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)

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)

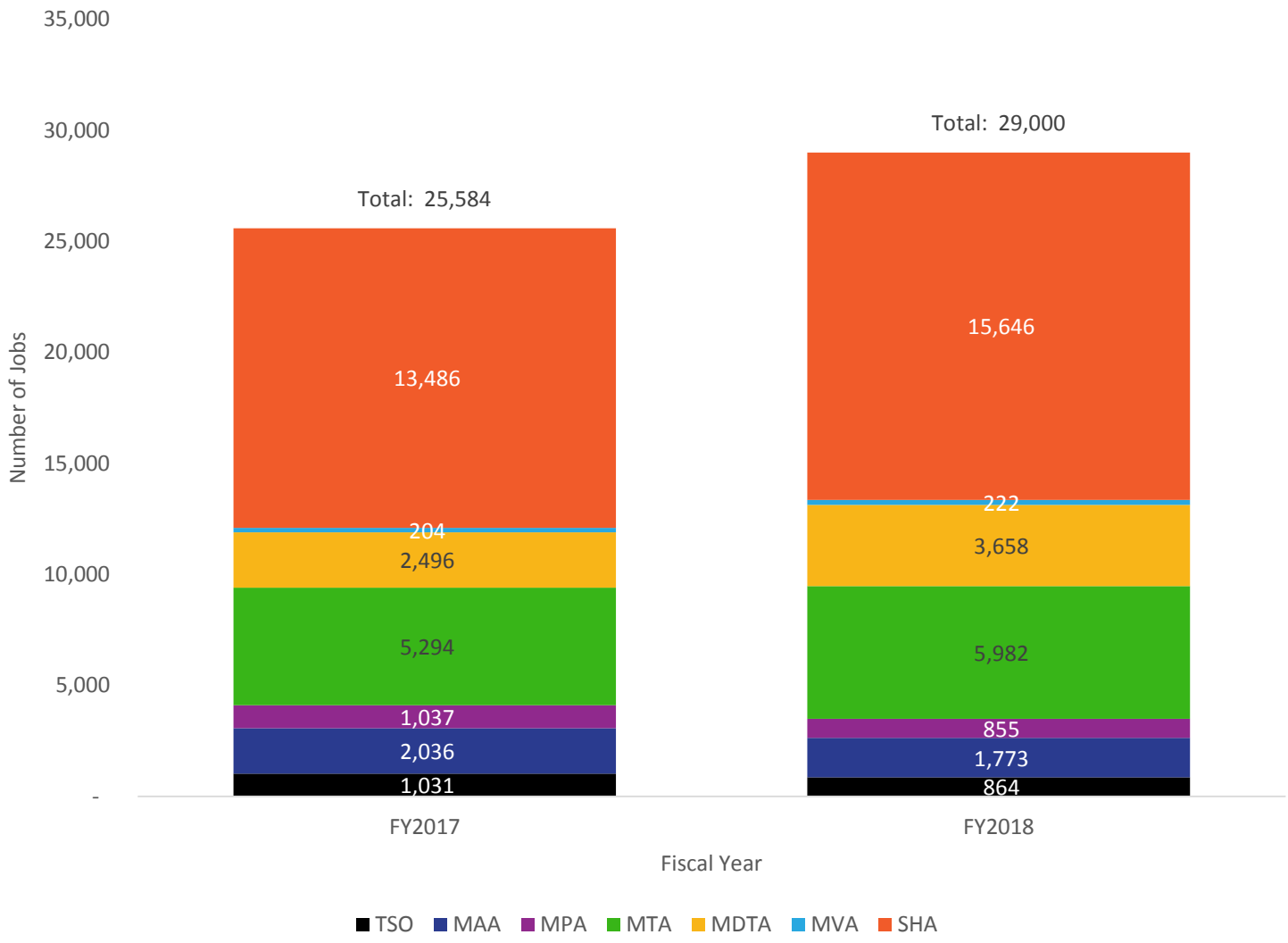
Construction spending on transportation projects has a significant economic impact on people and businesses throughout the State. Economic return from transportation investment is based on the estimated number of jobs created as a result of MDOT investments in capital projects. In FY2018, approximately 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.

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



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.

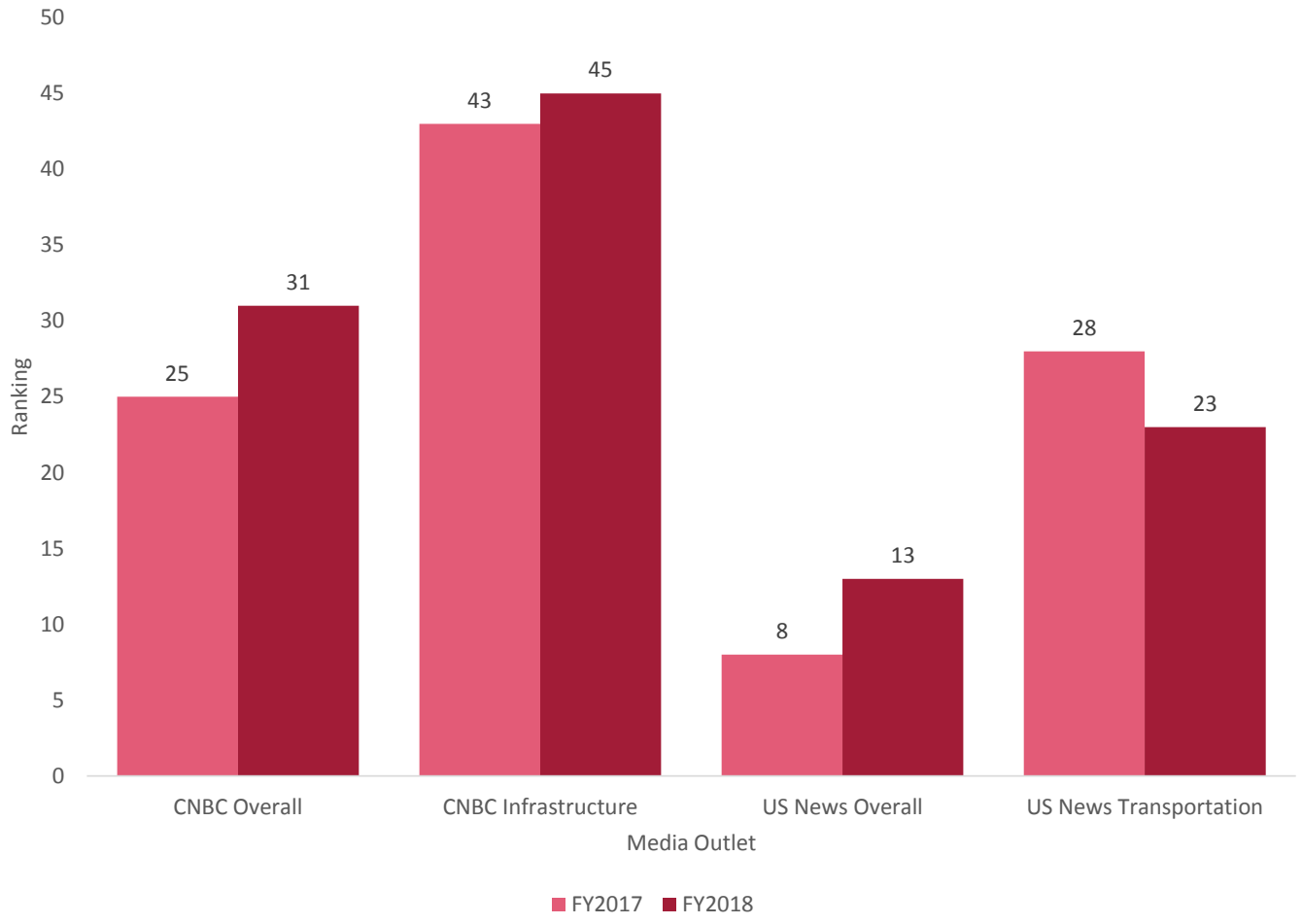
The infrastructure category is a measure of a state's transportation system and supply of safe drinking water and waste water Infrastructure. It includes metrics to compare the value of goods shipped by air, waterways, roads and rail within a state, the quality of roads and bridges, and commute times. 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.

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



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.*

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.

