MANAGING FOR RESULTS

ANNUAL PERFORMANCE REPORT

Prepared for

THE SENATE BUDGET AND TAXATION COMMITTEE

And

THE HOUSE APPROPRIATIONS COMMITTEE

In Accordance With
State Finance and Procurement Article
Section 3-1002

DEPARTMENT OF BUDGET AND MANAGEMENT

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TABLE OF CONTENTS

EXECUTIVE SUMMARY

The State Finance & Procurement Article, §3-1002 (E) requires the Department of Budget and Management (DBM) to provide an annual report to the Senate Budget and Taxation Committee and the House Appropriations Committee discussing the State's progress toward achieving the goals outlined in the Managing for Results (MFR) State Comprehensive Plan (the State Plan). The attached report is submitted in response to that requirement.
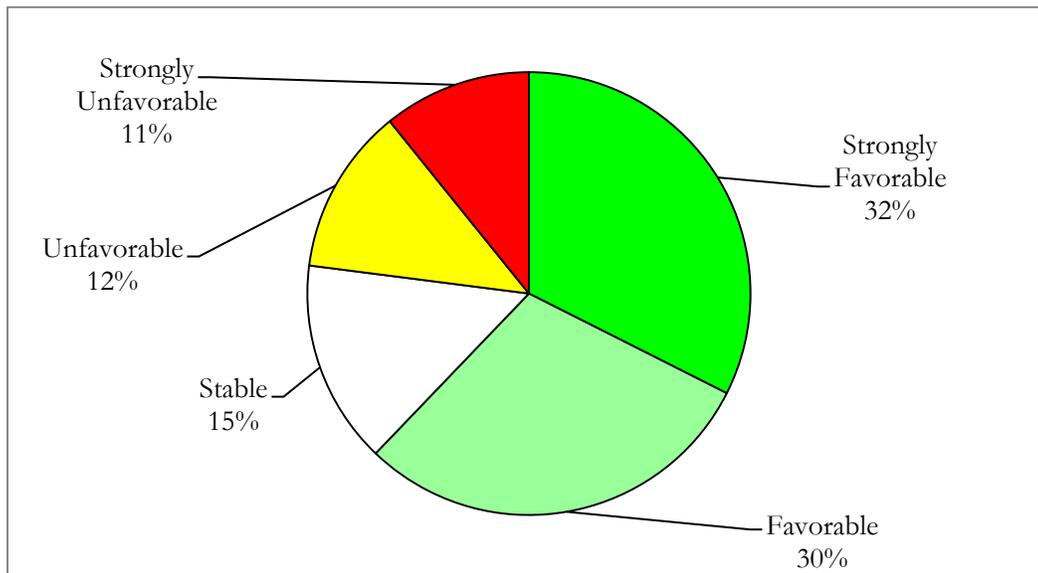
Data concerning each of the performance measures included in the State Plan are presented within the following Hogan Administration priority areas:

- Economic Development and Jobs (11 metrics)
- Reduced Taxes and Fees
- Fiscal Responsibility (6 metrics)
- Government Reform
- Improved Quality of Life (57 metrics)

As shown in the following table, performance for each measure has been categorized as favorable, stable, or unfavorable based on the most recent five years of data.[1] Five years of comparable data are not available for all measures. The percent change for measures with less than five years of data is calculated using available data (all percentages are rounded to establish categories).

| Strongly Favorable Performance (Change >10%) |
| Favorable Performance (3% to 10%) |
| Stable Performance (-2% to 2%) |
| Unfavorable Performance (-3% to -10%) |
| Strongly Unfavorable Performance (< -10%) |

The following chart summarizes overall performance for measures in the State Plan. The majority of measures are moving in a favorable direction, 62.2%. Performance is stable for 14.9% of measures and, when combined, 77.0% of measures are either moving in a favorable direction or are stable.

Both a summary table and a detailed presentation of performance trends are included in the following pages for each priority area.

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[1]For determining trends when the beginning value is zero, the difference between zero and the ending value is calculated rather than a percent change.

Performance Overview

Performance Status (percentages are rounded)	Number of Indicators	Percent
Favorable (Change >10%)	5	45.5%
Favorable (3% to 10%)	3	27.3%
Stable (-2% to 2%)	1	9.1%
Unfavorable (-3% to -10%)	2	18.2%
Unfavorable (< -10%)	0	0.0%
Total	**11**	**100%**

In the area of Economic Development and Jobs, 81.8% of Maryland indicators either performed favorably or held stable between the 2014 and 2018 report years. The next section highlights and explains the factors behind significant trends, but particularly notable favorable trends were seen in the following areas:

- annual growth in per capita income increased from 2.40% to 3.21%,
- Maryland's score on the State Economic Momentum Index turned positive for the first time in five years, going from -0.19 to 0.17,
- the number of jobs created or retained through Department of Commerce facility attraction and business technical assistance activities grew by 104.7%,
- State sales tax revenue attributable to tourism jumped 19.6%, from $392.0 million to $468.9 million, and
- the number of passengers at BWI Marshall airport reached a new record of 25.1 million, representing growth of 10.8% over five years.

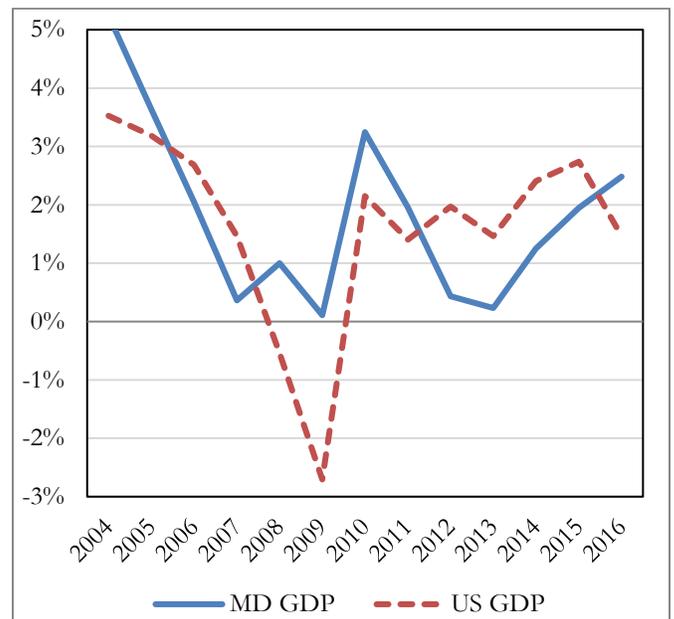The following section discusses significant trends in performance.

Significant Performance Trends

Indicator 1.1: Maryland's growth in total real gross domestic product (GDP) (in millions of chained [2009] dollars)

Total real GDP by state is an inflation-adjusted measure of each state's production, wherever sold, that is based on national prices for the goods and services produced within that state. The all industry total includes all private industries and government. Over the period of 2012 to 2016, Maryland's total real gross domestic product grew by 6.0%, compared to 8.5% growth nationwide.

Exhibit 1.1 displays the Maryland and nationwide trends over the past decade. It shows that Maryland's economy generally performed more strongly than the U.S. as a whole from 2003 through 2011 (except 2006 and 2007), but that trend reversed in 2012. With about 5% of jobs and 11% of wages in Maryland directly tied to the federal government, and even more indirectly impacted by the federal government[2], a large part of slow GDP growth in Maryland was related to the pullback in federal spending[3]. However, over the past three years, Maryland's growth has steadily rebounded, narrowing the gap between it and the national average. In 2016, state GDP growth exceeded the national average for the first time since 2011.

Exhibit 1.1 Annual Gross Domestic Product Growth, Maryland and the U.S. 2004-2016

Indicator 1.2: State Economic Momentum Index

The Index of State Economic Momentum, developed by Federal Funds Information for States (FFIS), ranks states based on their most recent performance in three key measures of economic vitality: personal income growth, employment growth, and population growth. Measures of the three components are averaged, the national average is set at zero, and each state's score is then expressed as a percentage above or below the national average.

In December 2017, Maryland was ranked 16th among states and, with a value of 0.17, slightly exceeded the national average. Comprising this overall value, Maryland ranked as follows:

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a. 17th on change in personal income with 2.7% growth compared to the national average of 2.6%,
b. 6th in employment growth with 2.2% growth compared to the U.S. growth rate of 1.5%, and
c. 27th in state population change as the state gained 0.46% versus the U.S. population growing by 0.72%.

In the past four years Maryland has moved from negative performance on this metric (-0.55) to above the national average.

Indicator 1.3: Maryland Port Administration (MPA) total general cargo tonnage (millions)

General cargo includes foreign and domestic waterborne cargo - it does not include bulk commodities, container weight, empty containers, or domestic non-waterborne cargo.[4] The annual total tonnage moving across MPA's terminals is a gross outcome measure of the attractiveness of MPA's infrastructure and facilities. Although there is a correlation between facilities and cargo volumes, there are many factors outside of MPA's influence that impact the movement of freight. For instance, national and world economic trends, labor costs (here and at competing ports), the value of the U.S. dollar, rail and highway service and rates, prolonged weather phenomena, and changes in vessel sizes.[5]

After experiencing a sharp decline during the global recession,[6] general cargo tonnage has experienced a strong 7.3% growth over the past five years. In fact, the Port surpassed 10 million tons of cargo in 2016 for the first time in its history. Nationally, the Port has been recognized three years in a row as the most efficient port by the independent Journal of Commerce. The Port is also an economic engine for Maryland, generating about 13,650 direct jobs and about 127,000 jobs that are linked to Port activities.[7]

Indicator 1.5: Total State sales tax revenue attributable to tourism (millions)

This performance measurement reflects revenue collected by the Comptroller in tourism-related sales tax categories such as restaurants, hotels, air travel and recreational activities. Growing from $450.6 million in fiscal 2016 to $468.9 million in fiscal 2017, sales tax revenue attributable to tourism has increased in all but one year since the data was first tracked in fiscal 2005. In fact, the growth in tourism-related revenues (4.1%) was more than double that of overall sales tax collections (2%) in fiscal 2017.[8]

The health of this indicator is driven by the annual number of visitors, which has increased every year since at least calendar year 2012. Between calendar years 2015 and 2016, the number of visitors welcomed increased 4% to 42.1 million.

Indicator 1.6. Percent of MD State Highway Administration (SHA) Network in overall preferred maintenance condition

The overall condition of the State Highway Administration Network reflects how well asset management strategies, improved operations, and technology have sustained the quality and safety of existing roadways.[9] A Composite Level of Service is assessed using the Maryland Condition Assessment Reporting System (MCARS). Twenty-one maintenance elements in four categories are assessed. The categories are shoulder, drainage, traffic control/safety, and roadside. Actual maintenance conditions are compared against desired conditions.[10] Between 2008 and 2016, the State's performance has generally fluctuated between 82% and 87%. However, 2014 and 2015 saw lows of 79%.

In response to the need for highway improvements, the Hogan Administration increased spending on maintenance by 17.5% in fiscal 2016. Maintenance spending has remained significantly higher in fiscal 2017 and fiscal 2018 than prior years as well. In addition, overall capital projects funding is $2.9 billion in fiscal 2019 to improve Maryland's roadways and infrastructure.

[4]Maryland Department of Transportation 2010 - 2012 Annual Attainment Reports on Transportation System Performance, and Maryland Port Administration fiscal year 2012 MFR Performance Measure Profile.
[5]Maryland Department of Transportation, Maryland Port Administration, FY 2015 MFR budget book submission; Maryland Department of Transportation 2012 Annual Attainment Report on Transportation System Performance.
[6]Maryland Department of Transportation 2010 - 2012 Annual Attainment Reports on Transportation System Performance

[7]"Governor Larry Hogan Announces Record Cargo Levels at Helen Delich Bentley Port of Baltimore in 2016," Governor Hogan Press Release February 14, 2017.
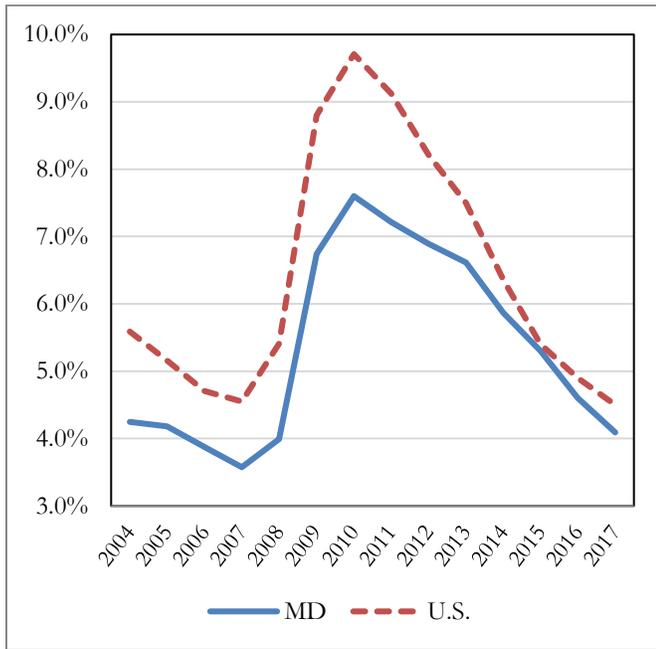[8]FY 2017 Tourism Development Board Annual Report, Maryland Department of Commerce.
[9]2012 Annual Attainment Report on Transportation System Performance, Maryland Department of Transportation.
[10]Managing for Results Performance Measure Profile Fiscal Year 2012, State Highway Administration, Maryland Department of Transportation.

