CY2018's median of 98 days.

Q4 CY2018, 65 percent vacancies were filled in less than 90 days MDOT-Wide, compared to 49 percent of vacancies filled in Q3 CY2018 in less than 90 days.

The Agile HR workgroup on recruitment processes has been meeting to map the process across all TBUs and identify ways to streamline/standardize the process and eliminate unnecessary or redundant activities. As this work progresses, it is critical that all parties remain fully engaged in the recruitment process so that we can fill vacancies quickly and with high quality candidates.

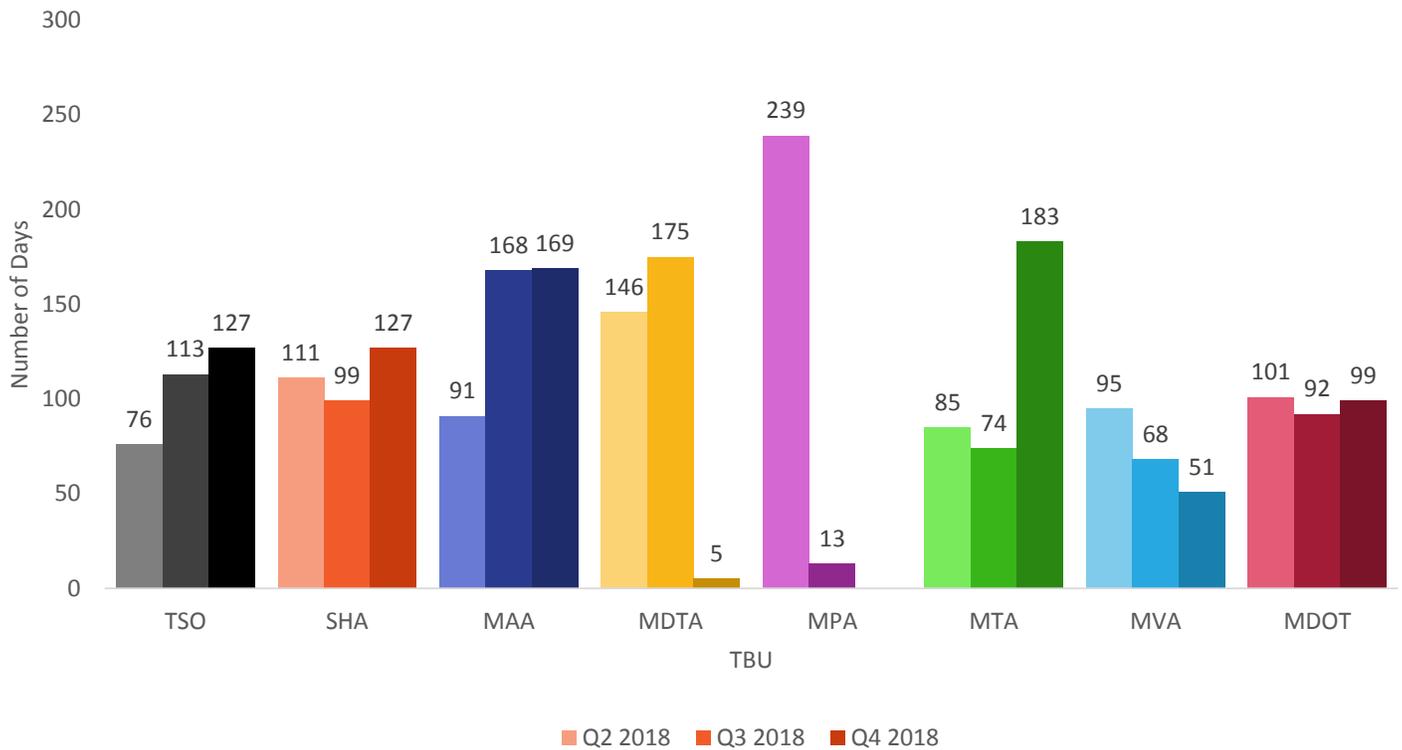
**PERFORMANCE MEASURE 2.5**  
Time to Fill Vacancies

**Chart 2.5.1: Median Time to Fill Vacancies by TBU CY2018**



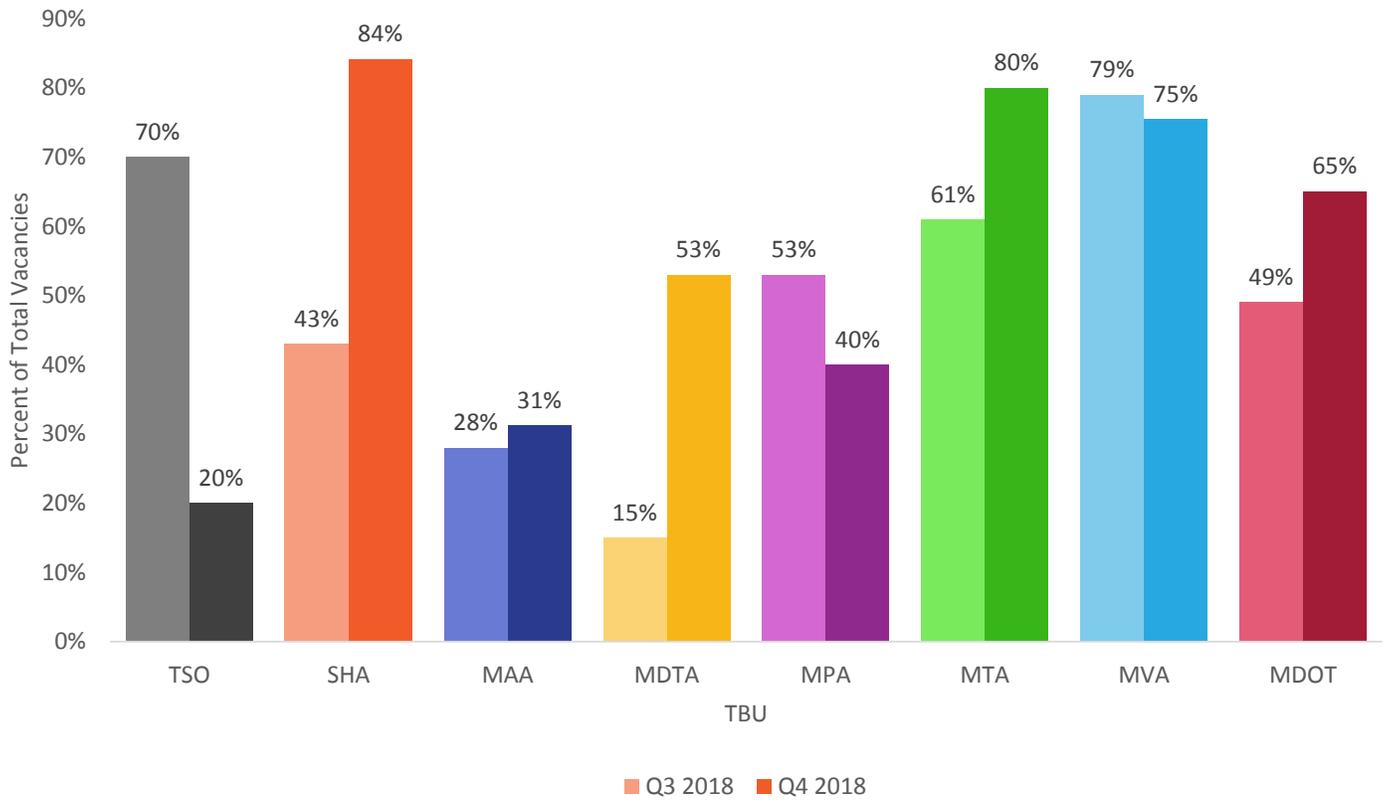
## PERFORMANCE MEASURE 2.5 Time to Fill Vacancies

Chart 2.5.2: Median Time to Fill Executive Service Vacancies Q2-Q4 CY2018



**PERFORMANCE MEASURE 2.5**  
Time to Fill Vacancies

**Chart 2.5.3: Percent of Vacancies Filled in less than 90 Days Q3 CY2018**



**TANGIBLE RESULT DRIVER:**

Corey Stottlemyer  
The Secretary's Office (TSO)

**PERFORMANCE MEASURE DRIVER:**

Dan Ruth  
State Highway Administration (SHA)

**PURPOSE OF MEASURE:**

To measure how well MDOT records, safeguards, and efficiently controls fixed assets.

**FREQUENCY:**

Annually (in October)

**DATA COLLECTION METHODOLOGY:**

Data will be collected when the business units conduct annual fixed asset physical inventories.

**NATIONAL BENCHMARK:**

N/A

**PERFORMANCE MEASURE 2.6**

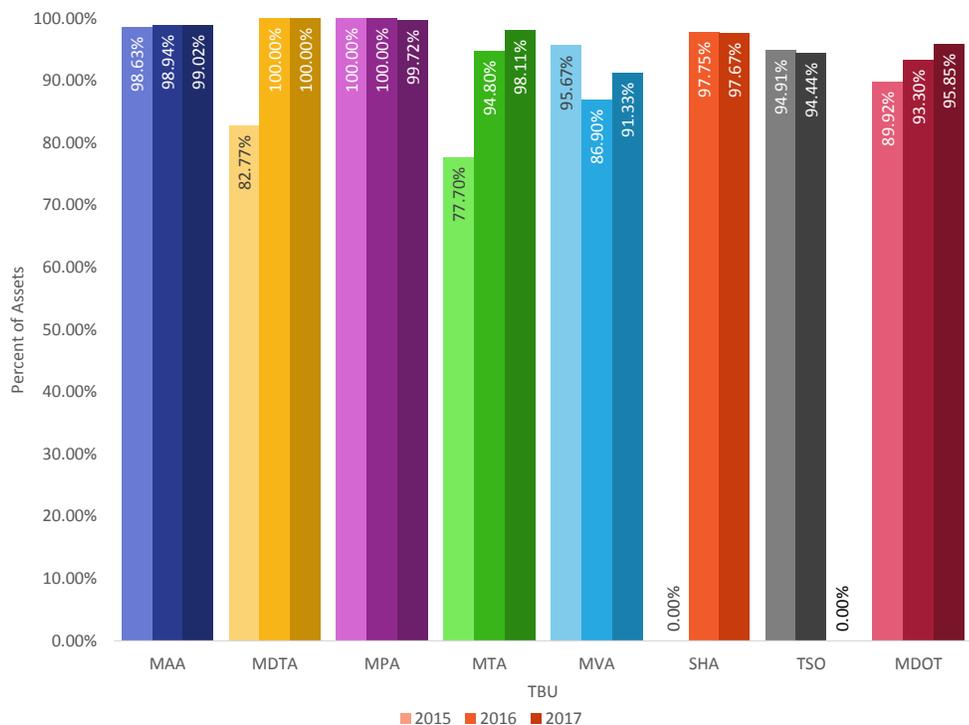
**Percentage of Fixed Asset Units Identified or Accounted for During the Annual Physical Inventory of Fixed Assets**

*“You can’t control what you can’t measure.” — Tom Demarco*

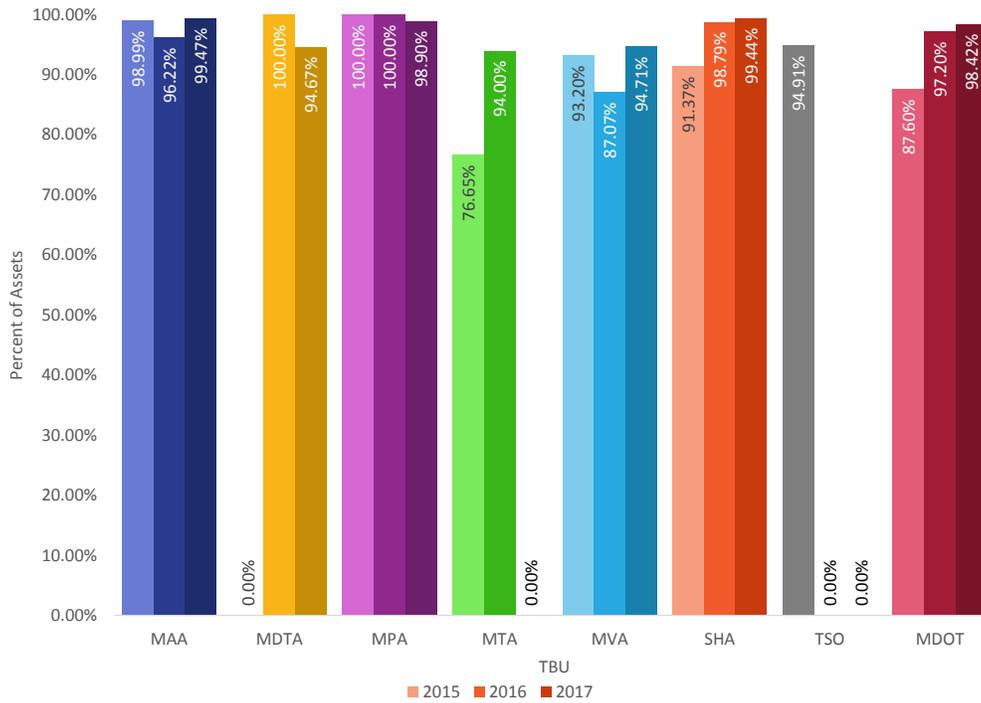
This measure emphasizes the importance of stewardship and internal controls with respect to fixed assets owned by each of the TBUs. This performance measure reports the percentage of fixed assets counted by each business unit during its annual fixed asset physical inventory versus the number of fixed assets recorded in each business unit’s official inventory records. A regularly-conducted physical inventory of fixed assets ensures accurate information for the management of assets and discourages fraud.

Currently, five of seven business units conduct a full inventory of nonsensitive Items once every three years and a full inventory of sensitive items annually. The remaining business units, MAA and SHA, conduct a full inventory of both sensitive and non-sensitive items annually.

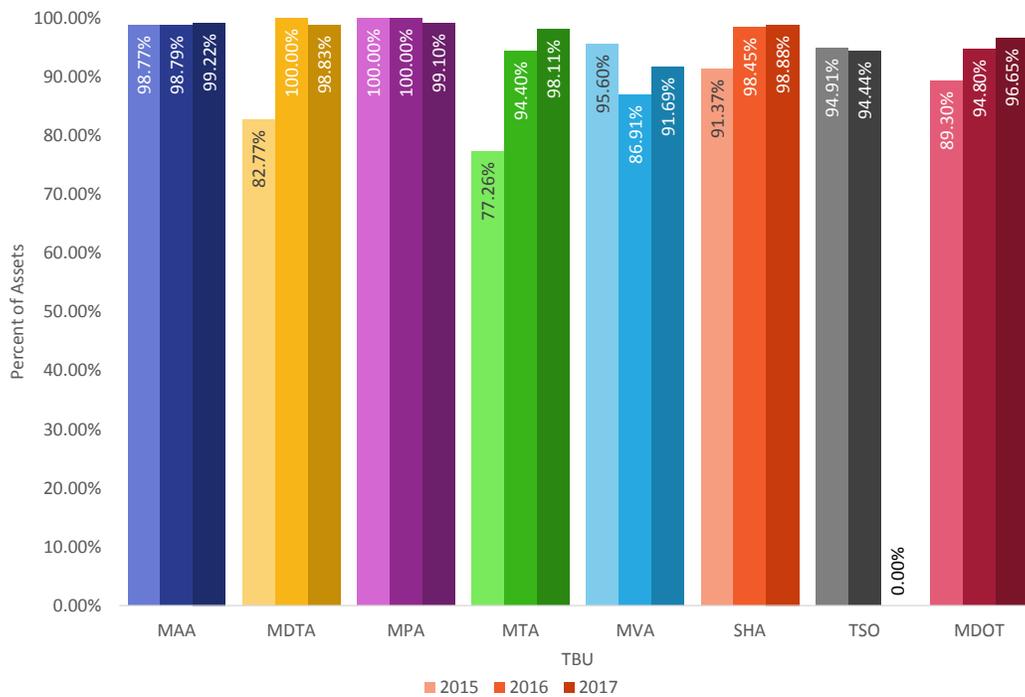
**Chart 2.6.1: Sensitive Assets Found by TBU 2015-2017**



**Chart 2.6.2: Non-Sensitive Assets Found by TBU 2015-2017**



**Chart 2.6.3: Total Assets Found by TBU 2015-2017**



**TANGIBLE RESULT DRIVER:**

Corey Stottlemyer  
*The Secretary's Office (TSO)*

**PERFORMANCE MEASURE DRIVER:**

Sejal Barot  
*State Highway Administration (SHA)*

Dan Favarulo  
*The Secretary's Office (TSO)*

**PURPOSE OF MEASURE:**

Provide an overview which shows how TBUs monitor asset management activities.

**FREQUENCY:**

Annually

**DATA COLLECTION METHODOLOGY:**

Asset inspection condition and asset life-cycle cost analyses are compiled at the TBU level.

**NATIONAL BENCHMARK:**

N/A

## PERFORMANCE MEASURE 2.7

### Managing Capital Assets

***"One of the great responsibilities that I have is to manage my assets wisely, so that they create value." — Alice Walton***

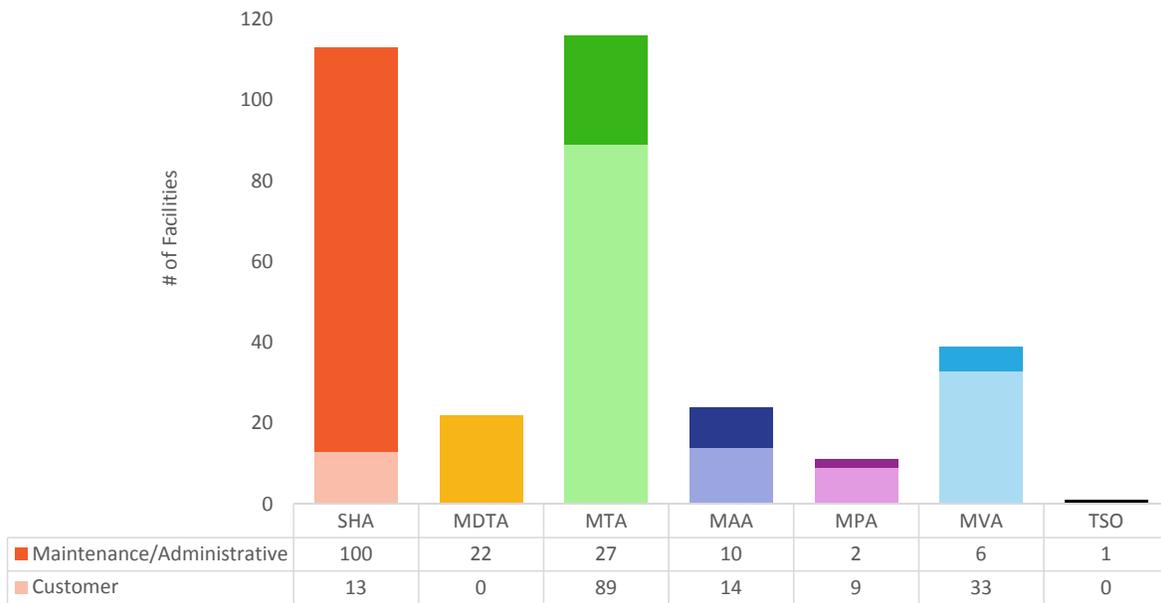
Customers deserve to know that MDOT is strategically managing its diverse capital assets. Each TBU maintains its physical assets according to policies that minimize asset life-cycle cost while avoiding negative impacts on the delivery of transportation services.

As part of this measure, MDOT has embarked on a department wide asset management program to better understand the infrastructure assets owned and their performance/condition. The department program is focused on seven critical infrastructure assets: pavement, structures, tunnels, rail, vehicles and equipment, facilities, and IT systems.

Each of these critical infrastructure assets are reported annually to the Secretary's Office by each TBU to monitor inventory and growth of assets. In addition, conditioning and inspection protocols as well as performance measurements are developed for each of these critical assets to gauge how well they are being maintained, their performance and cost of maintenance. The data reported under this measurement is gathered through asset management systems, inspections, conditioning protocols, surveys and operational practices.

**PERFORMANCE MEASURE 2.7**  
Managing Capital Assets

**Chart 2.7A: Number of Facilities by TBU 2017**

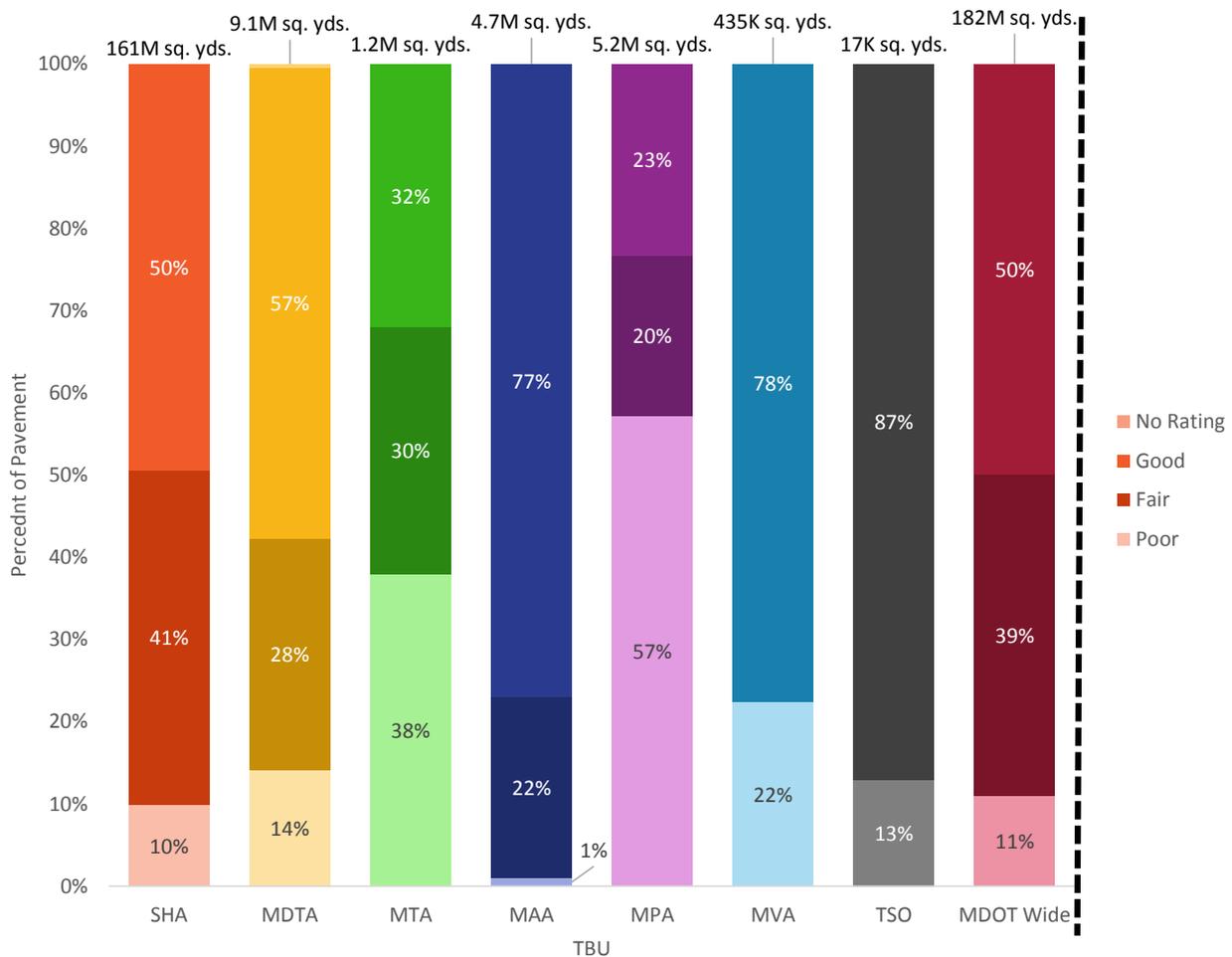


## PERFORMANCE MEASURE 2.7 Managing Capital Assets

MDOT manages 182 million square yards of pavement across its TBUs. While the majority of pavement is roadways, MDOT also maintains airfield as well as parking/storage pavement at facilities. Overall 89 percent of MDOT's pavement assets are in fair or better condition.

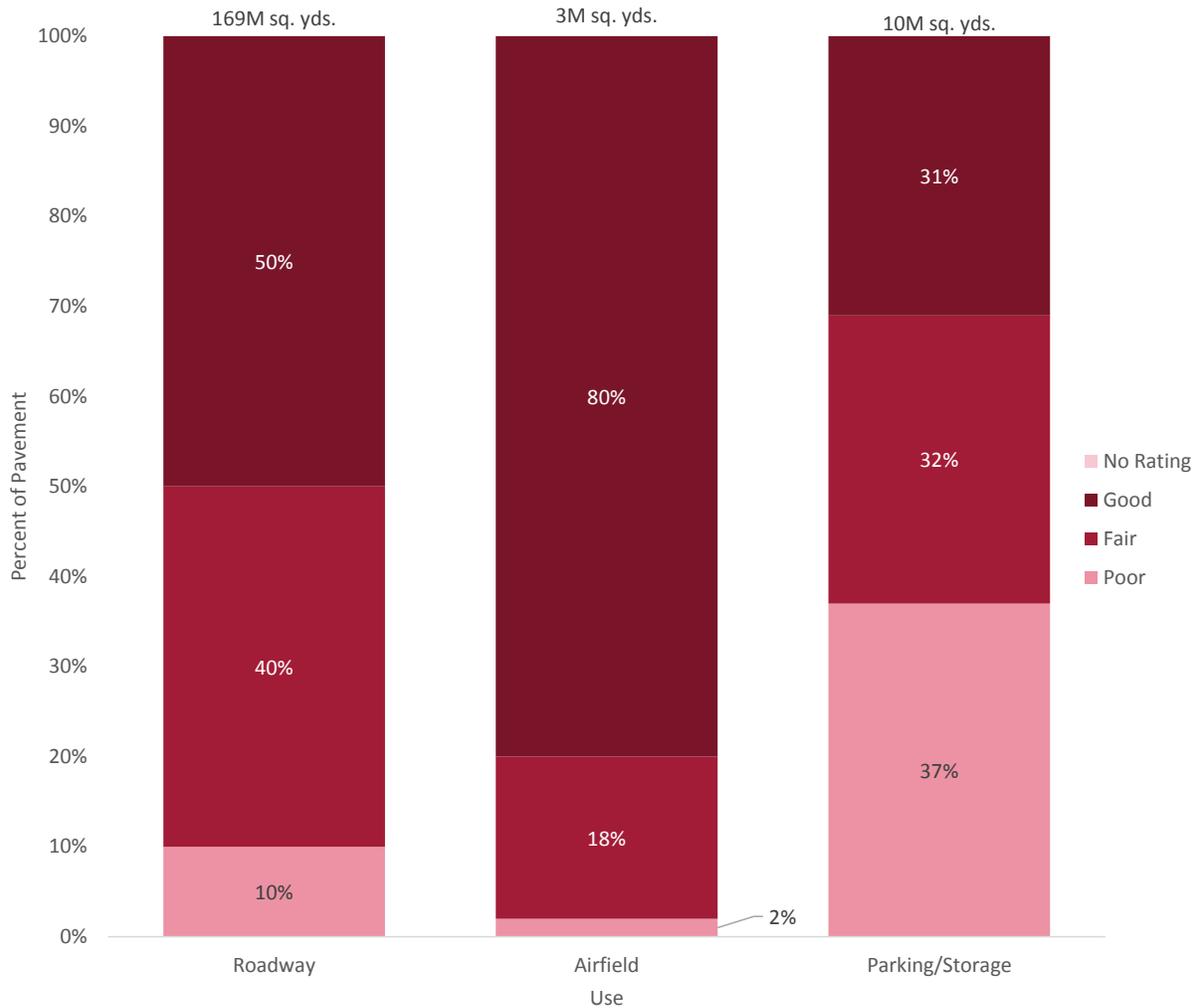
MDOT's 169 million square yards of roadway pavement across TBUs is maintained at 90 percent in fair or better condition. MDOT's 3 million square yards of airfield pavement is maintained at 98 percent in fair or better condition. The remaining 10 million square yards of pavement that MDOT maintains is located at parking lots, storage lots and facilities. Currently, 63 percent of parking/storage pavement is rated in fair or better condition.

**Chart 2.7B.1: Pavement Condition by TBU 2018**



## PERFORMANCE MEASURE 2.7 Managing Capital Assets

Chart 2.7B.2: Pavement Condition by Use MDOT-Wide 2018



## PERFORMANCE MEASURE 2.7 Managing Capital Assets

MDOT manages 11,254 critical structures across its TBUs. Critical structure assets include bridges, small structures, sign structures, retaining walls, noise walls and shipping berths/piers. Currently 4 percent of MDOT structures are in fair or better condition.

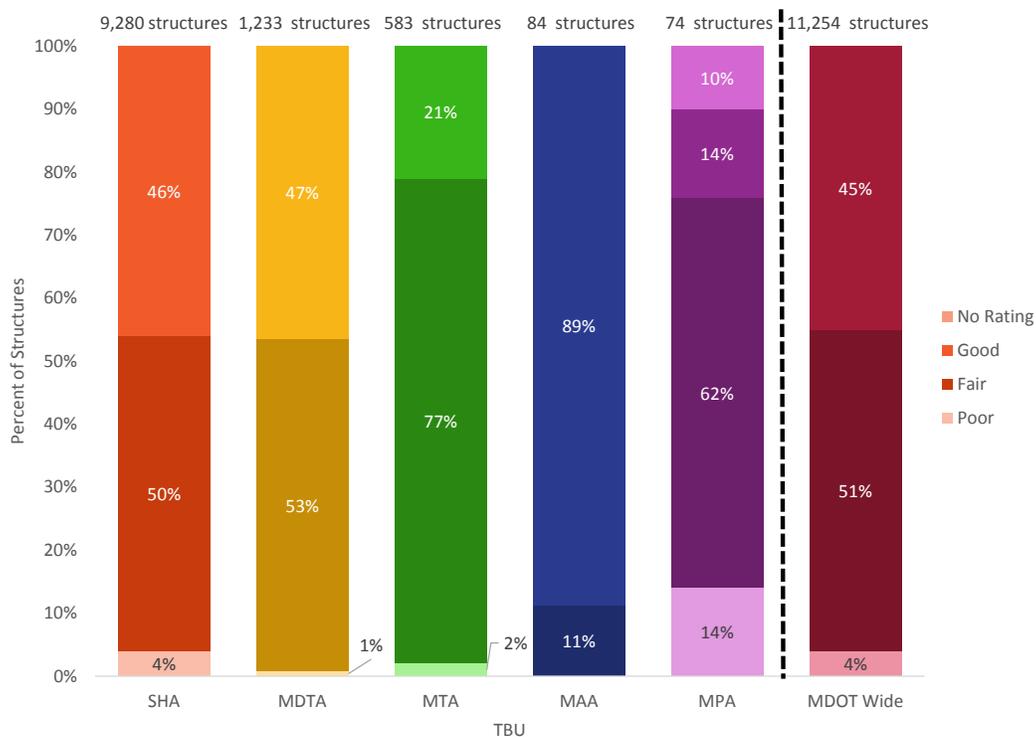
Bridge structures maintained across the department are in 98 percent fair or better condition. According to FHWA, 95 percent of the nation's bridges are maintained at 95 percent fair or better condition, making MDOT 3 percent better than the national rating. MDOT maintains 3,445 small structures that range from culverts over 3 feet to bridges less than 20 feet. Currently 97 percent of MDOT's small structures are in fair or better condition.

MDOT maintains roughly 3,040 sign structures, which are defined here as overhead or cantilever sign structures that extend over roadways. Overall 94 percent of MDOT's sign structures are in fair or better condition.

MDOT has 670,702 feet of noise walls and 421,640 feet of retaining walls that both maintained across the department at 98 percent fair or better condition.

In addition, MPA maintains shipping berth structures that are critical to operations. Currently, 86 percent of berth/pier structures are in fair or better condition.

**Chart 2.7C.1: Structure Condition Ratings by TBU 2018**



## PERFORMANCE MEASURE 2.7 Managing Capital Assets

Chart 2.7C.2: Large Bridge Condition Ratings by TBU 2018

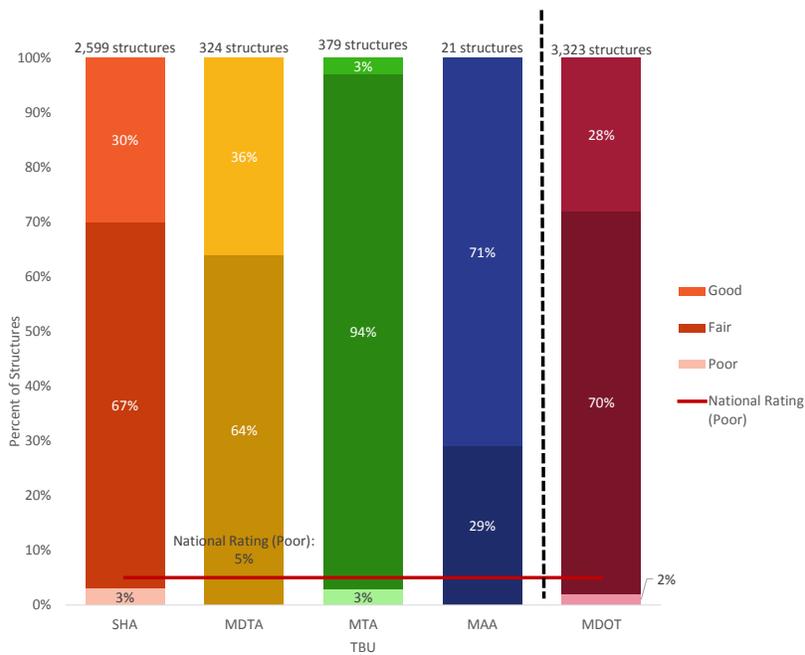
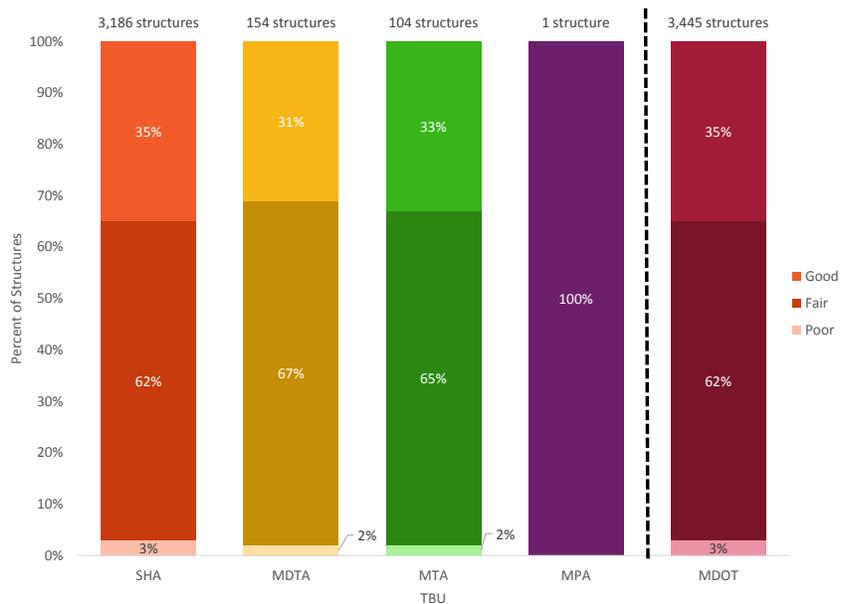
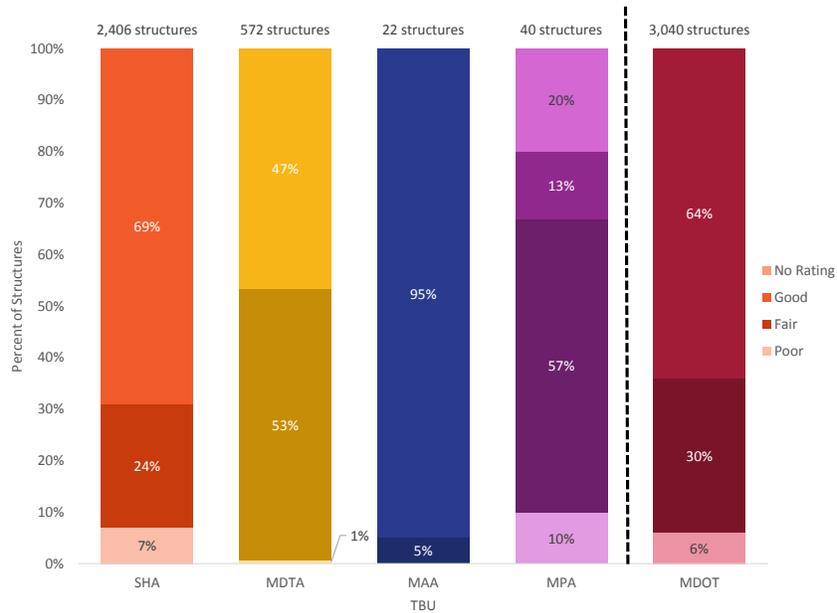


Chart 2.7C.3: Small Structure Condition Ratings by TBU 2018

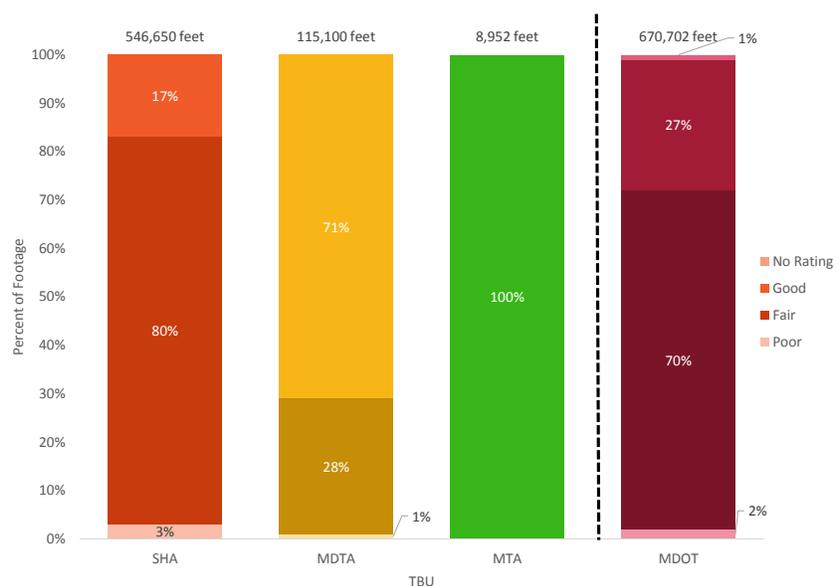


## PERFORMANCE MEASURE 2.7 Managing Capital Assets

**Chart 2.7C.4: Sign Structure Condition Ratings by TBU 2018**

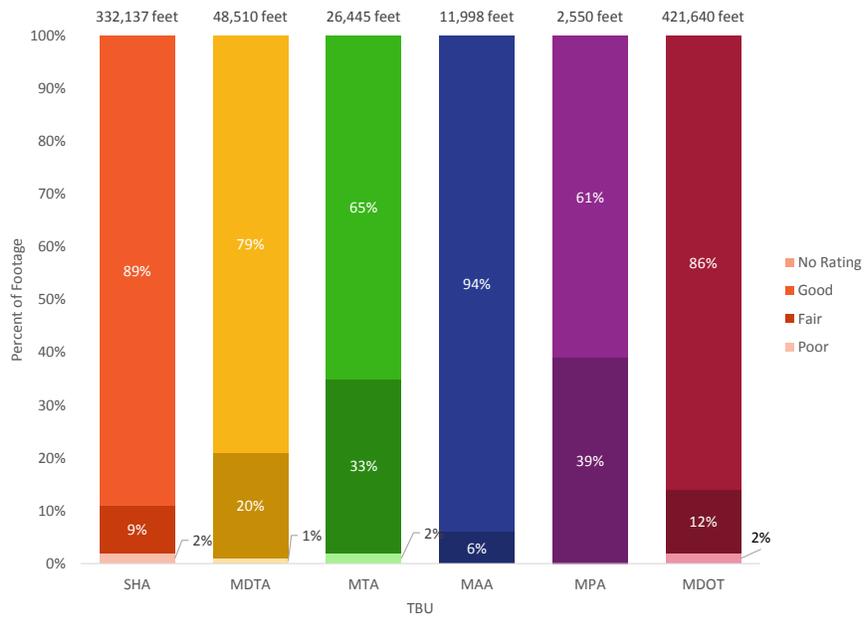


**Chart 2.7C.5: Noise Wall Condition Ratings by TBU 2018**

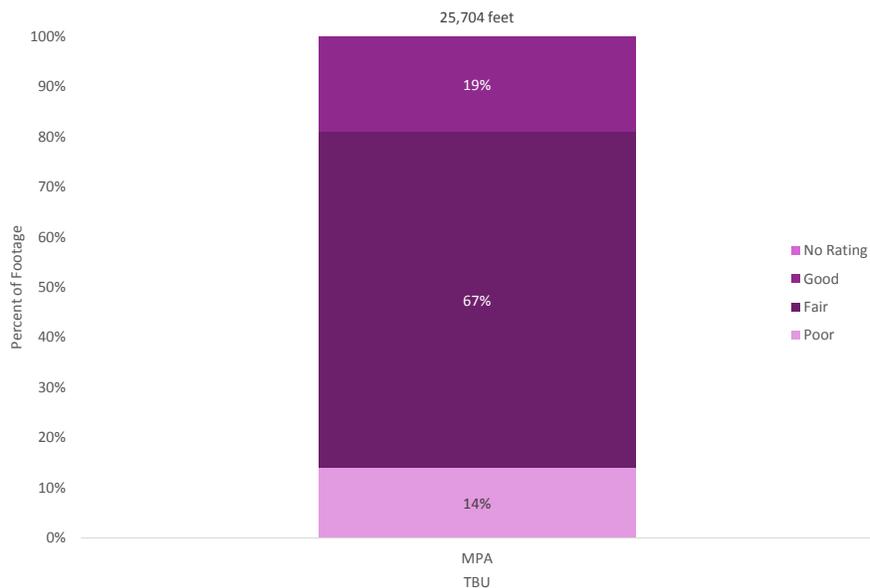


## PERFORMANCE MEASURE 2.7 Managing Capital Assets

**Chart 2.7C.6: Retaining Wall Condition Ratings by TBU 2018**



**Chart 2.7C.7: Berth/Pier Condition Ratings 2018**

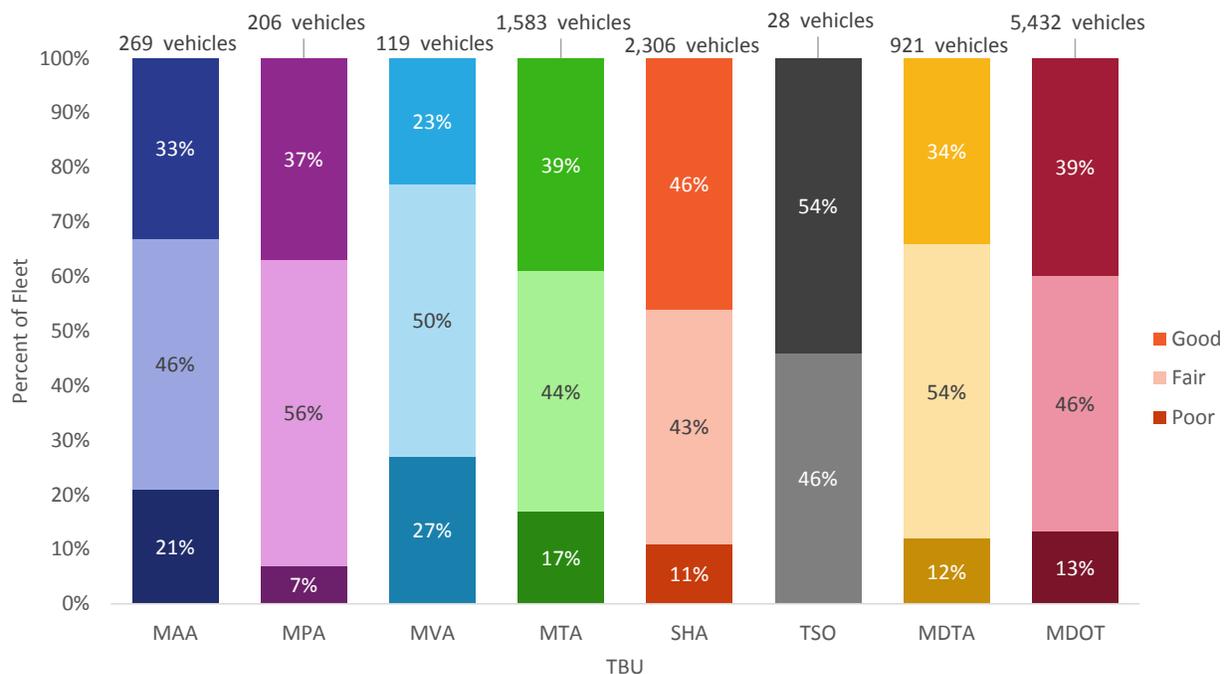


## PERFORMANCE MEASURE 2.7 Managing Capital Assets

MDOT manages 5,432 vehicles and equipment that assist in providing critical services to completing the mission of the Department. These vehicles include all TBU fleet vehicles, revenue producing buses and vans, construction equipment, agriculture equipment, dump trucks, snow removal vehicles, police vehicles and any other pieces of equipment over \$10,000 in value. Currently, 87 percent of MDOT’s vehicle and equipment fleet is in fair or better condition.

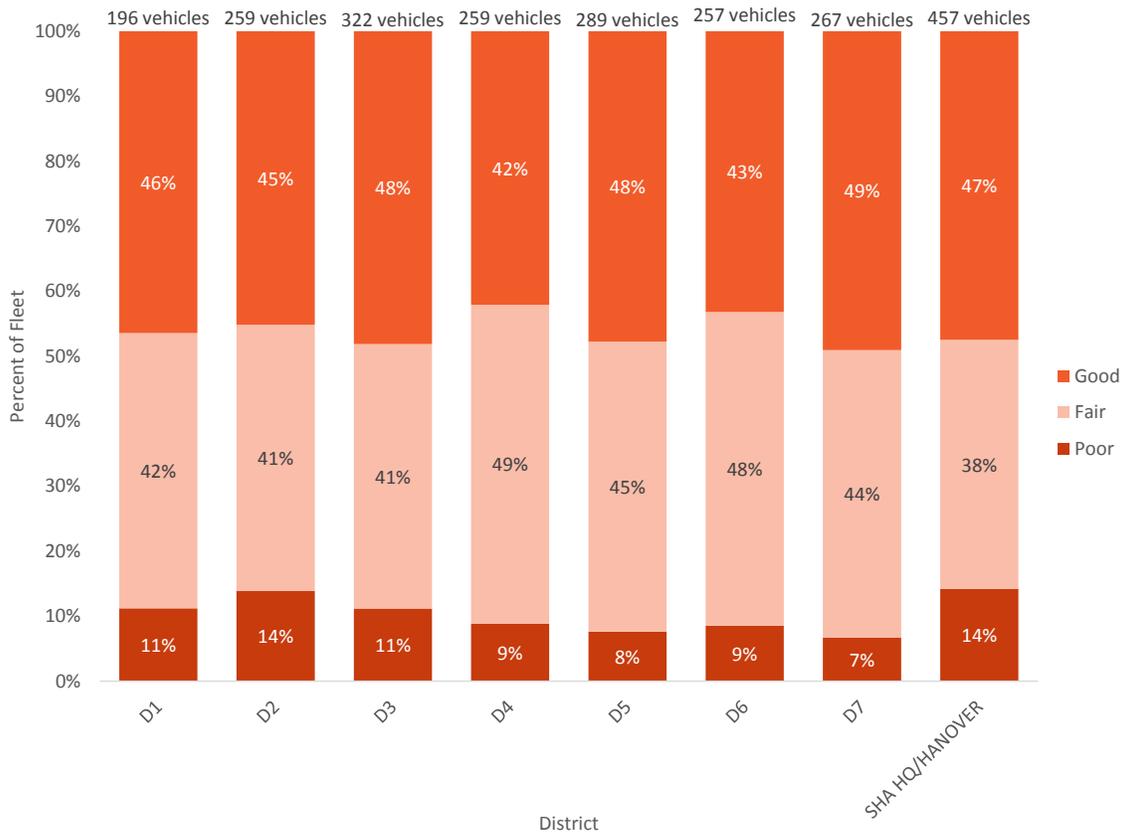
MDOT MTA and MDOT SHA maintain almost 70 percent of MDOT’s vehicle and equipment fleet. Currently, MDOT SHA’s vehicle/equipment is in 89 percent fair or better condition. SHA MDOT manages their vehicle fleet across Districts and HQ sites across the state. MDOT. Currently, MDOT MTA’s vehicle/equipment is in 83 percent fair or better condition. MDOT MTA Vehicles are broken down to non-revenue producing vehicles and bus/mobility fleet.

**Chart 2.7D.1: MDOT-Wide Vehicle Fleet and Equipment Condition CY2019**



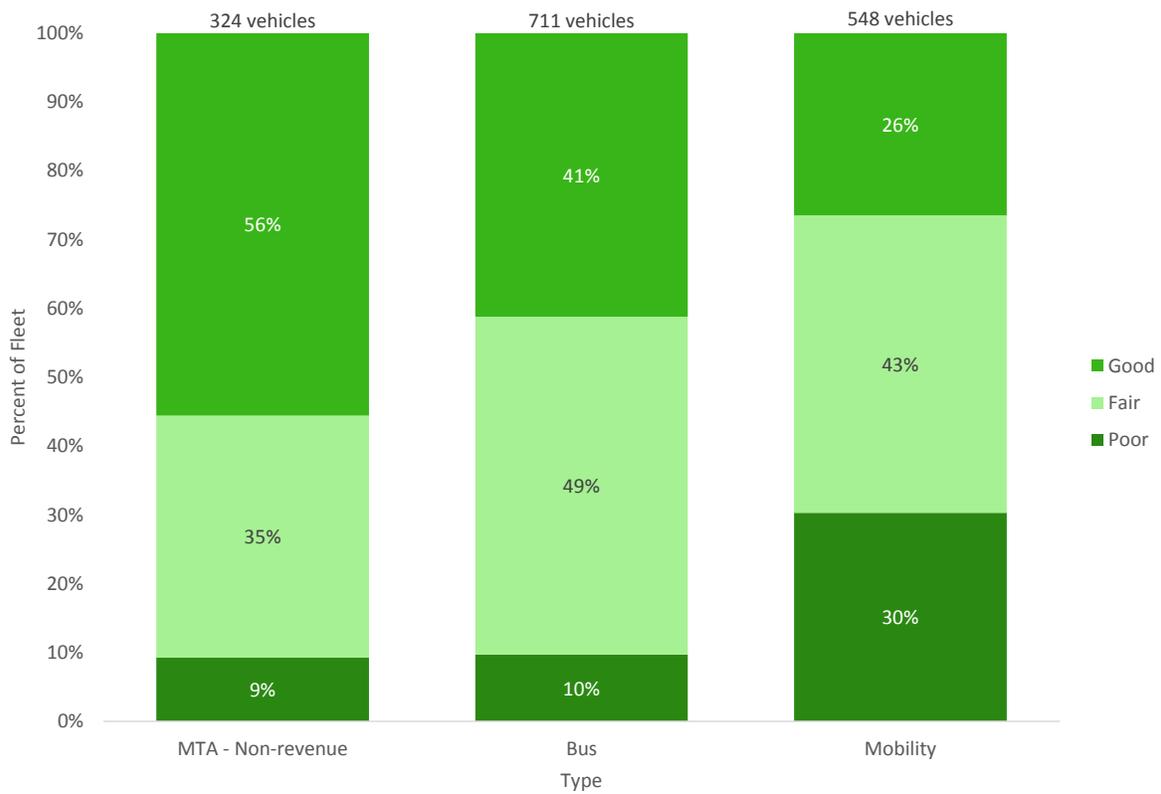
**PERFORMANCE MEASURE 2.7**  
Managing Capital Assets

**Chart 2.7D.2: SHA Vehicle Fleet and Equipment Condition by District CY2019**



## PERFORMANCE MEASURE 2.7 Managing Capital Assets

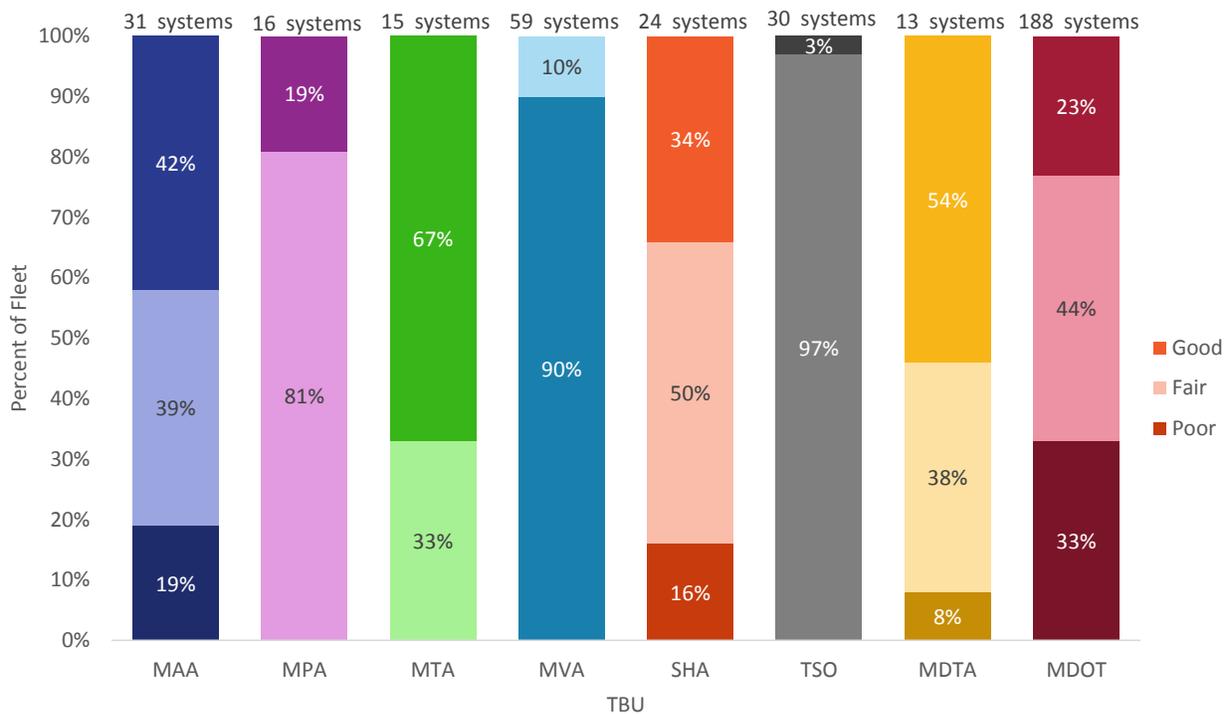
Chart 2.7D.3: MTA Vehicle Fleet and Equipment Condition by Type CY2019



## PERFORMANCE MEASURE 2.7 Managing Capital Assets

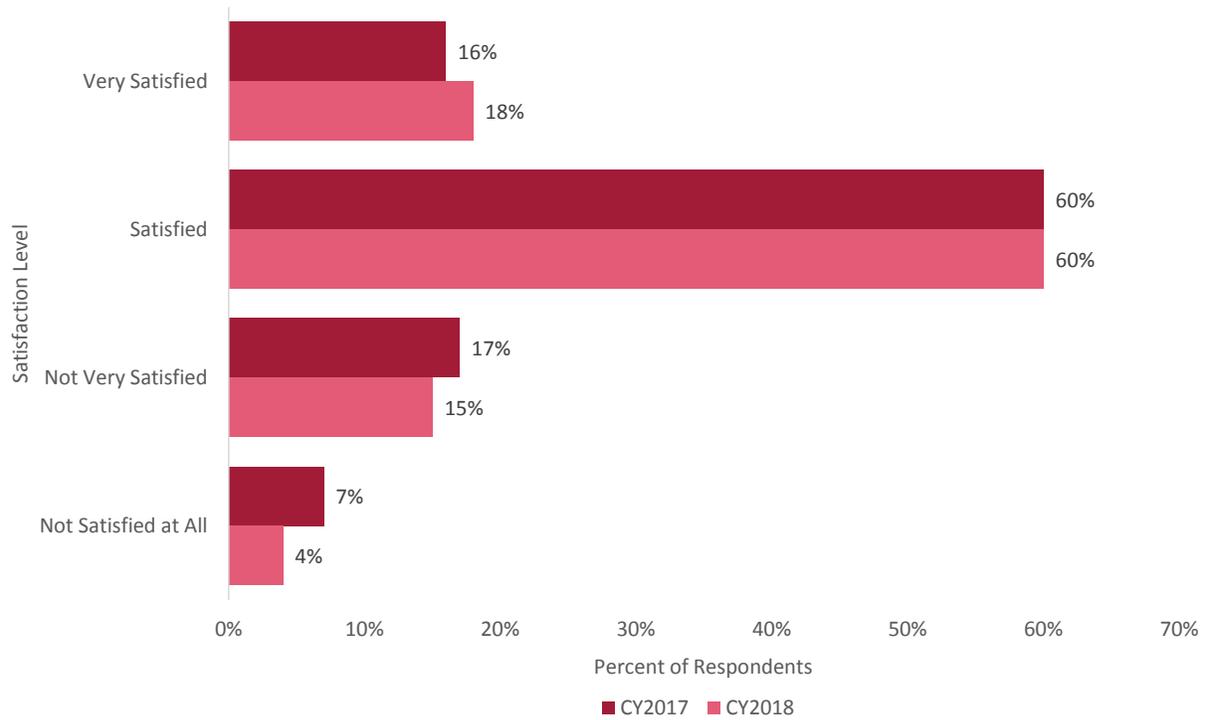
MDOT maintains 188 Major IT systems across the Department. Major IT Systems are defined as critical systems that must be up within 48 hours of being down or are public facing systems that customers interact with. Currently, 67 percent of MDOT IT systems are in fair or better condition.

**Chart 2.7E.1: MDOT-Wide Major IT Systems Condition CY2019**



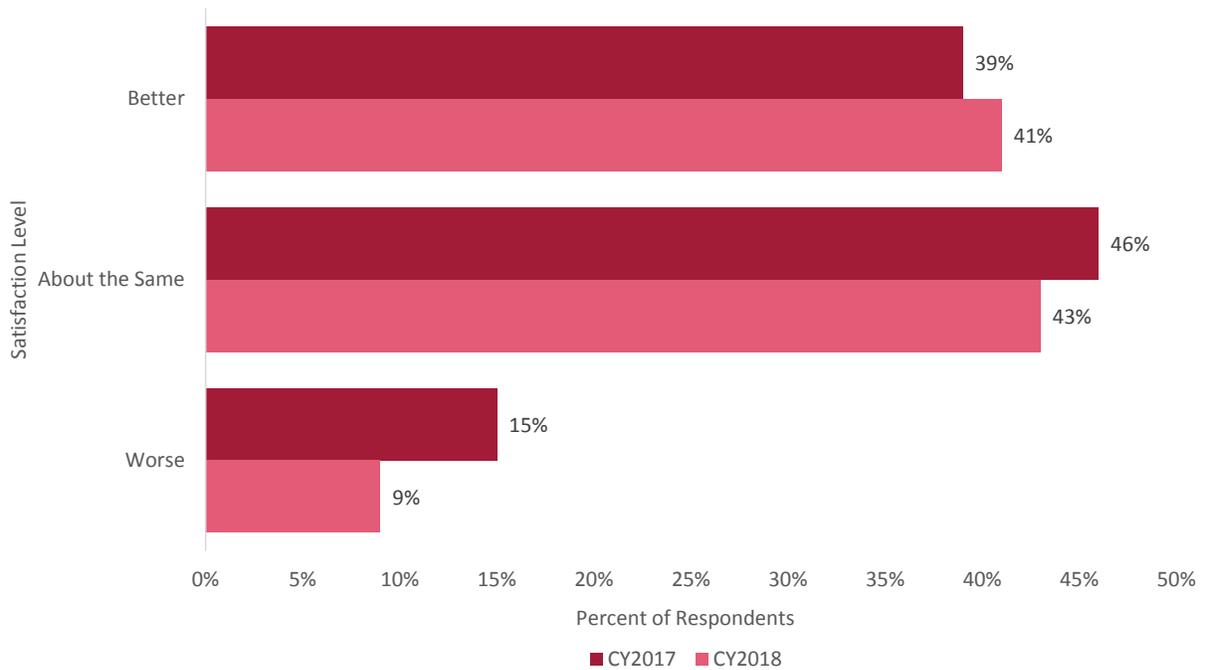
**PERFORMANCE MEASURE 2.7**  
Managing Capital Assets

**Chart 2.7F.1: Satisfaction with Smoothness of State Roads CY2017-CY2018**



**PERFORMANCE MEASURE 2.7**  
Managing Capital Assets

**Chart 2.7F.2: Maryland's Roads Compared to Other States CY2017-CY2018**



**TANGIBLE RESULT DRIVER:**

Corey Stottlemyer  
The Secretary's Office (TSO)

**PERFORMANCE MEASURE DRIVER:**

Jeff Davis  
Maryland Transportation Authority  
(MDTA)

**PURPOSE OF MEASURE:**

To track the timeliness and ability to match the budgets of the procurement process to be more efficient in our contracts.

**FREQUENCY:**

Annually

**DATA COLLECTION METHODOLOGY:**

Focus reports MDOT wide showing all active Blanket Purchase Orders (BPO) for the fiscal year.

**NATIONAL BENCHMARK:**

N/A

## PERFORMANCE MEASURE 2.8

### Percent of Procurement on Time and on Budget

***"Price is what you pay. Value is what you get."— Warren Buffett***

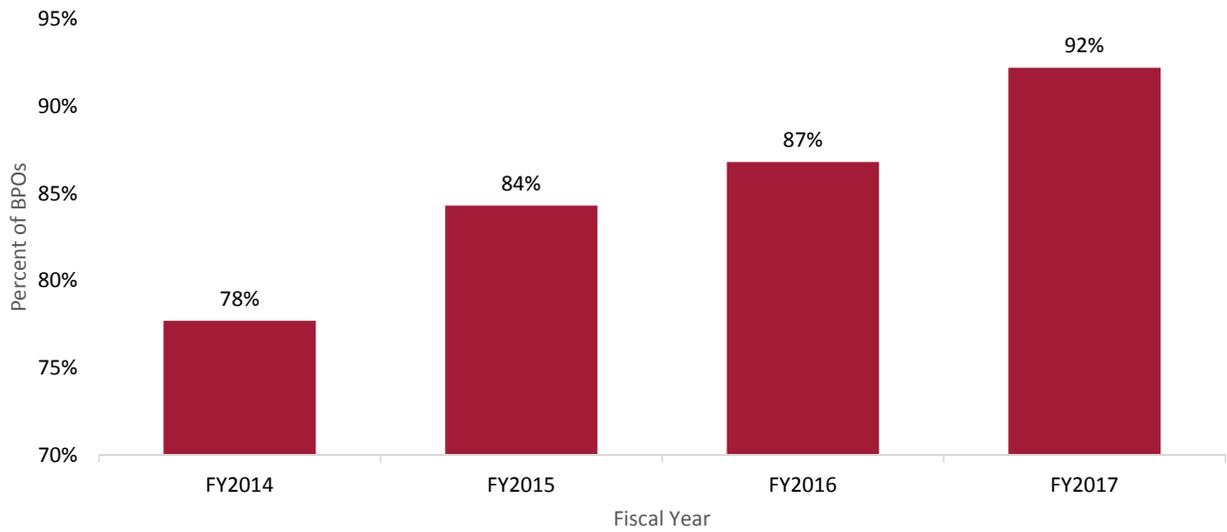
The purpose of this measure is to encourage all managers to proactively monitor and manage each of their procurements to make sure that they are in line with the project and budget in an effort to improve overall contracting efficiencies. Over time managers will do a better job at setting timelines and budgets for projects. Managers will report the project status accurately and in a timely manner so that problems are identified early and corrective action taken swiftly.

While the trend is improving, we have not addressed underlying issues, and the focus must remain on identifying those contracts with concerns. The process improvement team made recommendations to Executive Staff which are now currently being implemented, specifically the creation of Office of Project Quality Assurance.

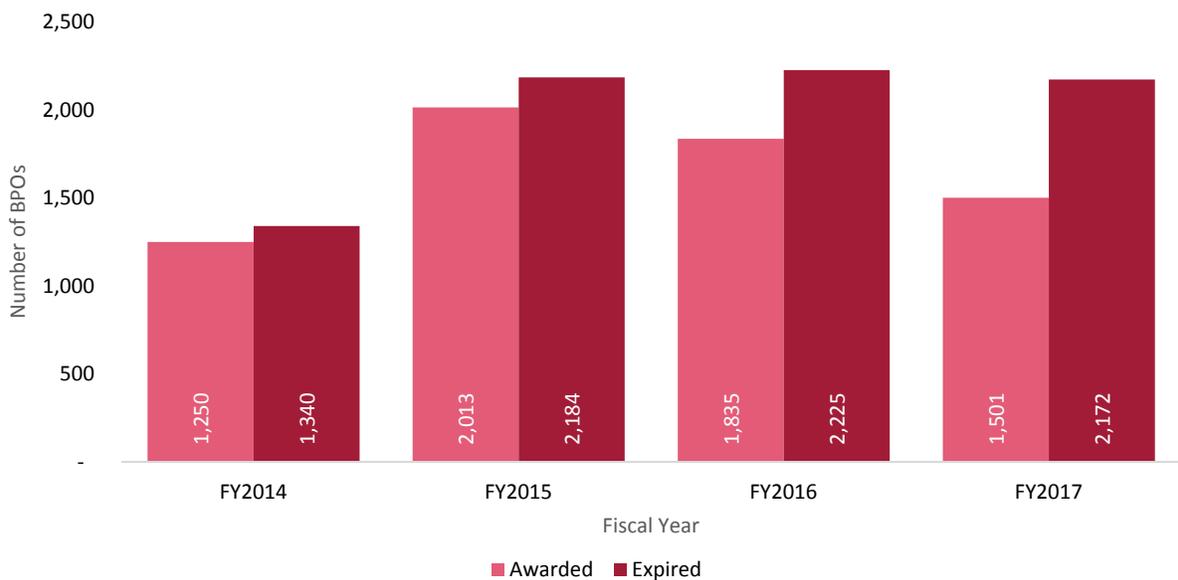
**PERFORMANCE MEASURE 2.8**

Percent of Procurement on Time and on Budget

**Chart 2.8.1: Percent of Blanket Purchase Orders (BPO) Expired FY2014-FY2017**



**Chart 2.8.2: Number of Blanket Purchase Orders (BPOs) Awarded and Expired MDOT-Wide FY2014-FY2017**



**TANGIBLE RESULT DRIVER:**

Corey Stottlemeyer  
The Secretary's Office (TSO)

**PERFORMANCE MEASURE DRIVER:**

Pretam Harry  
Motor Vehicle Administration (MVA)

**PURPOSE OF MEASURE:**

To measure (a) the percent of occurrences and (b) the dollar value of unanticipated contract modifications on procurement contracts.

**FREQUENCY:**

Annually (in October)

**DATA COLLECTION METHODOLOGY:**

MDOT wide showing active unanticipated contract modifications equal to or greater than \$1 million.

**NATIONAL BENCHMARK:**

N/A

## PERFORMANCE MEASURE 2.9

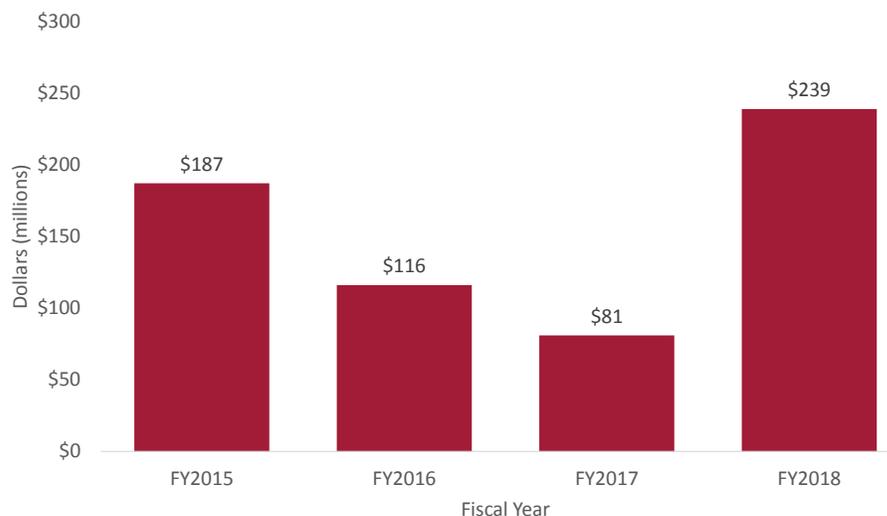
### Percent and Value of Unanticipated Contract Modifications

***"The comptroller and I — it's no secret — complain every single meeting about retroactive contracts and extension requests in order to complete new procurements." — Governor Larry Hogan***

The purpose of this measure is to encourage all managers to proactively monitor and manage each of their procurements to make sure that they are minimizing the value and amount of unanticipated contract modifications. In addition, it will encourage project staff to use timely and accurate reports that managers can analyze to examine trends in unanticipated contract modifications.

The amount and value of contract modifications will vary from one TBU to another depending on the type of project. For example, construction contracts, because of the uncertainties due to weather conditions or soil conditions, may require more contract modifications than building maintenance contracts. Similarly, an IT development contract may require more contract modifications than an IT maintenance contract.

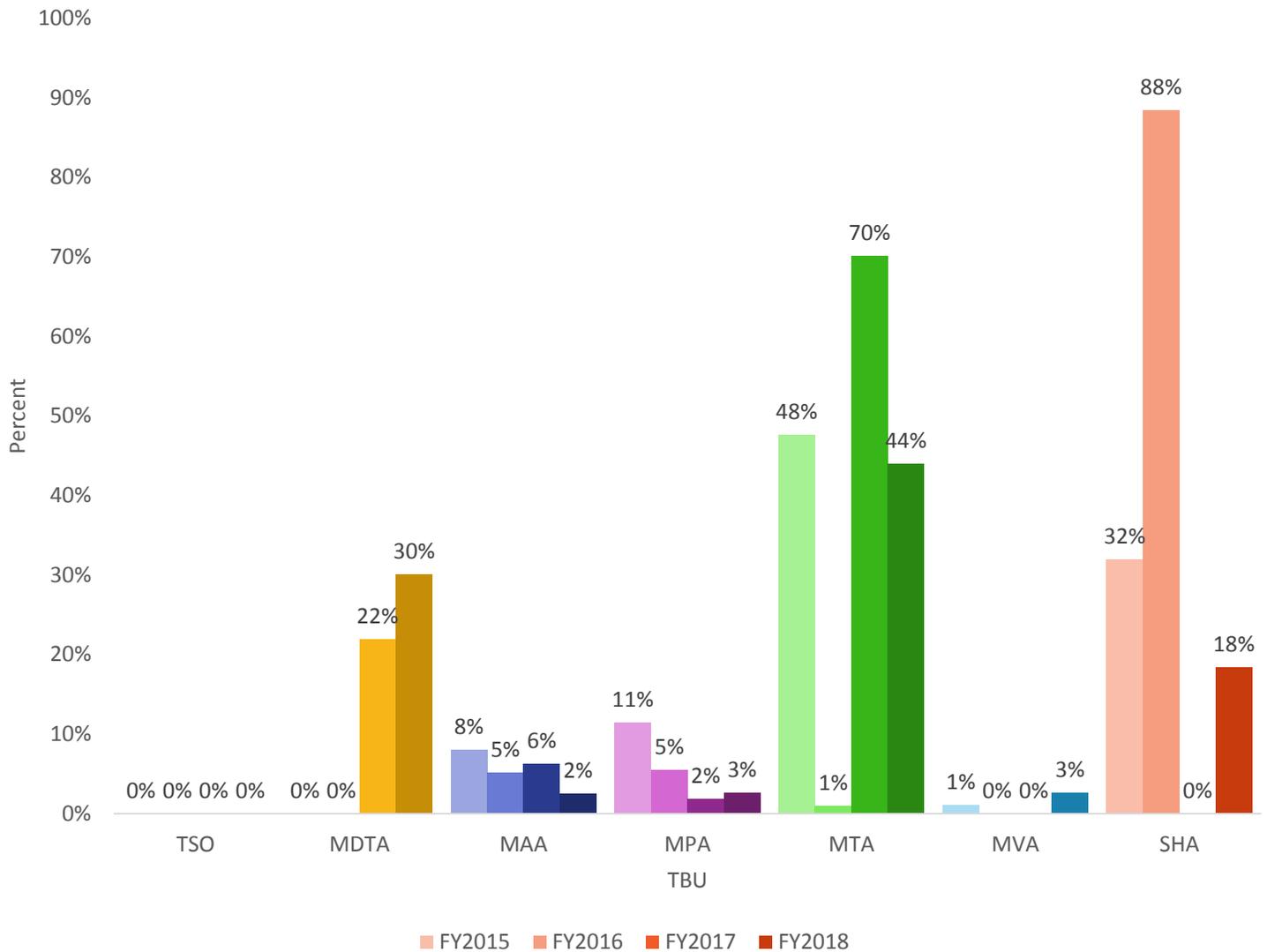
**Chart 2.9.1: Value of Unanticipated Contract Modifications in Millions of Dollars MDOT-Wide FY2015-FY2018**



**PERFORMANCE MEASURE 2.9**

Percent and Value of Unanticipated Contract Modifications

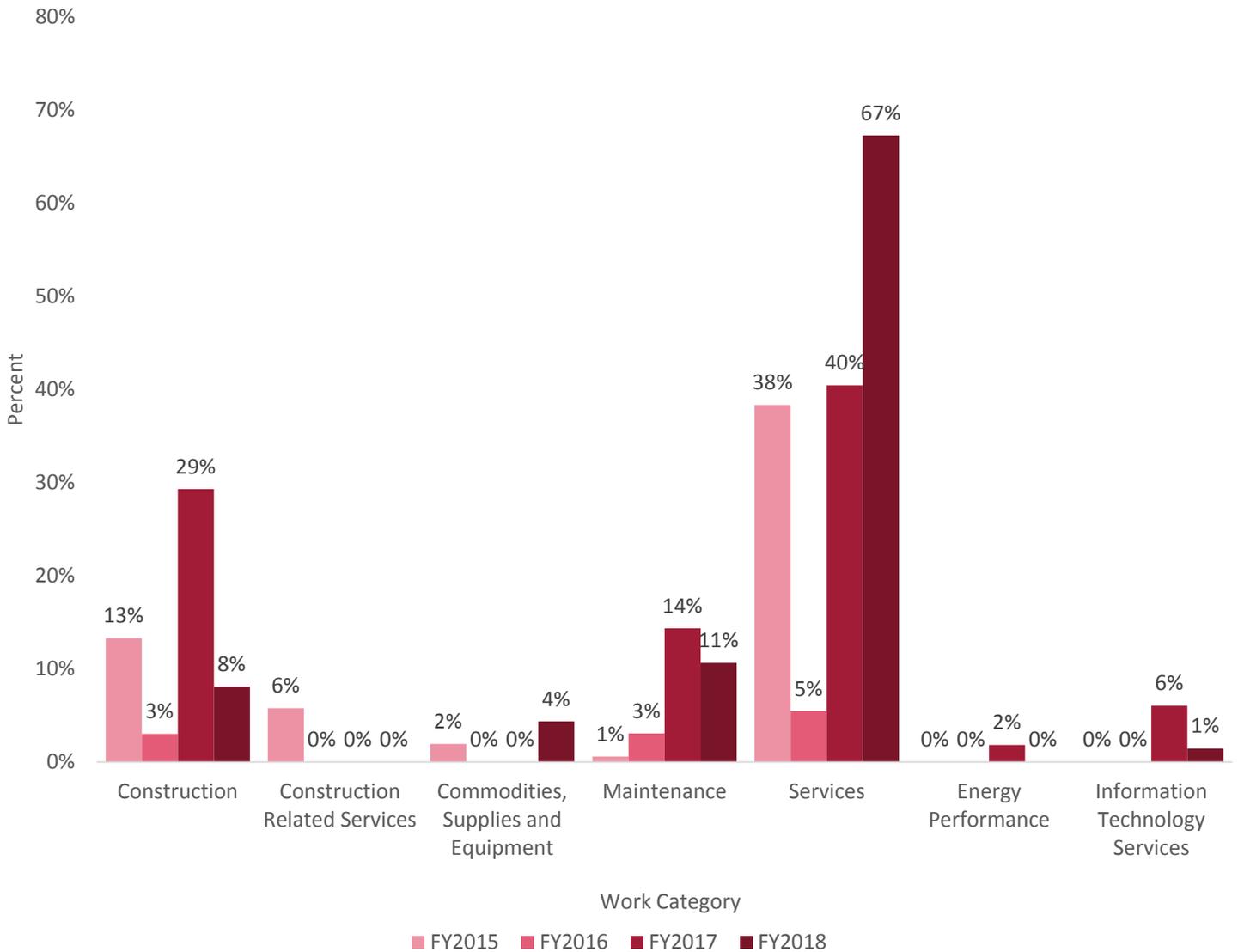
**Chart 2.9.2: Percent of Unanticipated Contract Modification Dollars Spent by TBU FY2015-FY2018**



## PERFORMANCE MEASURE 2.9

### Percent and Value of Unanticipated Contract Modifications

**Chart 2.9.3: Percent of Unanticipated Contract Modification Dollars Spent by Category of Work FY2015-FY2018**



**TANGIBLE RESULT DRIVER:**

Corey Stottlemyer  
*The Secretary's Office (TSO)*

**PERFORMANCE MEASURE DRIVER:**

Scott Schell  
*Maryland Transit Administration (MTA)*

**PURPOSE OF MEASURE:**

To understand how procurement competition impacts MDOT resources.

**FREQUENCY:**

Quarterly

**DATA COLLECTION METHODOLOGY:**

Data was collected on each TBU procurement contract over \$200,000. Sole source, emergency, and intergovernmental purchasing procurements were not included, as they have their own processes for determination. Procurement contract ID, number of bids, estimated cost and final contract amount were the used data points.

**NATIONAL BENCHMARK:**

N/A

## PERFORMANCE MEASURE 2.10

### Relationship Between Procurement Competition and Cost

*"Competition is the keen cutting edge of business, always shaving away at costs." — Henry Ford*

The purpose of this performance measure is to assess the impact of procurement competitiveness on contract costs, testing the hypothesis that increased competition leads to a better price. The chart below suggests that, in most cases as the number of bids increase, procurement contracts come in at or below cost estimate. The procurements that increased in cost had a low number of bids.

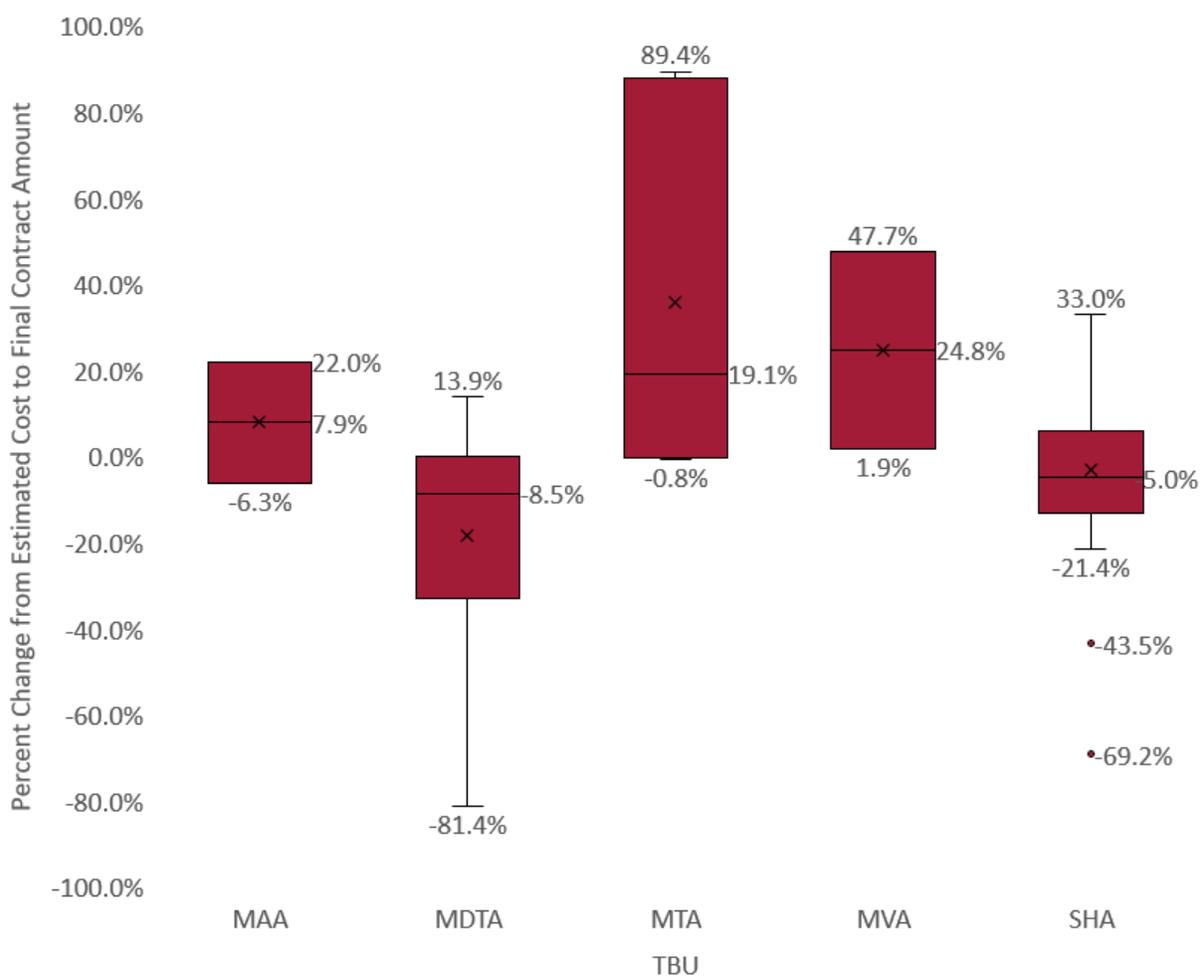
The data trend revealed the need to develop an MDOT-wide initiative to track cost estimates on procurement contracts and to evaluate the process for determining estimates.

In Q4 CY2017, an MDOT wide project improvement team forwarded to the Secretary recommendations for many standardized processes and procedures that are proposed to provide more consistency throughout all MDOT TBU's. Recommendations include development of a standardized Independent Cost Estimate (ICE) price estimate procedure, and a more comprehensive centralized database for contract information.