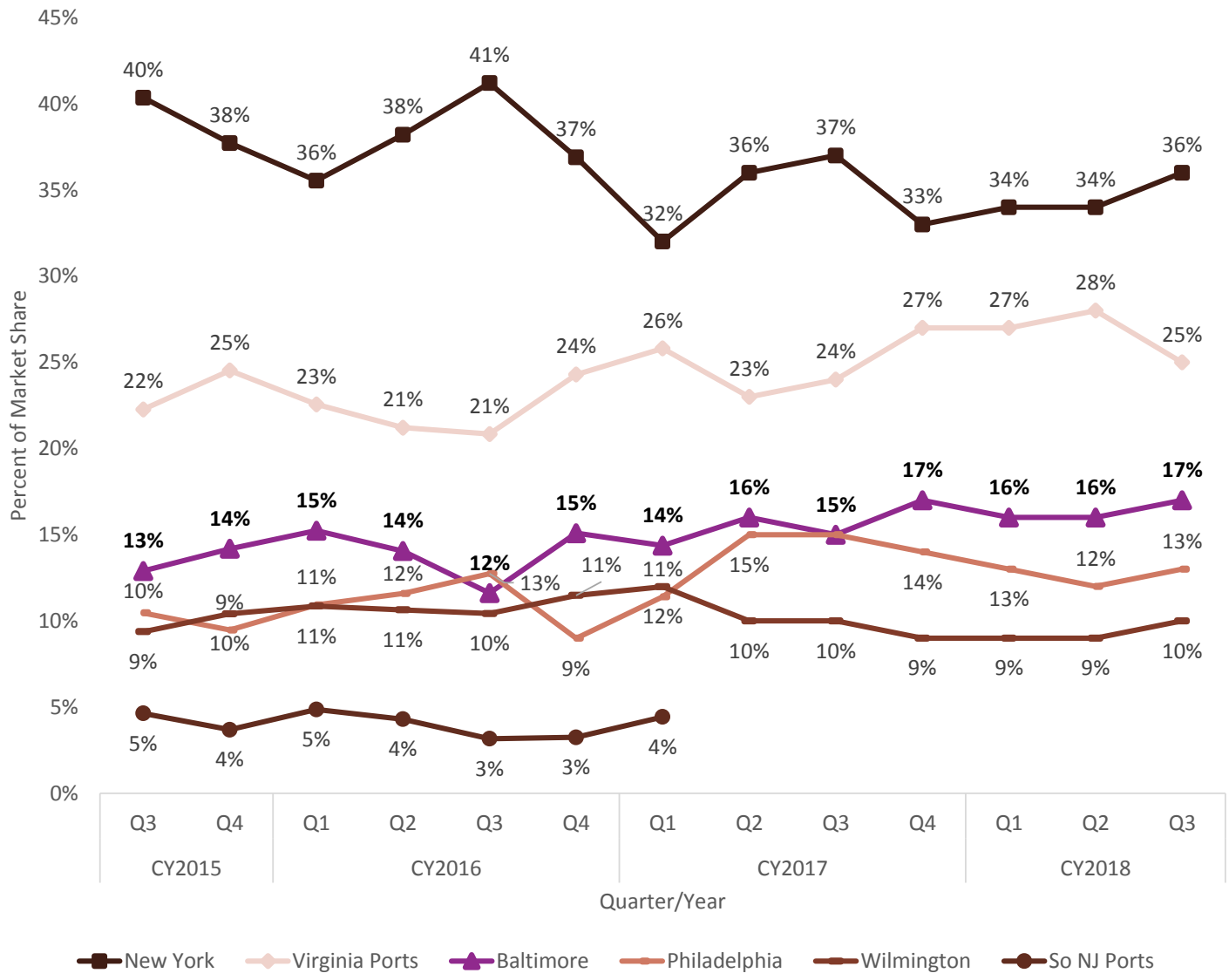
Port's overall ranking is third for Q3 with 17 percent market share. This is between two and five percentage points better than the third quarters of prior years.

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.

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



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.

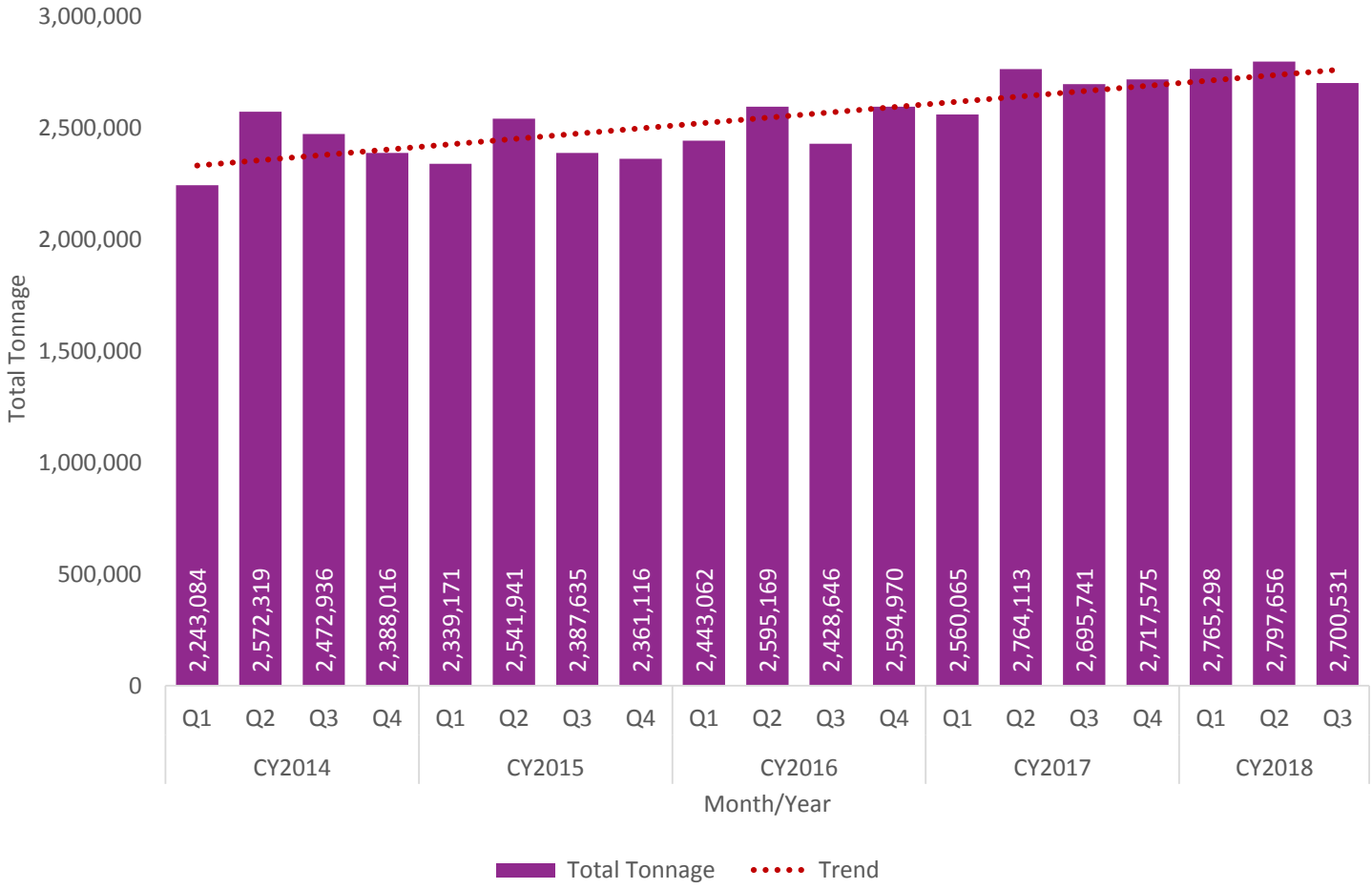
MPA conducts a multi-pronged effort to sustain and expand cargo volumes. For example, emphasizing long term contracts with favorable rates; marketing the whole Port; facilitating ways to improve efficiency at Seagirt Marine Terminal to increase truck productivity; managing the capital program to focus 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.

