

## TANGIBLE RESULT #4

# Deliver Transportation Solutions and Services of Great Value



MDOT will deliver transportation solutions on time and within budget. We will use strategies to ensure that the transportation solution meets the needs of our 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:

Terri Lins

Motor Vehicle Administration (MVA)

## PURPOSE OF MEASURE:

To help determine how well the Department is with estimating project budgets and getting the best value for out projects

## FREQUENCY:

Annually (In October)

## DATA COLLECTION METHODOLOGY:

Through the Capital Program Management System (CPMS); the Consolidated Transportation Plan (CTP) & TSO & TBU's Procurement Offices

## NATIONAL BENCHMARK:

TBD

## PERFORMANCE MEASURE 4.1

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

The Consolidated Transportation Plan (CTP) is the 6 year investment plan for MDOT and its six Transportation Business Units (TBU's). The CTP solidifies the Department's planned projects and programs, both major and minor. The plan is built working with stakeholders such as Maryland citizens, local jurisdictions and the local and State delegations.

The purpose of this measure is to track the percent difference between the estimated project budget as compared to the amount given in the awarded contract. This is a valuable measure as it 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 Maryland roadways and bridges; increasing and retaining the commerce going in / out of the Port of Baltimore; attracting / retaining airlines and travelers at BWI Marshall; providing more alternative service options to Maryland citizens to conduct their MVA transaction remotely; or improving Maryland's transit services throughout the State.

Given the diverse contract types e.g., highway construction vs information technology (IT) software development, the data has been divided into (3) groups by project similarity, e.g., IT (MVA, TSO). The following graphs represent TBU data for FY's 13, 14 & 15 using similar projects within the capital budgets that best represent the business units' financial thresholds for capital projects as follows:

\$ All - (SHA & MDTA)

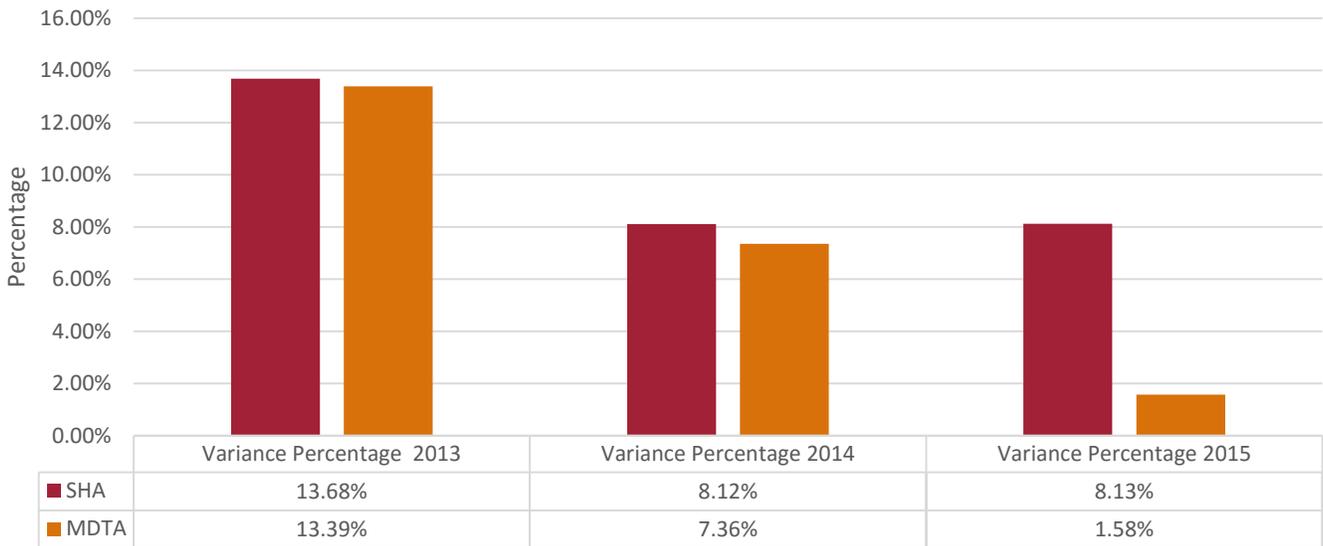
\$10M - (MPA, MAA & MTA)

\$400K - IT (TSO & MVA)