## PERFORMANCE MEASURE 2.10

### Relationship Between Procurement Competition and Cost

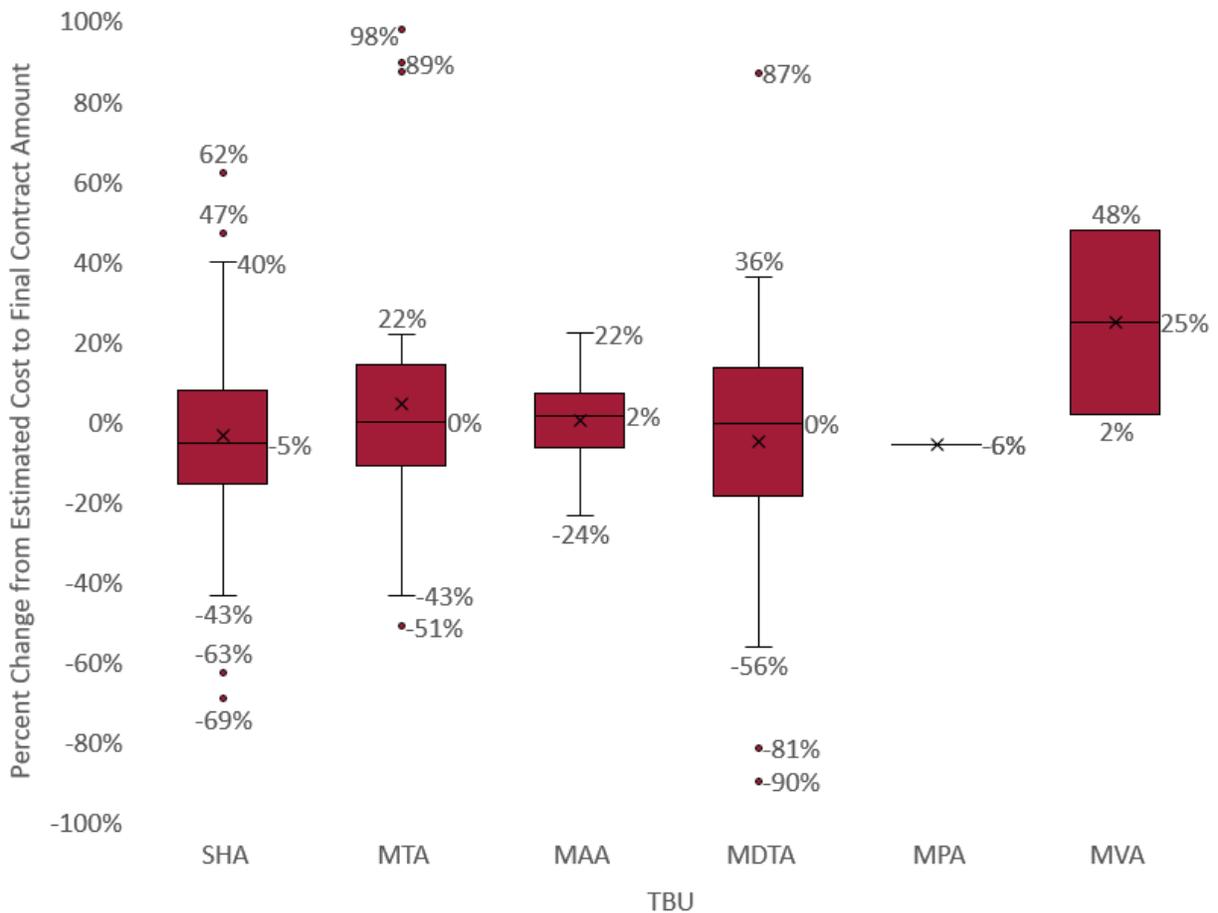
Chart 2.10.1: Actual Cost vs. Cost Estimates by TBU Q2 CY2018



## PERFORMANCE MEASURE 2.10

### Relationship Between Procurement Competition and Cost

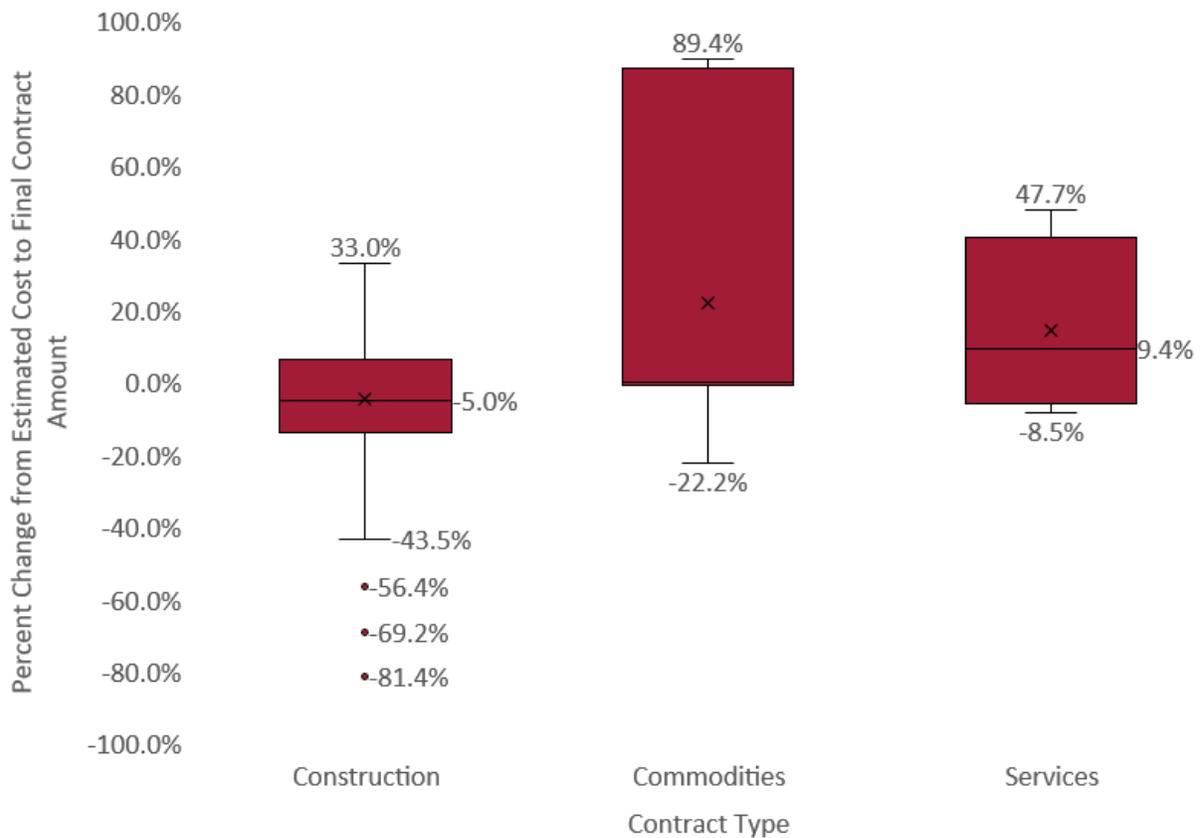
Chart 2.10.2: Actual Cost vs. Cost Estimates by TBU Q2 CY2017-Q2 CY2018



## PERFORMANCE MEASURE 2.10

### Relationship Between Procurement Competition and Cost

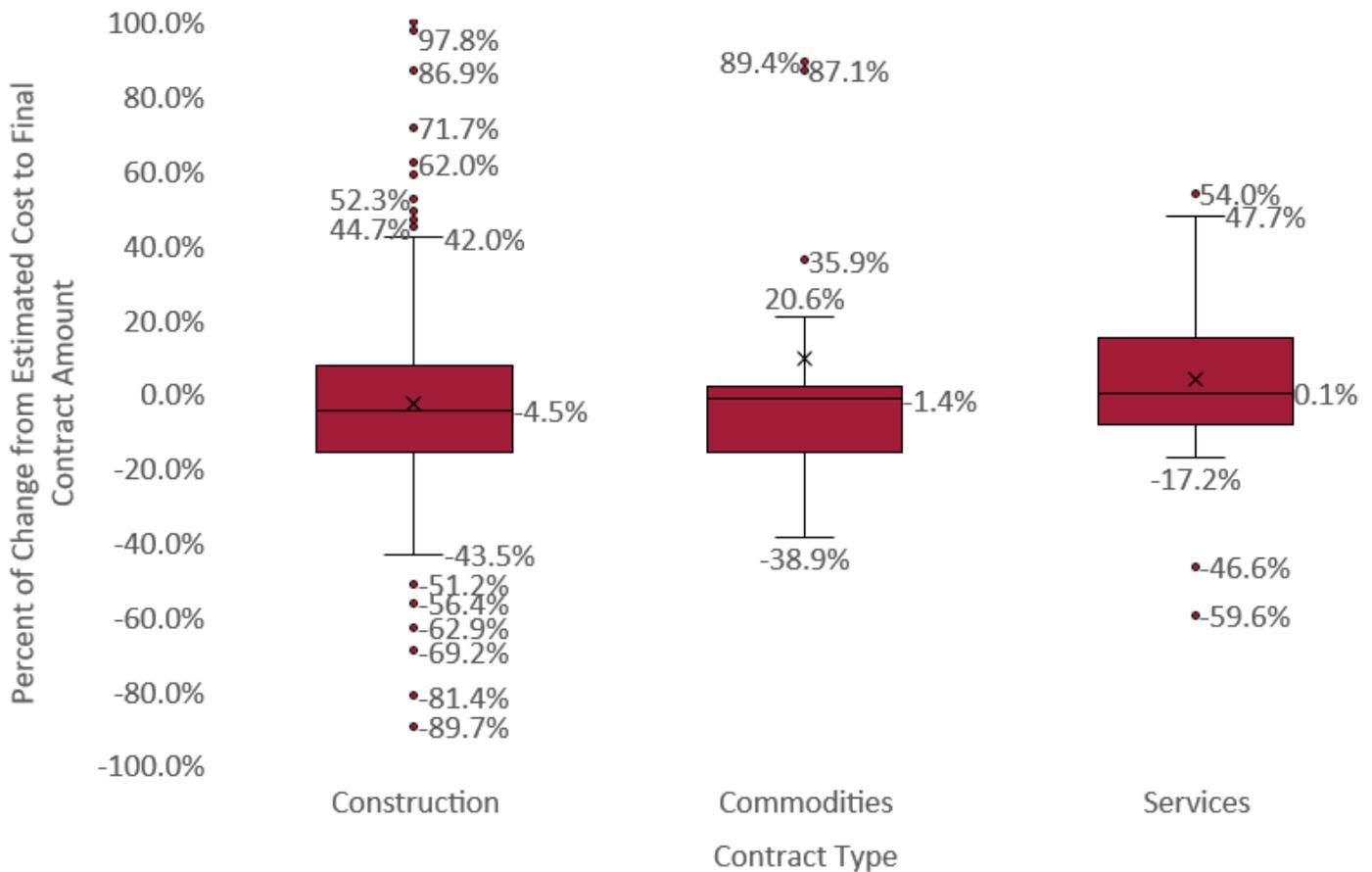
Chart 2.10.3: Actual Cost vs. Cost Estimates by Contract Type Q2 CY2018



## PERFORMANCE MEASURE 2.10

### Relationship Between Procurement Competition and Cost

Chart 2.10.4: Actual Cost vs. Cost Estimates by Contract Type Q2 CY2017-Q2 CY2018



**TANGIBLE RESULT DRIVER:**

Corey Stottlemyer  
The Secretary's Office (TSO)

**PERFORMANCE MEASURE DRIVER:**

Patrick Bradley  
Maryland Aviation Administration  
(MAA)

**PURPOSE OF MEASURE:**

To monitor compliance with State and organizational operating processes and procedures each year by tracking the number of Internal Audit Findings and Repeat Internal Audit Findings.

**FREQUENCY:**

Annually (in October)

**DATA COLLECTION METHODOLOGY:**

Information collected from TBU audit databases.

**NATIONAL BENCHMARK:**

N/A

## PERFORMANCE MEASURE 2.11

### Number of Internal Audit Findings and Number of Repeat Internal Audit Findings

*"Internal audit . . . the coolest profession in the world." — Tom Peters*

Transparent, informative, and accurate financial reporting is essential for our customers to have confidence in MDOT's ability to manage resources. Audits provide a window into current systems and areas for improvement. Data will be presented by TBU in the number of audit findings and repeat audit findings on an annual basis. This will encourage MDOT and each TBU to avoid audit and repeat audit findings.

From FY2013-FY2018, there were 1,017 Internal Audit Findings. The number of Repeat Internal Audit Findings totaled 56 from FY2013-FY2018, dealing with materials and supplies management (28 findings), promotional expense documentation and authorization (12 findings), fixed asset inventories (6 findings), MBE subcontractors reporting and compliance reviews (2 findings), overtime approvals not being documented (2 findings) and one finding each on the COMAR competitive bid process, quality assurance reviews not signed, improper auto title lien documentation, commute vehicle policy review, "floater" employee location policy and Federal reimbursement expenditure issues.

The repeat audit findings of materials and supplies management include such items as segregation of duties, access to storeroom, non-signed receipts, perpetual inventory records not being accurate, documentation issues and inventory turning over less than three times per year.

From FY2013-FY2016, of 627 total Internal Audit Findings, 32 were Repeat Internal Audit Findings or 5.1 percent.

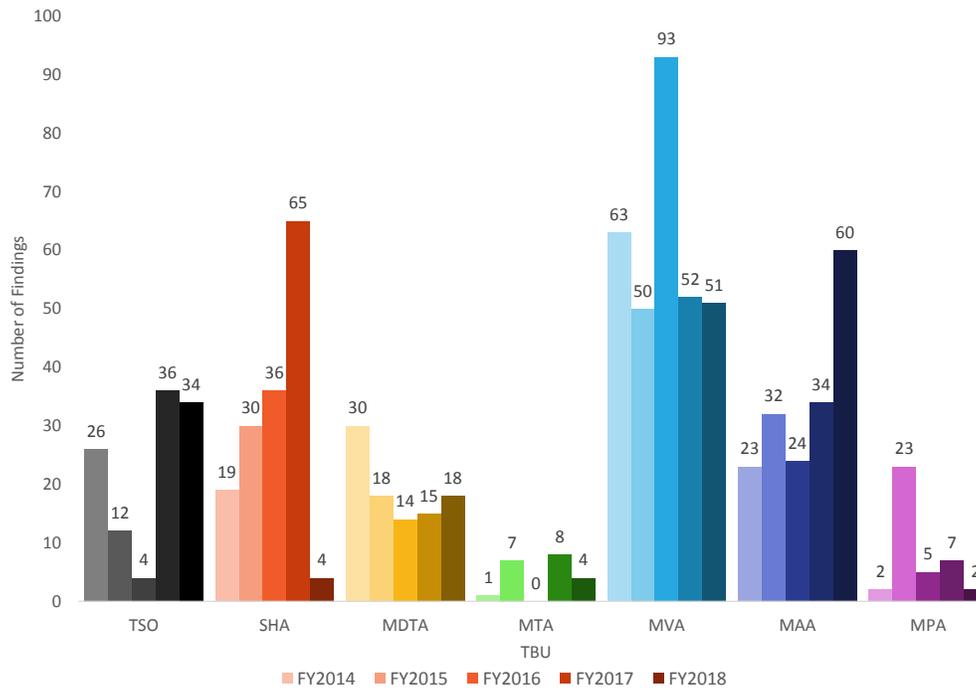
From FY2013-FY2017, of 844 total Internal Audit Findings, 44 were Repeat Internal Audit Findings or 5.2 percent.

From FY2013-FY2018, of 1,017 total Internal Audit Findings, 56 were repeat Internal Audit Findings or 5.5 percent.

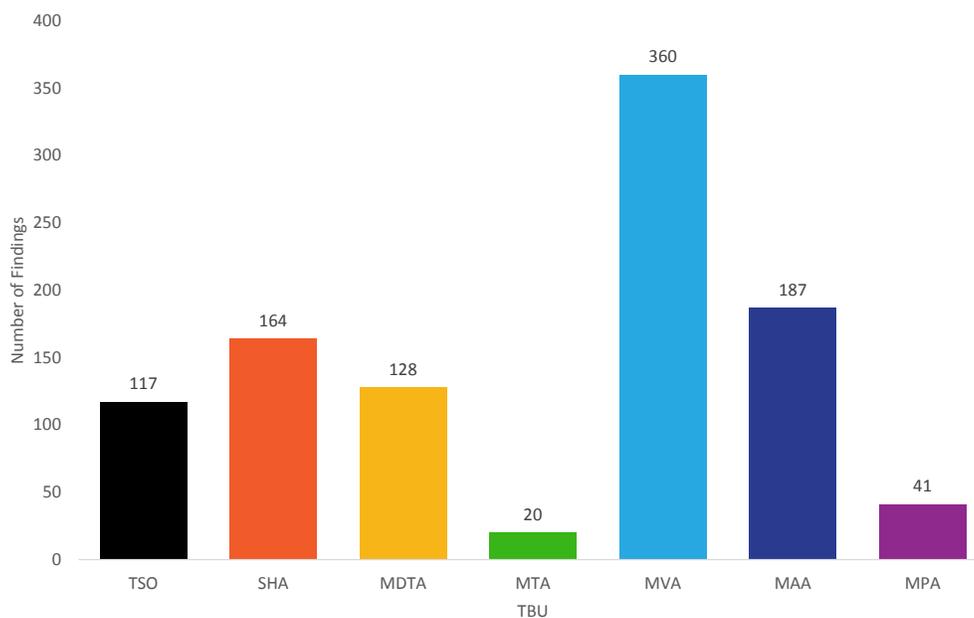
**PERFORMANCE MEASURE 2.11**

Number of Internal Audit Findings and Number of Repeat Internal Audit Findings

**Chart 2.11.1: Number of Internal Audit Findings by TBU FY2014-FY2018**



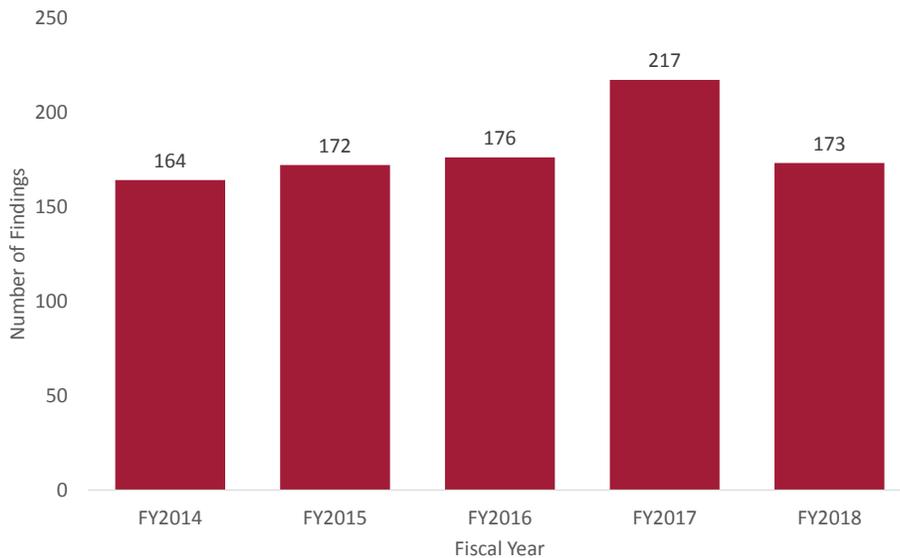
**Chart 2.11.2: Number of Total Internal Audit Findings by TBU FY2013-FY2018**



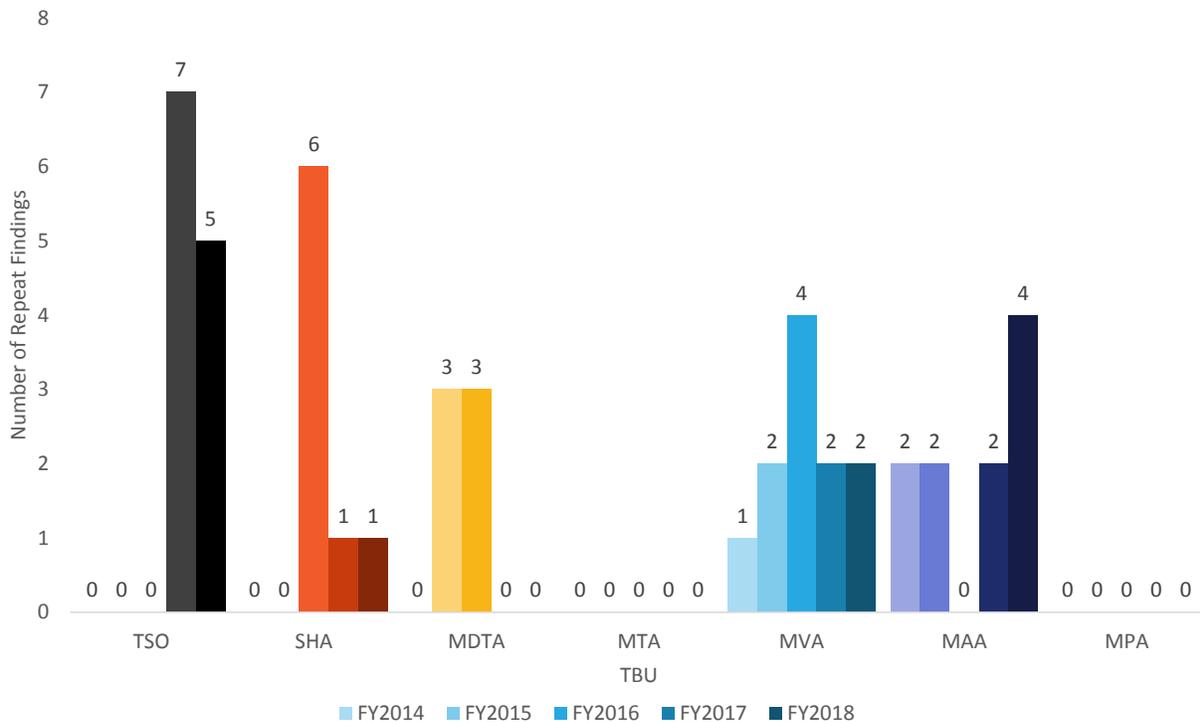
## PERFORMANCE MEASURE 2.11

### Number of Internal Audit Findings and Number of Repeat Internal Audit Findings

**Chart 2.11.3: Total Internal Audit Findings MDOT-Wide FY2014-FY2018**



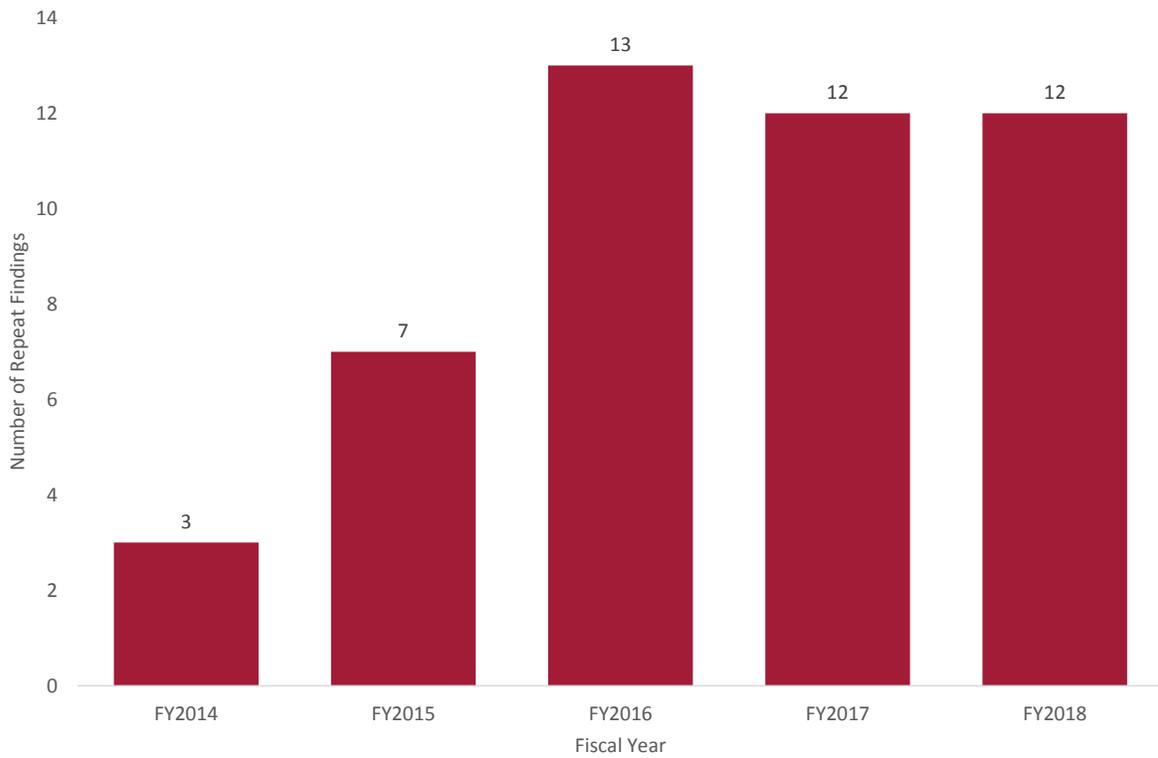
**Chart 2.11.4: Number of Internal Audit Repeat Findings by TBU FY2014-FY2018**



**PERFORMANCE MEASURE 2.11**

Number of Internal Audit Findings and Number of Repeat Internal Audit Findings

**Chart 2.11.5: Total Internal Audit Repeat Findings MDOT-Wide FY2014-FY2018**



**TANGIBLE RESULT DRIVER:**

Corey Stottlemyer  
The Secretary's Office (TSO)

**PERFORMANCE MEASURE DRIVER:**

Patrick Bradley  
Maryland Aviation Administration  
(MAA)

**PURPOSE OF MEASURE:**

To monitor compliance with State and organizational operating processes and procedures each year by tracking the number of Legislative Repeat Audit Findings.

**FREQUENCY:**

Annually (in January)

**DATA COLLECTION METHODOLOGY:**

Information collected from TBU audit databases.

**NATIONAL BENCHMARK:**

N/A

## PERFORMANCE MEASURE 2.12

### Number of Legislative Repeat Audit Findings

*"Fraud is a binary issue where the only good number is zero."*

— Rob Norman

Transparent, informative, and accurate financial reporting is essential for our customers to have confidence in MDOT's ability to manage resources. Legislative audits provide an external view of our current systems and areas for improvement.

The purpose of this performance measure is to track the number of Legislative Repeat Audit Findings. Data will be presented MDOT-wide in the number of legislative repeat audit findings on an annual basis. This will encourage MDOT and each TBU to avoid legislative repeat audit findings.

In FY2013-FY2018 there were seven total Office of Legislative Audit (OLA) Repeat Audit Findings dealing with proper internal controls over items purchased not being maintained, access to fare collection equipment and money rooms not being controlled, access controls to critical database security logs, files and transactions lacking, a lack of controls over critical virtual servers, the process for determining the propriety of architectural and engineering contract billings not being comprehensive, a lack of internal controls to ensure independent approvals for purchasing and disbursement transactions and collections received not being adequately controlled.

Five Legislative Repeat Audit Findings occurred in FY2013-FY2017 and have been resolved.

There were zero Legislative Repeat Audit Findings in FY2016.

There was one Legislative Repeat Audit Finding in FY2017.

There was one Legislative Repeat Audit Finding in FY2018.

**PERFORMANCE MEASURE 2.12**

Number of Legislative Repeat Audit Findings

**Chart 2.12.1: Number of OLA Findings & Repeat Findings by TBU FY2013 – FY2018**

	2013		2014		2015		2016		2017		2018		Total	
TSO	4	0					3	0					7	0
SHA	10	1					2	0					12	1
MDTA			2	1									2	1
MTA					9	1							9	1
MVA			9	2							12	1	21	3
MAA	8	0							4	1			12	1
MPA					2	0					1	0	3	0
Total OLA Findings	22		11		11		5		4		13		66	
Total OLA RF		1		3		1		0		1		1		7

## TANGIBLE RESULT DRIVER:

Corey Stottleyer  
The Secretary's Office (TSO)

## PERFORMANCE MEASURE DRIVER:

Dave Sharpless  
Maryland Transportation Authority  
(MDTA)

## PURPOSE OF MEASURE:

To monitor and ensure regularly scheduled preventive maintenance is conducted on time and in accordance with each TBU's guidelines. Reduce the percentage of vehicles which have not been maintained within prescribed time, mileage or hours requirements. MDTA also reduces the percent of vehicles reaching the critical zone for preventive maintenance.

## FREQUENCY:

Quarterly

## DATA COLLECTION METHODOLOGY:

Maximo

## NATIONAL BENCHMARK:

N/A, mix of equipment does not lend itself to one standard benchmark.

## PERFORMANCE MEASURE 2.13

### MDOT Fleet Vehicle On-Time Preventive Maintenance

***"Take care of your car in the garage, and the car will take care of you on the road." – Amit Kalantri***

The Preventive Maintenance (PM) Programs at each TBU are designed to ensure preventative maintenance is performed that will support efficient and effective vehicle/equipment service on a daily basis. Effective servicing leads to reliability, operating efficiency and optimizes the number of vehicles/equipment available to meet service demand functions/customer service throughout MDOT.

These objectives must be achieved with proper balance of vehicle/equipment preventive maintenance and fiscal constraints. It is recognized that preventive maintenance has associated costs however, vehicle/equipment resources are a significant investment and must be a protected asset.

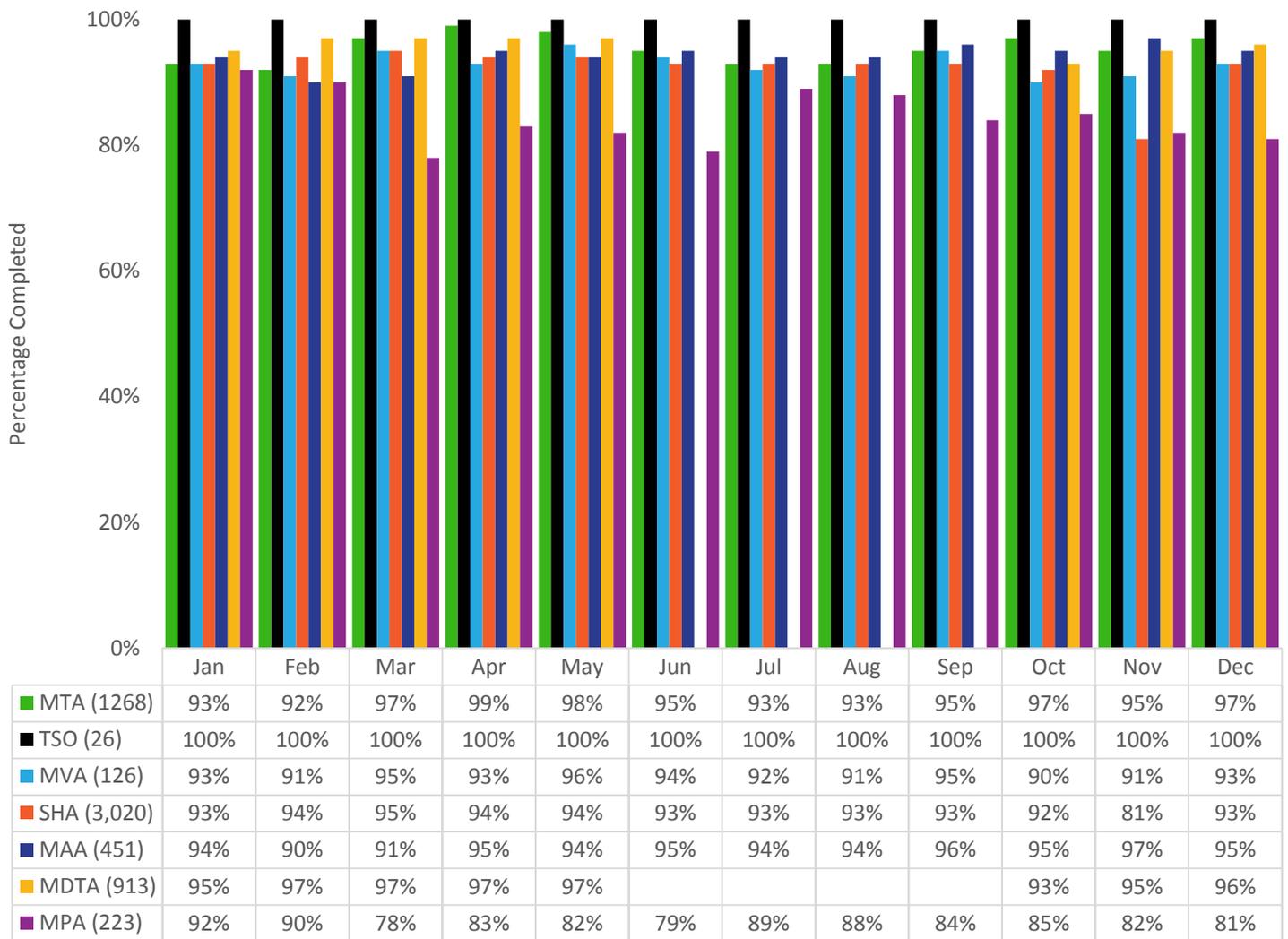
In August 2017, the decision was made to add all TBUs to this Performance Measure and transfer it to Excellerator TR2. Both items were accomplished in September 2017 and the new TR is now identified as Performance Measure 2.13, Use Resources Wisely, "MDOT Fleet Vehicle On-Time Preventive Maintenance." The previous measure, "Critical Zone" PM's is exclusive to MDTA and will continue to be reported individually. An initial meeting was conducted with all fleet representatives in September 2017. Reporting criteria was shared and agreed on. Each TBU discussed their ability to retrieve requested data in time for the October Excellerator meeting. Data challenges: All TBUs may not be able to retrieve a year of data since there have been recent changes in their collection systems. We will report on available data in October with a continued pursuit to collect additional/future data. Information will be supplied by month but reported as quarterly data.

MDTA was able to increase the vehicle replacement mileage from 100,000 to 150,000 through its PM program without compromising safety and equipment availability. This extends the life of the vehicle while avoiding overall replacement costs.

**PERFORMANCE MEASURE 2.13**

**MDOT Fleet Vehicle On-Time Preventive Maintenance**

**Chart 2.13.1: MDOT On-Time Preventative Maintenance by TBU CY2018**



### TANGIBLE RESULT #3

## Provide a Safe and Secure Transportation Infrastructure



MDOT will not compromise on our commitment to continually improve the safety and security of our customers and partners in everything we do.

#### RESULT DRIVER:

Sarah Clifford

*Maryland Transportation Authority (MDTA)*

# Provide a Safe and Secure Transportation Infrastructure

## TANGIBLE RESULT DRIVER:

Sarah Clifford  
Maryland Transportation Authority  
(MDTA)

## PERFORMANCE MEASURE DRIVER:

Bud Frank  
The Secretary's Office (TSO)

## PURPOSE OF MEASURE:

To track crime trends and adjust strategies/staffing/ response to protect customers, employees, and State property.

## FREQUENCY:

Quarterly

## DATA COLLECTION METHODOLOGY:

MTA Police and MDTA Police will report directly to Measure Driver. SHA and MVA will compile information and also report directly to Measure Driver. Measure Driver will report to Project Management Team.

## NATIONAL BENCHMARK:

N/A

## PERFORMANCE MEASURE 3.1

### Number of Crimes Against Persons and Property Committed at MDOT Facilities

This measure includes all Part I offenses and select Part II offenses as defined in the FBI Uniform Crime Report (UCR). The UCR is a national standard used by law enforcement for the collection and comparison of crime data nationwide. Part I offenses include homicide, forcible rape, robbery, aggravated assault, burglary, larceny, motor vehicle theft and arson. Part II offenses are less serious offenses including other assaults, vandalism, disorderly conduct, and other sex offenses.

The following charts show a comparison CY2016, CY2017, and CY2018, for Part I and Part II crimes. The charts are listed in three categories; MTA, MAA, and the remaining TBUs combined.

Law enforcement reviews this data on a weekly and bi-weekly basis for resource allocation and targeted enforcement activities. The data is also used to determine areas of security concern.

# Provide a Safe and Secure Transportation Infrastructure

## PERFORMANCE MEASURE 3.1

### Number of Crimes Against Persons and Property Committed at MDOT Facilities

Chart 3.1.1: Part I Crimes CY2016 - CY2018

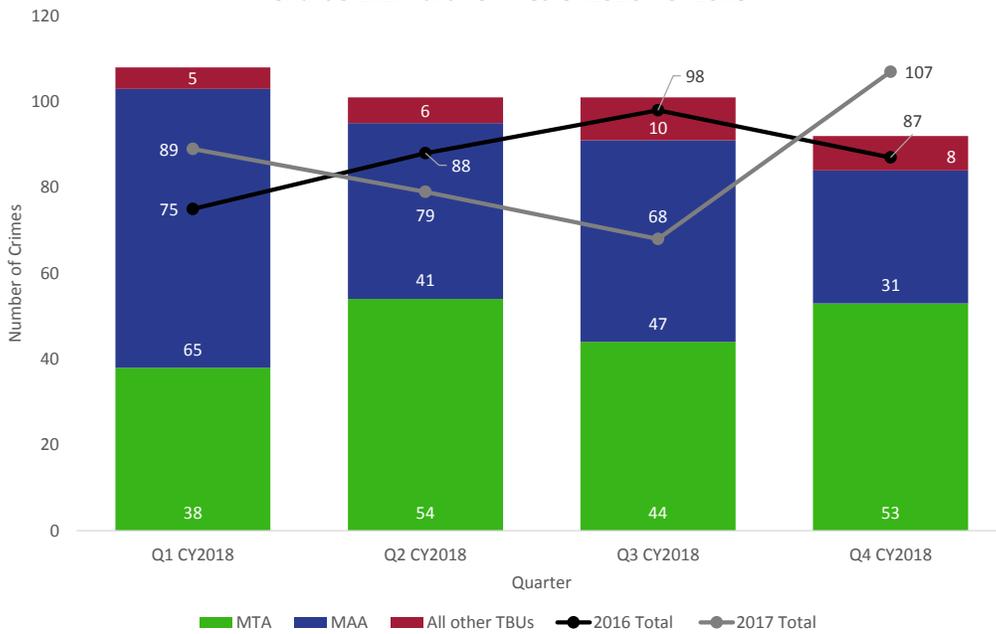
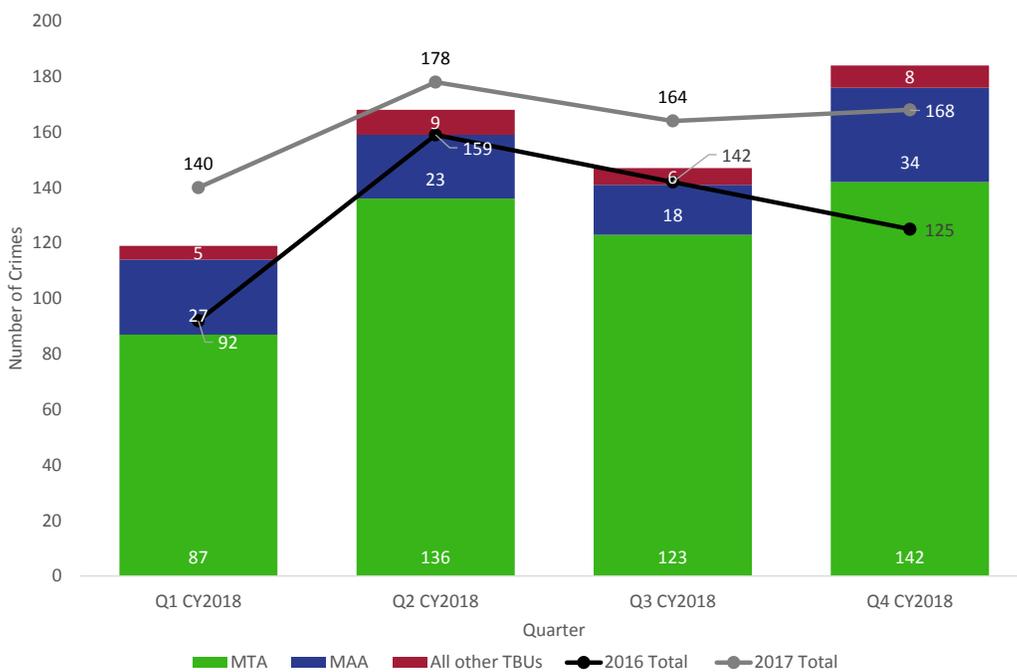


Chart 3.1.2: Part II Crimes CY2016 - CY2018



# Provide a Safe and Secure Transportation Infrastructure

## TANGIBLE RESULT DRIVER:

Sarah Clifford  
Maryland Transportation Authority  
(MDTA)

## PERFORMANCE MEASURE DRIVER:

Kelly Melhem  
Motor Vehicle Administration (MVA)

## PURPOSE OF MEASURE:

To track quarterly and annual trends in the number of persons killed in motor vehicle crashes.

## FREQUENCY:

Quarterly

## DATA COLLECTION METHODOLOGY:

Based on collective police data submitted to Maryland State Police (MSP) through Automated Crash Reporting System (ACRS).

## NATIONAL BENCHMARK:

N/A

## PERFORMANCE MEASURE 3.2

### Number of Traffic-Related Fatalities on All Roads

***Behind every number is a person, a family, and a community changed forever.***

MDOT strives to increase motorist safety by reducing traffic crashes that result in serious injuries and deaths. One key measure is tracking the number of fatalities on all roads and analyzing specific causes and related trends. Maryland's Strategic Highway Safety Plan (SHSP) – administered by the MDOT MVA's Maryland Highway Safety Office (MHSO) – is our roadmap driving us Toward Zero Deaths. Its goal is to reduce the number of traffic fatalities 50 percent by 2030 from the 2008 baseline (592 fatalities) using behavioral and engineering safety strategies. Drivers remain the single most important safety feature inside a vehicle.

In 2014, the number of fatalities (443) was the lowest since 1948; but in 2015, the State experienced a 17.6 percent increase in highway fatalities (521), the largest single-year increase in 30 years. Although the number of highway deaths remained steady in 2016 (522), traffic fatalities across the State increased by seven percent in 2017 (558).

After three years of increases in the number of deaths on our nation's highways, the U.S. experienced a 1.8 percent decrease in traffic fatalities between 2016 (37,806) and 2017 (37,133). The National Highway Traffic Safety Administration (NHTSA) attributes the recent years' increases to relatively inexpensive gasoline, a sharp increase in vehicle miles traveled (VMT) and an improved economy. VMT in Maryland increased by two percent from 2016 to 2017. This increased exposure, coupled with risky driving behaviors and a failure to use seat belts, is believed to be a significant reason for the continued increase in highway fatalities in Maryland.

Maryland's 2017 crash data also indicates:

- A decrease in bicyclist fatalities from 2016.
- An increase in pedestrian fatalities from 2016. One in five traffic deaths is a pedestrian.
- A significant increase in motorcyclist fatalities, which increased by 14 percent from 2016.

Early data for 2018 shows a preliminary decline in both traffic fatalities (492) and in VMT compared to 2017.

# Provide a Safe and Secure Transportation Infrastructure

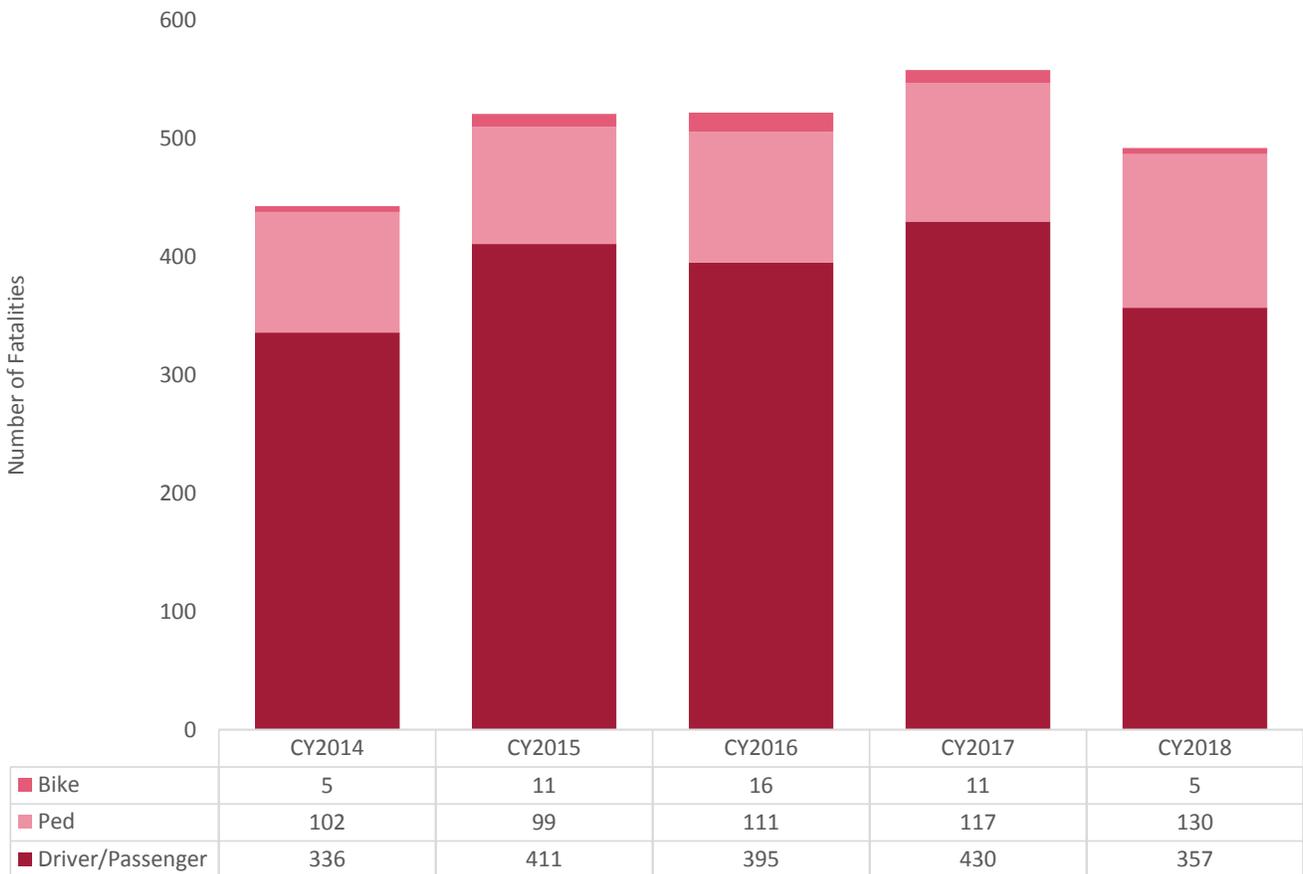
## PERFORMANCE MEASURE 3.2

### Number of Traffic-Related Fatalities on All Roads

Maryland’s SHSP (2016-2020) establishes six specific emphasis areas along with long-term goals and mid-range reduction targets to help save lives on Maryland roads. The five-year plan was developed by a diverse group of partners and stakeholders representing all 4 Es of highway safety (Engineering, Enforcement, Education and Emergency Medical Services). Emphasis Area Teams (Aggressive Driving, Distracted Driving, Impaired Driving, Occupant Protection, Highway Infrastructure, and Pedestrian and Bicycle Safety) are comprised of a broad range of safety officials and stakeholders who design action plans for implementing the SHSP’s strategies. These teams meet regularly to gauge progress and determine what changes need to be made to better implement the safety strategies.

The SHSP is managed by an Executive Council of high-ranking officials responsible for public and highway safety. This group meets semi-annually to review overall progress and to discuss possible amendments to the plan as necessitated by changing dynamics. The SHSP is administered by the MDOT MVA’s MHSO.

**Chart 3.2.1: Annual Comparison of All Fatalities CY2014-CY2018 (YTD)**



# Provide a Safe and Secure Transportation Infrastructure

## PERFORMANCE MEASURE 3.2

### Number of Traffic-Related Fatalities on All Roads

Chart 3.2.2: Comparison of All Fatalities Q4 CY2014-CY2018 (YTD)

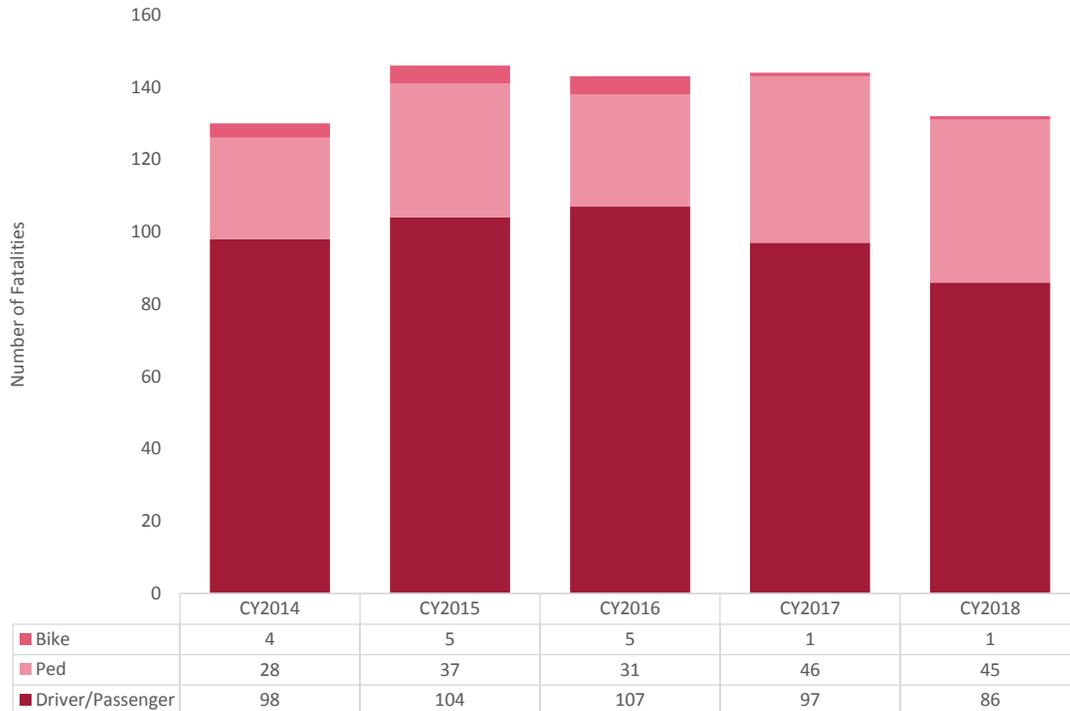
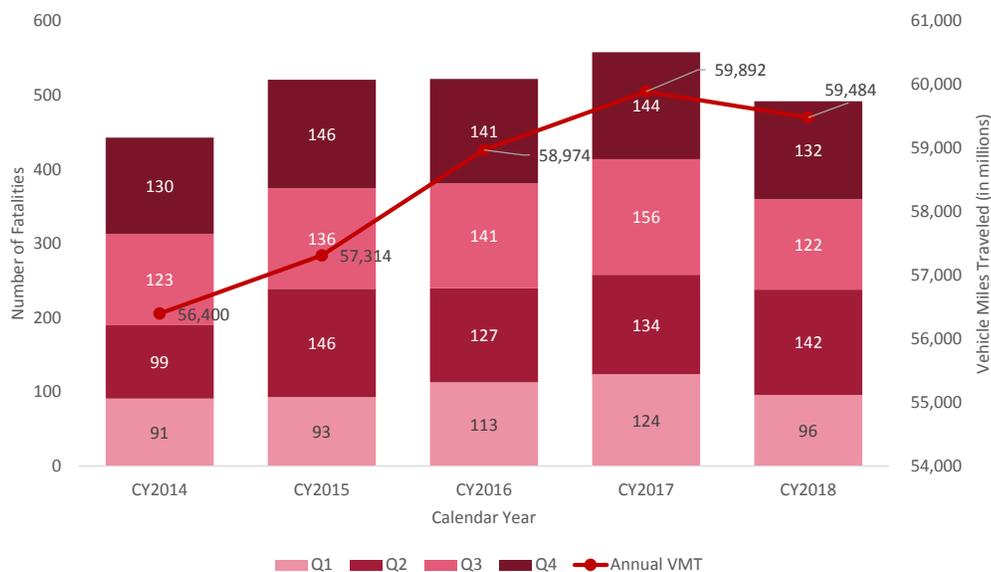


Chart 3.2.3: Annual Comparison of All Fatalities CY2014-CY2018



# Provide a Safe and Secure Transportation Infrastructure

## TANGIBLE RESULT DRIVER:

Sarah Clifford  
Maryland Transportation Authority  
(MDTA)

## PERFORMANCE MEASURE DRIVER:

Kelly Melhem  
Motor Vehicle Administration (MVA)

## PURPOSE OF MEASURE:

To track trends in the number of persons killed in motor vehicle crashes per vehicle miles traveled (VMT).

## FREQUENCY:

Annually (in May)

## DATA COLLECTION METHODOLOGY:

MDOT SHA collects VMT data based on highway counts on roadways across the State. Fatality data is collected by the MSP through ACRS. The MDOT MHSO collects the data from these two agencies.

## NATIONAL BENCHMARK:

National Highway Fatality Rate of 1.16 in 2017.

## PERFORMANCE MEASURE 3.3

### Maryland Traffic-Related Fatality Rate (Highways)

***Behind every number is a person, a family, and a community changed forever.***

The annual fatality rate is a measure of the number of persons killed in a traffic-related crash for every 100 million VMT on all roads in the State.

Maryland's traffic-fatality rate compares favorably to the national fatality rate. While the U.S. fatality rate never has dipped below one death per 100 million VMT (1.16 in 2017), Maryland's rate has remained below one for the past eight years, increasing slightly from 0.89 in 2016 to 0.93 in 2017.

This slight increase corresponds with a smaller rise in Maryland's VMT coupled with more traffic deaths between 2016 and 2017.

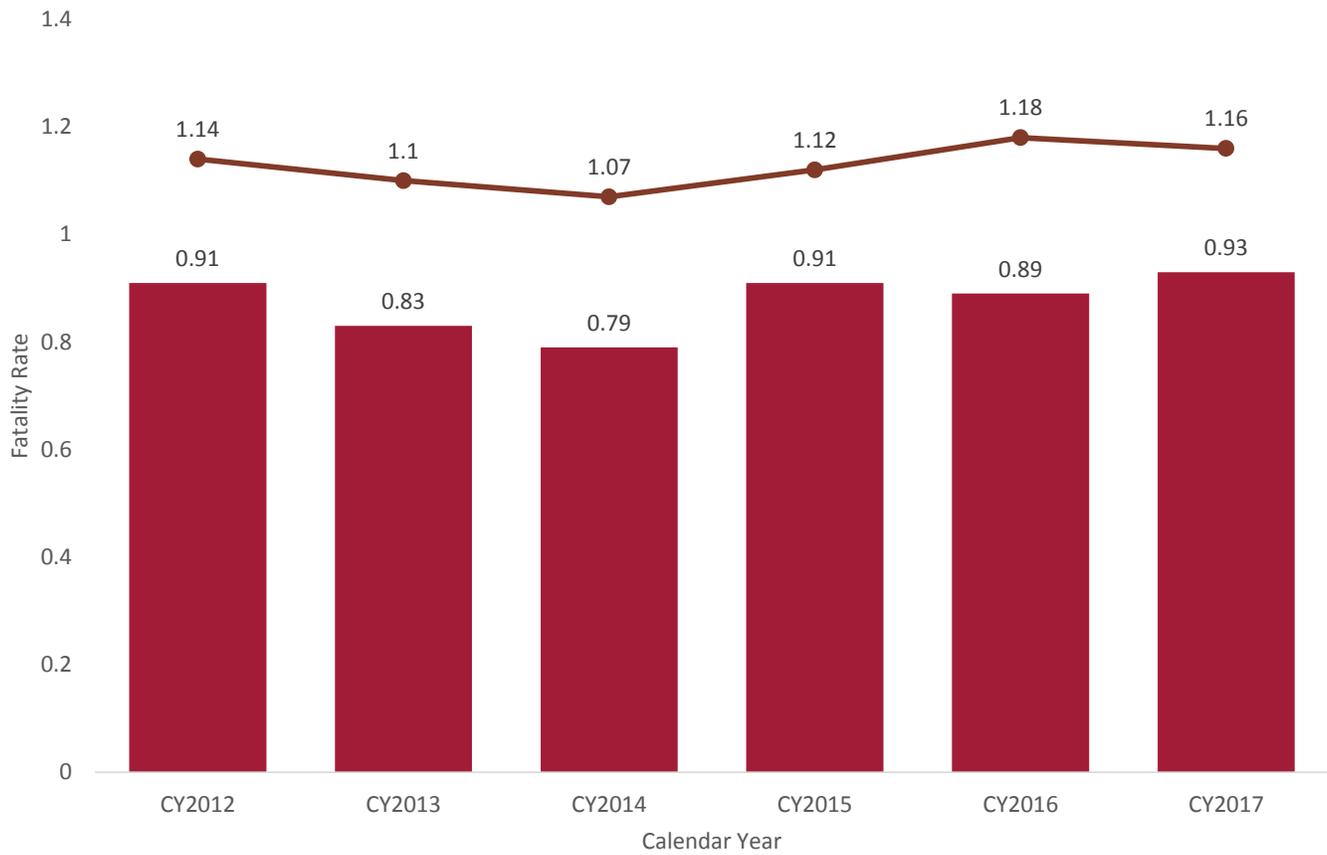
Historically, as the nation's and/or State's economy grows, people tend to drive more, increasing both the state's VMT and a person's risk for being in a crash. Since VMT is more difficult to influence, decreasing the number of traffic fatalities is the best opportunity to lower the fatality rate.

# Provide a Safe and Secure Transportation Infrastructure

## PERFORMANCE MEASURE 3.3

### Maryland Traffic-Related Fatality Rate (Highways)

Chart 3.3.1: Traffic-Related Fatality Rate, Maryland vs. National Benchmark CY2012 - CY2017



# Provide a Safe and Secure Transportation Infrastructure

## TANGIBLE RESULT DRIVER:

Sarah Clifford  
Maryland Transportation Authority  
(MDTA)

## PERFORMANCE MEASURE DRIVER:

Kelly Melhem  
Motor Vehicle Administration (MVA)

## PURPOSE OF MEASURE:

To track quarterly and annual trends in the number of persons seriously injured in motor vehicle crashes.

## FREQUENCY:

Quarterly

## DATA COLLECTION METHODOLOGY:

Based on collective police data submitted to MSP through ACRS.

## NATIONAL BENCHMARK:

N/A

## PERFORMANCE MEASURE 3.4

### Number of Traffic-Related Serious Injuries on all Roads

***Behind every number is a person, a family, and a community changed forever.***

The number of traffic-related serious injuries is a count of persons sustaining an incapacitating injury in a crash. It is determined by a responding police officer investigating the crash and gathered from the injury severity code entered on the crash report.

Following a significant 10-year decline, the number of serious injuries on Maryland roadways in 2016 increased by 16 percent; however, this increase likely is due in part to changes in the crash reporting process. In 2017, the number of serious injuries increased slightly from 2016, while very early data for 2018 (2,841 serious injuries) shows a preliminary decline compared to 2017 (3,345 serious injuries).

Striving to minimize crashes that result in serious injuries serves to reduce a motorist's risk for suffering life-altering consequences. Maryland's SHSP – described in Performance Measure 3.2 – is based on the Toward Zero Deaths approach to reduce the number of fatalities and serious injuries from traffic crashes by 50 percent by 2030. The SHSP brings together federal, state and local partners to help reach this goal by reducing impaired, distracted and aggressive driving; improving pedestrian, bicyclist, motorcyclist and motorist safety; reaching 100 percent seat belt use; and engineering safer roads.

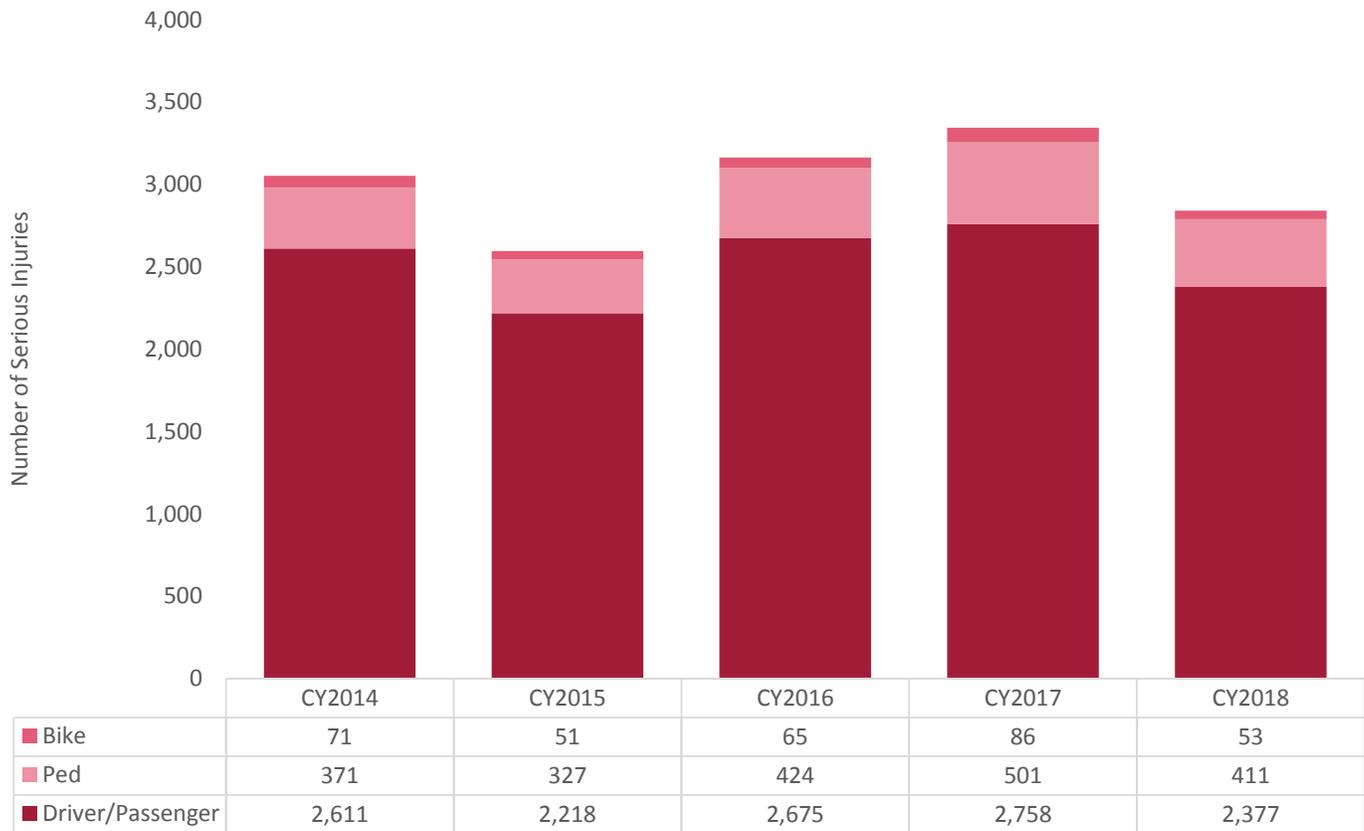
Since serious injuries are defined differently from state to state, there is no national benchmark.

# Provide a Safe and Secure Transportation Infrastructure

## PERFORMANCE MEASURE 3.4

### Number of Traffic-Related Serious Injuries on all Roads

Chart 3.4.1: Annual Comparison of All Serious Injuries CY2014-CY2018 (YTD)



# Provide a Safe and Secure Transportation Infrastructure

## PERFORMANCE MEASURE 3.4

### Number of Traffic-Related Serious Injuries on all Roads

Chart 3.4.2: Comparison of Serious Injuries Q4 CY2014-CY2018 (YTD)

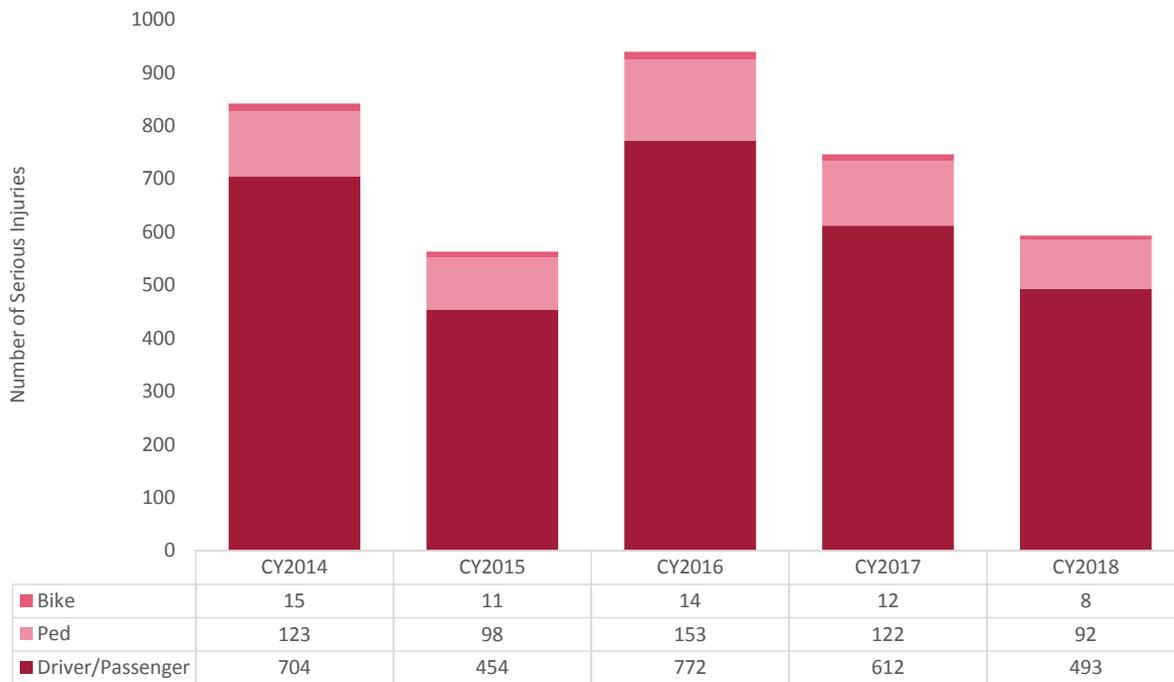
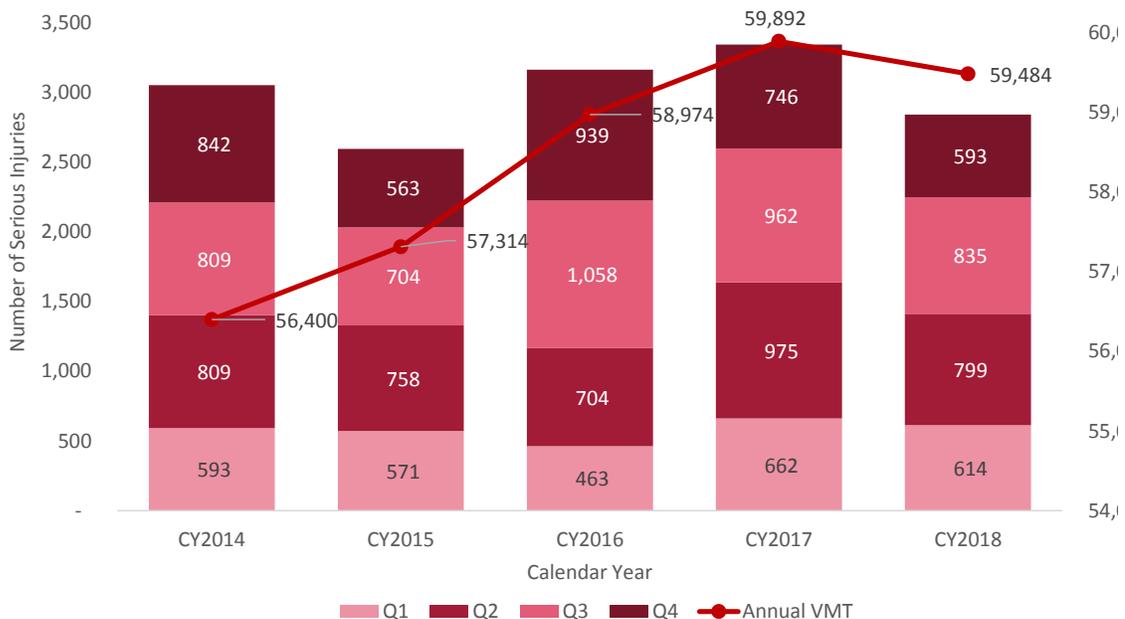


Chart 3.4.3: Annual Comparison of All Serious Injuries CY2014-CY2018 (YTD)



# Provide a Safe and Secure Transportation Infrastructure

## TANGIBLE RESULT DRIVER:

Sarah Clifford  
Maryland Transportation Authority  
(MDTA)

## PERFORMANCE MEASURE DRIVER:

Kelly Melhem  
Motor Vehicle Administration (MVA)

## PURPOSE OF MEASURE:

To track trends in the number of persons seriously injured in motor vehicle crashes per VMT.

## FREQUENCY:

Annually (in April)

## DATA COLLECTION METHODOLOGY:

SHA collects VMT data based on highway counts on roadways across the State. The serious injury data is collected by the MSP through its ACRS. The MDOT MHSO collects the data from these two agencies.

## NATIONAL BENCHMARK:

N/A

## PERFORMANCE MEASURE 3.5

### Maryland Traffic-Related Serious Injury Rate (Highways)

*Behind every number is a person, a family, and a community changed forever.*

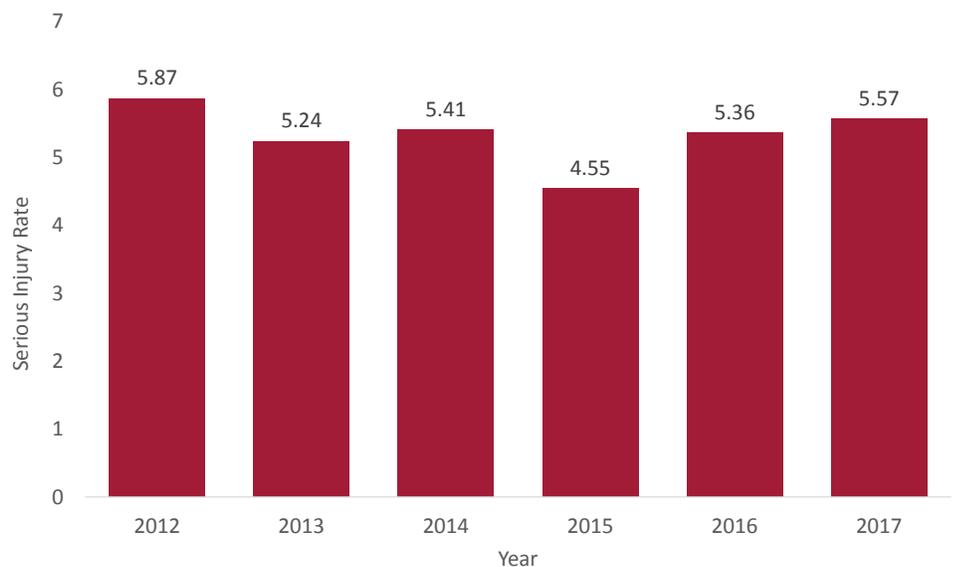
Maryland's serious injury rate is based on a measure similar to the fatality rate (number of persons seriously injured annually in a traffic-related crash per 100 million VMT).

After a 33-percent drop in both the number of serious injuries and the corresponding rate between 2008 and 2015, Maryland's serious injury rate increased from 4.55 in 2015 to 5.36 in 2016 and to 5.57 in 2017. These higher rates correspond with the increased number of serious injuries between 2015 and 2017, as well as the increases in VMT in Maryland.

Serious injury or death is not an acceptable consequence of driving. The SHSP contains strategies intended to reduce risky driving behaviors statewide that result in the types of crashes leading to serious injury or death. Engineering advances in safer vehicles and highways, and immediate critical care from emergency medical providers, have contributed significantly to the declines in traffic-related serious injuries (and their corresponding rates) during several recent years.

Since serious injuries are defined differently from state to state, there is no national benchmark rate.

**Chart 3.5.1: Maryland Traffic-Related Serious Injury Rate CY2012-CY2017**



# Provide a Safe and Secure Transportation Infrastructure

## TANGIBLE RESULT DRIVER:

Sarah Clifford  
Maryland Transportation Authority  
(MDTA)

## PERFORMANCE MEASURE DRIVER:

Gina Watson  
Maryland Port Administration (MPA)

## PURPOSE OF MEASURE:

To track trends in seat belt use in Maryland and assess how Maryland ranks against the national rate as an indicator of how well seatbelt use is encouraged.

## FREQUENCY:

Annually (in January)

## DATA COLLECTION METHODOLOGY:

Observational Survey conducted by MDOT MVA MHSO.

## NATIONAL BENCHMARK:

Nationwide usage rate provided by NHTSA was 89.7 percent in 2017.

## PERFORMANCE MEASURE 3.6

### Maryland Seat Belt Usage Rate

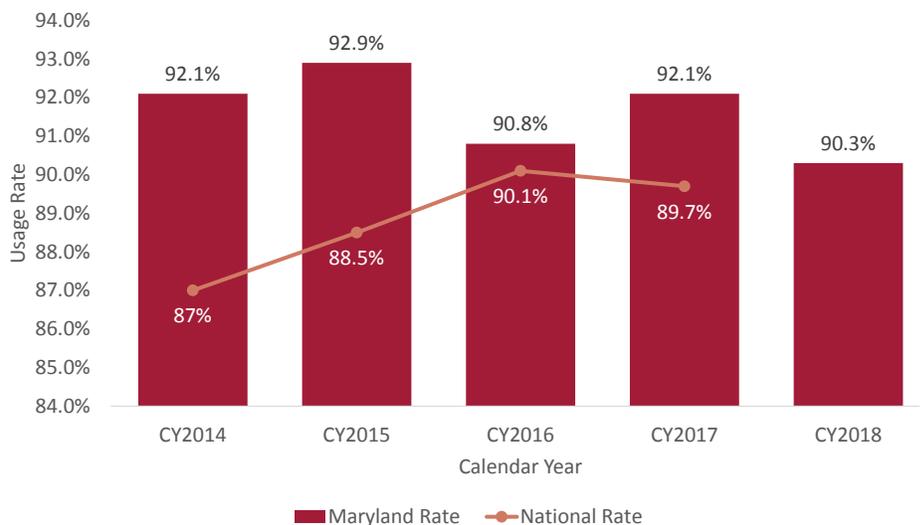
The use of seat belts by Maryland drivers greatly reduces the severity of personal injury and occupant fatalities in crashes. States such as Maryland with primary and secondary seat belt enforcement laws exhibit higher seat belt usage rates.

Maryland's seat belt usage rate is collected by an observational survey methodology approved by the NHTSA. Maryland's preliminary seat belt usage rate is 90.3 percent for 2018 representing a 1.8 percent decrease over the previous survey year. The 2018 nationwide seat belt usage rate was not available at the time of this analysis.



In an effort to encourage Maryland motorists to buckle up, every seat, every time, the MHSO is currently recruiting high schools and colleges to participate in a second Making It Click seat belt challenge. In addition, MDOT launched a Traffic Safety Pledge to the public further emphasizing the importance of safe driving behaviors. The MHSO will continue to partner with law enforcement agencies to reaffirm seat belt use enforcement.

**Chart 3.6.1: Maryland Seatbelt Usage Rate vs. National Benchmark Rate CY2014-CY2018**



# Provide a Safe and Secure Transportation Infrastructure

**TANGIBLE RESULT DRIVER:**

Sarah Clifford  
Maryland Transportation Authority (MDTA)

**PERFORMANCE MEASURE DRIVER:**

Cedric Ward  
State Highway Administration (SHA)

**PURPOSE OF MEASURE:**

To track and assess the performance of MDOT's incident management programs to respond to customer needs while traveling.

**FREQUENCY:**

Quarterly

**DATA COLLECTION METHODOLOGY:**

Data is collected from centralized reporting to CHART for roadway data. MPA and MAA data are collected individually.

**NATIONAL BENCHMARK:**

N/A

**PERFORMANCE MEASURE 3.7**

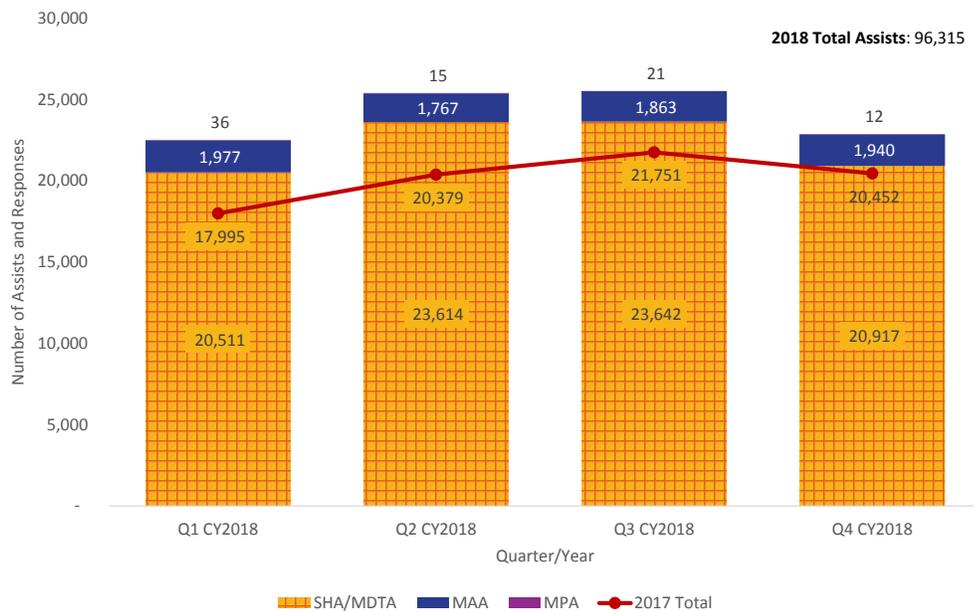
**Travelers Assisted by MDOT**

The Coordinated Highways Action Response Team (CHART) is a joint effort of MDOT, MSP, and numerous other federal, State and local agencies. CHART provides assistance to disabled motorists and responds to traffic incidents throughout Maryland. In the Baltimore and Washington metropolitan areas, patrols are operated 24 hours per day, seven days per week. In addition to services on highways, the MPA and MAA provide assistance to their customers who experience vehicle issues.

These services provide an added value to MDOT customers who might otherwise need to rely on paid service providers. Customers can access this service by dialing \*77 or through the normal 911 emergency dispatch.

For CY2018, MDOT provided assists to 96,315 travelers. Additionally, CHART provides real-time traffic conditions through its website: <http://www.chart.state.md.us/>.

**Chart 3.7.1: Number of Assists and Responses CY2018**

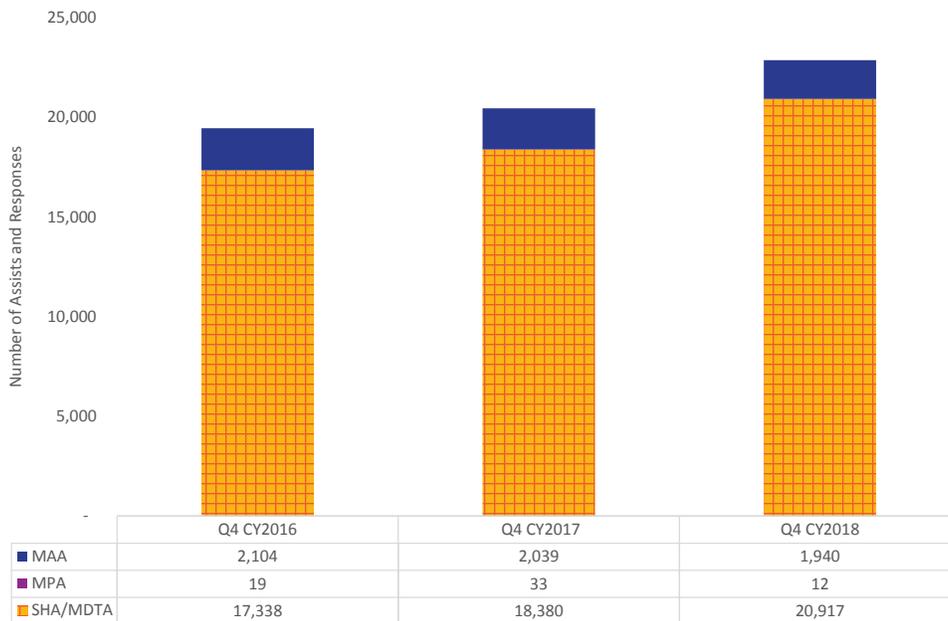


# Provide a Safe and Secure Transportation Infrastructure

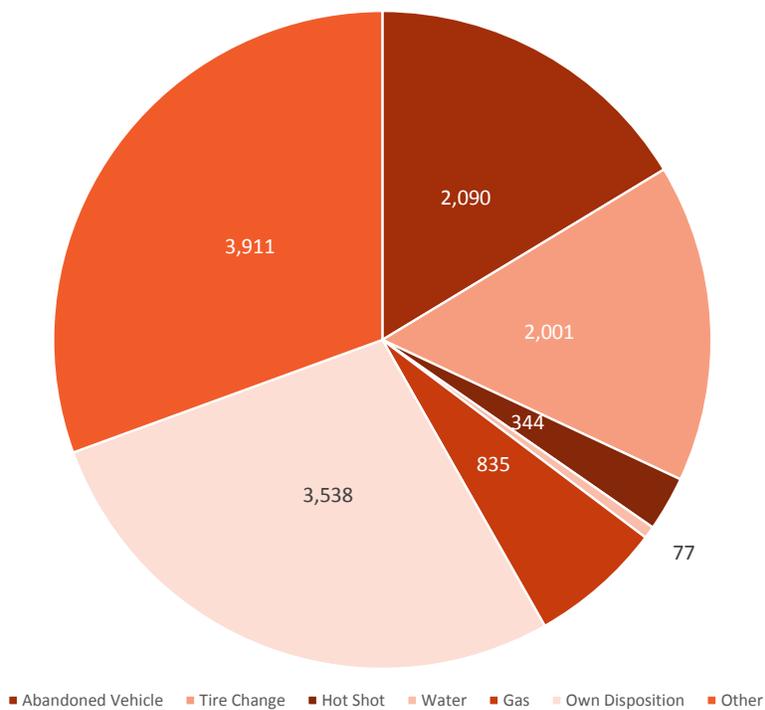
## PERFORMANCE MEASURE 3.7

### Disabled Vehicles Assisted by MDOT

**Chart 3.7.2: Number of Assists and Responses Q4 CY2016-CY2018**



**Chart 3.7.3: Roadway Assists by Type Q4 CY2018**



# Provide a Safe and Secure Transportation Infrastructure

## TANGIBLE RESULT DRIVER:

Sarah Clifford  
Maryland Transportation Authority  
(MDTA)

## PERFORMANCE MEASURE DRIVER:

Bud Frank  
The Secretary's Office (TSO)

## PURPOSE OF MEASURE:

To track the readiness of MDOT emergency personnel for responding to emergency incidents by ensuring awareness and understanding of the NIMS and ICS.

## FREQUENCY:

Annually (in October)

## DATA COLLECTION METHODOLOGY:

Individual TBUs will identify emergency response positions that require NIMS/ICS training and the completion of training.

## NATIONAL BENCHMARK:

Internal MDOT benchmark is 90 percent of emergency response positions will have completed the required NIMS/ICS training.

## PERFORMANCE MEASURE 3.8

### Number of Employees Trained Under National Incident Management System (NIMS)

In 2003, Homeland Security Presidential Directive #5 (HSPD-5) was issued on the management of domestic incidents including the training of individuals in the National Incident Management System (NIMS) Incident Command System (ICS). This resulted in the creation of single integrated comprehensive approach to domestic incident management, crisis management, and consequence management.

NIMS is a consistent nationwide approach for government at all levels and non-government agencies, to work effectively and efficiently in all incidents (all-hazards approach). In HSPD-5 all states were required to adopt and implement the NIMS/ICS protocol which resulted in the development in 2004 of the Maryland NIMS/ICS Strategic Plan that also identified the need for State agencies to adopt this approach.

This plan determined that NIMS/ICS was the best tool to use for coordination and control of domestic (MD) incident management activities regardless of the cause, size, or complexity of the incident. It uses a "common operation platform" for all agencies, organizations, or entities, public or private.

TBUs have historically trained their personnel in NIMS/ICS, mainly because most TBUs are operationally oriented and incidents occur in their respective areas of responsibility. Many times they must work with other emergency responders (fire/police/EMS) and private stakeholders or partners that operate on their property or as part of their business model. For many years, the training of MDOT personnel in NIMS/ICS was a reportable item to the Federal Emergency Management Agency (FEMA) on an annual basis. Several years ago, this required annual reporting was discontinued by FEMA, and thus no longer tracked by MDOT.

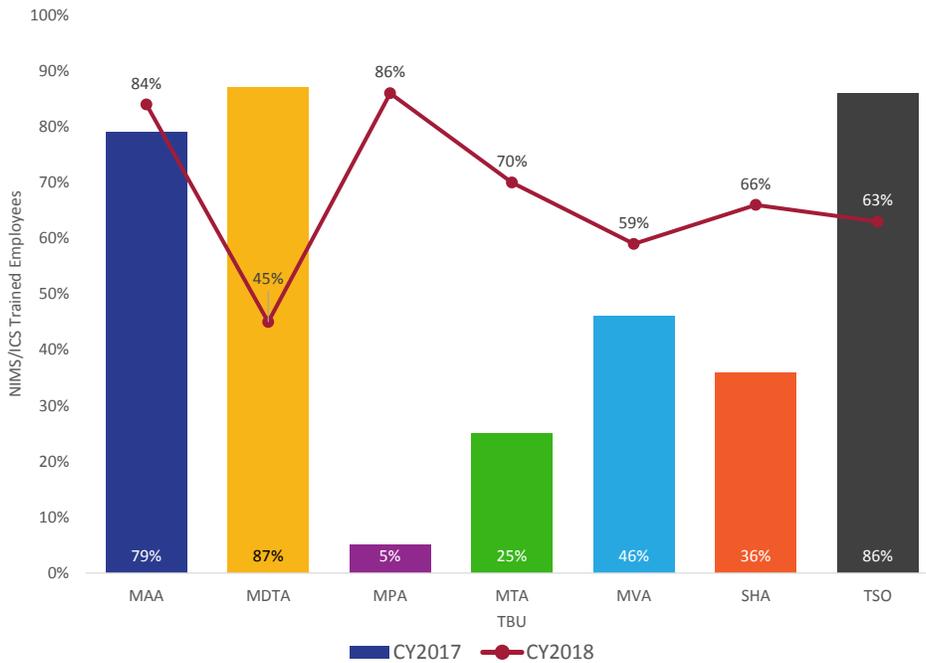
In late 2018, each TBU representative discussed with TSO their overall identified staff required to conduct the training. After evaluation the number of identified staff changed either in Level of training or the number of staff required to receive the training. To better track the training, each TBU will now update their status of completion on a calendar quarterly basis.

# Provide a Safe and Secure Transportation Infrastructure

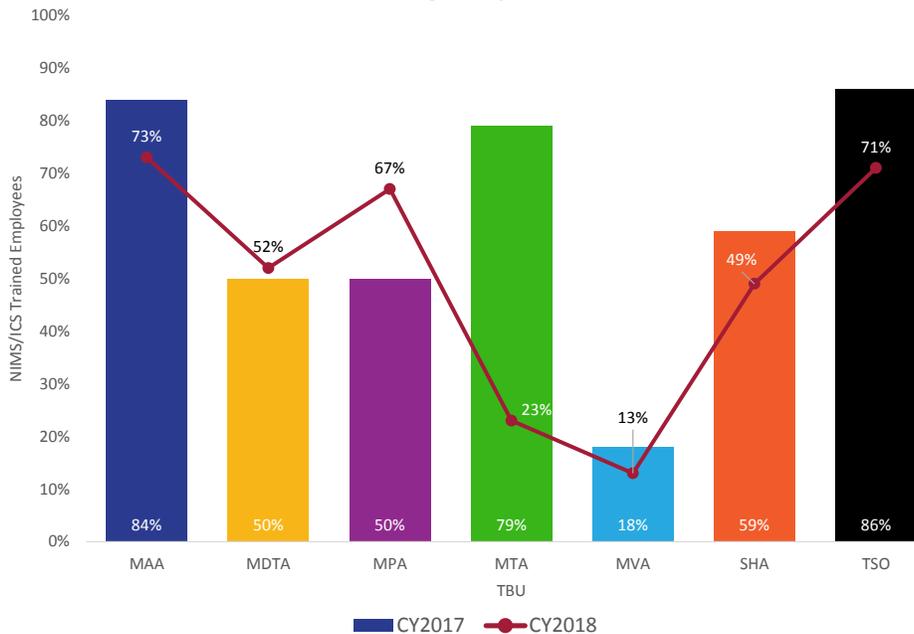
## PERFORMANCE MEASURE 3.8

Number of Employees Trained Under National Incident Management System (NIMS)

3.8.1: Level 1 NIMS Training Completed CY2017 vs. CY2018



3.8.2: Level 2 NIMS Training Completed CY2017 vs. CY2018



# Provide a Safe and Secure Transportation Infrastructure

**TANGIBLE RESULT DRIVER:**

Sarah Clifford  
Maryland Transportation Authority (MDTA)

**PERFORMANCE MEASURE DRIVER:**

Bernadette Bridges  
Maryland Aviation Administration (MAA)

**PURPOSE OF MEASURE:**

To track, trend, and mitigate lost work days.

**FREQUENCY:**

Quarterly

**DATA COLLECTION METHODOLOGY:**

Data is collected through multiple MDOT timekeeping systems.

**NATIONAL BENCHMARK:**

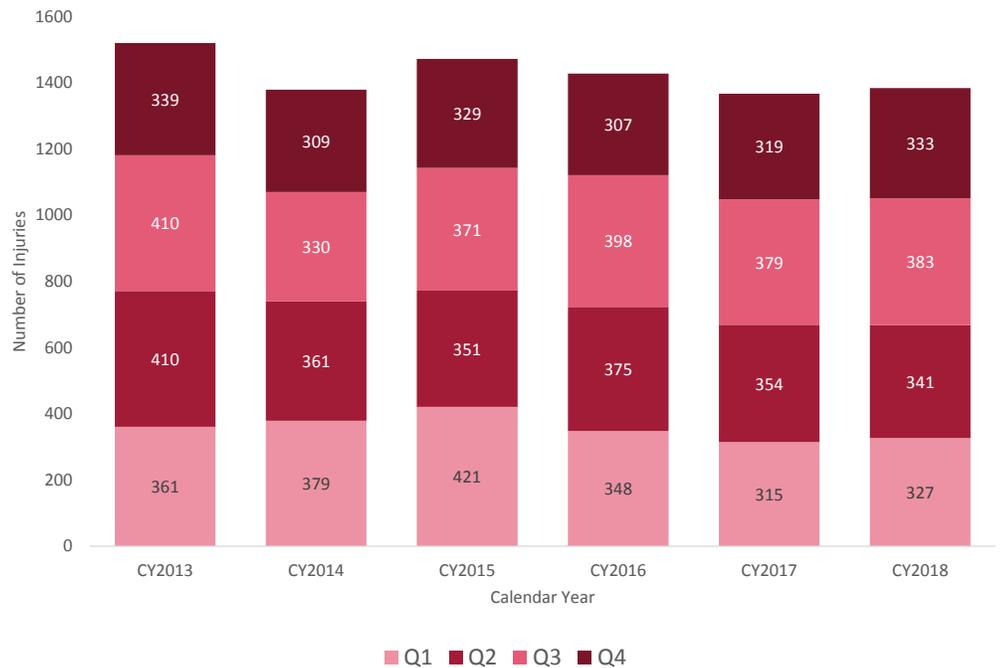
N/A

**PERFORMANCE MEASURE 3.9A**

**Number of Employee Injuries Reported**

Employee safety is a top priority to MDOT. Injuries do occur on the job and work days are sometimes lost as a result. Lost work days reduce the effectiveness of TBUs and are an indirect measure of employee health and welfare. The quarterly comparison of data from all MDOT TBUs for CY2013-2018 is included in the chart 3.9A.1.