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

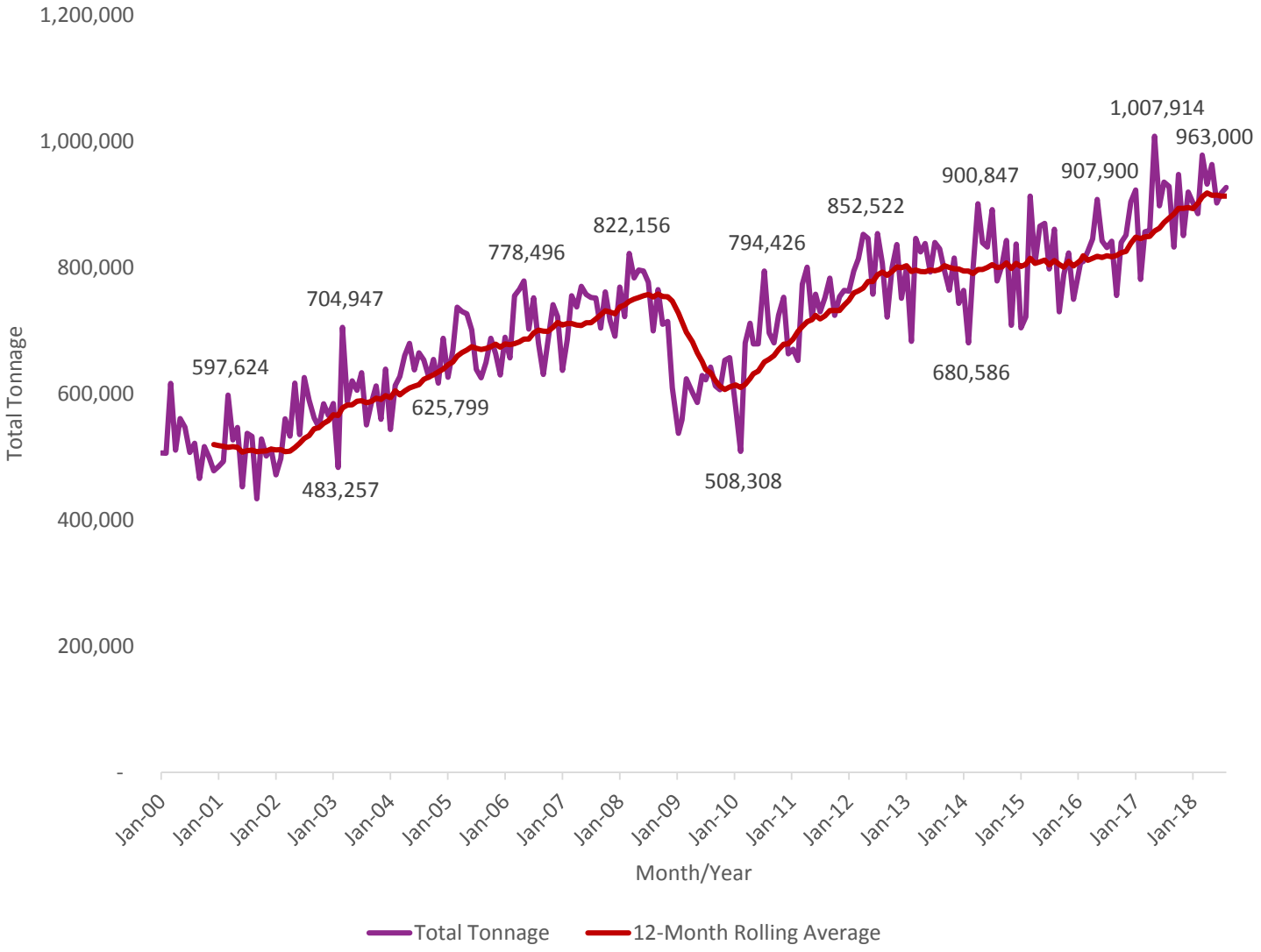


PERFORMANCE MEASURE 10.3C

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



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.

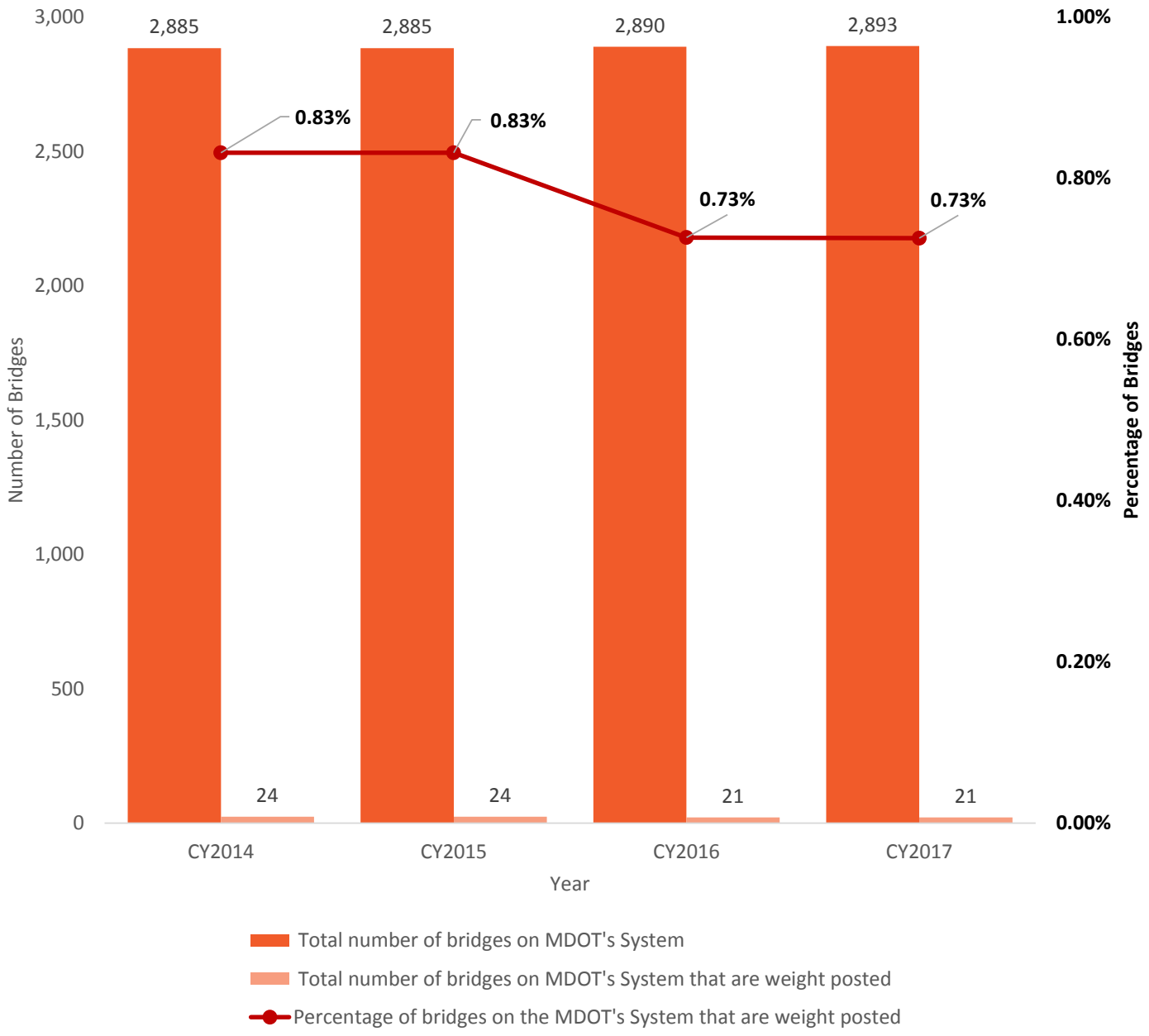
If a bridge cannot safely carry all legal loads, due to its present condition or original design criteria, it will be evaluated and a vehicle weight will be established that it can safely carry. This lower vehicle weight (which is less than the legal weight) will be placed on signs alerting all potential 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.

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



TANGIBLE RESULT DRIVER:
Jim Dwyer
Maryland Port Administration (MPA)

PERFORMANCE MEASURE DRIVER:
Corey Stottlemyer
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.

TANGIBLE RESULT DRIVER:
Jim Dwyer
Maryland Port Administration (MPA)

PERFORMANCE MEASURE DRIVER:
Corey Stottlemyer
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.