Indicator 1.7:   Ratio between Maryland's unemployment rate and the U.S. rate

The ratio between Maryland's unemployment rate and the national rate has grown in recent years, from 0.84 in 2012 to 0.92 in 2017, as the state's relative gains in the wake of the Great Recession have given way to nationwide economic recovery. However, Maryland's rate continues to be lower than the U.S. unemployment rate, and in fiscal 2017 nearly dipped below its pre-recession rate of 4.0%. **Exhibit 1.2** compares the Maryland and U.S. employment rate over the past decade.

Exhibit 1.2 MD and U.S. Unemployment Rate, 2004-2017

Indicator 1.8: Percent of EARN Maryland participants who complete training placed into employment

A new measure in this year's report, the Department of Labor, Licensing, and Regulation's Employment Advancement Right Now (EARN) Maryland program leverages in-state industry partnerships to align job training efforts with employers' actual skill shortages and industry needs. Success in growing the state's skilled workforce increases personal income, strengthens the private sector, and boosts economic dynamism. With a goal of placing 80% of unemployed and underemployed participants into in-demand positions, the program has grown more successful since its first full year in fiscal 2015, eventually exceeding its goal in fiscal 2017 at 84%.
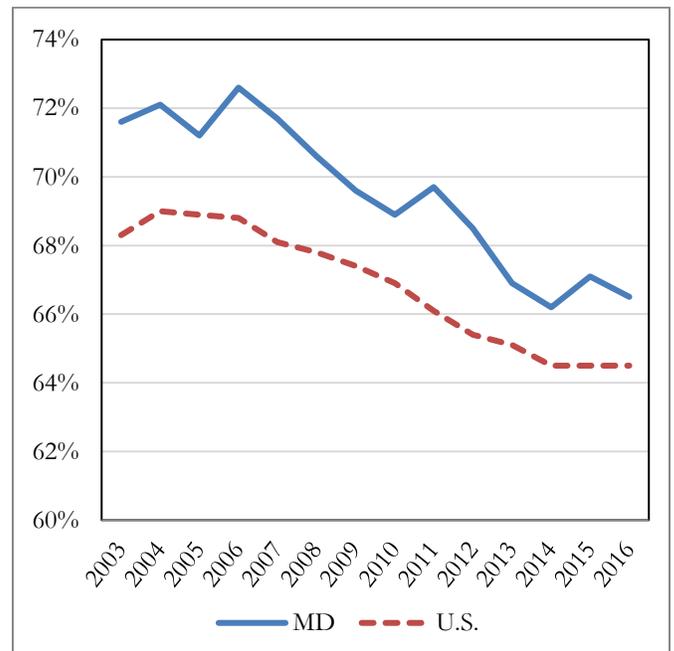
Indicator 1.9: Annual percent change in Maryland per capita personal income (estimated)

Annual estimates of per capita personal income are an indicator of economic well-being of the residents of a state. Maryland's per capita personal income has significantly exceeded (by $4,000 to $10,000) the national per capita personal income for the past fifteen years. Maryland has a large Federal employment base, as well as an economic concentration in industries such as information and professional services that frequently require college and advanced degrees, and therefore pay higher salaries. Maryland's per capita income has increased annually since 2011. In calendar year 2016, the most recent year where data is available, growth was 3.2%.

Indicator 1.10: Homeownership

Homeownership rates are another key economic measure, with higher rates indicating market stability. **Exhibit 1.3** displays that, similar to other indicators, Maryland's homeownership rates have historically exceeded the U.S. rate. While Maryland homeownership has declined over the past five years, from 69.7% in 2011 to 66.5% in 2016, the trend appears to have stabilized somewhat. **Exhibit 1.3** shows that Maryland homeownership rates still exceed the U.S. average.

Exhibit 1.3 MD and U.S. Homeownership Rate, 2003-2016

Performance Detail – Economic Development and Jobs

Key Performance Area 1 – Data by Report Year

Indicator	Agency/ Data Source	2014	2015	2016	2017	2018	4 Year Change	Specific Target
1.1. Maryland's growth in total real gross domestic product (in millions of chained [2009] dollars) (CY 2012 - 2016)	U.S. Commerce BEA	318,146	318,888	322,879	329,175	337,345	6.0%	N/A
1.2. State Economic Momentum Index (CY 2013 - 2017)	FFIS	-0.19	-0.55	-0.09	-0.07	0.17	189.5%	N/A
1.3. Maryland Port Administration total general cargo tonnage, (millions) (FY 2013 - 2017)	MDOT	9.6	9.6	9.7	9.8	10.3	7.3%	N/A
1.4. Annual BWI Marshall passenger growth rate - Number of passengers (CY 2012 - 2016)	MDOT	22.7	22.5	22.3	23.8	25.1	10.8%	N/A
1.5. Total State sales tax revenue attributable to tourism (millions) (FY 2013 - 2017)	Commerce Comptroller	$392.0	$401.4	$425.9	$443.5	$468.9	19.6%	N/A
1.6. Percent of MD State Highway Administration network in overall preferred maintenance condition (CY 2012 - 2016)	MDOT	83.4%	83.4%	78.8%	78.6%	85.7%	2.8%	Maintain at or above 84%
1.7. Ratio between Maryland's unemployment rate and the U.S. rate (FY 2013 - 2017)	U.S. DOL/BLS	0.8773	0.9239	0.9722	0.9239	0.9195	4.8%	N/A
1.8. Percent of EARN Maryland participants who complete training placed into employment**	DLLR	n/a	n/a	77%	80%	84%	9.1%	80% placement rate
1.9. Annual percent change in Maryland per capita personal income (CY 2012 - CY 2016)	U.S. Commerce BEA	2.40%	-1.27%	2.65%	4.04%	3.21%	33.4%	N/A
1.10. Homeownership (CY 2012 - CY 2016)	U.S. Census	68.5%	66.9%	66.2%	67.1%	66.5%	-2.9%	N/A

Indicator	Agency/ Data Source	2014	2015	2016	2017	2018	4 Year Change	Specific Target
1.11. Number of jobs created/retained through Department of Commerce facility attraction and business technical assistance activities (FY 2013 - 2017)	Commerce	10,829	10,627	11,761	11,305	22,168	104.7%	N/A

*Numbers have been updated since last year's report.
**DLLR no longer collects the prior metric, "rate that adult employment trainees enter employment," since the federal government stopped requiring it to be collected.

Performance Discussion

As said by Governor Hogan, "Reducing and eliminating taxes, tolls, and fees not only helps to streamline state government, it has a direct impact on the livelihood of Maryland citizens. Our goal is to make it easier to live, work, and retire in our state, and continue to change Maryland for the better."[11]

While tax and fee reductions do not easily lend themselves to performance metrics, this section of the Performance Report highlights the steps the Hogan Administration has taken to reduce taxes and fees.

Tax Reductions

Taxes in Maryland are set in statute, and therefore the Administration requires cooperation from the General Assembly to enact tax relief legislation. During the 2015 Legislative Session, the Governor introduced a number of tax relief bills, including legislation:

- exempting all military retirement income from the income tax with a four-year phase-in,
- exempting any retired law enforcement, fire, rescue or emergency personnel from tax on retirement income specific to their service as a first responder,
- repealing the "rain tax,"
- eliminating the personal property income tax for businesses that have less than $10,000 in personal property, and
- repealing the automatic gas tax increases passed in 2013.[12]

While the General Assembly did not pass most of the legislation, the Governor did sign into law bills increasing the military retirement income exemption and repealing the "rain tax" in May 2015.

During the 2016 Legislative Session, the Hogan Administration introduced over $480 million in tax relief measures, including reductions for retirees, small businesses, working families, and manufacturers. Again, the General Assembly failed to pass most of the legislation with the exception of a bill establishing a tax credit for aerospace, electronics, or defense contract businesses to encourage the development of these industries in Maryland. The Governor also supported the passage of

several additional bills which reduced the tax burden on Maryland residents and companies, including legislation:

- establishing a new tax credit of up to $5,000 for individuals who have incurred $20,000 or more in undergraduate student loan debt and have at least $5,000 in outstanding undergraduate debt,
- establishing the Maryland Small Business Retirement and Savings Program and exempting participating employers from paying annual filing fees, and
- reducing the annual interest rate on tax deficiencies and refunds, from the current rate of 13 percent to 9 percent by 2020, lowering the interest rate burden on taxpayers.

The 2017 Legislative Session saw the reintroduction of some of the Administration's prior initiatives including tax incentives for manufacturers, as well as exemptions for military and first responder retirement income. Also introduced was tax relief for holders of student debt and incentives for the state's cybersecurity industry. The General Assembly ultimately passed the Governor's legislation:

- exempting retired law enforcement, fire, rescue or emergency personnel from tax on the first $15,000 of retirement income specific to their service as a first responder and
- establishing the More Jobs for Marylanders program to provide new manufacturing companies located in specific counties a ten-year tax credit against their income, property, and sales taxes.

Moving into the 2018 Legislative Session, Governor Hogan has announced his intent to submit legislation to protect state taxpayers from major federal tax reform that takes effect in January 2018. It is anticipated that if no action is taken by the State the reduction and elimination of popular federal deductions will increase Maryland personal income tax revenues by hundreds of millions of dollars.[13] The Hogan Administration has also reintroduced its exemption for military retirement income in addition to legislation expanding the More Jobs for Marylanders program and the first responder retirement income exemption.

[11] "Governor Larry Hogan Announces Additional $60 Million in Fee Cuts," Governor Hogan Press Release May 12, 2016.
[12] "Governor Hogan Unveils Tax Relief Measures," Governor Hogan Press Release February 4, 2015.

[13] "Governor Larry Hogan Announces Legislation to Protect Maryland Taxpayers Under Federal Tax Reform" Governor Hogan Press Release December 20, 2017.

Fee Reductions

In May 2015, the Hogan Administration rolled back tolls statewide, saving Maryland citizens $270 million over the next five years. On September 15, 2015, the Governor announced that eight agencies would reduce or completely eliminate hundreds of individual fees previously levied by Maryland's government, saving Marylanders an estimated $51 million over the next five years.[14] Major fees reduced include:

- Reduction to $1 for homeless identification cards
- Elimination of $1.50 monthly EZ-Pass fees
- $4 reduction in vehicle emissions test fees for self-service kiosk customers
- 10% reduction in numerous business license fees associated with the sale and registration of new and used motor vehicles
- Reduction or elimination of outdoor advertising fees
- $10 reduction in MVA's vehicle title correction fee
- A range of business license fees in the Prevention & Health Promotion Administration
- Numerous food manufacturing and processing license fees
- Reduction in the three-year controlled dangerous substance (CDS) registration fee
- $2,000 reduction in ambulatory surgery center fees
- Multiple reductions in real estate broker, salesperson and home appraisal license fees
- Numerous fees associated with financial regulations
- $65 reduction in annual license fee for veterinarians
- 20% across-the-board reduction in lab fees for animal health diagnostics (115 individual fees)
- Elimination or reduction of business fees associated with asbestos contractor licenses
- Elimination of license fees for underground storage tank technicians, removers and inspectors
- Elimination of state park boat launch fee for seniors with Golden Age Pass
- Elimination of $25 child support income tax intercept fee

Since then, the Hogan Administration has continued its work in reducing the burden of fees on State residents and businesses with the following actions:

- Introduction and passage of 2016 legislation reducing the fee for certified copies of birth and death certificates from $24 to $10.

- Support of the passage of 2016 legislation eliminating the Maryland Health Insurance Plan (MHIP) and the assessment fee on hospital rates that was in place to pay for the operation and administration of the program. Individuals who used to be covered under the MHIP program are now eligible to get insurance through the Maryland Health Benefit Exchange, and the elimination of the assessment will lower hospital costs for residents throughout Maryland.
- In May 2016, the Hogan Administration announced 155 additional fee reductions and eliminations across state government, including reductions to the cost of EZPass transponders, reduced admission to state parks for veterans, cuts to the child support collection fee, and a $15 million cut to the surcharge paid by every single Marylander who gets a phone bill each month.[15]

Since taking office, the Administration has delivered more than $700 million in tax, toll, and fee relief.

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[14]"Governor Hogan Eliminates or Cuts Fees Statewide, Saving Marylanders $51 Million Over Five Years," Governor Hogan Press Release September 15, 2015.

[15] "Governor Larry Hogan Announces Additional $60 Million in Fee Cuts," Governor Hogan Press Release May 12, 2016.

Performance Overview

Performance Status (percentages are rounded)	Number of Indicators	Percent
Favorable (Change >10%)	0	0.0%
Favorable (3% to 10%)	1	16.7%
Stable (-2% to 2%)	1	16.7%
Unfavorable (-3% to -10%)	2	33.3%
Unfavorable (< -10%)	2	33.3%
Total	**6**	**100%**

In the area of Fiscal Responsibility, two out of six indicators either performed favorably or held stable in between the 2014 and 2018 report years. The next section highlights and explains the factors behind significant performance trends.