**Chart 3.9A.1: Number of Injuries (FROI) Reported MDOT-Wide CY2013-CY2018**



# Provide a Safe and Secure Transportation Infrastructure

## TANGIBLE RESULT DRIVER:

Sarah Clifford  
Maryland Transportation Authority  
(MDTA)

## PERFORMANCE MEASURE DRIVER:

Bernadette Bridges  
Maryland Aviation Administration  
(MAA)

## PURPOSE OF MEASURE:

To track, trend, and mitigate lost work days.

## FREQUENCY:

Quarterly

## DATA COLLECTION METHODOLOGY:

Data is collected through multiple MDOT timekeeping systems.

## NATIONAL BENCHMARK:

N/A

## PERFORMANCE MEASURE 3.9B

### Number of Employee Lost Work Days Due to Injuries

This measure includes quarterly lost work days due to on the job, work-related injuries. Lost work days are not associated with the number of injuries reported. Performance Measure 3.9 factors affecting this measure include varying work conditions and environments, and differing risk profiles among employees across all TBUs. The goal of this performance measure is to have consistent leave coding policies and practices across MDOT's payroll systems.

Included in chart 3.9B.1a are all of MDOT TBUs coding employee work injury leave (LY). This chart is to depict the number of employees per quarter. To depict the total number of employees who coded LY during CY2018 an additional chart was added in 3.9B.1b. In chart 3.9B.2, the number of work injury days, as opposed to number of employees, is compared on a quarterly basis from the previous year across all TBUs. Chart 3.9B.3 highlights MTA Union Employee Lost Work Days over the last four quarters and then compared to Transportation Service Human Resource System (TSHRS) Employees in Chart 3.9B.4.

MDOT risk managers meet quarterly to develop strategies to reduce and mitigate risk throughout the TBUs.

# Provide a Safe and Secure Transportation Infrastructure

## PERFORMANCE MEASURE 3.9B

### Number of Employee Lost Work Days Due to Injuries

Chart 3.9B.1a: Number of Employees Coding LY (Work Injury Leave) by Quarter CY2013-CY2018

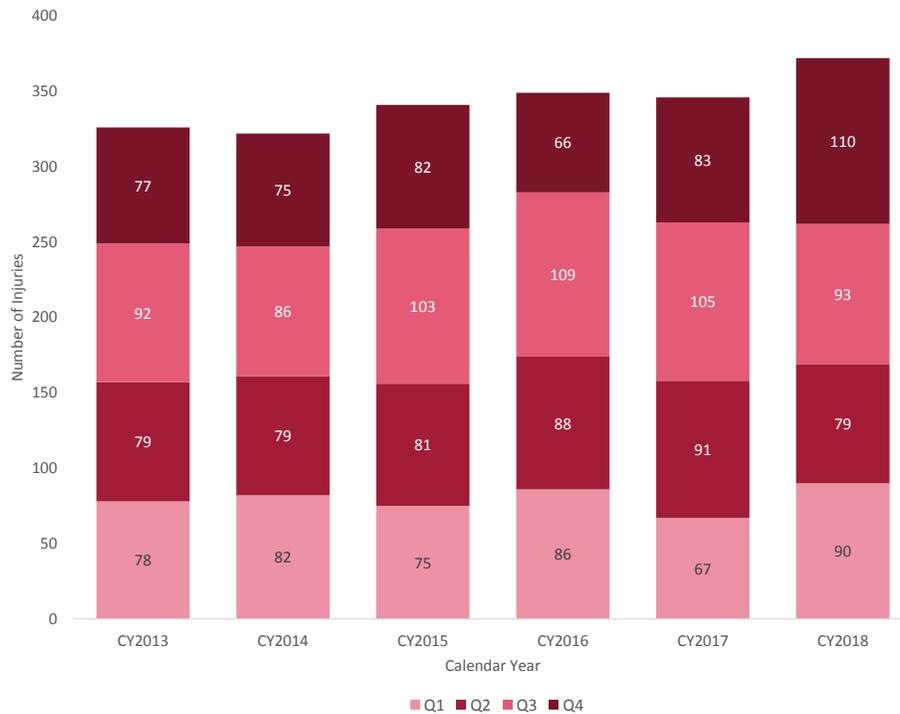
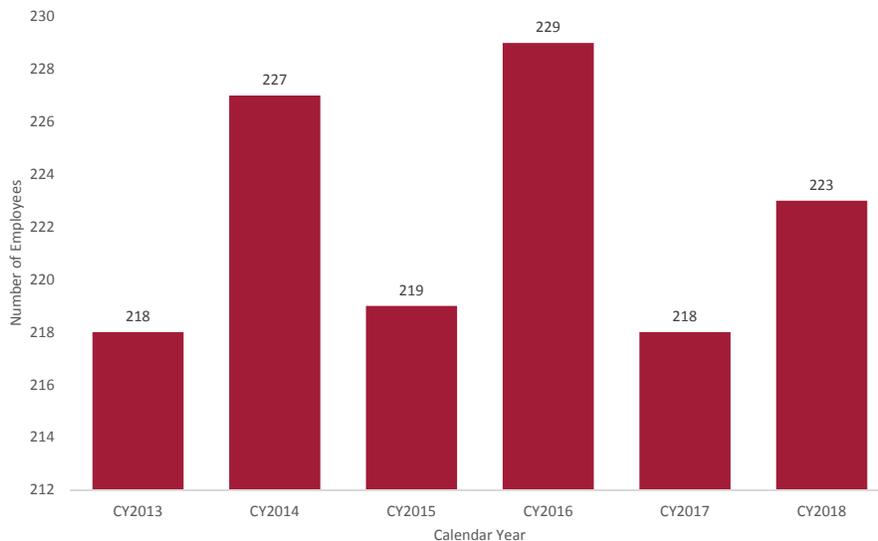


Chart 3.9B.1b: Total Number of Employees Coding Work Injury Leave (LY) CY2013-CY2018

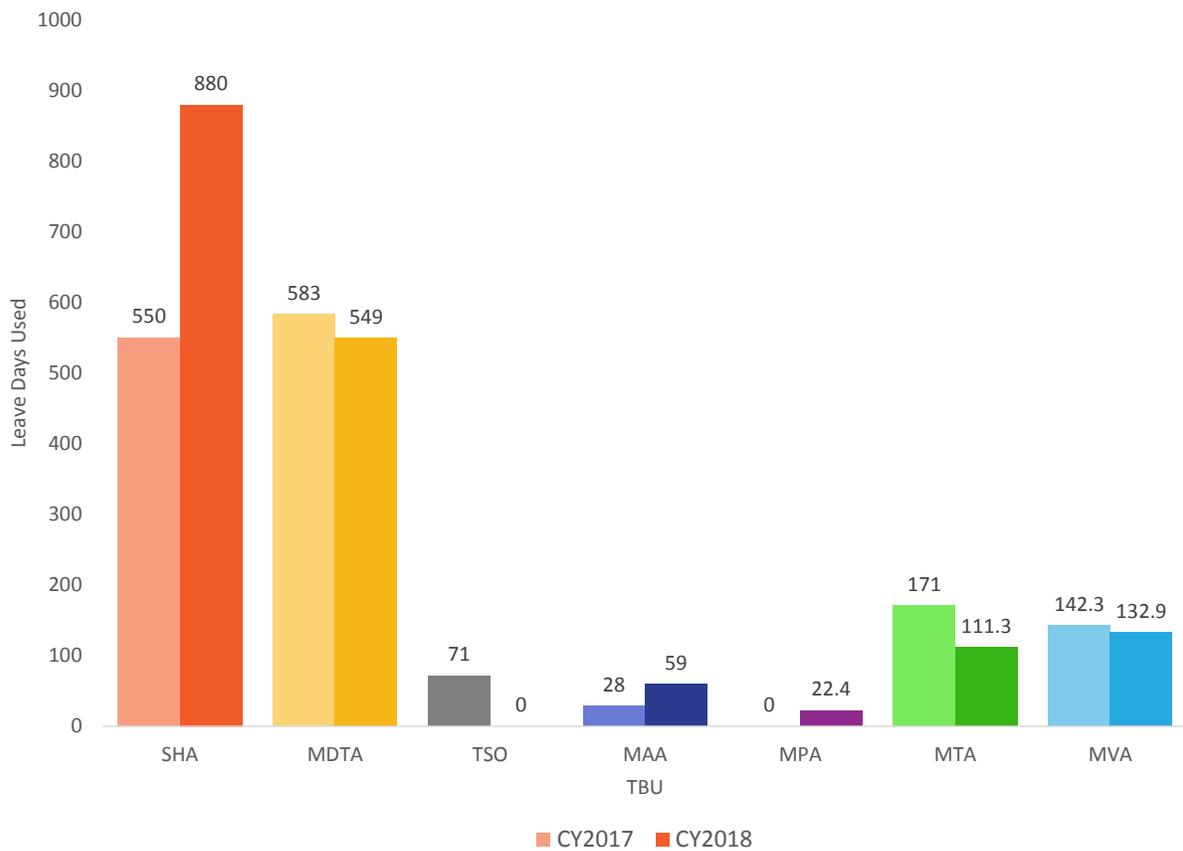


# Provide a Safe and Secure Transportation Infrastructure

## PERFORMANCE MEASURE 3.9B

### Number of Employee Lost Work Days Due to Injuries

Chart 3.9B.2: Number of Work Injury Leave (LY) Days Used Q4 CY2017-CY2018

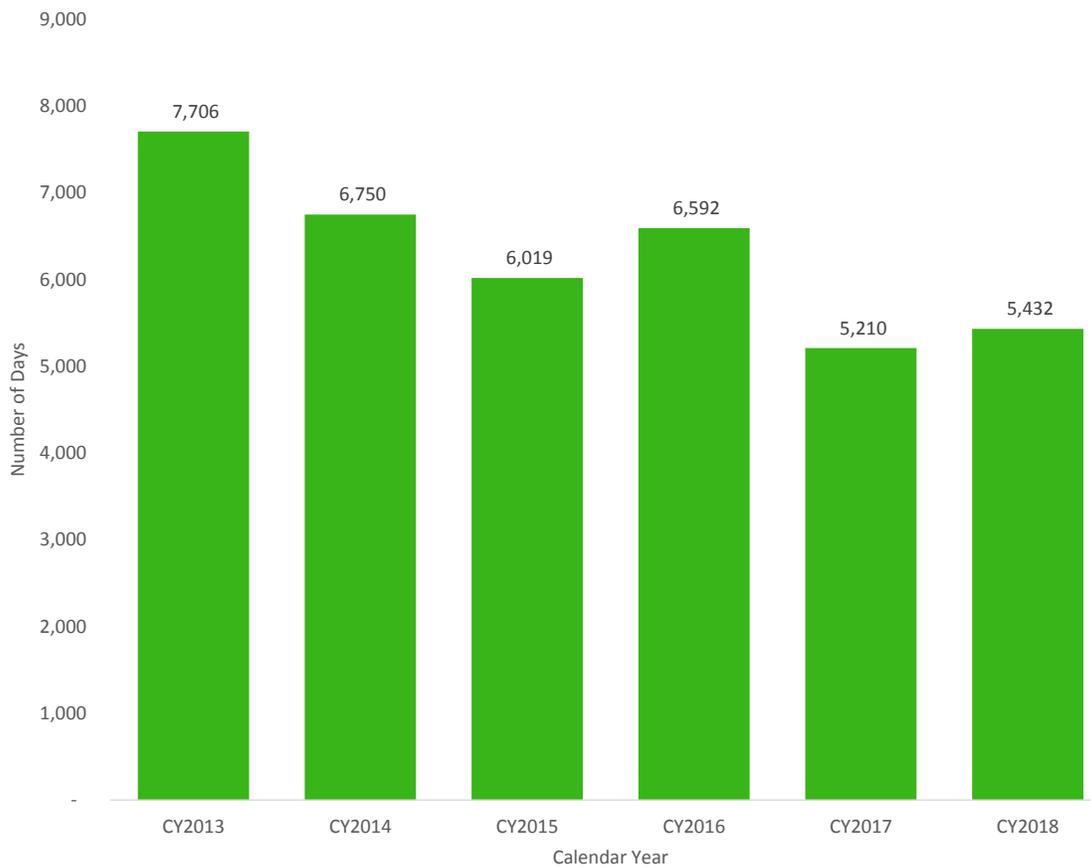


# Provide a Safe and Secure Transportation Infrastructure

## PERFORMANCE MEASURE 3.9B

### Number of Employee Lost Work Days Due to Injuries

Chart 3.9B.3: MTA Union Lost Work Days Due to Injuries in Q4 CY2013-CY2018

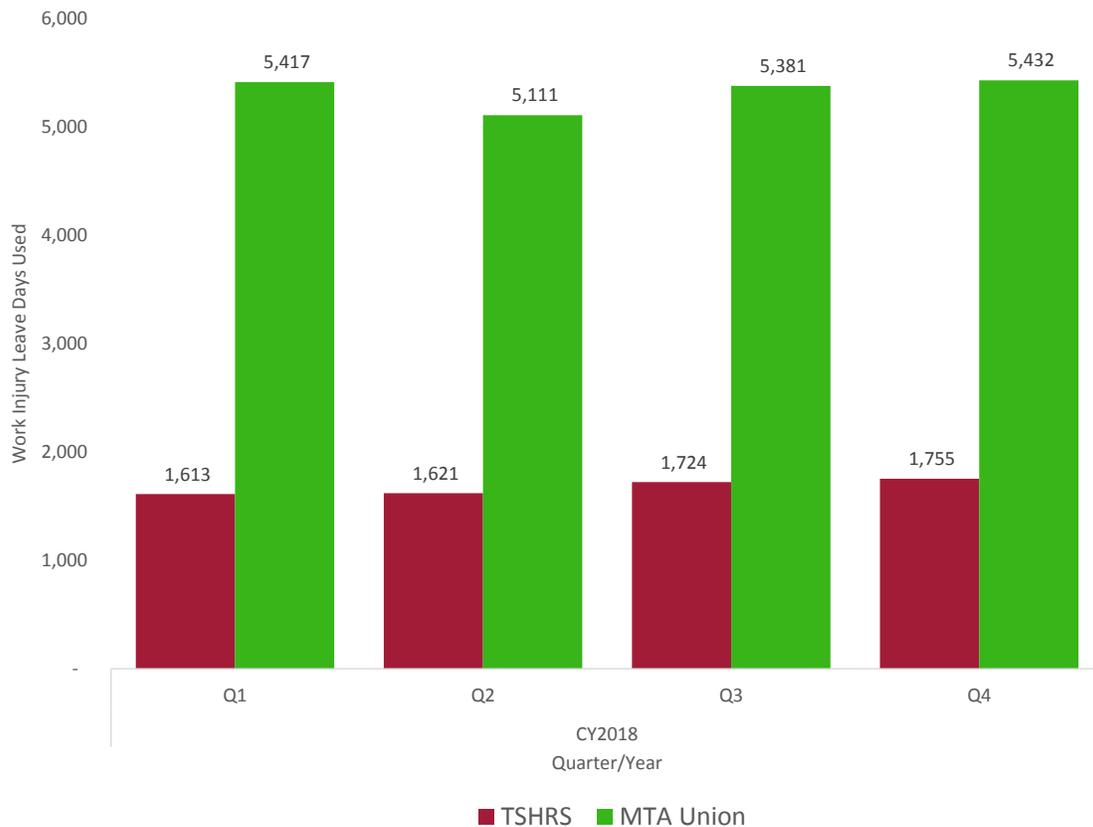


# Provide a Safe and Secure Transportation Infrastructure

## PERFORMANCE MEASURE 3.9B

### Number of Employee Lost Work Days Due to Injuries

Chart 3.9B.4: Number of Work Injury Days Used, TSHRS and MTA Union CY2018



# Provide a Safe and Secure Transportation Infrastructure

## TANGIBLE RESULT DRIVER:

Sarah Clifford  
Maryland Transportation Authority  
(MDTA)

## PERFORMANCE MEASURE DRIVER:

Troy Palmer  
Maryland Transportation Authority  
(MDTA)

## PURPOSE OF MEASURE:

To facilitate continuous safety improvement.

## FREQUENCY:

Quarterly

## DATA COLLECTION METHODOLOGY:

Data is collected through multiple MDOT timekeeping systems and IWIF.

## NATIONAL BENCHMARK:

N/A

## PERFORMANCE MEASURE 3.9C

### Incident Rate, Cost of Injuries and Predominant Injuries by Event

Employee safety is a top priority to MDOT. Although injuries seem to be inevitable at times and a part of doing business, even one injury is too many. To determine how safe our workplaces are, MDOT calculates its incident rate. This measure represents how many OSHA recordable injuries experienced per 100 full time employees. The lower the number, the safer the workplace has been.

To better understand how injuries impact MDOT, we review costs of those injuries to include potential future costs. Looking at these costs helps us understand how important it is to prevent injuries instead of just accepting them as a part of business.

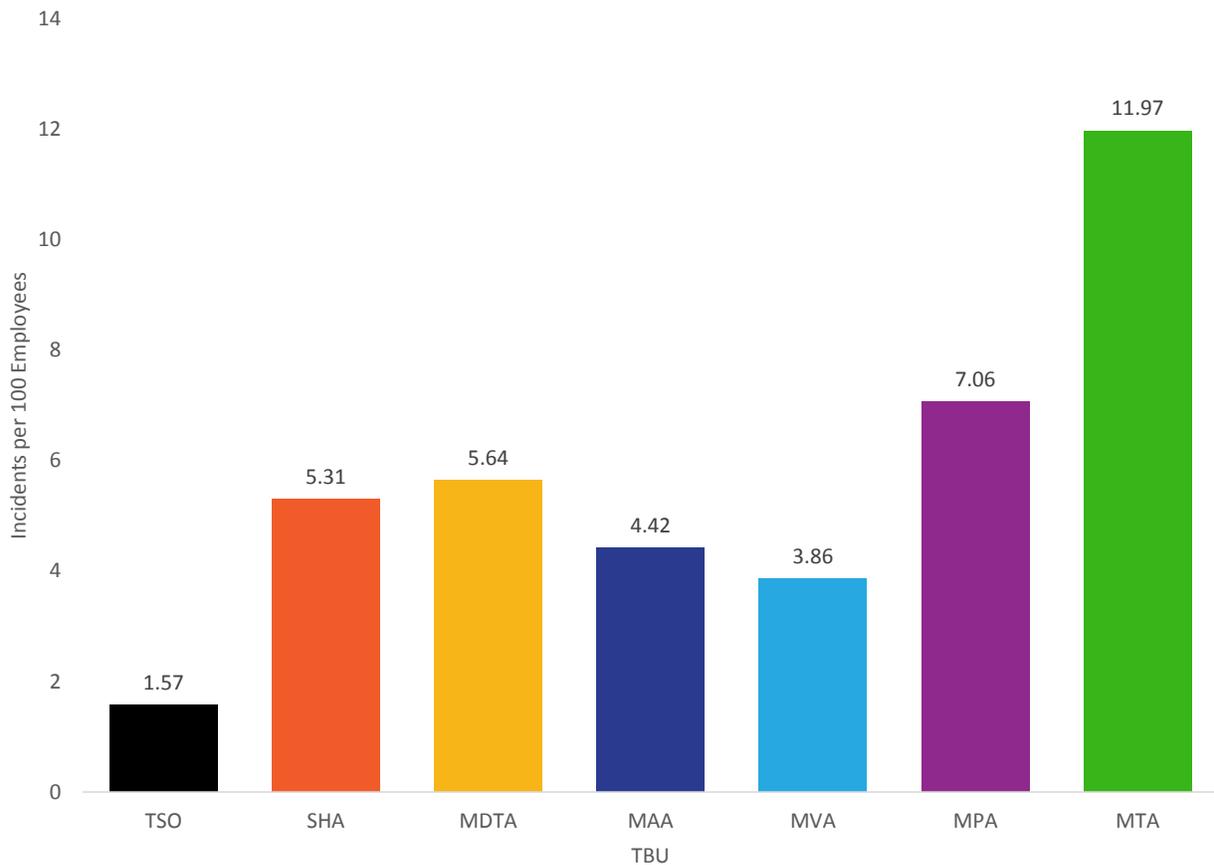
We can intelligently focus our resources at those events that drive our injury experience and strategize to eliminate those injuries. Identifying the predominant injury event allows each TBU to assess tasks that are likely to contribute to those events.

# Provide a Safe and Secure Transportation Infrastructure

## PERFORMANCE MEASURE 3.9C

### Incident Rate, Cost of Injuries and Predominant Injuries by Event

Chart 3.9C.1 Cumulative Incident Rate CY2018

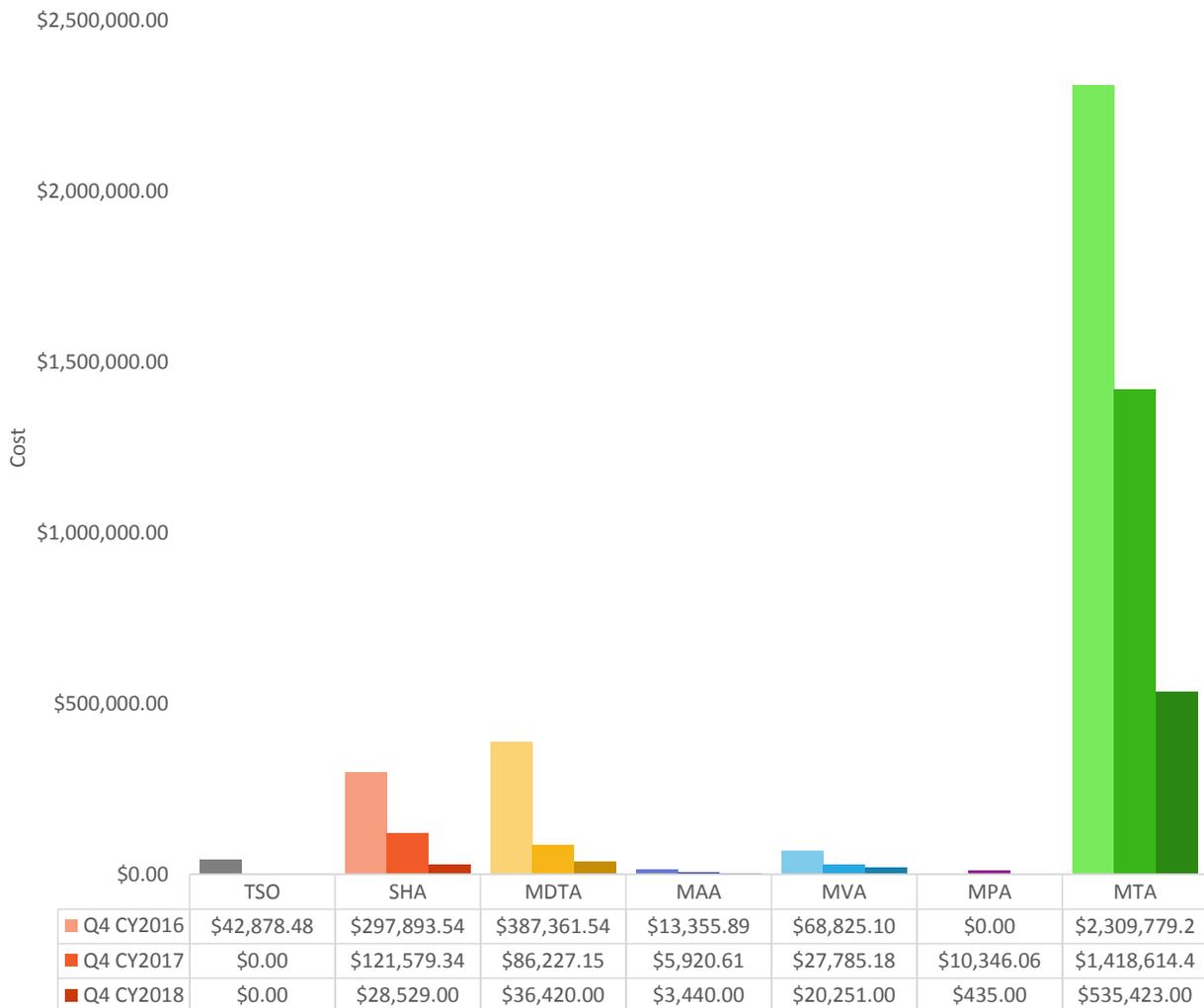


# Provide a Safe and Secure Transportation Infrastructure

## PERFORMANCE MEASURE 3.9C

### Incident Rate, Cost of Injuries and Predominant Injuries by Event

Chart 3.9C.2: Paid Medical and Indemnity Injury Costs in Q4 CY2016-Q4 CY2018

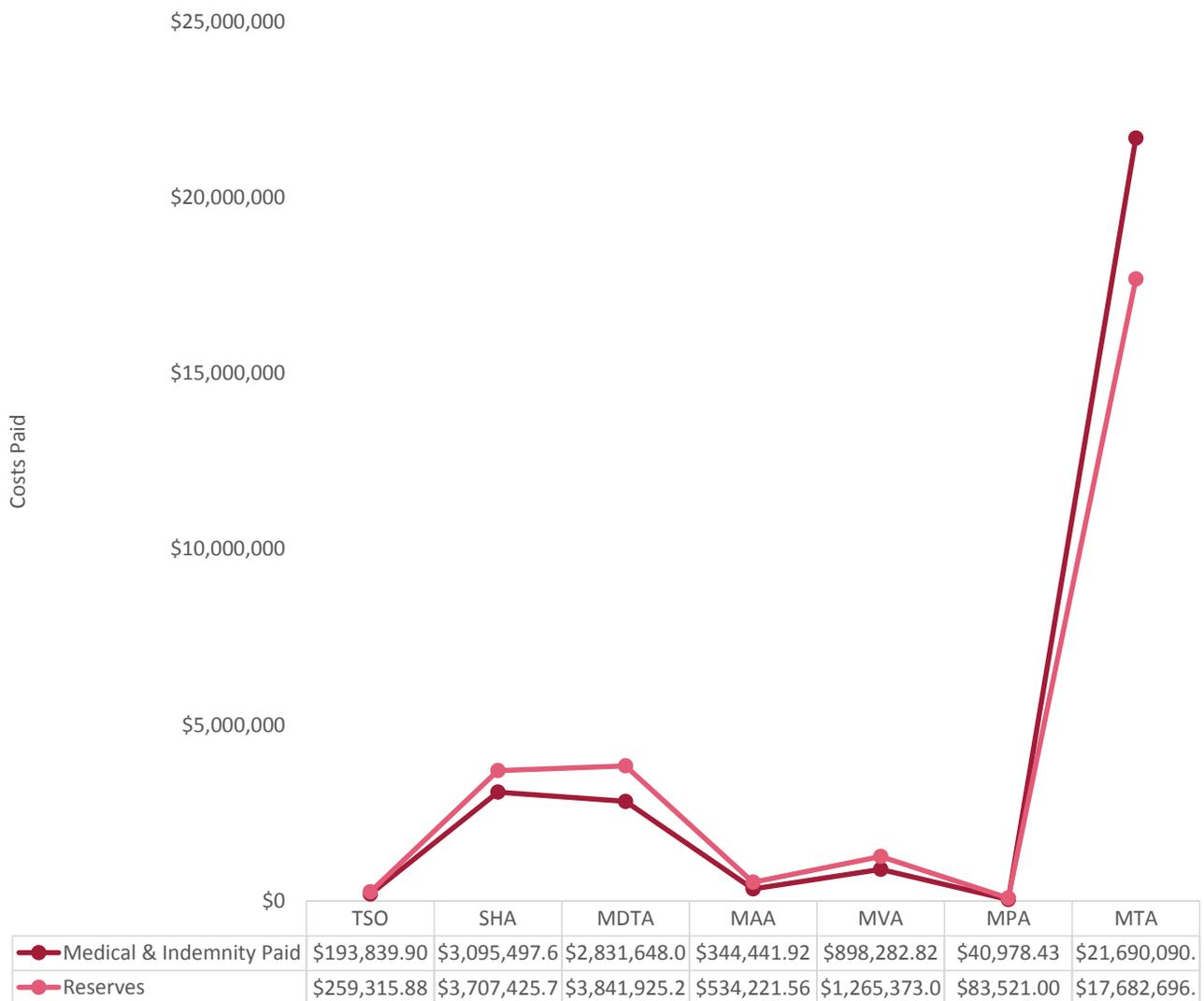


# Provide a Safe and Secure Transportation Infrastructure

## PERFORMANCE MEASURE 3.9C

### Incident Rate, Cost of Injuries and Predominant Injuries by Event

Chart 3.9C.3 Injury Costs Paid and Reserves for CY2016-CY2018

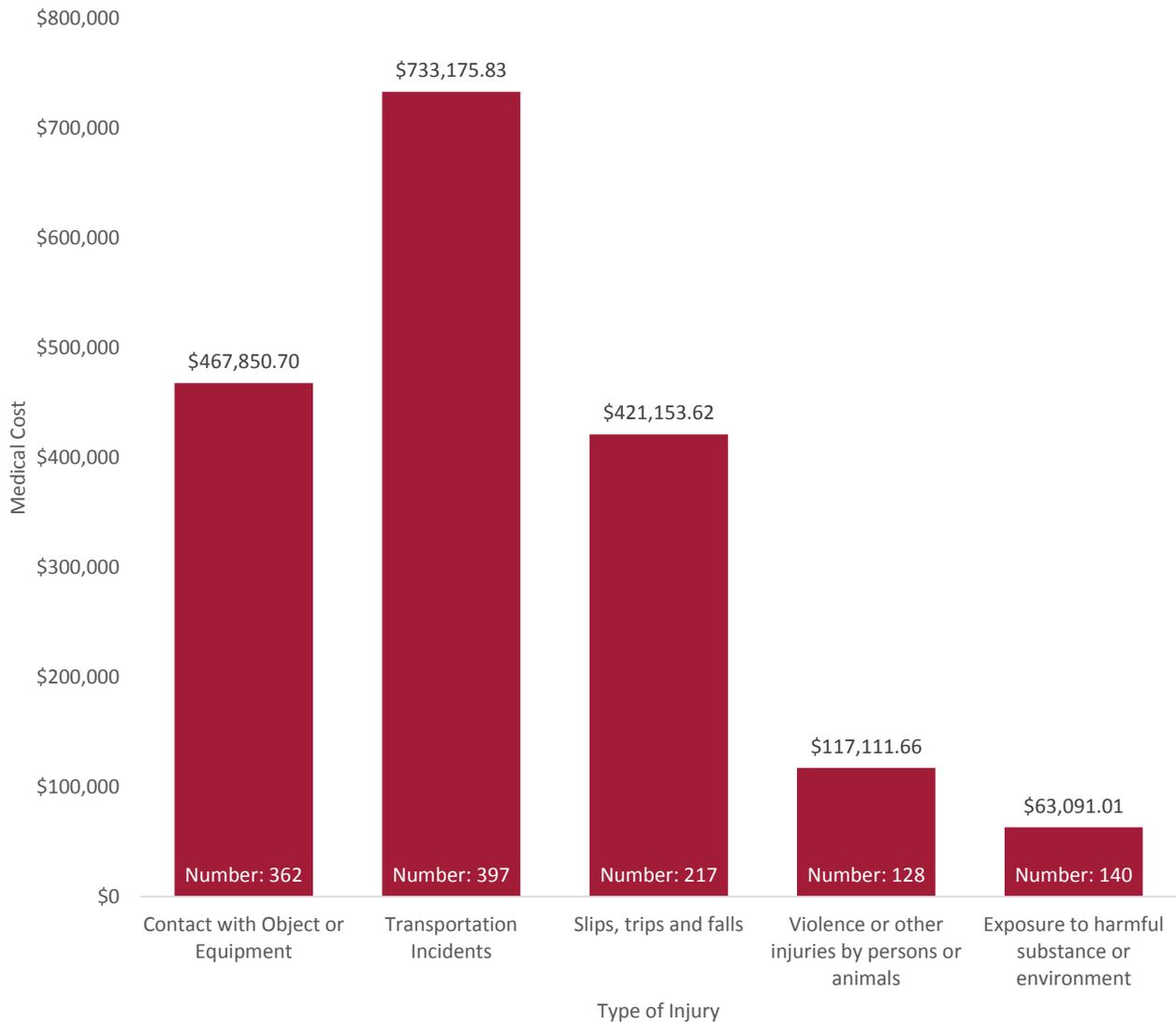


# Provide a Safe and Secure Transportation Infrastructure

## PERFORMANCE MEASURE 3.9C

### Incident Rate, Cost of Injuries and Predominant Injuries by Event

Chart 3.9C.4: MDOT Top 5 Injuries by Event for Q4 CY2018



# Provide a Safe and Secure Transportation Infrastructure

## TANGIBLE RESULT DRIVER:

Sarah Clifford  
Maryland Transportation Authority  
(MDTA)

## PERFORMANCE MEASURE DRIVER:

Leah Visakowitz  
Maryland Transit Administration (MTA)

## PURPOSE OF MEASURE:

To track customer (non-MDOT employees) who have sustained an injury or incident on MDOT properties.

## FREQUENCY:

Quarterly

## DATA COLLECTION METHODOLOGY:

TBUs track using their existing processes and report to the driver via phone or email.

## NATIONAL BENCHMARK:

N/A

## PERFORMANCE MEASURE 3.10

### Number of Customer Incidents at MDOT Facilities

MDOT is committed to providing a safe and secure environment for its customers. With the many services that MDOT and its TBUs provide to the public, there are programs in place to ensure the safety and security of its facilities and customers. Observing and measuring unplanned incidents that may result in injury, which occur in and around buildings where MDOT provides a service to customers (i.e. MVA centers, Stop in Centers), is key in developing these programs.

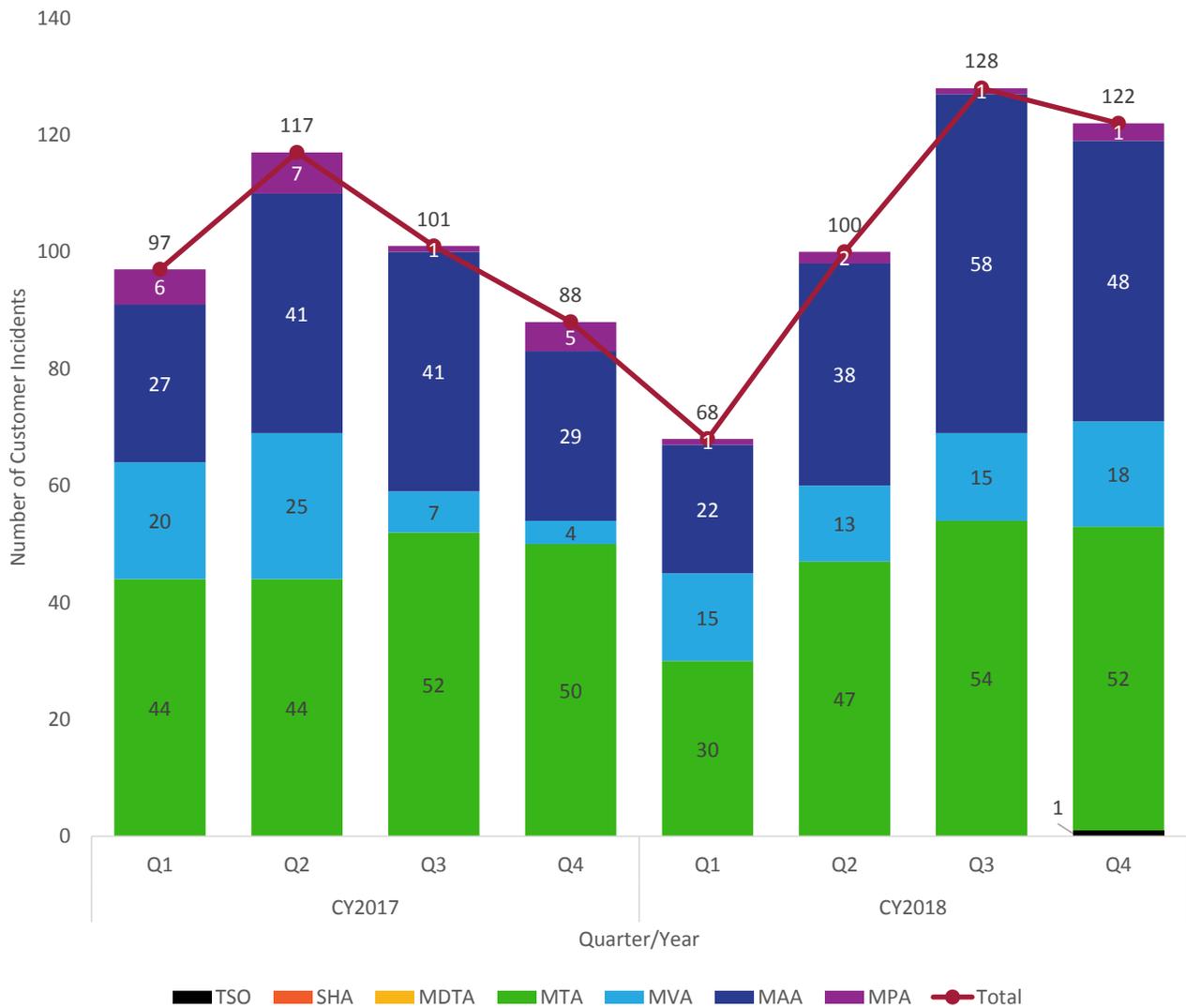
Although this is an important topic for MDOT to acknowledge, the TBUs have only been measuring it for the past two years. A standard definition was determined and agreed upon by all TBUs. Recently, the definition of the measure has expanded to include MDOT properties as opposed to only buildings to better reflect MDOT's responsibility to customers. To continually ensure that all processes are consistent, the TBUs are working together to produce standard policies and forms, while educating all staff on how to report any incidents and injuries they witness at their facilities.

# Provide a Safe and Secure Transportation Infrastructure

## PERFORMANCE MEASURE 3.10

### Number of Customer Incidents at MDOT Facilities

Chart 3.10.1: Number of Customer Incidents at MDOT Buildings CY2017-CY2018

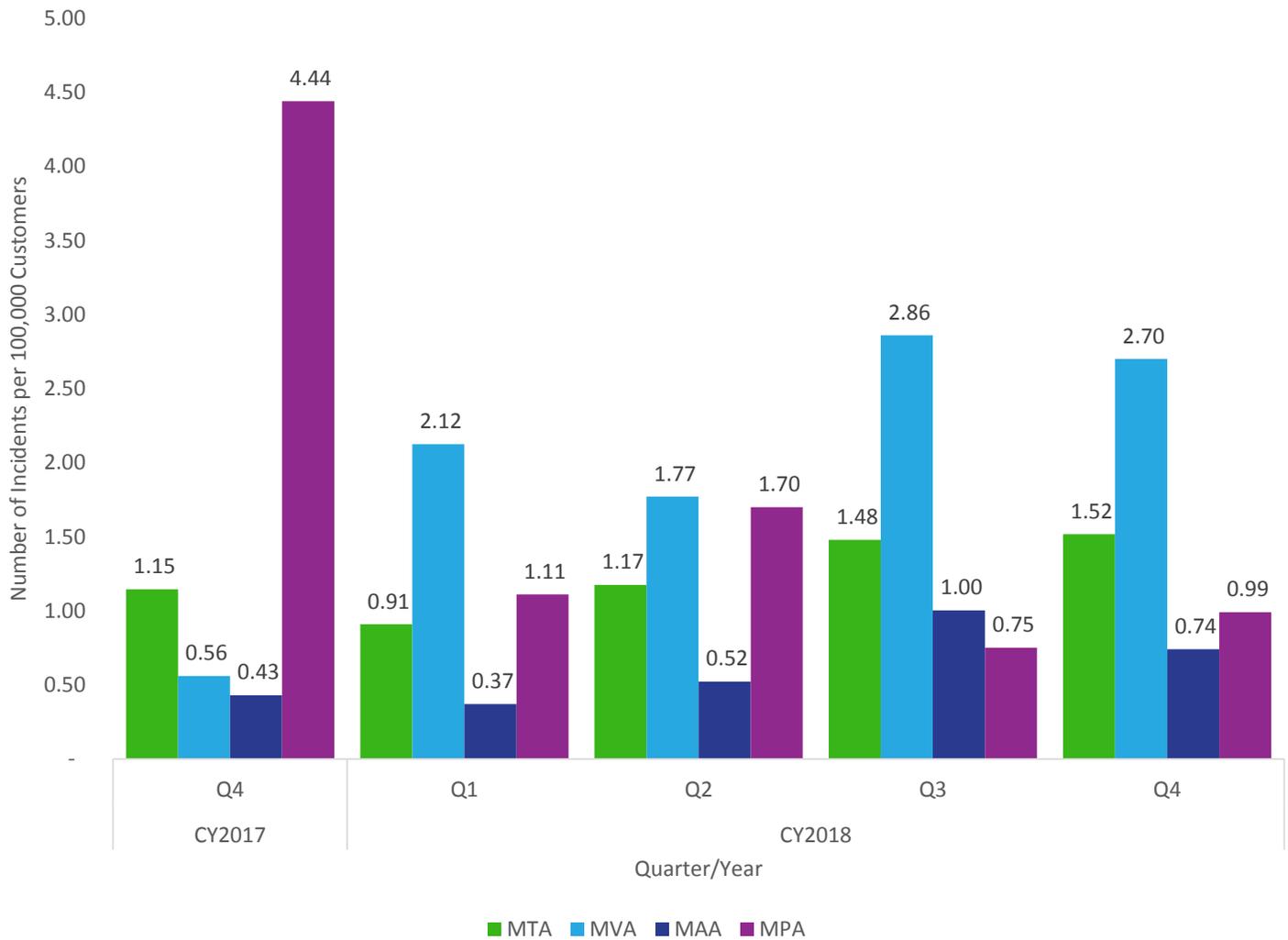


# Provide a Safe and Secure Transportation Infrastructure

## PERFORMANCE MEASURE 3.10

### Number of Customer Incidents at MDOT Facilities

Chart 3.10.2: Number of Customer Incidents per 100,000 Customers Visited Q4 CY2017-Q4 CY2018

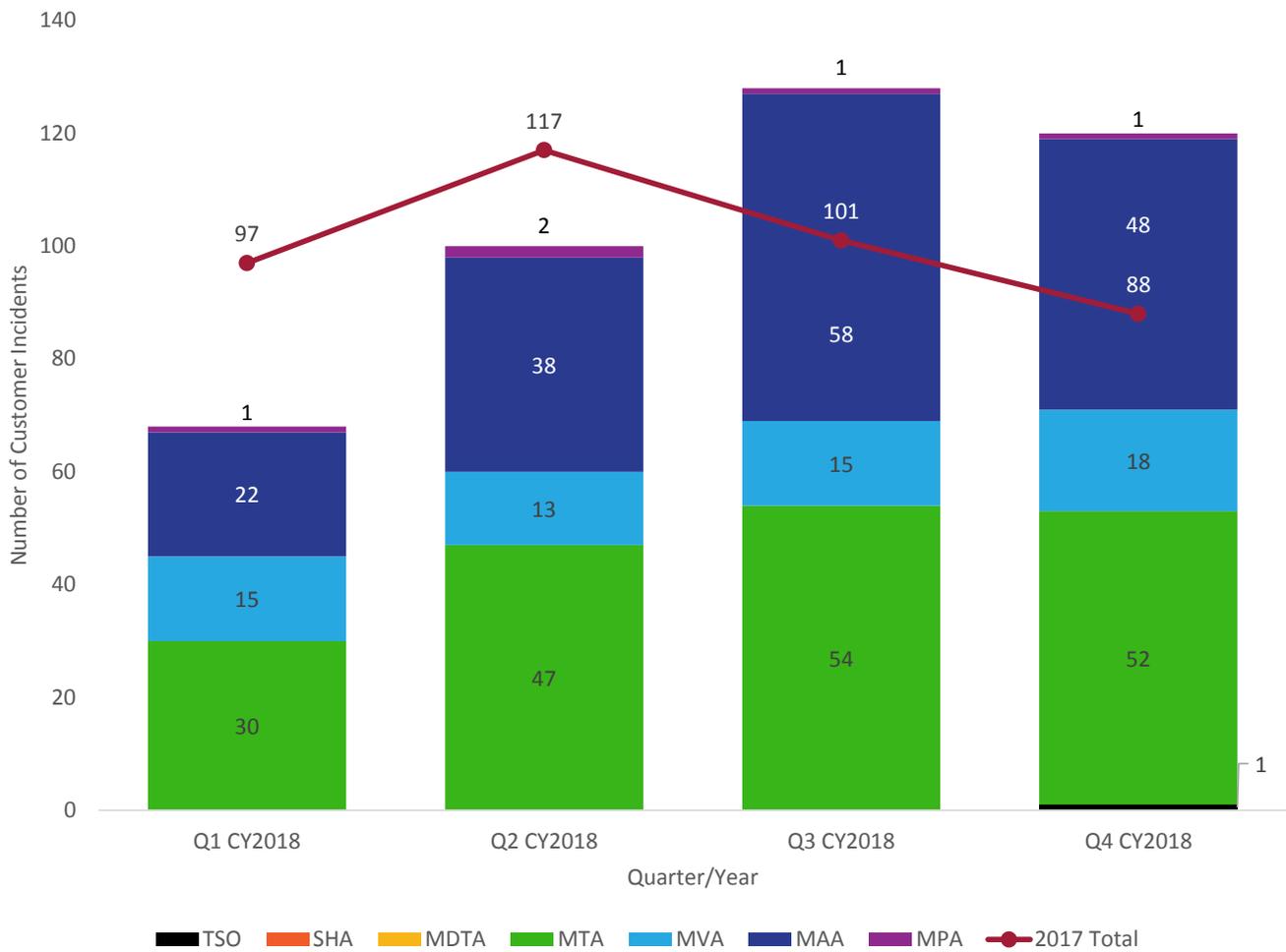


# Provide a Safe and Secure Transportation Infrastructure

## PERFORMANCE MEASURE 3.10

### Number of Customer Incidents at MDOT Facilities

Chart 3.10.3: Number of Customer Incidents at MDOT Buildings CY2018



## TANGIBLE RESULT #4

# Deliver Transportation Solutions and Services of Great Value



MDOT will deliver transportation solutions on time and within budget. The Department will use strategies to ensure that the transportation solution meets the needs of customers and eliminates unnecessary costs.

### RESULT DRIVER:

Jason Ridgway  
*State Highway Administration (SHA)*

# Deliver Transportation Solutions and Services of Great Value

## TANGIBLE RESULT DRIVER:

Jason Ridgway  
*State Highway Administration (SHA)*

## PERFORMANCE MEASURE DRIVER:

Aviva Brown  
*Motor Vehicle Administration (MVA)*

## PURPOSE OF MEASURE:

To gauge the accuracy of capital project estimates to manage the Department's capital program more efficiently.

## FREQUENCY:

Annually (In October)

## DATA COLLECTION METHODOLOGY:

Through the Capital Program Management System (CPMS); the CTP; TSO & TBU's procurement offices.

## NATIONAL BENCHMARK:

+/- 5 percent. This mirrors the benchmark as reported by Nebraska's Dept. of Roads, Fiscal Responsibility for the Accuracy of Project Estimates. While MDOT has not specified a benchmark per se, they use Nebraska's 5 percent as the bench for the best.

Note: This benchmark applies to capital construction projects. So far and with extensive research, we have been unable to find a benchmark for IT projects.

## PERFORMANCE MEASURE 4.1

### Percent of Estimated Project Budget as Compared to Final Project Award

This performance measure fosters more accuracy and better budget management of the State's limited transportation funding. Accurate estimating enables MDOT to provide better services to its customers, whether it is infrastructure improvements to State roadways and bridges; increasing and retaining the commerce going in and out of the Port of Baltimore; attracting and retaining airlines and travelers at BWI Marshall; providing more alternative service options to Maryland citizens to conduct their MVA transactions remotely; or improving transit services throughout the State.

Given the diverse differences between construction and IT projects, we have separated into two categories with specific budget parameters:

- \$1M+ construction type projects: SHA, MDTA, MPA, MAA and MTA
- \$400K+ IT projects: TSO and MVA

For FY's 2015, 2016, and 2017, the range in percent change between the estimated project budgets and the final project awards was from 1.46 percent to 7.23 percent. While the range is within the +/- 5 percent, the goal is to continue working on strategies to obtain the +/- 5 percent consistently.

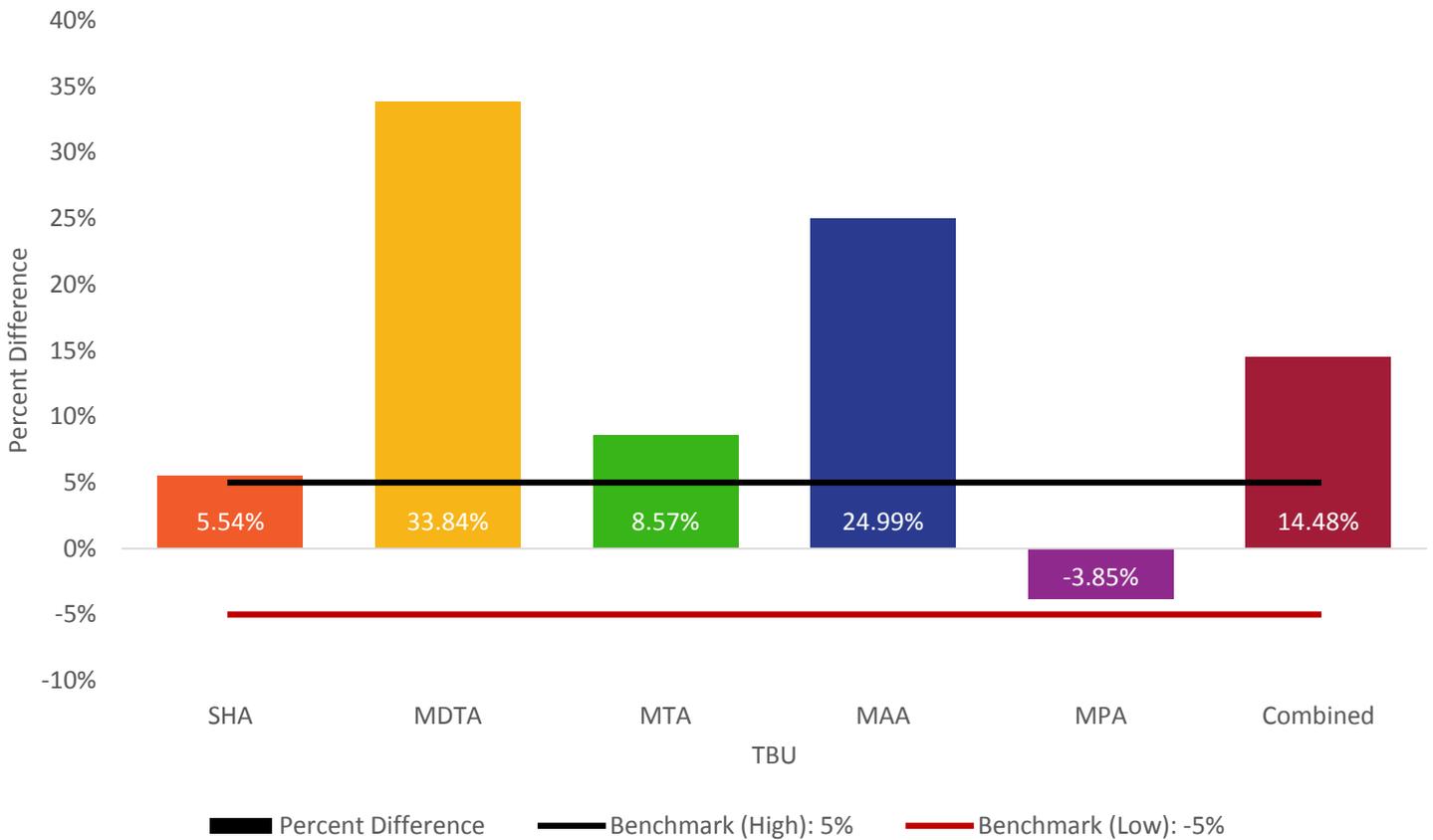
To improve the outcomes of this measure, MDOT is engaged in the following activities:

- Team expansion with subject matter experts (SME's) from each TBU;
- Use of estimating tool;
- Creation of excel spreadsheet to ensure consistency in gathering data for PM 4.1 – PM 4.3; and
- Modified dataset for construction contracts to \$1M (MAA, SHA, MDTA, MPA and MTA).

## PERFORMANCE MEASURE 4.1

### Percent of Estimated Project Budget as Compared to Final Project Award

Chart 4.1.1: Percent of Estimated Project Budget as Compared to Final Project Award FY2018

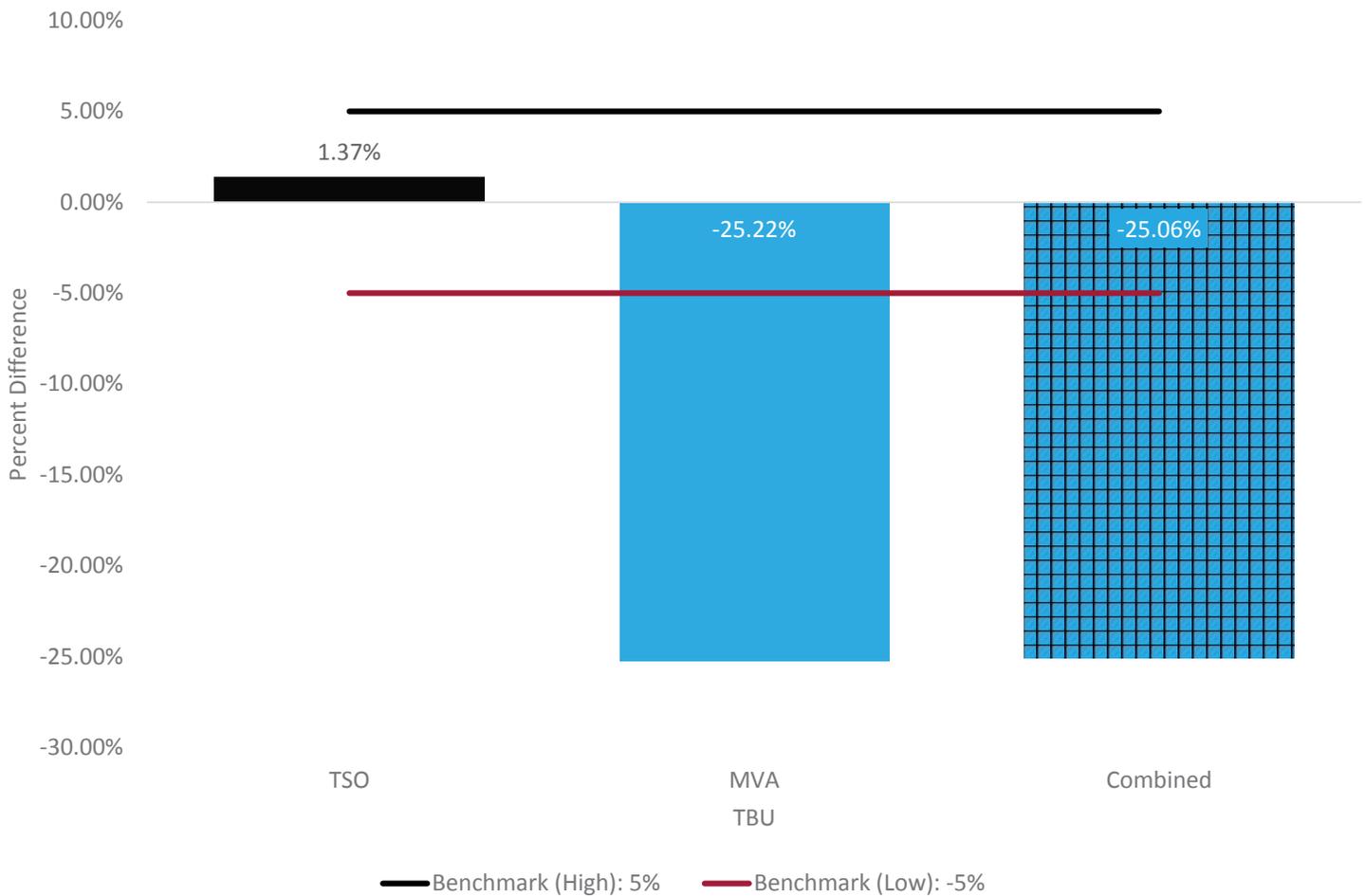


# Deliver Transportation Solutions and Services of Great Value

## PERFORMANCE MEASURE 4.1

### Percent of Estimated Project Budget as Compared to Final Project Award

Chart 4.1.2: Percent of Estimated Project Budget as Compared to Final Project Award TSO and MVA FY2018



# Deliver Transportation Solutions and Services of Great Value

## TANGIBLE RESULT DRIVER:

Jason Ridgway  
*State Highway Administration (SHA)*

## PERFORMANCE MEASURE DRIVER:

Brian Miller  
*Maryland Port Administration (MPA)*

## PURPOSE OF MEASURE:

To measure the difference in the contract amount from NTP to final contractor payout.

## FREQUENCY:

Annually (in October)

## DATA COLLECTION METHODOLOGY:

Collect data from MDOT TBUs for FY2014 to FY2018. Data will reflect contracts that closed out in each respective fiscal year. Data will be reflected in a bar graph for each fiscal year.

## NATIONAL BENCHMARK:

2 percent

## PERFORMANCE MEASURE 4.2

### Percent of Change for Finalized Contracts

It is important to assess how well we manage the budgeted and awarded amount during the duration of Department contracts. This is done to ensure we are getting what we paid for and not adding unnecessary or unbudgeted costs to our transportation projects. This will facilitate better contract performance and better management of contracts which will add overall value to the project and ensure worthwhile expenditures of taxpayer dollars.

Strategy development meetings have been held with TBU representatives throughout the reporting year to review data and address any issues that exist to meet the 2 percent benchmark for compliance. Data for FY2018 illustrates a collective effort for benchmark compliance by TBU. Only one TBU; MAA was over the 2 percent benchmark with a higher margin at 4.64 percent. This was due to changes in the Transportation Security Administration (TSA) and Customs and Border Protection (CBP) security requirements that affected two contracts that were already underway. Changes to the contracts had to be undertaken to facilitate the new security requirements. MDTA was over the 2 percent benchmark by .66 percent due to a site condition change in one of their contracts.

Individual TBUs may not have data from a fiscal year if no contract(s) closed during the respective fiscal year.

# Deliver Transportation Solutions and Services of Great Value

## PERFORMANCE MEASURE 4.2

### Percent of Change for Finalized Contracts

Chart 4.2.1: Percent Change for Finalized Contracts by TBU FY2015

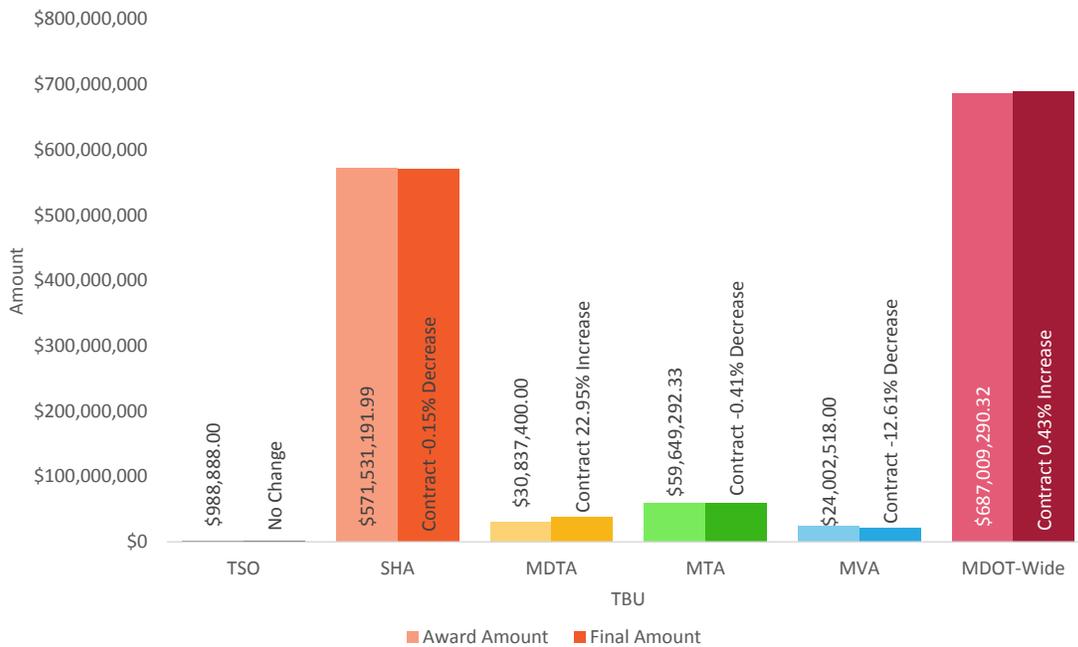
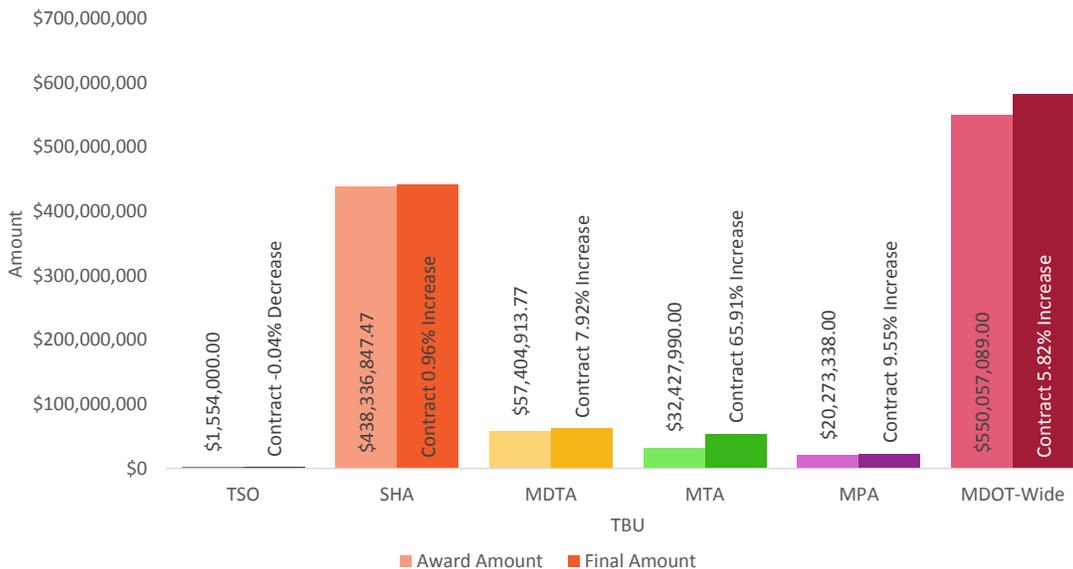


Chart 4.2.2: Percent Change for Finalized Contracts by TBU FY2016



# Deliver Transportation Solutions and Services of Great Value

## PERFORMANCE MEASURE 4.2

### Percent of Change for Finalized Contracts

Chart 4.2.3: Percent Change for Finalized Contracts by TBU FY2017

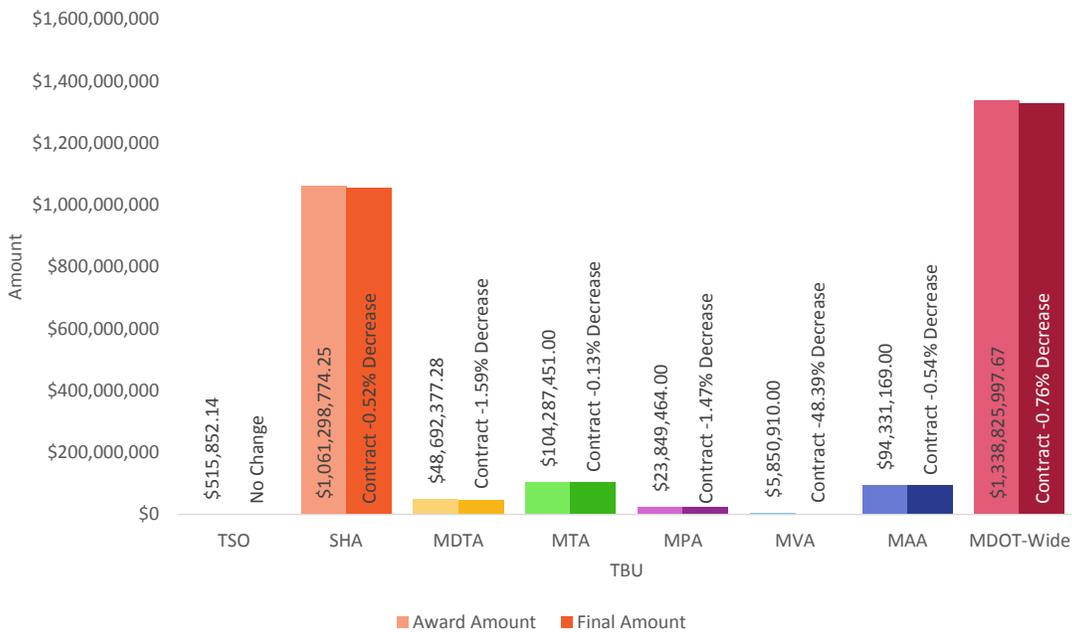
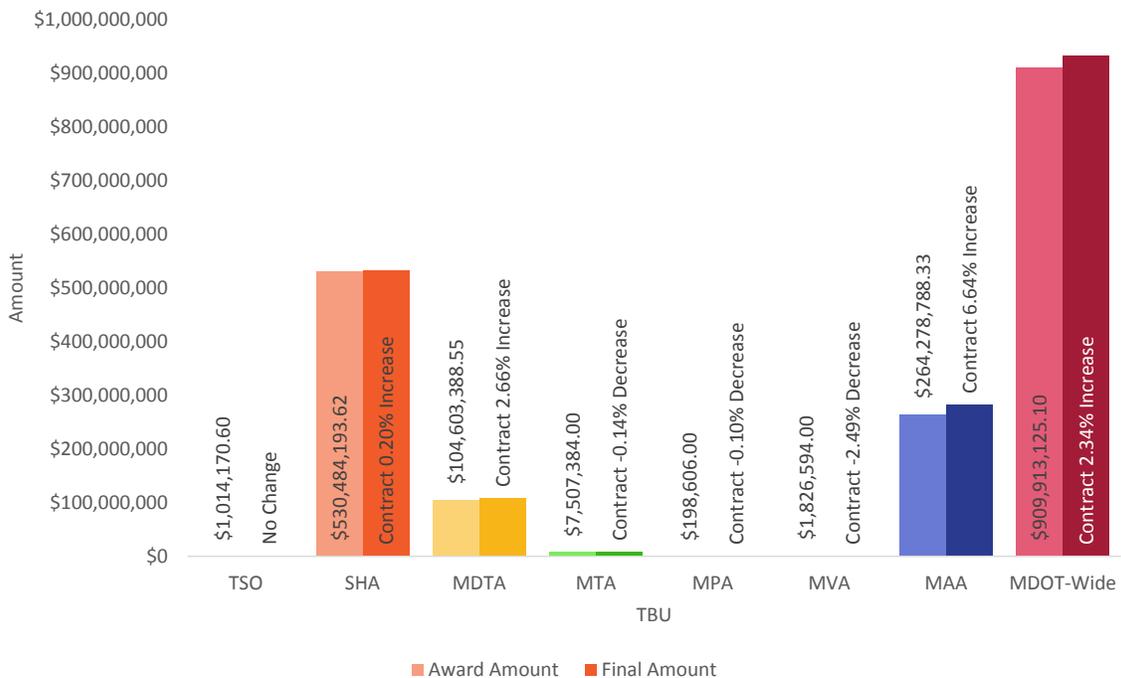


Chart 4.2.4: Percent Change for Finalized Contracts by TBU FY2018



# Deliver Transportation Solutions and Services of Great Value

## TANGIBLE RESULT DRIVER:

Jason Ridgway  
*State Highway Administration (SHA)*

## PERFORMANCE MEASURE DRIVER:

Bill Appold  
*The Secretary's Office (TSO)*

## PURPOSE OF MEASURE:

To determine if MDOT is efficiently managing and delivering contracts and services.

## FREQUENCY:

Annually (in October)

## DATA COLLECTION METHODOLOGY:

Information will be provided by the MDOT Offices of Construction, Planning and Finance.

## NATIONAL BENCHMARK:

87 percent

## PERFORMANCE MEASURE 4.3

### On-time Services and Solutions: Percent of Projects Completed by Original Contract Date

When MDOT awards a contract or agrees to provide a service, it establishes a commitment date which is the date the contract or service begins providing benefits to MDOT's stakeholders.

The purpose of this performance measure is to track MDOT's accuracy in estimating if contracts and services are completed and open to service by the commitment date specified in the contract. The performance measure will also determine if there are common factors that make contracts go over their budgeted time and whether these factors can be mitigated.

Overall MDOT increased the percentage of contracts completed in a timely basis from 60 percent in FY2016 and 71 percent in FY2017 to a FY2018 total of 75 percent. This is largely due to a new standard that measures project completion based on when our stakeholders start receiving "beneficial use" from the project. This aligns with MDOT's focus on its customers.

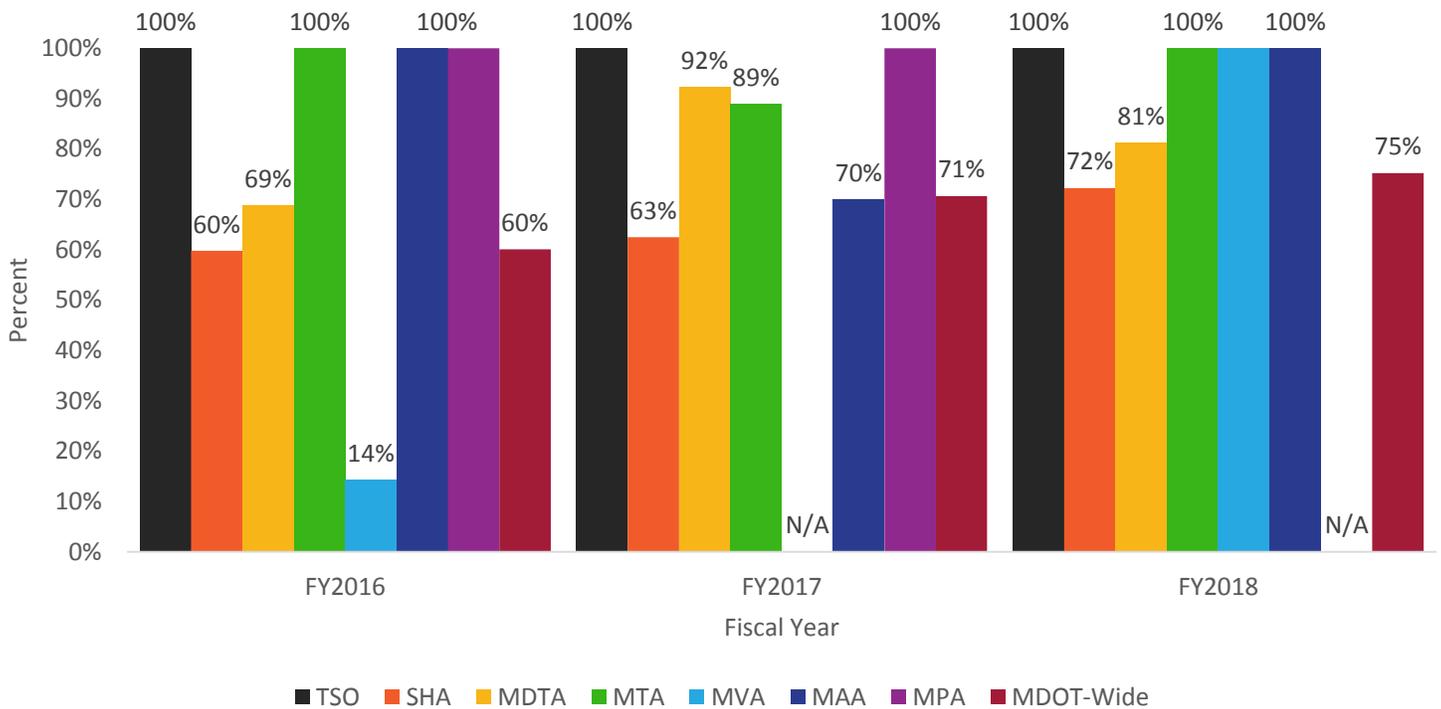
Another reason for the improved performance is the adoption of strategies designed to limit delays in the completion of contracts. These strategies include the implementation of A + B Bidding and Time of Year Letting strategies as well as a lessons learned process post-completion and a having design changes undergo administrator review and approval.

# Deliver Transportation Solutions and Services of Great Value

## PERFORMANCE MEASURE 4.3

On-time Services and Solutions: Percent of Projects Completed by Original Contract Date

Chart 4.3.1: On-Time Services and Solutions, Percent of Projects Completed by Original Contract Date FY2016-FY2018



# Deliver Transportation Solutions and Services of Great Value

## TANGIBLE RESULT DRIVER:

Jason Ridgway  
*State Highway Administration (SHA)*

## PERFORMANCE MEASURE DRIVER:

Ross Turlington  
*Maryland Transit Administration (MTA)*

Jim Harkness  
*Maryland Transportation Authority (MDTA)*

Shawn Ames  
*Maryland Aviation Administration (MAA)*

## PURPOSE OF MEASURE:

To track the average cost of common transportation services and solutions to make decisions as to where to reduce costs as appropriate.

## FREQUENCY:

Annually (in January and July)

## DATA COLLECTION METHODOLOGY:

Through the Capital Program Management System (CPMS); CTP and MDOT Capital Budget, Finance and Procurement Offices.

## NATIONAL BENCHMARK:

N/A

## PERFORMANCE MEASURE 4.4

### Average Cost of Common Transportation Solutions and Services

It is MDOT's responsibility to provide transportation solutions and services to the public that are of great value.

The purpose of these measures is to track, access, and analyze data that will help reveal solutions for reducing the cost of transportation services. Tracking data that is grouped by shared services across business units will allow comparison across TBUs, and also insight into ways to reduce the cost of services to the public.

Performance measure 4.4 has 10 separate measurements. These measurements include minor and major road resurfacing cost, interstate road resurfacing cost, bridge replacement cost and major bridge redecking cost. Other measurements include operating cost per passenger trip, operating cost per revenue vehicle mile, passenger trips per revenue vehicle mile, farebox recovery and cost per transaction.

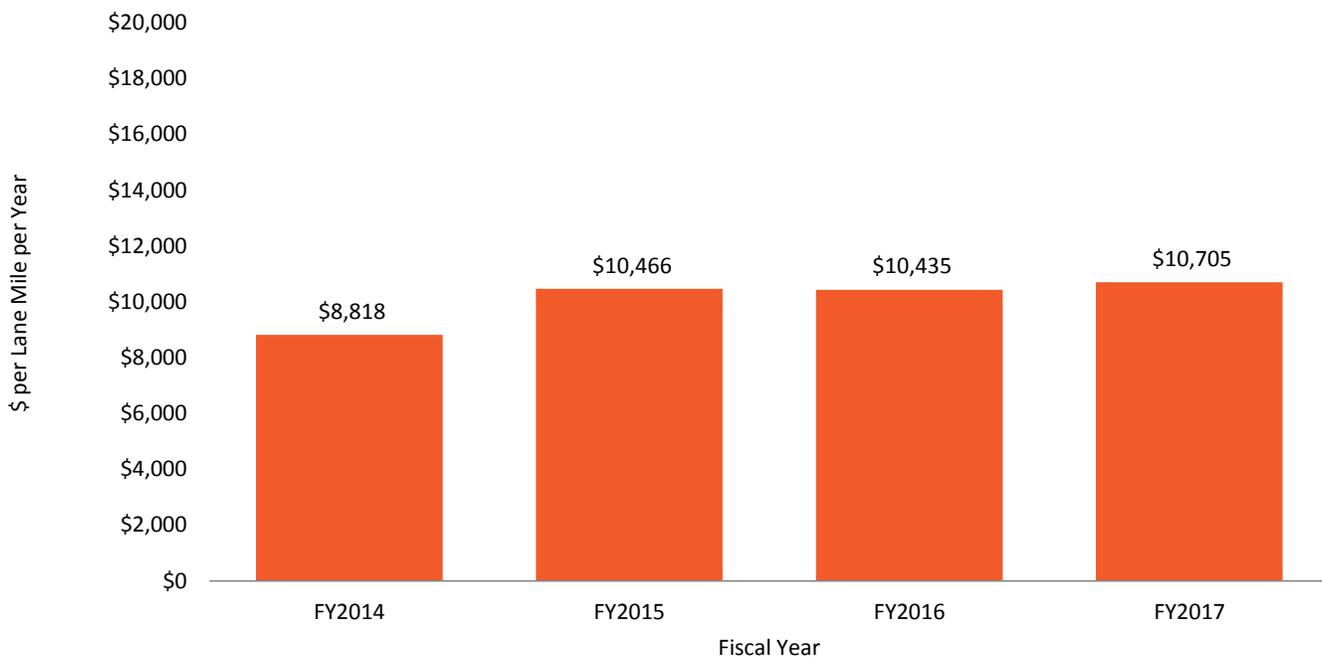
Tracking of these measures is based upon actual costs associated with contracts issued for various road and bridge projects. Because data for these projects is tracked annually, in any given year there may not be an award for this type of project as can be seen from some of the MDTA data.

Regardless, the data will provide our customers with insights into how Maryland transportation projects compare to national averages. Benchmarks are sought to gauge how Maryland solutions and services compare with national averages as well as who is considered the best in this category. Based on year-to-year data comparisons, the goal is to identify ways to reduce costs to the citizens of Maryland.

## PERFORMANCE MEASURE 4.4A

### Average Cost of Common Transportation Solutions and Services

Chart 4.4A: Minor Road Preservation Life Cycle Cost FY2014-FY2017

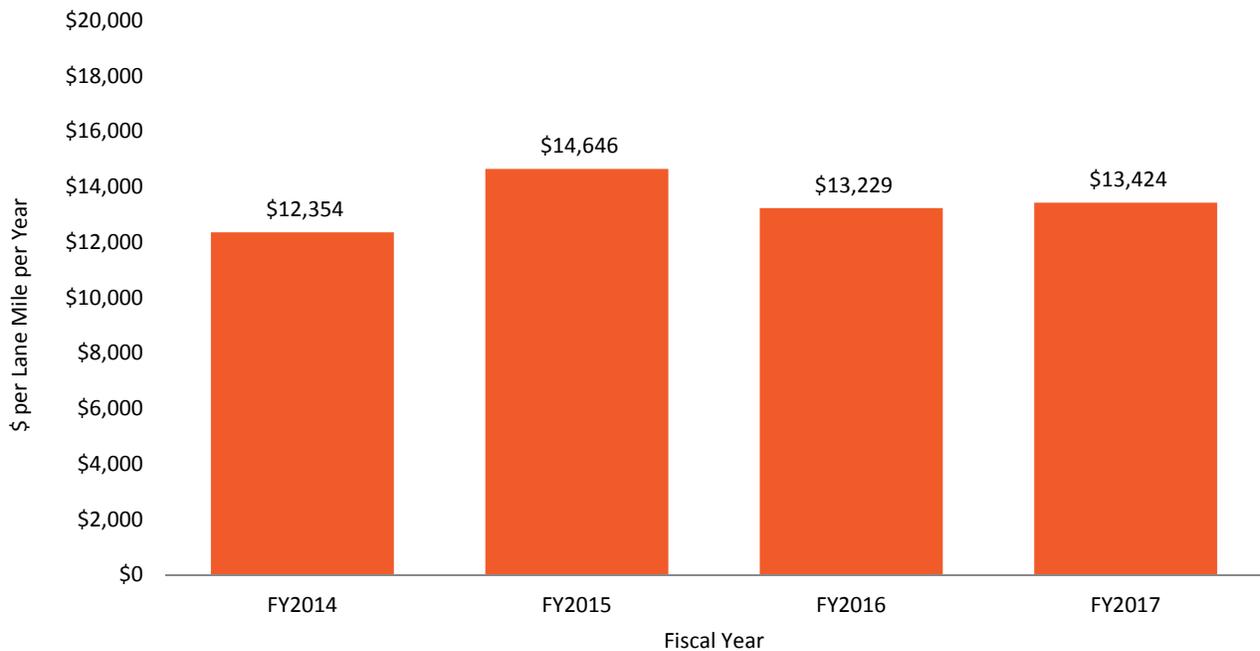


# Deliver Transportation Solutions and Services of Great Value

## PERFORMANCE MEASURE 4.4B

### Average Cost of Common Transportation Solutions and Services

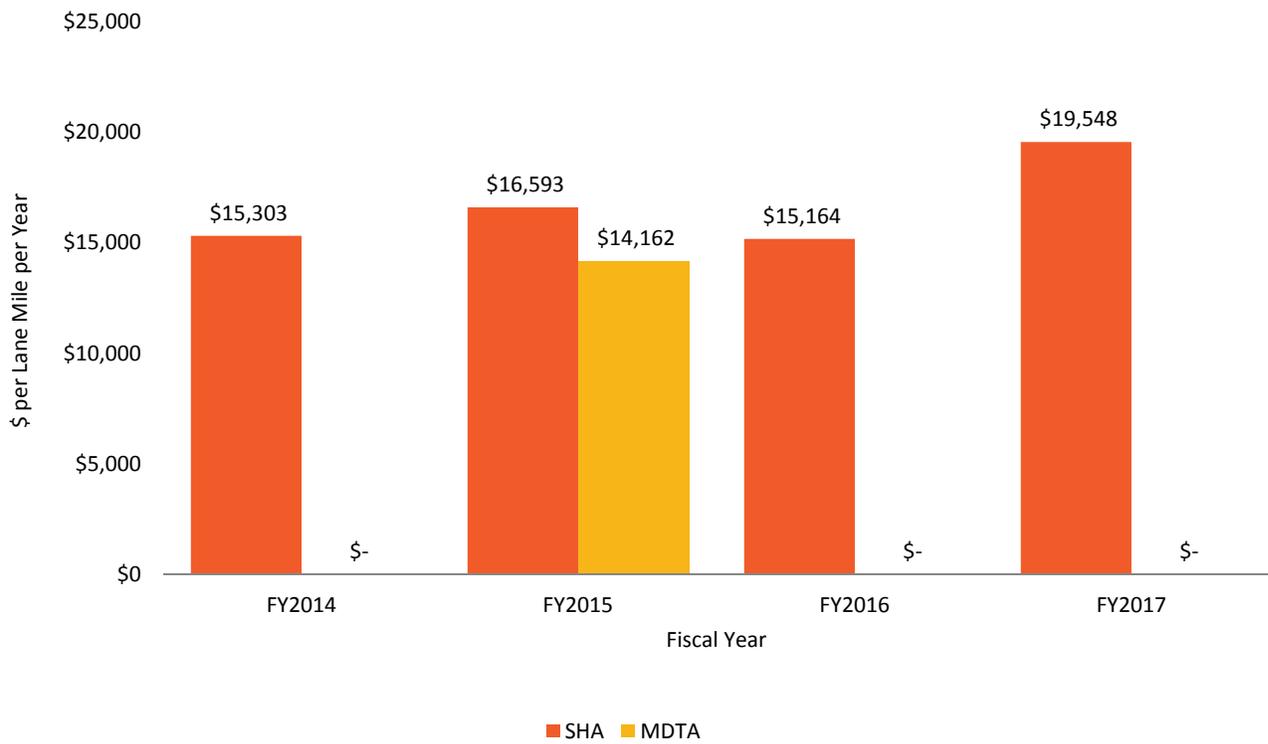
Chart 4.4B: Major Road Preservation Life Cycle Cost FY2014-FY2017



## PERFORMANCE MEASURE 4.4C

### Average Cost of Common Transportation Solutions and Services

Chart 4.4C: Interstate Preservation Life Cycle Cost FY2014-FY2017

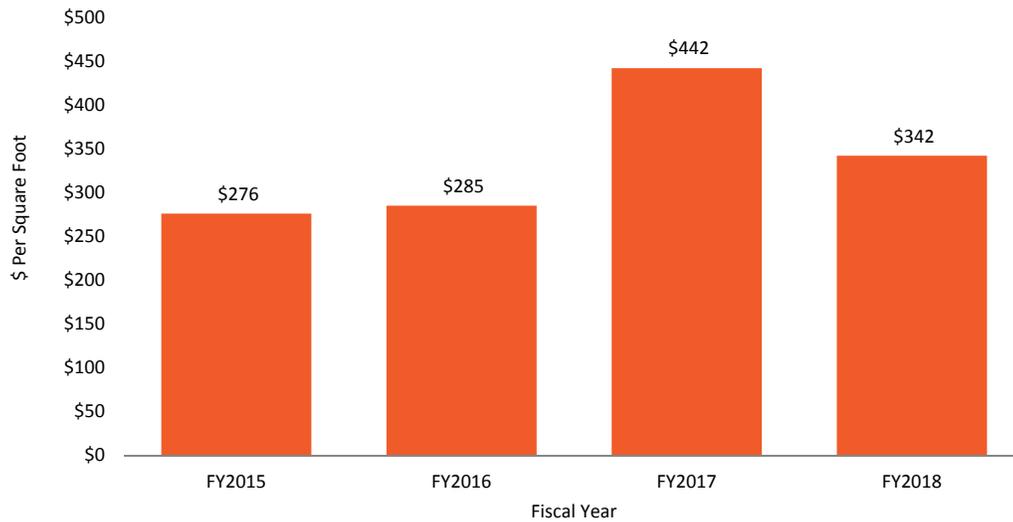


# Deliver Transportation Solutions and Services of Great Value

## PERFORMANCE MEASURE 4.4D AND E

### Average Cost of Common Transportation Solutions and Services

**Chart 4.4D: Average Bridge Replacement Cost FY2015-FY2018**



**Chart 4.4E: Average Bridge Redecking Cost FY2015-FY2018**



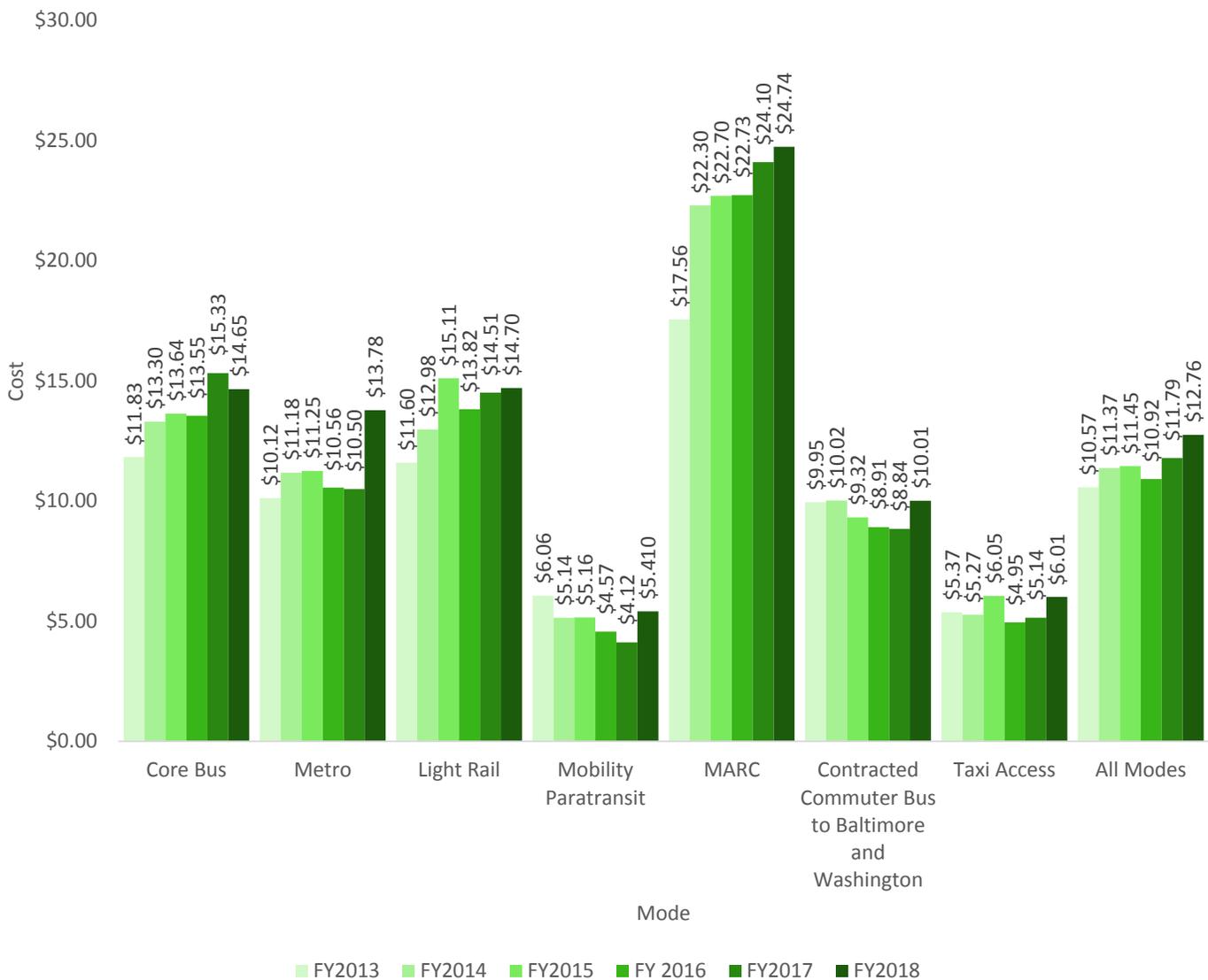
# Deliver Transportation Solutions and Services of Great Value

## PERFORMANCE MEASURE 4.4F

### Average Cost of Common Transportation Solutions: Operating Cost per Passenger Trip (MTA)

Operating cost per passenger trip is calculated by dividing modal passenger trips by the total modal operating expenses. All MTA modes experienced an increase in Cost per Passenger Trip. The rise in cost for Metro, Light Rail, and Bus is related to a decrease in ridership coupled with an annual increase in operating cost. MTA purchased transportation modes of MARC, Commuter Bus and Mobility service experienced increases in ridership during FY2018, but contract escalators increased the operational costs offsetting potential decreases in cost per passenger trip. All data is based on National Transit Database (NTD) figures.