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

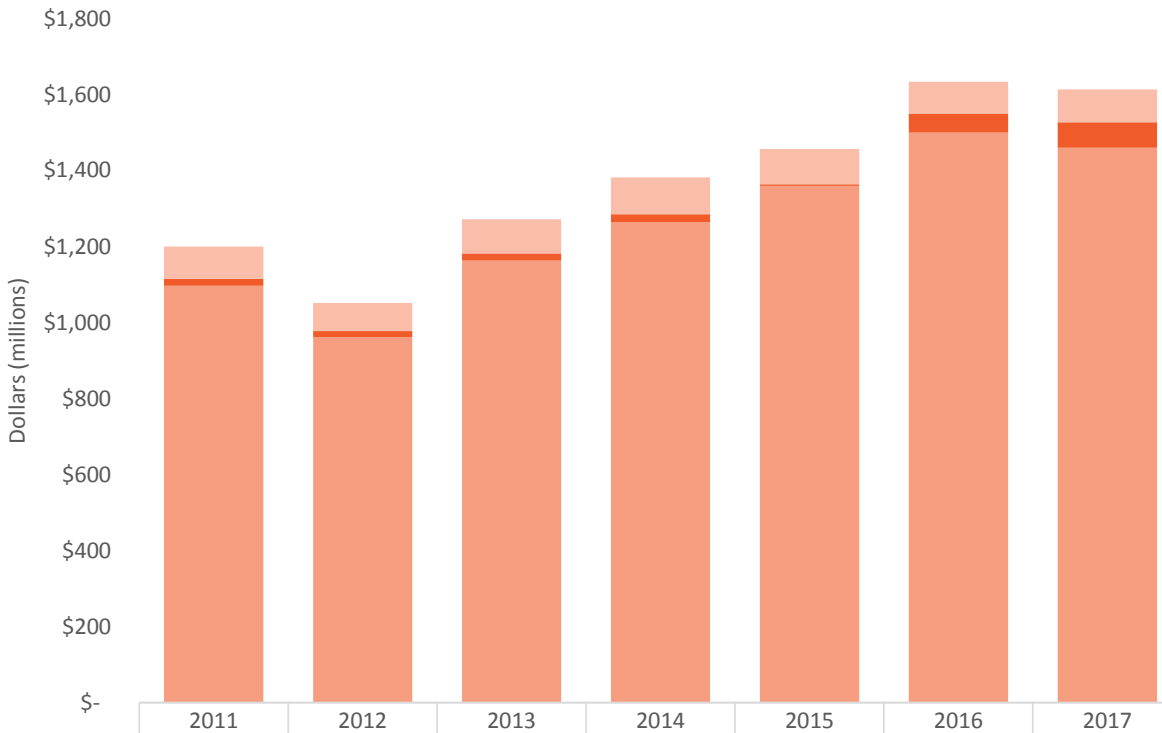
The SHA or MDTA implement various projects, programs and policies to reduce congestion and enhance mobility on their facilities. The SHA focuses on both recurrent and non-recurrent aspects of congestion. These include CHART, Incident Management and Intelligent Transportation Systems (ITS) programs, major/minor 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.

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



	2011	2012	2013	2014	2015	2016	2017
Signals & Multimodal	$85	$74	$90	$97	$92	$84	$87
Capital Improvements	$18	$16	$19	$21	$4	$50	$67
CHART	$1,097	$962	$1,163	$1,264	$1,360	$1,500	$1,460

CHART Capital Improvements Signals & Multimodal

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 visting 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.

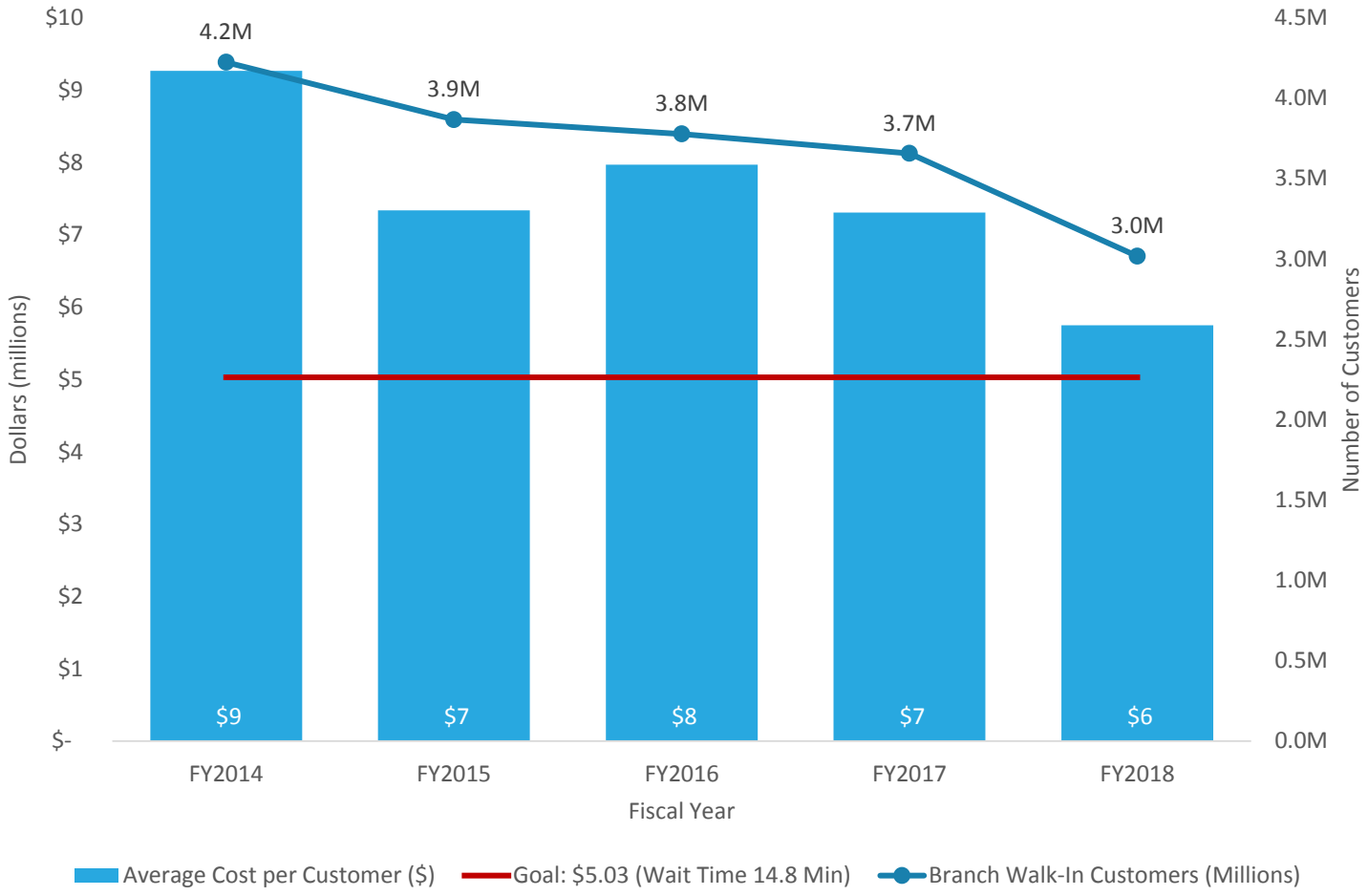
The graph shows that wait times are going down which means the cost to the customer waiting in line is going down. The economic vitality to the State is dependent on the ability to use resources and time in a manner that is beneficial for customers. The calculation is determined by Wait Time and Median 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.

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.

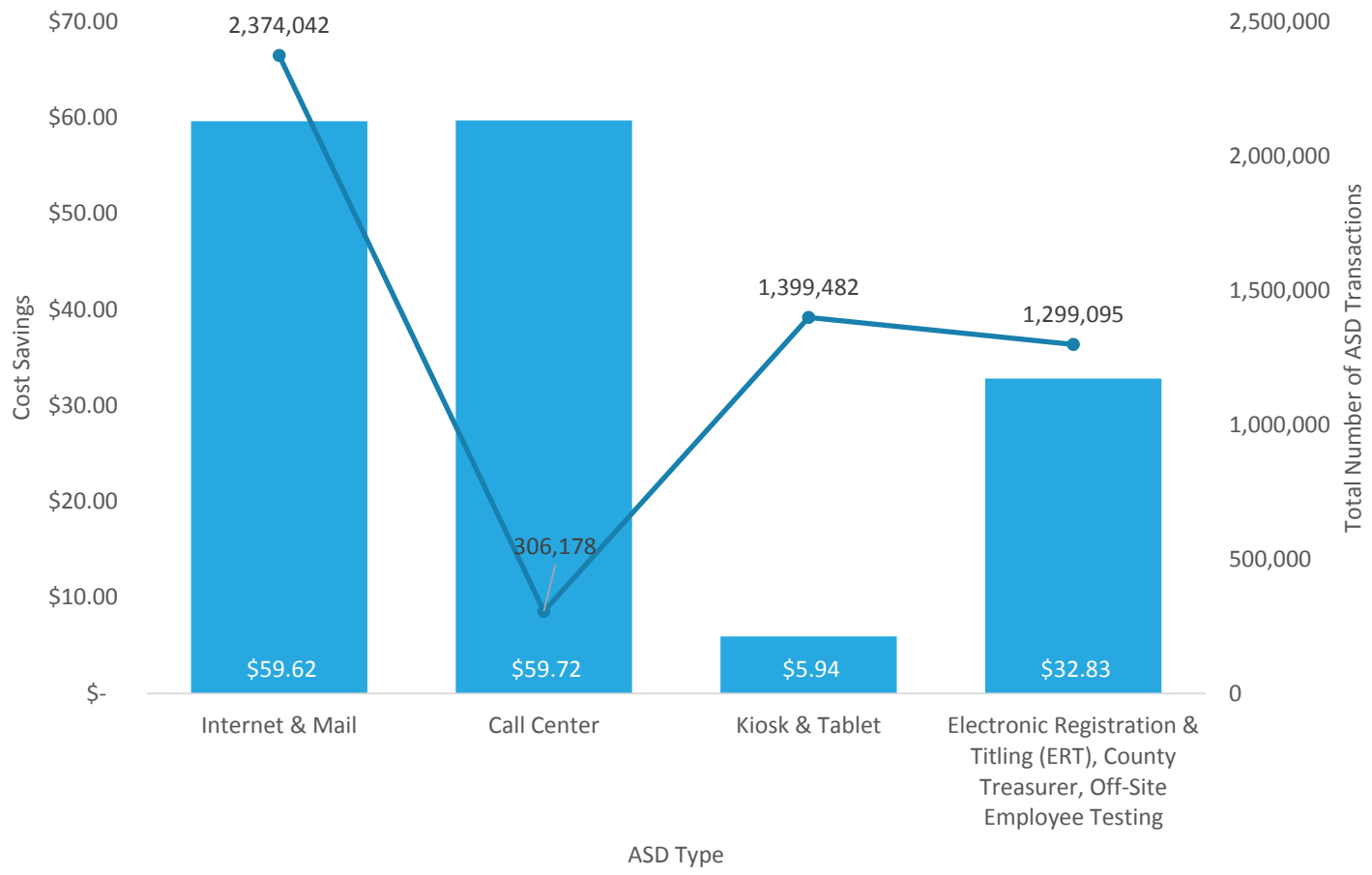
MVA continues to build process and system efficiencies that will support the use of ASD. Over the past year, MVA has implemented several ASD enhancements that support the convenience of customer transactions.