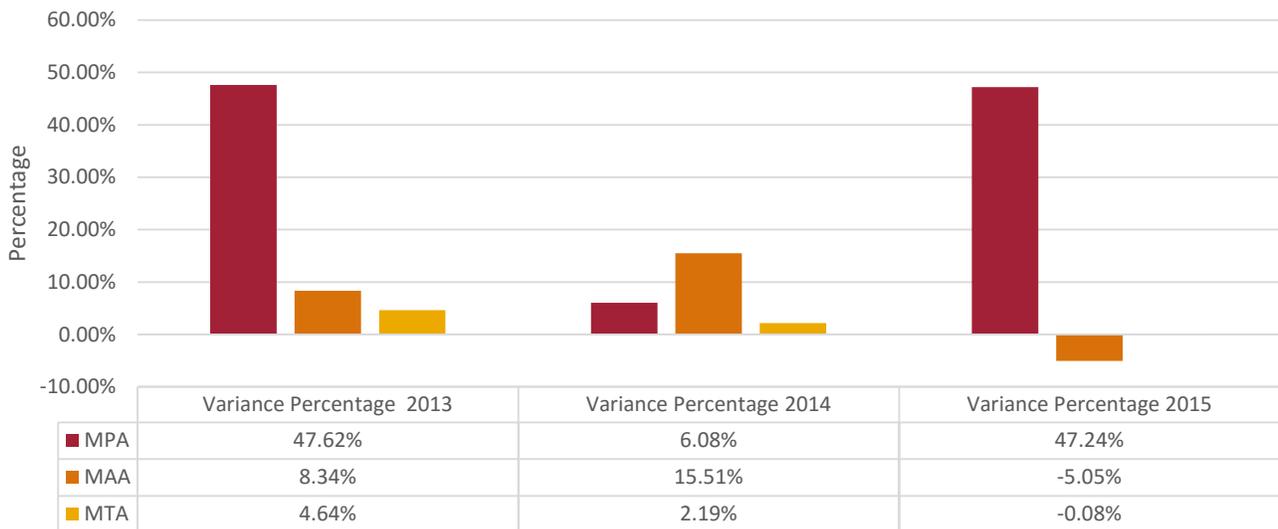
## PERFORMANCE MEASURE 4.1

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

**Project Variance Estimate to Award – SHA, MDTA**



**Project Variance Estimate to Award – MPA, MAA, MTA**

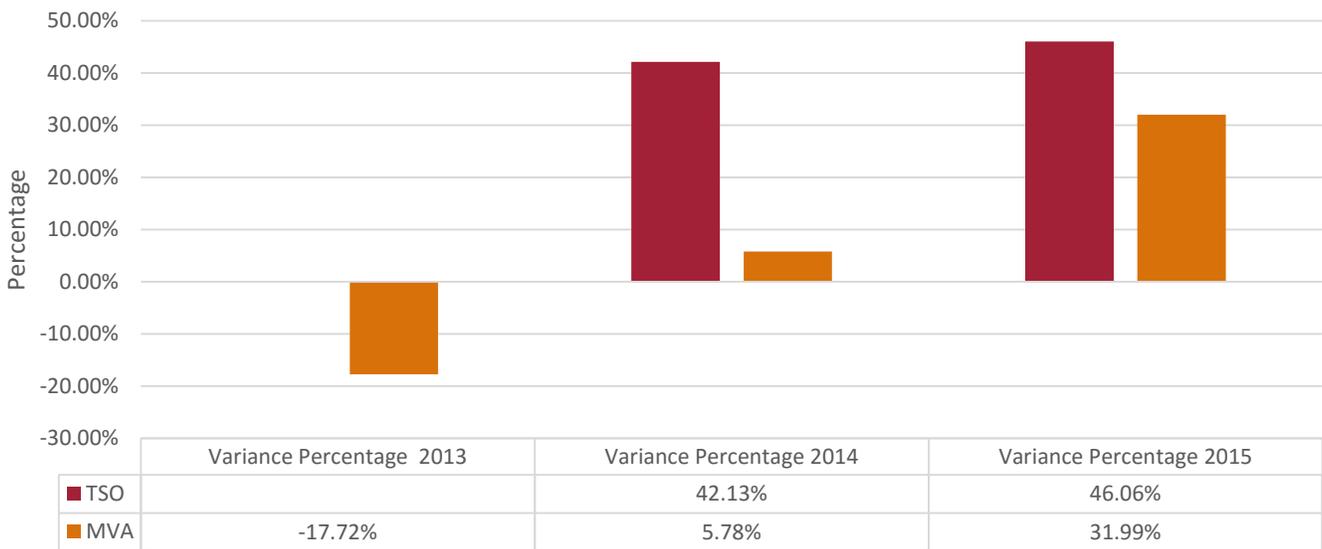


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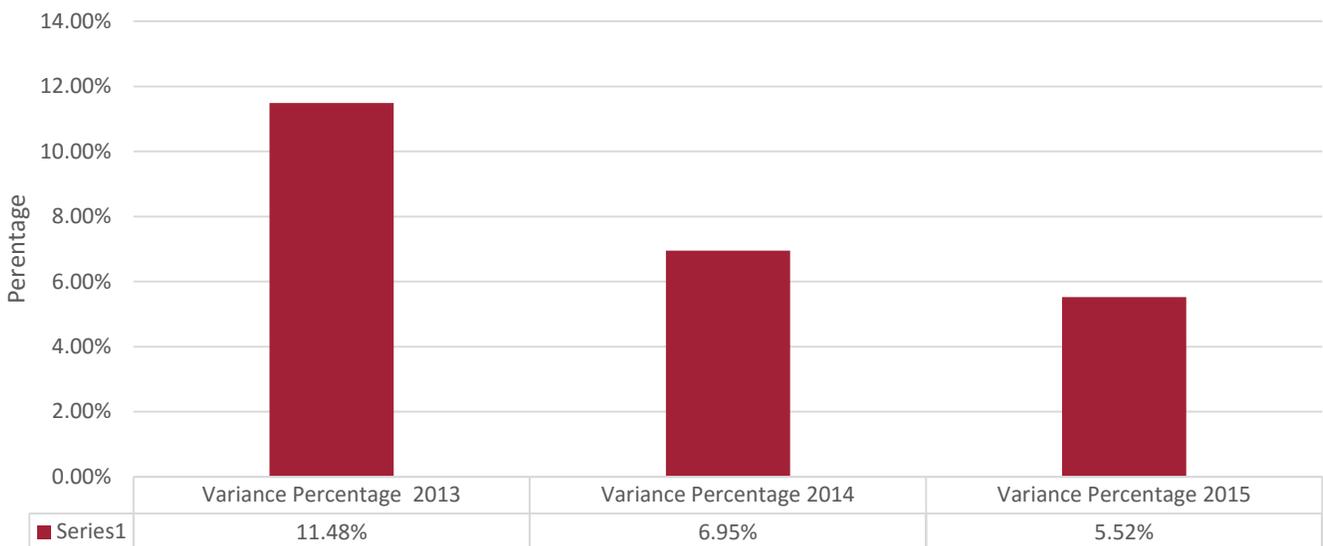
## PERFORMANCE MEASURE 4.1