**Chart 4.4F.1: Operating Cost Per Revenue Vehicle Mile FY2013-FY2018**



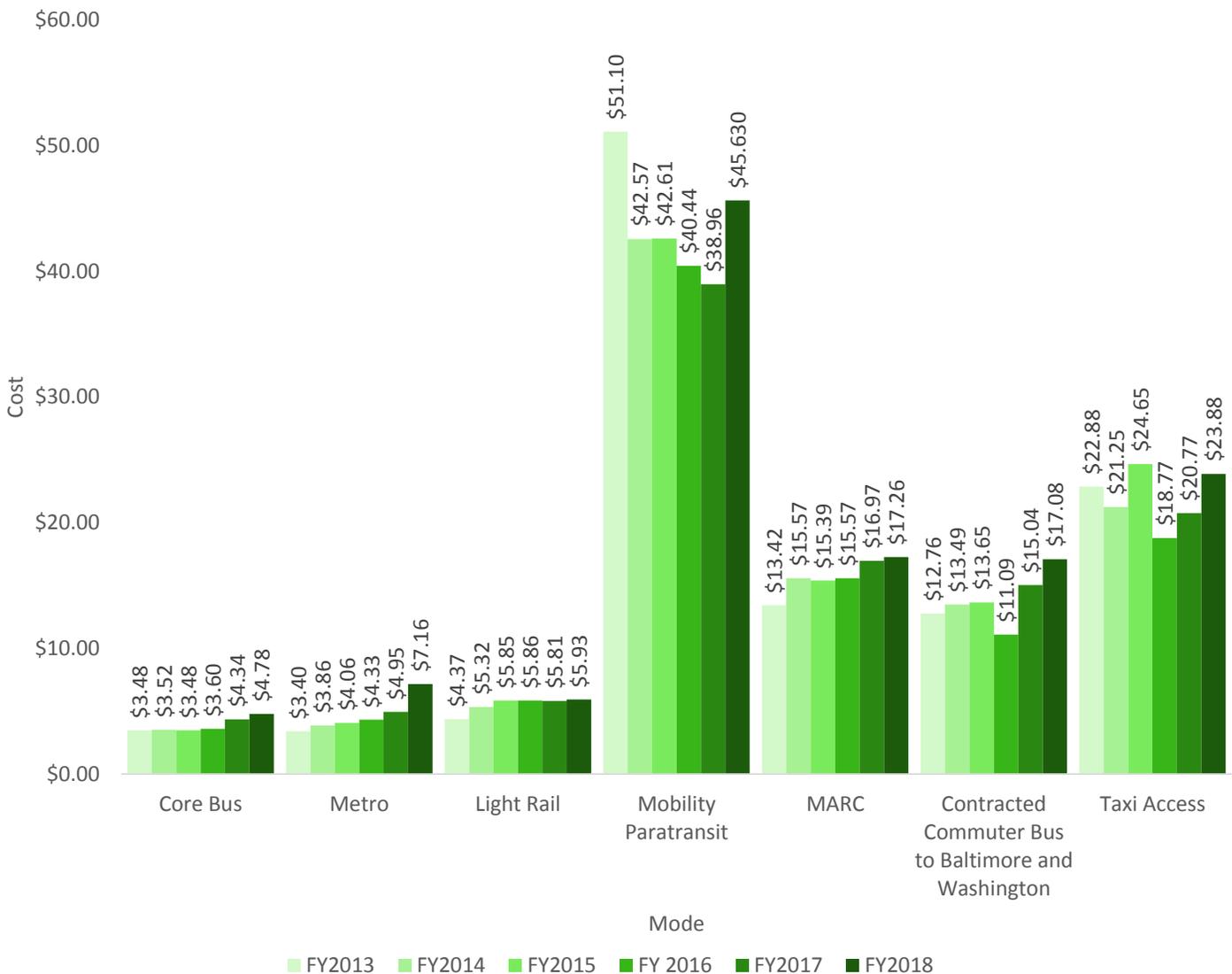
# Deliver Transportation Solutions and Services of Great Value

## PERFORMANCE MEASURE 4.4G

### Average Cost of Common Transportation Solutions: Operating Cost per Revenue Vehicle Mile (MTA)

Operating cost per revenue vehicle mile is calculated by dividing modal vehicle revenue miles by the total modal operating expenses. Metro, Light Rail, Mobility, MARC, Commuter Bus and Taxi Access all saw an increase in Cost Per Revenue Mile. The increases in cost for MDOT MTA's directly operated modes is due to modal expense increases year over year and a reduction in specific modal revenue vehicle miles due to service interruption events. The cost increases for our purchased transportation modes increased due to contract escalators. All data is based on National Transit Database (NTD) figures.

Chart 4.4G.1: Operating Cost Per Passenger Trip FY2013-FY2018



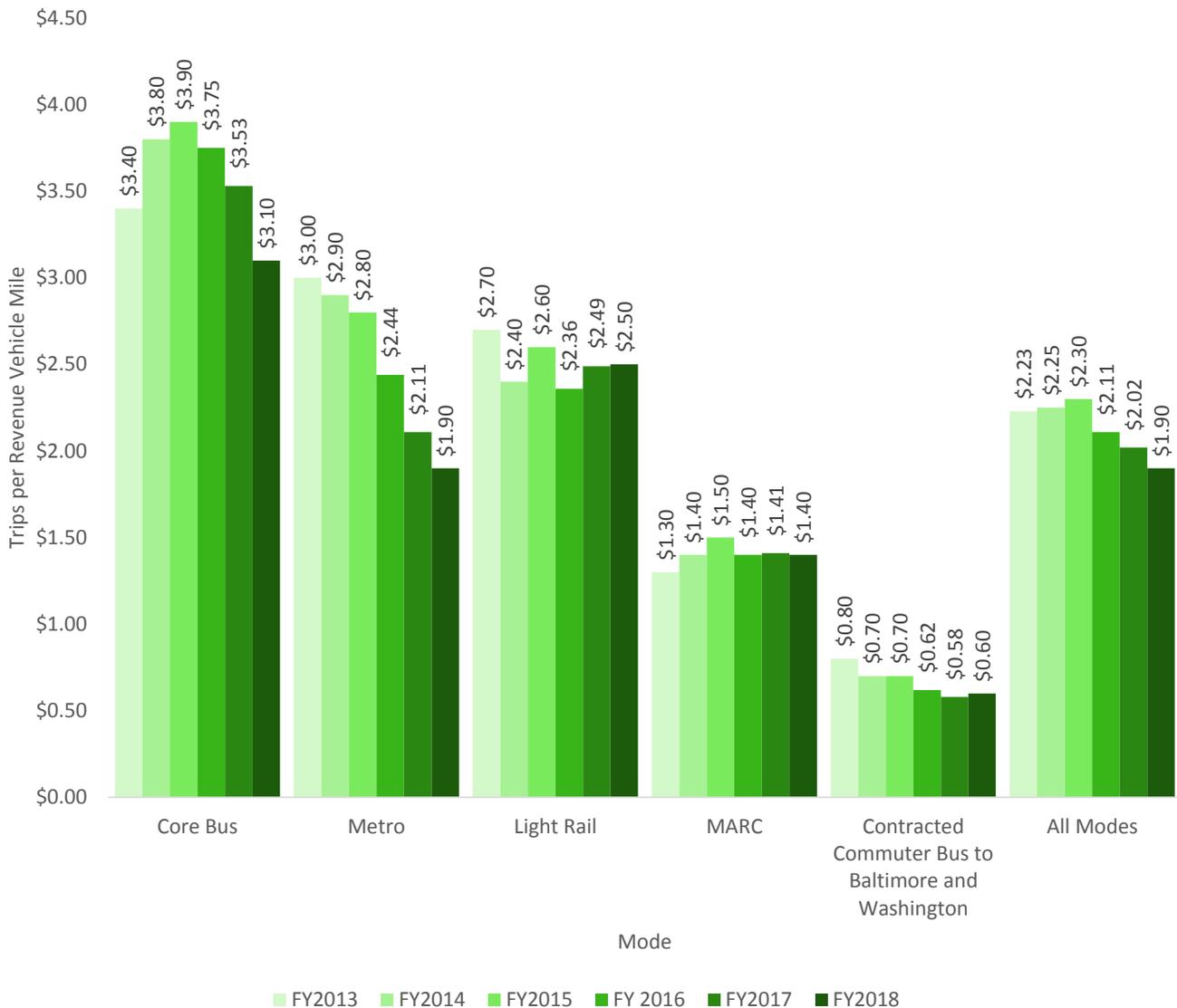
# Deliver Transportation Solutions and Services of Great Value

## PERFORMANCE MEASURE 4.4H

### Average Cost of Common Transportation Solutions: Passenger Trip per Revenue Vehicle Mile (MTA)

Passenger trips per revenue vehicle mile is calculated by dividing modal passenger trips by the total modal revenue vehicle miles. Bus, Light Rail and Metro's Passenger Trips per Revenue Vehicle Miles decreased due to lower ridership in FY2018. MARC and Commuter Bus experienced an FY2018 increases in due to higher modal ridership. All data is based on National Transit Database (NTD) figures.

**Chart 4.4H.1: Passenger Trips Per Revenue Vehicle Mile FY2013-FY2018**



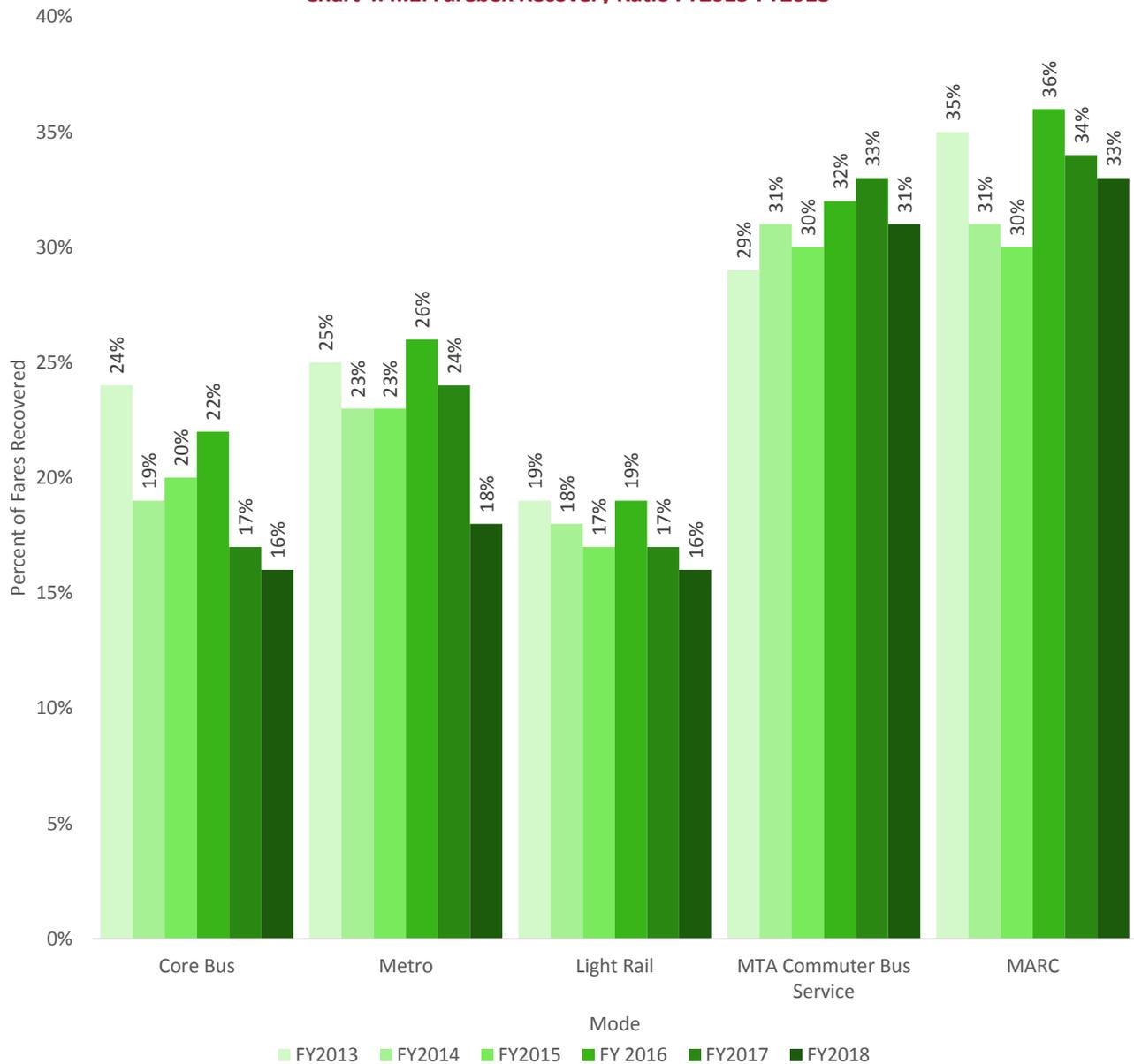
# Deliver Transportation Solutions and Services of Great Value

## PERFORMANCE MEASURE 4.4I

### Average Cost of Common Transportation Solutions: Farebox Recovery Ratio (MTA)

Farebox Recovery Ratio is calculated by dividing total modal expenses by the fares recuperated by the modes. MDOT MTA directly operated modes of Bus, Light Rail and Metro's Farebox Recovery Ratio decreased in FY2018 due to declines in ridership. MDOT MTA purchased transportation farebox recovery also decreased slightly due to rises in operations costs despite gains in ridership. All data is based on National Transit Database (NTD) figures.

**Chart 4.4I.1: Farebox Recovery Ratio FY2013-FY2018**



# Deliver Transportation Solutions and Services of Great Value

## PERFORMANCE MEASURE 4.4J

### Average Cost of Common Transportation Solutions: Cost per Transaction (MVA)

The cost per transaction includes those costs that directly affect an MVA product. It is based on the operating expense, compared to the total number of customer transactions completed by visiting one of the MVA locations, mailing in a request, or completing a transaction through an alternative service delivery. The operating expense is inclusive of salaries, overtime and wages, and all other expenses related to completing a customer transaction. Operating expense does not include the administrative costs, costs for IT system enhancements, and onetime start-up costs for new product development. Also, not included are costs for MHSO and Capital Programs.

In FY2018 there was a decrease in cost per transaction when compared to FY2017. This decrease is mostly due to an overall reduction in transactions as well as a reduction in operating expenditures. Although the overall trend for branch transactions is expected to decrease with an increase in ASD. There is an anticipated spike in branch transaction expected for FY2019 which could increase the cost per transaction in the next fiscal year. Trends in cost per transaction can vary with policy changes, new legislation and new technologies which allow customers to complete more transactions online and through kiosks.

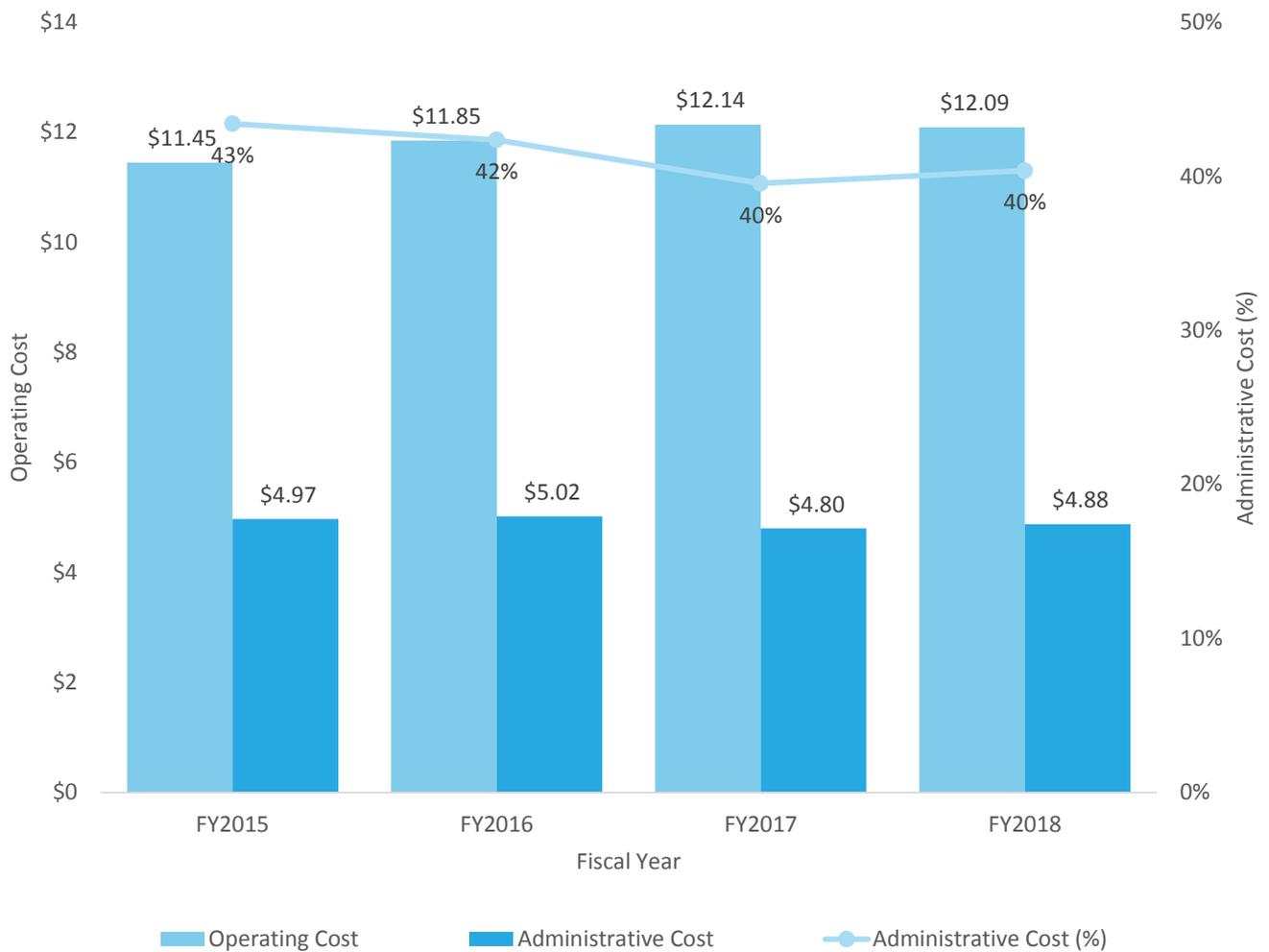
Branch facilities will continue to drive the cost per transaction calculation. The MVA has been collaborating with other state agencies to utilize MVA locations to offer more opportunities for Maryland customers. Recently, MVA has made modifications to some of the branch offices to offer services for DNR, EZPass, Charm Cards, Vital Records, TWIC Card and TSA precheck. MVA staff provide support to the TWIC and TSA pre-check counters. As this scenario continues, MVA will be able to quantify the percentage of other State agencies utilizing MVA branches, and this will affect the MVA cost per transaction.

# Deliver Transportation Solutions and Services of Great Value

## PERFORMANCE MEASURE 4.4J

### Average Cost of Common Transportation Solutions: Cost per Transaction (MVA)

Chart 4.4J.1: MVA Operating & Administrative Cost Per Transaction FY2015-FY2018



## 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:

Sam Walters  
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 percentage of tolls collected via cash payment at toll facilities.

## NATIONAL BENCHMARK:

N/A

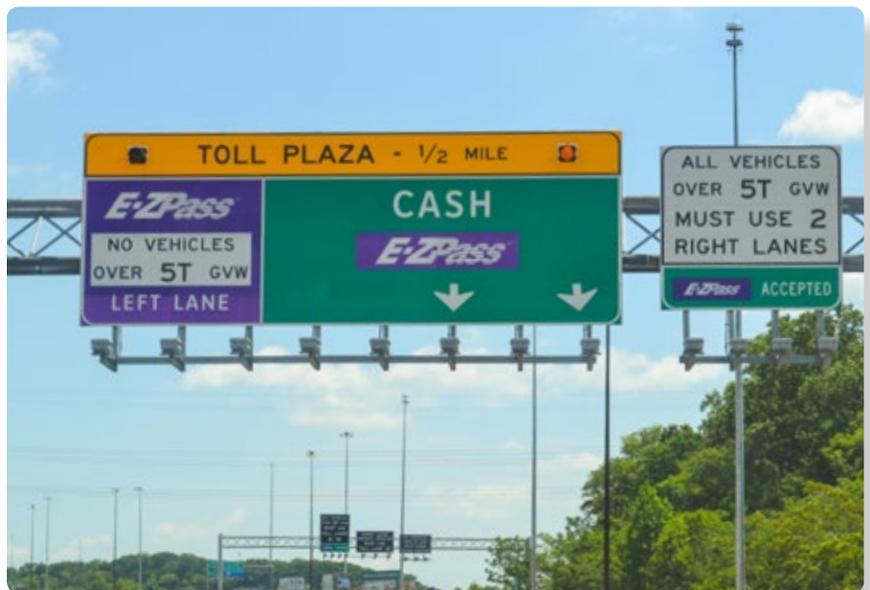
## PERFORMANCE MEASURE 5.1A

### Reliability of the Transportation Experience: Percentage of Tolls Collected as Cash

Customers expect limited congestion and minimal wait times, particularly at paid toll facilities. A decrease in this measure indicates more free flow traffic using electronic means of payment. Currently we are trending positively, as our measure has been decreasing over the past year.

As of Q4 CY2018 we are at 14 percent of tolls collected as cash. This is a decrease of 2.13 percent from Q4 CY2017. Cash tolls cause more congestion and longer wait times at toll facilities.

MDOT continues to market electronic toll collection.

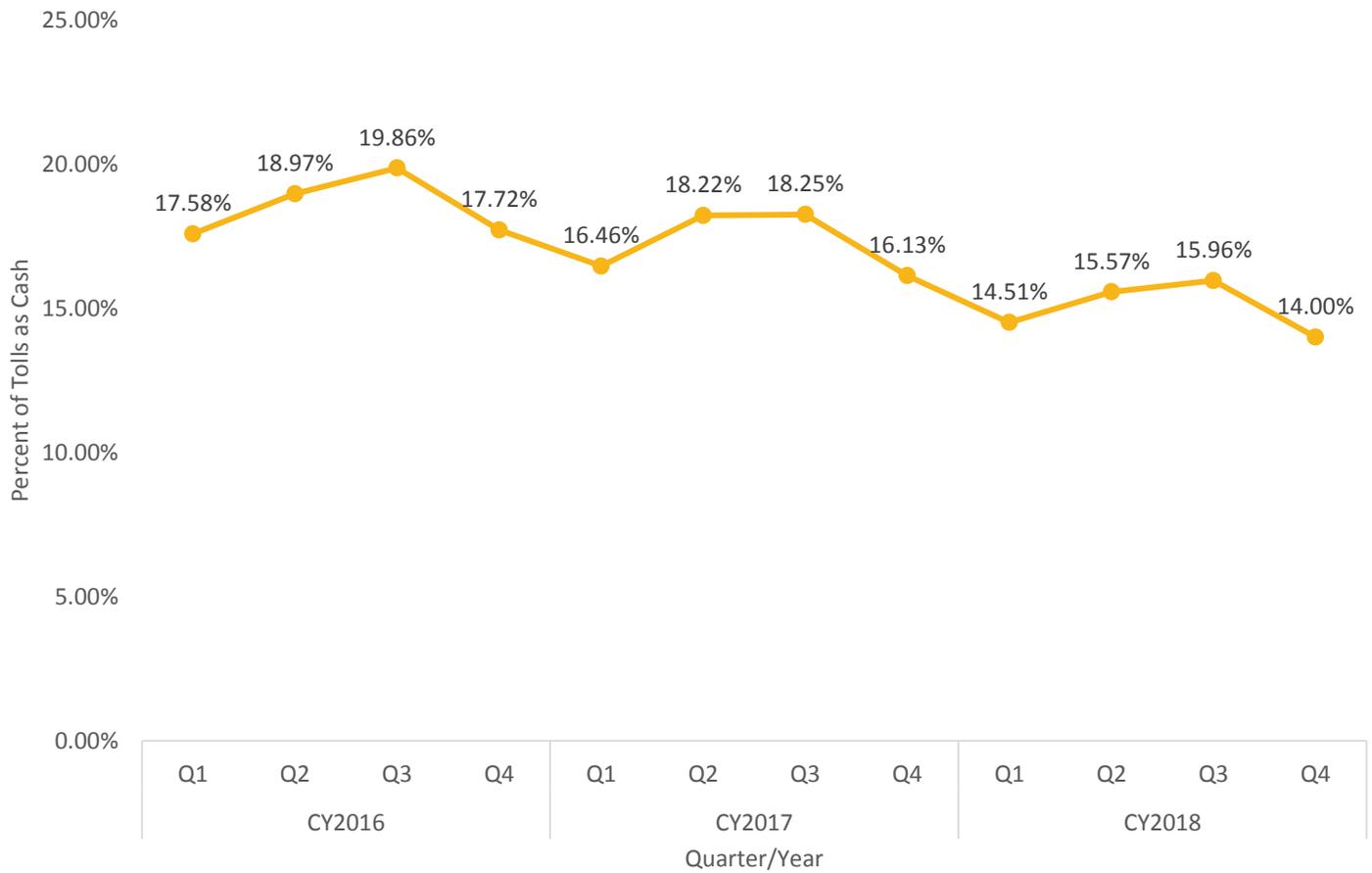


# Provide an Efficient, Well-Connected Transportation Experience

## PERFORMANCE MEASURE 5.1A

### Reliability of the Transportation Experience: Percentage of Tolls Collected as Cash

Chart 5.1A.1: Percent of Tolls Collected as Cash Across All Facilities Q1 CY2016-Q4 CY2018



# Provide an Efficient, Well-Connected Transportation Experience

## TANGIBLE RESULT DRIVER:

Phil Sullivan  
*Maryland Transit Administration (MTA)*

## PERFORMANCE MEASURE DRIVER:

Jeffrey Gutowski  
*Maryland Port Administration (MPA)*

## PURPOSE OF MEASURE:

To assess average truck turn time at Seagirt Marine Terminal to ensure an efficient transportation experience for our customers.

## FREQUENCY:

Annually (in January)

## DATA COLLECTION METHODOLOGY:

Truck turn times are obtained by RFID at the security booth as trucks enter and exit Seagirt Marine Terminal.

## NATIONAL BENCHMARK:

There is not a national benchmark. However, in researching through trade and industry publications and trucking associations, 75 minutes can be established as an efficient turn time.

## PERFORMANCE MEASURE 5.1B

### Reliability of the Transportation Experience: Average Annual Truck Turn Time at Seagirt Marine Terminal

The annual truck turn time measures the average amount of time a truck spends on Seagirt Marine Terminal to pickup and/or drop off containers. The turn time is determined by the accumulated time that each truck is on the terminal to complete its transaction(s), and is measured using RFID technology.

The overall time is calculated from the first security checkpoint to the time it passes through the last CBP security checkpoint prior to exiting the terminal. RFID technology has allowed for more accurate reporting of a driver's overall experience. Previous metrics did not include the queue time from the first security checkpoint to where drivers begin the commercial transaction.

The turn time goal is to maintain industry leading turn times of 75 minutes or less. Turn times have increased in CY2018 to 95 minutes from 88 minutes in 2017. This trendline is directly attributable to the following factors:

1. The Panama Canal expansion allows for larger vessels to call at the facility. Each vessel operation involves significantly more container activity.
2. Schedule disruption of these larger vessels contribute to vessel bunching.
3. The increased volume has stressed Seagirt's historical operating methodology, labor supply and equipment availability.
4. Trade imbalance leading to empty containers accumulating on the terminal causing congestion.

The terminal operator has implemented the following to improve the truck turnaround times through:

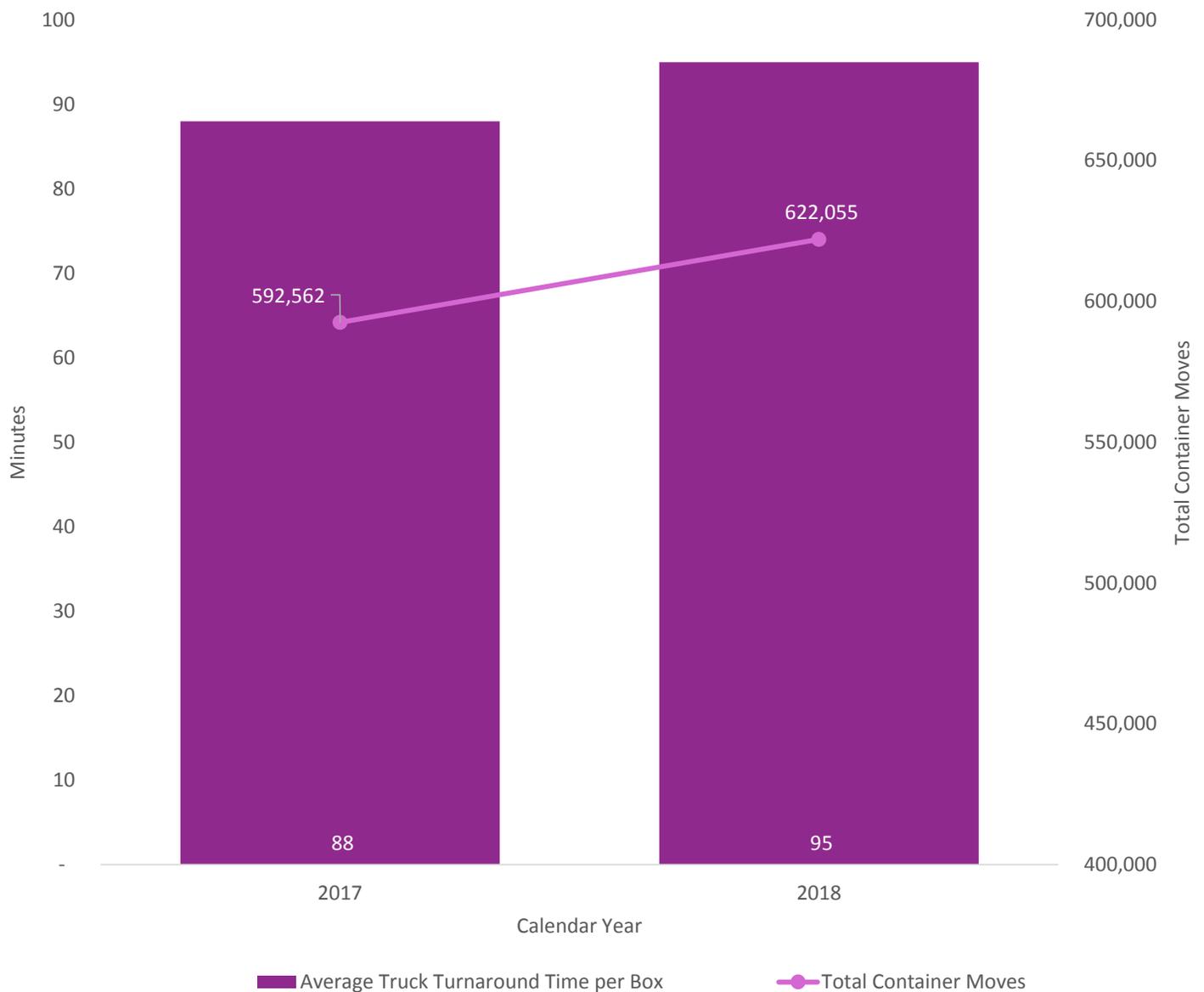
1. Opening of a second truck gate.
2. Extended gate hours.
3. Investment in infrastructure and equipment.
4. Opening of near dock chassi depot.
5. Construction of dedicated empty container storage yard.

# Provide an Efficient, Well-Connected Transportation Experience

## PERFORMANCE MEASURE 5.1B

Reliability of the Transportation Experience: Average Annual Truck Turn Time at Seagirt Marine Terminal

Chart 5.1B.1: Average Annual Truck Turnaround Time, Seagirt Marine Terminal FY2017-FY2018



# Provide an Efficient, Well-Connected Transportation Experience

## TANGIBLE RESULT DRIVER:

Phil Sullivan  
*Maryland Transit Administration (MTA)*

## PERFORMANCE MEASURE DRIVER:

Jeffrey Gutowski  
*Maryland Port Administration (MPA)*

## PURPOSE OF MEASURE:

To assess average wait time at MVA facilities.

## FREQUENCY:

Quarterly

## DATA COLLECTION METHODOLOGY:

Verification of average wait times at MVA facilities for services.

## NATIONAL BENCHMARK:

N/A

## PERFORMANCE MEASURE 5.1C

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

MDOT customers expect reasonable wait times to obtain needed services and products. For performance measure 5.1C, the reliability of customer transportation experiences was assessed through monitoring of average wait times at MVA facilities. The data will be reported and reviewed quarterly.

Currently, the MVA reports the average wait time for customers to obtain services and products at all branch offices. The statewide average wait time goal is 14.8 minutes. In the Q4 CY2018 reporting period, MVA average statewide wait time was 16.9 minutes. The average total wait time for the calendar year was 15.9 minutes.

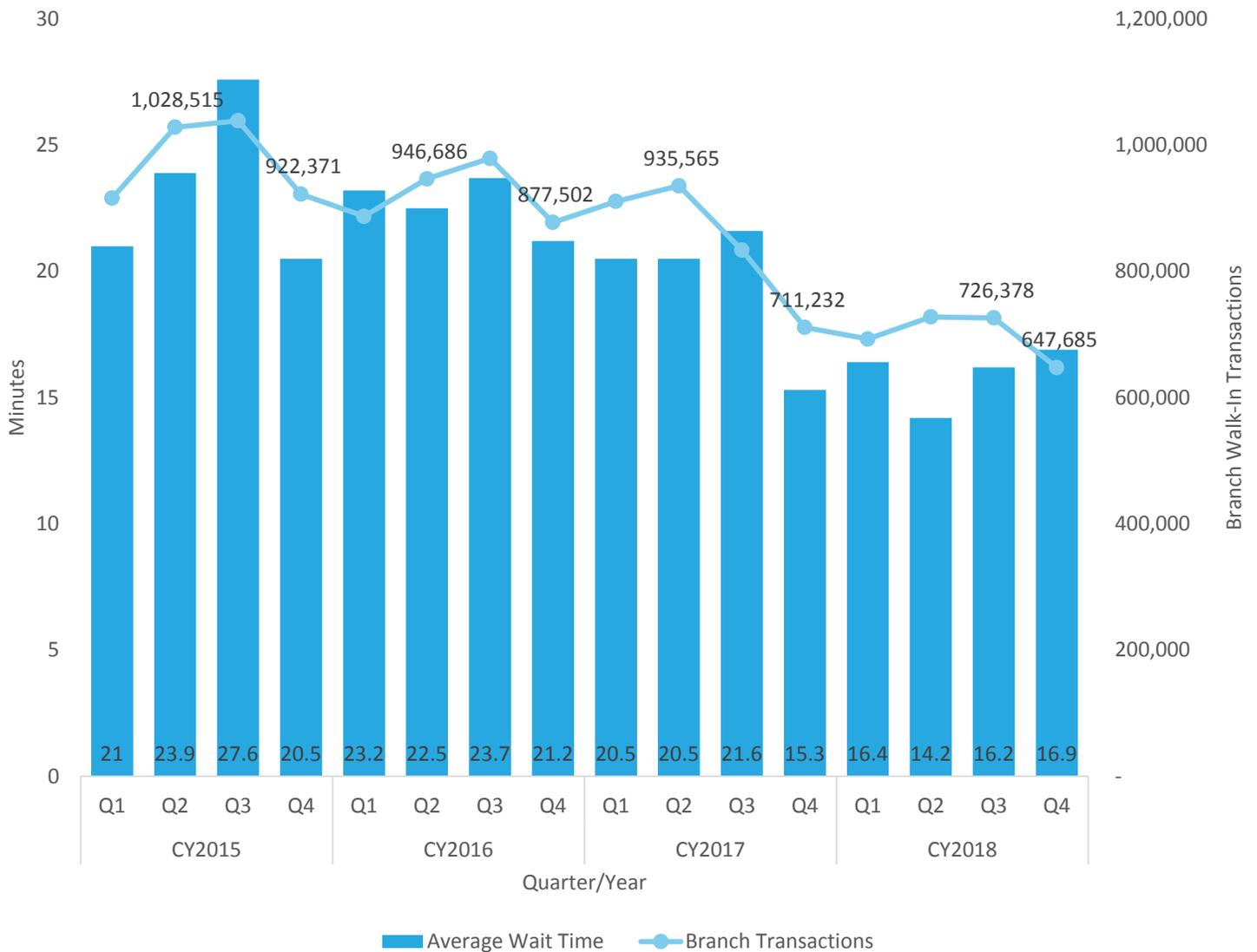
The MVA continues to promote alternative services for customers to get serviced more quickly. The complexity of transactions resulting from REAL ID requirements attributed to slightly increased wait times at branch locations. Additionally, the fourth quarter of 2018 had 7 holidays as compared to four for a more traditional year. This meant that all transactions were completed with fewer operating hours.

# Provide an Efficient, Well-Connected Transportation Experience

## PERFORMANCE MEASURE 5.1C

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

Chart 5.1C.1: Average Wait Time (MVA) CY2015-CY2018



# Provide an Efficient, Well-Connected Transportation Experience

## TANGIBLE RESULT DRIVER:

Phil Sullivan  
*Maryland Transit Administration (MTA)*

## PERFORMANCE MEASURE DRIVER:

Kokuei Chen  
*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 customers.

## FREQUENCY:

Quarterly

## DATA COLLECTION METHODOLOGY:

Varies by mode. Most modes use GPS tracking to compare performance to the schedule and in a few cases field observations are used to assess reliability.

## NATIONAL BENCHMARK:

Per APTA Standards Modal OTP benchmarks are as follows:

Bus – 78 percent

Rail – 90 percent

Paratransit – 92 percent

## 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 and 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.

As an organization, MDOT continues to strive to meet or exceed APTA benchmarks for OTP across bus (78 percent), rail (90 percent), and paratransit (92 percent) modes. Our commitment to continual improvement of OTP is evident in our efforts to provide a transit network that allows passengers to travel more efficiently throughout our service area utilizing schedules that accurately reflect passenger travel times, driving down service related complaints and resulting in a better passenger experience.

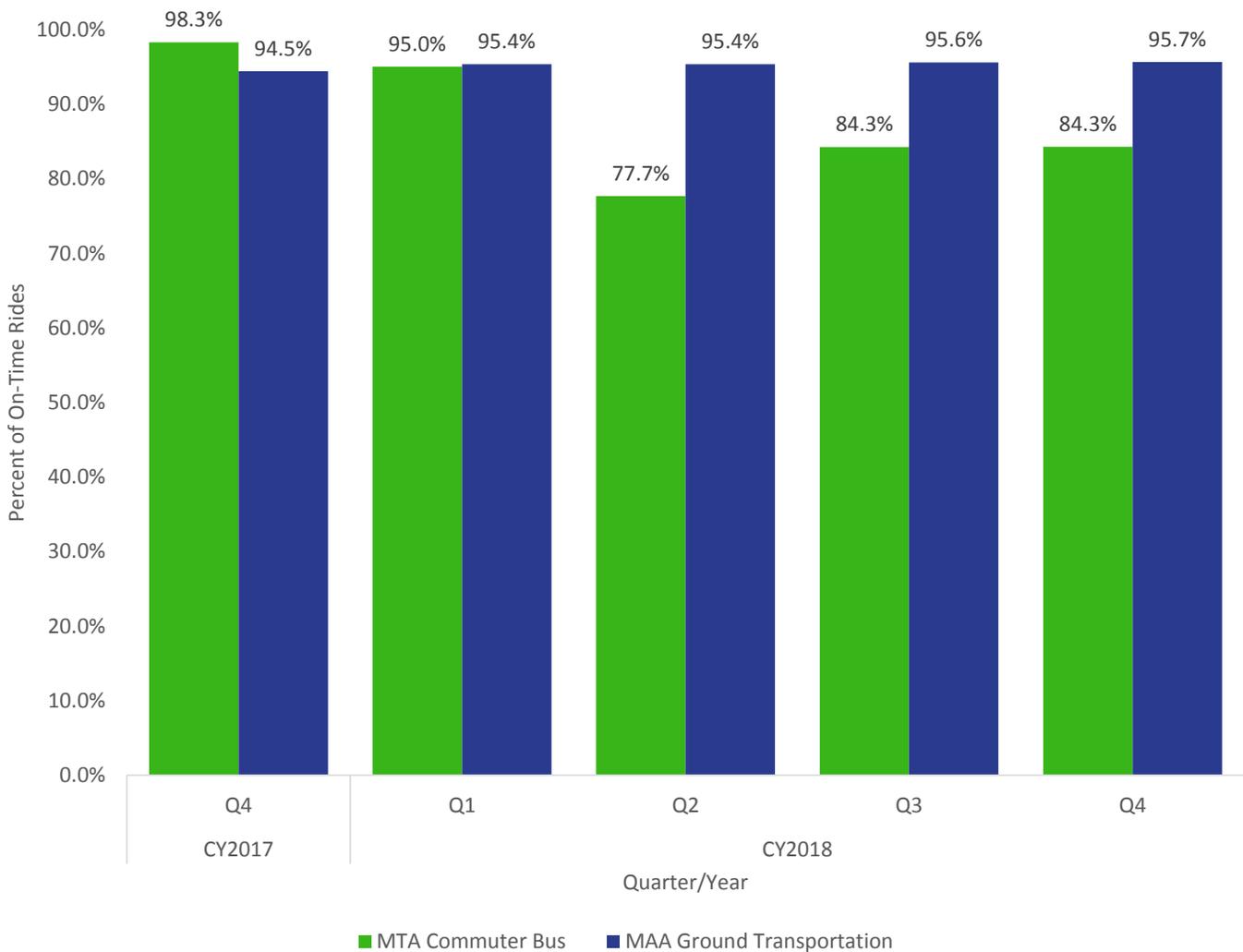
As of April, 2018, new GPS tracking units have been installed on all MDOT MTA core buses. The new GPS units and the associated software is replacing less robust passenger counting system that had been used to calculate MDOT MTA core bus on time performance. The MDOT MTA core bus system contains three services: CityLink, LocalLink, and ExpressLink. LocalLink and ExpressLink service uses a schedule adherence system (with a two minute early, seven minute late window) to calculate “on time” percentage while CityLink service uses a headway system (with an advertised headway + five minutes window) to calculate “on time” percentage.

# Provide an Efficient, Well-Connected Transportation Experience

## PERFORMANCE MEASURE 5.1D

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

Chart 5.1D.1: On-Time Performance of MTA Commuter Bus and MAA Ground Transport Q4 CY2017-Q4 CY2018



# Provide an Efficient, Well-Connected Transportation Experience

## PERFORMANCE MEASURE 5.1D

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

Chart 5.1D.2: On-Time Performance of MTA SubwayLink, Light RailLink, and MARC Q4 CY2017-Q4 CY2018

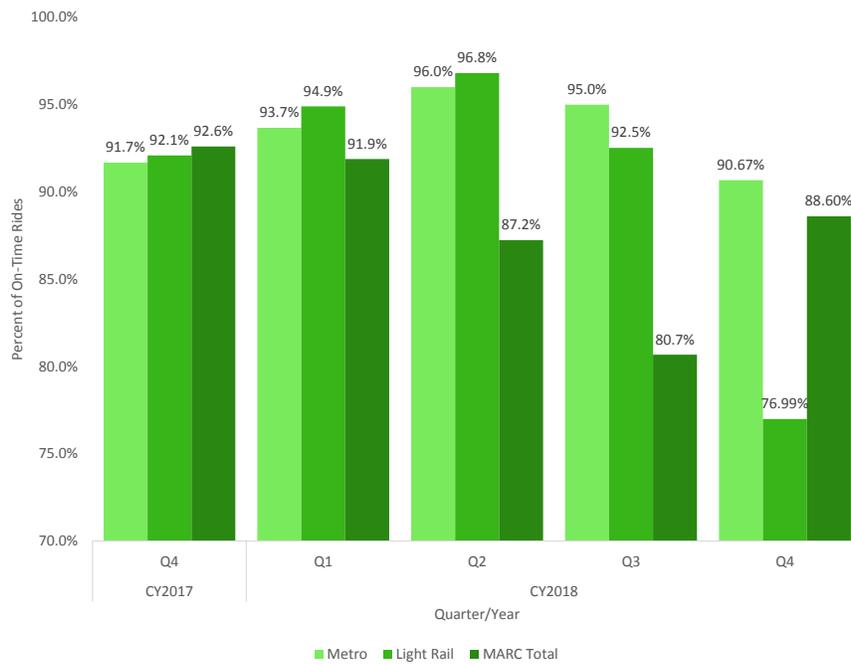
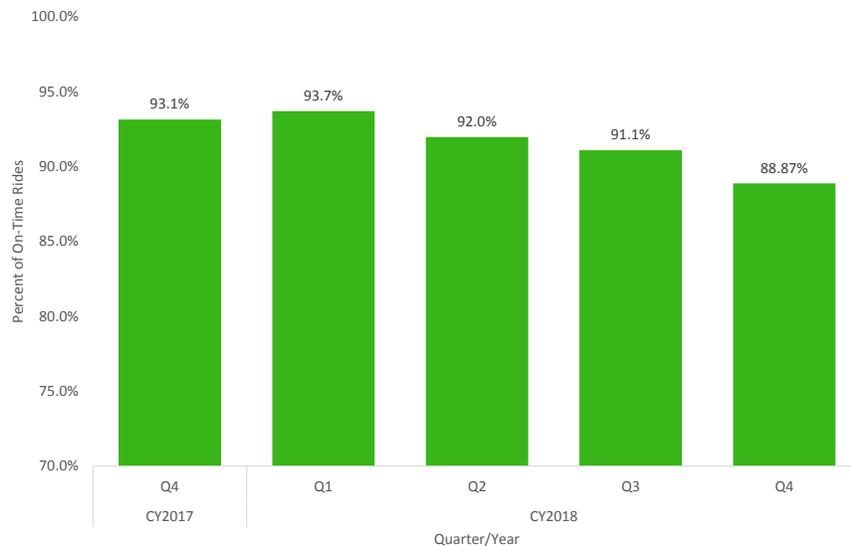


Chart 5.1D.3: On-Time Performance of MTA Paratransit Q4 CY2017-Q4 CY2018



# Provide an Efficient, Well-Connected Transportation Experience

## PERFORMANCE MEASURE 5.1D

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

Chart 5.1D.4: CityLink (All Lines) Weekly Headway Performance Q2-Q4 CY2018

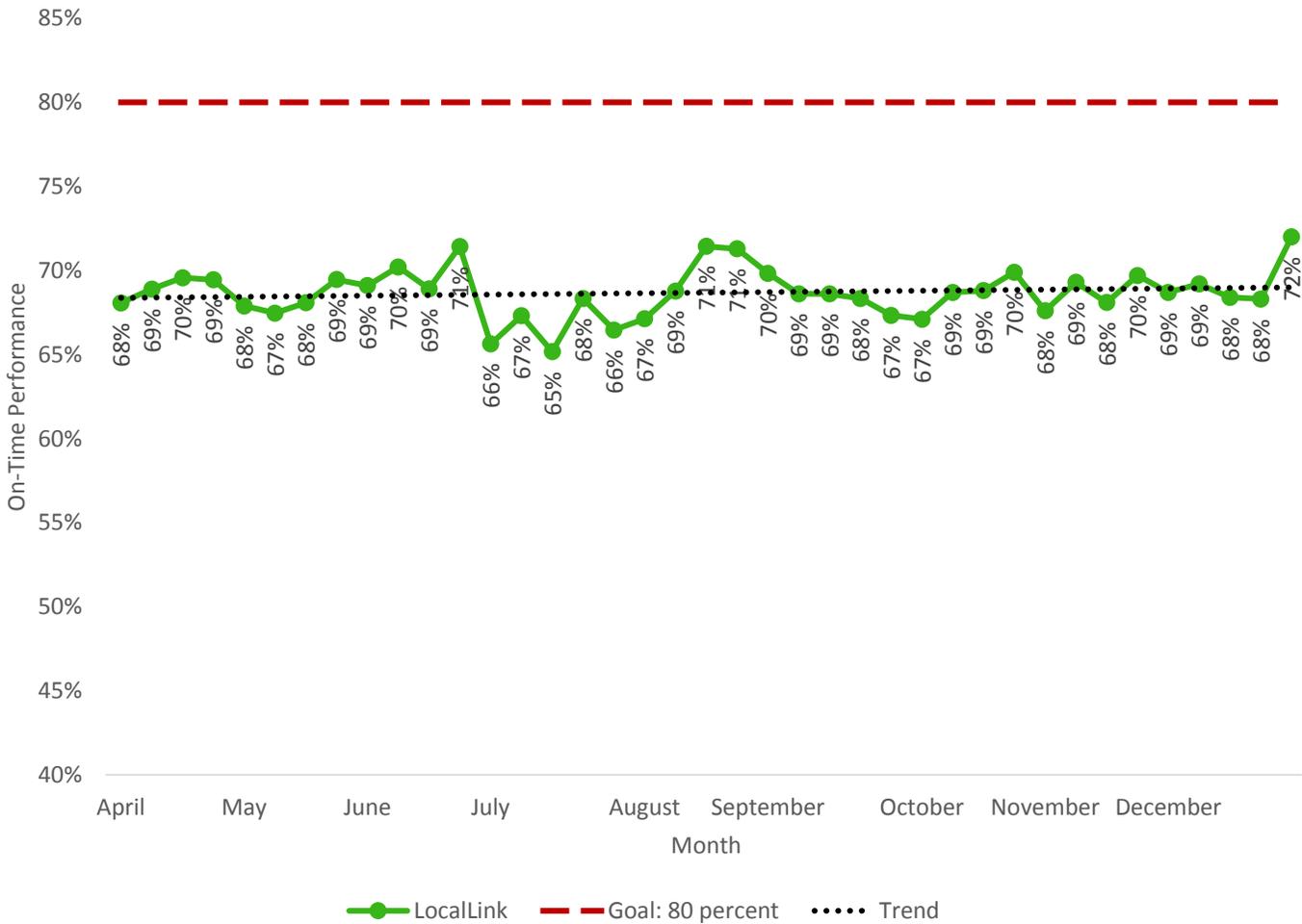


# Provide an Efficient, Well-Connected Transportation Experience

## PERFORMANCE MEASURE 5.1D

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

Chart 5.1D.5: LocalLink (All Lines) Weekly Headway Performance Q2-Q4 CY2018

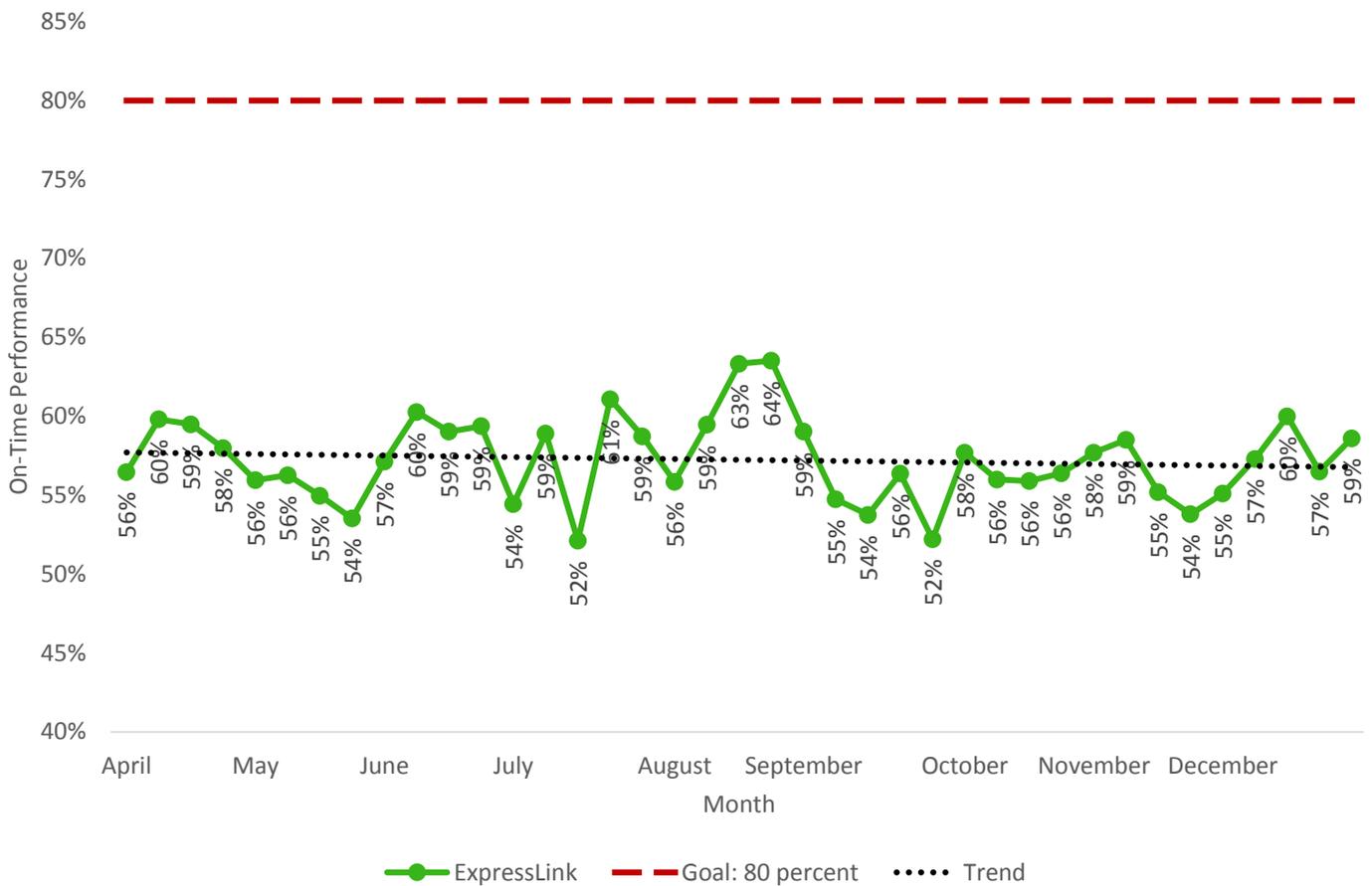


# Provide an Efficient, Well-Connected Transportation Experience

## PERFORMANCE MEASURE 5.1D

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

Chart 5.1D.6: ExpressLink (All Lines) Weekly Headway Performance Q2-Q4 CY2018



# Provide an Efficient, Well-Connected Transportation Experience

## TANGIBLE RESULT DRIVER:

Phil Sullivan  
Maryland Transit Administration (MTA)

## PERFORMANCE MEASURE DRIVER:

Meredith Hill  
State Highway Administration (SHA)

## PURPOSE OF MEASURE:

To provide customers with a gauge by which to assess travel time reliability on the State's highway system.

## FREQUENCY:

Annually (in May)

## DATA COLLECTION METHODOLOGY:

Formula based.

## NATIONAL BENCHMARK:

A Planning Time Index (PTI) which is < 1.5, for 80th Percentile travel time; Maryland uses 95th percentile travel time for reliability.

## PERFORMANCE MEASURE 5.1E

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

Customers want reliable travel times when traveling on Maryland's highway system. The planning time index (PTI) is a metric that gauges the reliability of travel times on heavily used freeways and expressways during peak congestion.

For example, if a trip during uncongested, free-flowing traffic conditions takes a traveler 15 minutes, a PTI of 2.0 would indicate that the same trip during a heavily congested period could be expected to take up to 30 minutes (i.e., twice as long). MDOT uses the following PTI ranges to describe the varying degrees of travel time reliability:

PTI < 1.5 = Reliable  
1.5 < PTI < 2.5 = Moderately Unreliable  
PTI > 2.5 = Extremely Unreliable

In 2017, travel time on 6 percent (AM peak) and 12 percent (PM peak) of the freeways and expressways was assessed as "extremely unreliable" during congested periods on an average weekday. This was an improvement over 2016 travel times by 1 percent in the AM peak hour and no change for the PM peak hour.

When compared to 2016, the 2017 travel reliability results improved even while we saw vehicle miles of travel (VMT) increase by 1.6 percent. Capacity improvements, CHART's response to incidents, and increased use of projects such as the InterCounty Connector support the improvement.

Changes to the PTI that result from completed highway projects are reflected in the analysis over time. For example, the MD 295 widening project from I-195 to I-695 in Anne Arundel County reflects such changes. Before the widening was completed the roadway operated under extremely unreliable conditions (PTI >2.5) and after construction the roadway, in 2017, operated as a reliable facility (PTI <1.5).

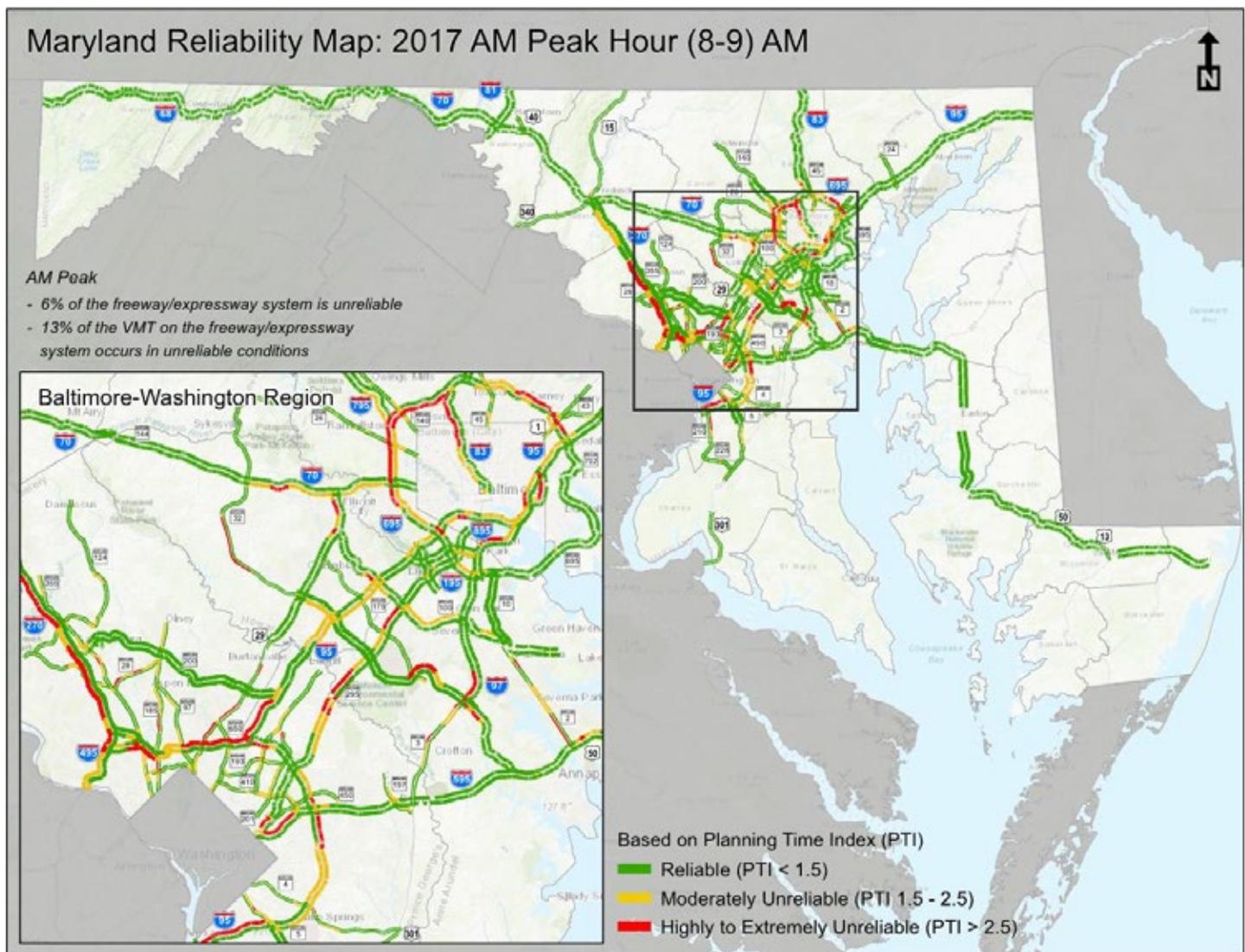
# Provide an Efficient, Well-Connected Transportation Experience

## PERFORMANCE MEASURE 5.1E

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

When compared to 2016, motorists in the AM peak hour experienced a **1 percent ↓** in the number of freeway and expressway miles with a PTI > 2.5.

This represents no change in VMT that occur in extremely unreliable conditions.



Source: 2017 Maryland State Highway Mobility Report

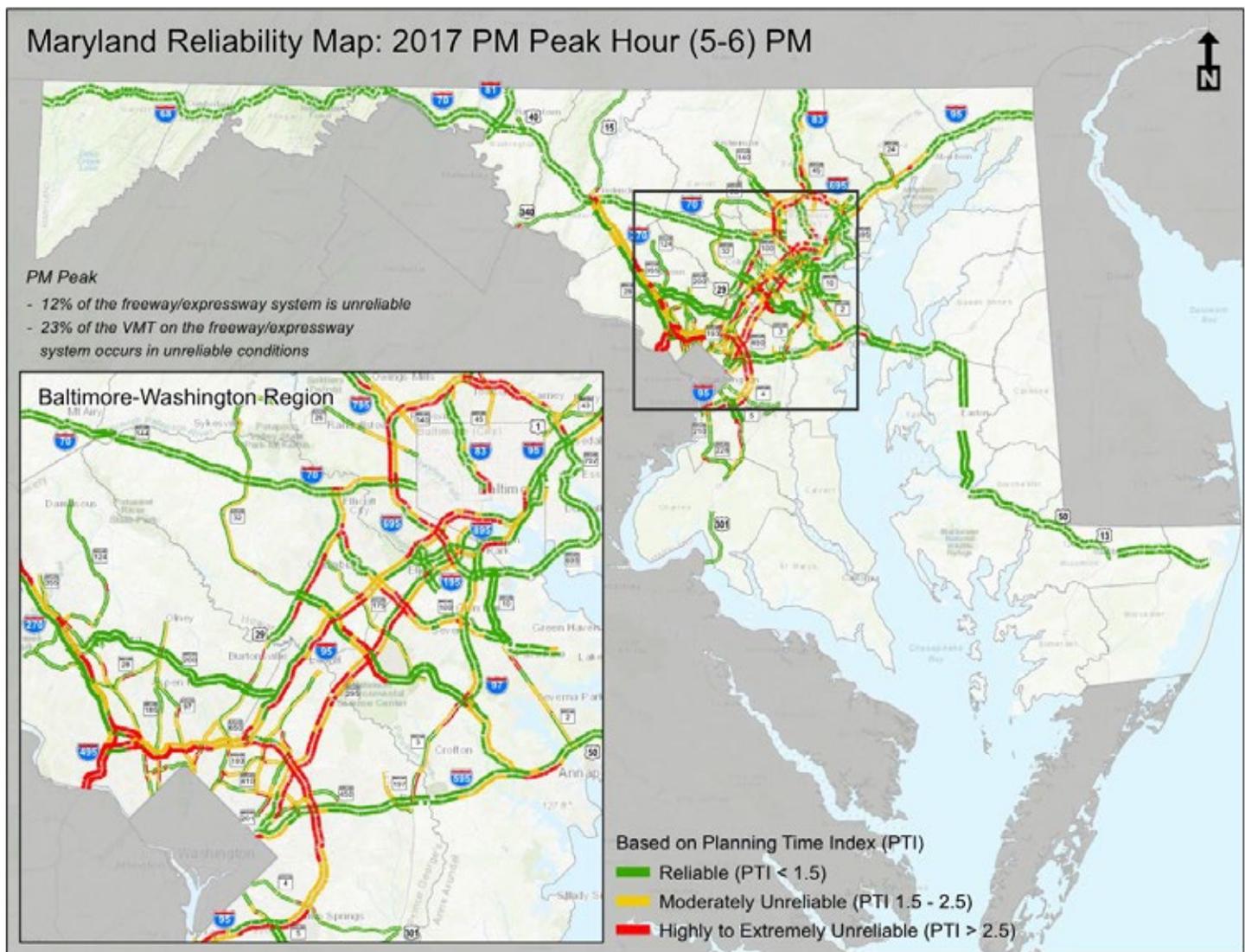
# Provide an Efficient, Well-Connected Transportation Experience

## PERFORMANCE MEASURE 5.1E

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

When compared to 2016, motorists in the PM peak hour experienced **no change** in the number of freeway and expressway miles with a PTI > 2.5.

This amounts to a **1 percent** ↑ in VMT that occur in extremely unreliable conditions.



Source: 2017 Maryland State Highway Mobility Report

# Provide an Efficient, Well-Connected Transportation Experience

## TANGIBLE RESULT DRIVER:

Phil Sullivan

Maryland Transit Administration (MTA)

## PERFORMANCE MEASURE DRIVER:

Joseph Sagal

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 incidents causing disruptions.

## NATIONAL BENCHMARK:

North Carolina – 75 minutes

Connecticut – 45 minutes

Iowa – 53 minutes

Minnesota – 35 minutes

Missouri – 25.3 minutes

New Jersey – 43 minutes

## PERFORMANCE MEASURE 5.2A

### Restoring Transportation Services: 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. Rapid response to effectively manage and clear incidents that disrupt highway travel is one strategy that is essential in meeting these expectations. Efforts to improve coordination and cooperation among TBUs and emergency responders facilitate the reduction in response times and the overall average incident duration, restoring travel more quickly for our customers. 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 advanced traffic management system noting the restoration of normal operating conditions.

As shown in chart 5.2A.1, the average incident duration between CY2011 and CY2016 has consistently been less than 30 minutes, and has been less than the lowest benchmark value (25.3 minutes – Missouri) for the last five years (2012 – 2016). The slight increase in average incident duration in calendar years 2015 and 2016 is likely due to the addition of overnight and weekend patrol hours. During the night and weekend hours, most incidents tend to take a slightly longer time to clear than they would during weekdays, since emergency responding agencies operate at reduced staffing levels, or depend on "on-call" staff. However, performance measures show that night and weekend patrols have a significant positive impact on reducing travel delays.

# Provide an Efficient, Well-Connected Transportation Experience

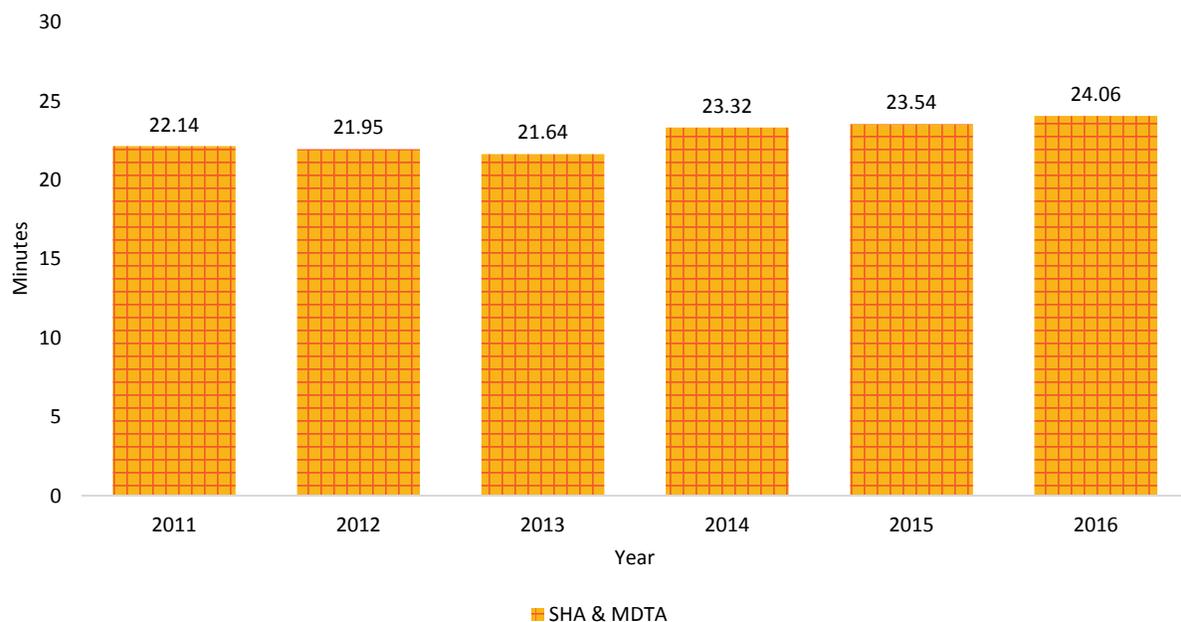
## PERFORMANCE MEASURE 5.2A

### Restoring Transportation Services: Average Time to Restore Normal Operations After Disruptions

The primary strategies for improving Traffic Incident Management focus on assuring that emergency responders have well established coordination procedures, effective communications, thorough training and the resources available to address any type of incident. Just some of the current efforts to implement these strategies in Maryland include:

- MDOT is leading three Initiatives to improve coordination with the MSP including:
  - o Formalizing working relationships with the heavy tow industry, including a performance incentive program;
  - o Organizational modifications to better support inter-agency coordination between MSP and MDOT; and
  - o Enhancing data collection on reported crashes, including the identification of preventable secondary incidents.
- Supporting the deployment of the Maryland First radio system statewide to improve inter-agency emergency communication.
- Standardized Incident Management training, to raise the level of emergency preparedness and safety of emergency responders, who manage incidents on the transportation system.

**Chart 5.2A.1: Average Highway Incident Duration (minutes) CY2011-CY2016**



# Provide an Efficient, Well-Connected Transportation Experience

## TANGIBLE RESULT DRIVER:

Phil Sullivan

Maryland Transit Administration (MTA)

## PERFORMANCE MEASURE DRIVER:

Joseph Sagal

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:

Minnesota – 3 hours

Washington, DC – 18 hours

Missouri – 3.8 hours

## PERFORMANCE MEASURE 5.2B

### Restoring Transportation Services: Average Time to Restore Normal Operations After a Weather Event

Disruptions in travel due to inclement weather (snow, ice, etc.) require specialized operations experience and rapid response to restore normal operating conditions. To better understand the performance during winter storms, MDOT collects data on the “average time to restore normal operations after weather events.” 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 highways.

As shown in chart 5.2B.1, the average time to restore normal operations after weather events for the years FY2012 through FY2017 was consistently less than the benchmark value (3.8 hours – Missouri). The Average Time to Restore Normal Operations after a Weather Event increased to 6 hours in FY2016, mostly due to the impacts of Winter Storm Jonas which occurred over the period of January 22-24, 2016. Recognizing that a large winter event such as Jonas presented unique challenges, MDOT initiated a major after-action initiative, which identified 30 tasks for improving Maryland’s winter storm preparedness. Some of the major tasks included:

- Compiling and maintaining winter storm emergency contact lists;
- Updating emergency procurement procedures for obtaining necessary resources (e.g. food, lodging and supplies) during major weather events;
- Developing the capability of displaying automated emergency weather warning for programmable highway message signs;
- Identifying resources for transporting personnel during heavy snow conditions; and
- Documenting and distributing lists of “pre-identified” snow disposal areas.

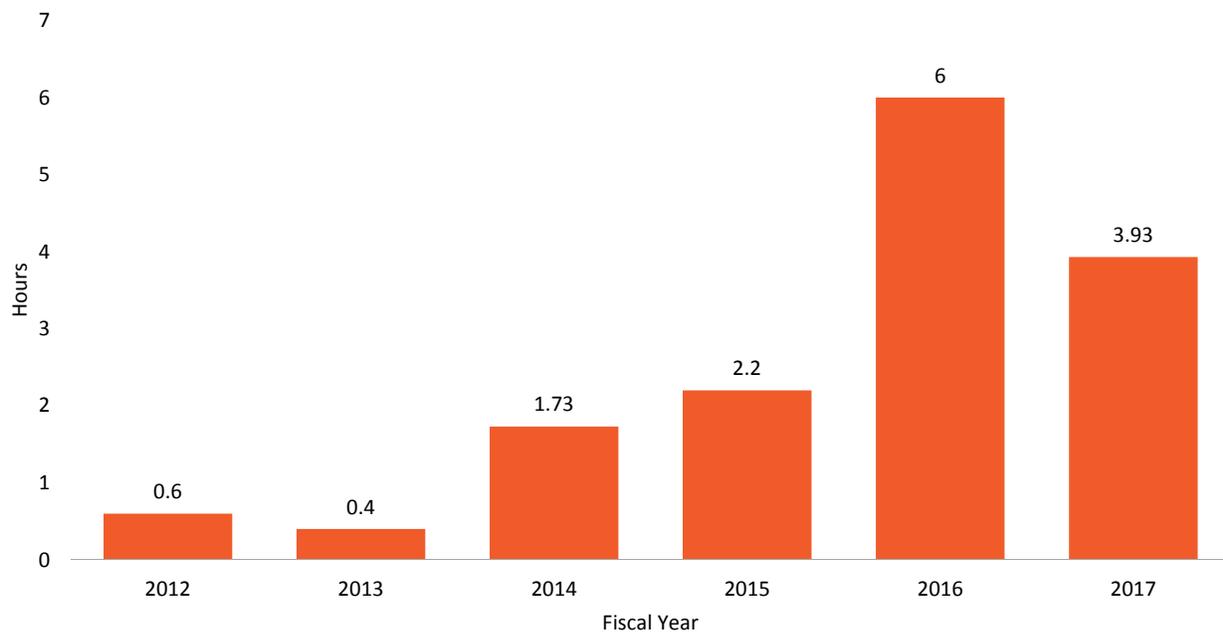
# Provide an Efficient, Well-Connected Transportation Experience

## PERFORMANCE MEASURE 5.2B

### Restoring Transportation Services: Average Time to Restore Normal Operations After a Weather Event

All after-action tasks were accomplished between February 2016 and October 2016. In FY2017, the average time returned to 3.93 hours, close to the benchmark and within the SHA target average of 4.0 hours. Another major action item was to incorporate contracts for private, heavy-tow services under the emergency snow removal procurement regulations. These services are used to recover and relocate trucks stranded in the snow from traveled lanes, to maintain a clear roadway and facilitate overall snow removal efforts.

**Chart 5.2B.1: Time to Regain Bare Pavement After Snow (hours) FY2012-FY2017**



# Provide an Efficient, Well-Connected Transportation Experience

## TANGIBLE RESULT DRIVER:

Phil Sullivan

*Maryland Transit Administration (MTA)*

## PERFORMANCE MEASURE DRIVER:

Negash Assefa

*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 percent

## PERFORMANCE MEASURE 5.3

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

MDOT strives to provide premier customer service by offering easy and reliable access to transportation services and products. A 2015 Pew Research Center study, shows 42 percent of Americans use the internet to get government services and/or information and 22 percent use the internet to make or receive payments. Considering the projected increase in use of smart phones, it is estimated that a stretch goal of up to 68 percent of MDOT customers have the potential to complete transactions at their leisure perhaps even without having to visit MDOT offices.

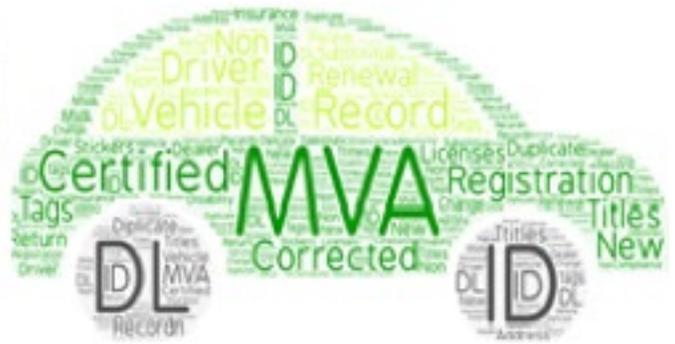
MDOT's Service Delivery Channel (SDC) for ASD includes Web, KIOSK, call center/IVR and mail-in. For the Q3 CY2018, MDTA, MTA, MVA, SHA, TSO and MPA combined achieved a 71.3 percent ASD transactions and a record 70.1 percent for the previous three quarters combined. This reflects 17.9 million out of 25.6 million eligible transactions completed using ASD.

The strategy to grow ASD continues to include marketing to effect behavior change, looking for services to be added to ASD and capturing services that may not be reported.

# Provide an Efficient, Well-Connected Transportation Experience

## PERFORMANCE MEASURE 5.3

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

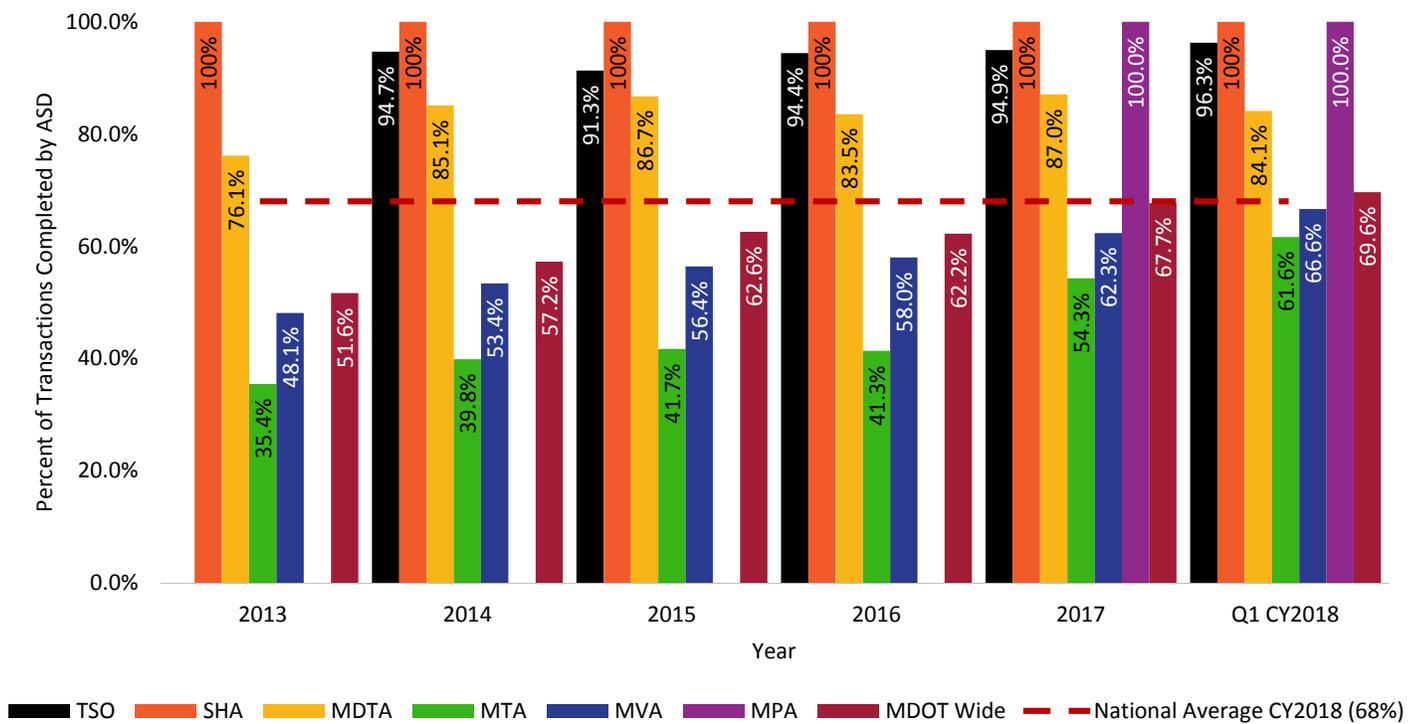


# Provide an Efficient, Well-Connected Transportation Experience

## PERFORMANCE MEASURE 5.3

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

Chart 5.3.1: Alternative Service Delivery by TBU CY2013-Q3 CY2018



# Provide an Efficient, Well-Connected Transportation Experience

**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:**

Annually (in January).

**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 percent-90 percent Functionality<sup>1</sup>

<sup>1</sup>According to Clever Devices, Industry experts on Real-Time Information technologies.

**PERFORMANCE MEASURE 5.4A**

**Percent of Functional Real-Time Information Systems Provided**

MDOT’s customers benefit from “real-time” information systems installed throughout the transportation network offering travelers the most accurate and up-to-date information available. These systems help customers prepare for and manage their time while using statewide transportation services.

Currently, all TBUs have processes in place to ensure that any system failures are immediately addressed to ensure near 100 percent functionality at any given time. Systems will continually be monitored to ensure continued “up-time” performance of these systems.

**Chart 5.4.1: Percent of Functional Real-Time Information Systems Provided Q3 CY2017- Q2 CY2018**

TBU	Q3 CY2017	Q4 CY2017	Q1 CY2018	Q2 CY2018
MVA Wait Time	100%	100%	100%	100%
MTA Mobility	100%	100%	100%	100%
MTA Bus Tracker	100%	100%	100%	100%
MTA MARC Tracker	99.4%	100%	99.5%	99.5%
MTA Light Rail	100%	100%	100%	100%
MAA Flight Info	100%	100%	100%	100%
MAA NVA	97%	91%	95%	94%
CHART (SHA)	98.90%	99.48%	99.04%	99.15%
CHART (MDTA)	98.66%	98.5%	96%	98.33%

100% <100% <90%

# Provide an Efficient, Well-Connected Transportation Experience

## 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:

Annually for customer satisfaction (in July).

## DATA COLLECTION METHODOLOGY:

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

## NATIONAL BENCHMARK:

85 percent-90 percent Functionality<sup>1</sup>

<sup>1</sup>According to *Clever Devices, Industry experts on Real-Time Information technologies.*

## PERFORMANCE MEASURE 5.4B

### Customer Satisfaction with Helpfulness and Accuracy of Real-Time Systems 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. This helps them prepare for and manage their time while using statewide transportation services.

It is important to understand how customers feel about the accuracy and usefulness of those systems to ensure that adjustments are made.

MTA offers real-time information systems for most of its modes of transportation. Due to MTA’s ongoing improvement efforts, surveys on helpfulness and accuracy indicate a significant increase in customer satisfaction over the previous year.

SHA and MDTA (CHART) have DMS signage throughout the State, which continues to recognize over 95 percent customer satisfaction with both usefulness and accuracy of those systems since 2017.