- 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.

PERFORMANCE MEASURE 10.7C

Opportunity Cost Savings to Customer for ASD Usage

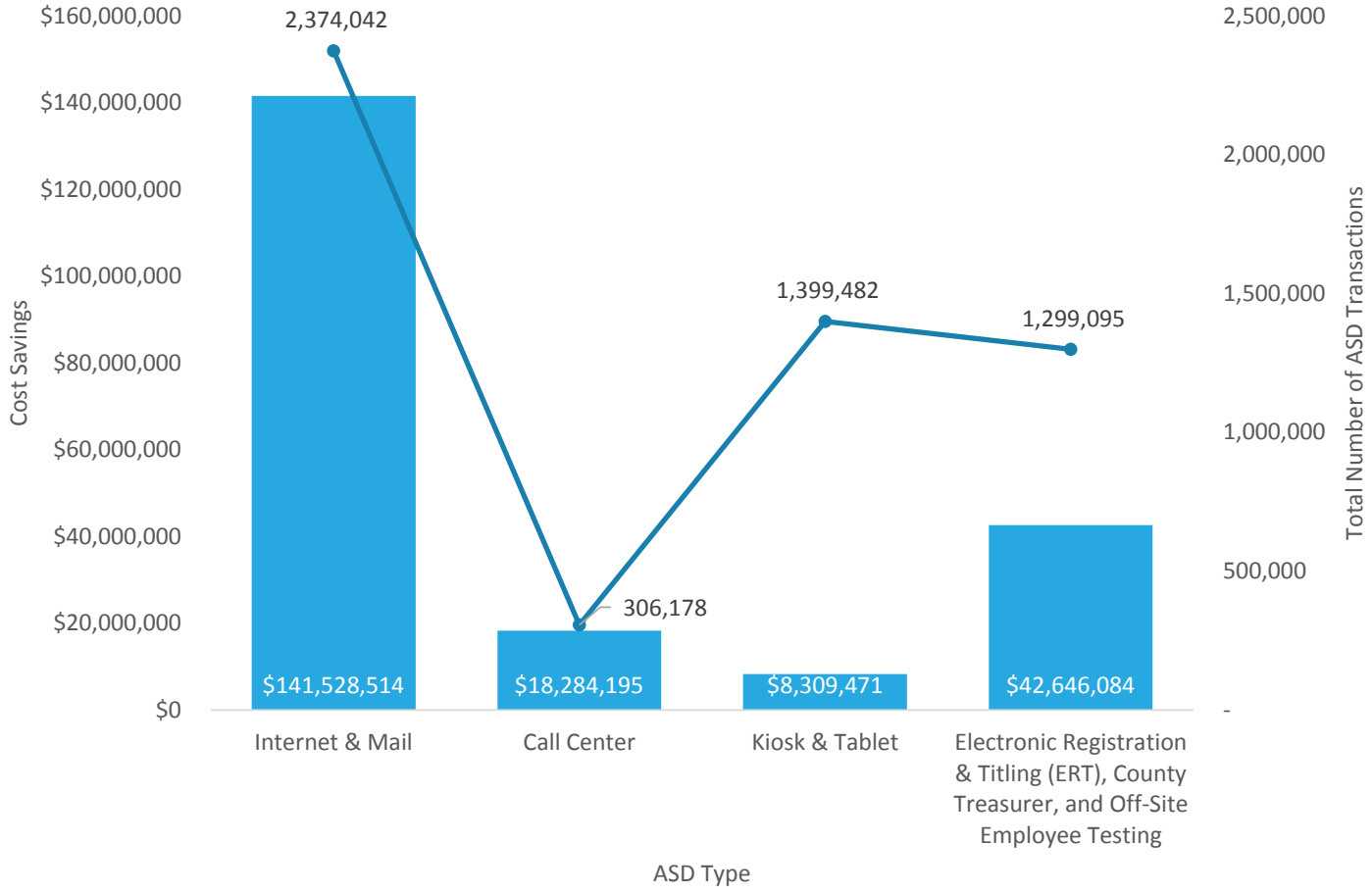
Chart 10.7C.1: Opportunity Cost Savings to Customer for Alternative Service Delivery (ASD) Usage, Individual Customer FY2018



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



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

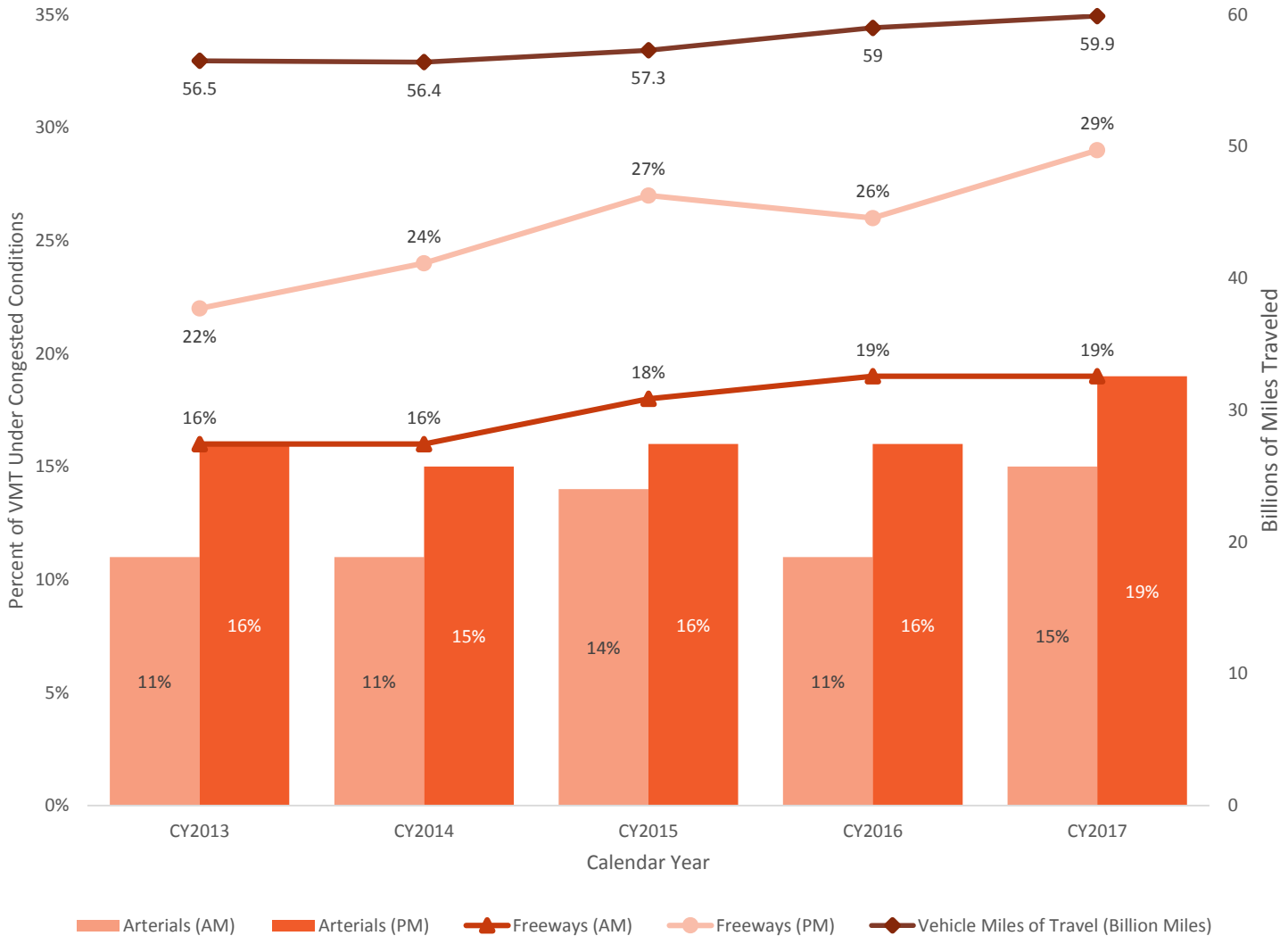
This measure represents the percentage of peak hour VMT on Maryland highways that occurs in congested conditions. Congestion on freeways occurs when the travel time index (TTI) ratio is greater than 1.3 (traffic travels at 25 percent slower than the free flow speed). Congestion on arterials is said to 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.