Significant Performance Trends

Indicator 3.1: Bond ratings from three nationally recognized bond rating agencies for each issuance of State general obligation (GO) bonds

Maryland uses the proceeds from the issuance of GO bonds to finance capital projects such as schools, community colleges, university projects, and hospitals. A triple-A rating, the highest possible rating, means that the State has an extremely strong capacity to meet financial commitments. Maryland has consistently maintained triple-A bond ratings from all three nationally recognized rating agencies, each of which has acknowledged Maryland's strong financial management, diverse, wealthy economy, strong debt oversight, and moderate debt burden. Retention of the triple-A rating allows the State to save millions of taxpayer dollars resulting from the low interest rates achieved because of these ratings.

Indicator 3.2: Capital debt service as a percent of State revenue

Capital debt service as a percent of State revenue measures whether the State can pay the debt service, and considers the ability of the State to manage debt over time to achieve goals. Tax supported debt is tracked by the Capital Debt Affordability Committee (CDAC). Under criteria imposed by CDAC, debt service on State tax-supported debt may not require more than 8% of revenues. Each year during the period of 2013 through 2017, the capital debt service as a percent of State revenue was below the affordability benchmark of 8%.
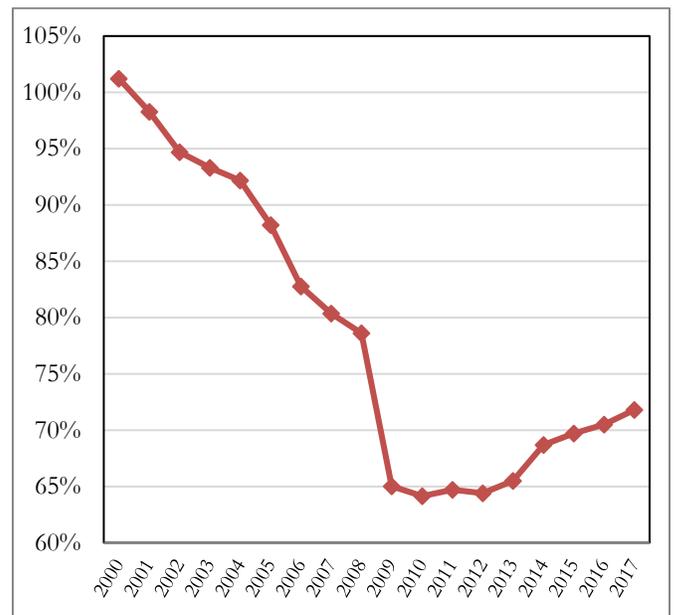
Overall, there was a 14.5% increase in the debt to revenue ratio from 2013 to 2017 due to increased debt service costs from prior issuances. Maintaining debt below the threshold has contributed to the continued triple-A bond ratings given by the bond rating agencies for Maryland's GO bond issues. The Hogan Administration has continually proposed limiting capital budget borrowing to $995 million in order to constrain growth in debt service payments and begin to bend the curve back towards sustainable, affordable levels.

Indicator 3.3: Asset to liability ratio for the Maryland State Retirement and Pension System (funded ratio)

The funded ratio measures the ability of the Maryland State Retirement and Pension System to pay all projected retirement benefits as they become due. The funded ratio is the primary measure of funding progress, and the System is fully funded if the funded ratio is greater than or equal to 100%. When analyzing the overall funded status, it is important to keep in mind that a funding plan is over a long horizon in which fluctuations in the market are expected.

Pension reform legislation was passed during the 2011 legislative session with the goal of improving the funded ratio of the System. **Exhibit 3.1** displays that, in fiscal 2017, the results of that reform are starting to be realized. The funding level has steadily ticked up to 71.8% from a low of 64.1% in fiscal 2010.

Exhibit 3.1 Maryland State Retirement and Pension System Funded Ratio, FY 2000-17
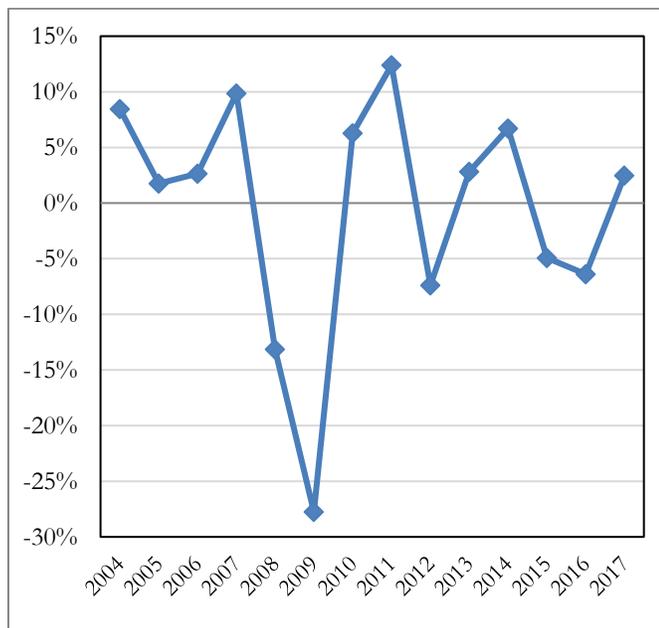
Indicator 3.4: Difference between the actual rate of return for the composite portfolio and the actuarial return assumption set by the State Retirement Agency (SRA) Board of Trustees over one year

The State pension system, including over 300,000 active and retired members, is funded through three sources of income: (1) State government contributions, (2) contributions from employees in the system, and (3) investment returns. Employee contribution rates are set in statute, but when the Board of Trustees is determining how much the State budget should include in order to move the system towards full funding, they must make certain assumptions regarding how much investment income the system will collect. If that assumption is exceeded, the State can contribute less in future years, but if investment returns fall short the system is short-funded and the State budget has to make up the difference in future years. The Board has lowered its annual investment return assumption twice since 2013. Its most recent adjustment in July 2017 lowered the assumed rate of return from 7.55% to 7.45% over two years.

Exhibit 3.2 shows the degree to which the system either fell below (-%), met (0%), or exceeded (+%) this assumption over the past twelve years. In eight of the years, returns were strong. However, the impact of the recession and slow recovery can clearly be seen in the years where the System failed to hit its investment target. It is this low performance that has led to discussions regarding the possibility of further lowering the return assumption.

Exhibit 3.2 Pension System Investment Performance Above or Below Return Assumptions, FY 2004-17
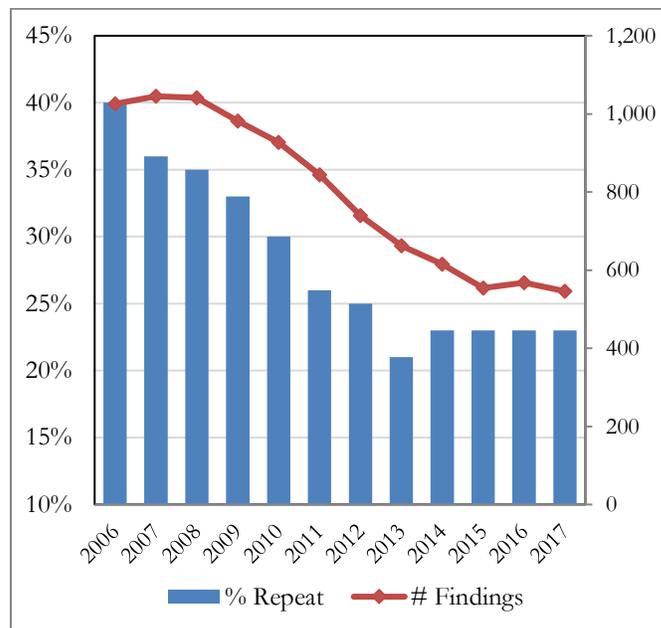

Indicator 3.5: Percent of repeat audit findings for State agencies

The Maryland Office of Legislative Audits (OLA) is a unit within the Department of Legislative Services which conducts audits and evaluations of Maryland State government agencies and local school systems. Fiscal compliance audits are conducted of each State agency within the Executive and Judicial Branches every three to four years to evaluate internal controls and compliance with certain State laws and regulations. For certain agencies, this category also includes financial statement audits and follow-up reviews of actions taken to implement audit recommendations.

Exhibit 3.3 displays a clear decline in the number of agency repeat audits findings over the past decade, as well as a decline in the number of reported audit items. Since 2005, the overall percentage of repeat audit findings has decreased from 45% to 23%. While the percentage of repeat findings has remained virtually unchanged since 2013, the number of findings has continued to decline despite a slight uptick in fiscal 2016. OLA has attributed the decline to an increased emphasis among agencies on implementing audit recommendations. This emphasis is partially due to the work of the Audit Compliance Unit within the Department of Budget and Management. The Unit works with Executive Branch agencies to reduce repeat audit findings by assuring that corrective action plans are adequate and successfully implemented.

Exhibit 3.3 Percentage of Repeat Audit Findings and Total Number of Audit Findings, FY 2006-17

Indicator 3.6: Projected percentage of ongoing revenues covering ongoing spending based on the Governor's 5-year plan

The Budget Highlights document each year includes a 5-year general fund budget projection showing how much of projected revenues will cover projected expenditures over the next five years. Even though this metric has performed negatively over the past five years, declining from 99.2% to just 93.8%, this does not tell the entire story.

When Governor Hogan took office in 2015, he inherited a large looming budget gap. Quick action was taken to resolve the budget deficit, and by the time the fiscal 2017 budget was introduced in January 2016 it was in full structural balance as shown by the 100.1% value on this metric in the 2015 Performance Report.

However, strong growth in Medicaid spending, increasing debt service costs, new mandated spending enacted at the 2016 and 2017 sessions, and the softening of revenues has continually driven up budget deficits. Due to a combination of these factors, at the end of 2017 session a three-quarter billion dollar structural gap was estimated for fiscal 2019, significantly larger than the budget as introduced by the Administration.

With a cash surplus of $91 million in fiscal 2018 coming out of the 2017 session, Governor Hogan set out a fiscally prudent course of action to once again shore up the state's finances. He directed state agencies to find spending efficiencies at the end of FY 2017 and prepare budget reduction options for FY 2018 to ensure that the budget would stay in balance. State agencies were successful in turning back $246 million to the General Fund at the end of FY 2017, $90 million more than estimated. The state was able to close FY 2017 with a balance of $258 million -- nearly three times greater than expected -- a direct result of agency actions, along with slightly higher than estimated revenues.

Despite higher than expected revenues at the end of FY 2017, revenue collections grew at a slower pace than expected at the beginning of FY 2018; therefore, the administration moved forward with implementing a plan to make mid-year budget reductions. On September 6, 2017, the administration set forth an $80 million plan to help offset potential revenue reductions, which was approved by the Board of Public Works. Later in the month, the Board of Revenue Estimates revised General Fund revenues downward by $53 million. In December 2017, the Board revised revenues downward by another $73 million for FY 2018.

The Administration then began finalizing work on the fiscal 2019 budget in a much better position than had these actions not been taken, and the magnitude of reductions needed to balance the fiscal 2019 budget was lessened. Governor Hogan was able to resolve the remaining fiscal 2019 budget shortfall by:

- Enacting thoughtful cost-containment actions across state agencies;
- Limiting the growth of legislative mandates in FY 2019;
- Realizing favorable trends in Medicaid and state employee health insurance spending;
- Limiting FY 2018 deficiency spending;
- Using bond premium to offset debt service costs; and
- Strategically level funding certain state agency budgets and programs.

The resulting fiscal 2019 budget as introduced by the Governor maintains cash reserves totaling almost $1 billion, continues investments in the Maryland pension system, curbs the growth of legislative mandates, conforms with the legislature's Spending Affordability guidelines, and maintains the state's AAA bond rating.

Performance Detail – Fiscal Responsibility

Key Performance Area 3 – Data by Report Year

Indicator	Agency/ Data Source	2014	2015	2016	2017	2018	4 Year Change	Specific Target
3.1. Bond rating from all three nationally recognized bond rating agencies for each issuance of State General Obligation bonds (maintain AAA rating) (CY 2013 - CY 2017)	Treasurer's Office	AAA	AAA	AAA	AAA	AAA	No change	Maintain AAA
3.2. Capital debt service as a percent of State revenue (FY 2013 - FY 2017)	CDAC	6.60%	6.86%	6.90%	7.27%	7.56%	14.5%	At or below 8%
3.3. Asset to liability ratio for the MD State Retirement and Pension System (funded ratio) (FY 2013 – FY 2017)	State Retirement and Pension System	65.5%	68.7%	69.7%	70.5%	71.8%	9.6%	100% funded by 2039
3.4. Difference between the actual rate of return for the composite portfolio and the actuarial return assumption set by the SRA Board of Trustees over one year (FY 2013 - FY 2017)	State Retirement and Pension System	2.8%	6.7%	-4.9%	-6.4%	2.5%	-12.4%	0.0% or higher
3.5. Percent of repeat audit findings for State agencies (FY 2013 - FY 2017)	DBM	21%	23%	23%	23%	23%	9.5%	N/A
3.6. Projected percentage of ongoing revenues covering ongoing spending based on the Governor's 5-year plan included in the budget allowance (FY 2015 - FY 2019)	DBM	99.2%	99.2%	100.1%	93.9%	93.8%	-5.9%	N/A

*Numbers have been updated since last year's report.