**Table 5.4B.1: MVA Wait Time Website CY2018**

	SATISFIED	NOT SATISFIED
Satisfaction with the helpfulness of wait time information	73%	27%
Satisfaction with the accuracy of wait time information	65%	35%

**Table 5.4B.2: MTA Customer Satisfaction with Helpfulness and Accuracy of Core Bus Tracker System CY2018**

	SATISFIED	NOT SATISFIED
Satisfaction with the helpfulness of wait time information	80%	20%
Satisfaction with the accuracy of wait time information	72%	28%

# Provide an Efficient, Well-Connected Transportation Experience

## PERFORMANCE MEASURE 5.4B

### Customer Satisfaction with Helpfulness and Accuracy of Real-Time Systems Provided

**Table 5.4B.3 MTA Customer Satisfaction with Helpfulness and Accuracy of Light Rail Next Train Arrival System CY2018**

	SATISFIED	NOT SATISFIED
Satisfaction with the helpfulness of wait time information	83%	17%
Satisfaction with the accuracy of wait time information	82%	18%

**Table 5.4B.4 MTA Customer Satisfaction with Helpfulness and Accuracy of MARC Next Train Arrival System CY2018**

	SATISFIED	NOT SATISFIED
Satisfaction with the helpfulness of wait time information	75%	25%
Satisfaction with the accuracy of wait time information	72%	28%

**Table 5.4B.5 MTA Customer Satisfaction with Helpfulness and Accuracy of Commuter Bus Tracker System CY2018**

	SATISFIED	NOT SATISFIED
Satisfaction with the helpfulness of wait time information	75%	25%
Satisfaction with the accuracy of wait time information	69%	31%

**Table 5.4B.6 CHART (SHA &MDTA) Customer Satisfaction with Helpfulness and Accuracy of DMS CY2018**

	SATISFIED	NOT SATISFIED
Satisfaction with the helpfulness of wait time information	94%	6%
Satisfaction with the accuracy of wait time information	96%	4%

## TANGIBLE RESULT #6

# Communicate Effectively With Our Customers



Every MDOT employee has to communicate with customers, some on a daily basis. It is critical to communicate clearly, concisely, accurately, and in a timely manner with customers.

### RESULT DRIVER:

Kelly Tarver

*The Secretary's Office (TSO)*

# Communicate Effectively With Our Customers

## TANGIBLE RESULT DRIVER:

Kelly Tarver  
*The Secretary's Office (TSO)*

## PERFORMANCE MEASURE DRIVER:

Kat Cahill  
*Motor Vehicle Administration (MVA)*

## PURPOSE OF MEASURE:

To examine and analyze the social media activities of each MDOT TBU to gauge if we are communicating effectively with our customers/followers.

## FREQUENCY:

Quarterly

## DATA COLLECTION METHODOLOGY:

MDOT gathers social media analytics for this measure from MDOT Twitter and Facebook accounts.

## NATIONAL BENCHMARK:

N/A

## PERFORMANCE MEASURE 6.1A

### Communicate Effectively Utilizing Social Media: Social Reach

An active and engaging social media presence is foundational to any organization's ability to communicate effectively. MDOT is committed to developing a robust, strategic approach to leveraging social media in order to connect our customers to life's opportunities.

A key performance indicator of using social media to effectively communicate with customers is Reach. Reach measures the number of people who have an MDOT message show up on their screen.

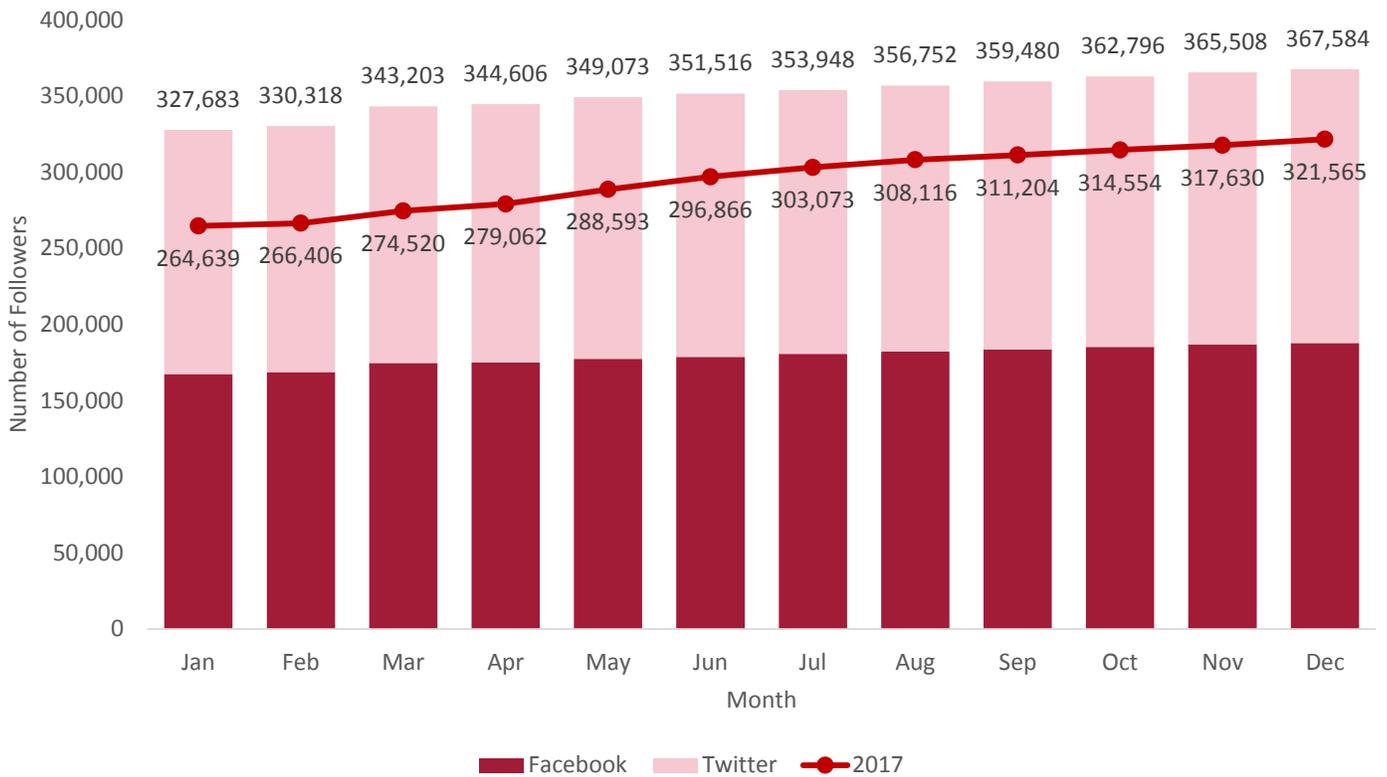
MDOT proudly serves over 367,000 followers between our multiple Facebook and Twitter accounts. Maryland customers can receive real-time updates about traffic events, construction projects, job opportunities, law changes, and even join us in celebrating National Corn Beef Day by following our various social media accounts.

# Communicate Effectively With Our Customers

## PERFORMANCE MEASURE 6.1A

### Communicate Effectively Utilizing Social Media: Social Reach

Chart 6.1A.1: Total MDOT Social Media Followers CY2018

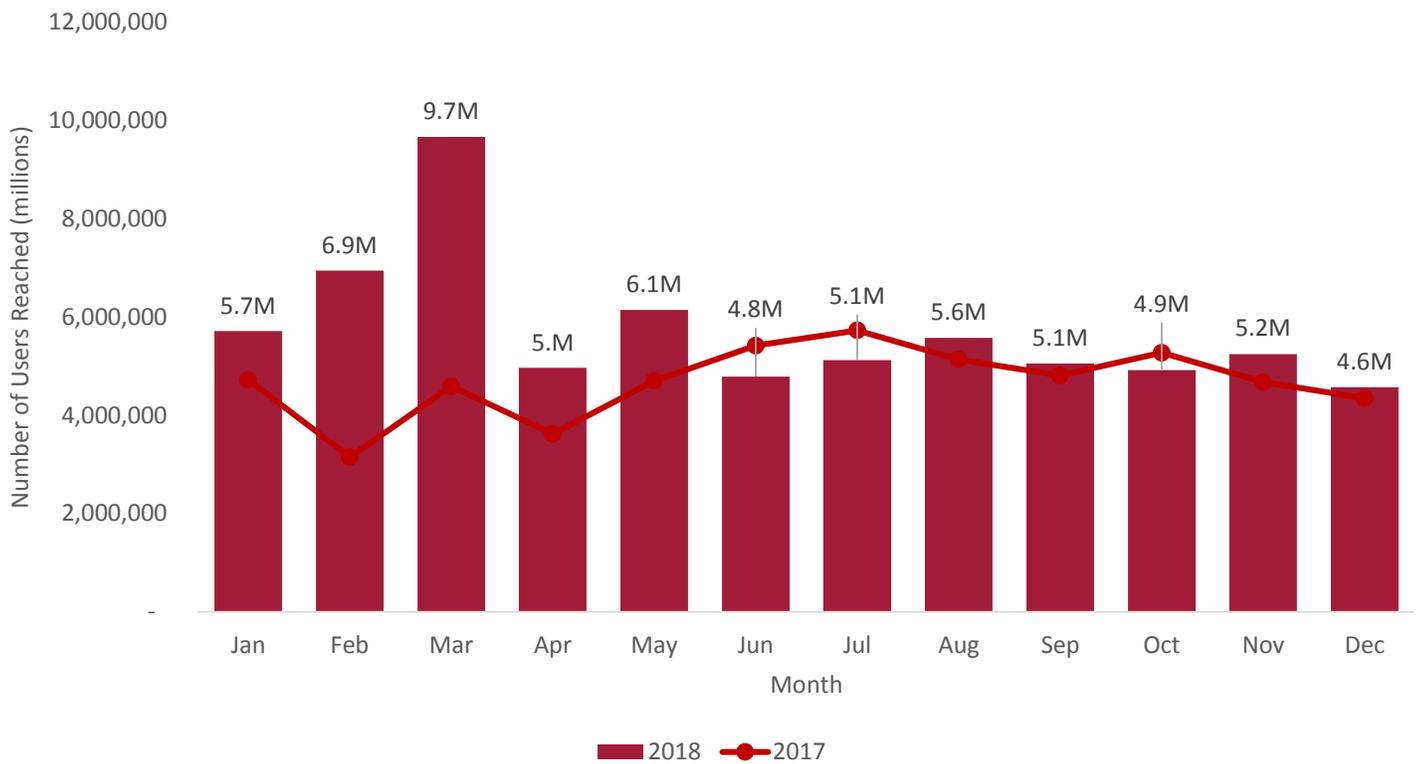


# Communicate Effectively With Our Customers

## PERFORMANCE MEASURE 6.1A

### Communicate Effectively Utilizing Social Media: Social Reach

Chart 6.1A.2: Total MDOT Social Media Reach CY2018



# Communicate Effectively With Our Customers

## TANGIBLE RESULT DRIVER:

Kelly Tarver  
*The Secretary's Office (TSO)*

## PERFORMANCE MEASURE DRIVER:

Charles Schelle  
*Maryland Port Administration (MPA)*

## PURPOSE OF MEASURE:

To examine and analyze the social media activities of each MDOT TBU to gauge if we are communicating effectively with our customers/followers.

## FREQUENCY:

Quarterly

## DATA COLLECTION METHODOLOGY:

MDOT gathers social media analytics for this measure from MDOT Twitter and Facebook accounts.

## NATIONAL BENCHMARK:

N/A

## PERFORMANCE MEASURE 6.1B

### Communicate Effectively Utilizing Social Media: Social Engagement

MDOT's social media engagement markedly increased in several key timeframes, demonstrating MDOT's social media content resonates with its audiences.

The 176,220 engagements for Q4 2018 represented a 53 percent increase over Q4 2017 and a 9 percent increase over the previous quarter. For calendar year 2018, MDOT's 694,250 engagements is a 38 percent improvement upon calendar year 2017.

While "social reach" measures the total number of people who have seen a message, "social engagement" recognizes how followers engaged with that message. Engagements initiate opportunities to communicate interactively with customers.

To determine the effectiveness of its social media communication, MDOT measures social engagement across all MDOT social media accounts, looking for trends in likes, comments and shares to better provide content its followers will enjoy and find informative. Through education and training, MDOT staff are determined to heighten the social experience of their customers.

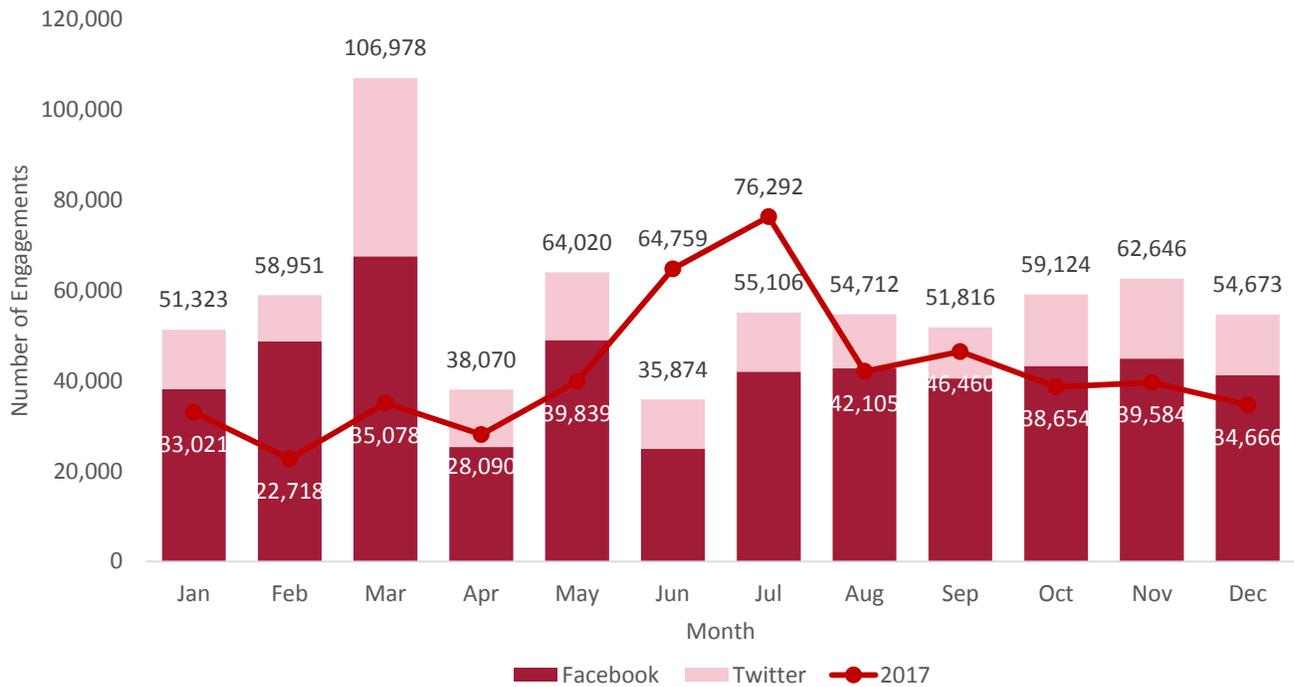
MDOT continues to learn the interests of its customers through social media channels to provide the content customers expect.

# Communicate Effectively With Our Customers

## PERFORMANCE MEASURE 6.1B

### Communicate Effectively Utilizing Social Media: Social Engagement

Chart 6.1B.1: Total MDOT Social Media Engagement CY2018



# Communicate Effectively With Our Customers

## TANGIBLE RESULT DRIVER:

Diane Langhorne  
*The Secretary's Office (TSO)*

## PERFORMANCE MEASURE DRIVER:

Juan Torrico  
*Maryland Transit Administration (MTA)*

## PURPOSE OF MEASURE:

To track how clearly and effectively MDOT communicates with customers during public events.

## FREQUENCY:

Semi-Annually  
(January and July)

## DATA COLLECTION METHODOLOGY:

Data will be collected via survey at all public meetings hosted by TBUs. The data will be owned and housed by the TBU in charge of the public meetings and sent to MVA on a quarterly basis.

## NATIONAL BENCHMARK:

84 percent (American Customer Service Index)

## PERFORMANCE MEASURE 6.2

### Satisfaction with Communication at Public Meetings

MDOT wants to ensure only positive and valuable customer service interactions are experienced during its public transportation events. We understand that customer views and guidance can greatly influence Maryland transportation related programs and projects. As a result, MDOT encourages open and honest feedback from all its customers (residents, community leaders, and stakeholders).

From January 2018 – December 2018, MDOT achieved an overall 94 percent satisfaction rating from 2,559 customers who indicated that MDOT effectively communicated during 67 separate MDOT-hosted public events. We are proud to once again exceed the national benchmark of 84 percent, but MDOT will continue to explore and implement enhanced communication methods and techniques.

In an effort to increase opportunities for customer outreach during this past quarter, the Customer Feedback mechanism was revised, which can be electronically accessed by visiting [Survey Monkey MDOT Public Events CY2018](#). In addition, language translation of the Customer Feedback indicator form can now be accessed at [MDOT's Public Meeting page](#). Translation is available by using the Google Translate link on MDOT's website. For customer convenience, a listing of MDOT Public Meetings can also be found at [MDOT's Public Meeting page](#).

# Communicate Effectively With Our Customers

## PERFORMANCE MEASURE 6.2

### Satisfaction with Communication at Public Meetings

Chart 6.2.1: Overall MDOT Customer Satisfaction with Communication at Public Meetings CY2018

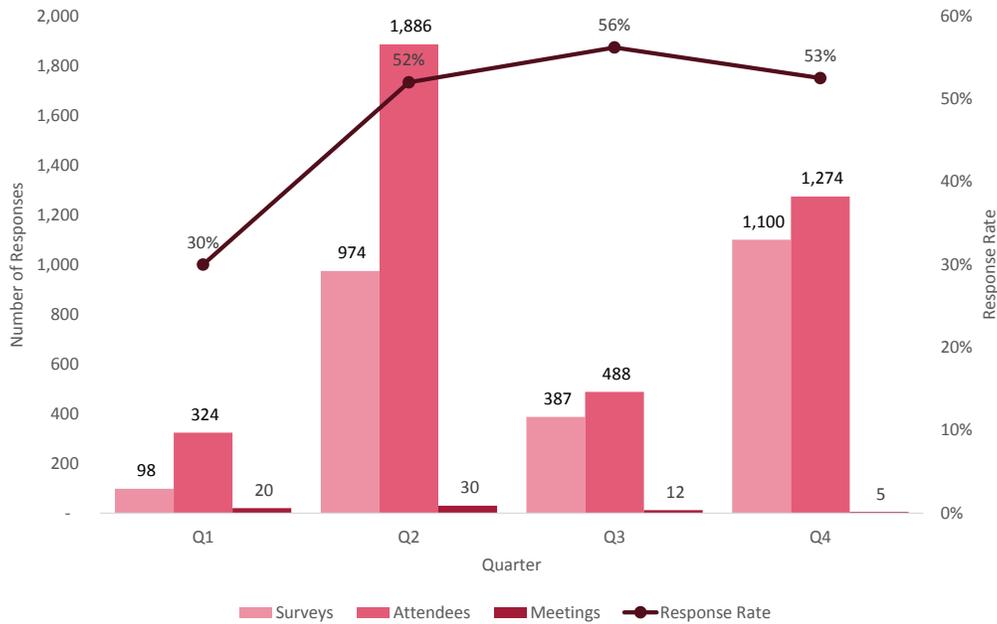
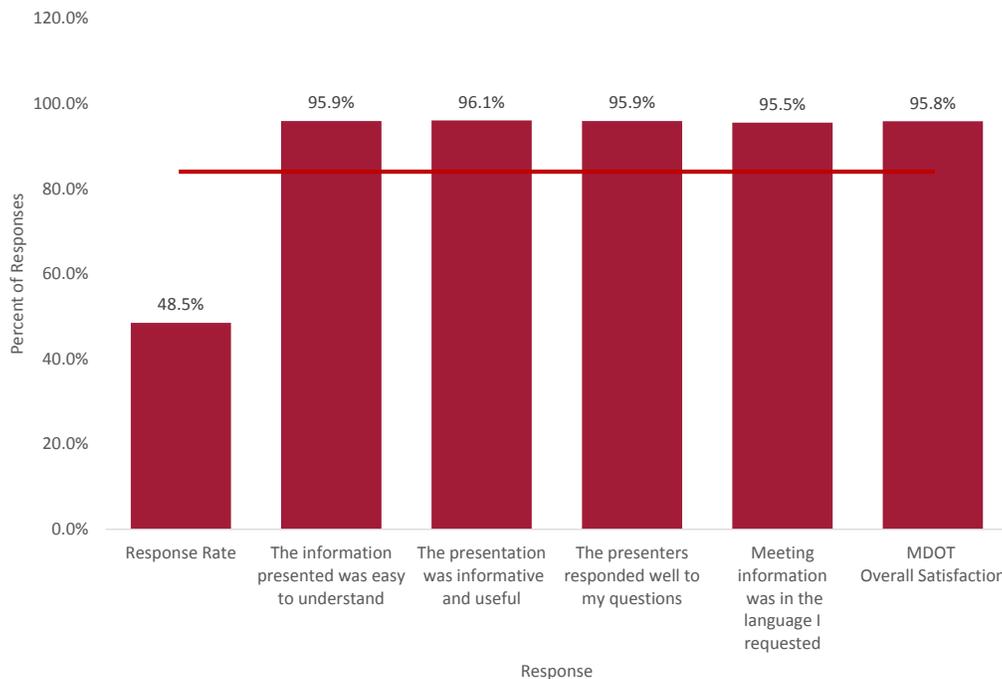


Chart 6.2.2: MDOT Customer Satisfaction with Communication at Public Meetings CY2018



# Communicate Effectively With Our Customers

## TANGIBLE RESULT DRIVER:

Kelly Tarver  
*The Secretary's Office (TSO)*

## PERFORMANCE MEASURE DRIVER:

Jonathan Dean  
*Maryland Aviation Administration (MAA)*

## PURPOSE OF MEASURE:

To track number of stories generated to ensure maximum customer reach.

## FREQUENCY:

Quarterly

## DATA COLLECTION METHODOLOGY:

Data gathered, measured, and analyzed with software system.

## NATIONAL BENCHMARK:

N/A

## PERFORMANCE MEASURE 6.3A

### Communicate Effectively Through News Releases: Number of News Stories Generated from Major Releases

MDOT public affairs and media relations professionals work to highlight the important work performed by MDOT employees on behalf of Maryland residents, businesses, and visitors. These communications specialists use their skills, experience, and knowledge to represent MDOT and serve as spokespersons before the public and the news media.

For performance measure 6.3A, each MDOT TBU tracks and analyzes the news that it creates and disseminates. Press releases remain an effective tool to distribute news to MDOT customers. The performance measure evaluates the number of press releases issued each month across MDOT, and calculates the number of news stories that resulted from the press releases.

The positive news created by MDOT TBUs continues to result in broad reach across local, national, international, and transportation trade media. For this quarter, the number of MDOT press releases climbed 11.6 percent over the previous quarter. The number of news media pick-ups increased by nearly 6 percent to 591 news stories for the quarter.

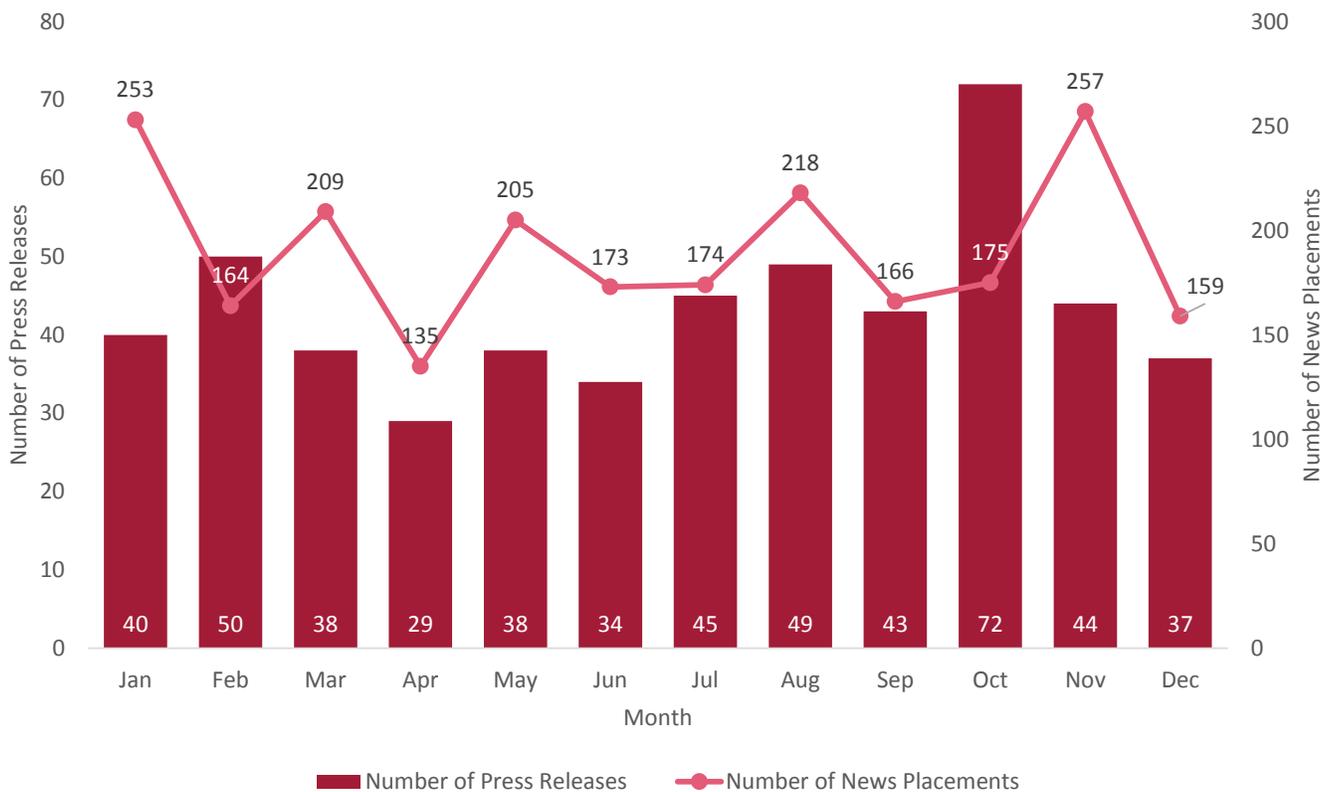


# Communicate Effectively With Our Customers

## PERFORMANCE MEASURE 6.3A

Communicate Effectively Through News Releases: Number of News Stories Generated from Major Releases

Chart 6.3A.1: MDOT Press Releases and News Placements CY2018

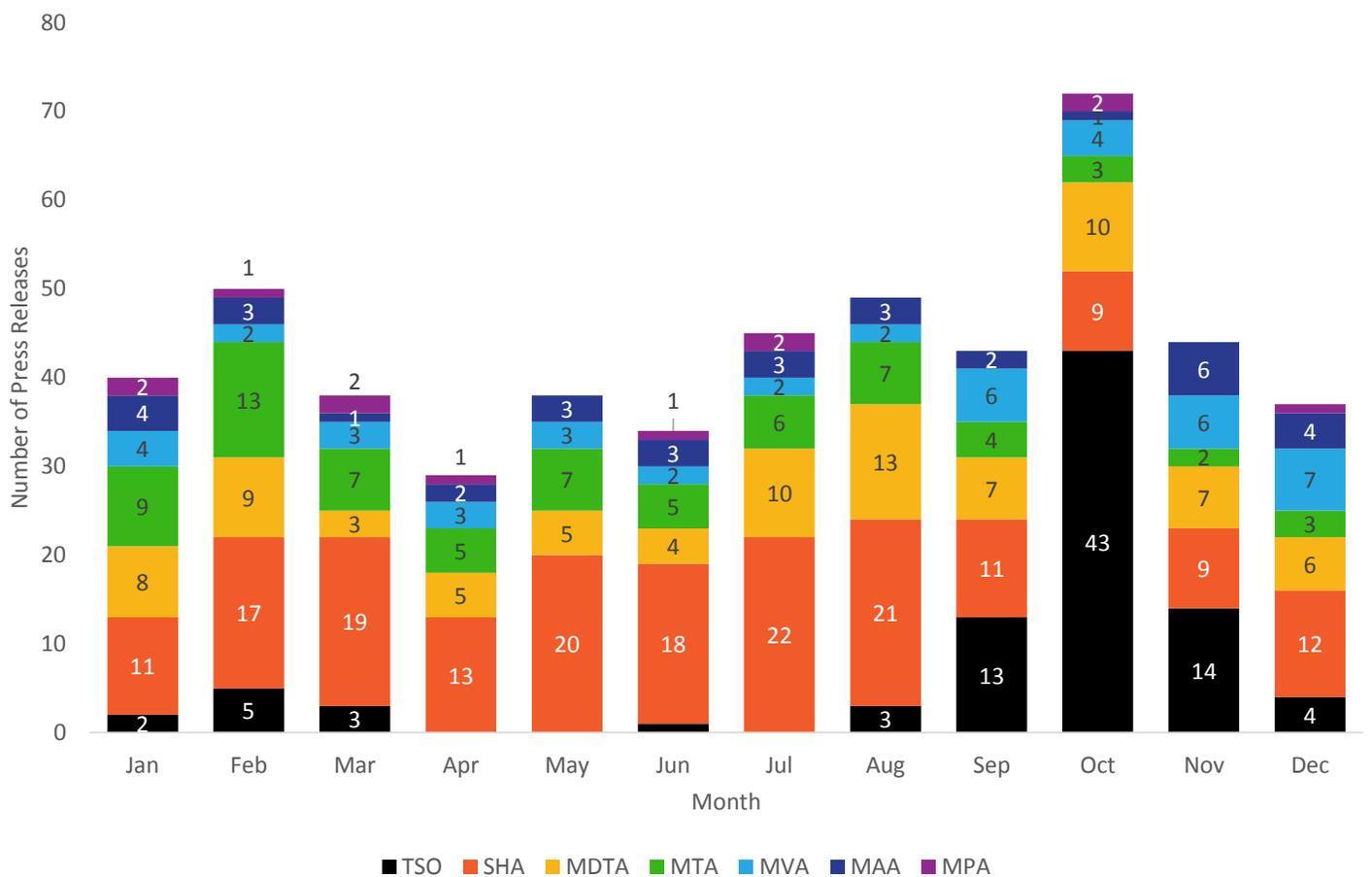


# Communicate Effectively With Our Customers

## PERFORMANCE MEASURE 6.3A

Communicate Effectively Through News Releases: Number of News Stories Generated from Major Releases

Chart 6.3A.2: Press Releases by TBU CY2018

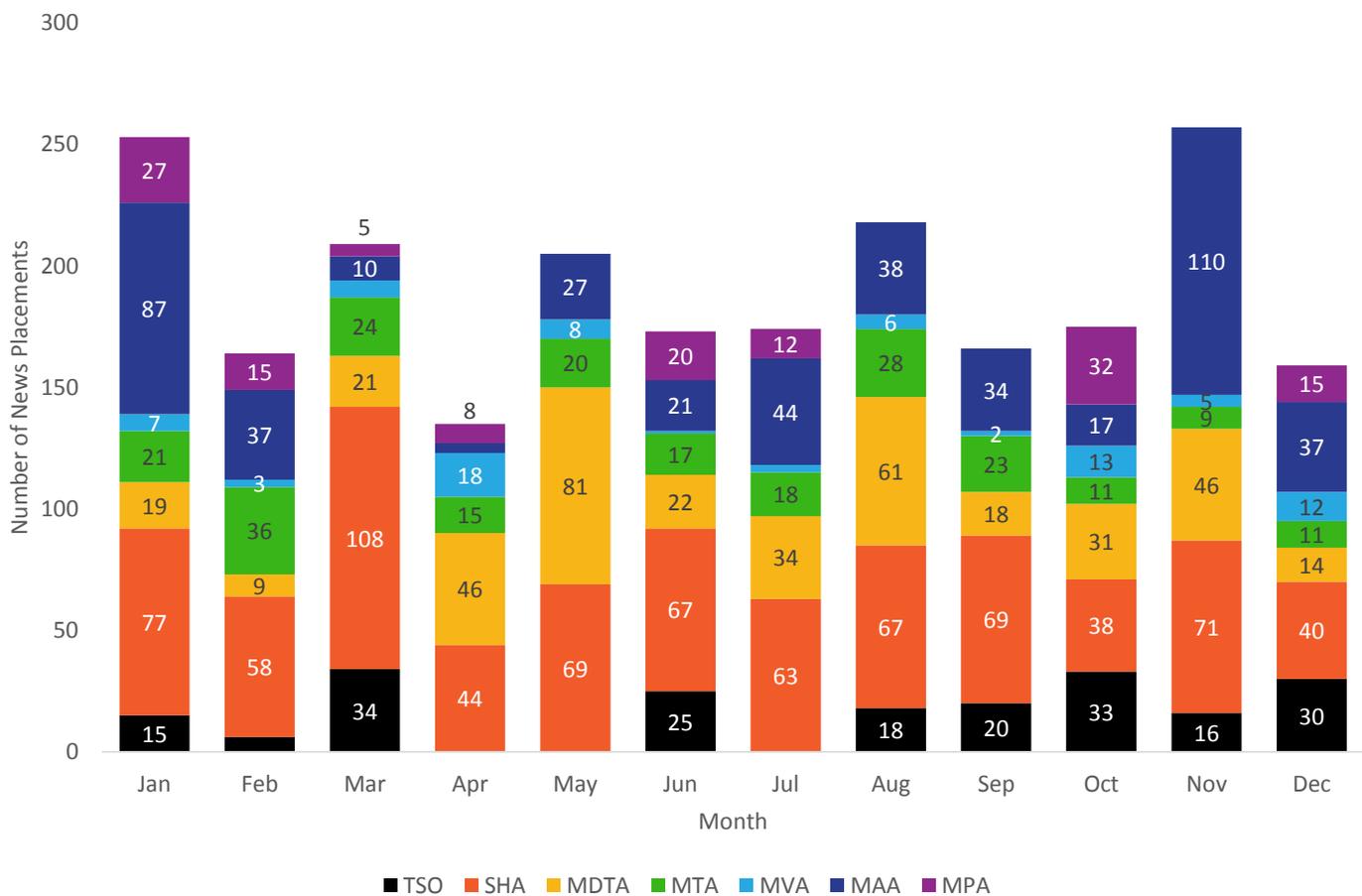


# Communicate Effectively With Our Customers

## PERFORMANCE MEASURE 6.3A

Communicate Effectively Through News Releases: Number of News Stories Generated from Major Releases

Chart 6.3A.3: News Placements by TBU CY2018



# Communicate Effectively With Our Customers

## TANGIBLE RESULT DRIVER:

Kelly Tarver

*The Secretary's Office (TSO)*

## PERFORMANCE MEASURE DRIVER:

Valerie Burnette Edgar

*State Highway Administration (SHA)*

## PURPOSE OF MEASURE:

To evaluate the effectiveness of the news releases issued by MDOT. Demonstrates cost effectiveness of releasing public information to media outlets vs. buying advertising space/time.

## FREQUENCY:

Quarterly

## DATA COLLECTION METHODOLOGY:

Data can be derived through software systems and some of the data is calculated per news story by individuals using advertising rates of media outlets.

## NATIONAL BENCHMARK:

N/A

## PERFORMANCE MEASURE 6.3B

### Communicate Effectively Through News Releases: Earned Media Value of Print and Broadcast Coverage Generated by News Releases

Reaching and informing customers with important news is critical in the overall customer experience for MDOT customers and users. Earned media this past quarter, including the holiday season, trended downward due to lack of winter weather events and the federal government shutdown. The shutdown dominated even local markets where news crews were trying to find out how the impasse affected each county.

Typically, the quarter that contains the major holidays demonstrates a reduction of earned media due to media, at any given time, taking their days off as well and, consequently, there are not as many news placements.

That was the trend until late December 2018 when there was a jetway malfunction at BWI Marshall Airport. There were many stories, locally and nationally and the overall tone was initially negative. MDOT Communicators, working with airport mechanical professionals, quickly ascertained what the malfunction was, the planned remedy and went to work on a news release quoting Secretary Pete Rahn.

The resulting coverage largely turned from negative to neutral with Secretary Rahn's positive quote going national on major media outlets such as CBS News, Fox News and CNN.

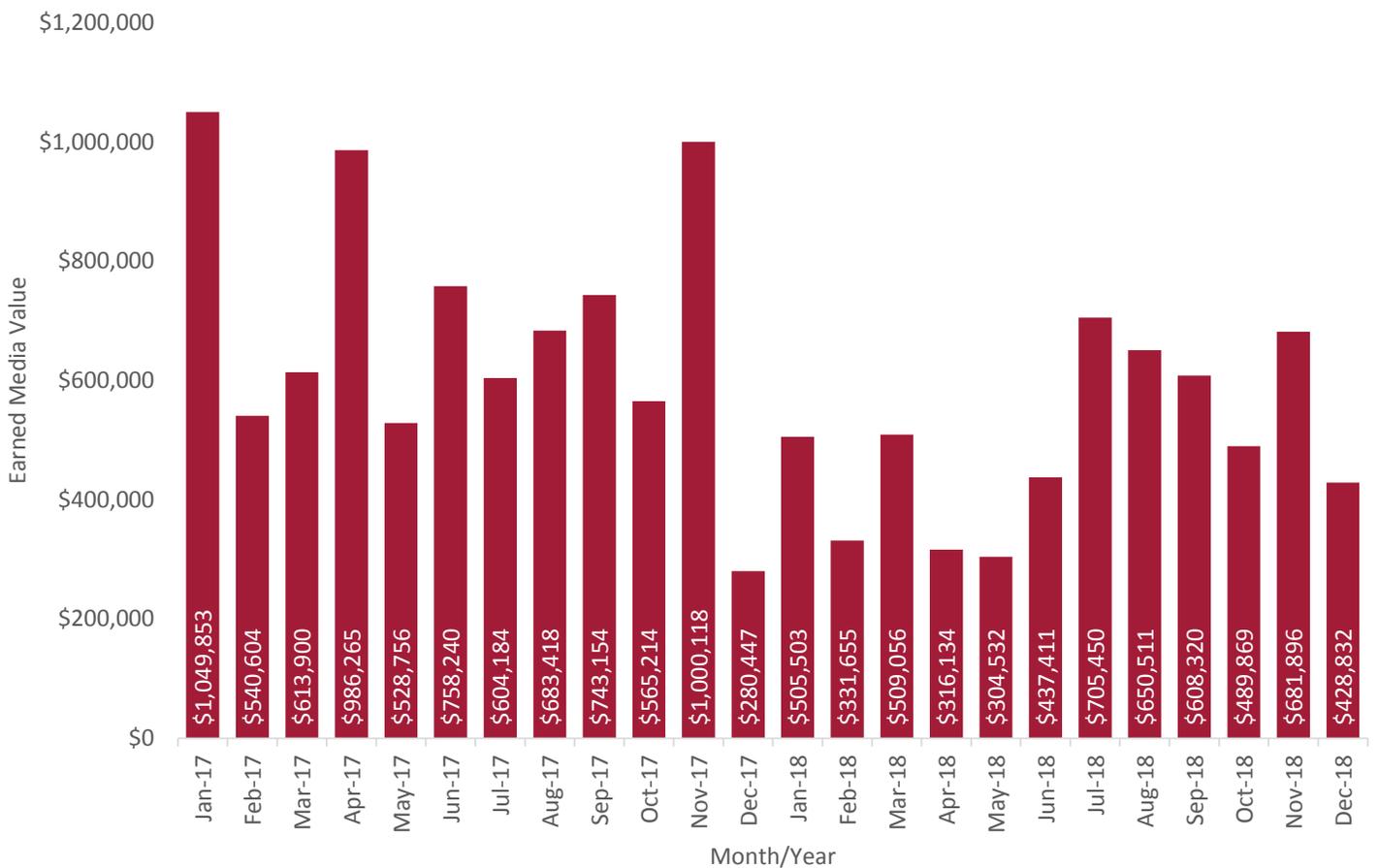
Moving forward into the new quarter, earned media value is already on the rise as the region has received the first snowfall of the year.

# Communicate Effectively With Our Customers

## PERFORMANCE MEASURE 6.3B

Communicate Effectively Through News Releases: Earned Media Value of Print and Broadcast Coverage Generated by News Releases

Chart 6.3B.1: Earned Media Value of Print and Broadcast Coverage Generated by News Releases MDOT-Wide  
CY2017-CY2018

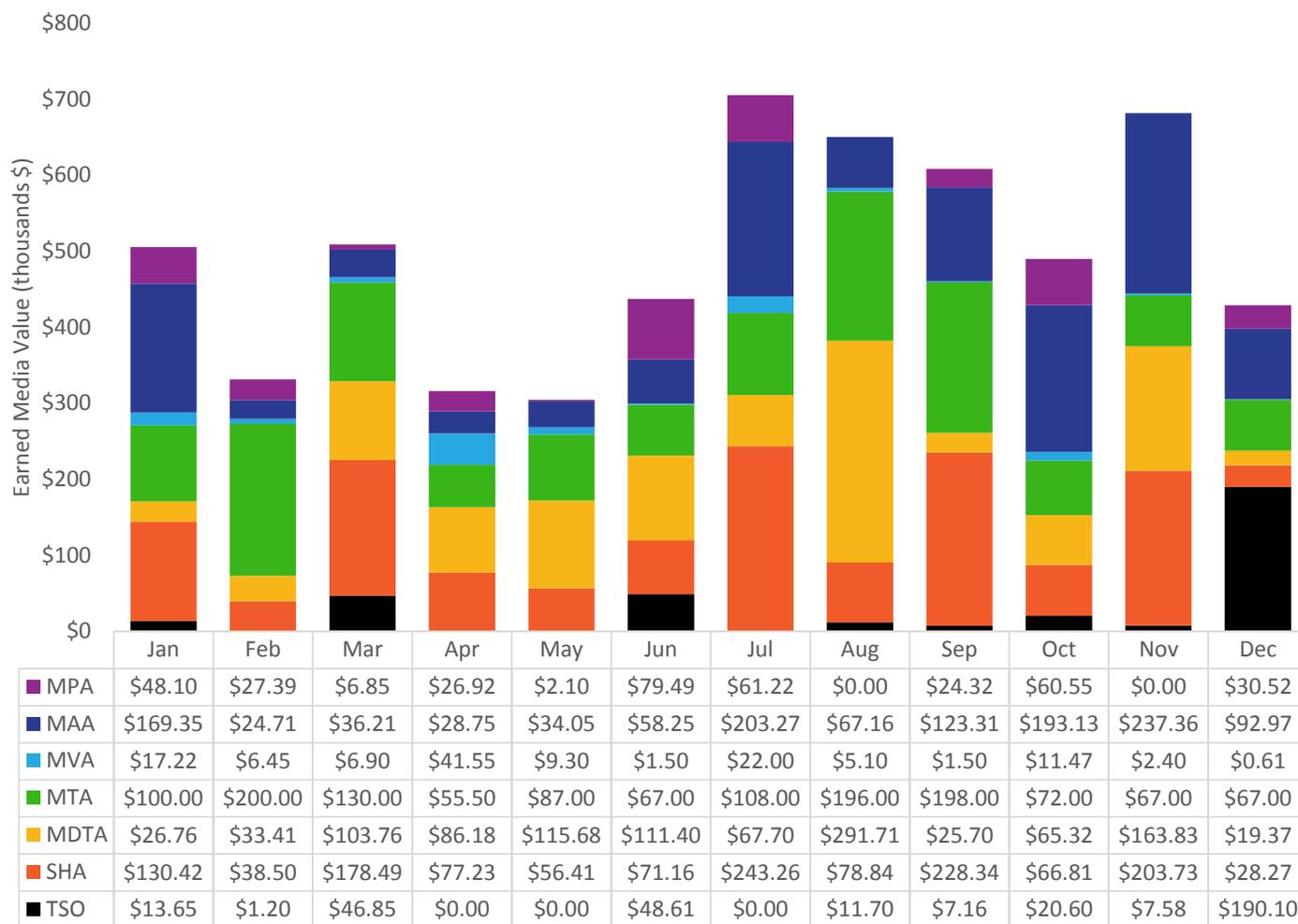


# Communicate Effectively With Our Customers

## PERFORMANCE MEASURE 6.3B

Communicate Effectively Through News Releases: Earned Media Value of Print and Broadcast Coverage Generated by News Releases

Chart 6.3B.2: Earned Media Value CY2018



# Communicate Effectively With Our Customers



# Communicate Effectively With Our Customers

## TANGIBLE RESULT DRIVER:

Kelly Tarver  
*The Secretary's Office (TSO)*

## PERFORMANCE MEASURE DRIVER:

Valerie Burnette Edgar  
*State Highway Administration (SHA)*

## PURPOSE OF MEASURE:

To evaluate the tone of media coverage resulting from news releases.

## FREQUENCY:

Quarterly

## DATA COLLECTION METHODOLOGY:

MDOT's team will use software that tracks releases and news generated to evaluate tone of news stories.

## NATIONAL BENCHMARK:

N/A

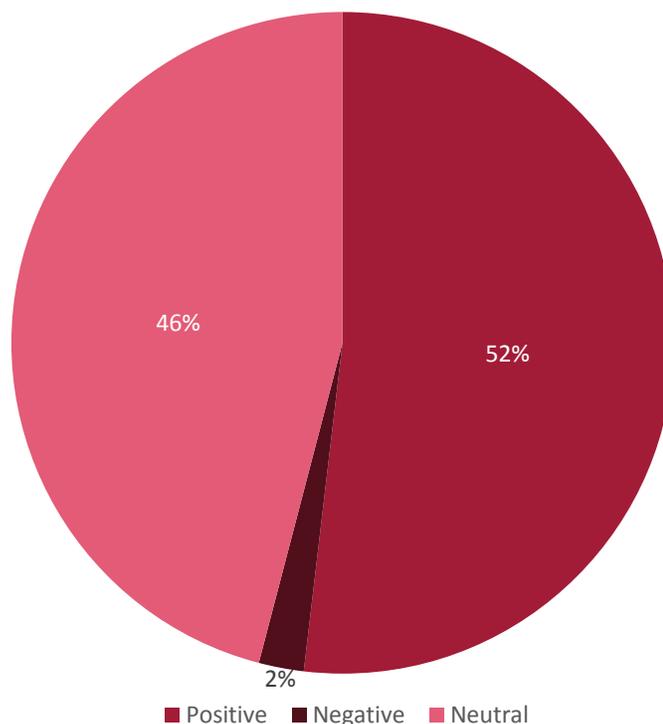
## PERFORMANCE MEASURE 6.3C

### Communicate Effectively Through New Releases: Evaluate Tone of News Stories by Publications Generated from MDOT Releases

MDOT has a responsibility to inform customers about important information they need relating to services, transportation options and improvements in their communities. One way MDOT shares information is issuing news releases to the media.

This measure helps MDOT evaluate the tone of print and broadcast news stories that are directly related to MDOT news releases to determine if there is balanced coverage for our customers. It also helps MDOT determine if more, less or different information is needed to ensure customers are receiving factual information via news outlets.

**Chart 6.3C.1: News Tone by TBU January 2018 - December 2018, MDOT-Wide**

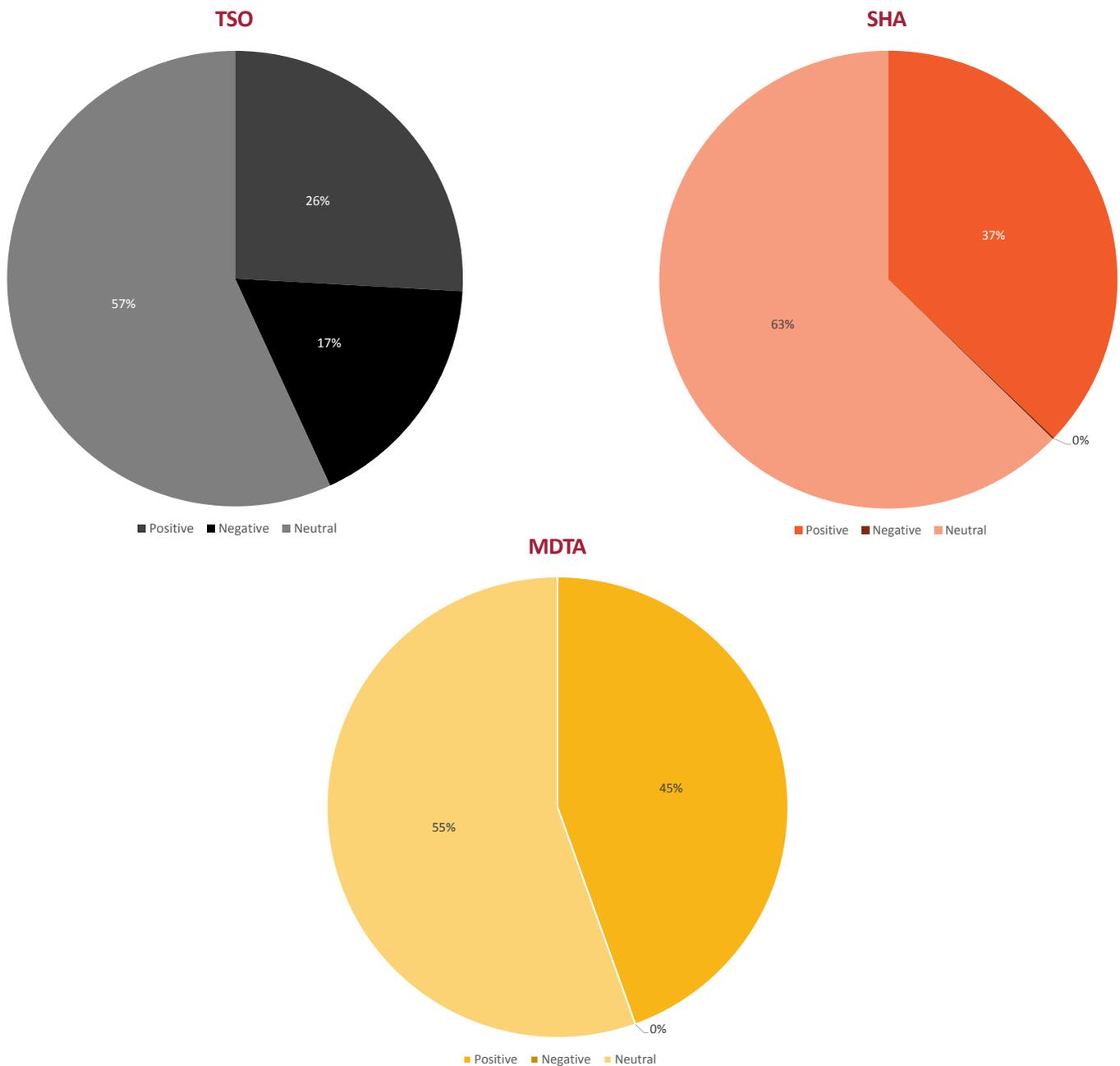


# Communicate Effectively With Our Customers

## PERFORMANCE MEASURE 6.3C

Communicate Effectively Through New Releases: Evaluate Tone of News Stories by Publications Generated from MDOT Releases

Chart 6.3C.1: News Tone by TBU January 2018 - December 2018

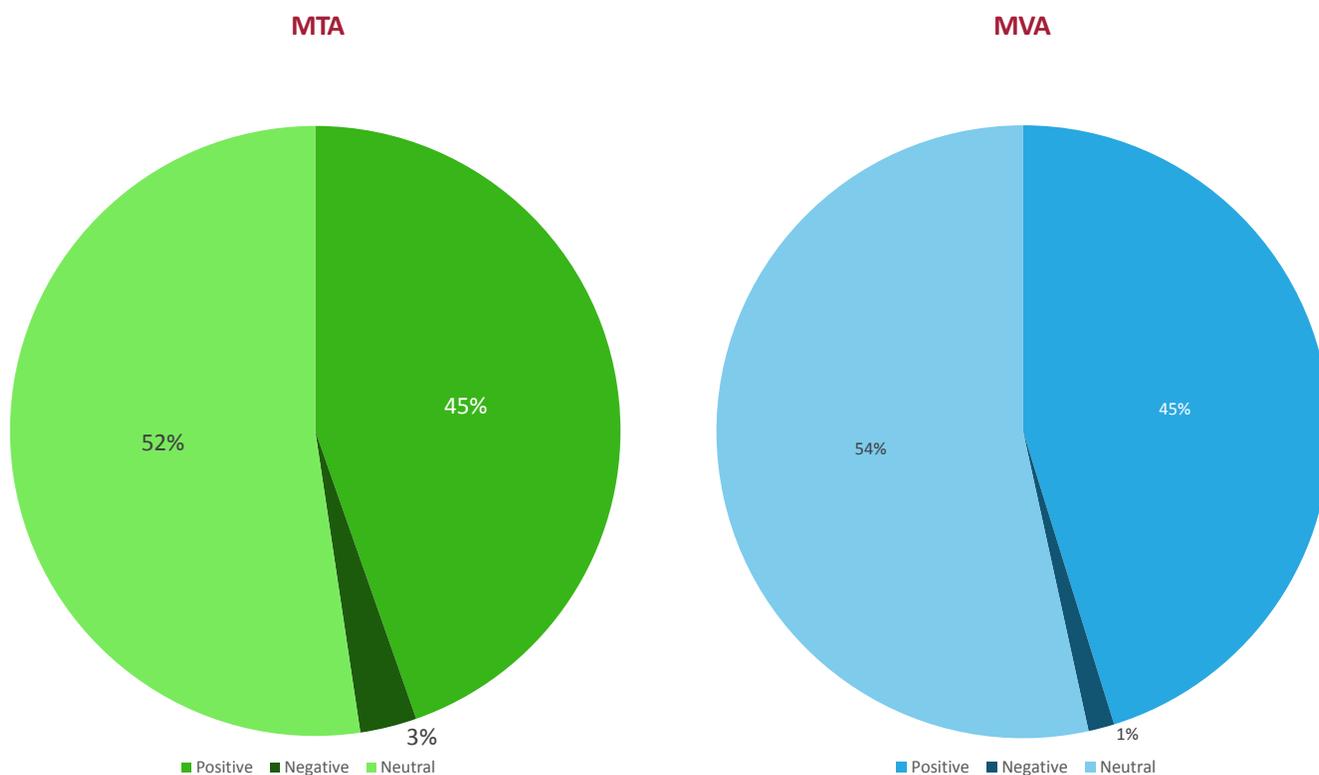


# Communicate Effectively With Our Customers

## PERFORMANCE MEASURE 6.3C

Communicate Effectively Through New Releases: Evaluate Tone of News Stories by Publications Generated from MDOT Releases

Chart 6.3C.1: News Tone by TBU January 2018 - December 2018

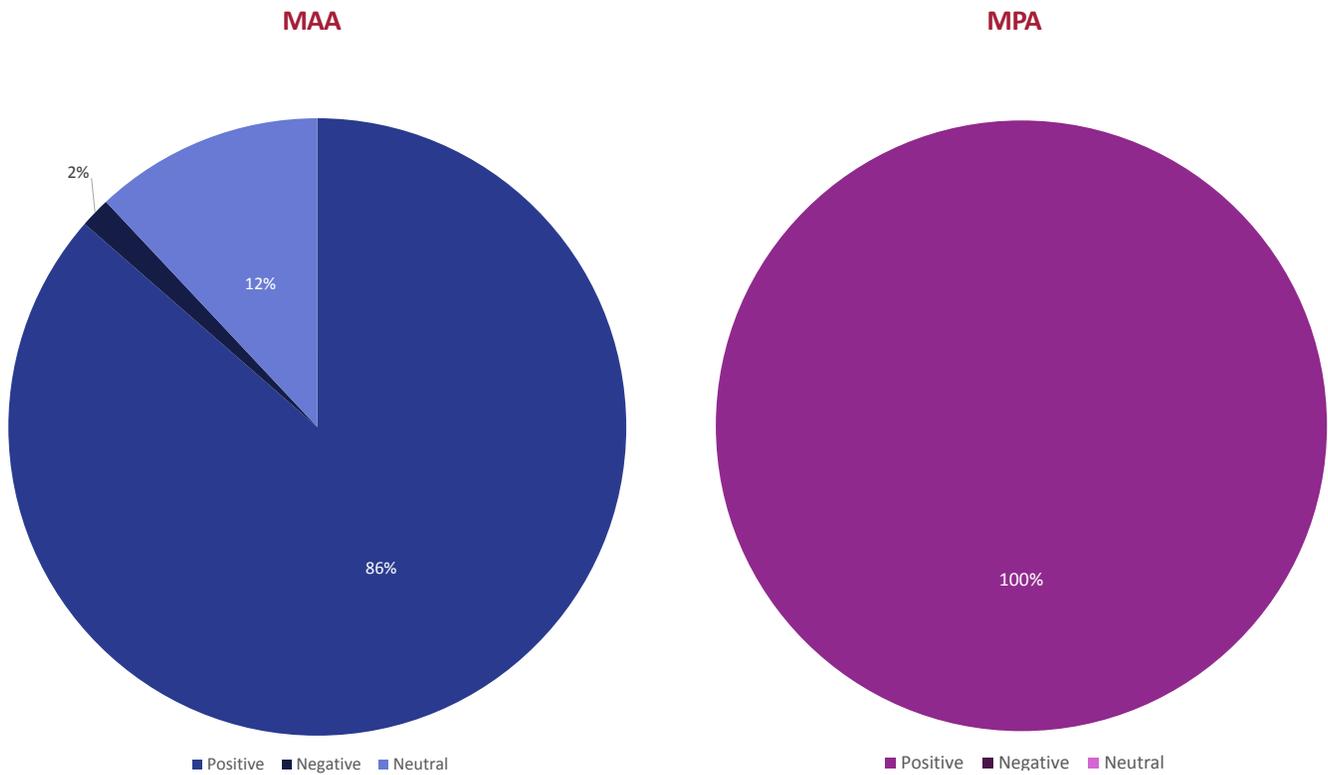


# Communicate Effectively With Our Customers

## PERFORMANCE MEASURE 6.3C

Communicate Effectively Through New Releases: Evaluate Tone of News Stories by Publications Generated from MDOT Releases

Chart 6.3C.1: News Tone by TBU January 2018 - December 2018



## TANGIBLE RESULT DRIVER:

Kelly Tarver  
*The Secretary's Office (TSO)*

## PERFORMANCE MEASURE DRIVER:

Jonathan Dean  
*Maryland Aviation Administration (MAA)*

## PURPOSE OF MEASURE:

To measure the number of customers that read, viewed, or listened to MDOT proactive stories in the news media.

## FREQUENCY:

Quarterly

## DATA COLLECTION METHODOLOGY:

Data gathered, measured, and analyzed.

## NATIONAL BENCHMARK:

N/A

## PERFORMANCE MEASURE 6.4A

### Reach of Pickups of Proactive Stories

MDOT produces content to highlight important, distinctive and positive initiatives for our customers. Performance Measure 6.4A measures the number of people who read, viewed or listened to proactive media stories. Proactive media helps our customers understand transportation initiatives by telling MDOT's own story. Proactive media goes beyond press releases to share unique stories of the organization.

By tracking the exposure of those unique stories, MDOT can properly evaluate if the messages are reaching the consumer. The number of exposures are calculated by compiling the number of times they were delivered to a customer through a newspaper article, online news website, radio or TV show.

During the fourth quarter of 2018, MDOT Proactive Media placements peaked at 19,109,403. This was a 52 percent increase from quarter three and reflects a concerted effort by the Digital Team on this measure. The fourth quarter increase comes on the heels of a spike from quarter two to three, meaning that since the second quarter of 2018, pickups have soared 700 percent.

More outlets than ever are picking up our stories and MDOT is getting its message out.

# Communicate Effectively With Our Customers

## PERFORMANCE MEASURE 6.4A

### Reach of Pickups of Proactive Stories

Chart 6.4A.1a: Audience for Proactive Stories Picked Up By Media Q3 CY2018

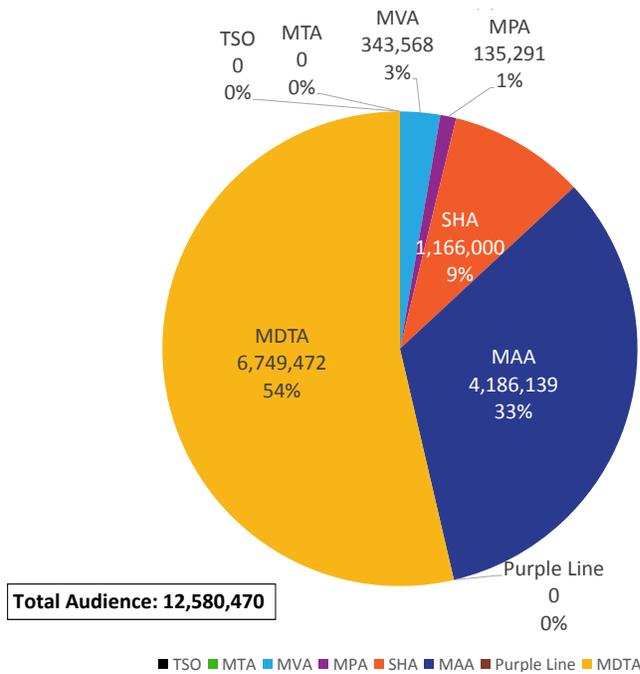
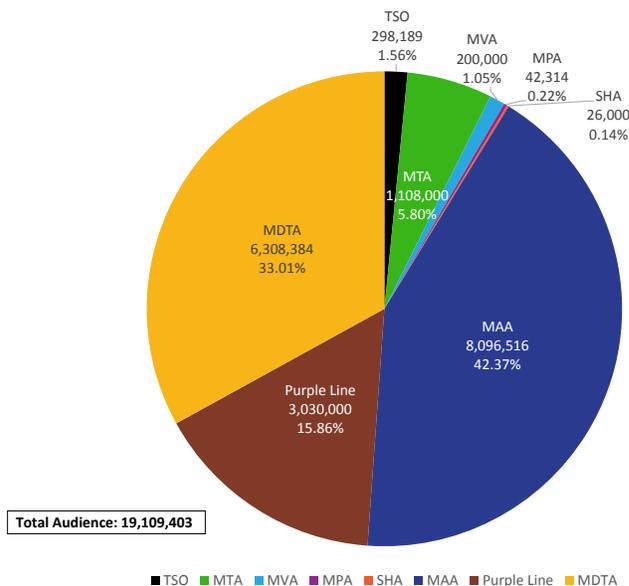


Chart 6.4A.1b: Audience for Proactive Stories Picked Up By Media Q4 CY2018

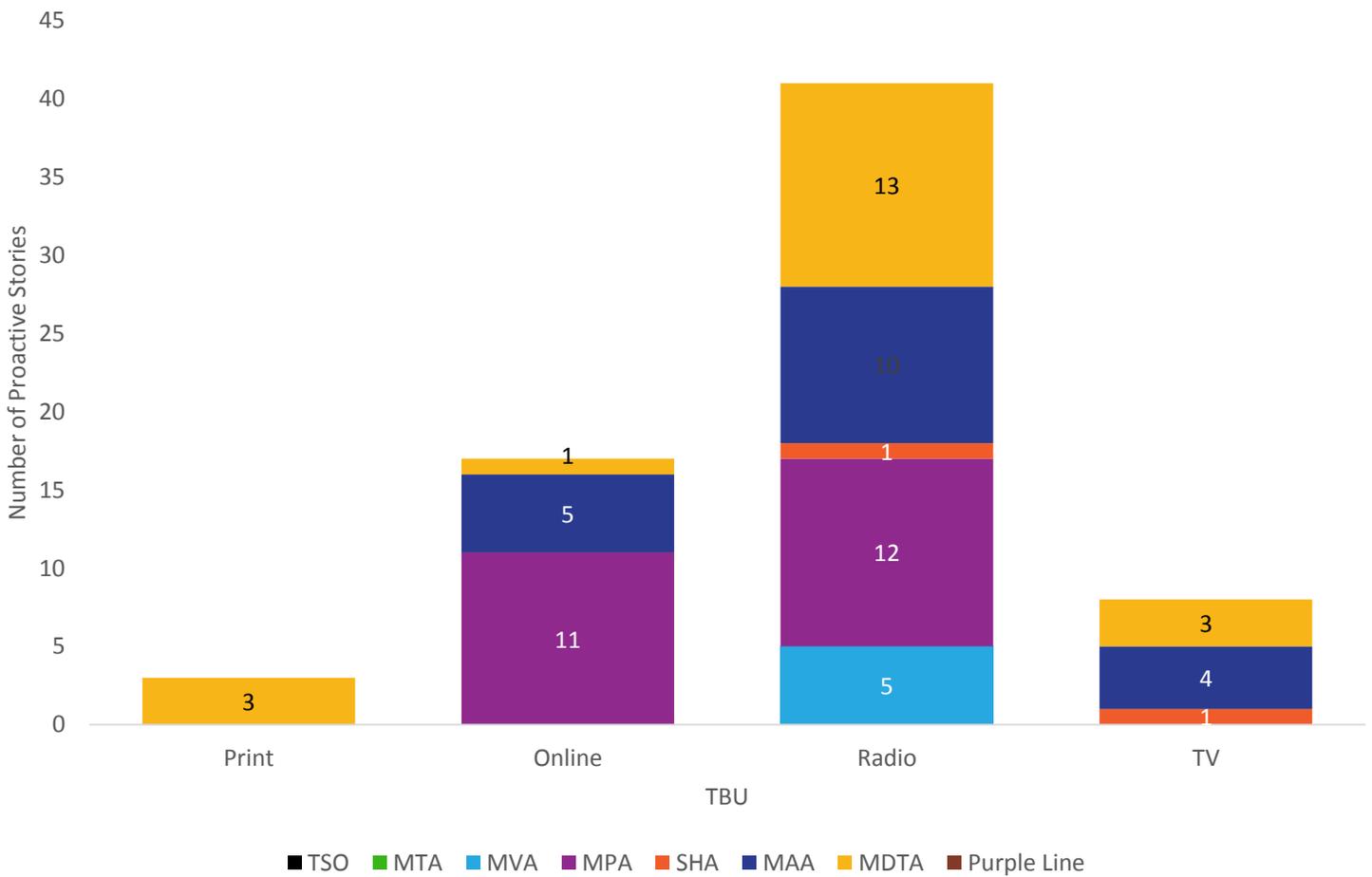


# Communicate Effectively With Our Customers

## PERFORMANCE MEASURE 6.4A

### Reach of Pickups of Proactive Stories

Chart 6.4A.2a: Type of Media that Picked Up Proactive Stories Q3 CY2018

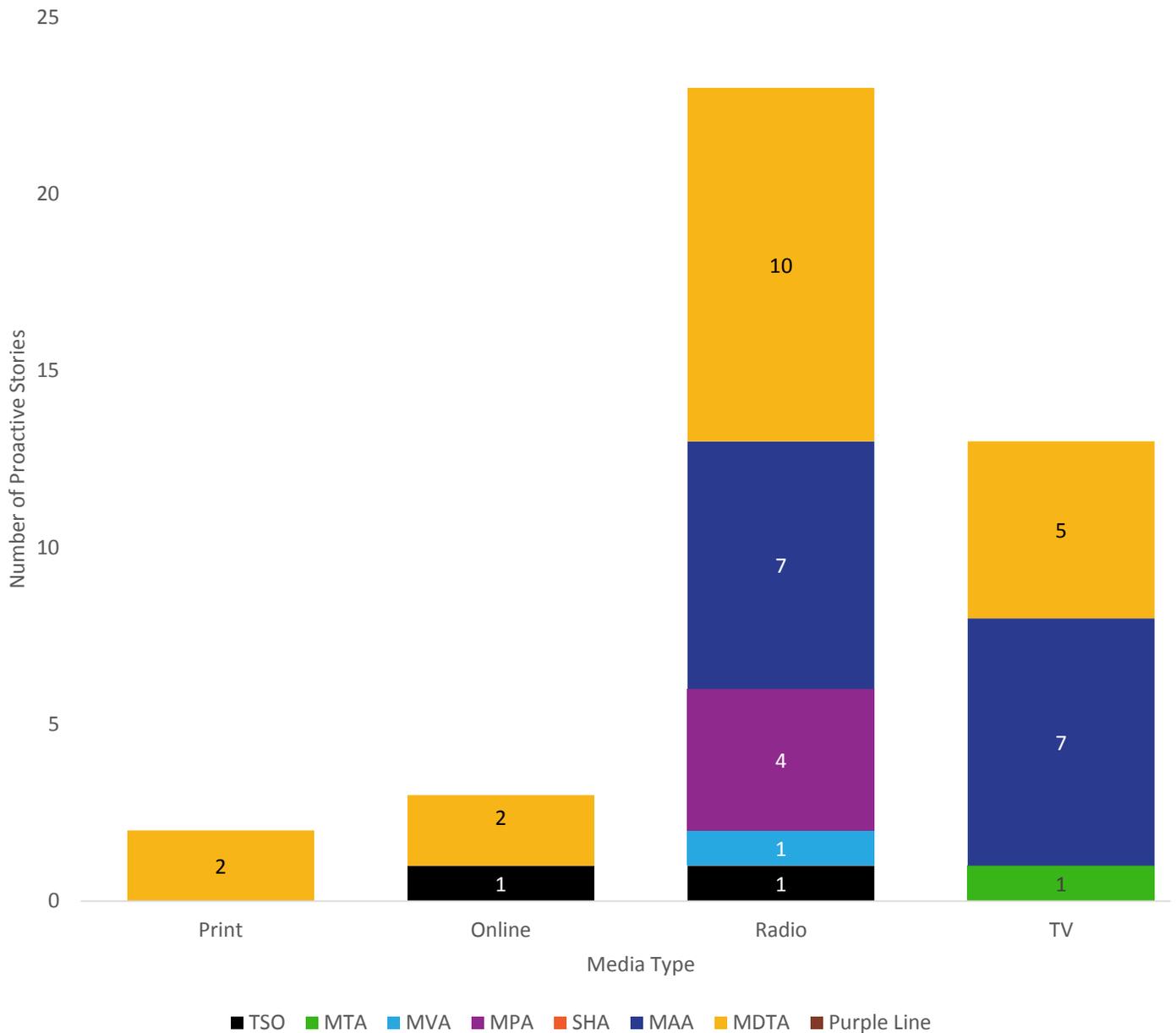


# Communicate Effectively With Our Customers

## PERFORMANCE MEASURE 6.4A

### Reach of Pickups of Proactive Stories

Chart 6.4A.2b: Type of Media that Picked Up Proactive Stories Q4 CY2018



# Communicate Effectively With Our Customers

## TANGIBLE RESULT DRIVER:

Kelly Tarver  
*The Secretary's Office (TSO)*

## PERFORMANCE MEASURE DRIVER:

Jonathan Dean  
*Maryland Aviation Administration (MAA)*

## PURPOSE OF MEASURE:

To track the number of people that viewed proactive content produced by MDOT TBUs.

## FREQUENCY:

Quarterly

## DATA COLLECTION METHODOLOGY:

Data gathered, measured, and analyzed.

## NATIONAL BENCHMARK:

N/A

## PERFORMANCE MEASURE 6.4B

### Reach of MDOT-Produced Content

MDOT produces proactive content to showcase its own stories without relying on traditional press releases. This proactive content includes magazines, broadcasts, newsletters, photo albums and sound bites. The stories told in these items tell the positive impact of MDOT.

Performance Measure 6.4B measures the number of people looking at the content MDOT produced on its own and made available to subscribers, listeners and readers. This measure will guide how MDOT can best package proactive stories for each category of media. Through this measure, MDOT can see how large an audience it is reaching through internally produced items and compare that audience with Performance Measure 6.4A to analyze what categories of external media are placing MDOT-produced content.

MDOT's own internally-produced content had a reach of 3,017,998 in the fourth quarter of 2018, a giant gain over quarter three, mainly due to extra effort by the Digital Team and more complete reporting by the TBUs. In fact, the previous three quarters combined still come nowhere near equaling the output of quarter four for this measure.

# Communicate Effectively With Our Customers

## PERFORMANCE MEASURE 6.4B

### Reach of MDOT-Produced Content

Chart 6.4B.1a: Audience for MDOT-Produced Proactive Content Q3 CY2018

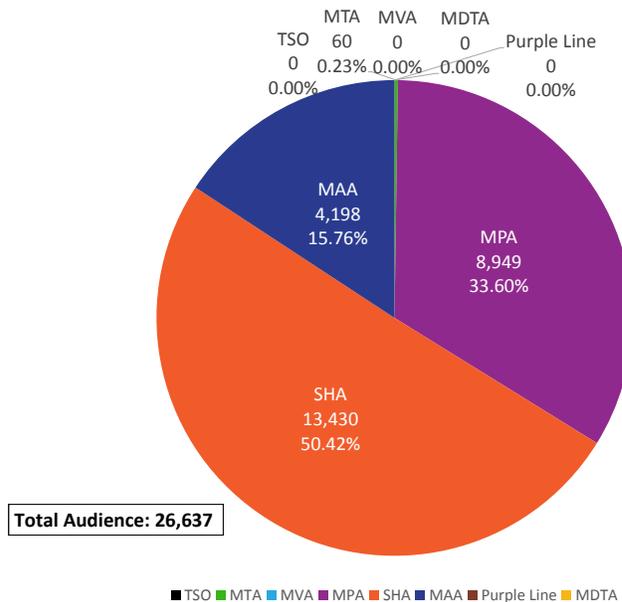
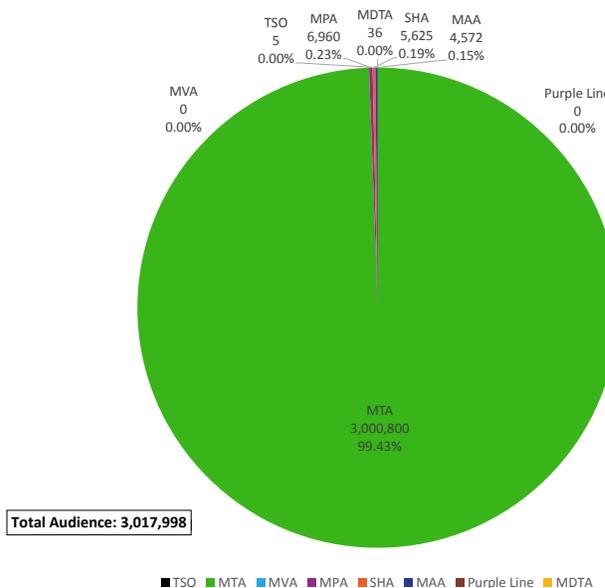


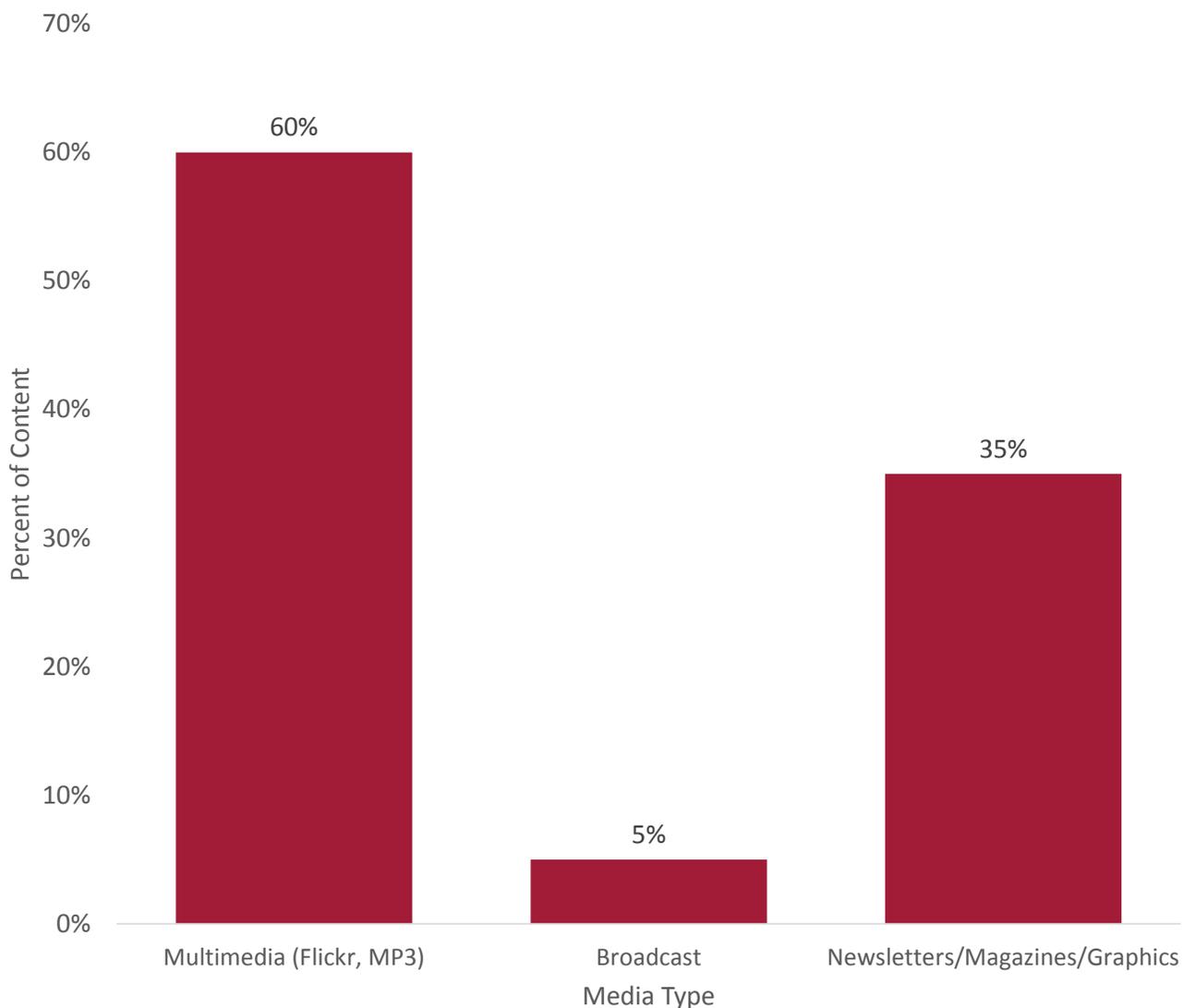
Chart 6.4B.1b: Audience for MDOT-Produced Proactive Content Q4 CY2018



## PERFORMANCE MEASURE 6.4B

### Reach of MDOT-Produced Content

Chart 6.4B.2a: Type of MDOT-Produced Proactive Content Q3 CY2018

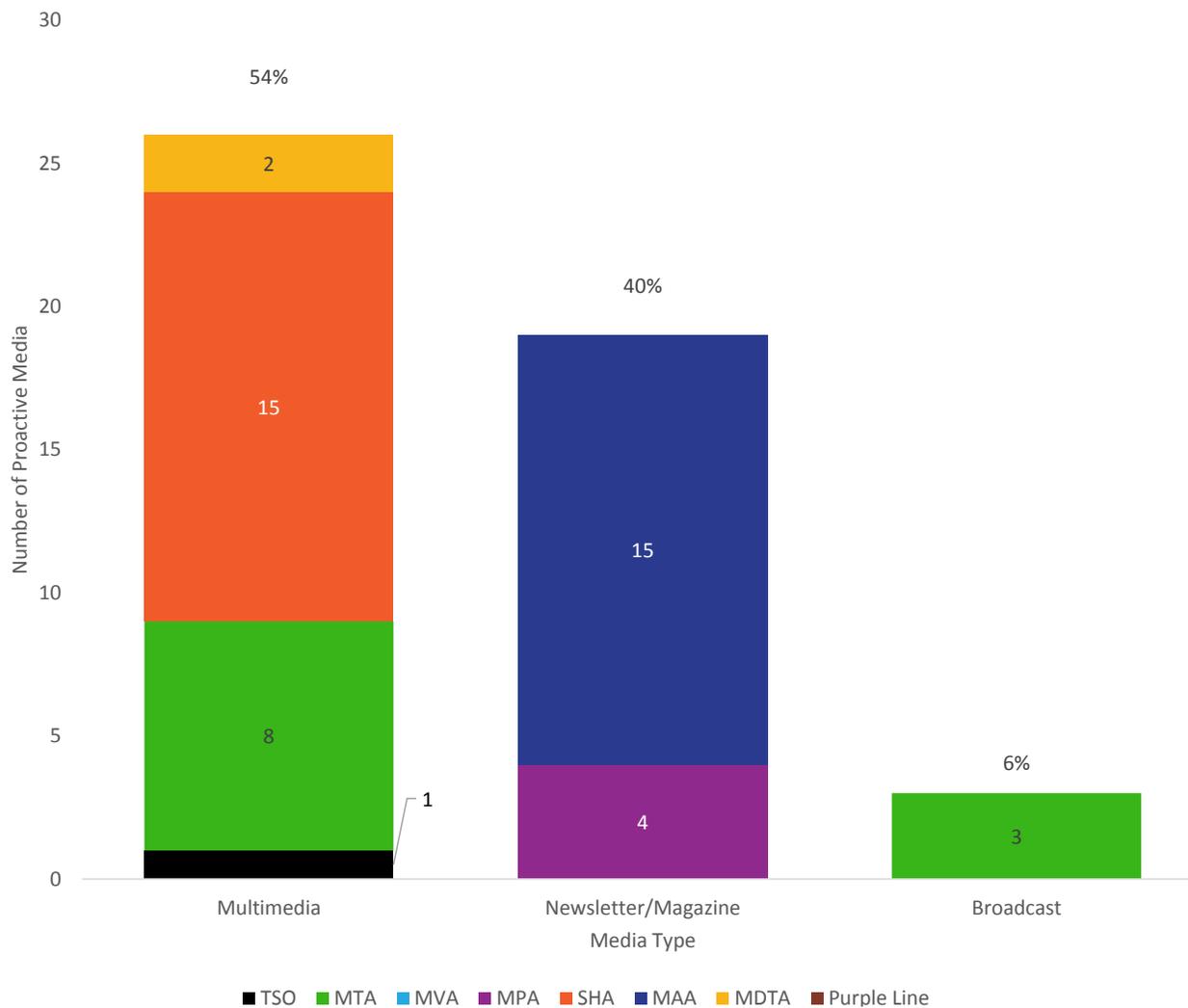


# Communicate Effectively With Our Customers

## PERFORMANCE MEASURE 6.4B

### Reach of MDOT-Produced Content

Chart 6.4B.2b: Type of MDOT-Produced Proactive Content Q4 CY2018



**TANGIBLE RESULT DRIVER:**

Kelly Tarver  
*The Secretary's Office (TSO)*

**PERFORMANCE MEASURE DRIVER:**

Jonathan Dean  
*Maryland Aviation Administration (MAA)*

**PURPOSE OF MEASURE:**

To measure the number of social media users reached by MDOT proactive content.

**FREQUENCY:**

Quarterly

**DATA COLLECTION METHODOLOGY:**

Data gathered, measured, and analyzed.

**NATIONAL BENCHMARK:**

N/A

## **PERFORMANCE MEASURE 6.4C**

### **Reach of Proactive Posts on Social Media**

MDOT posts proactive content on social media to allow for speedy and wide distribution of positive stories and extras from press conferences and events, as well as campaigns. The posting of this content on social media is a subset of MDOT's overall social media posts but is an important component and takes an exerted effort to coordinate.

This measure looks at the number of times proactive stories are distributed through social media channels. This audience is defined by the number of times the proactive items show up in social media feeds.

During the fourth quarter of 2018, the total audience for proactive MDOT items on social media was 3,598,040, a 19.7 percent increase from the third quarter of the year.

More and more people are seeing MDOT's social media posts on Facebook, Twitter and Instagram, which means we're connecting more and more people to life's opportunities.

# Communicate Effectively With Our Customers

## PERFORMANCE MEASURE 6.4C

### Reach of Proactive Posts on Social Media

Chart 6.4C.1a: Audience of Proactive Stories Published on Social Media Q3 CY2018

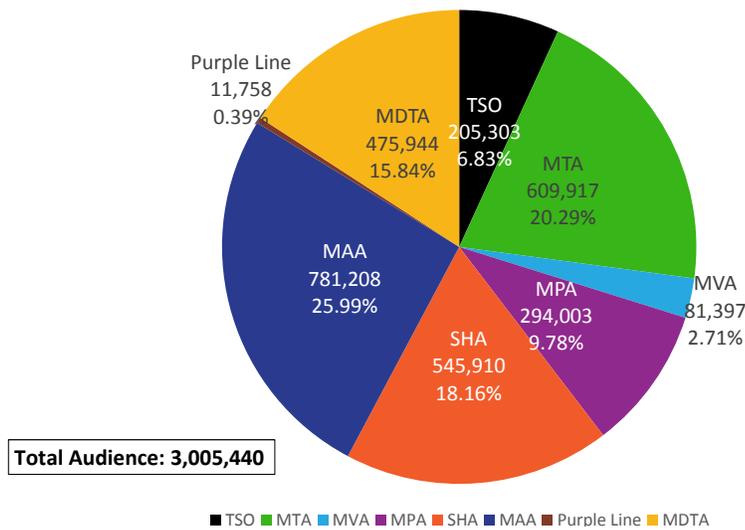
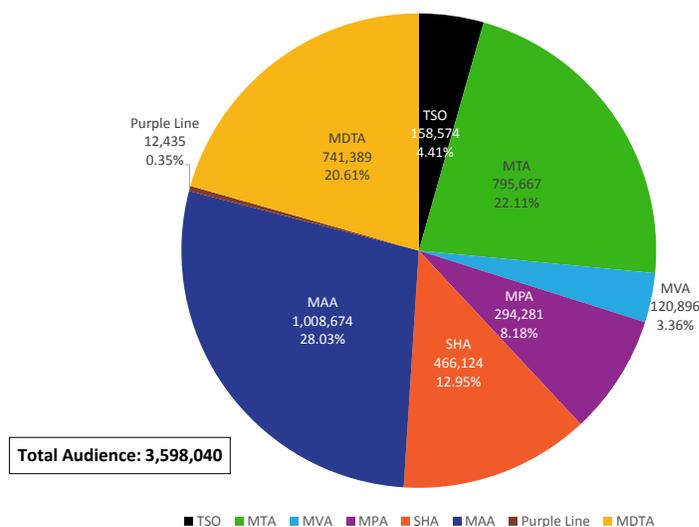


Chart 6.4C.1b: Audience of Proactive Stories Published on Social Media Q4 CY2018



# Communicate Effectively With Our Customers

## TANGIBLE RESULT DRIVER:

Kelly Tarver  
*The Secretary's Office (TSO)*

## PERFORMANCE MEASURE DRIVER:

Jonathan Dean  
*Maryland Aviation Administration (MAA)*

## PURPOSE OF MEASURE:

To analyze the number of user interactions with social media content produced by MDOT.

## FREQUENCY:

Quarterly

## DATA COLLECTION METHODOLOGY:

Data gathered, measured, and analyzed.

## NATIONAL BENCHMARK:

N/A

## PERFORMANCE MEASURE 6.4D

### Interactions with Proactive Posts on Social Media

When posting proactive content onto social media channels, one of the goals is to make the content engaging for customers to enjoy. MDOT does this by producing videos, finding unique subject matter and being creative with the content.

This performance measure, which expands on 6.4C, examines the number of times that customers interacted with a proactive item on social media. Interactions are direct confirmation that someone has viewed and comprehended MDOT's message – providing feedback on the effectiveness of proactive stories on social media. These interactions include likes, comments, retweets and clicks. By analyzing the results, MDOT can better target its messages to customers.

The fourth quarter of 2018 showed a 24.8 percent increase over quarter three, with engagements for MDOT posts totaling 142,466. This followed two quarters of flat statistics. Compared to the first quarter of the year – the initial time data was gathered – the fourth quarter totals represent huge growth in social media engagements.