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



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.

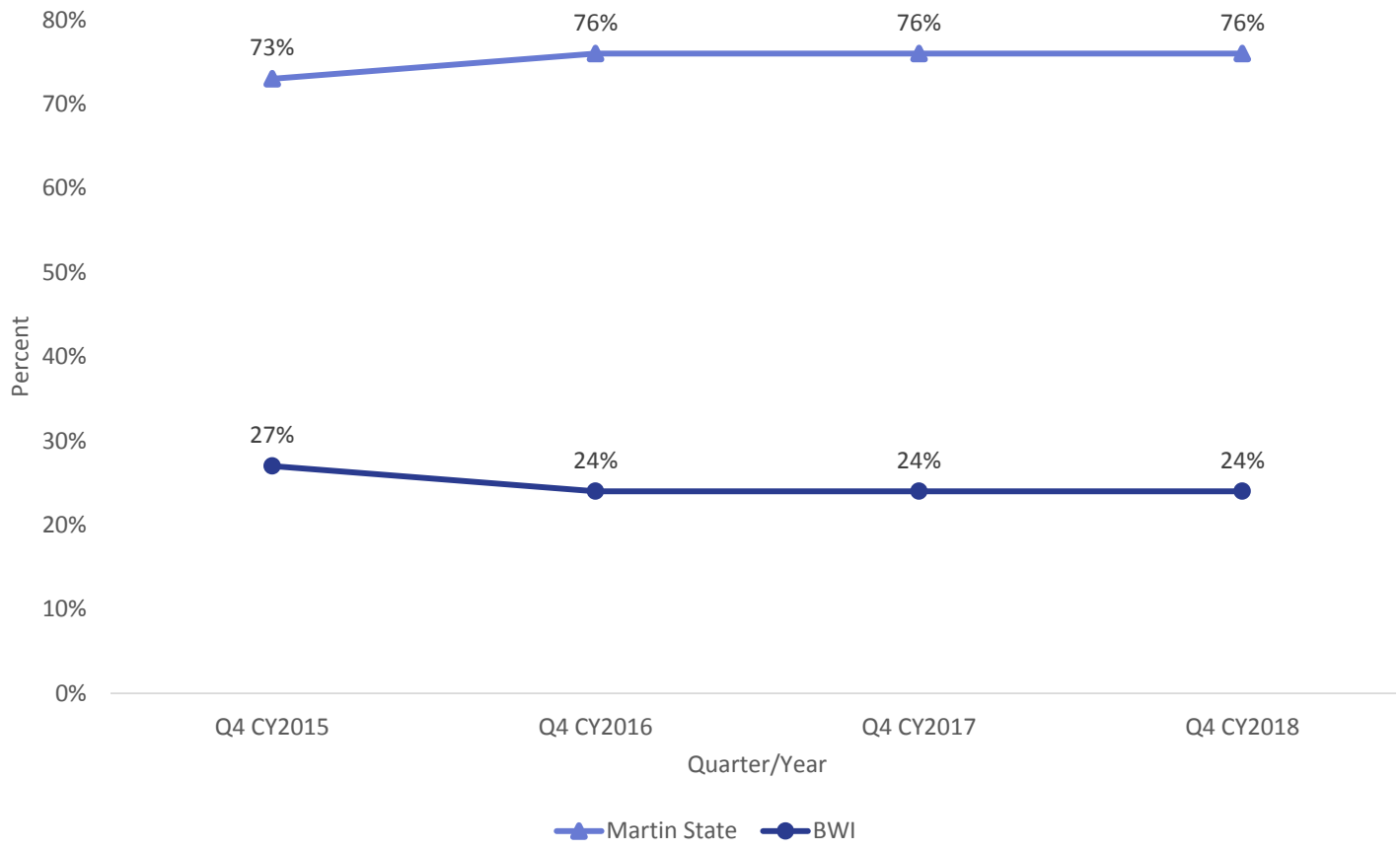
The volume of non-local general aviation operations is an indicator of how much business traffic Martin State Airport is, or is not, attracting. The more non-local operations, the more in potential fuel sales and other support operations occur at the airport. Such operations generate revenue and support 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.

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



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

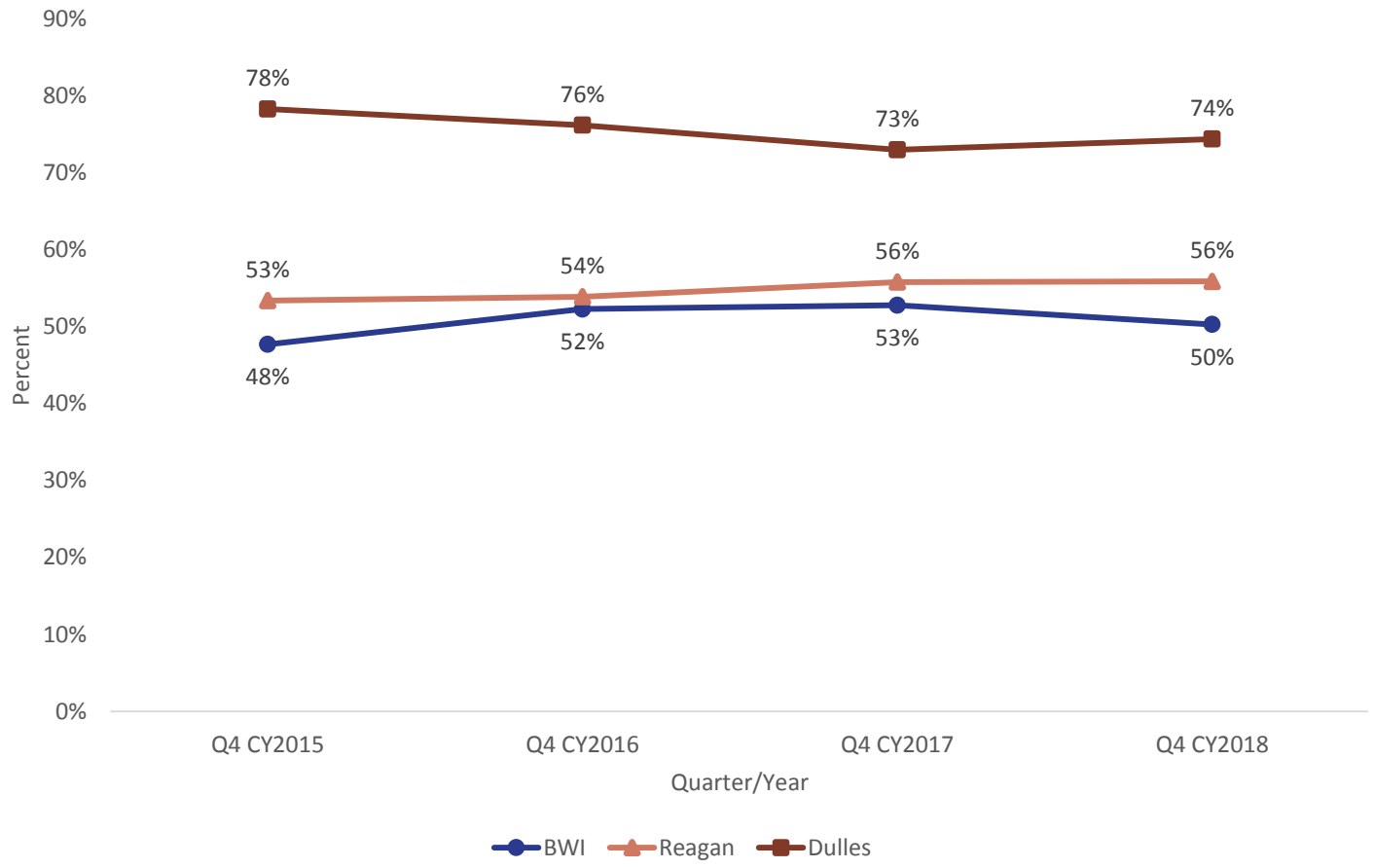
The Washington-Baltimore region is served by three primary airports. They include: Baltimore/Washington International (BWI) Thurgood Marshall Airport; Ronald Reagan National Airport; and Dulles International Airport. More than 26 million passengers flew through BWI Marshall Airport in 2017, an all-time 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



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.