Performance Discussion

Another major principle of the Hogan Administration is reform: "We must improve our State government's ability to be more responsive to, and to better serve and represent all of our citizens." It is difficult to measure reform efforts; therefore, this section of the Performance Report highlights the steps the Hogan Administration has taken to reform State government in Maryland to date.

Regulatory Reform

In July 2015, the Governor signed Executive Order 01.01.2015.20, establishing the Regulatory Reform Commission. The Commission was tasked with resolving regulatory issues that impact Maryland's business environment, while still continuing to protect the health, safety, and welfare of Marylanders. The Commission's initial report was submitted December 2, 2015, based on input from more than 500 citizens obtained through six public outreach meetings, as well as departmental meetings and commission research. The second of the Commission's three reports was released in December 2016 and highlighted over 180 regulations which were subsequently eliminated or streamlined by the Administration.

In December 2017, the Hogan Administration announced the third and final report of the Regulatory Reform Commission, identifying an additional 657 regulations for elimination or streamlining. Among those identified for reform were:

- the repeal of over 200 obsolete regulations in the Maryland Department of Health,
- the repeal of a $500 fee charged to towing companies applying for a permit by the Maryland Transportation Authority, and
- allowing the Maryland Department of the Environment to issue one single permit for toxic substances and pesticide application rather than two separate permits under current regulations.

In addition, the Governor signed Executive Order 01.01.2017.33, mandating that all state agencies use new, more precise guidance formulated by the Advisory Council on the Impact of Regulations on Small Business when estimating the compliance cost and economic impact of regulations affecting Maryland small business.

Procurement Reform

In February 2016, Governor Hogan signed Executive Order 01.01.2016.05, establishing the Commission to Modernize State Procurement, a bipartisan commission that conducted a comprehensive review of Maryland's procurement code and regulations. Due to an outdated approach, as well as a lack of modern technology, the State's current process for procurement is considered unpredictable and discourages full participation among Maryland citizens and the business community. "Over the past year, it has become apparent that Maryland's procurement system is a patchwork of archaic laws and processes that are inefficient, ineffective, and result in wasted taxpayer dollars," said Governor Hogan. "By modernizing the way Maryland deals with procurement, we will create a predictable, consistent, and transparent system, and get the best value for every dollar we spend – exactly what Marylanders expect and deserve."

In December 2016, the 19-member Commission released its final report, including 57 recommendations, and unveiled a new website, procurement.maryland.gov, as a comprehensive communications portal providing online access to Maryland procurement information for all policymakers, vendors, and citizens.

During the 2017 Legislative Session, the Hogan Administrative introduced and the General Assembly passed a three-bill package implementing the Commission's recommended reforms, including:

- increasing the agency small procurement dollar threshold from $25,000 to $50,000,
- eliminating the statutory preference for competitive sealed bidding, allowing multiple other procurement strategies at the agencies discretion, and
- increasing the Small Business Reserve Program goal and making the goal applicable to all state agencies

The Administration also supported other significant procurement reform legislation passed by the General Assembly, including the creation of a Chief Procurement Officer for the State and the consolidation of all non-transportation State agency procurement into the Department of General Services.

Enhancing Customer Service

In June 2016, Governor Hogan launched the Customer Service Initiative, a continuous program designed to foster improvements in customer service across Maryland state agencies. The initiative focuses on three core deliverables:

a renewed focus on a strong service culture in state agencies, improved customer service training for state employees, and the establishment of new service performance metrics which will allow the administration and all Marylanders to track improvements in customer service over time.

A key provision of the initiative is a requirement for every state agency to develop and maintain a plan to continually improve service delivery, including minimum response times for phone, written, and in-person inquiries and services. These plans were due by October 1, 2016, are required to be resubmitted each fall for review, and will be reviewed annually by the Governor's Customer Service Workgroup.

To solicit direct feedback from the public, in November 2016 the Workgroup launched an online survey where citizens can rate an agency's service. The data collected by the survey will allow the state to track customer service performance among agencies and make targeted improvements as needed. In October 2017, the Workgroup released its first annual report, aggregating citizen survey responses submitted statewide between January and July 2017. Out of over 10,000 responses, 81.7% expressed satisfaction with the level of customer service they had received.[16]

Ethics Reform

In January 2017, Governor Hogan introduced major legislation representing the first significant overhaul of State ethics law in 15 years.[17] The Public Integrity Act of 2017 was passed on a bipartisan basis by the General Assembly. Among other provisions, the legislation:

- bans former State legislators, Governors, and all other State constitutional officers from lobbying for one-year after leaving office,
- requires ethic disclosures made by State officials be made available online to the public for free,
- strengthens financial disclosure requirements for State officials to include spouses and all major business activities,
- increases the mandatory fine for State officials found guilty of bribery, and
- establishes the Citizens' Advisory Board for Legislative Ethics to offer recommendations to changes in public ethics laws.

Government Efficiency

The Hogan Administration's first years have included multiple steps to enhance the efficiency of State services. In July 2015 the Governor announced the closure of the Baltimore City Detention Center, ending a long history of corruption, deteriorating conditions, and waste. In the fall of 2015, the Administration began the consolidation of (a) certain human resources functions, which were spread inefficiently throughout a multitude of agencies, under the Department of Budget and Management's Office of Personnel Services and Benefits and (b) certain information technology functions, which were also widespread, under the Department of Information of Technology. This consolidation will annually save State tax dollars and improve efficiency.

On May 10, 2016, Governor Hogan announced the formation of a new Office of Transformation and Renewal which will lead a multiyear effort to optimize government departments and agencies within the executive branch. Working closely with members of the Cabinet as well as the legislature, the Office's primary focus is on three areas: efficiency improvements, greater accountability and performance benchmarks, and improved customer services throughout Maryland state government.

Also in May 2016, the Governor signed Executive Order 01.01.2016.06, rescinding 72 obsolete executive orders issued by previous administrations over the last 46 years. The removal of almost five decades of gubernatorial directives that are either outdated or superseded by legislation reflects the ongoing effort of the Hogan administration to modernize and streamline state government, including the removal of archaic and duplicative regulations.

Other Improvements to the State's Business Climate

The Governor has introduced and supported a number of bills which would improve Maryland's business climate. In May 2015 he signed several such bills into law, including legislation:

- establishing the Advisory Council on the Impact of Regulations on Small Business,
- establishing the State Customer Service and Business Development Efforts Training Program to improve customer service provided by state agencies to businesses and customers in the state,

[16] Governor's Annual Customer Service Initiative Annual Report 2017.

[17] "Governor Larry Hogan Announces Integrity in Government Initiative" Governor Hogan Press Release January 19, 2017.

- requiring the Motor Vehicle Administration to establish a program to assist veterans and members of the military transitioning out of military service to obtain a commercial driver's license, and
- limiting the amount of a bond that a small business has to post to proceed with an appeal or verdict.

In addition, the Department of Commerce was renamed in October 2015 and has since (1) placed more of its team members in customer-facing positions, (2) worked to expand its team of business representatives who can assist businesses with everything from expanding and finding a new location to financing assistance and navigating regulations, (3) started hiring more regional and strategic industry representatives and putting more emphasis on core and growing industries in Maryland including life sciences, cybersecurity, manufacturing, and aerospace and defense, and (4) begun plans to add a liaison to the State's higher education community, which combines two of the main ingredients for Maryland's economic success—highly educated workers and cutting-edge research.[18] The end result is a Department that better serves both Maryland's businesses and its citizens.

Information Technology Enhancements

In December 2017, the Maryland Department of Information Technology (DoIT) completed a Hogan Administration initiative to launch an online portal that allows Maryland residents and visitors to find information on state-issued licenses and permits through a single website. This is a major improvement over the preexisting situation where public applicants had to navigate through a myriad of web pages within the agency site to find relevant information such as license requirements, the application cost, approval criteria, etc.

To continue this project, in Spring 2018 DoIT will begin work to modernize many licenses and permits that currently have paper-based processes. Through the One Portal project, these processes will be upgraded to electronic forms that people can fill and submit online, pay any associated fees, and check the status of their requests. As a result, the licenses will be easier to apply for and processing costs will drop, resulting in savings to the taxpayers of Maryland. The fiscal 2019 budget includes a net $3 million over two years for this initiative.

Since fiscal 2017, the Department of Human Services (DHS) has been working with DoIT on a Major IT project to develop a shared human services platform called MD THINK. MD THINK will replace all of DHS's legacy IT systems and integrate them with the human services systems at the Department of Juvenile Services, the Maryland Health Benefit Exchange, and the Maryland Department of Health. This is a shift from program-centric systems to a client-centric platform. MD THINK will include a cloud-based shared infrastructure, provided by Amazon Web Services, and a data repository. This allows for a modular approach to systems in which an agency can develop an application that is much more adaptable to changing requirements.

In fiscal 2018, DoIT has also begun the process to modernize State's voice services infrastructure. The existing telephone and voicemail systems for agencies is between 10 and 15 years old and is no longer supported by the manufacturer, resulting in reliability problems that have direct negative implications for customer service and responsiveness. Over the next six years, the State will migrate State telephone systems to Voice over Internet Protocol (VoIP). The project will ensure that the systems are compatible with the changes in the telephone network, meet the State's reliability requirements, and enhance the State's ability to deliver constituent services across multiple communications channels. The fiscal 2019 budget includes $12.1 million to continue the project.

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[18]"Governor Larry Hogan Announces Formation of Maryland Department of Commerce," Press Release, October 1, 2015.

Performance Overview

Performance Status (percentages are rounded)	Number of Indicators	Percent
Favorable (Change >10%)	19	33.3%
Favorable (3% to 10%)	19	33.3%
Stable (-2% to 2%)	9	15.8%
Unfavorable (-3% to -10%)	4	7.0%
Unfavorable (< -10%)	6	10.5%
Total	**57**	**100%**

The final major Hogan Administration priority, improving quality of life, encompasses many areas of performance across the State. Overall, 82.5% of related indicators either performance favorably or held stable between the 2014 and 2018 report years. These indicators can be broken down into four different categories: (1) Education, (2) Public Safety, (3) Health and Human Services, and (4) Environment. The next section highlights and explains the factors behind significant performing trends in each category, but particularly notable favorable trends were seen in the following areas:

- Education
  - The percent of high school dropouts fell from 10.22% to 7.97%.
  - The percent of bachelor's degrees awarded to racial/ethnic minorities at public and private Maryland colleges and universities jumped by 11.4%.
  - The number of higher education graduates in science, technology, engineering, and math (STEM) fields grew by 34.4%, from 11,850 to 15,923.
- Public Safety
  - The percent of all Department of Public Safety and Correctional Services (DPSCS) cases released from supervision where the offender was employed at closing grew by 3.3%.
  - Youth recidivism, or the percent of Department of Juvenile Services (DJS) youth re-adjudicated within one year after release from all residential placements fell by 8.8%.
  - The Part I crime offense rate per 100,000 went from 3,226 to 2,398, a decline of 25.7%.
- Health and Human Services
  - Maryland's uninsured rate was reduced by almost half in the past four years, from 14.1% to 7.2%.
  - The rate of new HIV diagnoses dropped 10.2% between 2012 and 2016.

  - The Maryland prevalence of household-level very low food security over a 3-year average fell by 23.5%, from 5.1% to 3.9%.
  - The rate of live births to adolescents between 15 and 19 plummeted by 31.6% in the past five years.
  - The rate of children placed in out-of-home care dropped from 12.3 per 100,000 to only 5.3, a decline of 56.9%.
  - The percent of adults with serious mental illness who receive mental health services grew by 8.8%.
- Environment
  - The Maryland Chesapeake Bay Habitat Index improved by 19.0% over five years.
  - Acreage of submerged aquatic vegetation (SAV) in the Maryland portion of the Bay grew by 141.9%, from 24,509 to 59.277.
  - The dredge survey index of stock crab size grew from 32 to 47, an increase of 46.9%.
  - The number of waters impaired by nutrients per the Integrated Report of Surface Water Quality fell from 20 to just 7.
  - The three-year average of days that eight-hour ozone standards were exceeded declined by 61.0% from 33.3 to 13.0.
  - The number of children under 6 years of age with elevated blood lead levels dropped by 23.9%.

The following section discusses significant trends in performance.

Significant Performance Trends - Education

Indicator 5.3: Prekindergarten enrollment

The increase in the number of students enrolled in prekindergarten in Maryland—from 29,671 in 2013 to 32,088 in 2017—reflects a growing national emphasis on the importance of prekindergarten for student achievement. In fiscal 2015, $4.3 million in new State funds were provided to expand access to prekindergarten to low-income families. The following year, the Hogan Administration applied for and obtained $15 million in annual new federal grants for four years starting in fiscal 2016. The Governor's fiscal 2019 budget commits an additional $8.5 million in funding to continue to expand access to prekindergarten.

Indicators 5.4 and 6.5: High school completion:
- Indicator 5.4: High school graduation rate
- Indicator 5.5: Percent of high school dropouts

Graduation rates and dropout rates are two sides of the same equation regarding high school completion.