# Communicate Effectively With Our Customers

## PERFORMANCE MEASURE 6.4D

### Interactions with Proactive Posts on Social Media

Chart 6.4D.1a: Interactions with Proactive Posts on Social Media Q3 CY2018

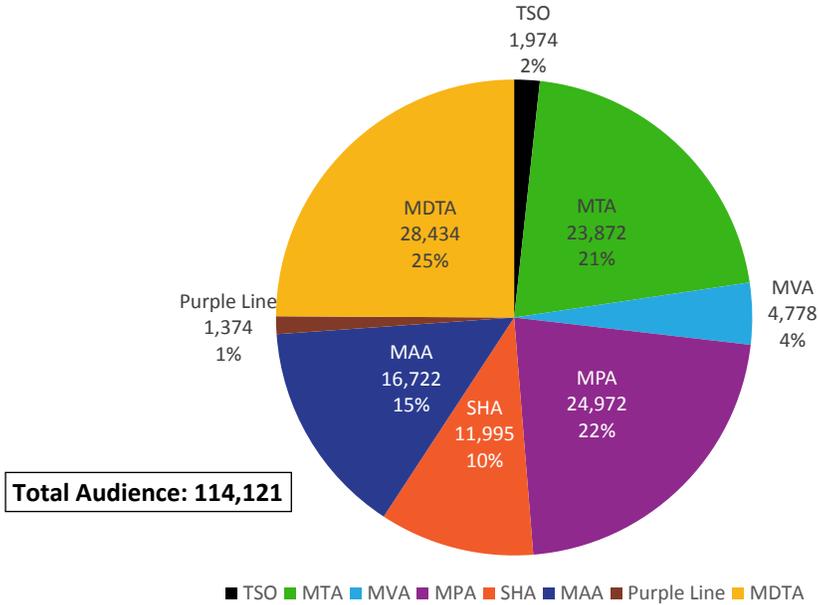
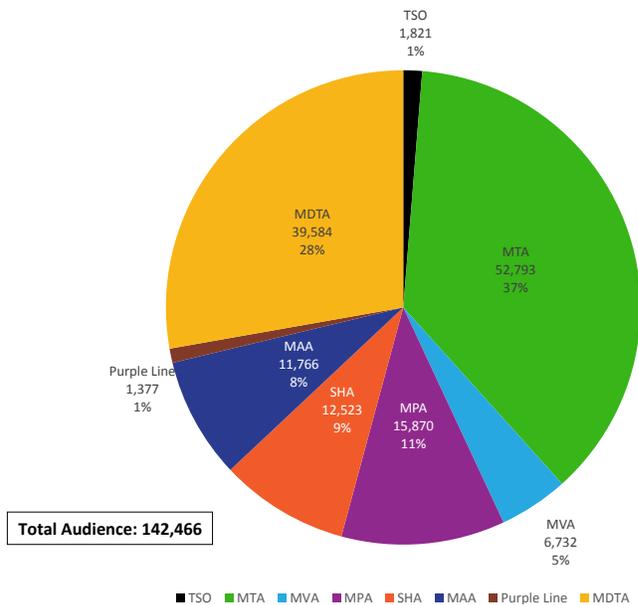


Chart 6.4D.1b: Interactions with Proactive Posts on Social Media Q4 CY2018



TANGIBLE RESULT #7

## Be Fair and Reasonable to Our Partners



MDOT will provide an easy, reliable procurement experience throughout the system.

**RESULT DRIVER:**

Wanda Dade

*State Highway Administration (SHA)*

## TANGIBLE RESULT DRIVER:

Wanda Dade  
State Highway Administration (SHA)

## PERFORMANCE MEASURE DRIVER:

William Villanueva  
Maryland Aviation Administration  
(MAA)

## PURPOSE OF MEASURE:

To track MBE participation achieved on contracts within MDOT.

## FREQUENCY:

Quarterly

## DATA COLLECTION METHODOLOGY:

MDOT TBUs report the data on a quarterly basis to Governor's Office of Small, Minority and Women Business Affairs (GOSBA) and MDOT. The information will be provided by MDOT from that report.

## NATIONAL BENCHMARK:

N/A

The state goal/benchmark is 29 percent.

## PERFORMANCE MEASURE 7.1

### Percentage of Minority Business Enterprise (MBE) Participation Achieved by Each TBU

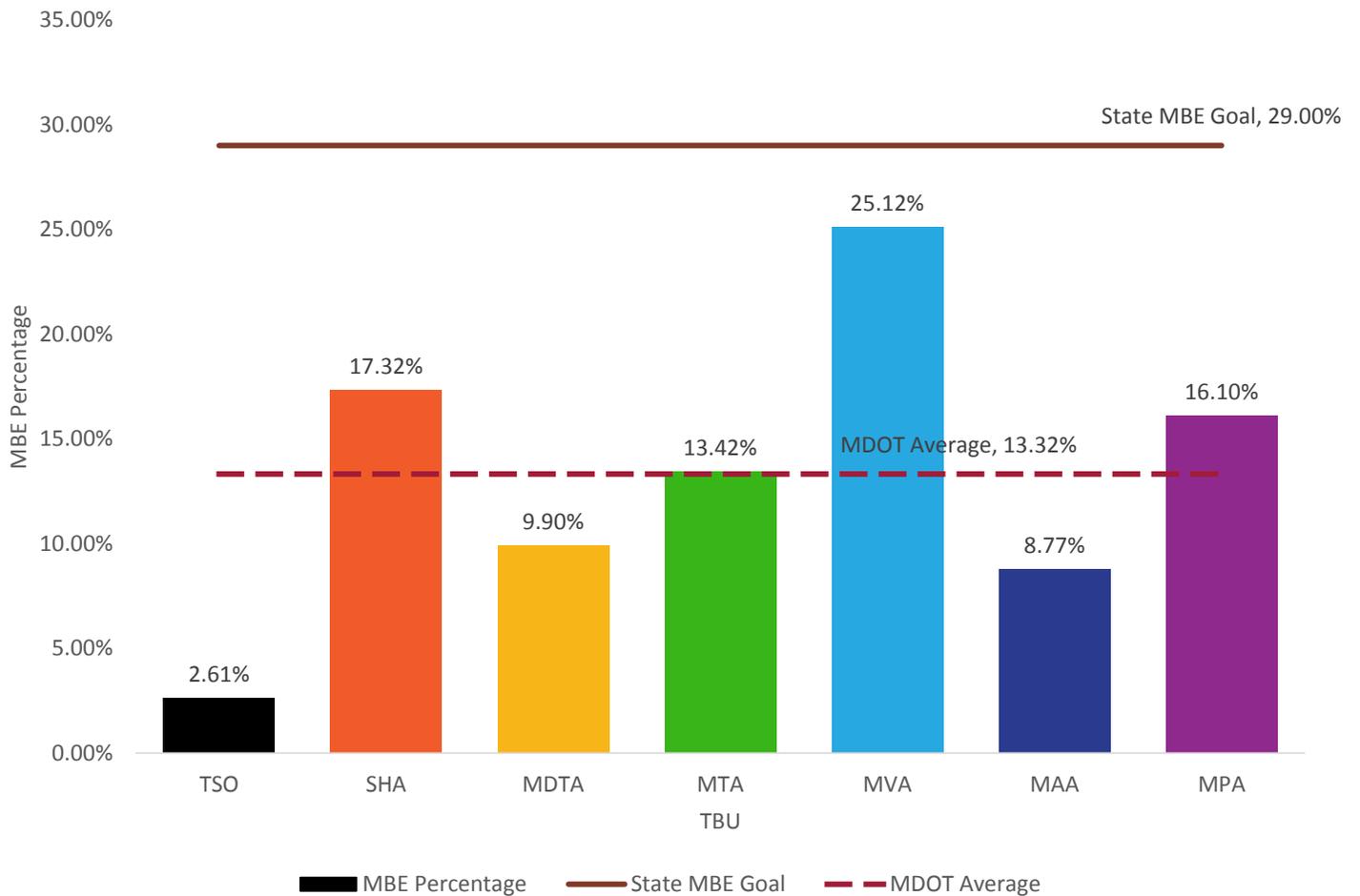
The MBE program is a statewide program to facilitate minority business participation on contracts. Each MDOT TBU tracks MBE participation data for internal program monitoring, and participation is reported on a quarterly year to date basis.

- MDOT MBE participation for the first quarter of FY2019 was approximately 13.32 percent (average of all TBUs). Participation is reported as year to date participation, so Q1 represents participation for the July 2018 – September 2018). Participation at the TBUs ranged from 2.61 percent to 25.12 percent.
- MBE participation is important as MDOT is subject to the statewide MBE goal of 29 percent as are all state agencies. Participation has been up and down during the last fiscal year, but overall the participation has not been at that level.
- Input was obtained from MDOT Procurement and Fair Practices staff on approaches that would positively impact the goal. Unbundling of contracts, an increase in the number of smaller contracts and increased/enhanced outreach efforts are items that were recommended. Implementation of these items is on-going and should have a positive impact on participation.
- MDOT MBE Participation for FY2018 was approximately 19.05 percent (average of all TBUs).

## PERFORMANCE MEASURE 7.1

### Percentage of Minority Business Enterprise (MBE) Participation Achieved by Each TBU

Chart 7.1.1: MBE Percentage YTD FY2019



**TANGIBLE RESULT DRIVER:**

Wanda Dade  
*State Highway Administration (SHA)*

**PERFORMANCE MEASURE DRIVER:**

William Villanueva  
*Maryland Aviation Administration (MAA)*

**PURPOSE OF MEASURE:**

To track MBE prime contractor participation achieved on contracts within MDOT to ensure MDOT provides opportunities to all of business partners.

**FREQUENCY:**

Quarterly

**DATA COLLECTION METHODOLOGY:**

Data will be collected from MDOT and TBUs.

**NATIONAL BENCHMARK:**

N/A

## **PERFORMANCE MEASURE 7.2**

### **Number and Percent of Contracts Awarded to MBE Firms as the Prime Contractor**

Participation of MBE firms as a prime contractor is important to facilitate their growth and enable them to compete in the general marketplace once they graduate from the MBE program, which is based on when they reach designated thresholds (re. company gross receipts and personal net worth of owners).

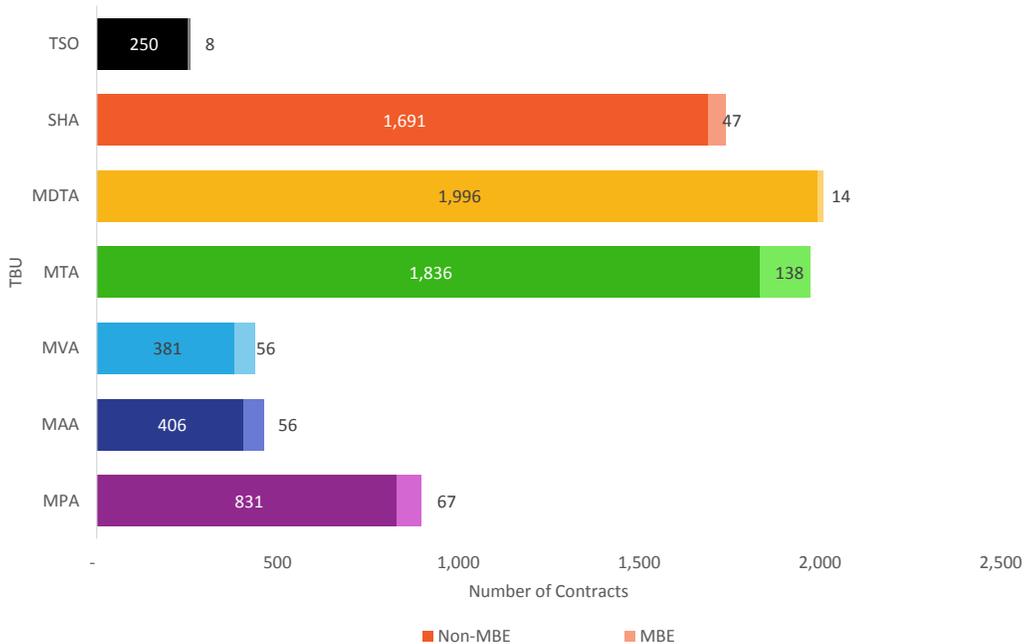
Information on the total number of prime contracts awarded as well as the number of MBE prime contracts awarded is reported. This approach reflects the information that is reported to the Governor's Office of Small, Minority and Women Business Affairs (GOSBA). The year-to-date average percentage of MBE prime contractors for MDOT for fiscal year 2019 for the first quarter (July – September 2018) was approximately 7.25 percent. The percentages for the MDOT TBUs ranged from .7 percent to 14.70 percent.

Input from the procurement and fair practices staff on approaches to increase the number of MBE primes. Unbundling of contracts, increasing the number of smaller contracts in areas with high levels of MBE firms and increased/enhanced outreach and technical assistance to these MBE firms are items that were recommended. Implementation of these changes is on-going and should have a positive impact on the participation of MBE firms as prime contractors.

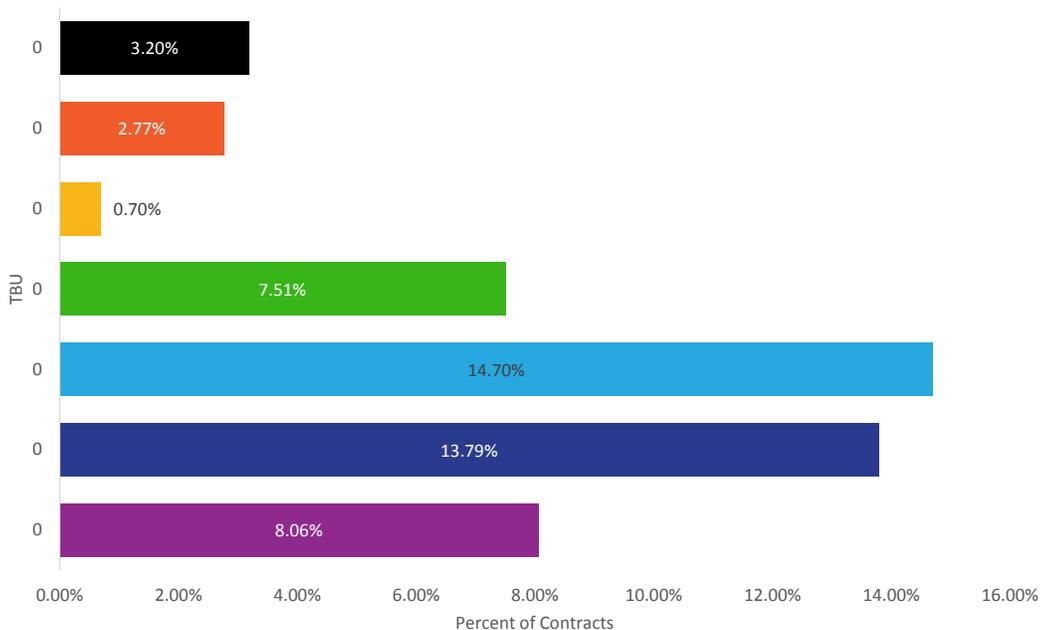
## PERFORMANCE MEASURE 7.2

### Number and Percent of Contracts Awarded to MBE Firms as the Prime Contractor

**Chart 7.2.1: MDOT Prime Contracts vs. MBE Prime Contracts by TBU YTD FY2019**



**Chart 7.2.2: Percent of MBE Prime of Total Contracts by TBU YTD FY2019**



## TANGIBLE RESULT DRIVER:

Wanda Dade  
*State Highway Administration (SHA)*

## PERFORMANCE MEASURE DRIVER:

Trisha O'Neal  
*Maryland Port Administration (MPA)*

## PURPOSE OF MEASURE:

Track compliance with State mandate for awarding 15 percent of MDOT's total eligible procurement expenditures on SBR designated contracts.

## FREQUENCY:

Quarterly, compiled annually

## DATA COLLECTION METHODOLOGY:

SBR goal is calculated quarterly from eligible contracts and expenditure data exported from FMIS, iFMIS and US Bank for Corporate Credit Card data.

## NATIONAL BENCHMARK:

GOSBA maintains the State's official record of SBR designation and spending across 77 participating agencies, including MDOT's TBUs.

## PERFORMANCE MEASURE 7.3

### Percent of Payments Awarded to Small Business Reserve (SBR) Contracts

Maryland's economy is powered by the jobs and innovative resources generated by small businesses. The Small Business Reserve (SBR) Program is a race-and gender-neutral program that provides small businesses with the opportunity to participate as prime contractors on State contracts and procurements by competing with other small businesses instead of larger, more established firms.

To ensure compliance with State regulations, each TBU is required to participate in the SBR Program by spending at least 15 percent of its annual fiscal year eligible procurement expenditures on SBR designated contracts. SBR designated contracts are only awarded to Maryland certified small businesses.

Q2 CY2018, MDOT achieved 10.81 percent participation, which is an increase of 1.44 percent from Q1 CY2018. Over ten percent (10.81 percent) of its eligible procurement expenditures were spent with Maryland certified small businesses; however only 4.17 percent of its eligible procurement expenditures were spent on SBR designated contracts.

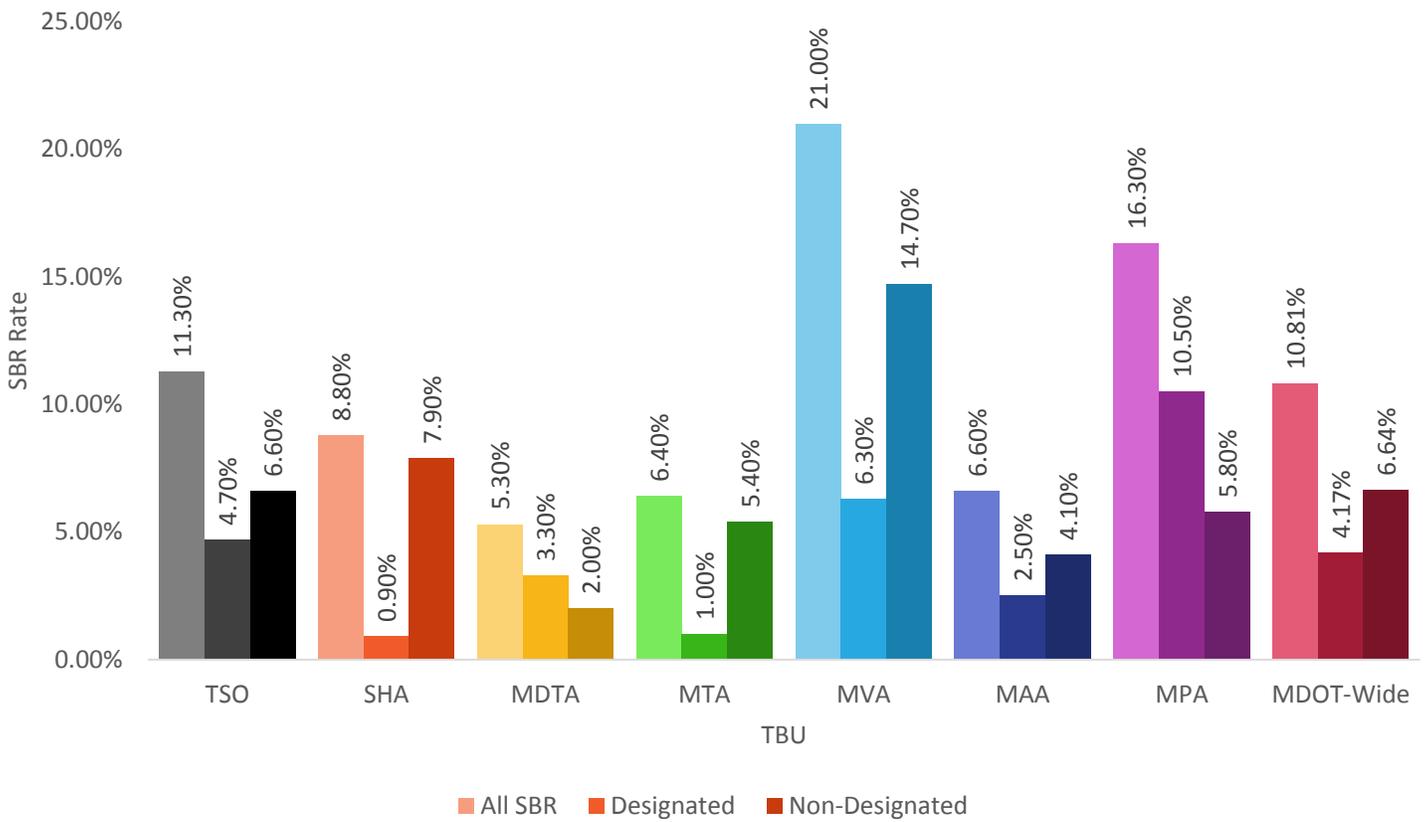
To increase the SBR Program participation rates, MDOT provided documented policy guidelines to all TBUs. These guidelines focus on increasing the SBR participation rate by requiring an annual strategic plan from each TBU. Some strategies include:

- Require procurement review group's approval of SBR designation;
- Identify a SBR liaison and reporting expert;
- Train and work closely with purchasing card holders to emphasize Maryland certified small businesses; and
- Increase small business outreach and vendor education.

## PERFORMANCE MEASURE 7.3

### Percent of Payments Awarded to Small Business Reserve (SBR) Contracts

Chart 7.3.1: Annual Small Business Reserve Rate by TBU Q2 CY2018



# Be Fair and Reasonable to Our Partners

## TANGIBLE RESULT DRIVER:

Wanda Dade  
*State Highway Administration (SHA)*

## PERFORMANCE MEASURE DRIVER:

Cheryl Stambaugh  
*Motor Vehicle Administration (MVA)*

## PURPOSE OF MEASURE:

To track the percent of VSBE contract values to ensure that MDOT continues a contractual relationship with VSBEs in Maryland.

## FREQUENCY:

Annually (in January)

## DATA COLLECTION METHODOLOGY:

Using the financial management system at MDOT.

## NATIONAL BENCHMARK:

N/A

The State's mandate is 1 percent or better of its total dollar value of procurement contracts.

## PERFORMANCE MEASURE 7.4

### Percent of Veteran Owned Small Business Enterprise (VSBE) Participation

Maryland's small businesses are a vital component to Maryland's economy. Maryland continues to be committed to the growth and success of its small business community and was ranked as the #1 state in the country for minority and women business ownership according by Paychex, Inc. in 2018.

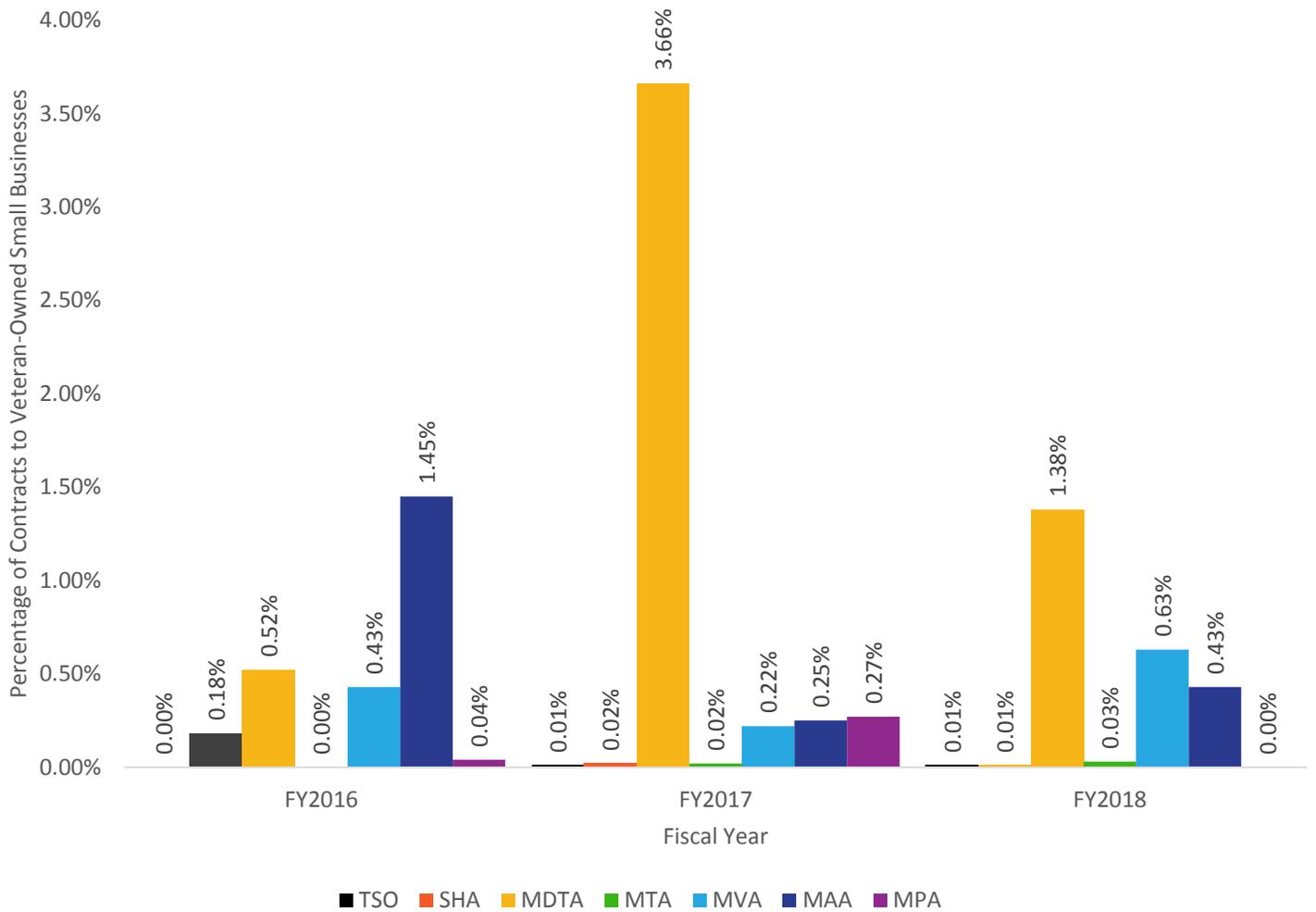
MDOT considers small businesses, especially veteran owned small businesses, to be an important sector of our business community. Procurement opportunities for this business segment are directly linked to the socioeconomic well-being of the State. MDOT is committed to attaining or exceeding the State mandated goal for veteran businesses.



## PERFORMANCE MEASURE 7.4

### Percent of Veteran Owned Small Business Enterprise (VSBE) Participation

Chart 7.4.1: Veteran-Owned Small Business Enterprise Participation by TBU FY2016-FY2018



# Be Fair and Reasonable to Our Partners

## TANGIBLE RESULT DRIVER:

Wanda Dade  
*State Highway Administration (SHA)*

## PERFORMANCE MEASURE DRIVER:

Walida Johnson  
*Maryland Transportation Authority (MDTA)*

## PURPOSE OF MEASURE:

To determine the level of satisfaction of our business partners with processes MDOT-wide.

## FREQUENCY:

Quarterly

## DATA COLLECTION METHODOLOGY:

The PM Driver administers a Level of Satisfaction survey to MDOT's partners. After the survey cutoff date, the data is then compiled and analyzed. An Outlook email address has been established for easier quarterly reporting.

## NATIONAL BENCHMARK:

TBD

## PERFORMANCE MEASURE 7.5

### Level of Satisfaction of Our Business Partners

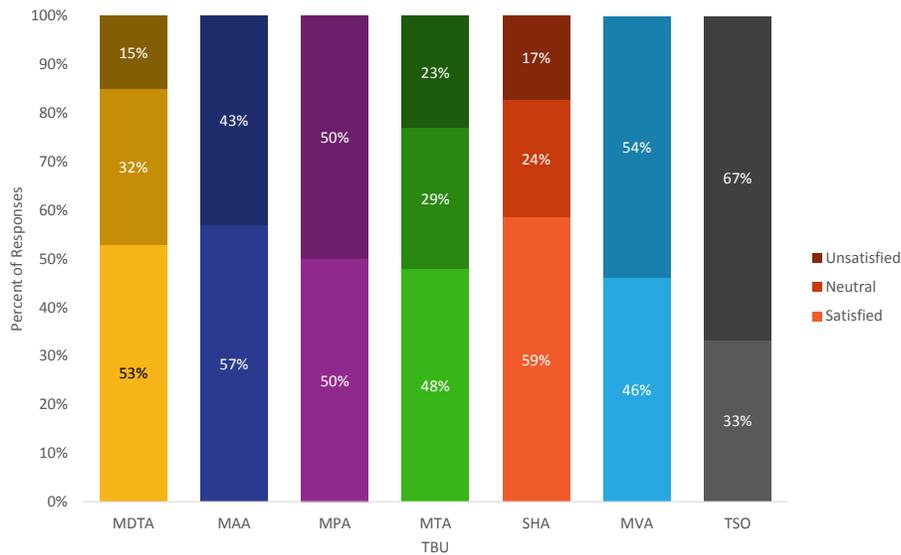
Tracking business partner satisfaction will allow MDOT to determine how satisfied partners are with current business processes. This performance measure is crucial to gauging MDOT's effectiveness in being fair and reasonable to those partners. Partners include contractors, consultants, vendors, other State agencies, federal, State, and local governments, trade associations, commissions, etc. This data can be used to improve those processes that may be ambiguous or cumbersome and make them more user-friendly. It is important that people who avail themselves of this opportunity know that their comments are taken seriously, and that MDOT is committed to meeting or exceeding business partner expectations.

This performance measure captures MDOT's business partner satisfaction through quarterly surveys. Each quarter, a certain business segment (i.e. construction, IT, A&E, etc.) is selected to be surveyed and the results are then reported. Each business segment will be surveyed one time per year. This quarter we surveyed MDOT's construction business partners. Surveys are distributed via Survey Monkey.

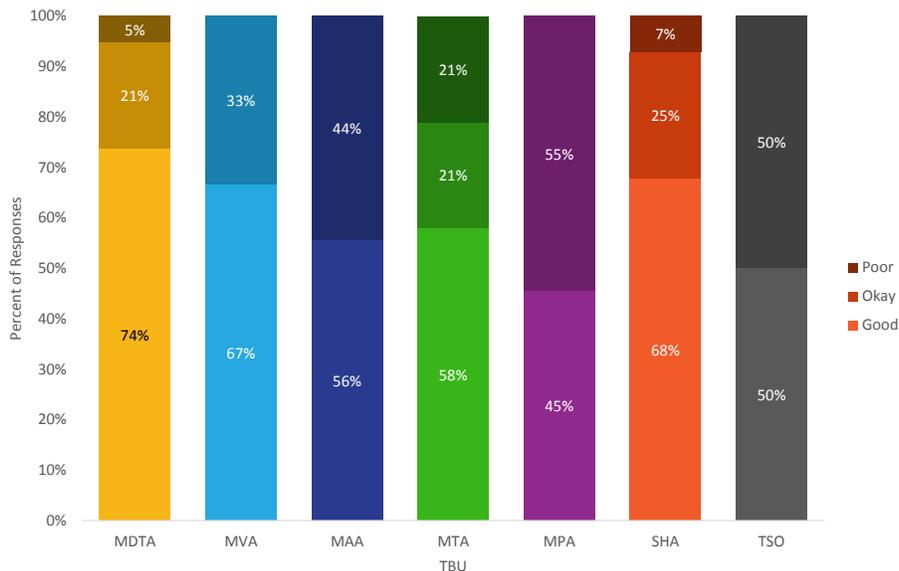
## PERFORMANCE MEASURE 7.5

### Level of Satisfaction of Our Business Partners

**Chart 7.5.1: MDOT Construction Partner Responses to “How satisfied are you with the timeliness of payments after your invoice has been submitted?” Q4 CY2018**



**Chart 7.5.2: MDOT Construction Partner Responses to “Please rate MDOT transportation business units on how fair and reasonable they are in the management of MDOT contracts.” Q4 CY2018**



# Be Fair and Reasonable to Our Partners

## PERFORMANCE MEASURE 7.5

### Level of Satisfaction of Our Business Partners

Chart 7.5.3: MDOT Construction Partner Responses to “Is the procurement process transparent?” Q4 CY2018

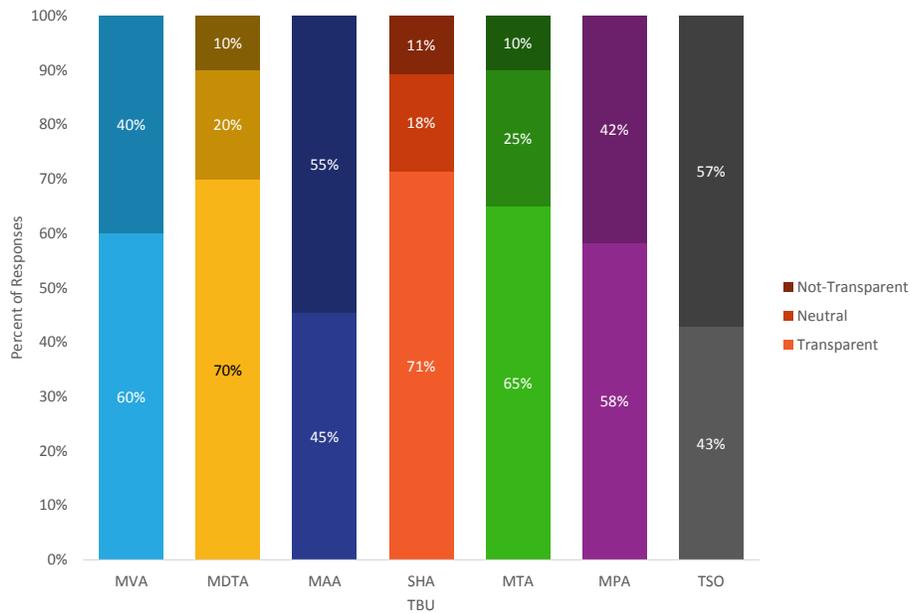
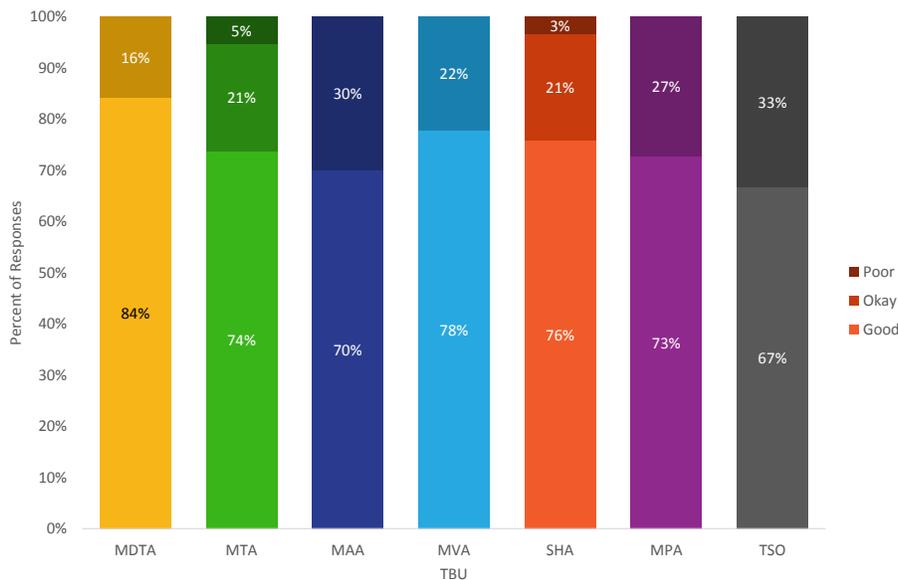


Chart 7.5.4: MDOT Construction Partner Responses to “Please rate the MDOT transportation business units as business partners.” Q4 CY2018



# Be Fair and Reasonable to Our Partners

## TANGIBLE RESULT DRIVER:

Wanda Dade  
*State Highway Administration (SHA)*

## PERFORMANCE MEASURE DRIVER:

Ken Haynie  
*Maryland Transit Administration (MTA)*

## PURPOSE OF MEASURE:

To assess the number and percent of invoices properly paid to MDOT's partners in compliance with State requirements so MDOT can be responsive to business partners' needs.

## FREQUENCY:

Quarterly

## DATA COLLECTION METHODOLOGY:

MDOT Finance reports data monthly by TBUs.

## NATIONAL BENCHMARK:

N/A

## PERFORMANCE MEASURE 7.6

### Number and Percent of Invoices Properly Paid to Our Partners in Compliance with State Requirements

MDOT will treat contractors fairly by promptly paying invoices. Contractors should be able to trust MDOT TBUs consistency of payment with a goal of paying invoices within 30 calendar days 99 percent of the time. MDOT has continued the success from FY2018 into FY2019 with an overall average for the FY of 98 percent. The MAA reached the goal of 99 percent and MVA has been able to maintain 99 percent for the FY. TSO, SHA and MPA were within 2 percent of the goal, while MDTA and MTA were with 5 percent of the Goal.

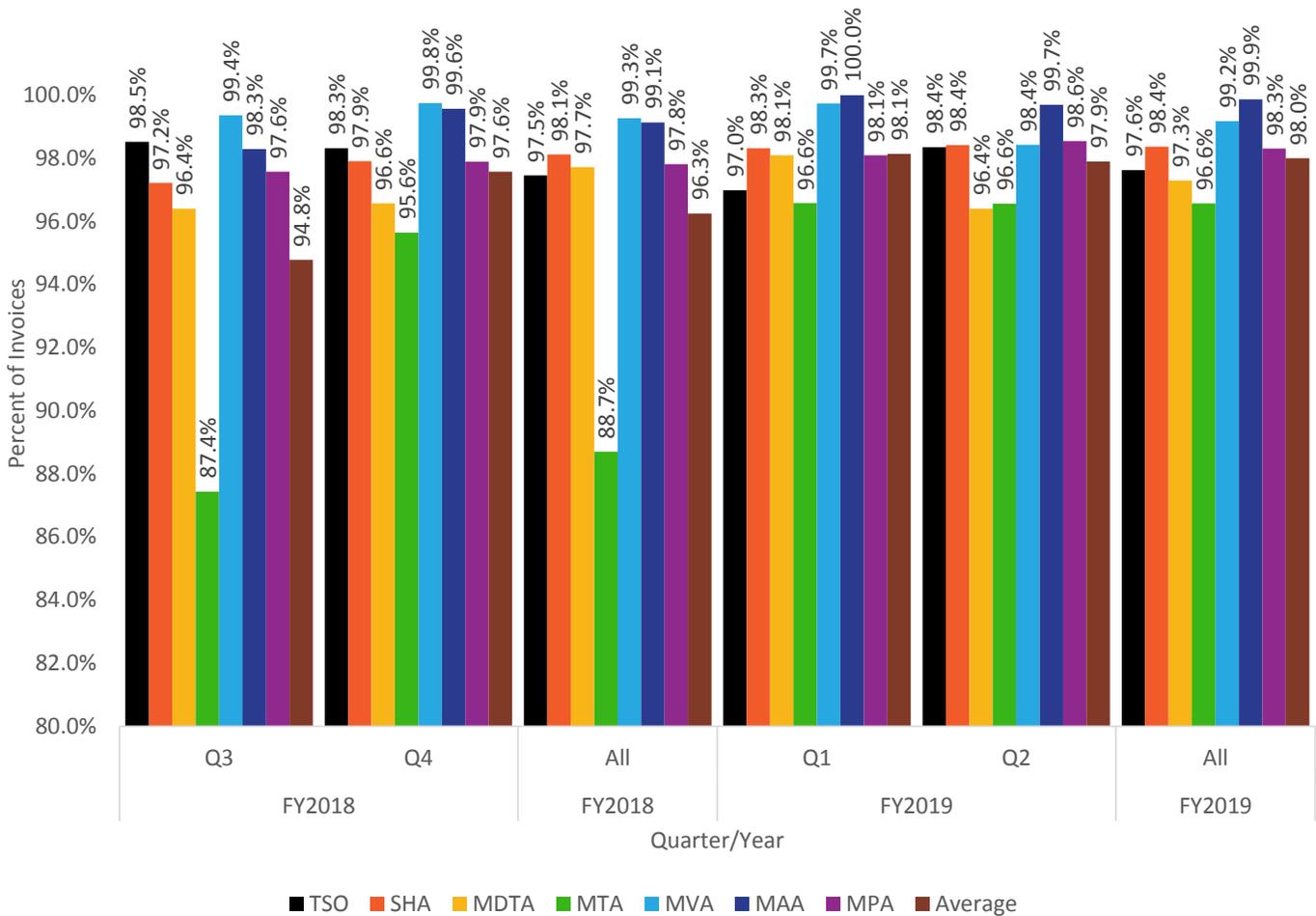


# Be Fair and Reasonable to Our Partners

## PERFORMANCE MEASURE 7.6

Number and Percent of Invoices Properly Paid to Our Partners in Compliance with State Requirements

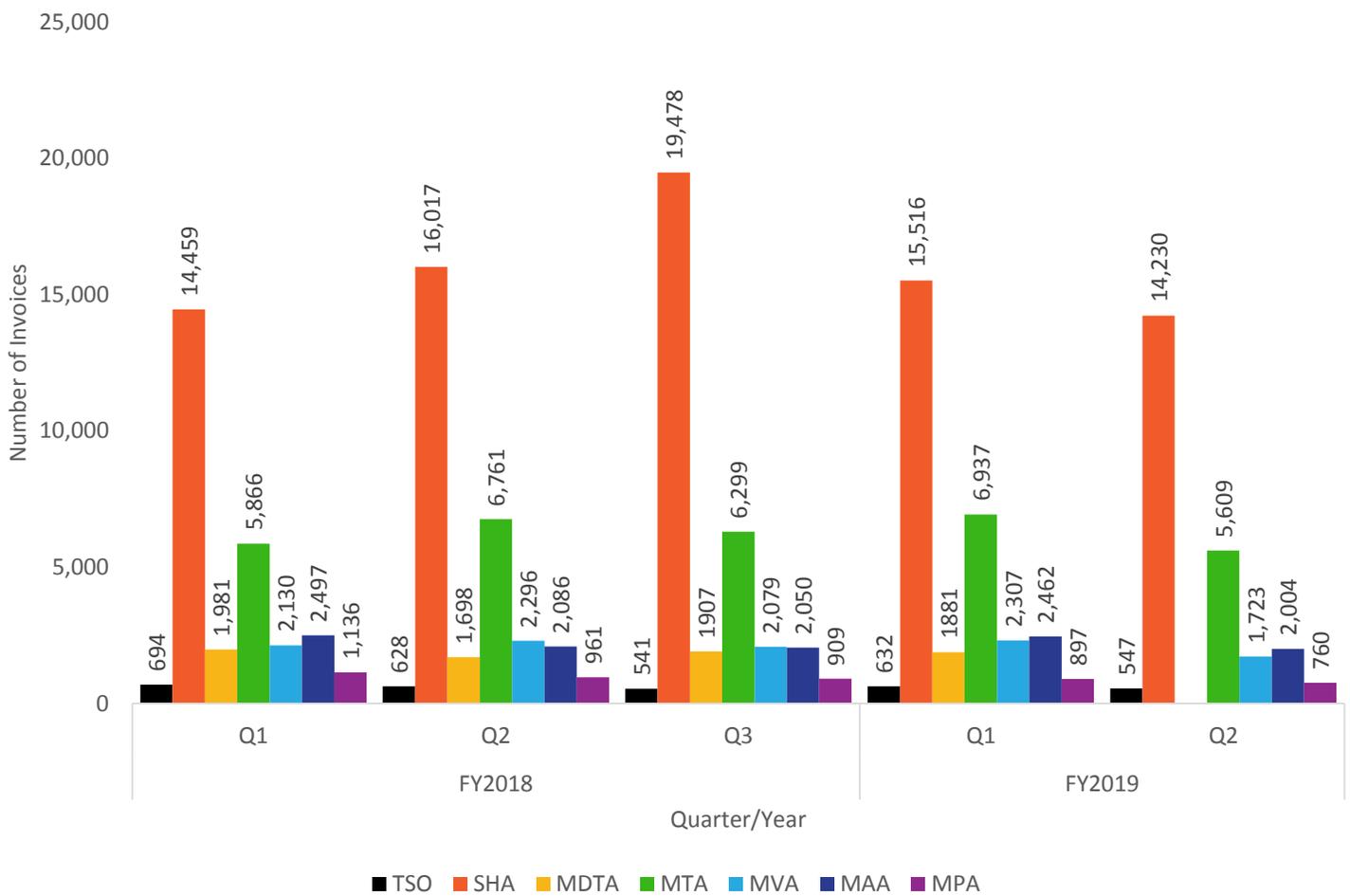
Chart 7.6.1: Percent of Invoices Properly Paid within 30 Days of Invoices Q3 FY2018-Q2 FY2019



## PERFORMANCE MEASURE 7.6

Number and Percent of Invoices Properly Paid to Our Partners in Compliance with State Requirements

Chart 7.6.2: Total Number of Invoices Paid FY2018-Q2 FY2019

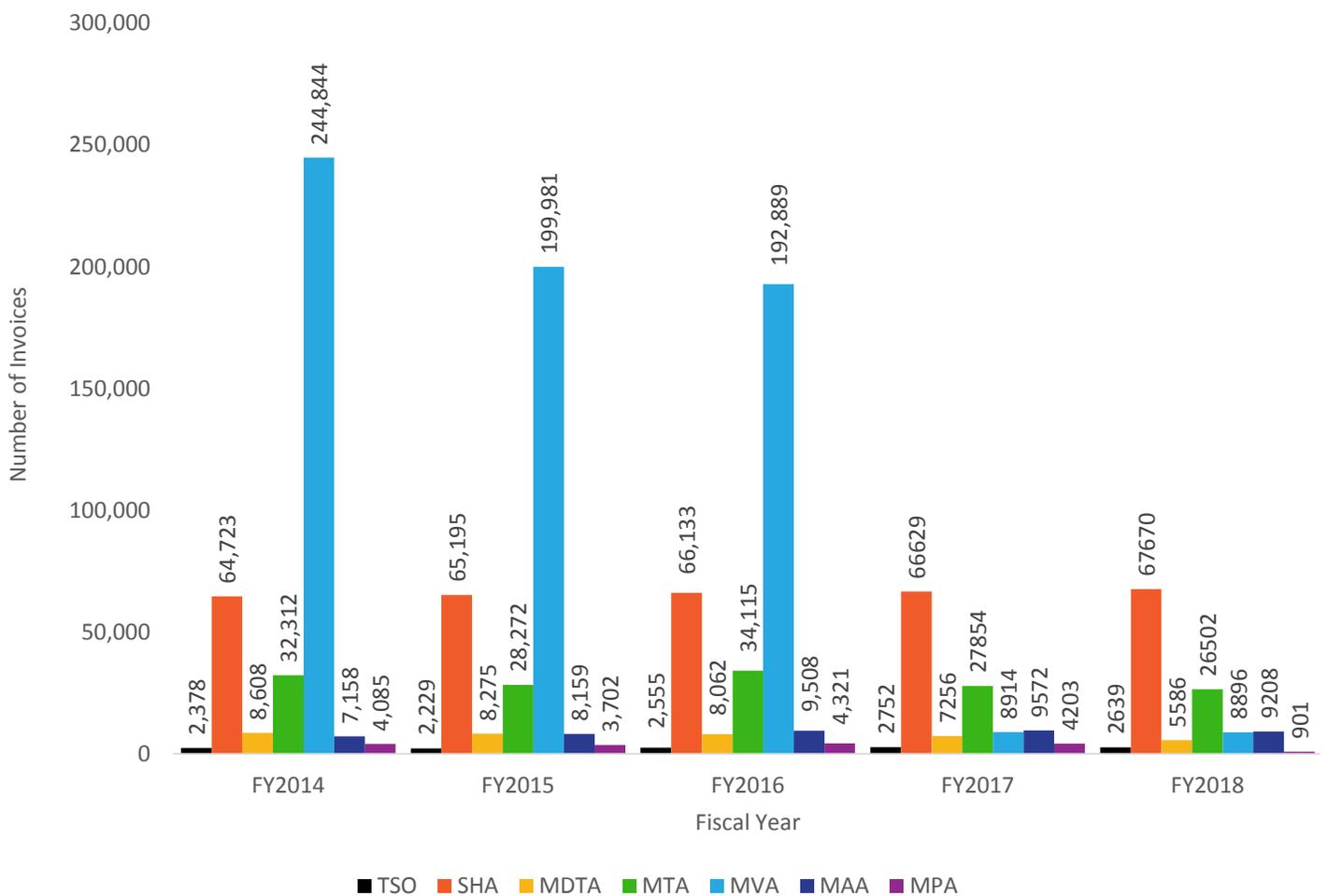


# Be Fair and Reasonable to Our Partners

## PERFORMANCE MEASURE 7.6

Number and Percent of Invoices Properly Paid to Our Partners in Compliance with State Requirements

Chart 7.6.3: Total Number of Invoices by TBU FY2014-FY2018



**TANGIBLE RESULT DRIVER:**

Wanda Dade  
*State Highway Administration (SHA)*

**PERFORMANCE MEASURE DRIVER:**

Sue Pope  
*The Secretary's Office (TSO)*

**PURPOSE OF MEASURE:**

To determine what percentage of protests are legitimate and how MDOT can reduce the number of non-legitimate protests to create better solicitations for business partners.

**FREQUENCY:**

Quarterly

**DATA COLLECTION METHODOLOGY:**

MDOT TBU procurement departments report protest data to TSO Procurement on a monthly basis. Data is aggregated for reporting purposes.

**NATIONAL BENCHMARK:**

N/A

## **PERFORMANCE MEASURE 7.7**

### **Number of MDOT Procurement Protests Filed and Percent of Protests Upheld by the Board of Contract Appeals**

Minimizing protests and understanding how to avoid non-legitimate protests will enable MDOT to develop better solicitations and foster better relationships with business partners. Tracking contract protests will allow MDOT to determine how many protests are being filed without warrant, how many are legitimate, and how MDOT can create more concise solicitations for partners. The protest process is important because it allows a company doing business with the State to have confidence in the State's solicitation process by understanding that an aggrieved entity has the ability to be heard.

The TSO Office of Procurement and Project Quality Assurance (OPPQA) is collecting data from all the TBUs and is documenting the number of protests as well as the reason for the protest.

The TSO OPPQA will collect data regarding protests so that it may administer a root cause analysis and implement corrective/preventive actions. Currently there is not enough detail to determine the root cause.

# Be Fair and Reasonable to Our Partners

## PERFORMANCE MEASURE 7.7

Number of MDOT Procurement Protests Filed and Percent of Protests Upheld by the Board of Contract Appeals

Chart 7.7.1: Running Twelve Month Procurement Protests by Quarter CY2018

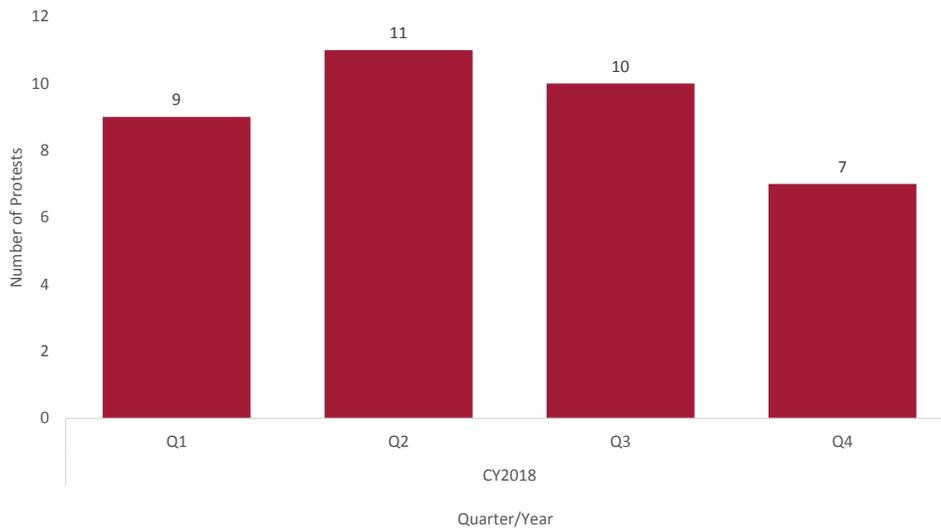


Chart 7.7.2: Protests Appealed/Not Appealed Q4 CY2018

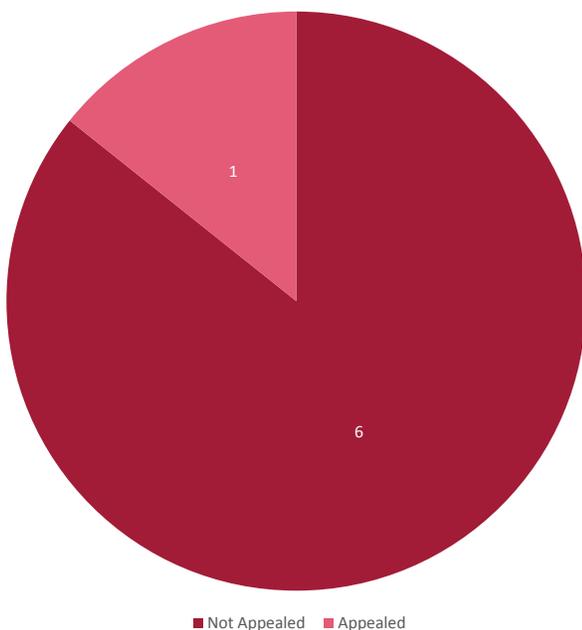
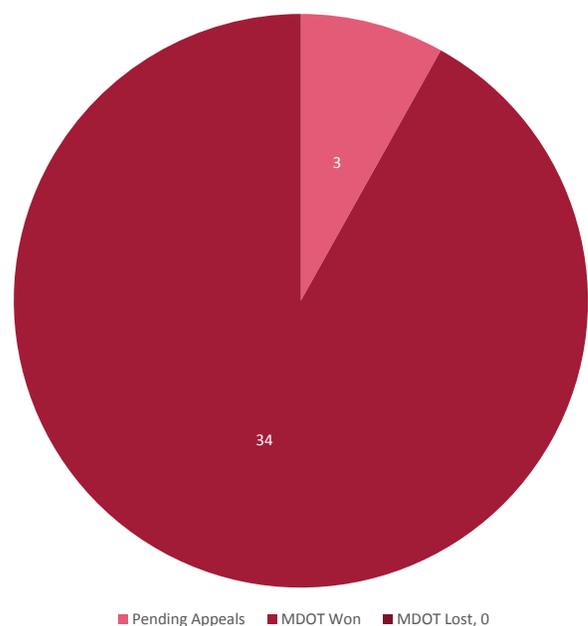


Chart 7.7.3: Protests Won/Lost/Pending CY2018



## TANGIBLE RESULT #8

# Be a Good Neighbor



As the owner of statewide transportation facilities, MDOT must work to find solutions that work for customers and are sensitive to our neighbors.

### RESULT DRIVER:

Anthony Crawford

*State Highway Administration (SHA)*

**TANGIBLE RESULT DRIVER:**

Anthony Crawford  
State Highway Administration (SHA)

**PERFORMANCE MEASURE DRIVER:**

Anthony Crawford  
State Highway Administration (SHA)

**PURPOSE OF MEASURE:**

To ensure that MDOT maintains attractive and clean facilities with amenities benefiting their neighbors.

**FREQUENCY:**

Annually (July)

**DATA COLLECTION METHODOLOGY:**

This will be assessed through an internal assessment and satisfaction survey developed by staff with neighbor input including cleanliness, appearance, operations, access, and safety at our facilities.

**NATIONAL BENCHMARK:**

N/A

## PERFORMANCE MEASURE 8.1

### Percent of MDOT Facilities that Meet or Exceed Our Neighbor's Expectations

Attractive, efficient, and safe operations of MDOT facilities directly affect the surrounding neighbors and communities. MDOT values relationships with its neighbors and commits to meeting or exceeding their expectations. MDOT engaged neighbors through a survey and outreach to better understand the impact its facilities have on communities and how the agency can be a better neighbor.

MDOT completed the second round of internal facility assessments in 2018. TBU's results ranged from 79 percent to 96 percent, resulting in an average of 87 percent. This is slightly higher than the 2016 average of 85 percent. The most significant improvements were reflected in the facilities' landscape features and the organization of equipment and materials.

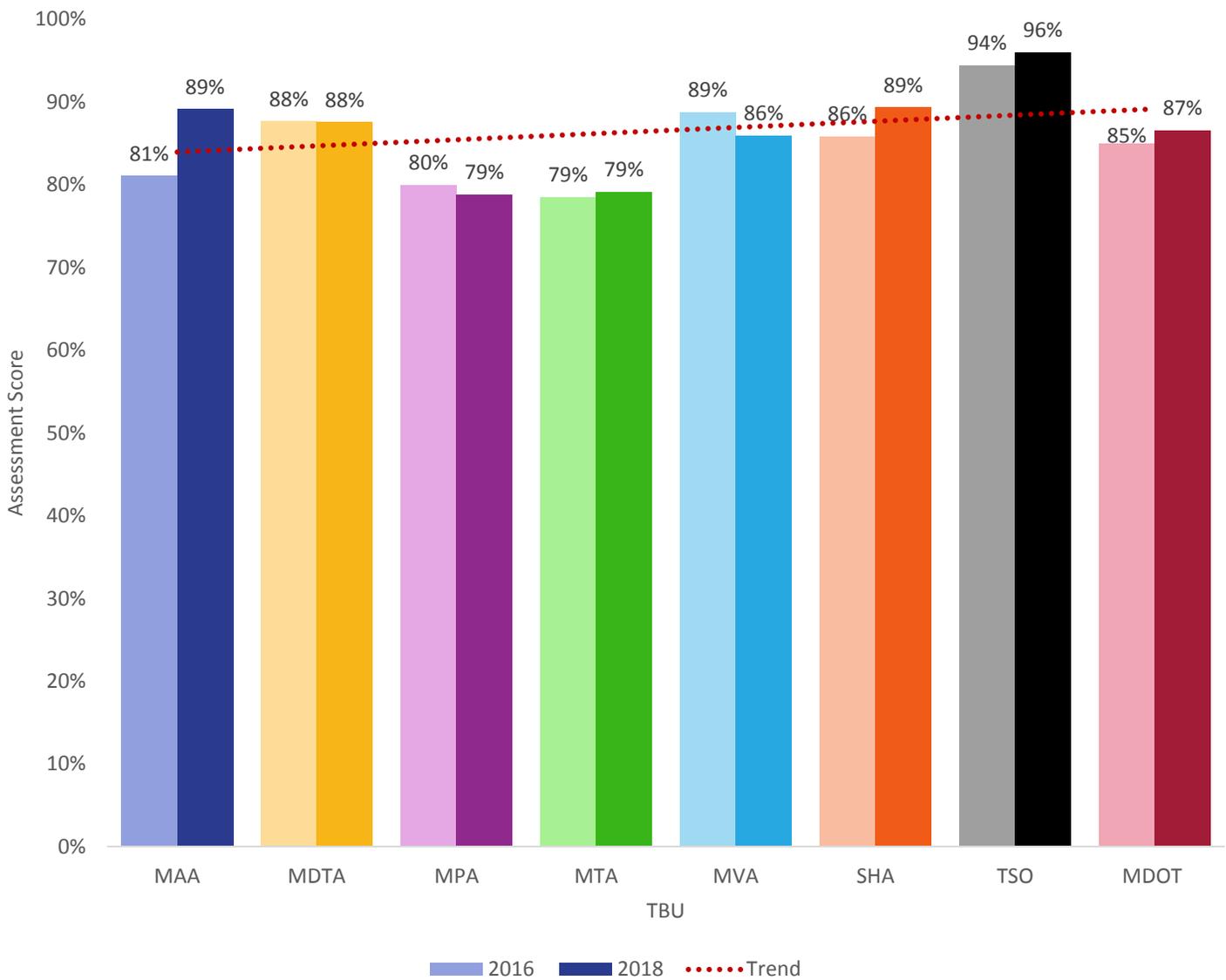
Facility Improvement Plans are currently being implemented to address the assessment and survey results. Areas of focus include overall facility appearance, perimeter fence/screening, noise reduction, and improved traffic operations. MDOT TBUs continue to expand our neighbor outreach by attending community meetings and hosting open house and snow show events throughout Maryland.

MDOT will continue to use the results of the neighbor surveys, internal facility assessments, and feedback from the community to ensure we continue to meet or exceed our neighbor's expectations.

## PERFORMANCE MEASURE 8.1

### Percent of MDOT Facilities that Meet or Exceed Our Neighbor's Expectations

Chart 8.1.1: Internal Facility Assessments by TBU, CY2016 and CY2018



**TANGIBLE RESULT DRIVER:**

Anthony Crawford  
*State Highway Administration (SHA)*

**PERFORMANCE MEASURE DRIVER:**

Mark Burkhardt  
*Maryland Transit Administration (MTA)*

Terri Whitehead  
*Maryland Vehicle Administration (MVA)*

**PURPOSE OF MEASURE:**

To assess the percent of our administrative buildings that meet or exceed ADA compliancy mandates to ensure equal access by all.

**FREQUENCY:**

Annually (in April)

**DATA COLLECTION METHODOLOGY:**

Data on the number of owned and occupied administrative buildings along with the number of administrative buildings that are ADA compliant are tallied and reported by each TBU on a yearly basis.

**NATIONAL BENCHMARK:**

N/A

## PERFORMANCE MEASURE 8.2

### Percent of MDOT Facilities that are ADA Compliant

Compiling and charting data for seven (7) TBUs on the percent of their administrative buildings that are owned and occupied daily that meet or exceed ADA mandates is essential to MDOT's customers and more importantly to MDOT's neighbors to ensure everyone can visit. Data collected will help to inform each TBU on how and where to focus their resources to meet ADA compliance and make our administrative buildings more accommodating to all our customers and neighbors.

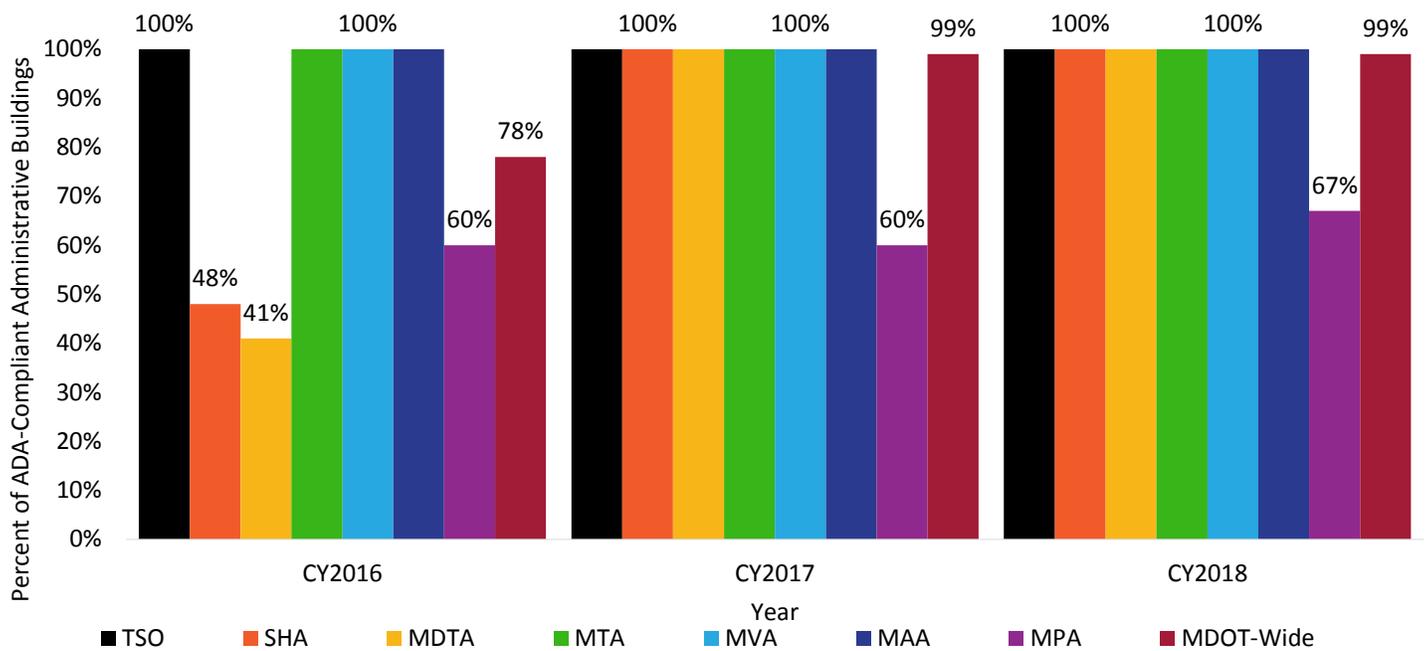
MDOT owned properties include several different elements that meet or exceed the ADA requirements. Our report is related to administrative buildings only that are owned and occupied daily.

- A. For the 2017 reporting each TBU provided self-reported data on the percent of owned and occupied administrative buildings that are ADA Compliant. Data was used to individually rate each TBU:
  - 1. TSO - 01 owned and occupied; 01 compliant = (100 percent)
  - 2. SHA - 33 owned and occupied; 33 compliant = (100 percent)
  - 3. MDTA - 12 owned and occupied; 12 compliant = (100 percent)
  - 4. MTA - 16 owned and occupied; 16 compliant = (100 percent)
  - 5. MVA - 33 owned and occupied; 33 compliant = (100 percent)
  - 6. MAA - 61 owned and occupied; 61 compliant = (100 percent)
  - 7. MPA - 06 owned and occupied; 04 compliant = (67 percent)
  - 8. MDOT WIDE – 161 owned and occupied; 159 compliant = (99 percent)
- B. The 2018 report verified the self-reported data collected to identify any change. MDOT MPA constructed a new inventory control building, thereby improving to 67 percent compliant.

## PERFORMANCE MEASURE 8.2

### Percent of MDOT Facilities that are ADA Compliant

Chart 8.2.1: Percent of Administrative Buildings that are ADA Compliant by TBU CY2016-CY2018



**TANGIBLE RESULT DRIVER:**

Anthony Crawford  
*State Highway Administration (SHA)*

**PERFORMANCE MEASURE DRIVER:**

David Seman  
*The Secretary's Office (TSO)*

**PURPOSE OF MEASURE:**

Tracking instances of traffic violations will enable MDOT to better assess its impact on communities and contribute to improved public safety.

**FREQUENCY:**

Quarterly

**DATA COLLECTION METHODOLOGY:**

Traffic violation data provide individual TBU fleet managers.

**NATIONAL BENCHMARK:**

N/A

## PERFORMANCE MEASURE 8.3

### Number of Traffic Violations While Driving a State Vehicle

Tracking vehicle citations by TBU will give MDOT the ability to strengthen driver education training and direct corrective action. This will show that MDOT employees care about public safety by reducing instances of violations. MDOT's mission is to ensure safe and dependable modes of transportation to the community and lead by example.

Fourth quarter data is trending in the right direction. Overall traffic violations declined 14 percent from quarter three with a significant decrease in speeding violations. MTA and SHA, TBUs with the largest vehicle fleets in MDOT, account for the majority of all traffic violations. MDOT also collects data on parking and other violations and will report findings after they have been verified for accuracy.

To improve MDOT's understanding of traffic violation patterns and trends, TBUs are working toward a more standardized collection and reporting method. More accurate reporting will help MDOT to limit risk, ensure safe performance of MDOT's fleet vehicles, and keep the public and MDOT employees safe during daily operations

TBU's are developing and implementing strategies to reduce the number of violations. Strategies include safety campaigns that focus on driver training and awareness to ensure State employees always obey traffic laws and regulations.

## PERFORMANCE MEASURE 8.3

### Number of Traffic Violations While Driving a State Vehicle

Chart 8.3.1: Speeding Violations by TBU Q3-Q4 CY2018

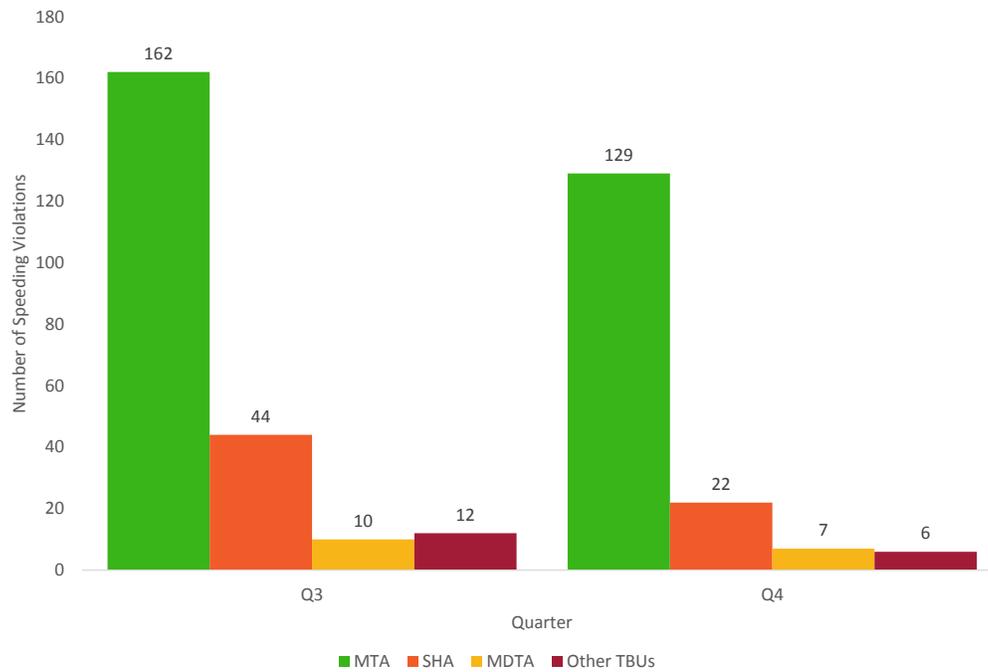
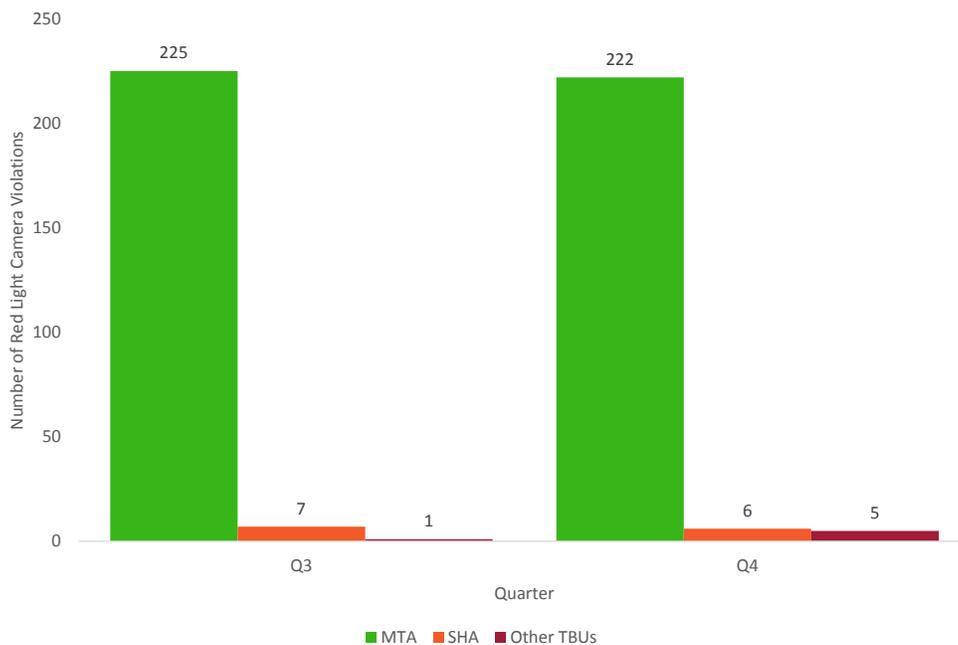


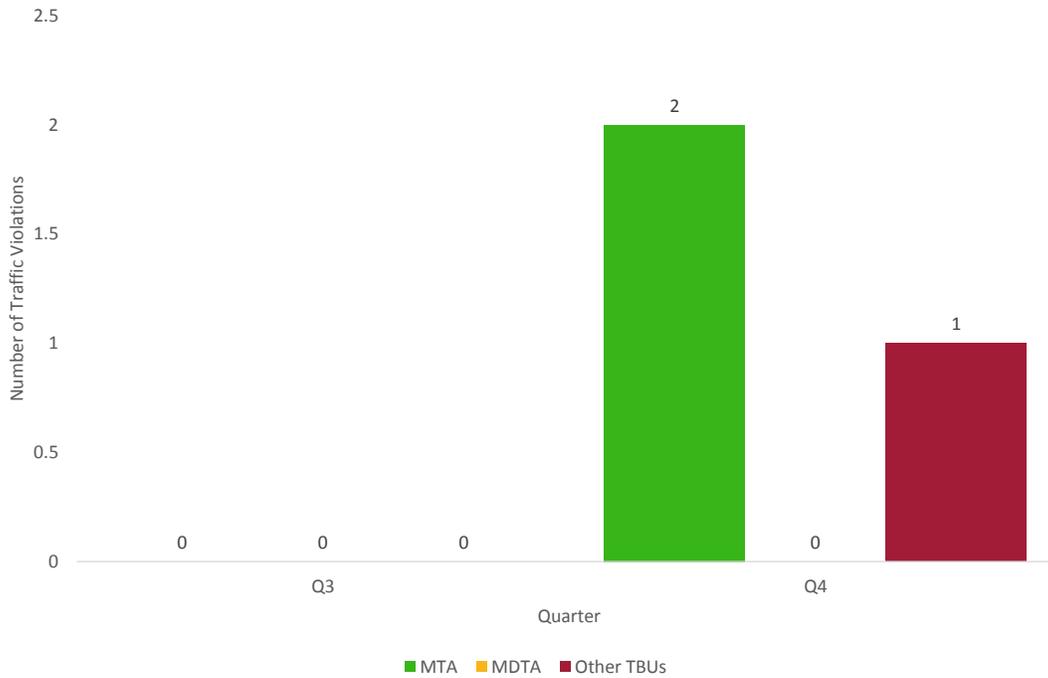
Chart 8.3.2: Red Light Camera Violations by TBU Q3-Q4 CY2018



**PERFORMANCE MEASURE 8.3**

Number of Traffic Violations While Driving a State Vehicle

**Chart 8.3.3: All Other Traffic Violations by TBU Q3-Q4 CY2018**



**TANGIBLE RESULT DRIVER:**

Anthony Crawford  
State Highway Administration (SHA)

**PERFORMANCE MEASURE DRIVER:**

Jill Lemke  
Maryland Port Administration (MPA)

**PURPOSE OF MEASURE:**

To track participation in the Maryland Charity Campaign by TBU.

**FREQUENCY:**

Annually (in February)

**DATA COLLECTION METHODOLOGY:**

Solicit annual participation data from the Maryland Secretary of State and MDOT Combined Charity TBU Coordinators.

**NATIONAL BENCHMARK:**

Participation in the Federal Combined Charity Campaign was 10.7 percent in 2016.

## PERFORMANCE MEASURE 8.4

### Charity Campaign Participation

*“Maryland Charity Campaign gives us an opportunity to make a lasting impact on our neighbors and our communities. Like our great state, the Maryland Charity Campaign offers rich variety and provides us many reasons to be Maryland Proud.” - Governor Larry Hogan, 2017 MCC Video Message*

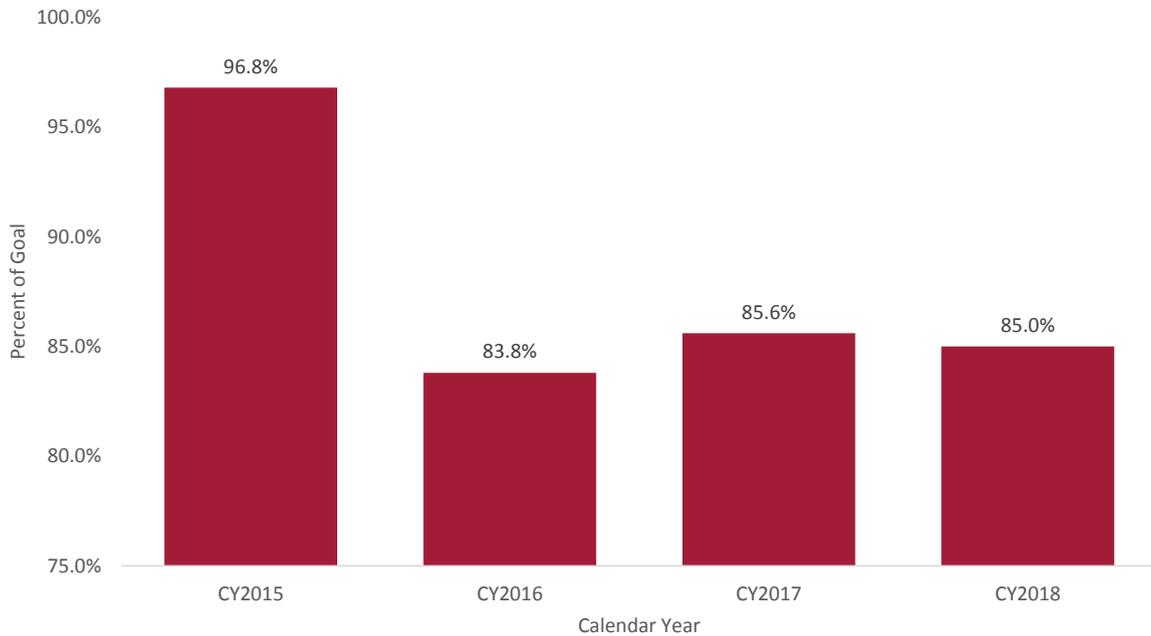
The Maryland Charity Campaign (MCC) is a workplace charitable giving program that offers State employees and retirees the opportunity to contribute to charities using the convenience of payroll deduction. The campaign is co-chaired by the Governor and Lt. Governor, and is managed by the Maryland Secretary of State.

The participating charities serve the citizens of Maryland, the United States, and people of other countries in a variety of ways. Donating through the MCC provides meals to the hungry, services to the disabled, funds to research disease, technology to clean the environment, and many other worthwhile causes. State employees are asked to donate each fall, and in 2018 MDOT employees donated over 244,000 dollars through the MCC.

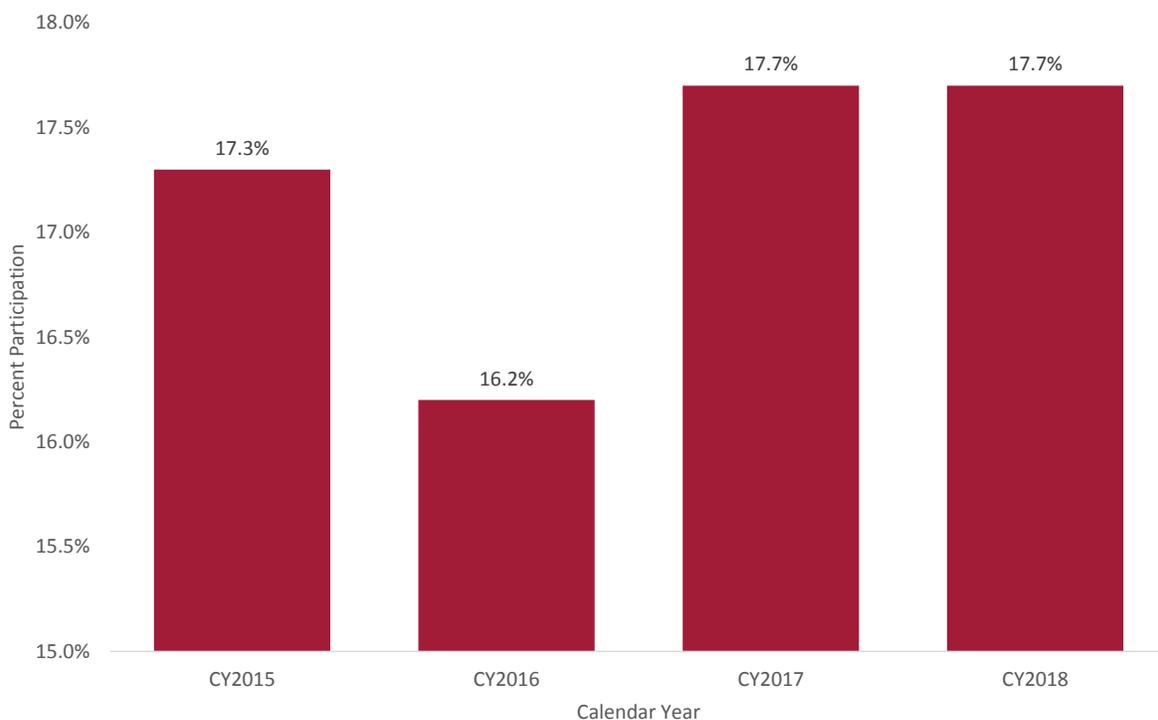
Each fall, pledge cards and the MCC Agency Guide and Directory are distributed to all State employees and retirees. This card enables donors to specify their charitable organization(s) and their desired monetary contribution as well as the method in which they choose to contribute (payroll deduction, cash, check, or charge).

**PERFORMANCE MEASURE 8.4**  
Charity Campaign Participation

**Chart 8.4.1: MDOT-Wide Percent of Charitable Goal Raised CY2015-CY2018**



**Chart 8.4.2: MDOT-Wide Employee Participation Rate in Charity Campaign CY2015-CY2018**



TANGIBLE RESULT #9

## Be a Good Steward of Our Environment



MDOT will be accountable to customers for the wise use of resources and impacts on the environment when designing, building, operating and maintaining a transportation system.

**RESULT DRIVER:**

Dorothy Morrison

*The Secretary's Office (TSO)*

**TANGIBLE RESULT DRIVER:**

Dorothy Morrison

*The Secretary's Office (TSO)*

**PERFORMANCE MEASURE DRIVER:**

Sandy Hertz

*The Secretary's Office (TSO)*

**PURPOSE OF MEASURE:**

To better communicate MDOT's contribution toward Chesapeake Bay Restoration efforts and improve reporting at the State level.

**FREQUENCY:**

Semi-Annually

**DATA COLLECTION METHODOLOGY:**

MDOT TBUs track Bay Restoration project expenditures to be incorporated into Appendix S of the Governor's Annual Budget Book.

**NATIONAL BENCHMARK:**

N/A

## PERFORMANCE MEASURE 9.1A

### Bay Restoration Program Spending

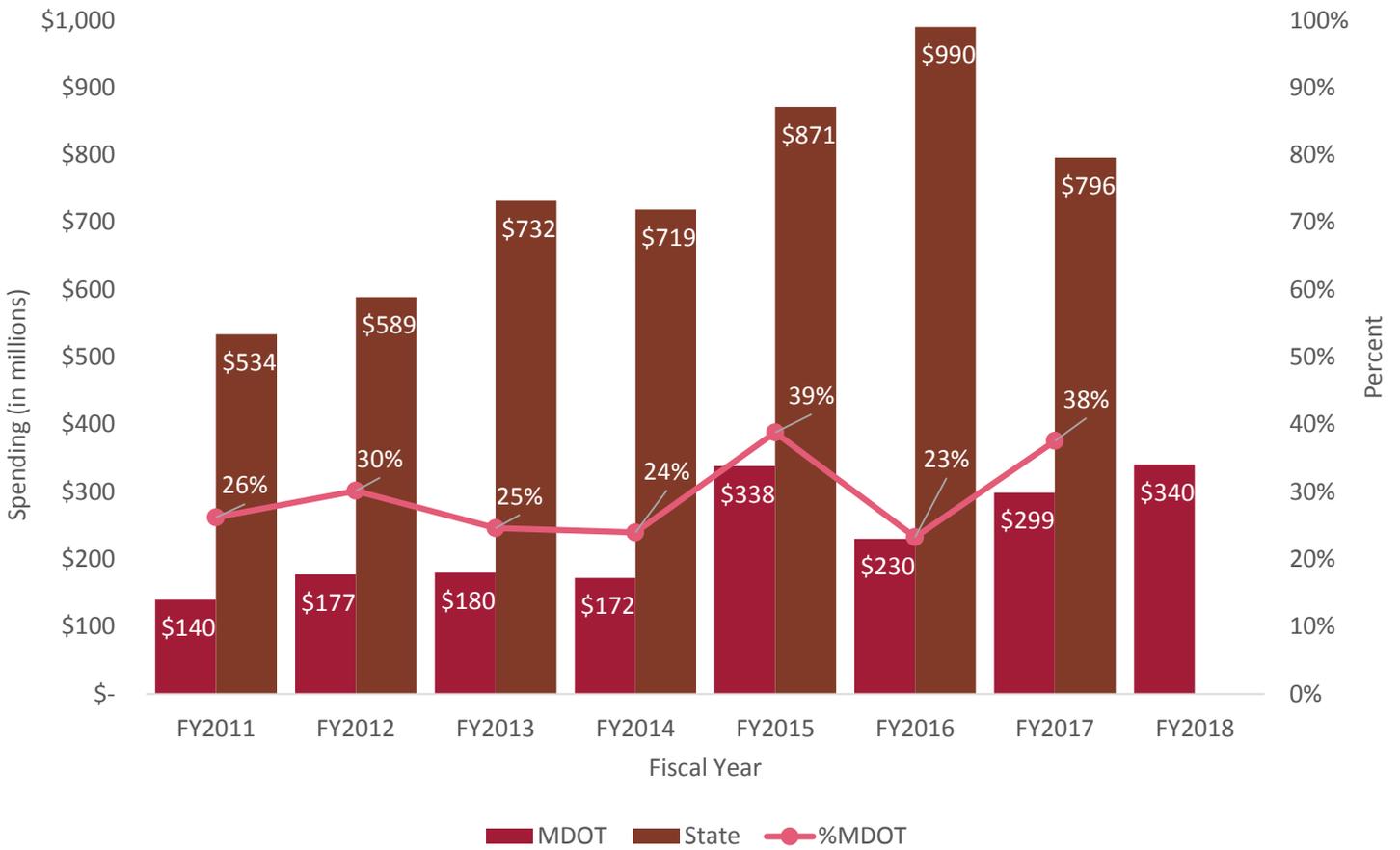
The Chesapeake Bay has been referred to as "Maryland's National Treasure." It provides countless environmental, social, and economic benefits for the citizens of our State. For decades, water quality in the Bay has been impaired by pollution. Maryland, along with Delaware, New York, Pennsylvania, Virginia, West Virginia, and the District of Columbia, is working to address pollution sources entering the Bay.

Along with the impervious surface restoration efforts that are required by the National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) permit, MDOT contributes annually to statewide Chesapeake Bay restoration activities. Since 2011, total spending has been tracked statewide based on 10 restoration categories: land preservation, septic systems, wastewater treatment, urban stormwater, agricultural best management practices (BMPs), oyster restoration, transit and sustainable transportation alternatives, living resources, education and research, and other. This information is shared annually within the Governor's Fiscal Year Budget Highlights document. Historically, MDOT contributions have been incorrectly categorized as transit and sustainable transportation alternatives, which diminished our involvement in urban stormwater, living resources, and other restoration categories. This measure will help quantify our relative contribution to Bay restoration and will improve reporting at a State level.