Percent of Estimated Project Budget as Compared to Final Project Award

Project Variance Estimate to Award – TSO, MVA



MDOT Variance of Project Estimate to Award – Total All TBUs



# Deliver Transportation Solutions and Services of Great Value

## TANGIBLE RESULT DRIVER:

Jason Ridgway  
*State Highway Administration (SHA)*

## PERFORMANCE MEASURE DRIVER:

Brian W. Miller  
*Maryland Port Administration (MPA)*

## PURPOSE OF MEASURE:

To measure the difference in contract amount from Notice to Proceed (NTP) to final contractor payout. This is done in order to determine the effectiveness of contract management

## FREQUENCY:

Annually (in October)

## DATA COLLECTION METHODOLOGY:

Collect data from MDOT TBUs for Fiscal Years 2013 to 2015. 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:

Research continuing for National Benchmark

## PERFORMANCE MEASURE 4.2

### Percent of Change for Finalized Contracts

It is important to assess how well MDOT manages the budgeted and awarded amount during the duration of Department contracts. This is done to ensure the Department is getting what it paid for and not adding unnecessary or unbudgeted costs to 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.

The primary issue that could arise would be for contracts that exceed the award amount at final payout.

TBUs will have to monitor contracts and justify any overages through contract changes and justifications for those changes.

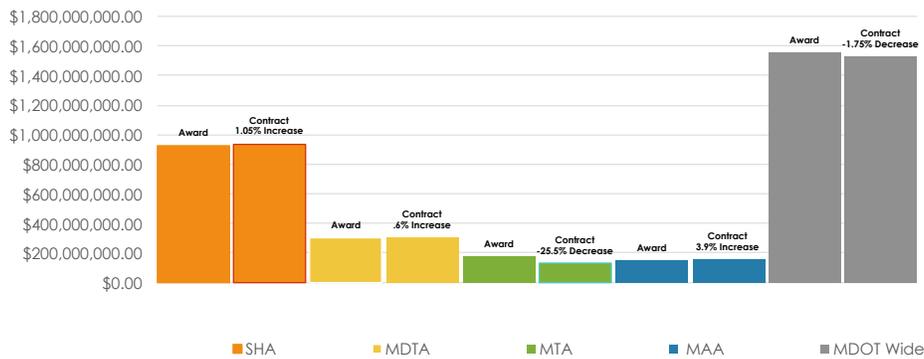
Individual TBUs may not have data from a fiscal year if no contract(s) closed during the respective fiscal year.

# Deliver Transportation Solutions and Services of Great Value

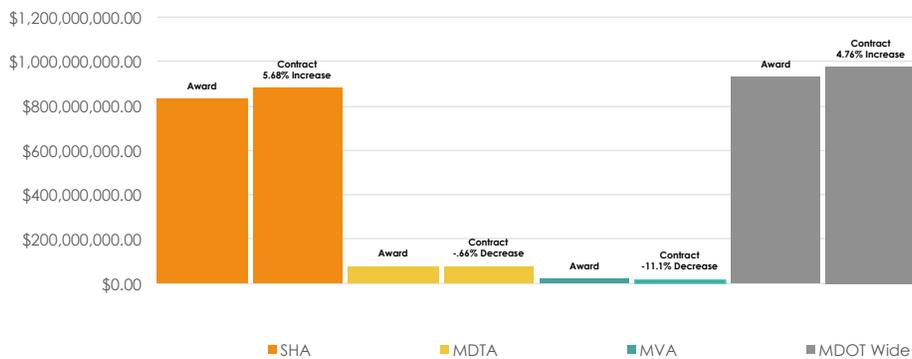
## PERFORMANCE MEASURE 4.2

### Percent of Change for Finalized Contracts

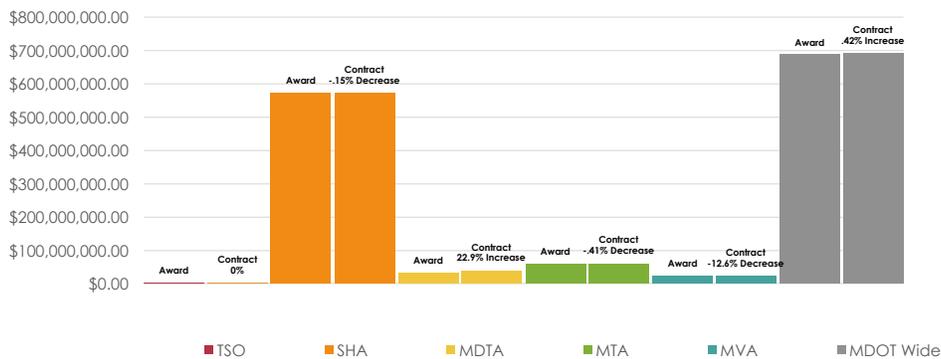
FY 13 Percent of Change for Finalized Contracts