Completion of high school program requirements indicates students' readiness for post-secondary education and/or employment.[19] At the same time, failure to complete high school is closely linked with decreased employment opportunities, low pay, and limited paths to advancement.[20] Unemployment rates of high school dropouts are nearly three times higher than that of individuals with bachelor's degrees.[21]

From school years 2013 to 2017, Maryland performed strongly in both areas, with high school graduation rates growing from 84% to 88% and dropout rates declining from 10% to 8%. Part of this improved performance is likely due to laws that recently increased the high school drop-out age to 17.

Indicator 5.9: Percent of bachelor's degrees awarded to racial/ethnic minorities at public and private Maryland colleges and universities

From 2013 through 2017, the percent of bachelor's degrees awarded to racial/ethnic minorities at Maryland colleges and universities increased by 11.4% (35.9% to 40%), exceeding the goal of 38% by 2018.

The Maryland Higher Education Commission (MHEC) continues to work with the Segmental Advisory Council and representatives of its member campuses to discuss the merits and outcomes of plans designed to increase the degree attainment rate of minority students. MHEC's work on near completers, reverse transfer, and course redesign is expected to increase degree attainment, particularly for students from minority backgrounds. In addition, MHEC will continue to work with the Historically Black colleges and universities to revise and refine the summer bridge programs and other initiatives.
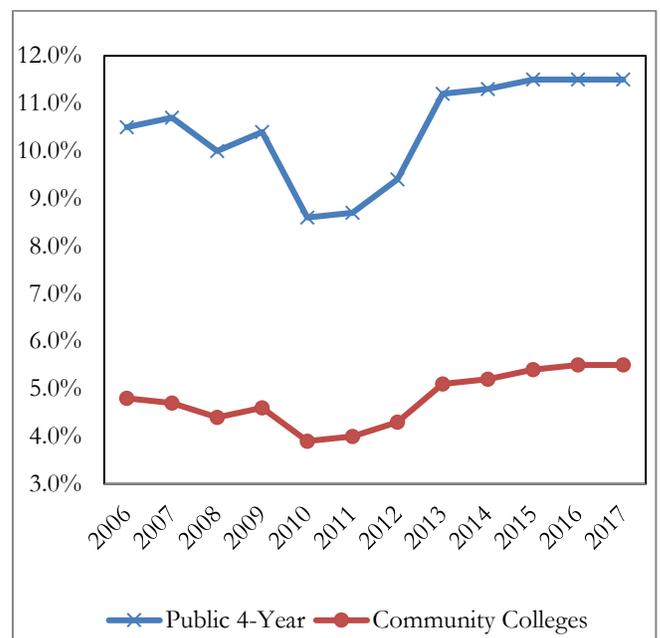
Indicators 5.11 & 5.12: Percent of Maryland median family income required to cover tuition and fees at Maryland community colleges.

The State is committed to ensuring that more Marylanders have access to its postsecondary institutions, and keeping colleges and universities affordable is a major part of this effort. In fiscal 2006, Maryland's resident tuition at public four-year colleges and universities was the 8th highest in the United States. Due to the State freezing tuition at public four year colleges and universities from fiscal 2007

through 2010, and capping growth in tuition for in-state undergraduates at the University System of Maryland at 3% or less in subsequent years, Maryland's tuition costs declined to 24th highest.[22]

Unfortunately, sluggish growth in median family income has resulted in unfavorable trends in these metrics in recent years. The percent of median family income required to cover tuition and fees at public four-year institutions has remained at 11.5% for the past three years and for community colleges has grown from 5.1% in 2013 to 5.5% in 2017. **Exhibit 5.1** clearly shows this initial increase in college affordability, followed by a decline since the recession.

Exhibit 5.1 Percent of Maryland Median Family Income Required to Cover Tuition and Fees FY 2006-2017

Given that tuition and fees are growing slightly but persistently faster than family or household income, the Maryland Higher Education Commission (MHEC) developed the 2017-2021 State Plan for Postsecondary Education: Student Success with Less Debt which was finalized in December of 2017. The Plan outlines three primary goals which highlight the current challenges facing higher education in Maryland and provides eleven

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[19]Maryland Results for Child Well Being 2009.
[20]Maryland Results for Child Well Being 2009.
[21]Alliance for Excellent Education, Issue Brief, May 2011 – Saving Now and Saving Later: How High School Reform Can Reduce the Nation's Wasted Remediation Dollars
[22]College Board, Tuition and Fees by Sector and State over Time, Retrieved from https://trends.collegeboard.org/college-pricing/figures-tables/tuition-fees-sector-state-over-time#Key%20Points.

strategies for addressing those challenges[23]. Additionally the fiscal 2018 appropriation includes $4 million or community colleges to limit tuition increases and funding to hold tuition growth at Maryland's public four-year institutions to 2 percent and the Governor's 2019 fiscal allowance includes $2 million to continue this initiative for a second year.

Indicator 5.13: Number of graduates in science, technology, engineering, and math (STEM) from Maryland's public and private higher educational institutions

Identifying workforce shortages and determining how to best meet them is important to maintaining a strong economy. STEM jobs represent an ever-growing portion of the Maryland workforce, as shown by a report from 2015 ranking Maryland #1 in the nation in terms of STEM job concentration.[24] 15,923 students graduated from Maryland higher education institutions with degrees in a STEM field in fiscal 2016, 34.4% more than in fiscal 2013. In partnership with the state, the University System of Maryland's FY 2019 budget includes $10 million to enhance the skills of the state's workforce in science, engineering, and cybersecurity.
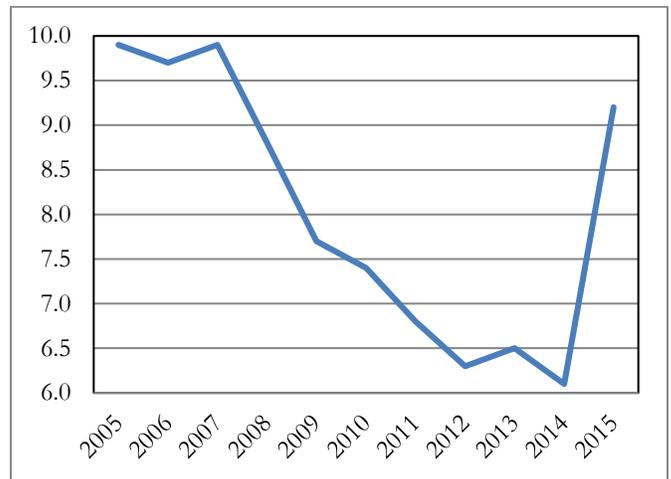
Significant Performance Trends – Public Safety

Indicator 5.15 and 5.16: Homicide rates per 100,000
- Indicator 5.15: Entire population
- Indicator 5.12: Children and youth ages 0 to 19

The rate of homicides in Maryland declined significantly from 2005 through 2014, with an overall drop of 34% in the general population and nearly 47% in the children and youth metrics. However, both metrics reversed trends in 2015, and increased further in 2016. This trend reflects a nationwide one where murder rates grew nationally in 2015 and in 2016.[25] **Exhibit 5.2** displays the entire population trend in Maryland through time.
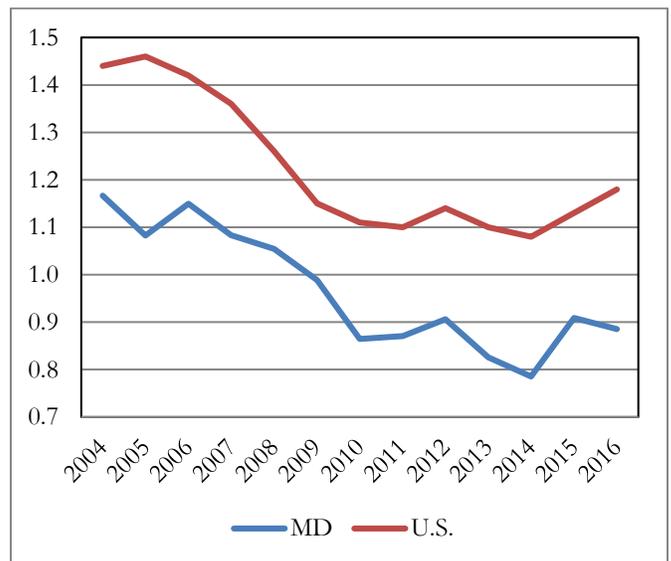
Exhibit 5.2 Homicide Rate per 100,000 Population, 2005-15

Indicator 5.17: Traffic fatality rate per 100 million miles traveled

As shown in **Exhibit 5.3**, Maryland's traffic fatality rate decreased from 0.91, a seven year high, to 0.89 between 2015 and 2016. The **Exhibit** also shows that Maryland's fatality rate remains below national averages. The national traffic fatality rate increased by 5.6% over calendar year 2015, whereas Maryland's traffic fatality rate fell by 2.3% over the same period.[26]

Exhibit 5.3 Traffic Fatality Rate per 100 Million Miles Traveled, 2004-16

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[23] Maryland Commission on Higher Education, 2017-2021 State Plan for Postsecondary Education, Retrieved from http://www.mhec.state.md.us/About/Documents/2017.2021%20Maryland%20State%20Plan%20for%20Higher%20Education.pdf.
[24] U.S. Chamber of Commerce Foundation, 2015 Enterprising States Report. Retrieved from https://www.uschamberfoundation.org/enterprisingstates/.

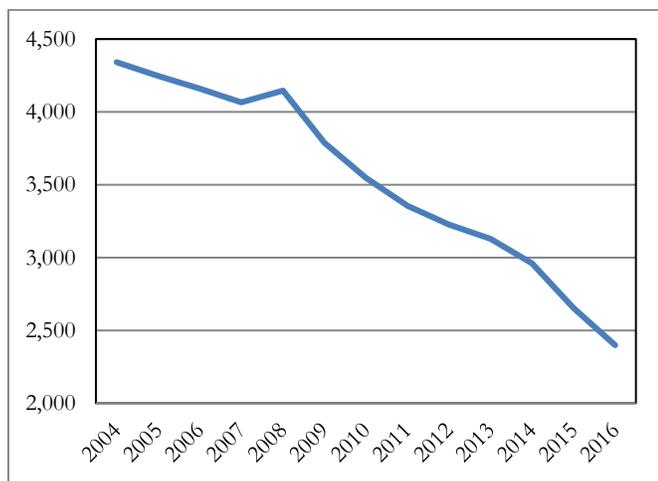[25] Federal Bureau of Investigation, 2016 Report - Crime in the United States.
[26] National Highway Traffic Safety Administration, 2016 Fatal Traffic Crash Data.

To address traffic safety challenges, the Maryland Department of Transportation worked with multiple agencies and jurisdictions to develop a five-year, statewide coordinated safety plan known as the Maryland Strategic Highway Safety Plan (SHSP) 2016-2020, which provides a framework for reducing transportation fatalities and serious injuries on all public roads. Recently enacted legislation has also enhanced traffic safety, including combating driving under the influence of alcohol and drugs, establishment of a task force to study bicycle safety in Maryland, utilizing speed cameras in school and work zones, banning text messaging and hand held cell phone use in moving vehicles, providing clearance for bicycles and emergency vehicles, and strengthening the graduated licensing process.[27]

Indicator 5.18: Part I crime rate (offenses per 100,000 population)

Part I crimes include murder, rape, robbery, aggravated assault, breaking or entering, larceny-theft, motor vehicle theft, and arson. [28] Overall, the Part I crime rate declined by nearly 45% since 2004. **Exhibit 5.4** shows trends in this measure through time.

Exhibit 5.4 Maryland Part 1 Crime Rate, 2004-16

Maryland is fighting and solving crime through a variety of strategies including increasing inter-agency cooperation, aligning State resources with the priorities of local governments at increased levels, enhancing warrant service to swiftly remove offenders from the streets, expanding efforts to reduce illegal gun possession and use, and
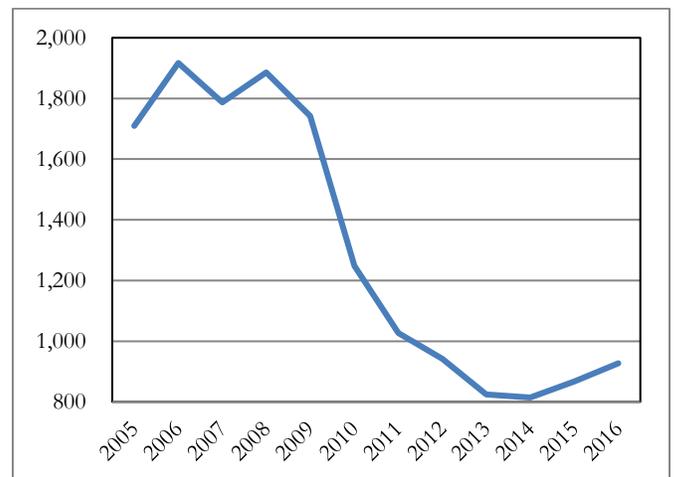
improving use of technology such as DNA Fingerprinting, License Plate Recognition, Crime Mapping, Crime Analysis, and the Public Safety Dashboard. The Violence Prevention Initiative (VPI) continues to be a primary strategy to track and supervise the State's most violent offenders in a community setting.[29] The Initiative has been enhanced to include drug treatment, mental health counseling, family counseling, and job readiness training. Following the tragedy on September 11, 2001, the Maryland Coordination and Analysis Center (MCAC) was formed which coordinates the efforts of federal, state and local agencies to gather, analyze, and share intelligence information with law enforcement, public health, and emergency responder personnel. The Department of Public Safety and Correctional Services has also implemented a network of police officers and community supervision agents who work together to exchange real time information to respond effectively to non-compliant offender behavior.[30]

Indicator 5.21: Rate per 100,000 of arrests of youth ages 10 to 17 for violent criminal offenses

Involvement in violent offenses increases the risk of injury or death, and continued criminal activity into adulthood. The violent offense arrest rate for youth declined by 1.6% since 2012. Maryland experienced a reversal of a seven year decline in the youth arrest rate in 2014, nevertheless, the metric has been more than halved over the last decade. **Exhibit 5.5** shows trends in this measure over the past decade.