## PERFORMANCE MEASURE 9.1A

### Bay Restoration Program Spending

Chart 9.1A.1: Bay Restoration Program Spending FY2011-FY2018



# Be a Good Steward of Our Environment

## TANGIBLE RESULT DRIVER:

Dorothy Morrison  
*The Secretary's Office (TSO)*

## PERFORMANCE MEASURE DRIVER:

Sonal Ram  
*State Highway Administration (SHA)*

## PURPOSE OF MEASURE:

To evaluate the health of the Chesapeake Bay by measuring how well MDOT is achieving compliance with impervious surface restoration as required by the NPDES MS4 permit.

## FREQUENCY:

Annually (in October)

## DATA COLLECTION METHODOLOGY:

MDOT is tracking all Bay restoration projects and impervious surface treatment associated with those projects to determine overall progress toward the 20 percent goal during their five-year permit term.

## NATIONAL BENCHMARK:

N/A

## PERFORMANCE MEASURE 9.1B

### Water Quality Treatment to Protect and Restore the Chesapeake Bay

The fastest growing source of pollution in the Chesapeake Bay is stormwater runoff. Urbanization intensifies runoff by increasing paved surfaces and decreasing areas where rainfall can seep into the ground. Stormwater runoff increases delivery of pollutants including trash, organic debris, and sediment from impervious areas to urban streams.

Restoration efforts for 20 percent of MDOT's existing impervious surfaces will increase infiltration and reduce stormwater runoff. MDOT uses restoration practices such as installing new and upgrading existing stormwater management facilities, stream restoration, tree planting, and operations like street sweeping and inlet cleaning. This will improve conditions in urban streams, and reduce pollution in the Chesapeake Bay.

Chart 9.1B.1 compares the total sediment reduction accomplished by each TBU. Chart 9.1B.2 compares the total nitrogen and total phosphorus reduction accomplished by each TBU.

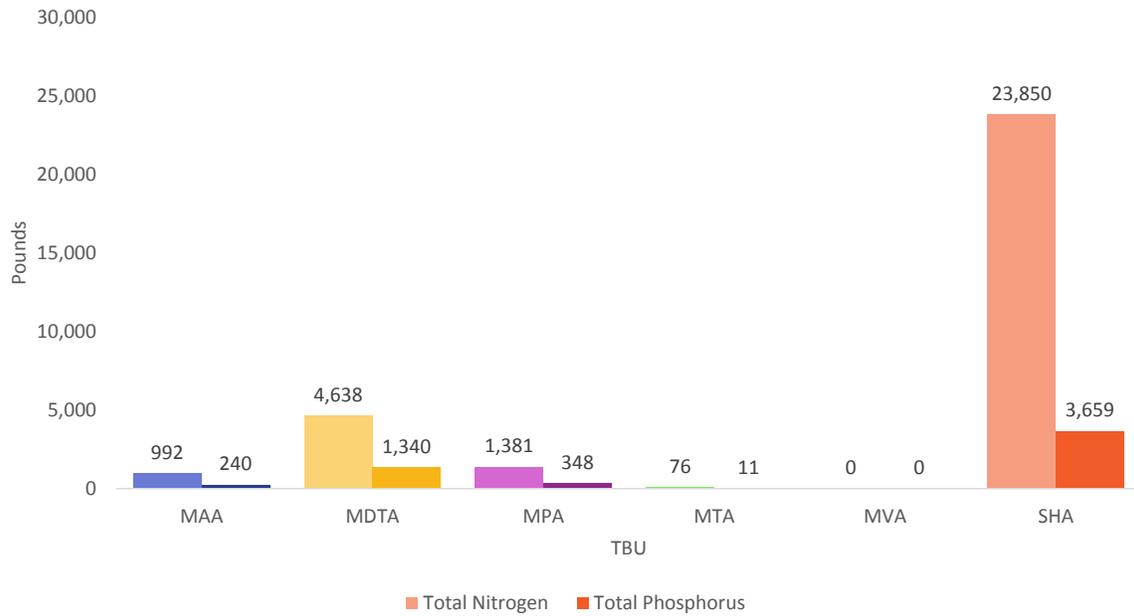
Approaching the 20 percent restoration requirements with a holistic One-MDOT strategy. This includes:

- Increased collaboration and data sharing between TBUs;
- Intelligent analysis of cost and restoration strategy to determine the most economical opportunities for impervious restoration across all MDOT; and
- Close coordination and collaboration to ensure all TBUs are adequately tracking and implementing Bay restoration projects and impervious surface treatment.

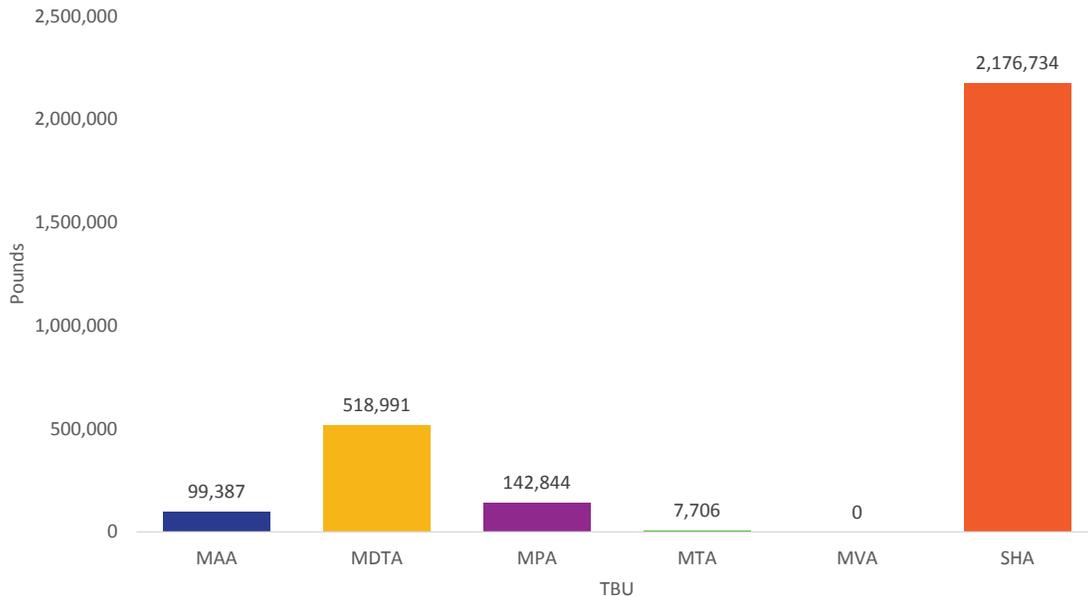
## PERFORMANCE MEASURE 9.1B

### Water Quality Treatment to Protect and Restore the Chesapeake Bay

**Chart 9.1B.1: Total Nitrogen and Phosphorus Reduction Q4 CY2017-Q3 CY2018**



**Chart 9.1B.2: Total Suspended Solids Reduction Q4 CY2017-Q3 CY2018**



# Be a Good Steward of Our Environment

## TANGIBLE RESULT DRIVER:

Dorothy Morrison  
*The Secretary's Office (TSO)*

## PERFORMANCE MEASURE DRIVER:

Mark Williams  
*Maryland Aviation Administration (MAA)*

## PURPOSE OF MEASURE:

To measure and track the amount of stormwater pollution reduction achieved from street sweeping and inlet cleaning operational activities

## FREQUENCY:

Semi-Annually (January and July)

## DATA COLLECTION METHODOLOGY:

Data is collected and reported manually by the TBUs

## NATIONAL BENCHMARK:

N/A

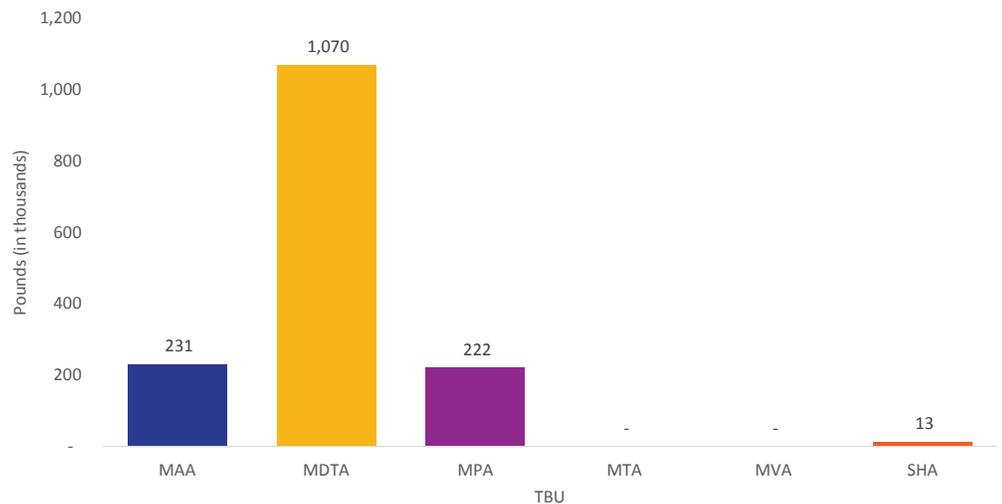
## PERFORMANCE MEASURE 9.1C

### Stormwater Cleanup – Street Sweeping and Inlet Cleaning

Street sweeping and inlet cleaning are operational activities performed by MAA, MPA, SHA, and MDTA. Street sweeping and inlet cleaning remove trash and other debris from roadways, ramp areas, and runways, providing for safe operation of our transportation system. In addition, these activities remove pollutants such as suspended solids (i.e., sediment), nitrogen, and phosphorous from impervious surfaces before they can enter Maryland's rivers, streams, and the Chesapeake Bay.

Street sweeping and inlet cleaning are valuable because they are considered an alternative stormwater treatment by the Maryland Department of Environment (MDE), which allows "Impervious Surface Area Treatment" credits for these ongoing activities. These credits help MDOT meet its 20 percent restoration compliance requirement mandated by the MS4 permits.

**Chart 9.1C.1: Total Dry Weight of Street Sweeping Material Collected CY2017**



## PERFORMANCE MEASURE 9.1C

### Stormwater Cleanup – Street Sweeping and Inlet Cleaning

Chart 9.1C.2: Total Nitrogen & Phosphorus Reduction CY2017

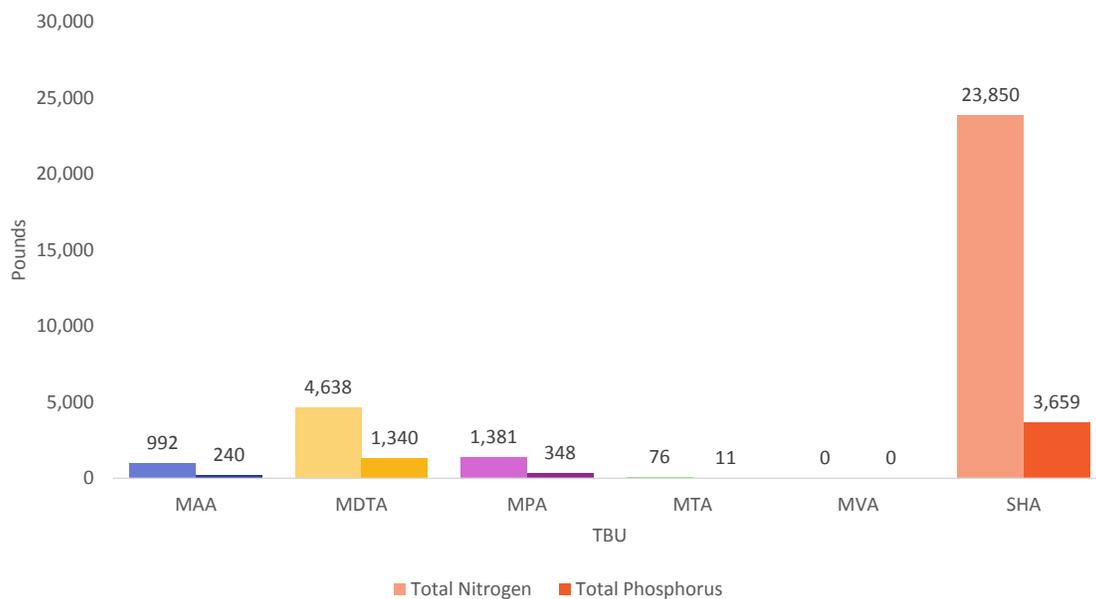
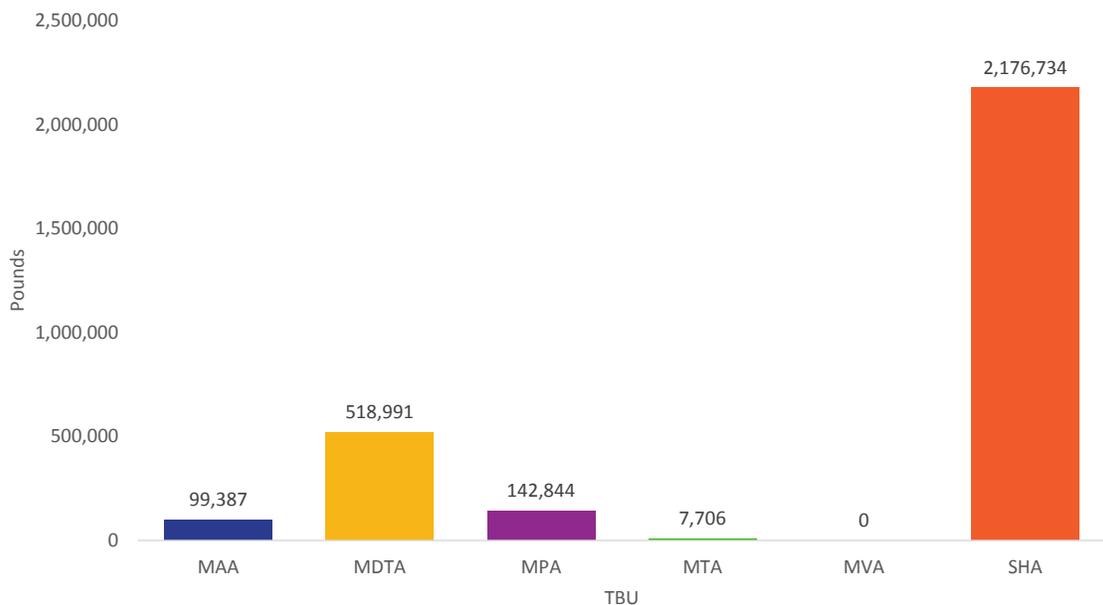


Chart 9.1C.3: Total Suspended Solids Reduction CY2017



**TANGIBLE RESULT DRIVER:**

Dorothy Morrison  
*The Secretary's Office (TSO)*

**PERFORMANCE MEASURE DRIVER:**

Hargurpreet Singh, P.E.  
*Motor Vehicle Administration (MVA)*

**PURPOSE OF MEASURE:**

To track the percentage of office waste diverted from the landfill or incineration through recycling.

**FREQUENCY:**

Annually (in April)

**DATA COLLECTION METHODOLOGY:**

Maryland Department of the Environment All State Agency Recycling (All StAR) reporting.

**NATIONAL BENCHMARK:**

N/A

## PERFORMANCE MEASURE 9.2A Office Waste Recycled

### Why this Performance Measure Matters?

Recycling helps protect the environment and reduces the amount of waste sent to landfills. It conserves resources, saves energy, reduces greenhouse gas emissions, and our carbon footprint.

And, it is the right thing to do!

### Office Waste Includes:

- Commingled containers (glass, metal, and plastic);
- Glass (fluorescent light tubes, mixed glass containers);
- Metals (mixed cans, and tin/steel cans);
- Paper (corrugated cardboard, mixed paper, shredded paper and newspaper);
- Plastic (mixed plastic bottles, other plastics);
- Electronics; and
- Printer cartridges.

### What is the Status of this Performance Measure?

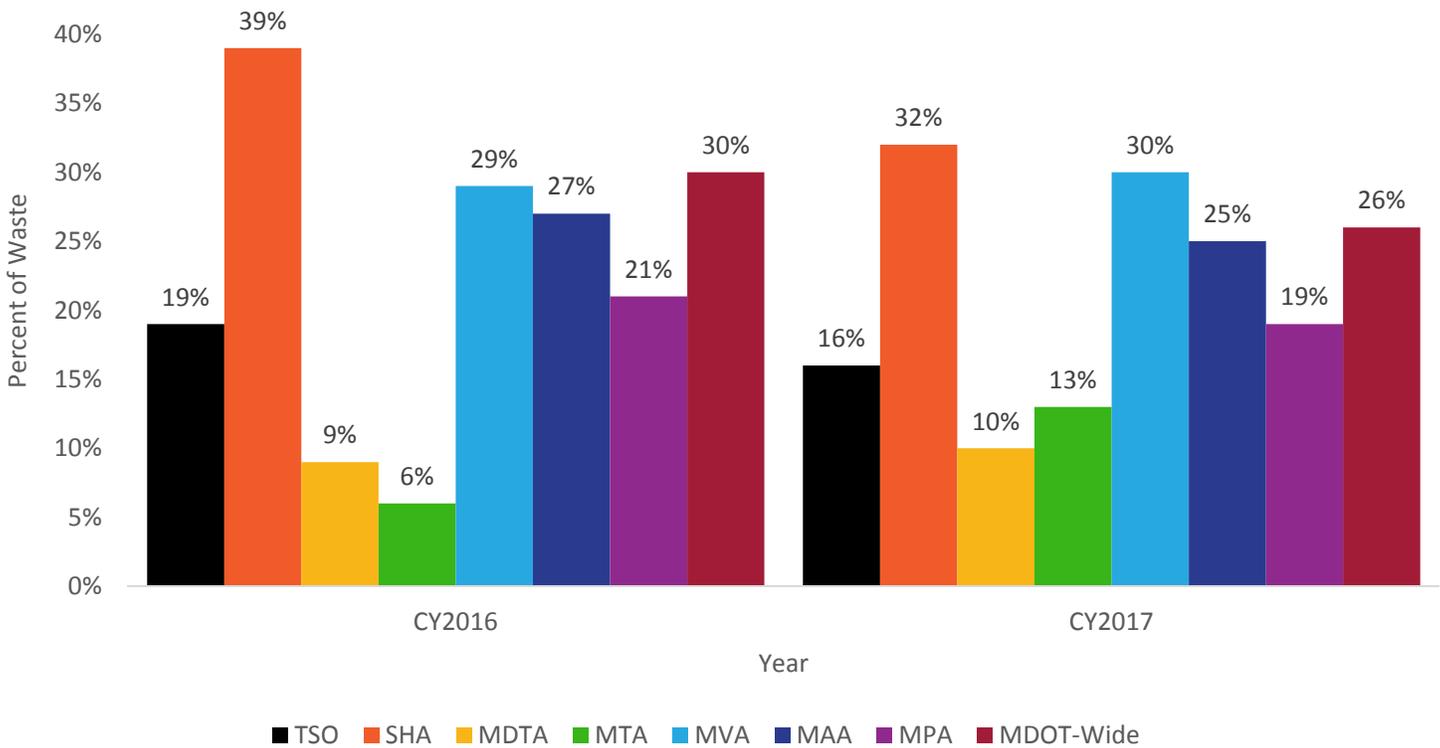
CY	RECYCLED OFFICE WASTE
2016	30%
2017	26%

### What is Being Done to Affect Change?

- Continuing awareness training;
- Continuing to evaluate dumpster size and frequency of trash collection services; and
- Single stream recycling.

## PERFORMANCE MEASURE 9.2A Office Waste Recycled

Chart 9.2A.1: Percent of Office Waste Recycled by TBU CY2016-CY2017



**TANGIBLE RESULT DRIVER:**

Dorothy Morrison  
*The Secretary's Office (TSO)*

**PERFORMANCE MEASURE DRIVER:**

Hargurpreet Singh, P.E.  
*Motor Vehicle Administration (MVA)*

**PURPOSE OF MEASURE:**

To track the percentage of non-office waste diverted from the landfill or incineration through recycling.

**FREQUENCY:**

Annually (in April)

**DATA COLLECTION METHODOLOGY:**

Maryland Department of the Environment All State Agency Recycling (All StAR) reporting.

**NATIONAL BENCHMARK:**

N/A

## PERFORMANCE MEASURE 9.2B

### Non-Office Waste Recycled

#### Why this Performance Measure Matters?

Recycling helps protect the environment. It reduces the amount of waste sent to landfills, conserve resources, saves energy, reduces greenhouse gas emissions, and our carbon footprint.

And, it is the right thing to do!

#### Non-Office Waste Includes:

- Lead-acid batteries (vehicle);
- Compostables (grass, leaves, brush, branches, mixed yard trimmings, food waste, and other);
- Metals (white goods - refrigerators, stoves, washing machines, dryers, water heaters, and air conditioners);
- Animal protein/solid fat;
- Tires;
- Antifreeze;
- Industrial fluids;
- Motor oil;
- Scrap automobiles; and
- Scrap metals.

#### What is the Status of this Performance Measure?

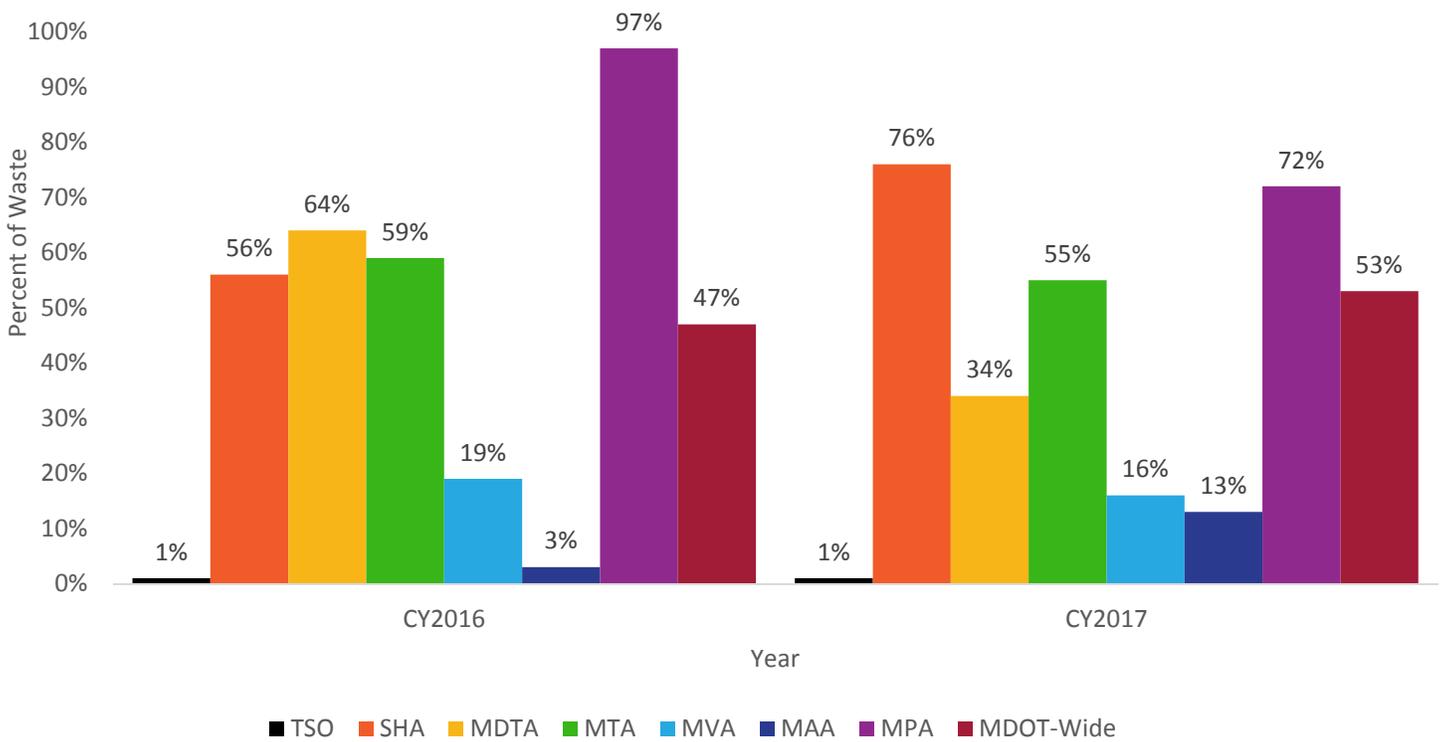
CY	RECYCLED NON-OFFICE WASTE
2016	47%
2017	53%

#### What is Being Done to Affect Change?

- Continuing awareness training;
- Continuing to evaluate dumpster size and frequency of trash collection services; and
- Single stream recycling.

## PERFORMANCE MEASURE 9.2B Non-Office Waste Recycled

Chart 9.2B.1: Percent of Non-Office Waste Recycled by TBU CY2016-CY2017



# Be a Good Steward of Our Environment

## TANGIBLE RESULT DRIVER:

Dorothy Morrison  
*The Secretary's Office (TSO)*

## PERFORMANCE MEASURE DRIVER:

Chandra Chithaluru  
*Maryland Port Administration (MPA)*

## PURPOSE OF MEASURE:

To reduce TBU impact on solid waste landfill through recycling/ reuse of metal, asphalt and concrete.

## FREQUENCY:

Annually (in April)

## DATA COLLECTION METHODOLOGY:

The data collection methodology will include disposal weights (via bill of lading) by TBUs' Facility Maintenance and Engineering Departments. The data are reported on the annual Non-Maryland Recycling Act Report.

## NATIONAL BENCHMARK:

N/A

## PERFORMANCE MEASURE 9.2C

### Recycled/Reused Materials from Maintenance Activities and Construction/ Demolition Projects

MDOT is committed to reducing its impact on solid waste, non-hazardous landfills, potentially resulting in reduction of the number of waste disposal facilities in Maryland as stated in the Maryland Department of the Environment's "Zero Waste" Action Plan. The TBUs established plans to recycle and/or reuse their solid waste: metal, asphalt and concrete. These materials are to be collected, weighed and recycled/reused. Benefits include saving energy and natural resources, preserving the capacity of landfills, reducing waste disposal costs, generating revenue for materials and reducing pollutants generated by the landfill process.

Due to the number and type construction/demolition activities and projects, we recognize that there may be variability among reporting periods and TBUs, but positive change can still occur by implementing some or all the following:

- Establish central data collection mechanisms and procedures in each TBU;
- Require contractors to segregate, collect, weigh and recycle these materials and provide information to each TBU; and
- Ensure commitment to this goal and its positive impact on the environment by making employees and contractors aware of this performance measure.

## PERFORMANCE MEASURE 9.2C

### Recycled/Reused Materials from Maintenance Activities and Construction/Demolition Projects

Chart 9.2C.1: Recycled/Reused Materials from Maintenance Activities & Construction/Demolition Projects CY2015-CY2017

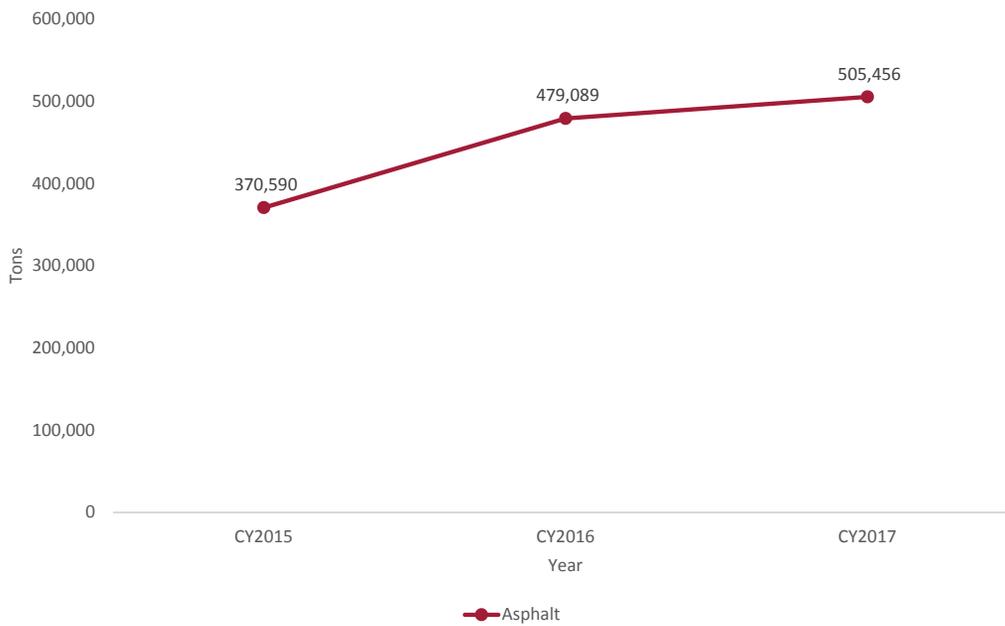
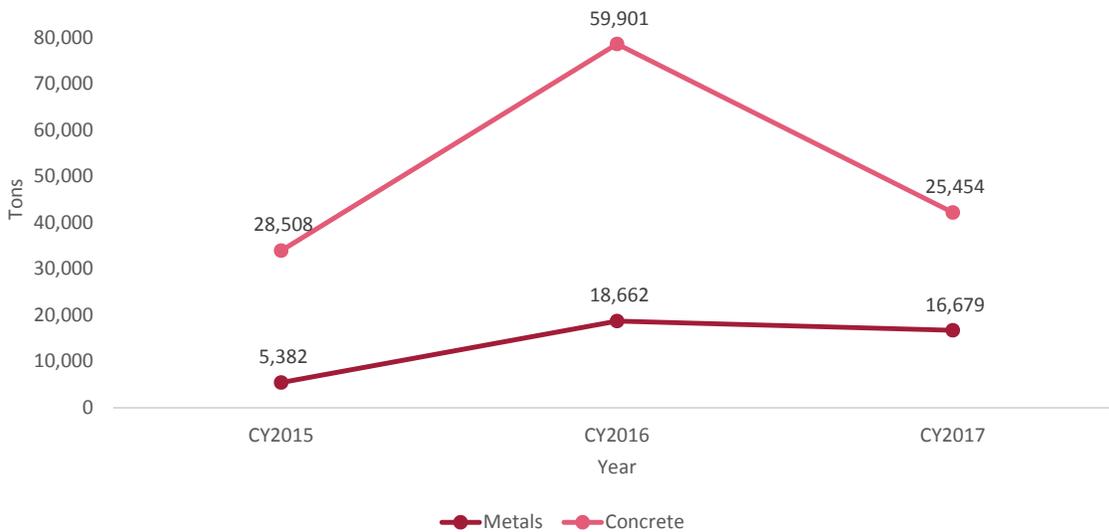


Chart 9.2C.2: Recycled/Reused Materials from Maintenance Activities & Construction/Demolition Projects CY2015-CY2017



# Be a Good Steward of Our Environment

## TANGIBLE RESULT DRIVER:

Dorothy Morrison

*The Secretary's Office (TSO)*

## PERFORMANCE MEASURE DRIVER:

Robert Frazier

*Maryland Transit Administration  
(MTA)*

## PURPOSE OF MEASURE:

To determine the positive impact MDOT has on the statewide litter problem and the cost associated with the collection efforts.

## FREQUENCY:

Semi-Annually (April and October)

## DATA COLLECTION METHODOLOGY:

Data collection methodology will be limited to polling of the TBUs that gather data from various sources.

## NATIONAL BENCHMARK:

N/A

## PERFORMANCE MEASURE 9.2D

### Litter Pickup

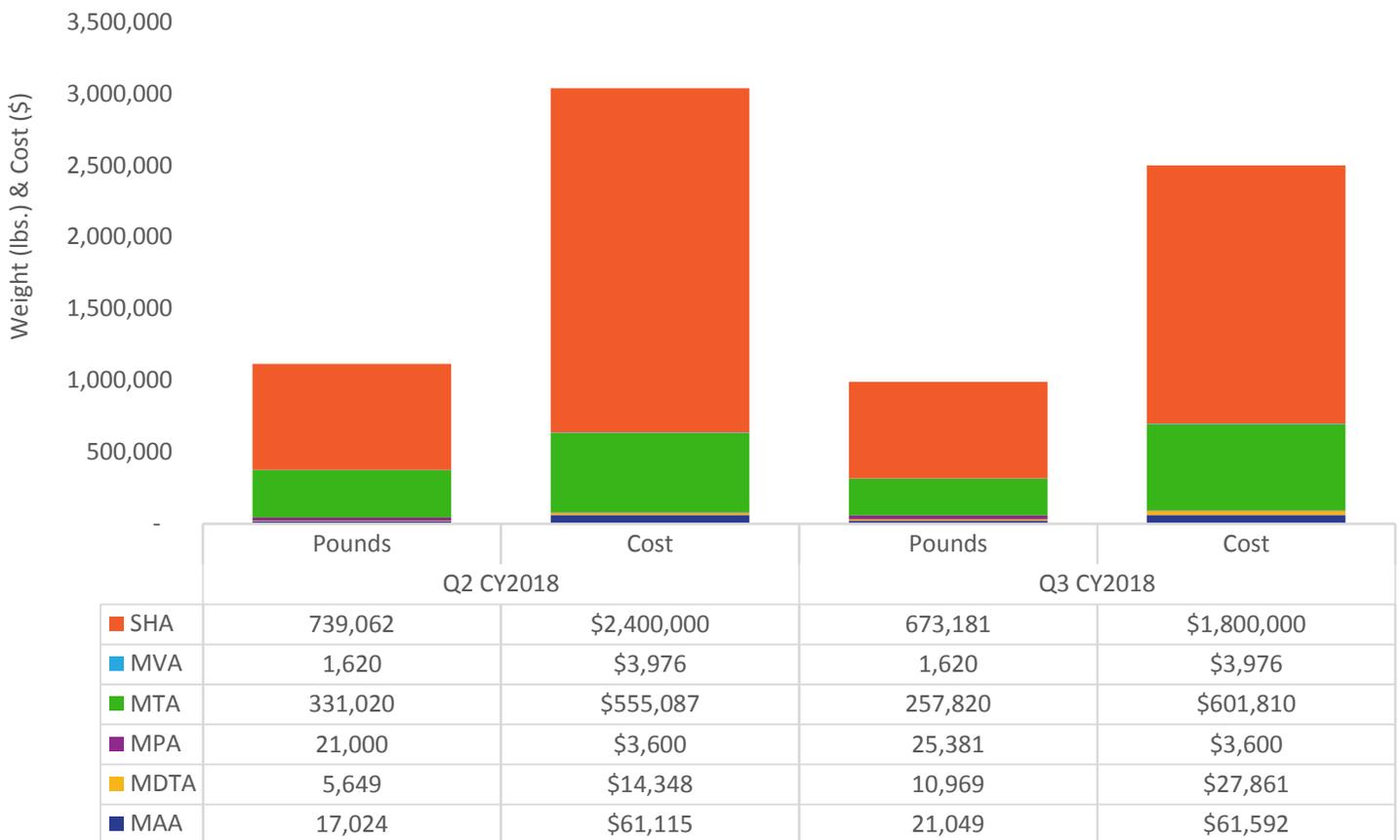
Litter has been a persistent problem world-wide. MDOT is focusing on litter across its transportation system. Litter has multiple effects not only on the cleanliness of transportation routes and transportation equipment, but public perception of the system and the environment as well.

Litter, an environmental pollutant, has a visible macro effect clogging stormwater conveyances and streams, and wildlife ingests undigestible litter. Unseen micro effects are caused by leached chemicals from litter into the environment. The most recent litter-caused environmental issue is the creation of nano-plastic which is ingested at the smallest level of the food chain and accumulates up through the chain.

Each MDOT TBU has differing litter issues and methods to manage litter. While all the TBUs have facilities that accumulate litter from internal sources, such as open dumpsters or overfull trash receptacles, wind blown litter contributes to the accumulation. SHA addresses roadside litter with internal forces, correctional personnel, and Adopt a Highway efforts. MPA manages a "trash wheel" helping to clean up the Baltimore inner harbor waterway. MAA must keep litter from the runways so that aircraft are not damaged. MDTA and MTA remove litter from tunnels.

## PERFORMANCE MEASURE 9.2D Litter Pickup

Chart 9.2D.1: Litter Pickup Weight and Cost Q2-Q3 CY2018



# Be a Good Steward of Our Environment

## TANGIBLE RESULT DRIVER:

Dorothy Morrison  
*The Secretary's Office (TSO)*

## PERFORMANCE MEASURE DRIVER:

Paul Truntich, Jr.  
*Maryland Transportation Authority (MDTA)*

## PURPOSE OF MEASURE:

To track overall fuel economy of fleet vehicles and ensure better air quality through the use of State vehicles. It is important to track MPG in a meaningful manner to ensure that State vehicles are fuel efficient and not detrimental to our State air quality. Fuel economy data will be used to evaluate driving patterns as well as when the procurement of new fleet vehicles is considered.

## FREQUENCY:

Annually (in April)

## DATA COLLECTION METHODOLOGY:

Fleet MPG data will be obtained from the State of Maryland's fuel service vendor.

## NATIONAL BENCHMARK:

N/A

## PERFORMANCE MEASURE 9.3A

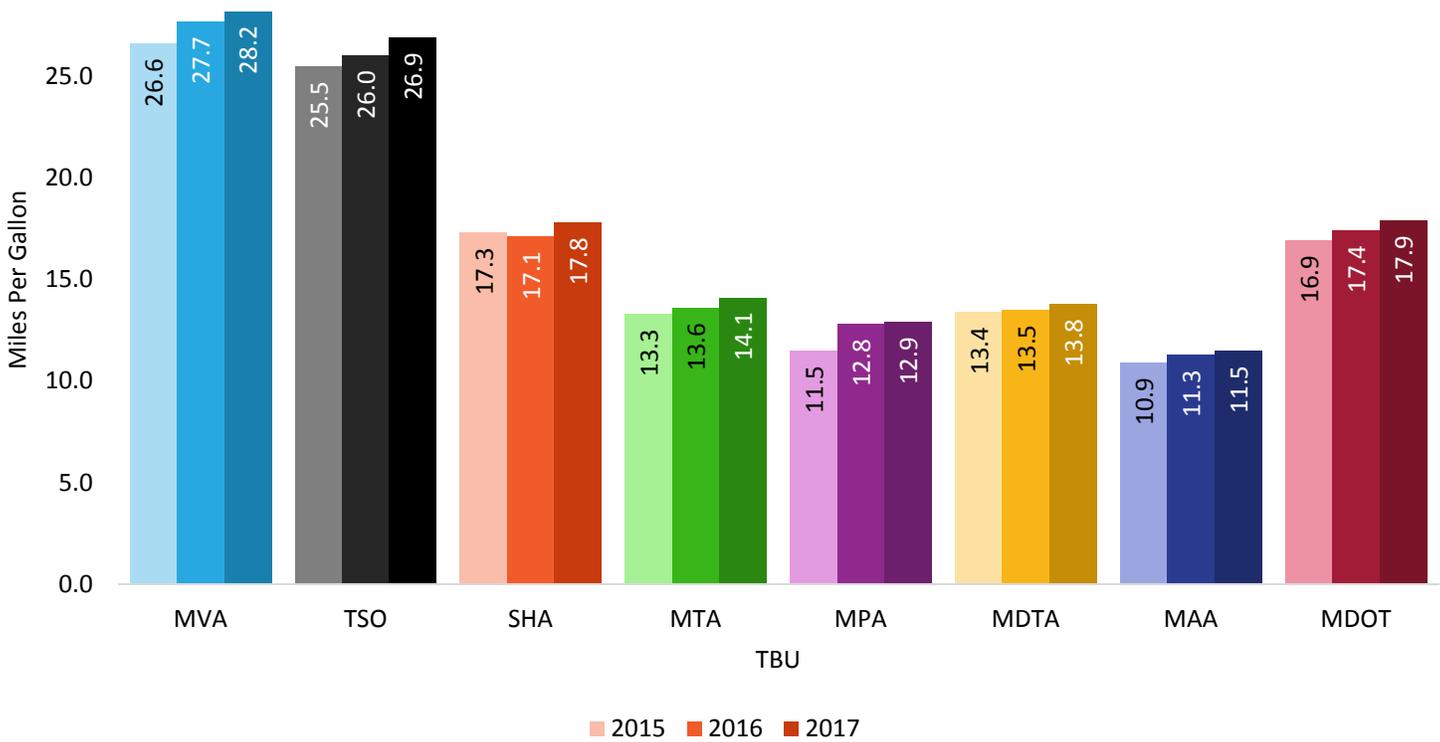
### Fuel Efficiency: Miles Per Gallon

Reduced fuel costs and conservation of petroleum-based resources are the direct results of a more fuel-efficient fleet (as determined through increases in vehicle miles per gallon [MPG] calculations). Efforts with Mansfield Oil Company (statewide fueling vendor) have resulted in developing a means of tracking MPG data for our light-duty fleet throughout all TBUs. MPG data for CY2015 thru CY2017 has been calculated and presented on Chart 9.3A.1. In the three years of data presented, MDOT's fuel efficiency has increased by 1.0 MPG from 2015 (16.9 MPG) to 2017 (17.9 MPG). Vehicle replacement practices represent the largest factor affecting change to this measure. At pre-determined age or mileage thresholds, our fleet vehicles are replaced. Since the presumption is that newer models are more fuel efficient than their predecessors, MPG calculations for each TBU and the Agency as a whole should increase from year-to-year through fleet replacement. However, in addition to fleet replacement, strategies such as encouraging carpooling to meetings and other functions and modifying State vehicle purchasing contract requirements are being evaluated as additional means of improving fleet MPG.

## PERFORMANCE MEASURE 9.3A

### Fuel Efficiency: Miles Per Gallon

Chart 9.3A.1: MDOT TBU Light-Duty Vehicle Average MPG CY2015-CY2017



# Be a Good Steward of Our Environment

## TANGIBLE RESULT DRIVER:

Dorothy Morrison  
*The Secretary's Office (TSO)*

## PERFORMANCE MEASURE DRIVER:

Paul Truntich, Jr.  
*Maryland Transportation Authority (MDTA)*

## PURPOSE OF MEASURE:

To track overall fuel consumption of fleet vehicles as well as fixed-equipment in an effort to use less of our resources with State vehicles and equipment. Consumption patterns will be evaluated for improving fuel efficiency and shifting towards use of renewable fuels.

## FREQUENCY:

Annually (in October)

## DATA COLLECTION METHODOLOGY:

Fleet vehicle data will be obtained from the State of Maryland's fuel service vendor. Fixed-equipment data will be supplied from fleet and facility managers at the TBUs.

## NATIONAL BENCHMARK:

N/A

## PERFORMANCE MEASURE 9.3B

### Fuel Efficiency: Total Gallons Consumed

Analyzing fuel consumption patterns enables fleet and facility managers to budget more effectively and use resources more efficiently. This data also will be beneficial as fleet acquisition purchases are considered and facility heating upgrades are considered. Additionally, identifying opportunities for reducing fuel consumption not only benefits the environment via resource conservation and reduced emissions, but also results in true cost-savings through reduced fuel costs.

Ultra-low sulfur diesel continues to be the most consumed fuel and demonstrates a steady increase for fiscal years FY2014 – FY2018 with MTA utilizing the vast majority. During the reporting period, miles driven by MTA buses increased by over 3.5 million miles (increased miles driven = increased consumption).

Heating oil consumption has steadily decreased from FY2014 to FY2018. The decrease can be attributed to several factors: replacement of oil-burning equipment with natural gas; modifications to policies when facility managers change over from cooling to heating season as well as seasonal temperature variations.

Furthermore, the inverse relationship between biodiesel and gasoline continued its trend in FY2018 as fleet managers continued to transition from diesel to gasoline powered vehicles.

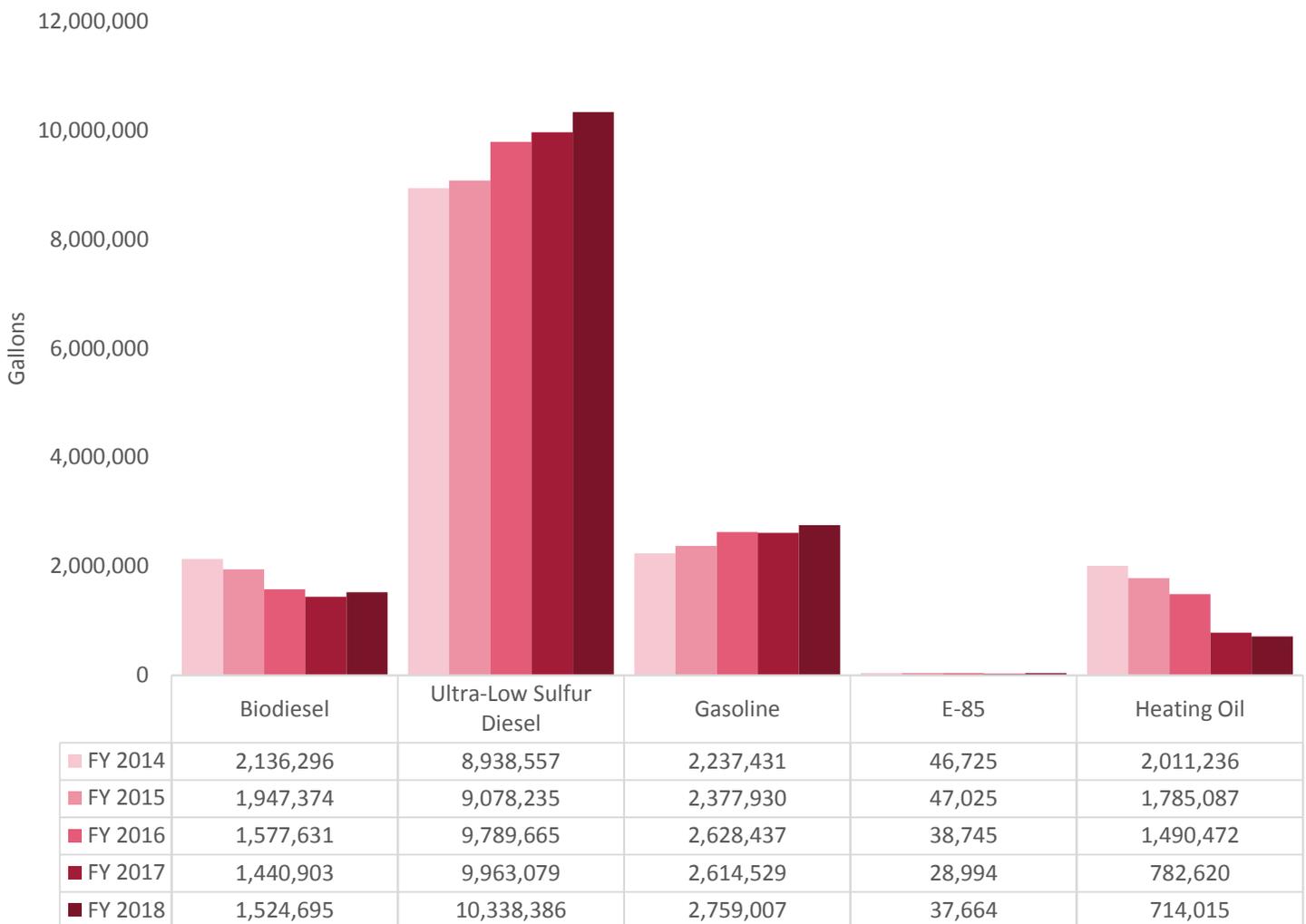
The consumption of E-85 continued its flat trend in FY2018. As this is a renewable energy source, the desired outcome would be to achieve an overall increase in consumption. As an agency, MDOT needs to evaluate its overall commitment towards E-85 and possibly institute an overarching policy regarding its use throughout the TBUs.

NOTE: A significant correction to the data presented in this measure occurred in October 2018 to address under reporting and double reporting of some fuel types previously provided by MTA.

## PERFORMANCE MEASURE 9.3B

### Fuel Efficiency: Total Gallons Consumed

Chart 9.3B.1: Total Gallons of Fuel Consumed FY2014-FY2018



**TANGIBLE RESULT DRIVER:**

Dorothy Morrison  
*The Secretary's Office (TSO)*

**PERFORMANCE MEASURE DRIVER:**

Laura Rogers  
*The Secretary's Office (TSO)*

**PURPOSE OF MEASURE:**

To reduce our consumption of utility generated electricity through efficiency measures and renewable energy sources.

**FREQUENCY:**

Quarterly

**DATA COLLECTION METHODOLOGY:**

Data for electricity usage is collected using EnergyCAP, the State of Maryland's comprehensive utility management database.

**NATIONAL BENCHMARK:**

American Council for an Energy Efficient Economy ranked Maryland number 10 in the 2017 State Energy Efficiency Scorecard. Massachusetts was rated number 1.

## PERFORMANCE MEASURE 9.3C

### Utility Electricity Use

Reducing our consumption of utility electricity through energy efficiency measures and use of renewable energy can save Maryland taxpayers money and reduce harmful air emissions while also helping Maryland meet its clean energy and greenhouse gas reduction goals.

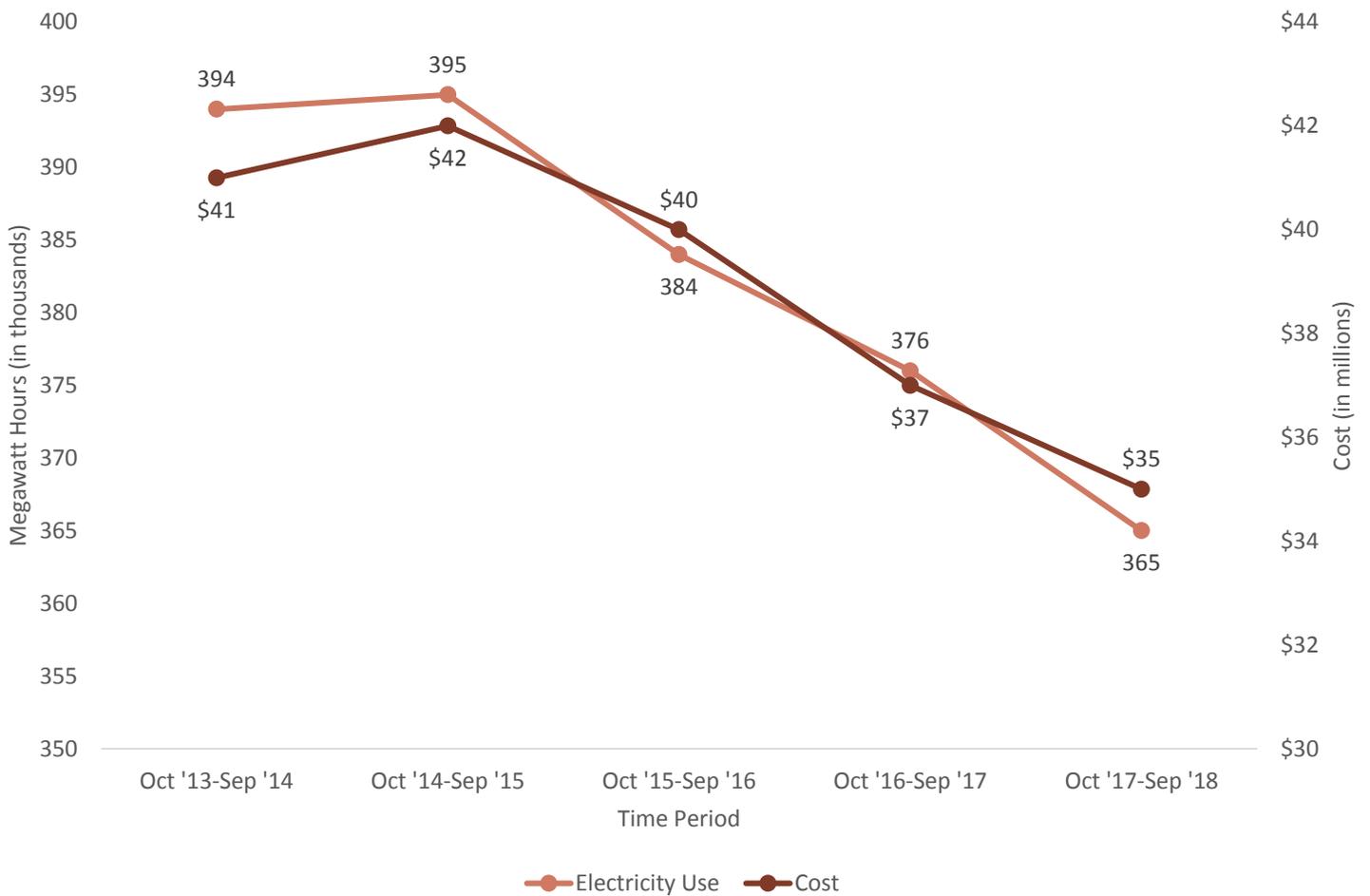
The desired trend for utility electricity use and cost is to decrease. Electricity use and cost during the October 2017 – September 2018 rolling 12-month period decreased by 11,000 megawatt hours and \$2 million, as compared to the previous rolling 12-month period (October 2016 – September 2017).

MDOT is undertaking many strategies to increase energy efficiency. Each TBU has completed a comprehensive Energy Plan that details its energy consuming entities, existing and future energy conservation strategies, and future energy conservation goals. Many of the energy conservation measures MDOT implements also realize secondary benefits, such as improved lighting quality, lower operation and maintenance expenses, increased life span of equipment, improved indoor air quality, and enhanced tenant comfort.

In 2017, MDOT established an Energy Managers Workgroup with representatives from all TBUs that meets bimonthly to discuss current trends and challenges, share best practices, and determine ways to efficiently leverage MDOT resources.

## PERFORMANCE MEASURE 9.3C Utility Electricity Use

Chart 9.3C.1: Total MDOT Utility Electricity Use and Cost Q4 CY2013-Q3 CY2018 (Rolling 12-Month)



# Be a Good Steward of Our Environment

## TANGIBLE RESULT DRIVER:

Dorothy Morrison  
*The Secretary's Office (TSO)*

## PERFORMANCE MEASURE DRIVER:

Laura Rogers  
*The Secretary's Office (TSO)*

## PURPOSE OF MEASURE:

To reduce our consumption of utility electricity through use of renewable energy sources.

## FREQUENCY:

Quarterly

## DATA COLLECTION METHODOLOGY:

Data for renewable energy sources collected from Pepco Energy Services ABB Plant Portfolio Manager and from TBU Energy Managers.

## NATIONAL BENCHMARK:

Renewable Energy Consumption as a share of state total (2014): Oregon, 49.3 percent; Washington, 47.1 percent; Maine, 38.3 percent

## PERFORMANCE MEASURE 9.3D

### Renewable Energy Generation

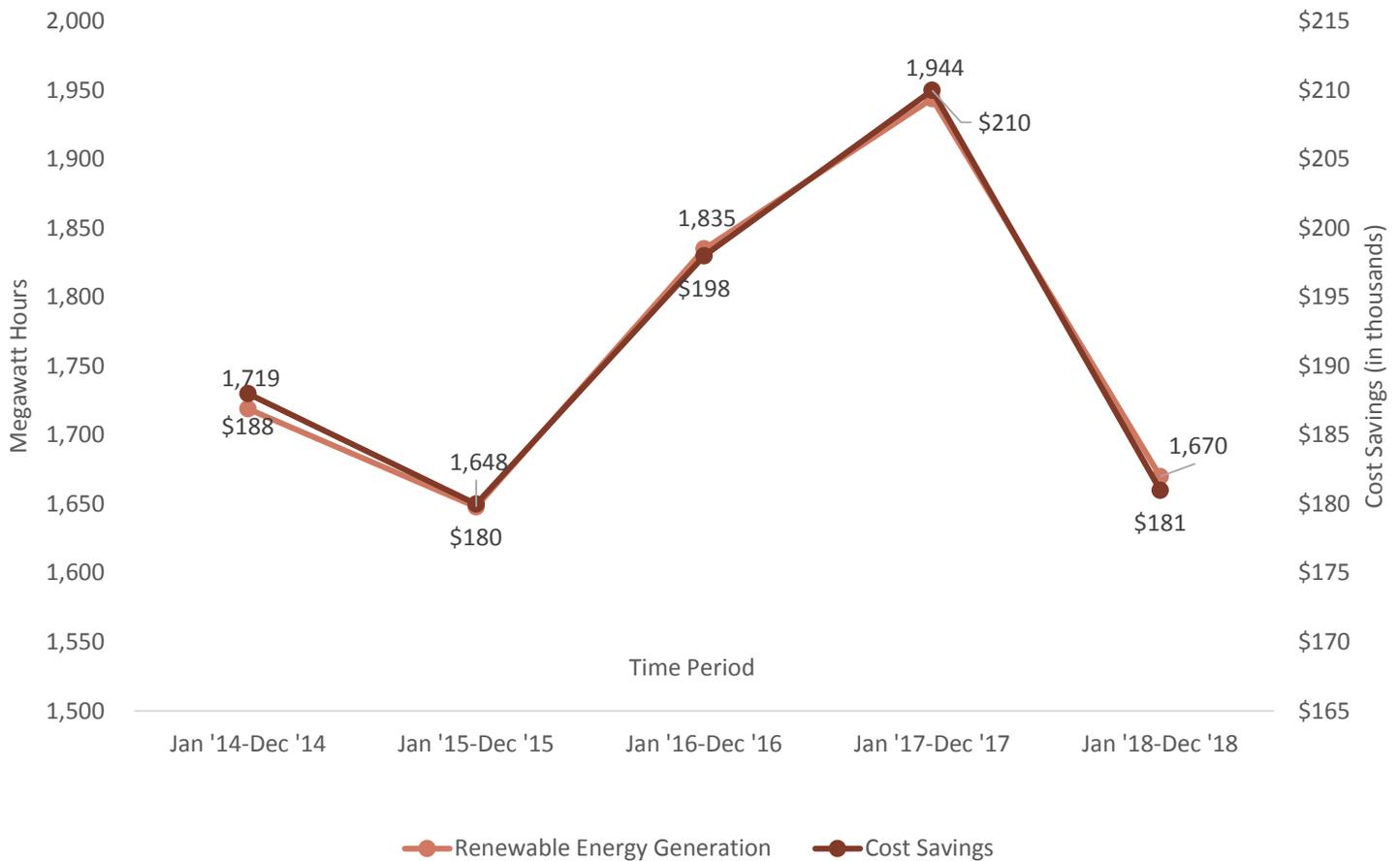
Reducing our conventional energy consumption through energy efficiency measures and use of renewable energy can generate revenue, save Maryland taxpayers money, and reduce harmful air emissions while also helping Maryland meet its clean energy and greenhouse gas reduction goals.

The desired trend for renewable energy generation and cost avoidance is to increase. Renewable energy generation and cost avoidance during the January 2018 – December 2018 rolling 12-month period decreased by 369 megawatt hours and \$41,000 as compared to the previous rolling 12-month period (January 2017 – December 2017). The decrease was due to the significant amount of rain Maryland received during the summer and fall of 2018.

MDOT released a Renewable Energy Development Request for Proposal on June 20, 2017 and received proposals on August 17, 2017. MDOT recommended award to six master contractors. The Board of Public Works approved the project on February 7, 2018. MDOT is evaluating ~35 locations throughout the State for development under Phase I of the project.

## PERFORMANCE MEASURE 9.3D Renewable Energy Generation

Chart 9.3D.1: Total MDOT Renewable Energy Generation and Cost Savings Q1 CY2014-Q4 CY2018 (Rolling 12-Month)



# Be a Good Steward of Our Environment

## TANGIBLE RESULT DRIVER:

Dorothy Morrison  
The Secretary's Office (TSO)

## PERFORMANCE MEASURE DRIVER:

Colleen Turner  
The Secretary's Office (TSO)

## PURPOSE OF MEASURE:

To increase EV adoption throughout the State of Maryland.

## FREQUENCY:

Quarterly

## DATA COLLECTION METHODOLOGY:

EVSE data will be collected from the National Renewable Energy Laboratory Alternative Fueling Station Locator quarterly.

EV registration data will be collected monthly from MVA.

## NATIONAL BENCHMARK:

California, 1.5 million zero-emission vehicles (ZEVs) by 2025 (4.2 percent of fleet)

New York, 10,000 charging stations by 2021, 800,000 EVs by 2025 (6.1 percent of fleet)

## PERFORMANCE MEASURE 9.4A

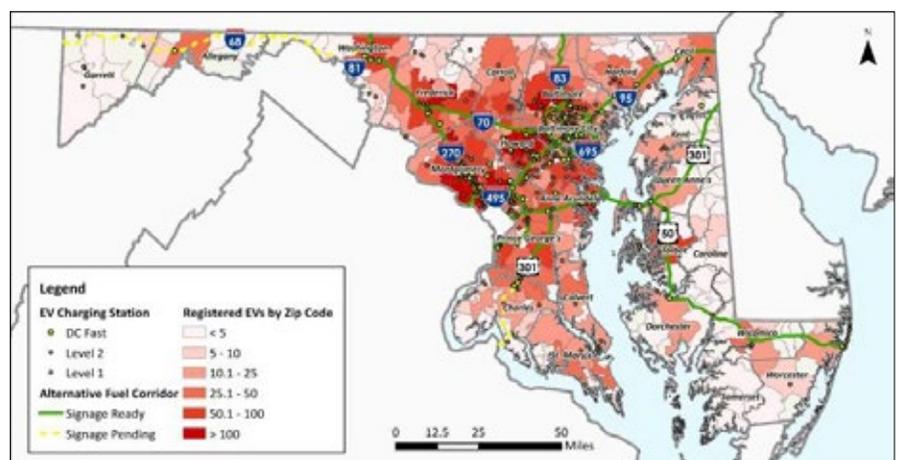
### Publicly Available Electric Vehicle Charging Infrastructure & Total Electric Vehicles Registered in Maryland

The widespread introduction of Electric Vehicles (EVs) into the light-duty fleet can have significant benefits, including the reduction of fossil fuel consumption, resulting in decreased emissions of greenhouse gases (GHG) and other harmful air pollutants. Vehicle technology improvements, including EV technology, will be critical to reducing air pollution in Maryland and helping the State meet its environmental goals.

While the State has made significant progress in the past several years, our goals have been some of the most ambitious in the country from the beginning: 60,000 EVs by 2020, approximately 300,000 by 2025 (6.1 percent of fleet), and the infrastructure to support these numbers.

The number of EVs registered in Maryland has increased by almost 12 percent since the previous quarter to over 16,000 EVs. Also, over the past two years (Q4 CY2016 – Q4 CY2018), the number of EVs registered in Maryland has almost doubled (91 percent increase).

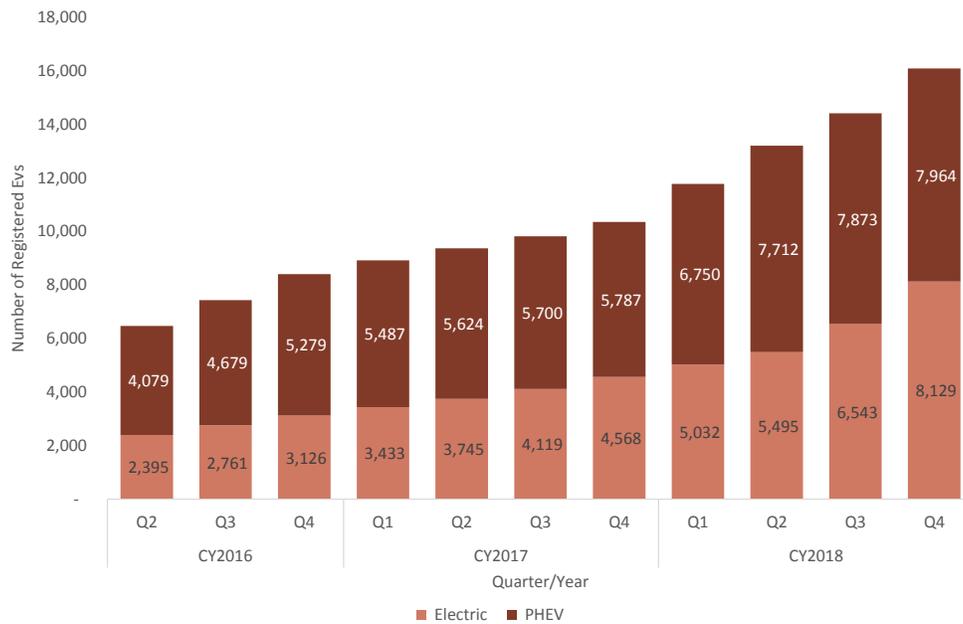
The number of EV charging outlets in Maryland has increased by over 9 percent since the previous quarter to almost 1,600 outlets. Also, over the past three years (Q4 CY2015 – Q4 CY2018), the number of EV charging outlets in Maryland has increased by over 40 percent including a 120 percent increase in the number of DC fast charging outlets publicly available.



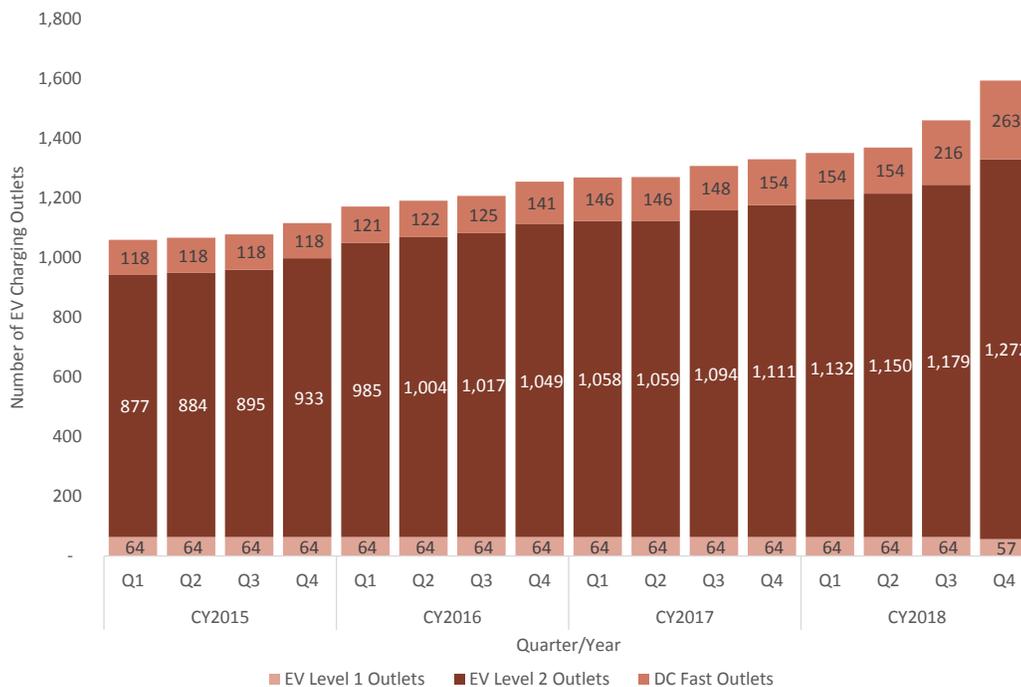
## PERFORMANCE MEASURE 9.4A

### Publicly Available Electric Vehicle Charging Infrastructure & Total Electric Vehicles Registered in Maryland

**Chart 9.4A.1: Electric Vehicles Registered in Maryland Q2 CY2016-Q4 CY2018**



**Chart 9.4A.2: Electric Vehicle Charging Outlets Q1 CY2015-Q4 CY2018**



**TANGIBLE RESULT DRIVER:**

Dorothy Morrison  
*The Secretary's Office (TSO)*

**PERFORMANCE MEASURE DRIVER:**

Colleen Turner  
*The Secretary's Office (TSO)*

**PURPOSE OF MEASURE:**

To reduce our emissions through efficiency measures and renewable energy sources.

**FREQUENCY:**

Quarterly

**DATA COLLECTION METHODOLOGY:**

Data for electricity usage is collected using EnergyCAP, the State of Maryland's comprehensive utility management database. Fleet vehicle data is obtained from the State of Maryland's fuel service vendor. Fixed-equipment data is supplied from fleet and facility managers at the TBUs.

**NATIONAL BENCHMARK:**

Washington D.C., reduce GHG emissions from 2006 levels 50 percent by 2032, 80 percent by 2050

New York, reduce GHG emissions from 1990 levels 40 percent by 2030, 80 percent by 2050

California, reduce GHG emissions from 1990 levels 80 percent by 2050

## PERFORMANCE MEASURE 9.4B

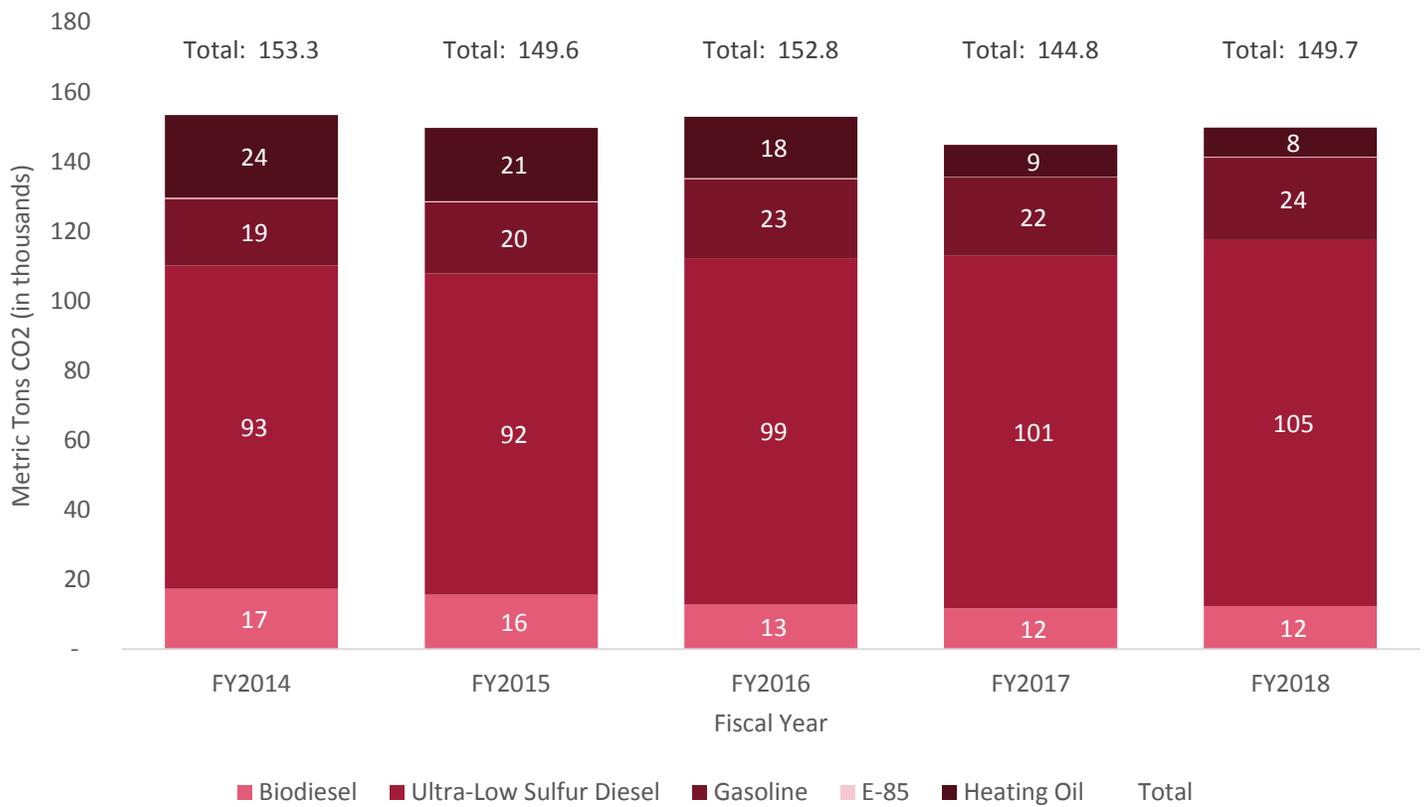
### Air Quality Emissions

Maryland has made substantial progress in combating air pollution and greenhouse gas (GHG) emissions, with transportation policies and investments playing a key role in these improvements. MDOT is committed to improving air quality and reducing GHG emissions by reducing energy use through more efficient vehicles and building materials, as well as switching to cleaner fuels and renewable energy.

The desired trend for emissions from utility electricity is to decrease. CO2 emissions during the October 2017 – September 2018 rolling 12-month period decreased by almost 7,000 metric tons (nearly 3 percent) as compared to the previous rolling 12-month period (October 2016 – September 2017). Over the past five 12-month periods, CO2 emissions have decreased by about 18,000 metric tons.

## PERFORMANCE MEASURE 9.4B Air Quality Emissions

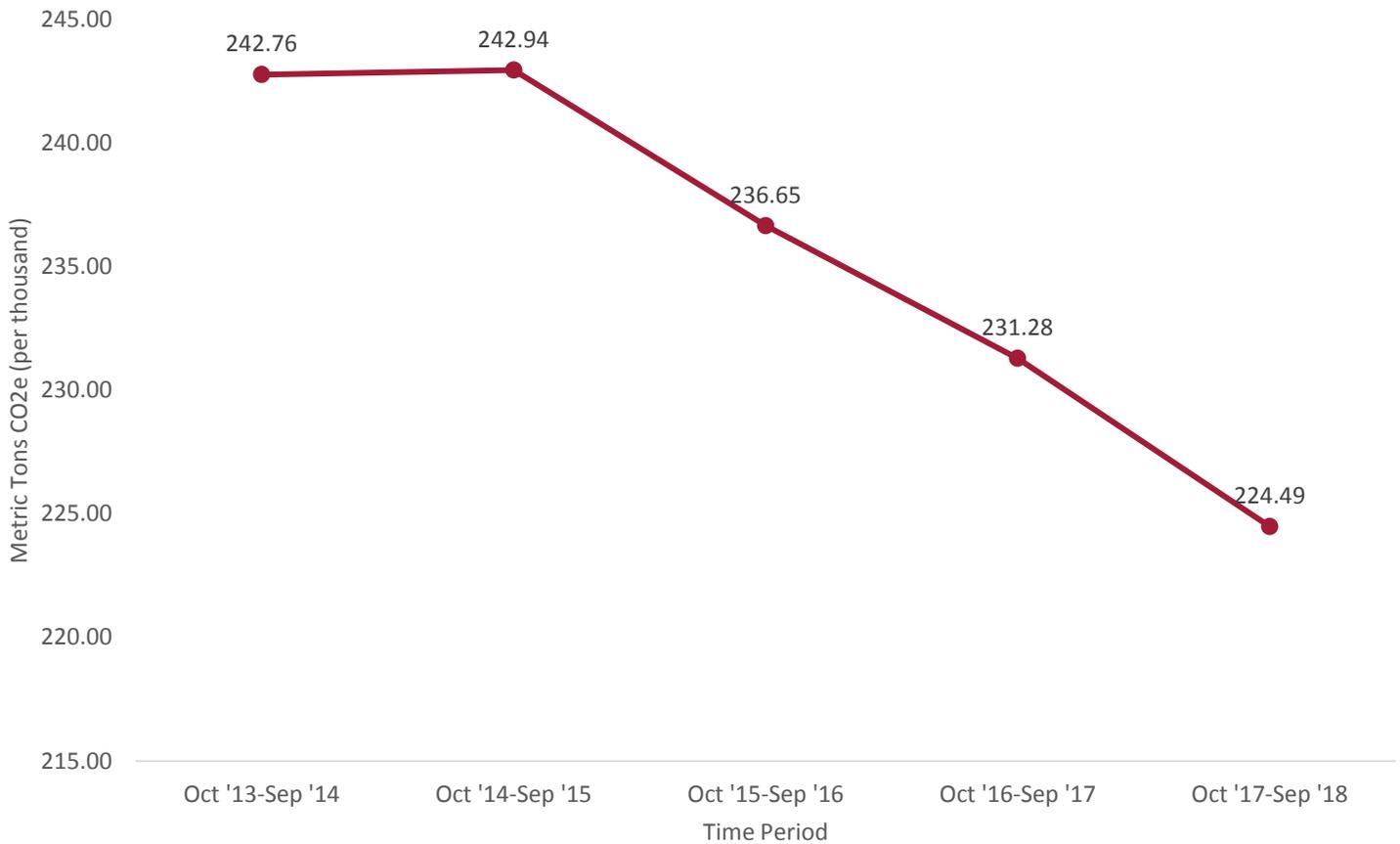
Chart 9.4B.1: CO2 Emissions per Year by Fuel Type FY2014-FY2018



# Be a Good Steward of Our Environment

## PERFORMANCE MEASURE 9.4B Air Quality Emissions

Chart 9.4B.2: CO<sub>2</sub>e Emissions from MDOT Electricity Use Q3 CY2013-Q3 CY2018 (Rolling 12-Month)



## TANGIBLE RESULT #10

# Facilitate Economic Opportunity in Maryland



Maryland's transportation system is essential to the State's economy. An efficient transportation system provides a competitive advantage to businesses in a regional, national and global marketplace. Transportation directly impacts the viability of a region as a place where people want to live, work and raise families, and is critical to attracting a competent workforce.

### RESULT DRIVER:

Jim Dwyer

*Maryland Port Administration (MPA)*

# Facilitate Economic Opportunity in Maryland

## TANGIBLE RESULT DRIVER:

Jim Dwyer

*Maryland Port Administration (MPA)*

## PERFORMANCE MEASURE DRIVER:

Karuna R. Pujara

*State Highway Administration (SHA)*

## PURPOSE OF MEASURE:

This measure tracks the economic impact resulting from the State's transportation investments.

## FREQUENCY:

Annually (in October)

## DATA COLLECTION METHODOLOGY:

MDOT analyzes the capital program using a model called the Transportation Economic Development Impact System (TREDIS), which demonstrates a strong link between transportation investment and economic development.

## NATIONAL BENCHMARK:

N/A

## PERFORMANCE MEASURE 10.1

### Economic Return from Transportation Investment (Jobs Supported by Capital Program Investments in Construction)

Construction spending on transportation projects has a significant economic impact on people and businesses throughout the State. Economic return from transportation investment is based on the estimated number of jobs created as a result of MDOT investments in capital projects. In FY2018, approximately 29,000 jobs were supported in Maryland by MDOT, which is an increase of more than 3,400 jobs over FY2017.

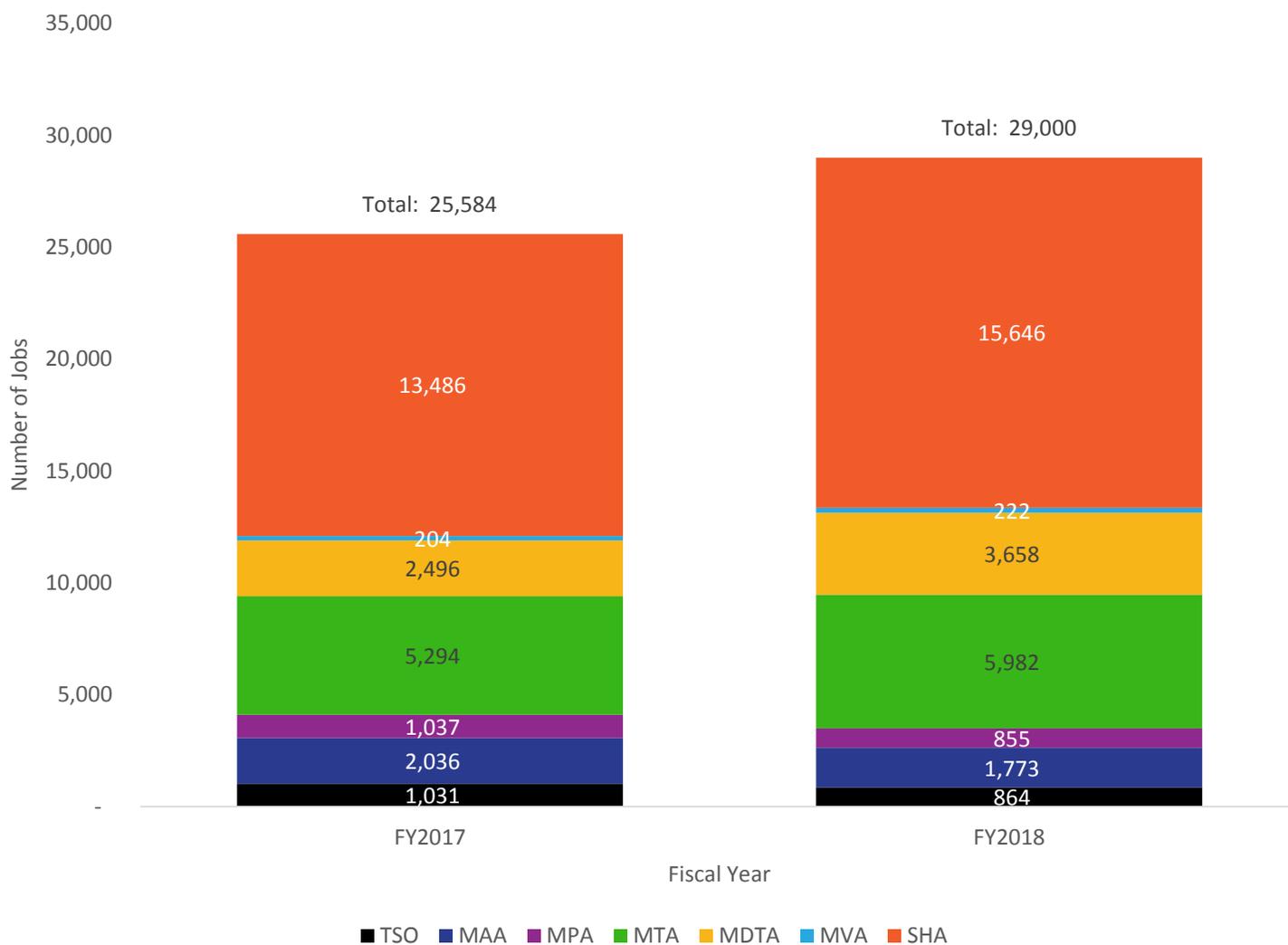
The annual CTP is used to identify planned investments by each TBU on major construction projects, which generate direct construction jobs, jobs supported by the business purchases necessary for the project's construction, and jobs supported by local purchases of goods and services by the direct employees. Capital investments in transportation infrastructure support economic activity across a wider region, beyond the specific project location.

# Facilitate Economic Opportunity in Maryland

## PERFORMANCE MEASURE 10.1

### Economic Return from Transportation Investment (Jobs Supported by Capital Program Investments in Construction)

Chart 10.1.1: Estimated Number of Jobs Created by TBU Capital/Construction Programs FY2017-FY2018



# Facilitate Economic Opportunity in Maryland

## TANGIBLE RESULT DRIVER:

Jim Dwyer

*Maryland Port Administration (MPA)*

## PERFORMANCE MEASURE DRIVER:

Karuna R. Pujara

*State Highway Administration (SHA)*

## PURPOSE OF MEASURE:

To compare Maryland against other states' economic activity based on access to and condition of the transportation infrastructure.

## FREQUENCY:

Annually (in October)

## DATA COLLECTION METHODOLOGY:

Using publicly available data, CNBC assesses every states' infrastructure including value of goods movement; availability of air travel; road and bridge conditions; and commute times.

## NATIONAL BENCHMARK:

CNBC annual ranking and US News and World Report Ranking

## SOURCE:

<http://www.cnbc.com/2018/07/10/americas-top-states-for-business-2018-the-list-and-ranking.html>

<https://www.usnews.com/news/best-states/rankings/infrastructure/transportation>

## PERFORMANCE MEASURE 10.2

### Maryland's Ranking in National Transportation Infrastructure Assessment

The CNBC business news media group as well as U.S. News & World Report uses publicly available data on measures of competitiveness to score each state on how frequently each is used as a selling point in state economic development marketing materials.

The infrastructure category is a measure of a state's transportation system and supply of safe drinking water and waste water Infrastructure. It includes metrics to compare the value of goods shipped by air, waterways, roads and rail within a state, the quality of roads and bridges, and commute times. The annual rankings can be used as a national benchmark for economic activity over time as a means for comparing Maryland's standing versus other states. Maryland was ranked 45th in 2018, a two position decline from 43rd in 2017, remaining in the bottom 10 because of the mobility/congestion components used to compute the infrastructure metric.

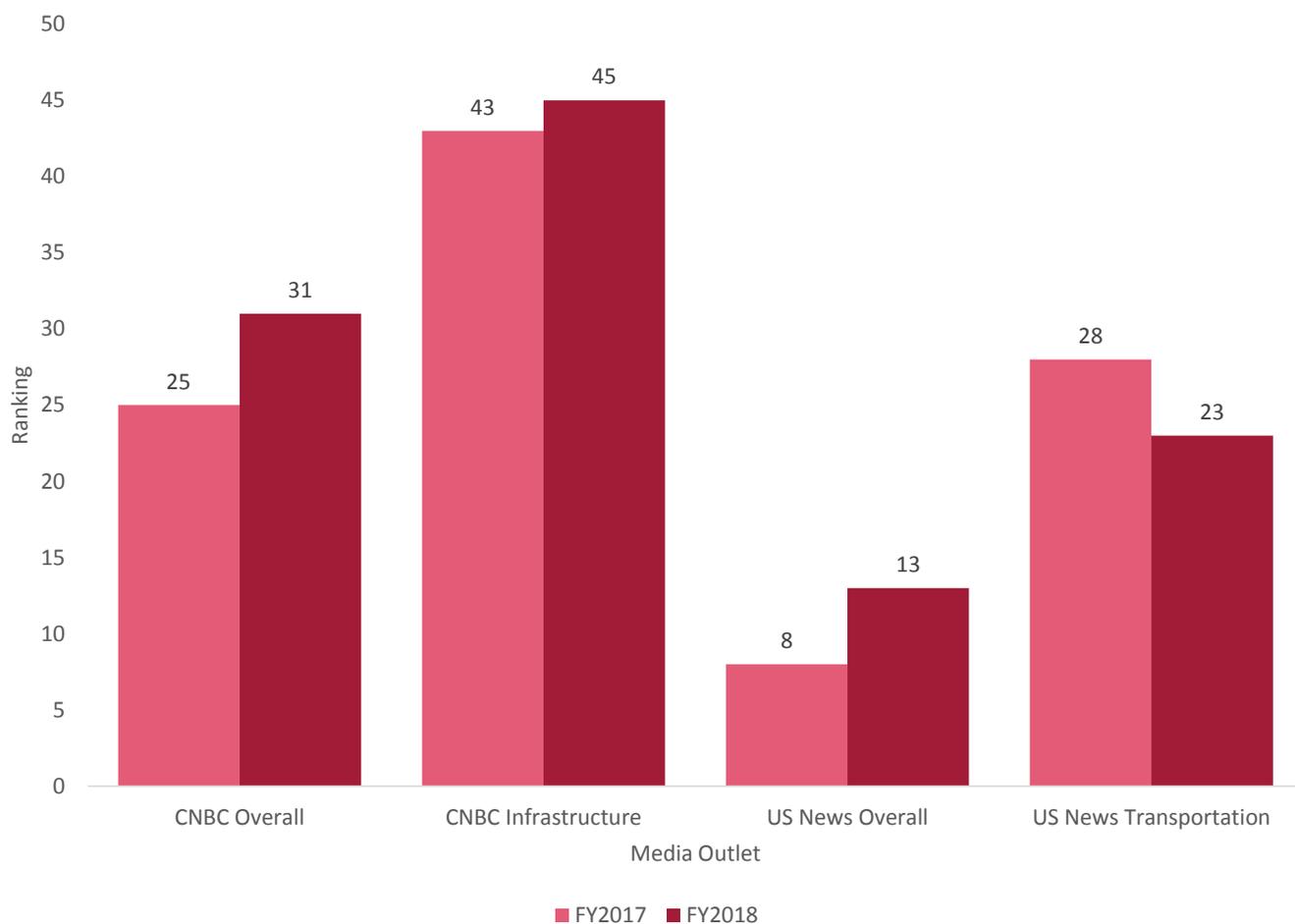
US News & World Report Ranking appears to be more applicable as it ranks specific transportation categories such as structurally deficient bridges, roadways quality, average commute time and transit use. Starting this report US News & World Report Ranking has been added for 2017 and 2018. According to this ranking, Maryland transportation ranks 23rd in nation.