FY 14 Percent of Change for Finalized Contracts



FY 15 Percent of Change for Finalized Contracts



# 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:**

TBD

**PERFORMANCE MEASURE 4.3**

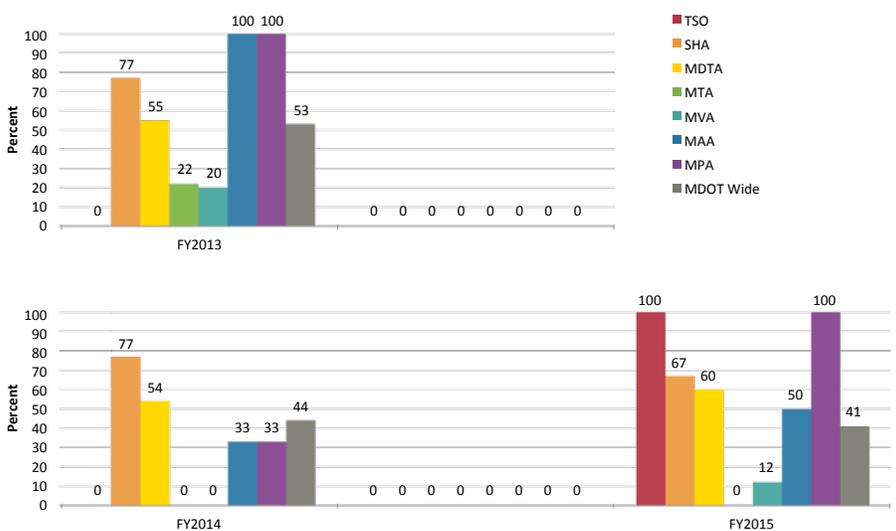
**On-time Services and Solutions: Percent of Projects Completed by Original Contract Date**

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 committed to 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 or not these factors can be mitigated.

This measure will help guide MDOT in future decision-making by providing insight on what are realistic timeframes for the completion of contracts and services. Also, it will highlight reasons for delays which will allow MDOT to reduce them in the future and ensure that projects and services are delivered to our customers in a timely manner.

**Percent of Projects Completed by Original Contract Date**



# Deliver Transportation Solutions and Services of Great Value

## TANGIBLE RESULT DRIVER:

Jason Ridgway  
*State Highway Administration (SHA)*

## PERFORMANCE MEASURE DRIVER:

Pat Keller  
*Maryland Transit Administration (MTA)*

Jim Harkness  
*Maryland Transportation Authority (MDTA)*

Wayne Schuster  
*Maryland Aviation Administration (MAA)*

## PURPOSE OF MEASURE:

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

## FREQUENCY:

Annually (in October and January)

## DATA COLLECTION METHODOLOGY:

Through the Capital Program Management System (CPMS); The Consolidated Transportation Plan (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 Transportation Business Units (TBU), and also insight into ways to reduce the cost of our services to the public.

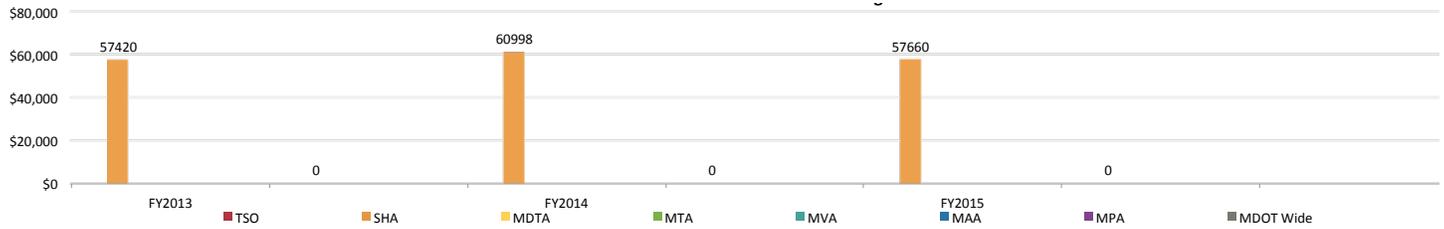
Performance measure 4.4 has ten separate measurements. These measurements include minor and major road resurfacing cost, interstate road resurfacing cost, bridge replacement cost and major bridge redecking cost. Other measurements include operating cost per passenger trip, operating cost per revenue 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.

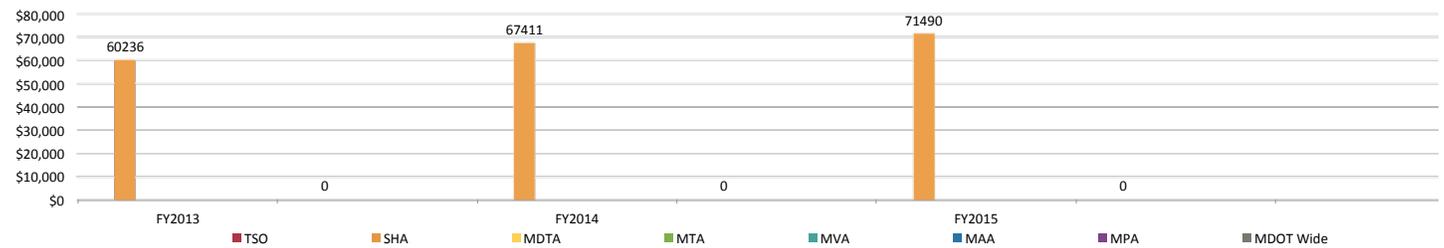
Benchmarks are sought to gauge how Maryland solutions and services compare with national averages as well as who is considered the best in this category. Based on year to year data comparisons, the goal is to identify ways to reduce costs to the citizens of Maryland.