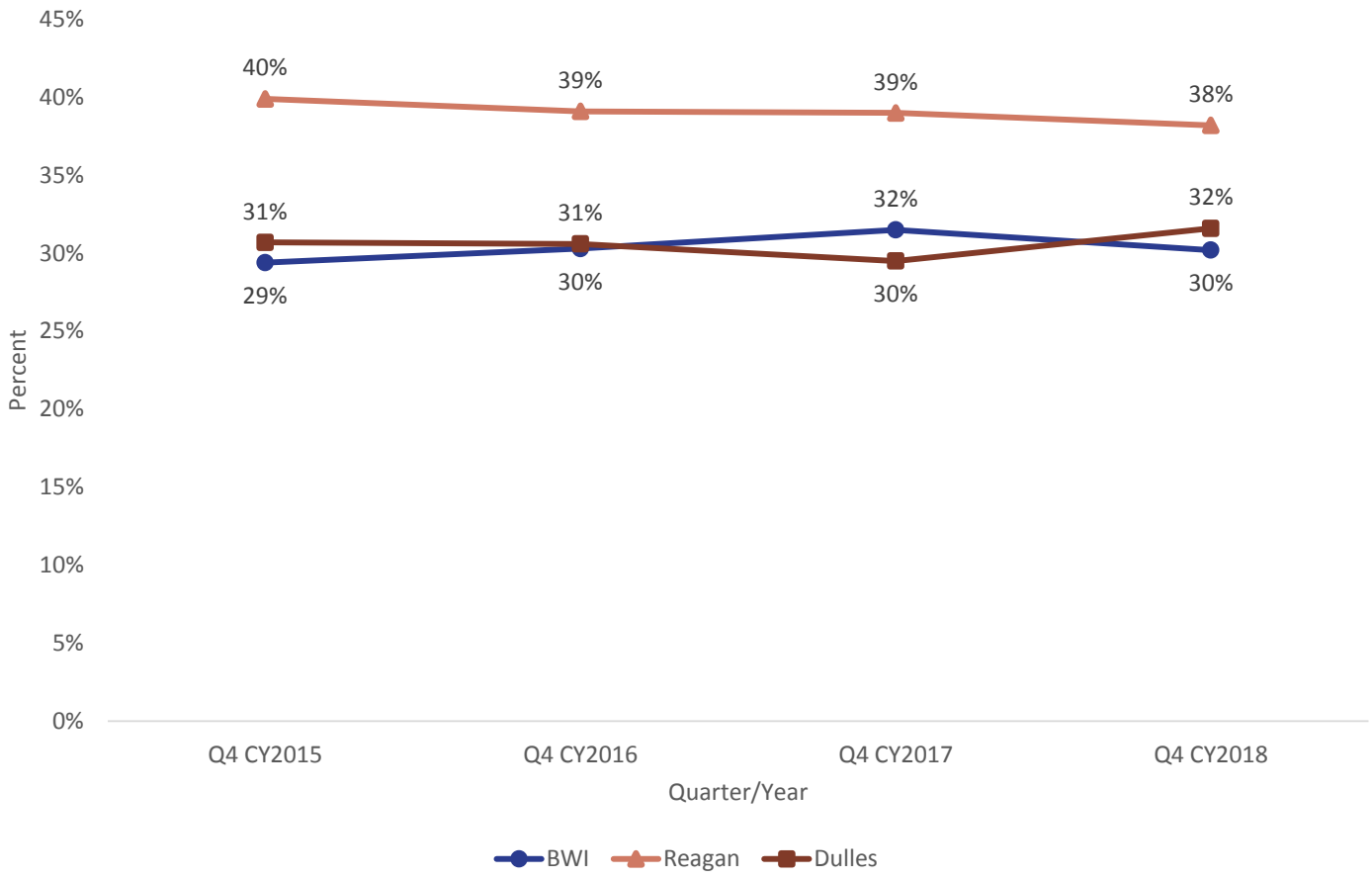
By contrast, the overwhelming majority of flights at BWI Marshall involve regularly scheduled, longer distance flights using standard size commercial aircraft like the Boeing 737 flown by Southwest Airlines. Southwest is responsible for 68 percent of the traffic at BWI Marshall. As an example, a commuter 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.

PERFORMANCE MEASURE 10.9C

Market Share: Percent of Passengers and Departing Flights Relative to Benchmark Airports

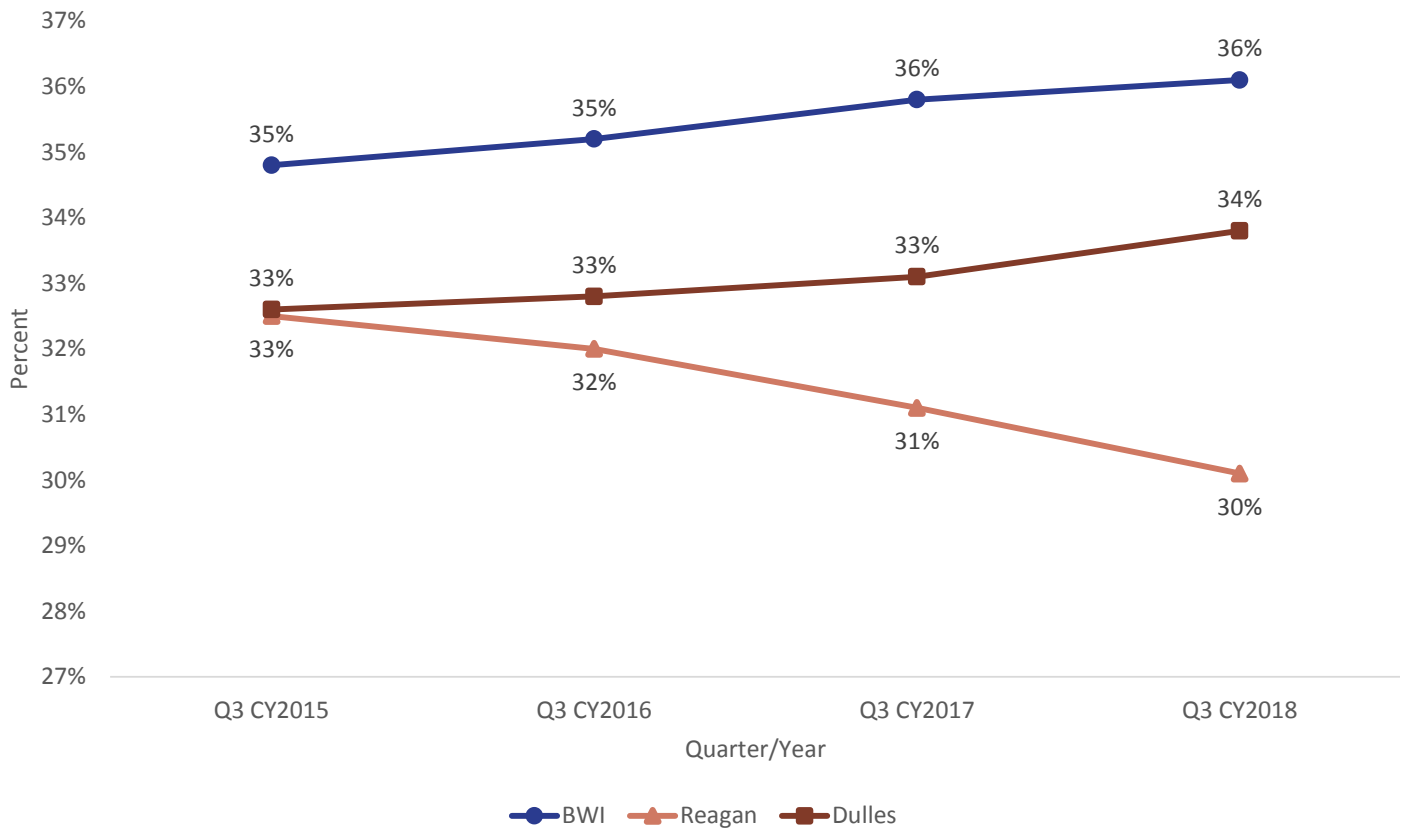
Chart 10.9C.1: Percent of Total Daily Departures at the Region's Airports Q4 CY2015-Q4 CY2018



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.