# Facilitate Economic Opportunity in Maryland

## PERFORMANCE MEASURE 10.2

### Maryland's Ranking in National Transportation Infrastructure Assessment

Chart 10.2.1: America's Top State for Business Annual Rankings for Maryland in Infrastructure FY2017-FY2018



# Facilitate Economic Opportunity in Maryland

## TANGIBLE RESULT DRIVER:

Jim Dwyer

*Maryland Port Administration (MPA)*

## PERFORMANCE MEASURE DRIVER:

Cole Greene

*Maryland Transit Administration (MTA)*

## PURPOSE OF MEASURE:

To assess freight mobility and the amount and value of freight originating and terminating in Maryland as an indicator of how supportive transportation infrastructure is for freight and Maryland's economy.

## FREQUENCY:

Annually (in April)

## DATA COLLECTION METHODOLOGY:

U.S. Department of Transportation Freight Analysis Framework (FAF4) Version 4 and MPA.

## NATIONAL BENCHMARK:

N/A

## PERFORMANCE MEASURE 10.3A

### Freight Mobility: Freight Analysis Framework (FAF) Tonnage and Value of Freight

Efficient and interconnected multimodal freight movement is essential to the State's economy because freight is the economy-in-motion. Maryland manufacturers depend on the freight system to move raw materials and finished goods between production facilities, distribution centers and retail outlets in Maryland and throughout the U.S. and the world. Freight-dependent industries account for over one million jobs in Maryland.

- Water and rail are well-suited to cost-effectively haul goods long distances. Commercial ships utilize the Port of Baltimore to transfer waterborne goods to land, at which point trucks and rail haul these imported goods to communities around the nation.
- Trucks carry nearly every type of commodity from consumer products to chemicals to machinery.
- High value and time-sensitive products are commonly shipped via air.
- The top air freight commodities shipped out of MAA facilities include mail, machinery and transportation equipment.

## PERFORMANCE MEASURE 10.3A

### Freight Mobility: Freight Analysis Framework (FAF) Tonnage and Value of Freight

Chart 10.3A: Freight Analysis Framework (FAF) Tonnage and Value of Freight

METHOD FOR MOVING FREIGHT	TOTAL VALUE (MILLIONS)	TOTAL TONNAGE (THOUSANDS)
Air*	\$13,646	144
Pipeline & Other**	\$73,990	40,278
Rail*	\$15,364	26,730
Truck*	\$324,435	218,603
Water***	\$53,893	38,444
All Freight	\$481,328	324,199

\*Source: U.S. Department of Transportation on Freight Analysis Framework (FAF4). Other, Multiple Modes and Mail, Rail, and Truck value and tonnage data is estimated based on FAF4 data. The data is based on 2012 actual data collected by FHWA and is factored by FHWA through 2015. MDOT adjusts the yearly by a 2 percent annual growth rate that reflects a conservative estimate of domestic and international freight growth given current economic conditions.

\*\*Pipeline and other freight consists largely pipeline, postal and courier shipments weighing less than 100 pounds and other intermodal combinations. Represents a combination of FAF4 Pipeline, other, unknown, multiple modes and mail categories.

\*\*\* International cargo through the Port of Baltimore in 2017 Source: MPA.

# Facilitate Economic Opportunity in Maryland

## TANGIBLE RESULT DRIVER:

Jim Dwyer  
*Maryland Port Administration (MPA)*

## PERFORMANCE MEASURE DRIVER:

Cole Greene  
*Maryland Transit Administration (MTA)*

## PURPOSE OF MEASURE:

To track public and private international waterborne cargo activity in the Port of Baltimore, which is a strong indicator of jobs generated and economic activity.

## FREQUENCY:

Quarterly

## DATA COLLECTION METHODOLOGY:

U.S. Census data via website – USA Trade Online.

## NATIONAL BENCHMARK:

Mid-Atlantic ports' international cargo.

## PERFORMANCE MEASURE 10.3B

### Freight Mobility: Port of Baltimore International Cargo Market Share and Rankings

Cargo through the Port of Baltimore is an indicator of the region's commercial health. Freight is the economy in motion; if freight is not moving, then neither is the economy. International tonnage in Baltimore increased 1.8 million tons, or 19 percent in Q3 CY2018 compared to Q3 CY2017.

This is due to strong coal and LNG exports, as well as imported salt, sugar and gypsum. Baltimore's general cargo tonnage decreased 5.2 percent in the third quarter compared to 2017. In the first three quarters of 2018, the Port handled 32.7 million tons of international cargo; if this trend continues, it will be a new record.

Port's overall ranking is third for Q3 with 17 percent market share. This is between two and five percentage points better than the third quarters of prior years.

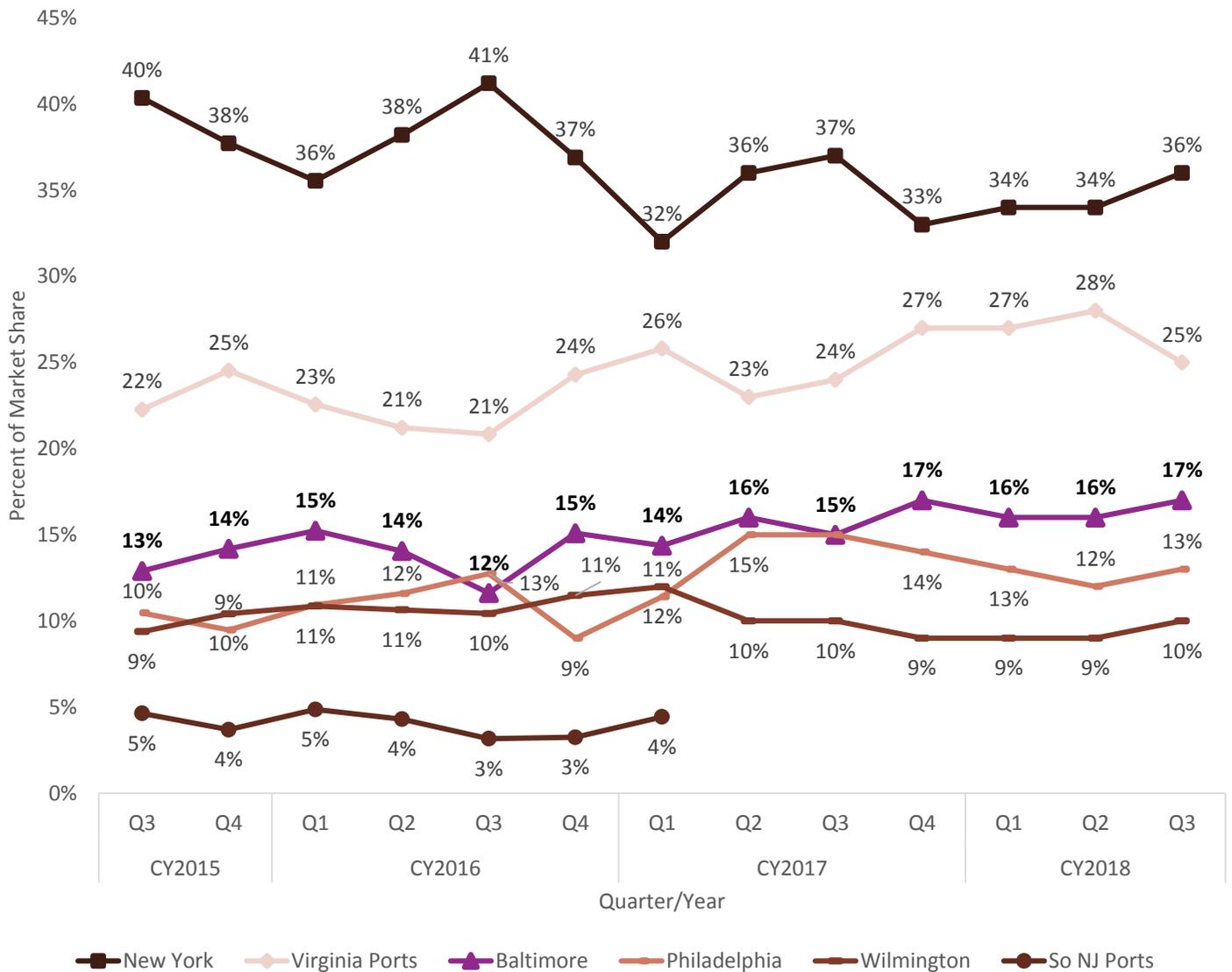
MPA is an active partner with the Corps of Engineers to ensure the navigation channels are dredged to allow the world's fleets easy access between the Port and global markets.

# Facilitate Economic Opportunity in Maryland

## PERFORMANCE MEASURE 10.3B

### Freight Mobility: Port of Baltimore International Cargo Market Share and Rankings

Chart 10.3B.1: Market Share, Mid-Atlantic Ports CY2015-CY2018



# Facilitate Economic Opportunity in Maryland

## TANGIBLE RESULT DRIVER:

Jim Dwyer  
*Maryland Port Administration (MPA)*

## PERFORMANCE MEASURE DRIVER:

Deborah Rogers  
*Maryland Vehicle Administration (MVA)*

## PURPOSE OF MEASURE:

Data shows level of cargo activity at the State owned marine terminals.

## FREQUENCY:

Quarterly

## DATA COLLECTION METHODOLOGY:

Data obtained from MPA cargo Billing Reporting and Statistical System (BRASS). Historical data is available to 1998.

## NATIONAL BENCHMARK:

N/A

## PERFORMANCE MEASURE 10.3C

### MPA Total General Cargo Tonnage

As a rule of thumb, general cargo generates more jobs per ton than bulk commodities. Although international general cargo is one-third of the Port's total tonnage, it accounts for 94 percent of the Port's cargo value, and the State's public terminals handle most of the general cargo. Therefore, it is an important measure to track. In addition, freight is the economy in motion and marine terminals are a hive of job generating activity.

The MPA set a record of 10.7 million tons of general cargo in 2017. For the first three quarters of 2018, general cargo tonnage at the State's terminals was 3.0 percent greater than in the same period in 2017. Containers showed the strongest growth followed by autos and roll-on; roll-off heavy equipment, (i.e. farm, construction and mining equipment).

Third quarter 2018 tonnage was up .2 percent compared to the same period of the prior year. Autos were up 17 percent, roll-on; roll-off equipment was up 14 percent and containers were stable.

MPA conducts a multi-pronged effort to sustain and expand cargo volumes. For example, emphasizing long term contracts with favorable rates; marketing the whole Port; facilitating ways to improve efficiency at Seagirt Marine Terminal to increase truck productivity; managing the capital program to focus on system preservation to keep current customers; enhancements to keep pace with the evolving global logistics and ever-increasing fleet size; and vessel sharing agreements.

The impact of increased tariffs on internationally traded commodities by various nations remains to be seen. Asia and Europe have entered trade agreements, while the U.S. has withdrawn from some. Britain's exit from the Europe Union has already caused disruptions. These issues are likely to have negative effects on global cargo volumes if not resolved.

# Facilitate Economic Opportunity in Maryland

## PERFORMANCE MEASURE 10.3C

MPA Total General Cargo Tonnage including these Strategic Commodities: Containers, Autos, RoRo and Imported Forest Products

Chart 10.3C.1: MPA Total General Cargo Tons CY2014-Q3 CY2018



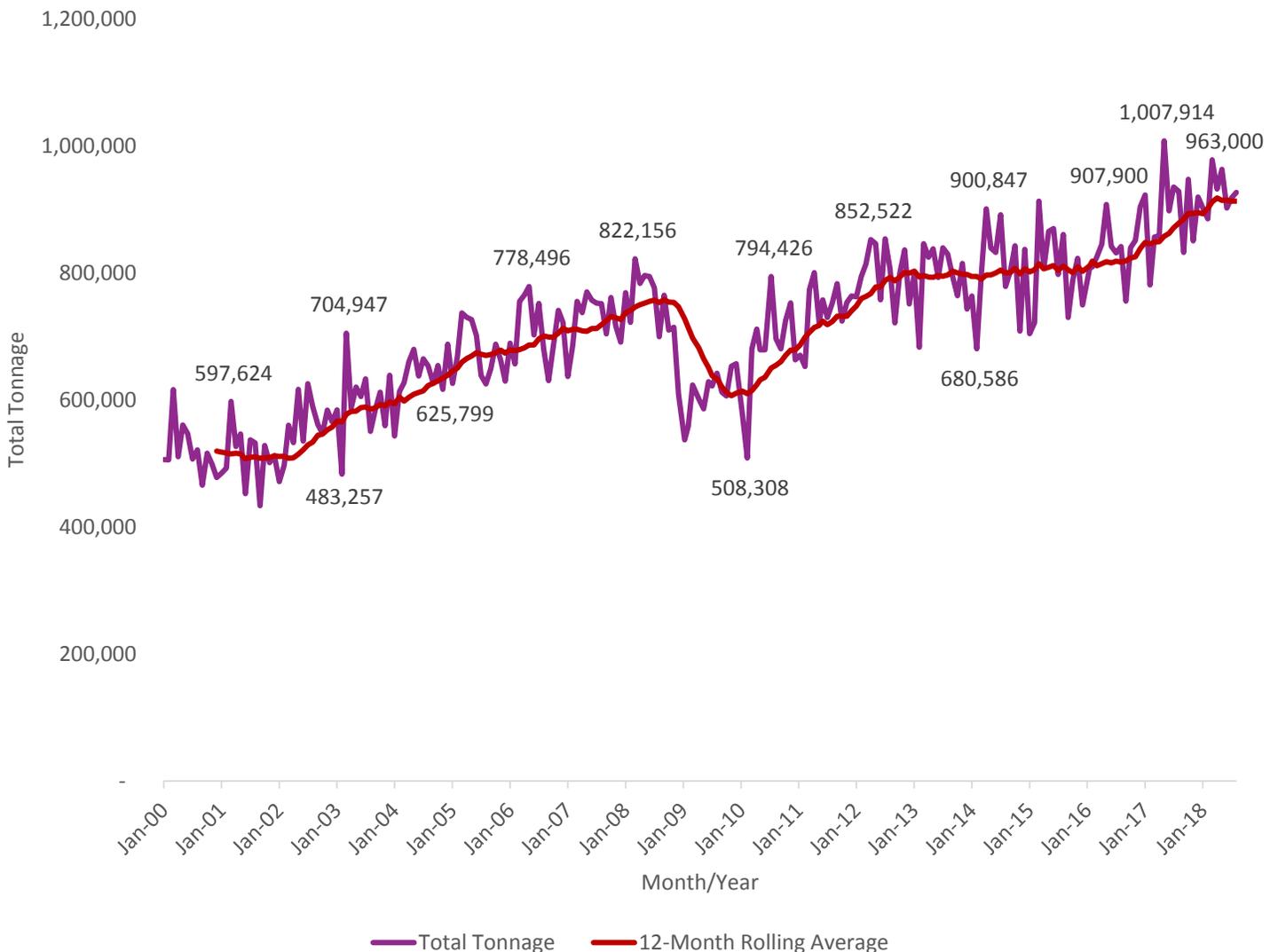
# Facilitate Economic Opportunity in Maryland

## PERFORMANCE MEASURE 10.3C

### MPA Total General Cargo Tonnage including these Strategic Commodities: Containers, Autos, RoRo and Imported Forest Products

The graph below shows MPA's long term general cargo tonnage had steady growth after the Recession. Between 2012 and 2015, cargo volumes were stable. Over the past two years, cargo volumes are growing due to the Port's facilities that can handle larger and deeper ships that are navigating the expanded Panama Canal and international vessel sharing agreements.

Chart 10.3C.2: MPA Total Monthly General Cargo Tonnage CY2000-CY2018



# Facilitate Economic Opportunity in Maryland

## TANGIBLE RESULT DRIVER:

Jim Dwyer

*Maryland Port Administration (MPA)*

## PERFORMANCE MEASURE DRIVER:

Rafael Espinoza

*Maryland Transportation Authority (MDTA)*

## PURPOSE OF MEASURE:

To minimize the number of weight-posted bridges to facilitate the improvement in movement of goods to businesses, communities and the economy.

## FREQUENCY:

Annually (in April)

## DATA COLLECTION METHODOLOGY:

Data reflects federal reporting in April of each year. The number of bridges on the State-owned system that are weight-posted are reported in the Structure Inventory and Appraisal (SI&A) report. That number is then divided by the total number of SHA and MDTA bridges, resulting in the calculation of the percentage of weight-posted bridges on the State system.

## NATIONAL BENCHMARK:

N/A

## PERFORMANCE MEASURE 10.4

### Number and Percentage of Bridges on the State-Owned System that are Weight-Posted

Weight-posted bridges are those that are unable to safely carry the maximum weight of a legally loaded vehicle (80,000 lbs. for tractor trailers and 70,000 lbs. for dump trucks). Weight-posted bridges adversely affect movement of goods for businesses and communities, and can impact daily commercial operations and business growth.

Allowing all legally-loaded vehicles to traverse the bridges on the State system is essential to commerce in Maryland, facilitating the movement of goods and provision of services efficiently throughout the State. Minimizing weight posted bridges ensures the safety of the traveling public and facilitates emergency response time by avoiding the need for detour routes.

If a bridge cannot safely carry all legal loads, due to its present condition or original design criteria, it will be evaluated and a vehicle weight will be established that it can safely carry. This lower vehicle weight (which is less than the legal weight) will be placed on signs alerting all potential users of the maximum load that the bridge should carry.

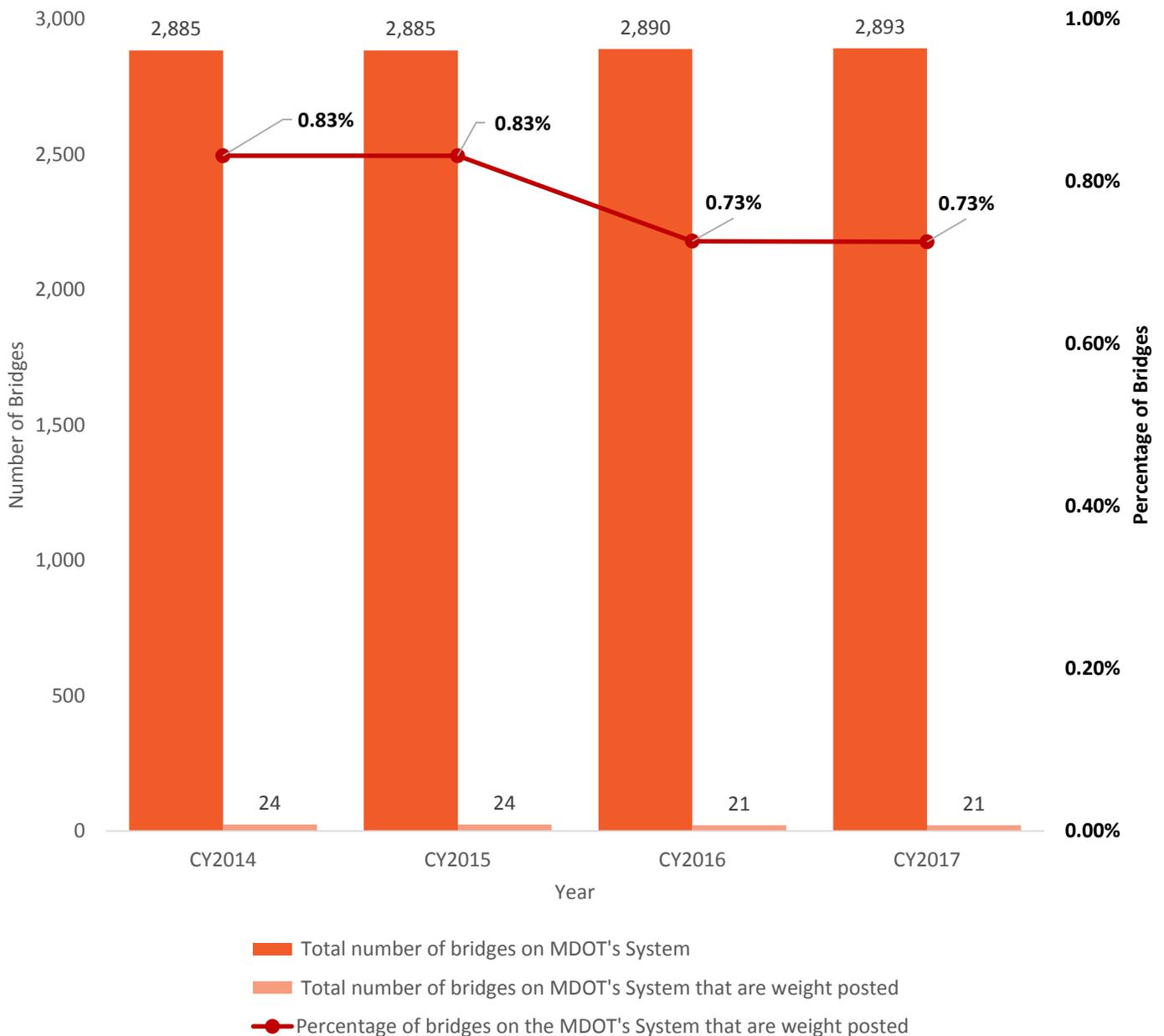
Whenever inspections of weight-posted bridges or structurally deficient bridges indicate that repairs are necessary to prevent a weight posting or the lowering of the existing allowable weight restriction, the work to prevent this will be given top priority, and where possible, complete actual construction 18 months from the date when the need was established. Less than 1 percent of SHA and MDTA bridges have a weight restriction.

# Facilitate Economic Opportunity in Maryland

## PERFORMANCE MEASURE 10.4

Number and Percentage of Bridges on the State-Owned System that are Weight-Posted

Chart 10.4.1: Number & Percentage of Bridges on MDOT's System that are Weight-Posted CY2014-CY2017



# Facilitate Economic Opportunity in Maryland

## TANGIBLE RESULT DRIVER:

Jim Dwyer

*Maryland Port Administration (MPA)*

## PERFORMANCE MEASURE DRIVER:

Corey Stottlemeyer

*The Secretary's Office (TSO)*

## PURPOSE OF MEASURE:

To quantify the impacts of changes in the transportation network on the State's economy due to completed transportation projects providing businesses with access to labor, customers, and suppliers. Improved access leads to greater opportunities.

## FREQUENCY:

Annually

## DATA COLLECTION METHODOLOGY:

As transportation projects are completed and the transportation network is enhanced, changes in travel demand and user choice will be modeled using a transportation economic impact model. This is a multimodal measure.

## NATIONAL BENCHMARK:

N/A

## PERFORMANCE MEASURE 10.5

### Change in Market Access due to Improvements in the Transportation Network

Improving access within Maryland's transportation network is a critical role MDOT plays in facilitating economic opportunity for the citizens of Maryland, its businesses and those who come to the State to do business. Currently, MDOT does not measure the impact of changes to the transportation network and its effect on market access. This measure would allow MDOT to look at how improvements in roads and multimodal access is affecting Maryland's economy and assess whether businesses have better access to labor, customers, suppliers and international markets.

This measure includes potential impacts from:

- Business Relocation – Improved market access has the effect of strengthening an economy's competitiveness in attracting and retaining business relative to other locations.
- Productivity Growth – Increasing an economy's accessibility and connectivity generates agglomeration benefits from returns to scale in production, knowledge spillovers, and better matching of suppliers and employees to businesses.
- Increased Import/Export Activity – Improving an economy's access to international gateways can enable new import/export activity.

The Multimodal Process Improvement Team for this measure has met and the tool used to measure the market access has been secured. MDOT has developed a standardized approach to modeling projects and is running test simulations to ensure consistency.

# Facilitate Economic Opportunity in Maryland

## TANGIBLE RESULT DRIVER:

Jim Dwyer

*Maryland Port Administration (MPA)*

## PERFORMANCE MEASURE DRIVER:

Corey Stottleyer

*The Secretary's Office (TSO)*

## PURPOSE OF MEASURE:

To quantify the impacts of changes in the transportation network on the productivity of people and businesses in Maryland.

## FREQUENCY:

Annually

## DATA COLLECTION METHODOLOGY:

As transportation projects are completed and the transportation network is enhanced, changes in travel demand and user choice will be modeled using a transportation economic impact model. This is a multimodal measure.

## NATIONAL BENCHMARK:

N/A

## PERFORMANCE MEASURE 10.6

### Change in Productivity due to Improvements in the Transportation Network

Productivity gains are essential to economic growth as businesses and people have to do more with fewer resources. The transportation network is similar to the Internet and other innovations that allow people and businesses to be more productive. Currently, MDOT does not measure the impact of changes to the transportation network and its effect on productivity.

Using a transportation economic impact model, MDOT will be able to assess four types of productivity benefits to ensure it helps facilitate business opportunities throughout Maryland:

1. Travel cost savings;
2. Reliability benefits for industry;
3. Delivery logistics and supply chain benefits; and
4. Agglomeration effects on access to specialized skills and services.

The Multimodal Process Improvement Team for this measure has met and the tool used to measure the productivity has been secured. MDOT has developed a standardized approach to modeling projects and is running test simulations to ensure consistency.

# Facilitate Economic Opportunity in Maryland

## TANGIBLE RESULT DRIVER:

Jim Dwyer

*Maryland Port Administration (MPA)*

## PERFORMANCE MEASURE DRIVER:

Subrat Mahapatra

*State Highway Administration (SHA)*

## PURPOSE OF MEASURE:

To estimate benefits to highway users due to Coordinated Highway Action Response Team (CHART) incident management, major/minor capital improvements, signal retiming, HOV lane, and park-and-ride operations as an indicator of cost savings due to reduced delay.

## FREQUENCY:

Annually (in October)

## DATA COLLECTION METHODOLOGY:

MDOT collects and maintains data on travel speeds, traffic volumes, incidents, and facility usage to develop user cost savings.

## NATIONAL BENCHMARK:

N/A

## PERFORMANCE MEASURE 10.7A

### Total User Cost Savings for the Traveling Public due to Congestion Management

The SHA or MDTA implement various projects, programs and policies to reduce congestion and enhance mobility on their facilities. The SHA focuses on both recurrent and non-recurrent aspects of congestion. These include CHART, Incident Management and Intelligent Transportation Systems (ITS) programs, major/minor roadway geometric improvements, traffic signal system optimization, and multimodal strategies like HOV lane operations and park-and-ride facilities. The congestion management solutions implemented by SHA and MDTA result in significant user cost savings (e.g. delay reduction, fuel savings) to automobile and truck traffic.

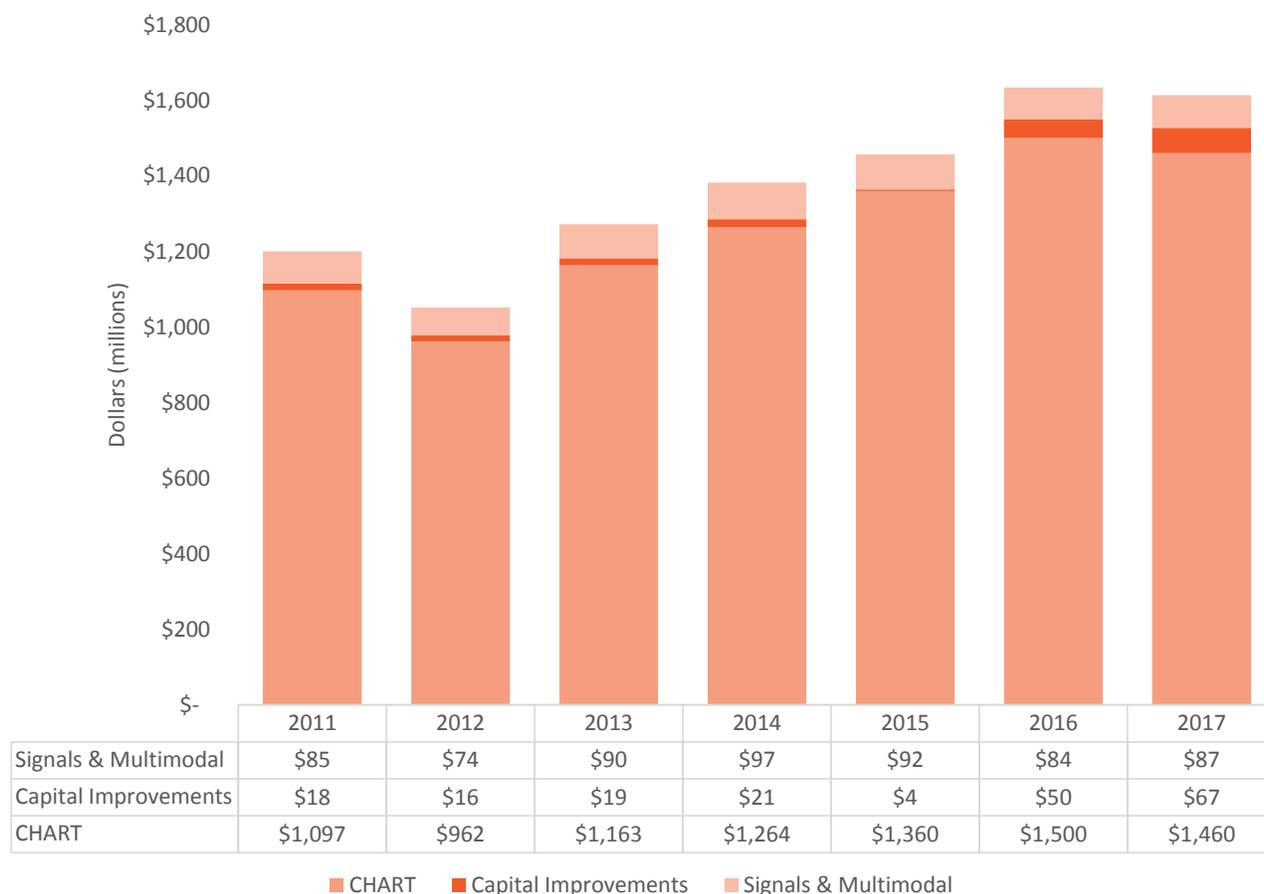
MDOT continues to implement operational strategies, including a Transportation Systems Management and Operations (TSMO) Strategic Plan, and provides Traffic Incident Management training to partner organizations, while also exploring local, regional and State incident management coordination opportunities. Reductions in travel times directly result in roadway user cost savings.

# Facilitate Economic Opportunity in Maryland

## PERFORMANCE MEASURE 10.7A

### Total User Cost Savings for the Traveling Public due to Congestion Management

Chart 10.7A.1: Annual User Cost Savings through MDOT Congestion Management Efforts CY2011-CY2017



## TANGIBLE RESULT DRIVER:

Jim Dwyer  
*Maryland Port Administration (MPA)*

## PERFORMANCE MEASURE DRIVER:

Deborah Rogers  
*Motor Vehicle Administration (MVA)*

## PURPOSE OF MEASURE:

To measure the impact of wait time cost to MVA customers visiting a branch.

## FREQUENCY:

Annually (in January)

## DATA COLLECTION METHODOLOGY:

Wait time is calculated by the Customer Traffic Monitoring (CTM) system. Average Branch Wait Time is determined by the CTM analysis. Research is completed on the Maryland median income and calculation is completed to determine cost of waiting.

## NATIONAL BENCHMARK:

N/A

## PERFORMANCE MEASURE 10.7B

### Average Cost per Branch Customer due to Wait Time

MVA recognizes the value of our customers' time and therefore the goal is to decrease the time that customers spend waiting for goods and services. MVA continually implements process improvements and business policies which build efficiencies and therefore reduce the wait time for customers at our branch offices.

The graph shows that wait times are going down which means the cost to the customer waiting in line is going down. The economic vitality to the State is dependent on the ability to use resources and time in a manner that is beneficial for customers. The calculation is determined by Wait Time and Median Hourly Wage.

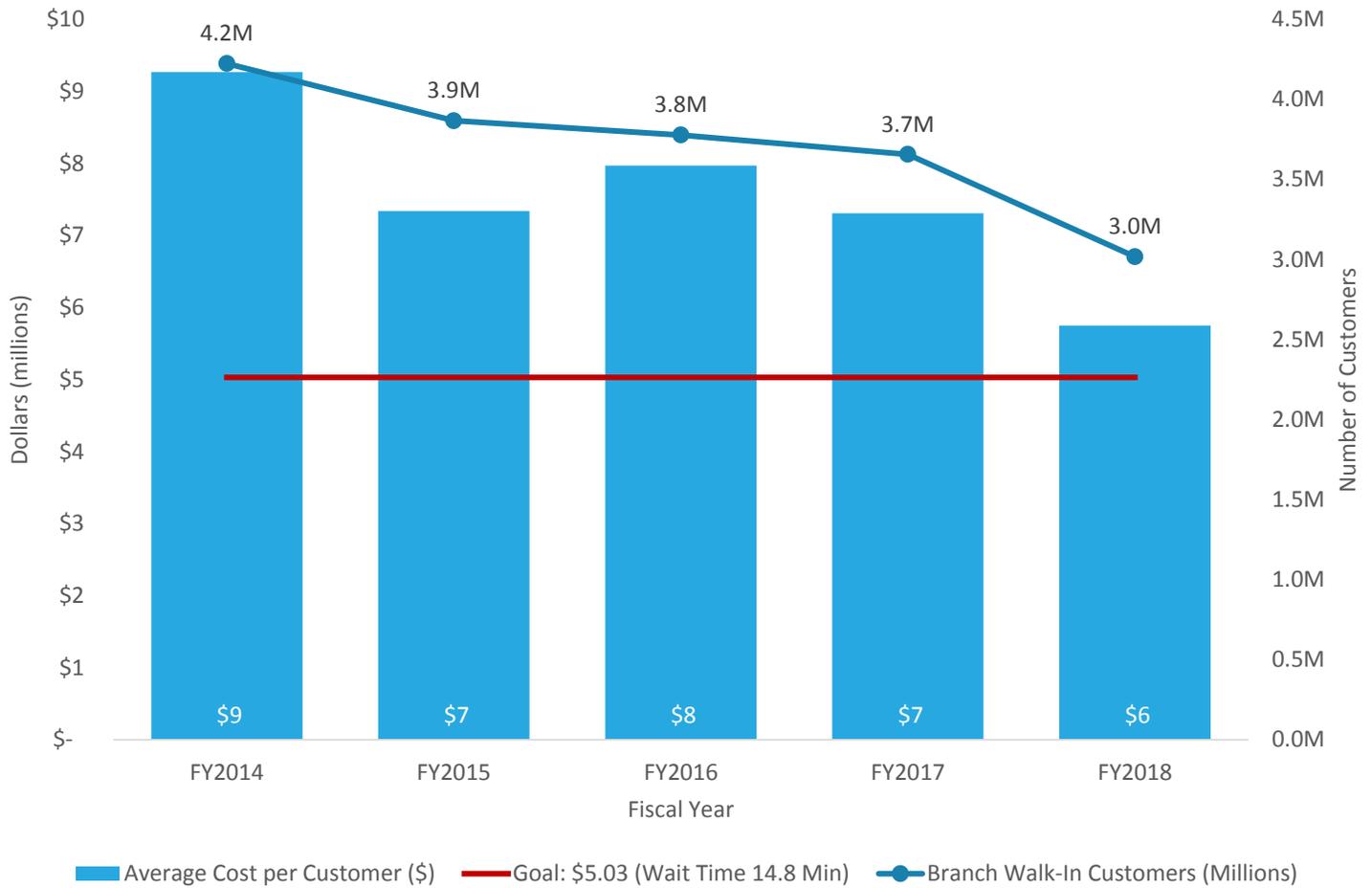
The goal for this measure is to trend downward. MVA would like to decrease the cost of wait time to our customers and provide secure and efficient services.

# Facilitate Economic Opportunity in Maryland

## PERFORMANCE MEASURE 10.7B

### Average Cost per Branch Customer due to Wait Time

Chart 10.7B.1: Average Cost to Customer due to Branch Office Wait Time FY2014-FY2018



## TANGIBLE RESULT DRIVER:

Jim Dwyer  
*Maryland Port Administration (MPA)*

## PERFORMANCE MEASURE DRIVER:

Deborah Rogers  
*Motor Vehicle Administration (MVA)*

## PURPOSE OF MEASURE:

To identify costs savings to the customer based on the type of alternative service delivery method they choose to use to complete their MVA transactions.

## FREQUENCY:

Annually (in January)

## DATA COLLECTION METHODOLOGY:

MVA compiles the number of transactions for each type of ASD method. Average Wait Time is determined by the CTM analysis. Research is completed on the Maryland Median Hourly Wage. Calculation is completed to determine customer cost savings based on wait time savings, travel time savings and IRS mileage reimbursement.

## NATIONAL BENCHMARK:

N/A

## PERFORMANCE MEASURE 10.7C

### Opportunity Cost Savings to Customer for Alternative Service Delivery (ASD) Usage

Over the past several years, MVA has been able to shift most customer transactions from branch walk-in (40 percent) to alternative service delivery (ASD) (60 percent). The method of ASD chosen is often dependent on the customer or the transaction. However, ASD has proved to be an overall benefit to the customer which saves time, money and offers convenience. This measure calculates the cost savings to the customer for their usage of ASD. Each ASD method will offer a different savings. The savings calculation is determined by wait time savings, Maryland average hourly wage, travel time savings, and IRS mileage reimbursement.

The largest customer savings of over \$59 is from the use of internet and mail. These ASD methods do not require travel to an MVA Branch office nor is there a wait time associated with these transactions. Furthermore, the customer convenience is highest. The least customer savings is from the use of kiosk and tablet. With an opportunity cost savings of over \$5.00, the customer would still have associated travel times and wait times with the kiosk and tablet ASD usage.

MVA continues to build process and system efficiencies that will support the use of ASD. Over the past year, MVA has implemented several ASD enhancements that support the convenience of customer transactions.

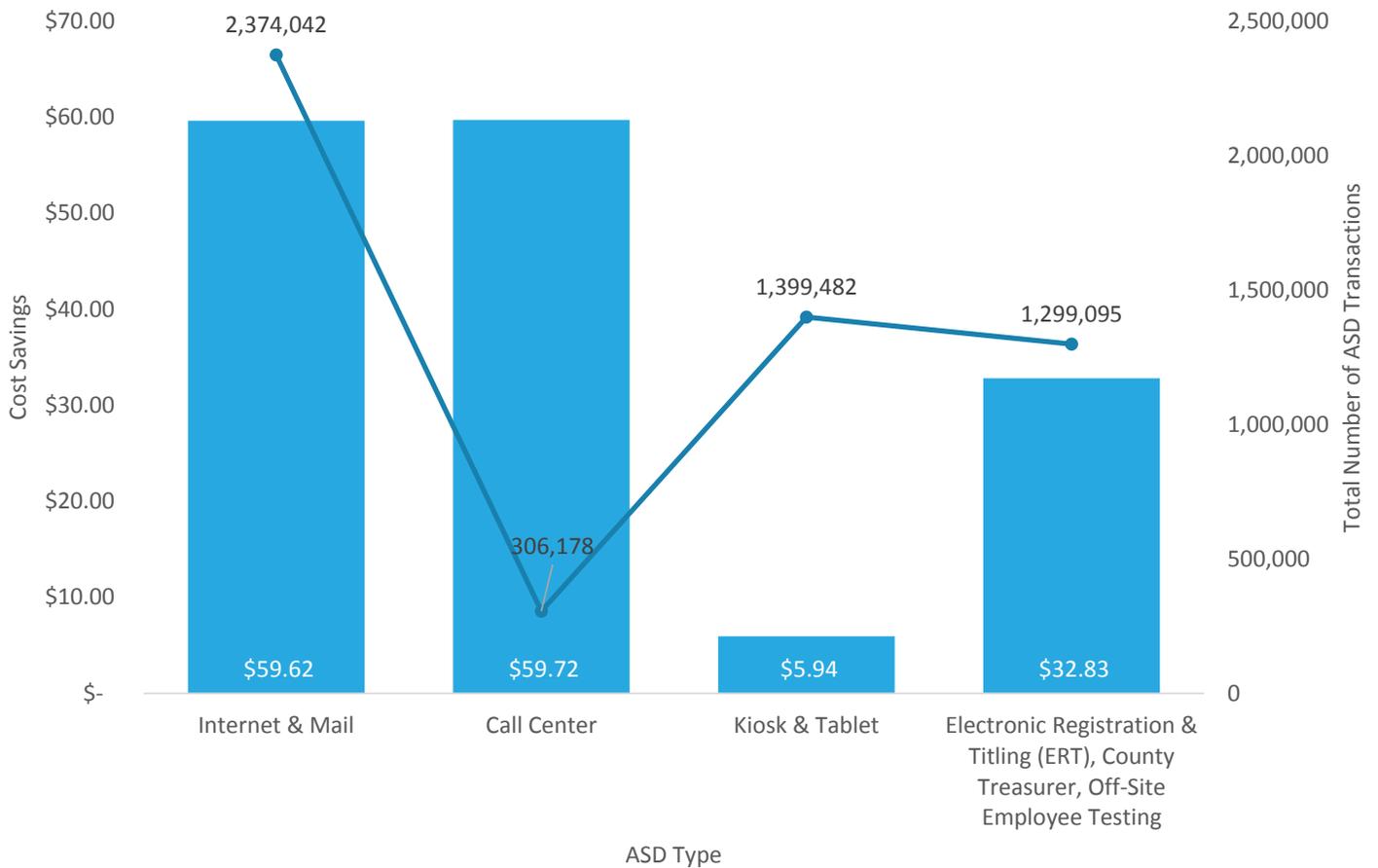
- Redesigned emails for renewal notices to customers adding the option of “one-click” to complete to complete vehicle registration renewals.
- Provided tablets in our branch offices that can triage customers for services as well as complete Tag Return transactions.
- Implemented Vision Screening Stations in our branch offices which allows a customer to complete their vision test for driver’s license renewals and then the remainder of their transaction can be completed at the kiosk or their home computer.

# Facilitate Economic Opportunity in Maryland

## PERFORMANCE MEASURE 10.7C

### Opportunity Cost Savings to Customer for ASD Usage

**Chart 10.7C.1: Opportunity Cost Savings to Customer for Alternative Service Delivery (ASD) Usage, Individual Customer FY2018**

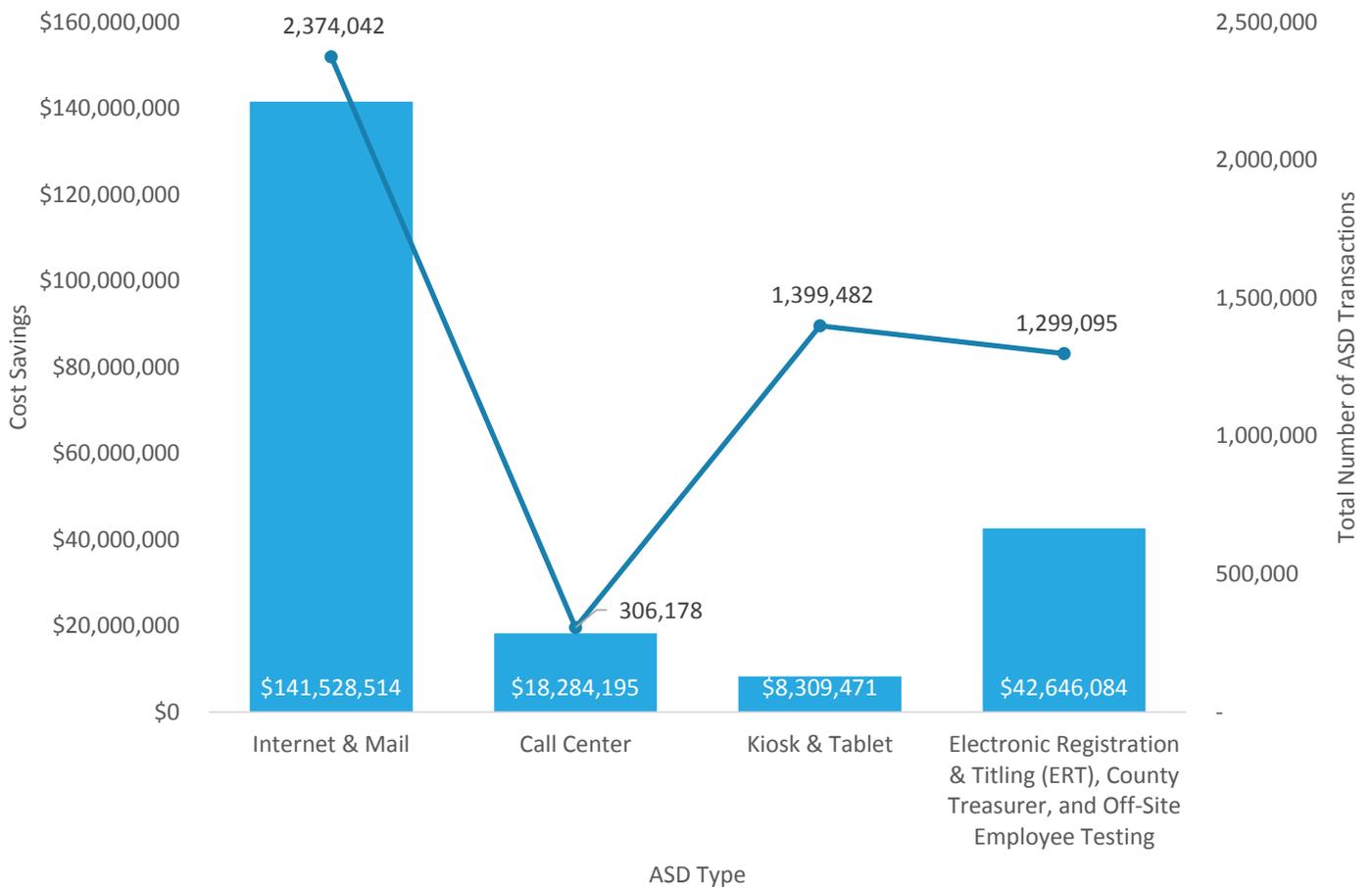


# Facilitate Economic Opportunity in Maryland

## PERFORMANCE MEASURE 10.7C

### Opportunity Cost Savings to Customer for ASD Usage

Chart 10.7C.2: Opportunity Cost Savings to Customer for Alternative Service Delivery (ASD) Usage, Total Customers FY2018



# Facilitate Economic Opportunity in Maryland

## TANGIBLE RESULT DRIVER:

Jim Dwyer

*Maryland Port Administration (MPA)*

## PERFORMANCE MEASURE DRIVER:

Subrat Mahapatra

*State Highway Administration (SHA)*

## PURPOSE OF MEASURE:

To quantify the degree of congestion experienced by highway users when traveling during peak hours.

## FREQUENCY:

Annually (in October)

## DATA COLLECTION METHODOLOGY:

Includes private sector vehicle probe speed data, and traffic count data on average weekdays.

## NATIONAL BENCHMARK:

N/A

## PERFORMANCE MEASURE 10.8

### Percent of VMT in Congested Conditions on Maryland Freeways and Arterials in the AM/PM Peak Hours

This measure represents the percentage of peak hour VMT on Maryland highways that occurs in congested conditions. Congestion on freeways occurs when the travel time index (TTI) ratio is greater than 1.3 (traffic travels at 25 percent slower than the free flow speed). Congestion on arterials is said to occur when the traffic Level of Service (LOS) is rated E, or worse, on a scale of A through F. These congestion metrics are a good indicator of customer experience on roadways in morning and evening peak hours. The share of VMT on the freeways/expressways which occurred in congested conditions is generally higher than the share for arterial roadways however congestion on arterials are on the rise. Peak hour congestion is dominated by nondiscretionary trips including goods movement, commute and school trips.

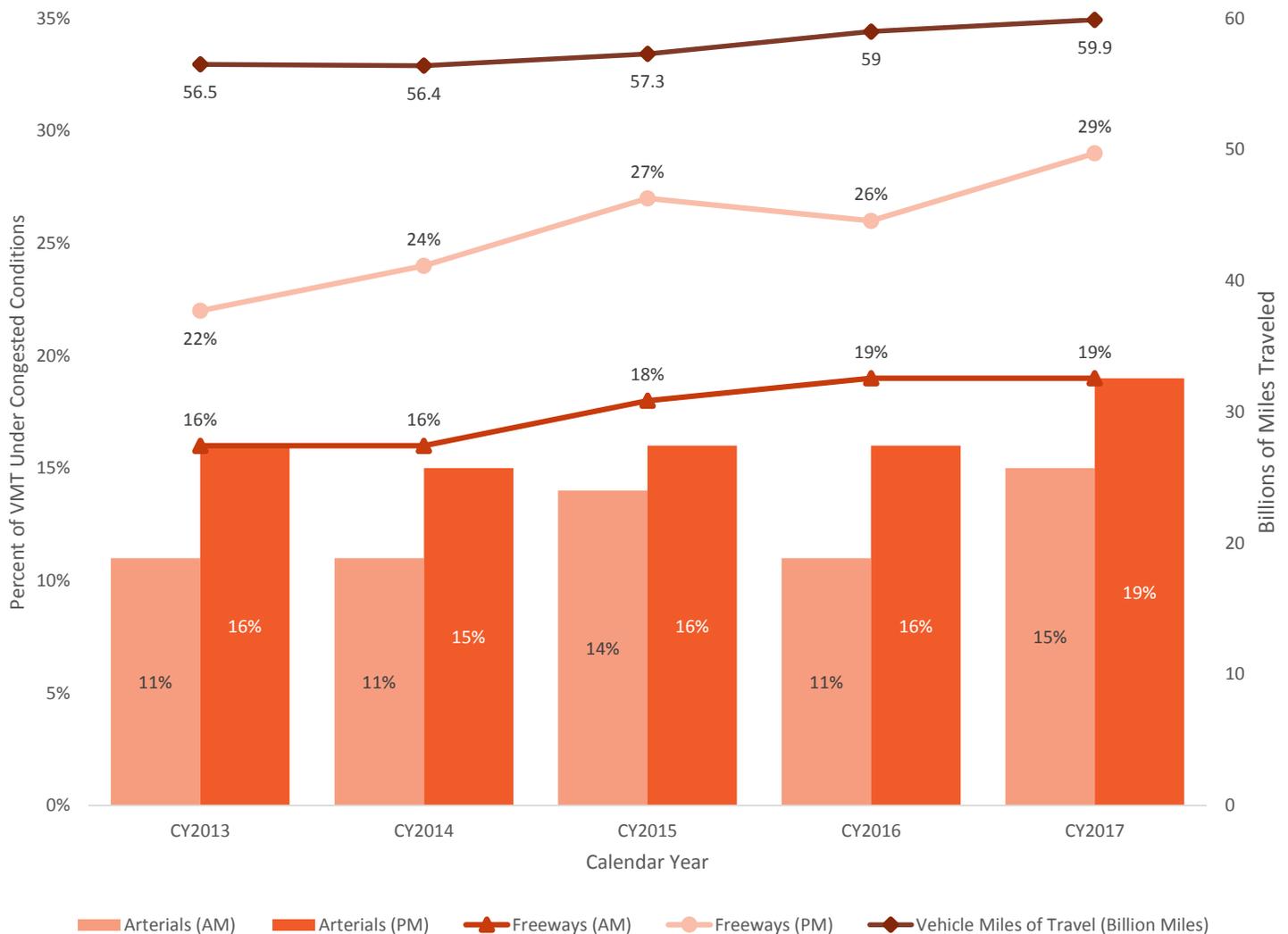
Reducing congestion and enhancing the reliability of peak hour trips make Maryland more attractive for economic development and provide users with a high quality, safe, efficient and reliable highway system while supporting State's economic growth. Several Traffic Relief Projects are in design and construction phase to address congestion on Maryland roads.

# Facilitate Economic Opportunity in Maryland

## PERFORMANCE MEASURE 10.8

Percent of VMT in Congested Conditions on Maryland Freeways and Arterials in the AM/ PM Peak Hours

Chart 10.8.1: Peak Hour Congested VMT Trends on Maryland Roadways CY2013-CY2017



# Facilitate Economic Opportunity in Maryland

## TANGIBLE RESULT DRIVER:

Jim Dwyer  
*Maryland Port Administration (MPA)*

## PERFORMANCE MEASURE DRIVER:

Jack Cahalan  
*Maryland Aviation Administration (MAA)*

## PURPOSE OF MEASURE:

To demonstrate Martin State Airport's share of the general aviation business in the Baltimore region.

## FREQUENCY:

Quarterly

## DATA COLLECTION METHODOLOGY:

Operations Network Data compiled by the Federal Aviation Administration.

## NATIONAL BENCHMARK:

General aviation activity at BWI Marshall's general aviation facility.

## PERFORMANCE MEASURE 10.9A

### Market Share: Martin State Airport's Regional Market Share

Martin State Airport is a general aviation facility located in eastern Baltimore County, Maryland serving the general aviation needs of the Baltimore region. It is owned and operated by the State of Maryland. This performance measure gauges the percentage of itinerant general aviation activity at Martin State as compared to the general aviation facility at BWI Marshall. Itinerant general aviation activity is defined as a non-local flight where its origin or destination takes it beyond the electronic control of the local control tower. This measure captures the amount of discretionary use of Martin State by the business and general aviation community flying in and out of the Baltimore region.

The volume of non-local general aviation operations is an indicator of how much business traffic Martin State Airport is, or is not, attracting. The more non-local operations, the more in potential fuel sales and other support operations occur at the airport. Such operations generate revenue and support existing jobs at, and around, Martin State. Strong market share also indicates Martin State is adequately performing one of its primary missions, serving as a "reliever airport" for BWI Marshall. A reliever airport is one that attracts general aviation traffic away from a region's primary commercial airport, reducing demand on the congested airspace surrounding the commercial airport.

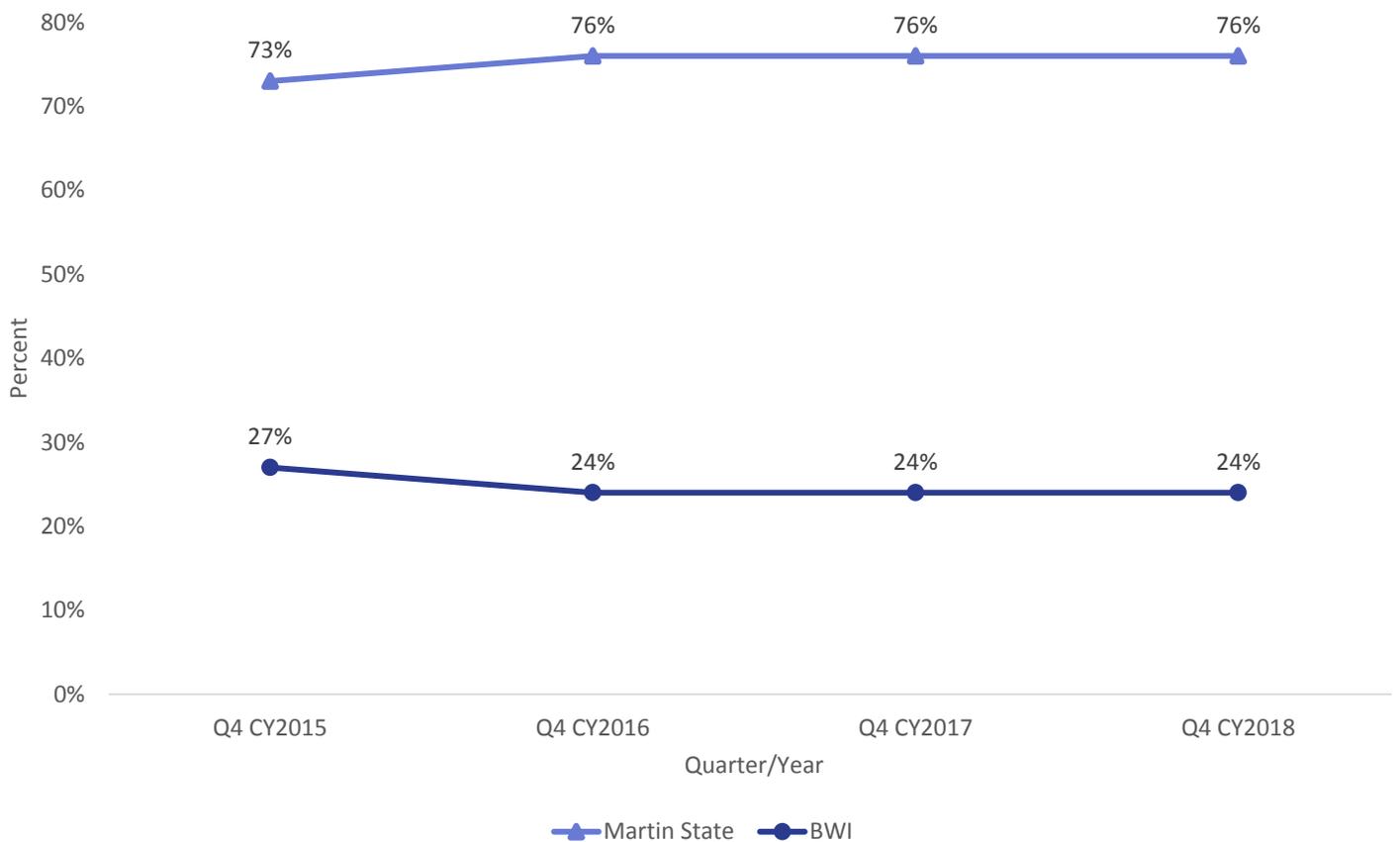
Martin State Airport is performing well. From Q4 CY2015 to Q4 CY2018, Martin State has demonstrated strong growth in market share of non-local general aviation operations, increasing from 72 percent to 76 percent during that period while similar general aviation activity at BWI Marshall declined from 28 percent to 24 percent.

# Facilitate Economic Opportunity in Maryland

## PERFORMANCE MEASURE 10.9A

### Market Share: Martin State Airport's Regional Market Share

Chart 10.9A.1: Percent of All General Aviation Operations other than Local Operations Q4 CY2015-Q4 CY2018



# Facilitate Economic Opportunity in Maryland

## TANGIBLE RESULT DRIVER:

Jim Dwyer  
*Maryland Port Administration (MPA)*

## PERFORMANCE MEASURE DRIVER:

Jack Cahalan  
*Maryland Aviation Administration (MAA)*

## PURPOSE OF MEASURE:

To demonstrate the percent of scheduled nonstop destinations served by BWI Marshall against the total number of nonstop destinations served by the region's three major airports.

## FREQUENCY:

Quarterly

## DATA COLLECTION METHODOLOGY:

Air service schedule analysis.

## NATIONAL BENCHMARK:

Reagan National Airport; Dulles International Airport.

## PERFORMANCE MEASURE 10.9B

### Market Share: Percent of Nonstop Markets Served Relative to Benchmark Airports

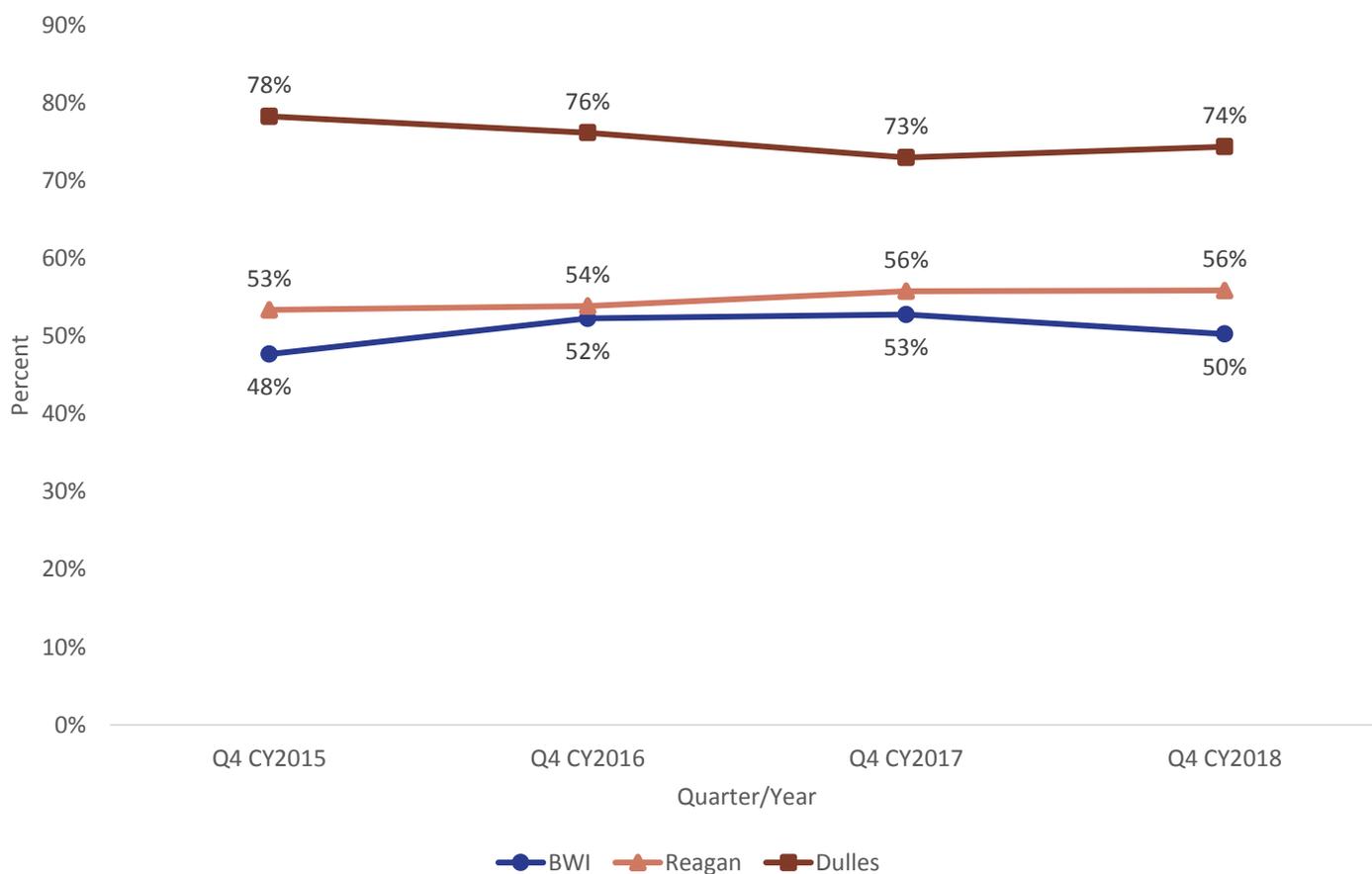
The Washington-Baltimore region is served by three primary airports. They include: Baltimore/Washington International (BWI) Thurgood Marshall Airport; Ronald Reagan National Airport; and Dulles International Airport. More than 26 million passengers flew through BWI Marshall Airport in 2017, an all-time record for passenger traffic. International passenger traffic reached 1.1 million passengers in 2017. It is the third straight year with more than one million international passengers. This positive trend continues in 2018. In fact, through October, 2018, BWI Marshall has posted a monthly passenger record for 13 months in a row.

The number of nonstop destinations served by an airport is an important performance metric, as nonstop service is preferred by passengers. Due to the seasonal nature of air travel, the way to evaluate performance is by comparing how an airport performs in a particular quarter one year compared to that same quarter in another year. Chart 10.9B.1 shows the percentage of nonstop destinations served by a particular airport as compared to the total number of individual nonstop destinations served by the three airports in the region combined. The chart demonstrates that BWI Marshall has produced a steady increase in nonstop destinations when comparing the fourth quarter of CY2015 through the fourth quarter of CY2017. In the fourth quarter of 2018 a reduction in service by jetBlue across the country, and at BWI Marshall, and a reduction in seasonal international service by Southwest, created a slight decrease. Today, BWI Marshall has nonstop service to 50 percent of all markets served by the region's three airports. That figure is up from 48 percent in the fourth quarter of CY2015. BWI Marshall Airport now offers regular and seasonal nonstop service to some 90 domestic and international destinations.

## PERFORMANCE MEASURE 10.9B

### Market Share: Percent of Nonstop Markets Served Relative to Benchmark Airports

Chart 10.9B.1: Percent of Nonstop Markets Served Relative to Benchmark Airports in Q4 CY2015-Q4 CY2018



# Facilitate Economic Opportunity in Maryland

## TANGIBLE RESULT DRIVER:

Jim Dwyer  
*Maryland Port Administration (MPA)*

## PERFORMANCE MEASURE DRIVER:

Jack Cahalan  
*Maryland Aviation Administration (MAA)*

## PURPOSE OF MEASURE:

To determine market share in Baltimore/Washington region by tracking number of passengers and departing flights at BWI Marshall compared to other airports in the region.

## FREQUENCY:

Quarterly

## DATA COLLECTION METHODOLOGY:

Air service schedule analysis.

## NATIONAL BENCHMARK:

Reagan National Airport; Dulles International Airport.

## PERFORMANCE MEASURE 10.9C

### Market Share: Percent of Passengers and Departing Flights Relative to Benchmark Airports

The Washington-Baltimore region is served by three primary airports. They include: Baltimore/Washington International (BWI) Thurgood Marshall Airport; Ronald Reagan National Airport; and Dulles International Airport.

In 2017, 26.4 million passengers flew through BWI Marshall Airport, an all-time-record for passenger traffic. International passenger traffic during the same period reached 1.1million passengers, the third-straight year with more than one million international passengers. For the past 13 months straight, through October 2018, BWI Marshall has set a record for passengers served.

Due to the seasonal nature of air service schedules, the valid way to track service performance is a comparison of identical quarters in prior calendar years. As seen in the following charts, BWI Marshall Airport's percentage of departing flights has increased between the fourth quarter of CY2015 and the same time-period in CY2018. This positive performance is due primarily to continued recent growth by Spirit, Alaska and United Airlines. Reagan National maintains the number one position in the fourth quarter of CY2018 because it handles a large number of commuter flights. This results in a larger number of overall departures at Reagan than BWI Marshall.

By contrast, the overwhelming majority of flights at BWI Marshall involve regularly scheduled, longer distance flights using standard size commercial aircraft like the Boeing 737 flown by Southwest Airlines. Southwest is responsible for 68 percent of the traffic at BWI Marshall. As an example, a commuter jet may carry 50 passengers where a 737-800 model aircraft flown by Southwest will carry 175.

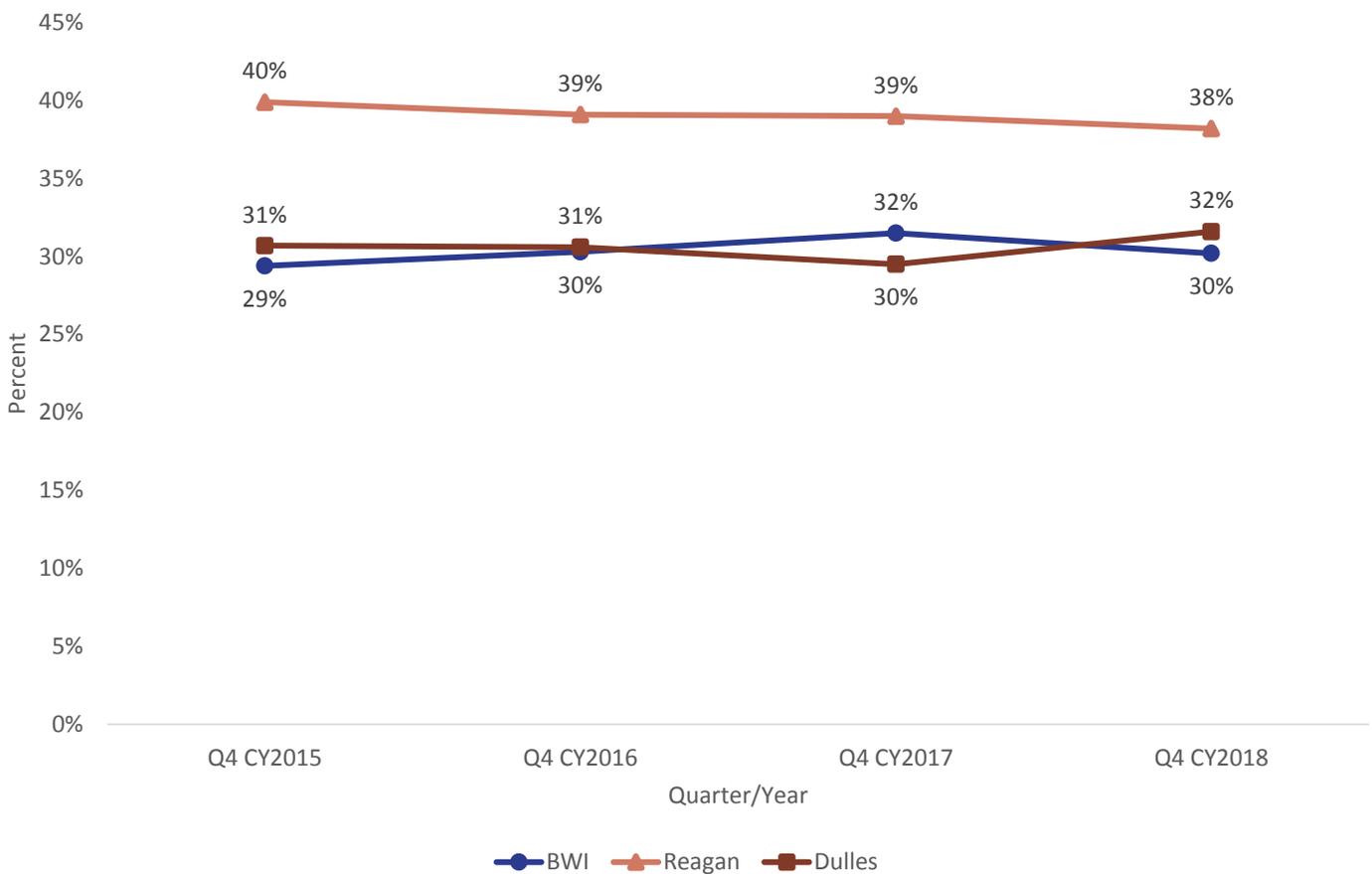
BWI Marshall continues to serve more passengers than any other airport in the region. During the third quarter of CY2018, the most recent quarter where passenger numbers are available, BWI Marshall remains first in market share of total passengers served by the region's airports. A dedicated effort by the owners of Reagan and Dulles airports, the Metropolitan Washington Airports Authority, to increase growth at Dulles is apparent in both these measures as Dulles shows an increase in daily departures and passengers served.

# Facilitate Economic Opportunity in Maryland

## PERFORMANCE MEASURE 10.9C

Market Share: Percent of Passengers and Departing Flights Relative to Benchmark Airports

Chart 10.9C.1: Percent of Total Daily Departures at the Region's Airports Q4 CY2015-Q4 CY2018

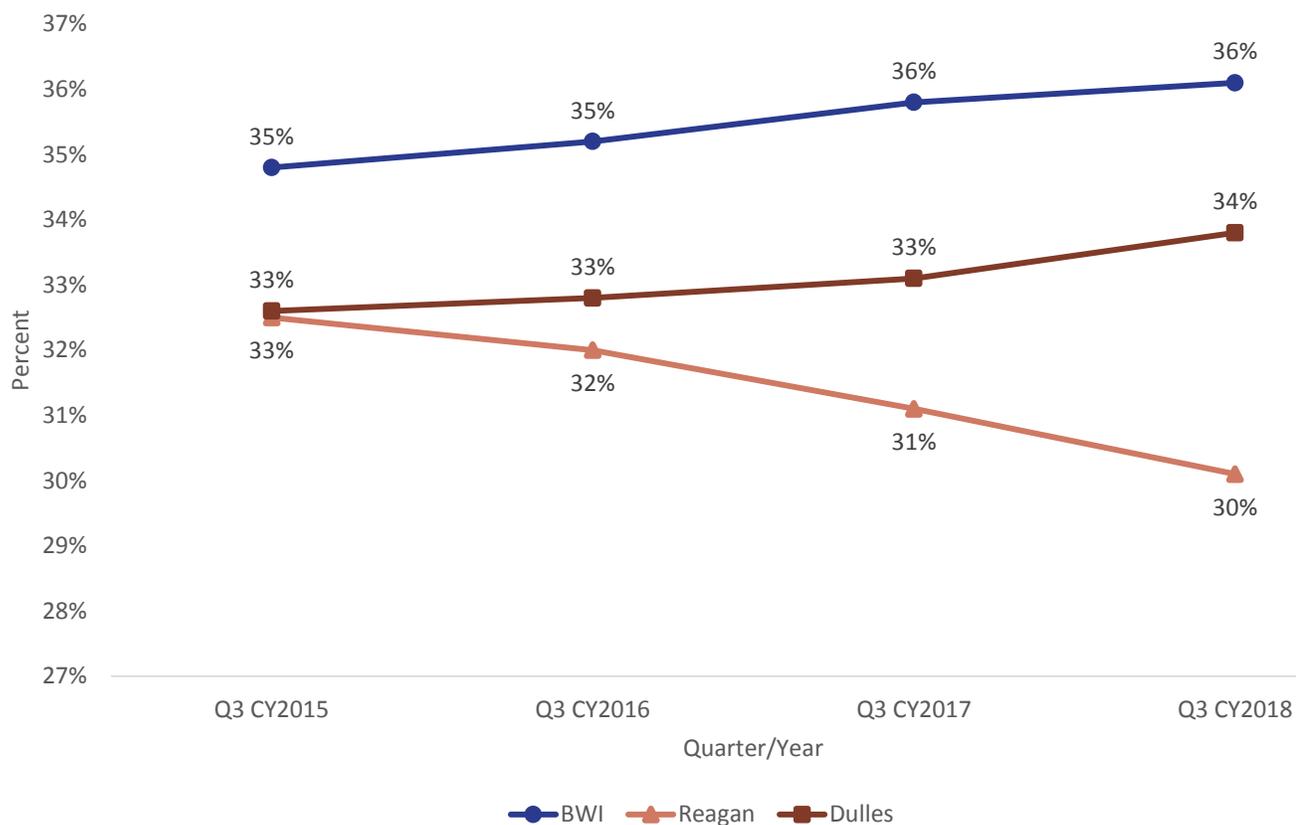


# Facilitate Economic Opportunity in Maryland

## PERFORMANCE MEASURE 10.9C

Market Share: Percent of Passengers and Departing Flights Relative to Benchmark Airports

Chart 10.9C.2: Percent of Passengers Using the Region's Airports Q3 CY2015-Q3 CY2018



**TANGIBLE RESULT DRIVER:**

Jim Dwyer  
*Maryland Port Administration (MPA)*

**PERFORMANCE MEASURE DRIVER:**

Glen Carter  
*The Secretary's Office (TSO)*

**PURPOSE OF MEASURE:**

To improve customer service with a predictable, consistent and transparent process for obtaining an access permit for development in Maryland.

**FREQUENCY:**

Quarterly

**DATA COLLECTION METHODOLOGY:**

Reviews, permits and delivery times are tracked in the Access Management Database.

**NATIONAL BENCHMARK:**

N/A

## **PERFORMANCE MEASURE 10.10**

### **Percent of Roadway Access Permits Issued within 21 Days or Less**

Access permits help promote safe and efficient roads for travel while supporting economic development and growth in jobs and businesses. The issuance of access permits, and the resulting construction of roadway and entrance improvements by developers, are some of the last steps before opening a business or selling commercial or residential properties for occupancy. This activity contributes to the creation of new jobs, businesses and development/redevelopment opportunities.

This measure tracks MDOT-SHA efforts to improve customer service with a predictable, consistent and transparent process for obtaining an access permit. The performance target is 100 percent of permits that are issued within 21 days (after receipt of a complete application package). In Q2 of FY2019, 100 percent of the access permits were issued within 21 days.

Ongoing practices include:

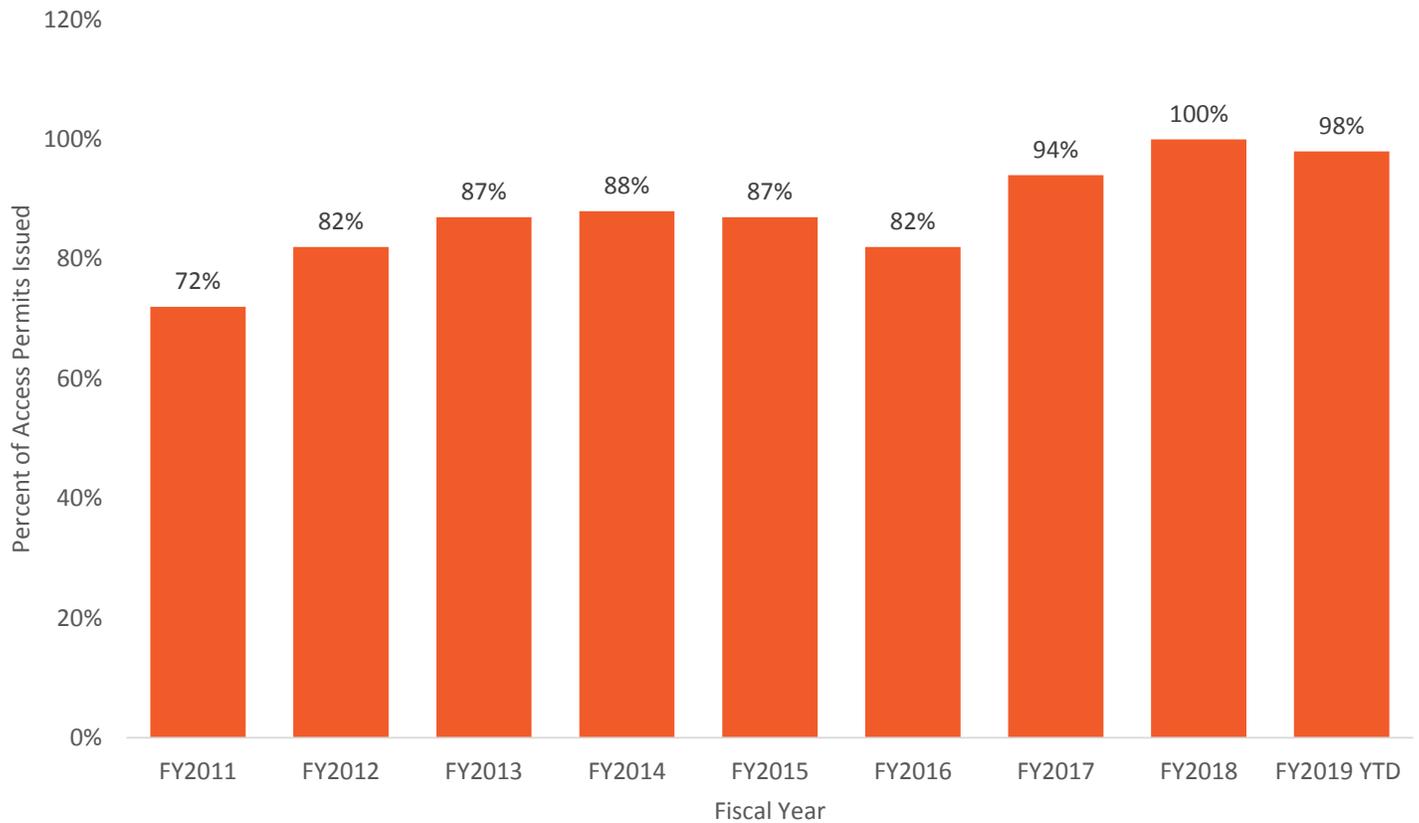
- Meeting with stakeholders in working group to establish clear expectations;
- Weekly status reports with the District Engineers;
- Submittals triaged within three (3) days to ensure receipt of a complete permit package.

# Facilitate Economic Opportunity in Maryland

## PERFORMANCE MEASURE 10.10

### Percent of Roadway Access Permits Issued within 21 Days or Less

Chart 10.10.1: Percent of Permits Issued Within 21 Days FY2011-FY2019 YTD

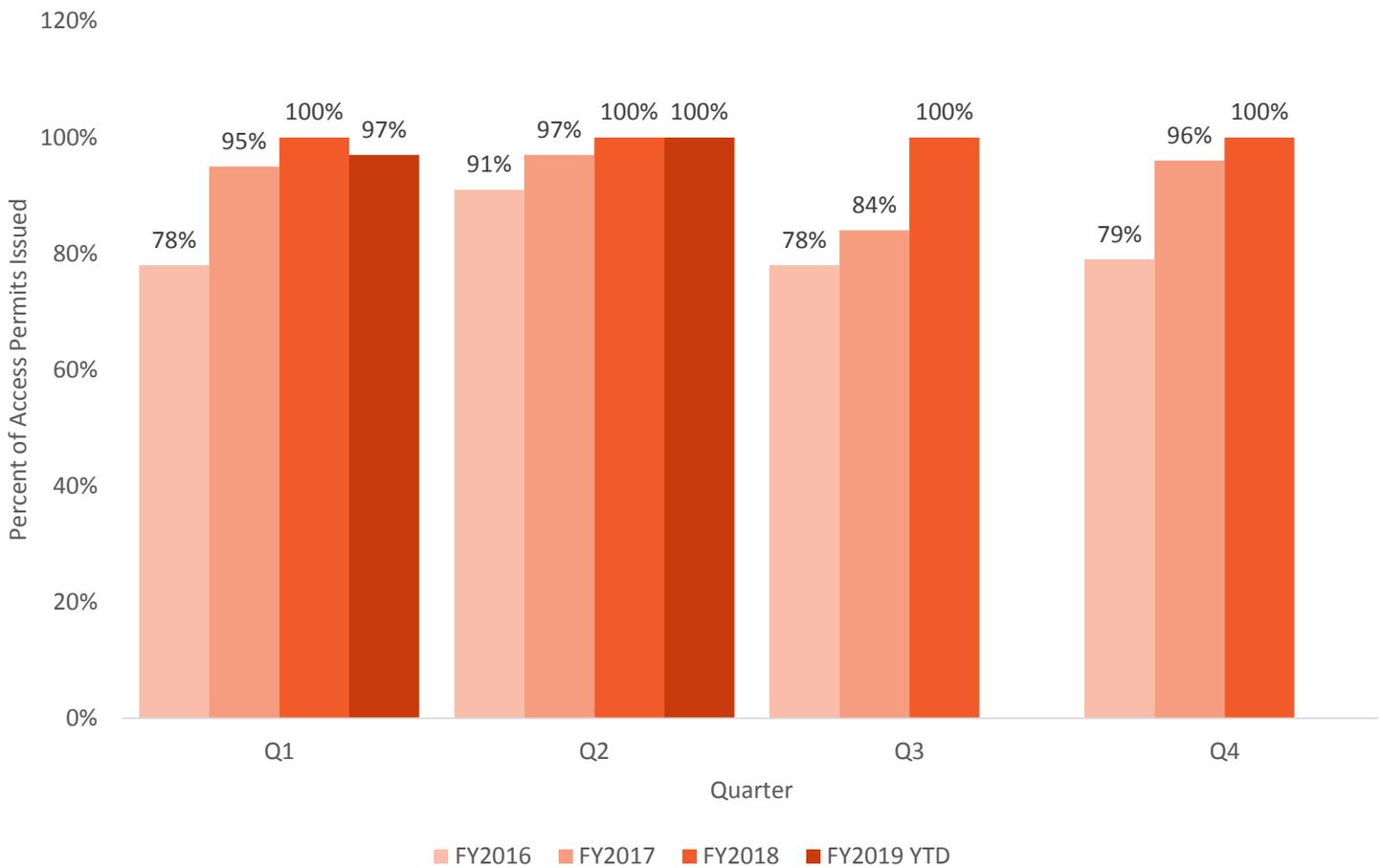


# Facilitate Economic Opportunity in Maryland

## PERFORMANCE MEASURE 10.10

### Percent of Roadway Access Permits Issued within 21 Days or Less

Chart 10.10.2: Percent of Permits Issued Within 21 Days by Quarter FY2016-FY2019



**All Electronic Tolling (AET)** – Collection of tolls at highway speeds using *E-ZPass* transponders or video tolling; no toll booths or cash collection.

**Annual Attainment Report on Transportation System Performance** – Pursuant to Transportation Article Section 2-103.1 of the Annotated Code of Maryland, the State is required to develop or update an annual performance report on the attainment of transportation goals and benchmarks in the Maryland Transportation Plan (MTP) and 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 (CY)** – The period of 12 months beginning January 1 and ending December 31 of each reporting year.

**Coordinated Highways Action Response Team (CHART)** – CHART is an incident management system aimed at improving real-time travel conditions on Maryland's highway system. CHART is a joint effort of the State Highway Administration, Maryland Transportation Authority and the Maryland State Police, in cooperation with other federal, state and local agencies.

**Consolidated Transportation Program (CTP)** – A six-year program of capital projects, which is updated annually to add new projects and reflect changes in financial commitments.

**Fiscal Year (FY)** – A yearly accounting period covering the time frame between July 1 and June 30 of each reporting year.

**MPA General Cargo** – Foreign and domestic waterborne general cargo handled at the public (MPA) terminals.

**Port of Baltimore Foreign Cargo** – International (Foreign) cargo handled at public and private terminals within

the Baltimore Port District. This includes bulk cargo (e.g., coal, sugar, petroleum, ore, etc. shipped in bulk) and all general cargo (e.g., miscellaneous goods shipped in various packaging).

**MAA** – Maryland Aviation Administration operates Baltimore/Washington International Thurgood Marshall Airport (BWI Marshall) and Martin State Airport, a general aviation/reliever airport northeast of Baltimore.

**MDTA** – Maryland Transportation Authority operates and maintains the State's eight toll facilities.

**Mode** - Form of transportation used to move people or cargo (e.g., truck, rail, air).

**MPA** – Maryland Port Administration promotes the Port of Baltimore as a leading east coast hub for cargo and cruise activity.

**MTA** – Maryland Transit Administration provides Local Bus, Light Rail, Metro Rail, Paratransit services and regional services through commuter rail (MARC) and Commuter Bus, as well as grant funding and technical assistance.

**MVA** – Motor Vehicle Administration serves as the gateway to Maryland's transportation infrastructure, providing a host of services for drivers and vehicles, including registration, licensing and highway safety initiatives.

**SHA** – State Highway Administration manages the State's highway system which includes 17,117 lane miles of roads and 2,564 bridges

**TBU** – Transportation Business Unit

**TSO** – The Secretary's Office

**Vehicle Miles of Travel (VMT)** – A measurement of the total miles traveled by all vehicles.

*The data contained herein is impacted by a number of variables and may vary and evolve depending on those variables.*



**Boyd K. Rutherford**  
*Lt. Governor*



**Larry Hogan**  
*Governor*



**Pete K. Rahn**  
*Secretary of Transportation*

**MDOT** MARYLAND DEPARTMENT OF TRANSPORTATION

7201 Corporate Center Drive, Hanover, Maryland 21076  
Local 410.865.1000 • Toll Free 1.888.713.1414 • Maryland Relay TTY 1.800.735.2258

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