Exhibit 5.5 Youth Age 10 to 17 Arrest Rate (per 100,000), 2005-16

[27]Maryland Department of Transportation, 2010, 2011, and 2017 Annual Attainment Reports on Transportation System Performance, Maryland Department of Transportation, e-mail correspondence, September 28, 2010, Maryland Department of Transportation fiscal years 2011, 2012, and 2013 MFR Performance Discussions

[28]Department of State Police, fiscal year 2012 MFR Data Definition and Control Procedures
[29]Fiscal year 2015 MFR Performance Discussion, Department of Public Safety and Correctional Services.
[30]Fiscal year 2014 and 2015 MFR Performance Discussion, Department of Public Safety and Correctional Services.

Success in assessing the needs of juveniles (physical and mental health services, drug abuse services, improved education, or social services) and treating troubled juveniles for their needs are important factors in preventing juvenile crime. The Department of Juvenile Services (DJS) is collaborating with other child serving local and State agencies to improve outcomes for youth. DJS initiatives include: the Juvenile Detention Alternatives Initiative, in which DJS works with courts to identify community alternatives to detention, the Youth Crossover Model, in which DJS and the Department of Human Services coordinate services for youth in both systems, and the Under 13 Initiative, which provides wraparound services to pre-teens who have had contact with DJS.

Significant Performance Trends – Health and Human Services

Indicator 5.25: Maryland's uninsured rate (estimated), individuals under 65

Prior to 2012, one-year data for this indicator was not available from the U.S. Census Bureau, necessitating a two-year estimated number which is not comparable to the now-available one-year number from the Census Bureau. The uninsured rate for individuals under 65 in Maryland has declined from 14.1% in 2013 to just 7.2% in 2017.

This significant improvement in metric performance reflects a national trend, and can be attributed largely to the Affordable Care Act. Most of the major provisions of the Act went into effect in January 2014, including the individual mandate which requires that most Americans obtain and maintain health insurance, or an exemption, each month or pay a tax penalty.
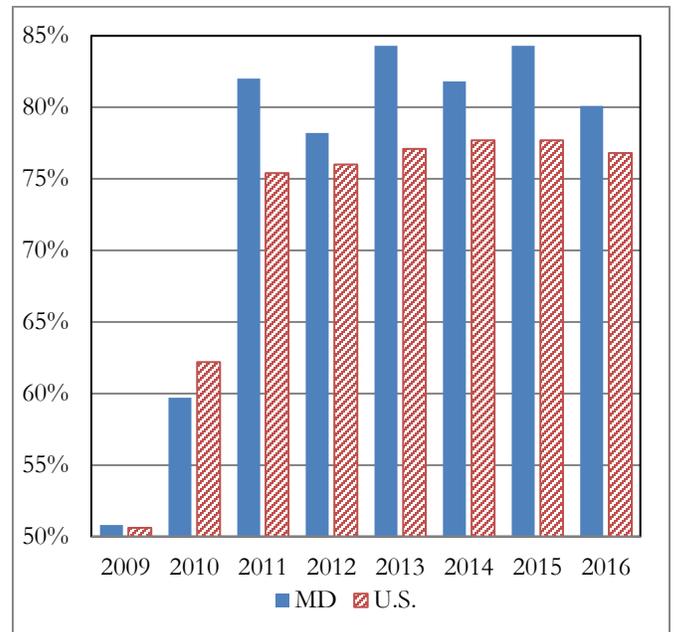
Indicator 5.26: Percent of Maryland children fully immunized (19 to 35 months)

The immunization status of young children is a good predictor of avoidance of death, disability, or developmental delays associated with immunization-preventable diseases.[31] Current Centers for Disease Control (CDC) guidelines call for children to be immunized using the 4:3:1:3:3:1 series. Data presented in this report are based on this series.

Exhibit 5.6 displays how the immunization rate both in Maryland and the U.S. has trended through time. Note that data for 2009 is not comparable to other years due to a shortage of Haemophilus Influenzae B (Hib) vaccine

resulting in CDC modifying the National Immunization Survey for that year. Maryland's immunization rate has exceeded the national rate in all years except 2010, and has remained at or above 80% for the past four years

Exhibit 5.6 Children Fully Immunized in Maryland and the U.S., 2009-2016

The Center for Immunization, Maryland Department of Health, protects the public from vaccine preventable diseases by providing free vaccines to health providers and local health departments through the Vaccines for Children program; conducts disease surveillance activity and monitoring; and provides immunization health education and resources through the Maryland Partnership for Prevention. The Center for Immunization offers ImmuNet (patient record database) to Maryland Immunization Providers. ImmuNet is helpful in tracking children in need of vaccination, and assists in vaccine management.[32]

Indicators 5.27 and 5.28: High school health:
- Indicator 5.27: Cumulative percent change from the calendar year 2000 baseline for underage high school students who ever smoked a whole cigarette
- Indicator 5.28: Percent of public school students in grades nine through twelve who are current drinkers

The first measure is an estimate of the proportion of underage high school students who have ever smoked a whole cigarette. The percent change from the calendar year 2000 baseline for underage high school students who ever

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[31]Maryland's Results for Child Well-Being 2010.

[32]Maryland Department of Health and Mental Hygiene, Infectious Disease and Environmental Health Services.

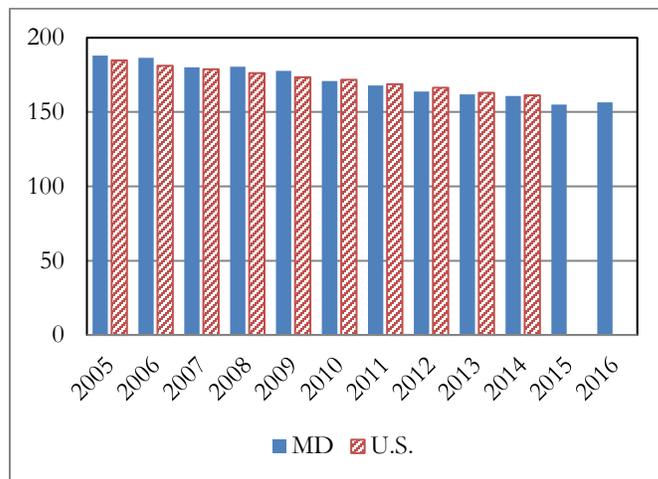smoked a whole cigarette has been on a steady downward trend, with a decline of 59% from 2008 to 2016.

The Maryland Cigarette Restitution Fund Tobacco Use Prevention and Cessation Program utilizes a comprehensive tobacco-use prevention strategy that includes "school-based programs, community-based programs, youth access enforcement, tobacco-use cessation programs, media messages promoting the availability of cessation assistance and the health benefits of cessation generally, surveillance (tobacco surveys) of under-age tobacco use behaviors, and ongoing evaluation of programmatic efforts."[33] Other strategies that contribute to reduced tobacco use include restrictions on smoking in public places and increases in excise or sales taxes on tobacco products.[34]

Data for the second measure comes from the Maryland Youth Risk Behavior Survey (YRBS) which is part of the Youth Risk Behavior Surveillance System (YRBSS) developed by the Centers for Disease Control to monitor health-risk behaviors among youth. Starting in 2005, the survey has been administered every two years. Early use of alcohol and heroin is associated with later drug use and the prevalence of high-risk behaviors by youth. Alcohol is the most commonly used drug among Maryland youth.[35] The percentage of high school students drinking alcohol is in decline, down to 26.1% in 2015 (the most recent survey year) from 39.8% in 2005.

Indicator 5.29: Overall cancer mortality rate per 100,000 persons (age adjusted to 2000 U.S. Standard Population)

Cancer is the second leading cause of death in Maryland and the nation, and accounted for 22% of all deaths in Maryland in 2016.[36] The overall cancer mortality rate in Maryland declined by 4.3% from 2012 to 2016, a reduction of seven deaths per 100,000 persons. Maryland's cancer mortality rate was above the national rate prior to and including 2009, but in 2010 it slipped below the national rate and in 2014 it was 0.4 deaths per 100,000 persons below the national rate. **Exhibit 5.7** shows trends through time for both Maryland and the nation as a whole.

Exhibit 5.7 Maryland and U.S. Cancer Mortality Rate (per 100,000 Persons), 2005-2016

*National data not yet available for 2015 and 2016.

In September 2016, the Hogan Administration announced the update and signing of Maryland's Comprehensive Cancer Control Plan which is a "valuable roadmap for Marylanders involved in cancer prevention and treatment at every level."[37]

The Maryland Comprehensive Cancer Control Plan is a guide for professionals to reduce the burden of cancer in Maryland, and is updated every four years by the Maryland Maryland Department of Health with input from 83 public and private stakeholders. The Cancer Plan is far-reaching, and encourages any individual or organization—whether they are involved in planning, directing, implementing, evaluating, or performing research on cancer control—to apply best practices and the appropriate strategies for better cancer control in Maryland. Primary strategies to address cancer mortality include continuing strong public health surveillance, education, prevention, screening, diagnosis and treatment efforts, and strong cancer research.

Indicator 5.30: Heart disease mortality rate for all races per 100,000 population (age adjusted)

Heart disease mortality refers to the death of an individual by acute rheumatic fever, chronic rheumatic heart disease, hypertensive heart disease, hypertensive heart and renal disease, or ischaemic heart disease.[38] Heart disease continued to be the leading cause of death in Maryland in 2016, accounting for 23% of all deaths. The age adjusted

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[33]Strategies and Discussion of Program Performance, FY 2015 MFR submission, Cigarette Restitution Fund–Tobacco Use Prevention and Cessation Program - Family Health Administration.
[34] Strategies and Discussion of Program Performance, FY 2015 MFR submission, Cigarette Restitution Fund–Tobacco Use Prevention and Cessation Program–Prevention and Health Promotion Administration, Department of Health and Mental Hygiene.

[35]Maryland's Results for Child Well-Being 2011, Governor's Office for Children and the Children's Cabinet.
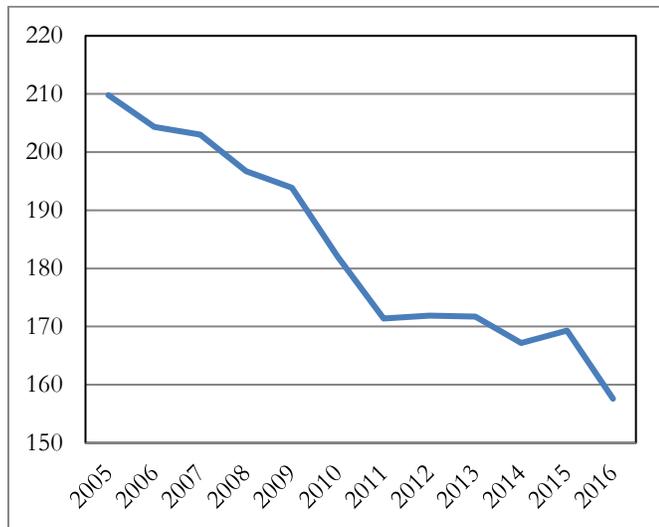[36]Maryland Vital Statistics Annual Report 2016, Vital Statistics Administration, Department of Health and Mental Hygiene.
[37] "Governor Larry Hogan Reaffirms State's Commitment to Fighting Cancer, Hosts Blood Drive," Press Release September 15, 2016.
[38]Fiscal year 2012 MFR Data Definition and Control Procedures, Family Health Administration, Department of Health and Mental Hygiene

heart disease mortality rate was 157.6 per 100,000 population in 2016, 8.3% below the rate five years ago. **Exhibit 5.8** shows trends through time for heart disease mortality in Maryland.

Exhibit 5.8 Heart Disease Mortality Chart (per 100,000 population), 2005-2016

Public health efforts contribute to Maryland's comprehensive approach in addressing heart disease mortality, including surveillance, screening, diagnosis, and treatment efforts.