# Deliver Transportation Solutions and Services of Great Value

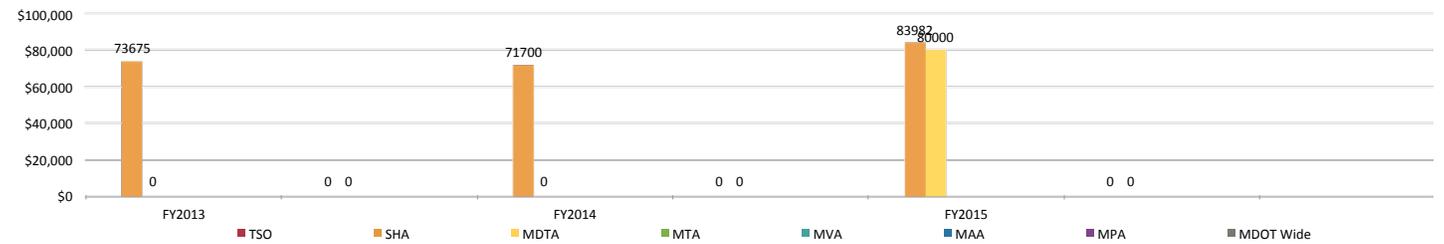
## PERFORMANCE MEASURE 4.4A Minor Road Resurfacing Cost



## PERFORMANCE MEASURE 4.4B Major Road Resurfacing Cost



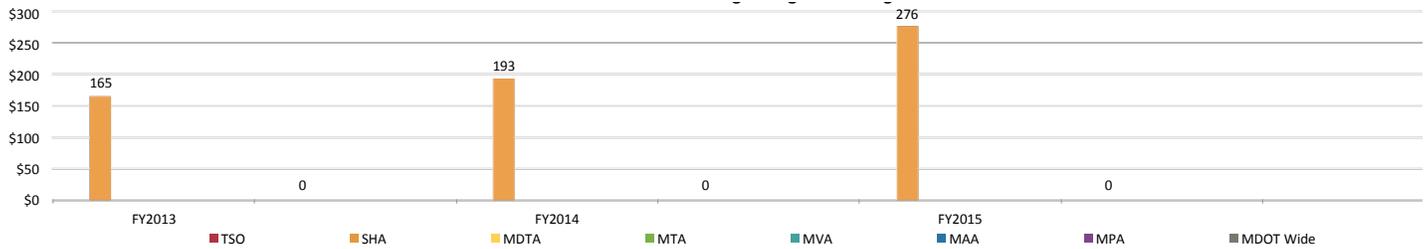
## PERFORMANCE MEASURE 4.4C Interstate Resurfacing Cost



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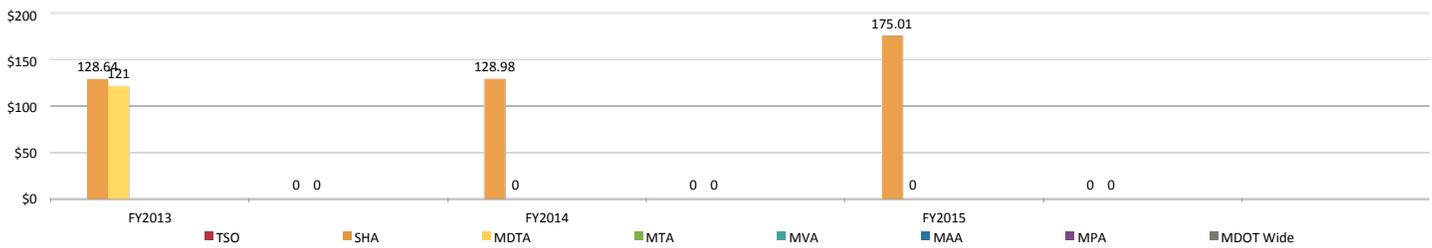
## PERFORMANCE MEASURE 4.4D