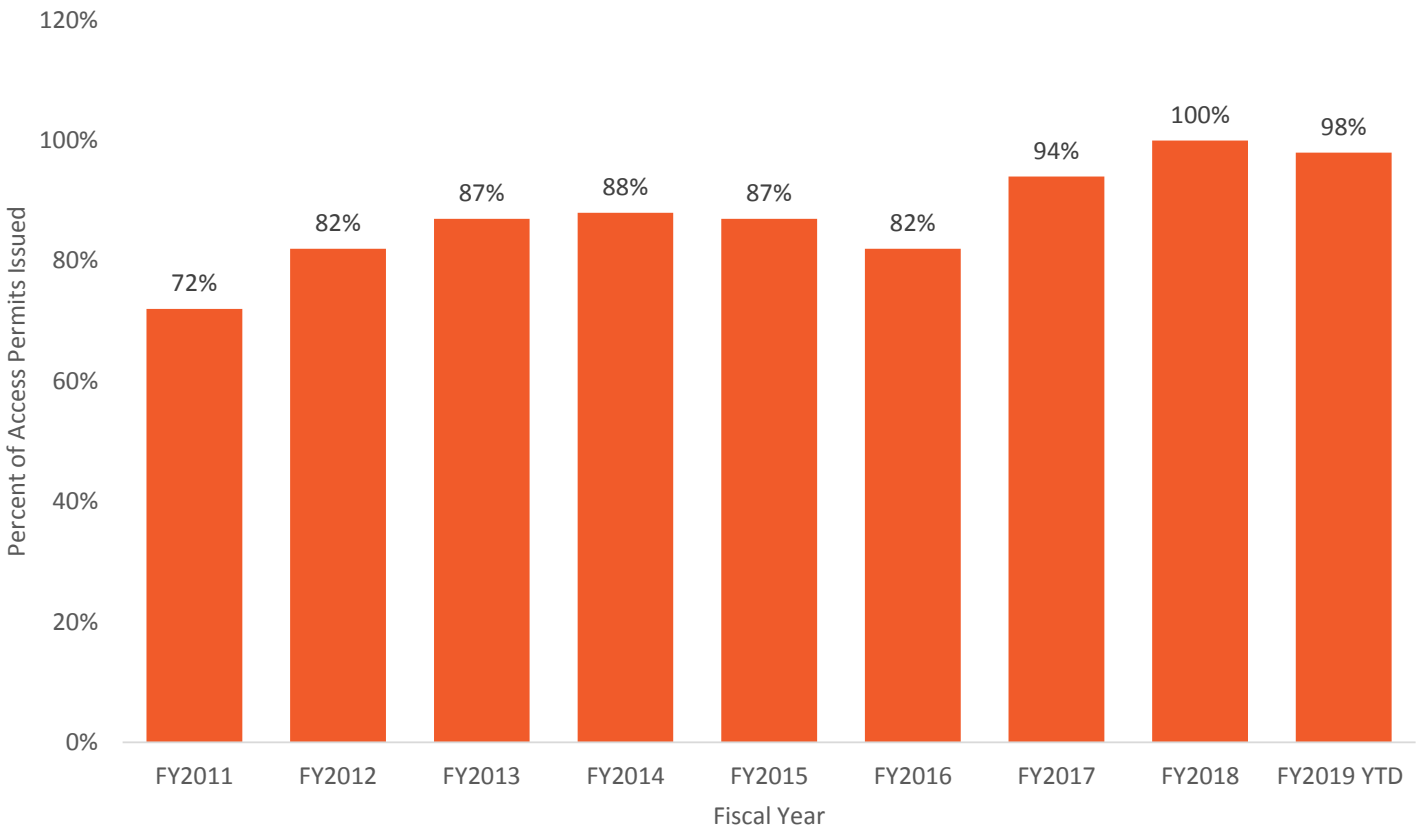
Ongoing practices include:

- 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.

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



PERFORMANCE MEASURE 10.10

Percent of Roadway Access Permits Issued within 21 Days or Less

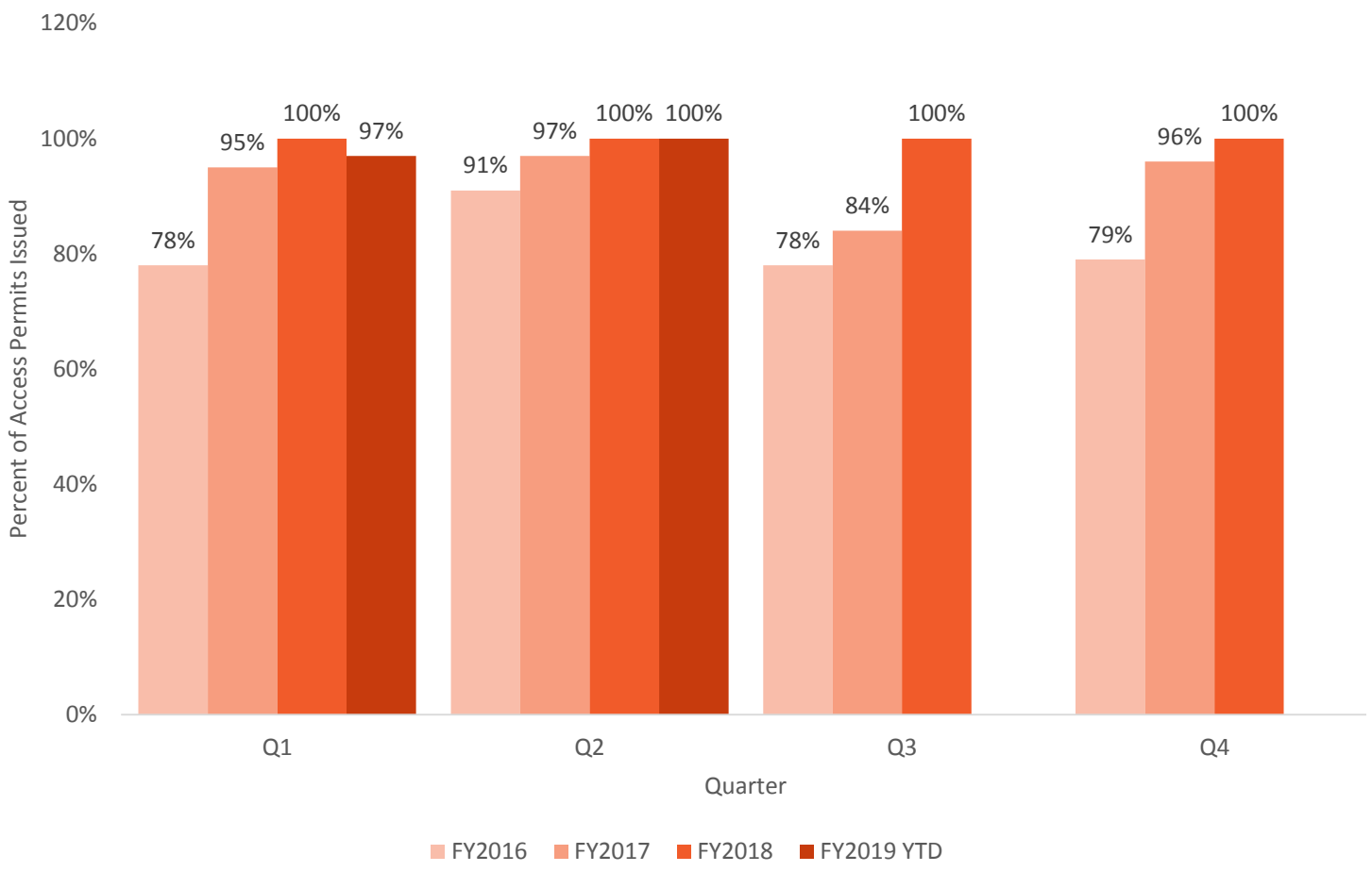



Chart 10.10.2: Percent of Permits Issued Within 21 Days by Quarter FY2016-FY2019