Indicator 5.31: Rate of diagnoses and the percent change from the prior year level in the number of age adjusted new HIV diagnoses (per 100,000 population)

The rate of HIV diagnoses declined by 10.2% from 2012 through 2016. Strategies to reduce the rate of new HIV diagnoses include:

- increased collaboration among State agencies and community based organizations to enhance access to and use of needed prevention services by disproportionately affected populations;
- reduced drug and alcohol use associated with HIV risk behaviors among adults and youth by expanding work with substance abuse providers;
- among the current providers, increased skills and support to deliver quality HIV interventions;

- increased supply of free and sterile needles among injection drug users; and
- access to condoms among sexually active youth and adults engaging in HIV risk behaviors.[39]

Indicator 5.32: Rate of primary/secondary syphilis incidence (cases per 100,000 population)

Syphilis causes significant complications if untreated and facilitates the transmission of HIV. Cases of syphilis tend to be under reported as the disease goes undiagnosed in some individuals and unreported by some providers.[40] Maryland's rate of primary/secondary syphilis cases per 100,000 population has annually exceeded the national rate over the past decade, and Maryland currently ranks the fifth highest state in terms of the syphilis cases rate.[41]

After the rate of syphilis incidence in Maryland dropped by 17.9% in 2009, it rebounded in 2011, increasing by 2 cases per 100,000 population over 2010, maintained that higher level for several years, and then jumped further by another 1 case per 100,000 in 2015. The rate remained unchanged in 2016. Much of this growth was driven by cases in the Baltimore City metropolitan area, where over 60% of Maryland syphilis cases are found. Maryland has focused on collaborative public health efforts to reduce communicable diseases.

Indicator 5.35: Maryland prevalence of household-level very low food security (3-year average)

Very low food security is defined as households in which food intake of one member or more was reduced and eating patterns were disrupted because of insufficient money and other resources for food. Data for this indicator are derived from responses to a survey conducted by the U.S. Census Bureau.[42] In most households with very low food security, the survey respondent reported that he/she was hungry at some time during the previous twelve months but did not eat because there was not enough money for food. Prevalence rates of food insecurity vary widely state to state. Therefore, a 3-year average is used to provide more reliable statistics at the state level.

Exhibit 5.9 (next page) shows that, over the past decade, Maryland's prevalence of household-level very low food

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[39]Fiscal year 2014 and 2015 MFR Strategies and Discussion of Program Performance, Infectious Disease and Environmental Health Services–Prevention and Health Promotion Administration, Department of Health and Mental Hygiene

[40]Fiscal year 2013 MFR Data Definitions and Control Procedures, Infectious Disease and Environmental Health Administration, Department of Health and Mental Hygiene; CDC Sexually Transmitted Diseases in the United States, 2008, November 2009

[41]Centers for Disease Control and Prevention, 2013 Sexually Transmitted Diseases Surveillance

[42]The Economic Research Service, U.S. Department of Agriculture, compiles and analyzes data for this indicator from an annual survey conducted by the U.S. Census Bureau as a supplement to the monthly Current Population Survey (CPS).

security was equal to or below the U.S. level. The recession was a significant factor contributing to house-hold level food insecurity, but Maryland has continually driven down food insecurity since then. As of 2015, Maryland's rate reached pre-recession levels.

Exhibit 5.9 Maryland and U.S. Prevalence of Household-Level Very Low Food Security, 2005-2016

Over the last several years, Maryland has identified and implemented successful strategies to connect children and families to the School Breakfast and Summer Food Service Programs, and other programs, while drawing down millions of additional dollars in federal funding. Governor Hogan has charged his Children's Cabinet with four major initiatives, one of which is to continue efforts to reduce the incidence of child hunger.

The Governor has highlighted hunger initiatives through numerous other efforts. He has been a strong supporter of the Maryland Food Bank, packaging meals for those in need in January 2015 and visiting families impacted by the unrest in Baltimore that spring. In June 2015, the Governor launched the "Maryland Unites: Day of Service" in an effort to help encourage volunteerism across the State, resulting in State employees and law enforcement officials coming together at the Food Bank throughout the summer to help fight hunger. In his first Capital Budget,

the Governor included a state investment of $3.5 million for expansion of the Maryland Food Bank's facilities. For these efforts, the Governor was honored with a 2015 Hunger Advocate Award.[43] In May of 2017 the Governor signed the Hunger-Free Schools Act, extending a provision to allow high-need schools in Maryland to provide free school breakfast and lunch to all students[44].

Indicator 5.36: Rate of live births to adolescents between 15 and 19 years of age (per 1,000 women)

Adolescent mothers are more likely to drop out of high school, experience unemployment, or if employed earn lower wages than women who begin childbearing after age 20. Children born to teen mothers face increased risks of low birth weight and being pre-term, having developmental problems, and experiencing poverty.[45] Maryland's rate of live births to adolescents between 15 and 19 years of age has compared favorably to the U.S. rate for each year in the last decade. In the last five years, the Maryland rate has declined by 31.6%, reflecting a national trend.

Maryland has used a multifaceted approach to prevent teen pregnancy including health education and counseling, access to health care, outreach, and public awareness.

Indicator 5.41: Heroin overdose-related deaths in Maryland

The heroin epidemic in the U.S. has gained increasing media and policy attention over the past year, and Maryland is no exception. In the past five years, the number of heroin overdose-related deaths in Maryland grew from 392 to 1,212 (209.2 %).

In response, Governor Hogan issued Executive Orders 01.01.2015.12 and 01.01.2015.13, and State resources have been devoted to confronting this heroin and opioid epidemic through a comprehensive approach that includes education, treatment, improvements to quality of care, law enforcement, alternatives to incarceration, and overdose prevention. Over 300 State employees are working on this health crisis in some capacity.[46] A Heroin & Opioid Emergency Task Force was convened, chaired by Lieutenant Governor Rutherford and the Task Force held six regional summits throughout the State to hear testimony from those with substance use disorders, family

[43]Maryland Food Bank, Celebrating Our 2015 Hunger Advocate Award Winners: Larry Hogan, September 23, 2015.

[44] "Governor Larry Hogan Signs Hunger-Free Schools Act of 2017" Retrieved From: http://www.mdhungersolutions.org/press/governor-hogan-signs-hunger-free-schools-act-of-2017/

[45]Maryland's Results for Child Well Being 2009; State Profiles of Child Well-being, 2011 Kids Count Data Book, The Annie E. Casey Foundation

[46]Heroin & Opioid Emergency Task Force. (2015). Final Report. Retrieved from https://governor.maryland.gov/ltgovernor/wp-content/uploads/sites/2/2015/12/Heroin-Opioid-Emergency-Task-Force-Final-Report.pdf.

members, educators, faith leaders, elected officials, law enforcement, addiction treatment professionals, and other stakeholders. The Task Force issued its final report December 2015, including contributions from 431 stakeholders and 33 recommendations. The Hogan Administration has made implementing these recommendations a major priority.

In January 2018, the Governor announced the Administration's most recent efforts to address the crisis:

- *Treatment.* To transform treatment for Maryland's inmate population and enable many low-level offenders to turn their lives around, the Administration will conduct a feasibility study on converting a portion of the former Baltimore City Men's Detention Center into a therapeutic detention facility to provide treatment for incarcerated individuals with substance use disorders and other behavioral health ailments. To further address the need to expand access to treatment, the Maryland Department of Health has submitted two pieces of legislation. The first will eliminate the Certificate of Need (CON) requirement for capital projects that offer certain levels of inpatient treatment. The second will strengthen the behavioral health workforce by allowing applicants for certification as a certified supervised counselor for alcohol and drug treatment to use supervised work experience in lieu of an internship in order to satisfy certification requirements.

- *Prevention.* To further enhance the state's prevention efforts, Governor Hogan will also introduce The Overdose Data Reporting Act to allow Emergency Medical Services (EMS) providers and law enforcement officers to input and share data about opioid overdoses. This enhanced data-sharing ability will enable first responders to track this information and allocate resources, including life-saving naloxone, in near real time to respond to an extremely potent batch of opioids in a specific area. The legislation will make Maryland one of 27 states and nearly 300 agencies to use this technology to inform first responders, identify national trends, and prevent overdose deaths.

- *Enforcement.* Governor Hogan also announced legislation to bolster the state's enforcement efforts by strengthening and expanding the state's Volume Dealer Law, which allows for the prosecution of high-level drug traffickers who deal in large quantities of controlled substances. The bill will expand the law to include fentanyl and its analogs, which are currently causing the majority of unintentional overdoses in the state, and include additional penalties for those dealing five or more grams of this extremely lethal additive. On the first day of the 2018 session, the Hogan administration introduced emergency legislation to crack down on violent criminal networks that traffic these substances by strengthening Maryland's gang statute to allow prosecutors to work across jurisdictional lines to build cases and take down gang enterprises.

- *Budgetary Actions.* The governor's fiscal 2019 budget continues to demonstrate a strong commitment to combating the opioid crisis. In addition to $159 million dedicated to non-Medicaid substance use disorder and addiction programs, it includes $13.7 million in new funding for the state's response to the heroin and opioid epidemic. The budget also includes $3 million in grant funding for local boards of education to implement prevention and education programs, and provides $1.2 million to expand treatment programs and job readiness training for the Maryland Department of Public Safety and Corrections' pre-release population, as well as 15 new positions at the Maryland Department of Health to assist inmates in applying for Medicaid eligibility prior to release. Finally, the governor's capital budget provides funding for Helping Up Mission in Baltimore City and Westminster Rescue Mission in Carroll County to expand treatment services for women.

Governor Hogan declared a State of Emergency in response to the heroin and opioid crisis, and established the Opioid Operational Command Center (OOCC) to lead the state's response and coordinate directly with all 24 local jurisdictions. The OOCC launched Before It's Too Late, the state's effort to bring awareness to the heroin and opioid epidemic-and to mobilize resources for effective prevention, treatment, and recovery. Marylanders grappling with a substance use disorder can find help at BeforeItsTooLateMD.org and 1-800-422-0009, the state crisis hotline.
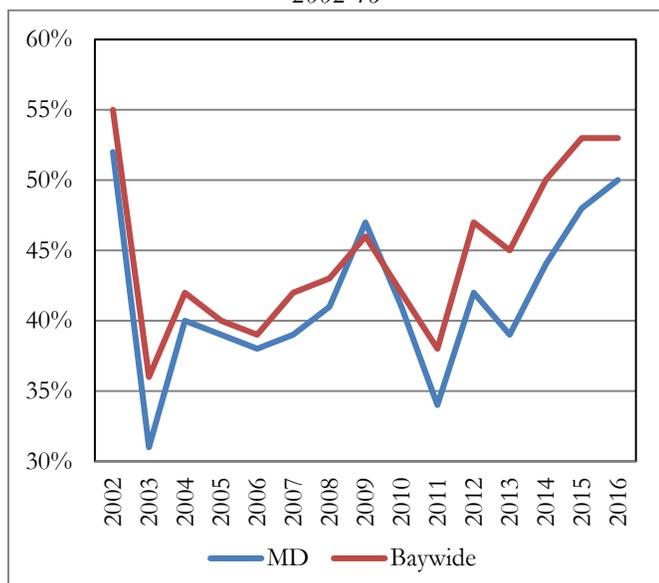
Significant Performance Trends - Environment

Indicator 5.42: Chesapeake Bay Habitat Health Index - Maryland

The Chesapeake Bay Habitat Health Index (Bay Health Index) measures the progress of three water quality indicators and three biotic indicators[47] against scientifically derived ecological thresholds or goals. The six indicators are combined into one overarching Bay Health Index. The health of the Chesapeake Bay is reported annually in the Chesapeake Bay Report Card. The data presented is for both the Maryland portion[48] of the Chesapeake Bay and the Bay-wide number.

The Bay Health Index shows the Bay's progress is steady and continues to improve. Maryland's score rose from 42% to 50% between 2012 and 2016. At the same time, the score for the entire Chesapeake Bay rose from 47% to 54%. As **Exhibit 5.10** shows, Maryland and Bay-wide scores can vary widely from year to year depending on trends in weather, etc.

Exhibit 5.10 Maryland and Bay-wide Report Card Score, 2002-16

In 2016, the greatest improvement of the fifteen regions scored in the Bay Health Index was in the Patapsco and Black Rivers.[49] While there is still improvement to be made in this region, the implementation of Enhanced Nutrient Reduction (ENR) technologies at wastewater treatment along the Rivers and elsewhere in Maryland will make the process of nutrient removal more effective going forward.[50] ENR will be instrumental in reaching the goals of the Chesapeake Bay 2000 Agreement.

Indicator 5.43: Acres of submerged aquatic vegetation (SAV)

Restoring underwater grasses to the rivers, streams and shallow waters of the Chesapeake Bay will dramatically improve the Bay ecosystem. Grass beds provide food and shelter to fish, crustaceans and other species, add oxygen to the water, absorb nutrient pollution, reduce shoreline erosion and help suspended particles of sediment settle to the bottom. In 2016, SAV in Maryland's portion of the Bay grew to 59,277 acres and is more than halfway to its benchmark of 114,034 acres of SAV by fiscal 2019. An abundance of SAV was detected Bay-wide, with 2016 marking the highest number of SAV acres in the last 30 years.[51] Experts attribute this trend "to the recovery of wild celery and other species in the fresher waters of the upper Bay, the continued expansion of widgeon grass in the moderately salty waters of the mid-Bay and a modest recovery of eelgrass in the very salty waters of the lower Bay."[52]

Indicator 5.44: Dredge Survey Index of stock size (crabs) – estimated

Total stock size refers to the total number of crabs of all sizes in the over-wintering crab population, i.e. crab density. The data is derived from the annual Bay-wide winter dredge survey conducted by the Maryland Department of Natural Resources and the Virginia Institute of Marine Science. Indices of stock size are average catches per tow, after the catches have been

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[47]The three water quality indicators are chlorophyll a, dissolved oxygen, and water clarity; the three biotic indicators are submerged aquatic vegetation, Benthic Index of Biotic Integrity, and Phytoplankton Index of Biotic Integrity.