### Average Bridge Replacement Cost



## PERFORMANCE MEASURE 4.4E

### Average Bridge Redecking Cost



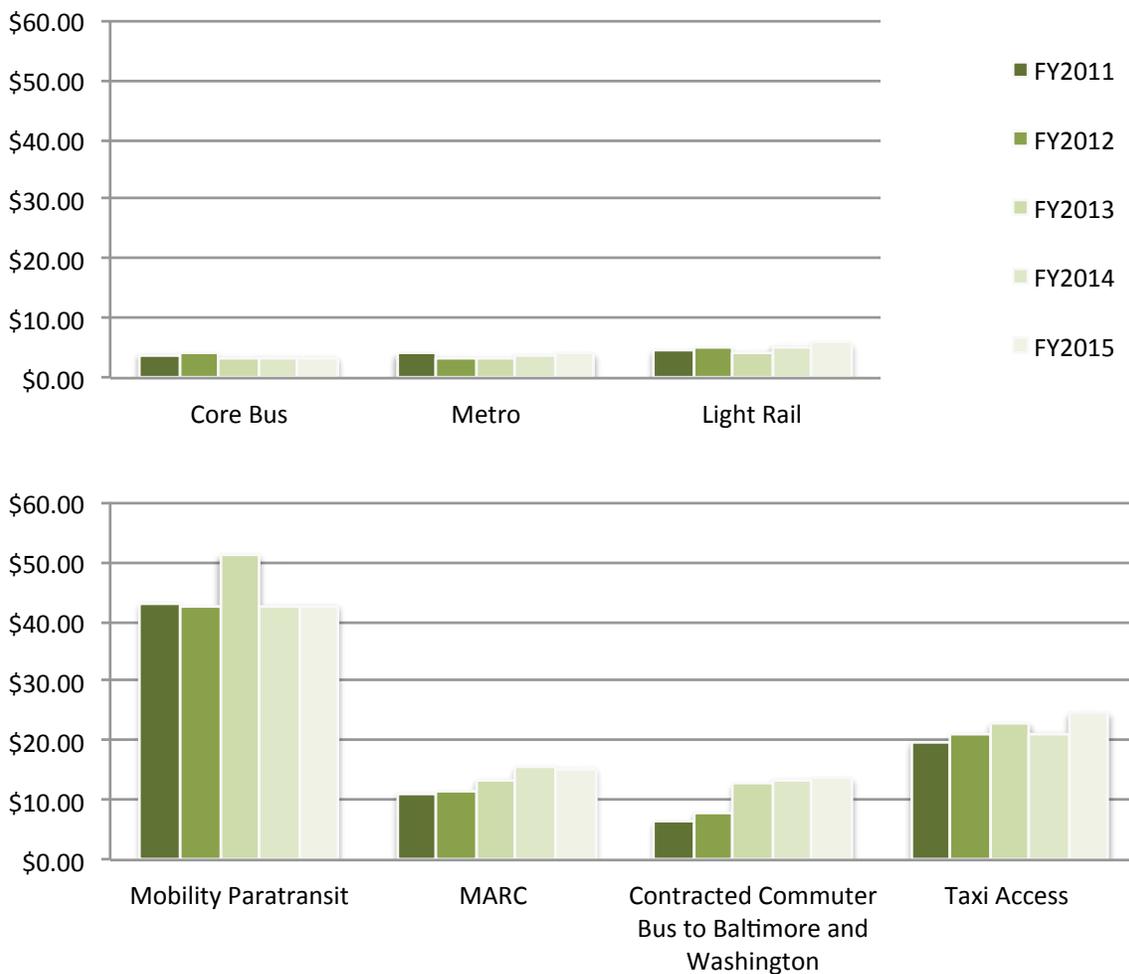
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## PERFORMANCE MEASURE 4.4F

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

Operating cost per passenger trip is an indication of how effectively and efficiently the MTA is producing service given the operating costs. Ideally, a lower operating cost per passenger trip demonstrates the ability to move passengers in an efficient and effective manner.

Operating Cost Per Passenger Trip



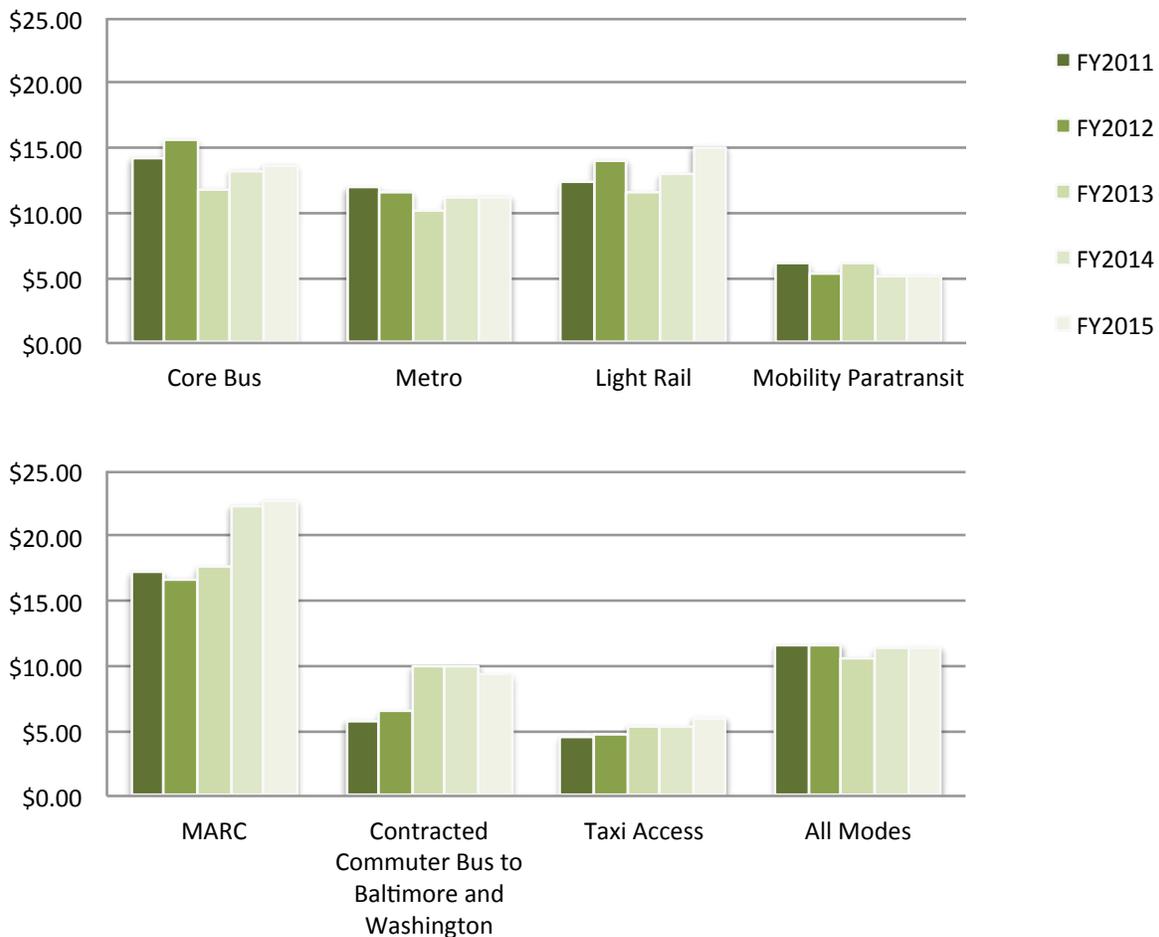
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## PERFORMANCE MEASURE 4.4G

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

Operating cost per revenue vehicle mile is an indication of the cost efficiency of the MTA in producing service given operating costs and scheduling of service. Ideally, when a transit vehicle is in operation, the goal is to be in revenue service vs. deadhead or repair. A lower operating cost per revenue vehicle mile demonstrates an efficient, well scheduled service and maintained fleet.

Operating Cost Per Revenue Vehicle Mile



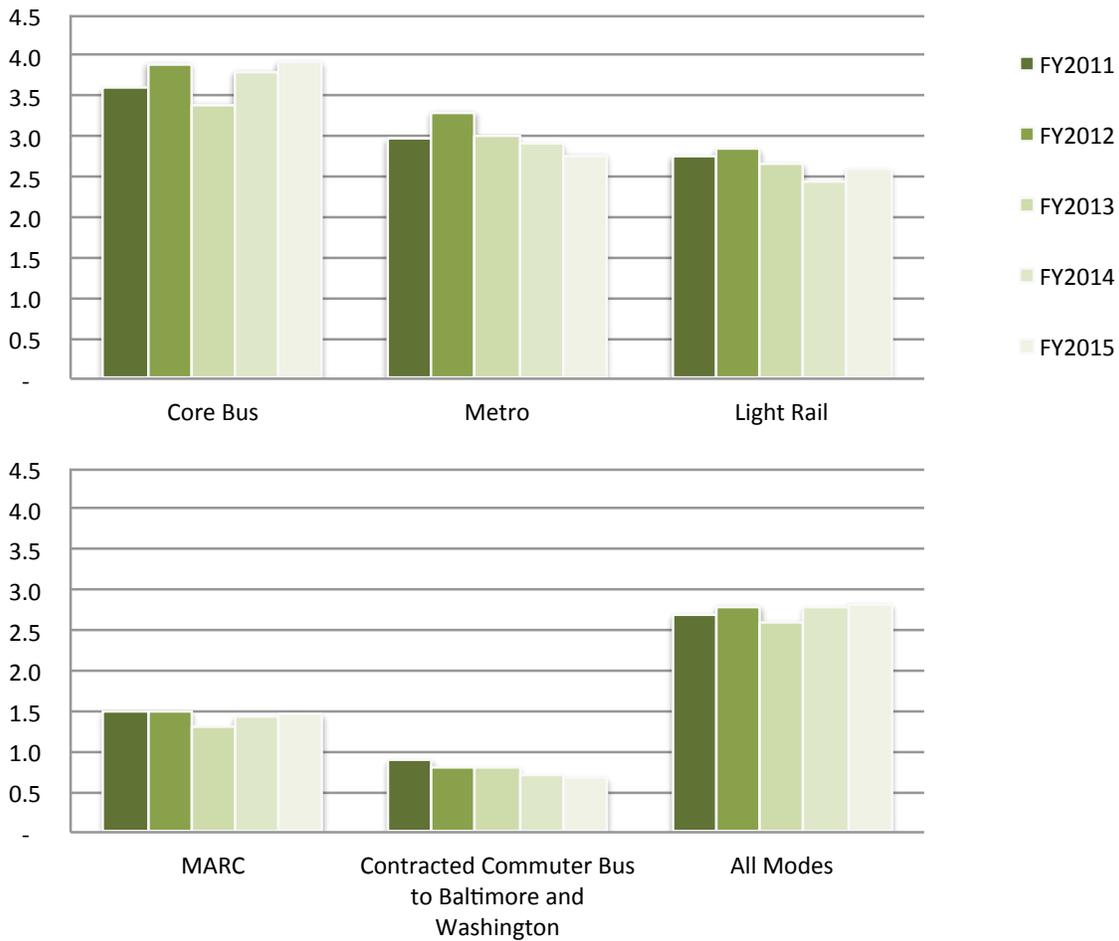
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## PERFORMANCE MEASURE 4.4H

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

Passenger trips per revenue vehicle mile demonstrates the effectiveness of the transit's operating schedule showing scheduled service in such a way as to carry as many passengers as practicable without overcrowding the service.

**Passenger Trips Per Revenue Vehicle Mile**



# Deliver Transportation Solutions and Services of Great Value

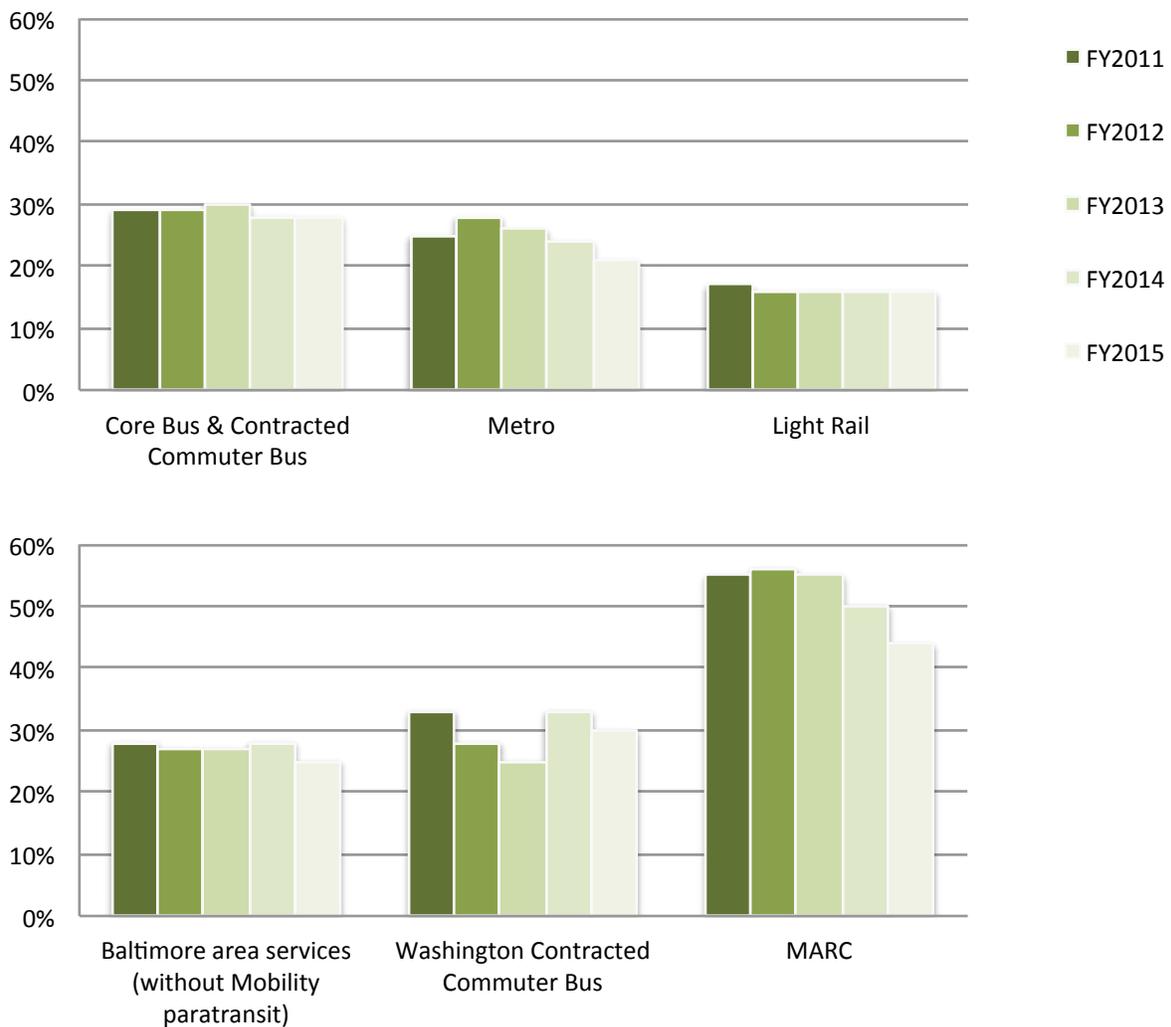
## PERFORMANCE MEASURE 4.4I

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

Farebox recovery ratio measures the percent of operating costs recovered through fares. Various factors affect the recovered operating costs such as fare price, ridership levels, and operating costs such as labor, fuel, and repair.

State law mandates that MTA achieve a 35% Farebox Recovery Ratio.

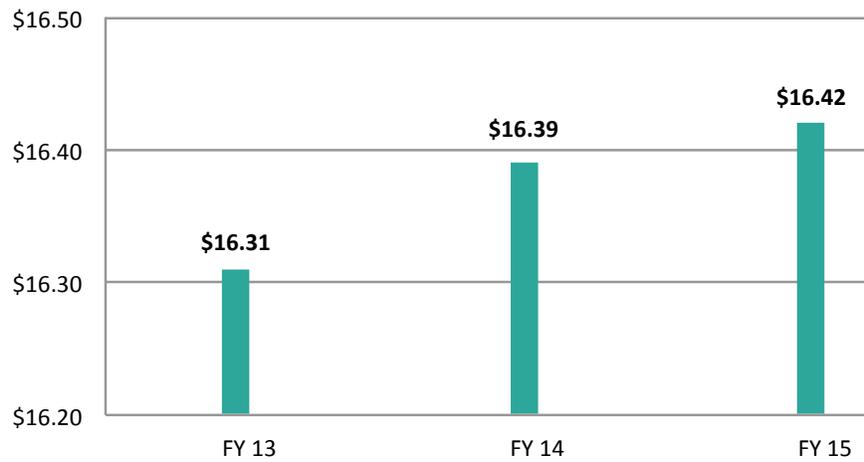
Farebox Recovery Ratio



# Deliver Transportation Solutions and Services of Great Value

## PERFORMANCE MEASURE 4.4J

Average Cost of Common Transportation Solutions: Cost Per Transaction (MVA)



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