[48]It is not possible to completely separate Maryland data from Bay reporting regions. Three of the regions include parts of Virginia: Lower Eastern Shore, Mid Bay, and Potomac River. Per the University of Maryland Center for Environmental Science, in the broad scheme, Maryland data is not affected much by including data for parts of Virginia.

[49] UMCES. 2017. Chesapeake Bay Report Card 2016.

[50] Maryland Department of the Environment. 2017. The Evolution to Enhanced Nutrient Removal Technology

[51] Chesapeake Bay Program. 2017. More than 97,000 acres of underwater grasses recorded in Chesapeake Bay. Retrieved from https://www.chesapeakebay.net/news/blog/more_than_97000_acres_of_underwater_grasses_recorded_in_chesapeake_bay
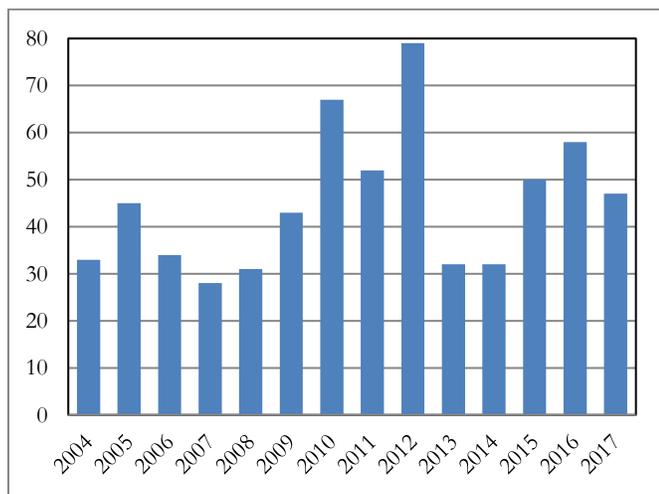
[52] Chesapeake Bay Program. (2016). Underwater Bay Grass Abundance (Baywide). Retrieved from http://www.chesapeakebay.net/indicators/indicator/bay_grass_abundance_baywide.

corrected for the efficiency of the dredge gear and overwintering mortality.[53]

The Index value increased by 46.9% over the five year period from 2013 to 2017. However, the total crab population fell between 2016 and 2017 from 550 million to 455 million.[54] Though the total blue crab abundance has declined over the last year, the abundance of spawning age females in 2017 was the highest in survey history and above the recommended target of 215 million crabs.[55] As **Exhibit 5.11** shows, the blue crab population can vary dramatically from year to year. Crabs are vulnerable to extreme cold, particularly prolonged cold winter temperatures.

Bills were passed during the 2011 legislative session that increased enforcement authority and penalties for certain violations of rules related to striped bass, oyster, and blue crab. Legislation passed in 2012 addressed the Bay's water pollution problems, including curtailing septic pollution, allowing upgrades to sewage treatment plants, etc.[56] In 2012 and 2013, DNR facilitated the initiation of a Blue Crab commercial fishery harvest accountability pilot. Commercial harvest tracking is critical to well managed fisheries and can provide flexibility for harvesters.[57] In fishery management, it can take years for new policies to result in improved performance, and the overall stock size growth since the sharp decline in 2013 is likely an indication that these policies are having an impact.

Exhibit 5.11 Dredge Survey Index - Crab Stock Size, 2004-17

Indicator 5.47: Acres of cover crops planted

In 2010, the U.S. Environmental Protection Agency established nutrient and sediment limits for the Chesapeake Bay known as the Total Maximum Daily Load (TMDL). Cover crops are one of the most cost-effective strategies to meet nutrient and sediment TMDL reduction targets outlined in Maryland's Watershed Implementation Plan to protect and restore the Chesapeake Bay by 2025.

Through the Cover Crop Program, farmers plant non-harvested cereal crops on agricultural land to control soil erosion and absorb unused nitrogen and phosphorus remaining in the soil following the fall harvest.[58] The Cover Crop Program provides cost share assistance to farmers to implement this best management practice.[59] Through the cover crop program, the number of acres planted has increased dramatically. Over the last ten years the number of acres of cover crops planted has increased by 131%, from 241,914 acres in 2007 to a record high of 558,918 acres in 2017.

Indicator 5.48: Number of waters impaired by nutrients per the Integrated Report of Surface Water Quality

The Federal Clean Water Act requires states to identify waters assessed as not meeting water quality standards and compile a List of Impaired Surface Waters (the historical 303(d) List) that includes impaired waters for which a Total Maximum Daily Load (TMDL) is required. A TMDL is the maximum amount of a pollutant that can enter a water body and still allow the water quality standards to be met.[60] In general, TMDLs set pollutant limits for all sources by dividing, or "allocating," the maximum allowable pollutant loads among those sources.

Over the past five years, the number of impaired bodies without a TMDL declined by 65.0%. This strong performance is largely the result of the completion of the Chesapeake Bay TMDL which was finalized in December 2010. Since December 2010, Maryland has completed the Phase I Watershed Implementation Plan (WIP), and has finalized with additional updates and refinements the Phase II WIP. MDE has worked extensively with inter-

[53]Maryland Department of Natural Resources, Fisheries Service, Data Definition and Control Procedures, fiscal year 2012 and 2013.
[54] Maryland Department of Natural Resources, Fisheries Service, 2017 Blue Crab Winter Dredge Survey.
[55] Maryland Department of Natural Resources, Fisheries Service, 2017 Blue Crab Winter Dredge Survey.
[56]Office of the Governor, More Blue Crabs newsletter, May 3, 2012.
[57]Maryland Department of Natural Resources, Fisheries Service, MFR Performance Discussion, fiscal year 2015.

[58]Overview, Chesapeake Bay Report Card, 2010, Chesapeake EcoCheck. Retrieved from www.eco-check.org/reportcard/chesapeake/2010/overview/
[59]Cost-share support is administered through Maryland Agricultural Water Quality Cost-Share (MACS) program, Maryland's Chesapeake Bay Tributary Strategy Implementation Plan, January 2008
[60]A water quality standard is the combination of a designated use for a particular body of water and the water quality criteria designed to protect that use (Maryland Department of Environment's Web site about the Integrated Report of Surface Water Quality found at:

jurisdictional and inter-agency workgroups and committees over the last three years to provide technical expertise and guidance to ensure that the Bay TMDL addressed the nutrient and sediment impairments in all of Maryland's tidal waters listed as impaired by those pollutants on the State's Integrated Report of Surface Water Quality.[61] The Phase III WIP was completed in 2017, and outlines a strategy for ensuring that all practices are in place by 2025 as needed to fully restore the Bay and its tidal waters.

Indicator 5.49: Percent of Marylanders served by public water systems in significant compliance with all new and existing regulations

Water systems are evaluated for compliance with technical and health-based rules, as well as compliance with health-based drinking water standards. Technical violations include items such as monitoring and reporting of compliance reports, failure to issue public notification, and failure to complete corrective actions for treatment technique requirements. Health-based standards are established for over eighty regulated contaminants such as bacteria, nitrates, arsenic, lead and copper, disinfection byproducts, and radionuclides.

Performance in this category has increased to 99% as of fiscal 2017. This improvement is largely due to the fiscal 2016 implementation of a new federal regulation called the Revised Total Coliform Rule. All public water systems were required to comply with this stricter regulatory standard by April 1, 2016.[62] In 2017, the Governor signed legislation that requires all schools', public and private, water be tested periodically for lead to further ensure the safety of Marylanders.[63]

Indicator 5.50: Three-year average of days the eight hour ozone standard was exceeded
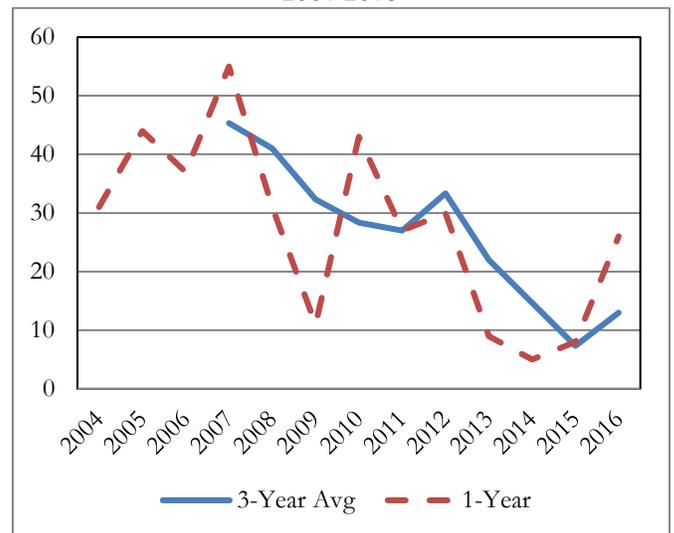
Breathing ozone, a primary component of smog, can trigger a variety of health problems. Other impacts of air pollution are reduced visibility; damaged crops, forests and buildings; and acidified lakes and streams. Emissions from industrial facilities and electric utilities, motor vehicle exhaust, gasoline vapors, and chemical solvents are some of the causes of ozone forming pollutants. Maryland's ozone levels are not only due to ozone-forming pollutants being emitted by sources within Maryland, but from ozone formed in other states that is delivered to Maryland by prevailing winds.

Maryland is doing its part locally to meet National Ambient Air Quality Standards (NAAQS) for ozone and fine particulate matter through the Maryland Healthy Air Act (HAA) enacted in July 2007, at the time the toughest power plant emission law on the east coast.

The three year average of days the eight-hour ozone standard was exceeded declined significantly (61%) from 2012 to 2016. **Exhibit 5.12** displays the one-year and three-year trends through time. MDE attributes the improvement in performance to the continuing addition of pollution controls at existing power plants west of Maryland, more power plants actually running their pollution controls, and the conversion of coal-fired power plants to natural-gas-fired plants.[64] Maryland continues to work with other states on efforts to reduce the amount of pollution that blows upwind from other states, which impacts Maryland's ozone performance.[65]

Exhibit 5.12 Days the 8-Hour Ozone Standard Was Exceeded, 2004-2016

http://www.mde.maryland.gov/programs/Water/TMDL/Integrated303dReports/Pages/Programs/WaterPrograms/TMDL/Maryland%20303%20dlist/index.aspx

[61] MDE Chesapeake Bay TMDL, Developing the Bay TMDL: A Pollution Diet for the Chesapeake Watershed, http://www.mde.md.us/programs/water/tmdl/chesapeakebaytmdl/pages/programs, October 17, 2012

[62] EPA. Revised Total Coliform Rule And Total Coliform Rule. Retrieved from https://www.epa.gov/dwreginfo/revised-total-coliform-rule-and-total-coliform-rule.

[63] Maryland Department of the Environment. Capacity Development for Maryland Public Drinking Water. Retrieved from http://mde.maryland.gov/programs/Water/water_supply/Documents/MD2017CapacityDevelopmentReport.pdf

[64] Fiscal year 2017 Performance Discussion, Maryland Department of the Environment.

[65] MDE. Maryland Clean Air 2017 Progress Report. Retrieved from http://mde.maryland.gov/programs/Air/Documents/MDCleanAirProgress2017.pdf

In September 2017, Governor Larry Hogan directed the Maryland Attorney General to file suit against the U.S. Environmental Protection Agency (EPA) for its failure to act on a petition requiring power plants in five upwind states to reduce pollution that significantly affects the quality of the air that Marylanders breathe. The petition, filed in November 2016 by the Maryland Department of the Environment (MDE) under Section 126 of the federal Clean Air Act, requests the EPA to require certain power plant units in the upwind states to run their air pollution controls to reduce emissions. About 70 percent of Maryland's ozone problem originates from emissions in upwind states.

Indicator 5.56: Number of children under 6 years of age with elevated blood lead levels (>5ug/dl)

The major source of child exposure to lead is paint dust from deteriorated lead paint or from home renovation. Elevated blood lead levels are associated with a number of detrimental effects including behavioral and neuro-developmental effects in childhood such as learning and behavioral problems and lowered intelligence, and seizures and death depending on the levels of blood lead. The number of children with elevated blood lead levels (above 5 ug/dl) declined sharply from 2012 to 2016, dropping by 23.9%.

The number of children with elevated blood levels is at its lowest level since data began being collected in 1993. The decline in blood lead levels is expected to continue due to the multitude of intervention strategies as well as the gradual reduction in the number of residences with lead paint hazards. A primary prevention strategy that is responsible for much of the past decline in blood lead levels is the implementation and enforcement of Maryland's "Reduction of Lead Risk in Housing" law.[66] A key change in Maryland's lead law – expanding the type of properties covered by the law to include rental units built prior to 1978 – took effect January 1, 2015.[67] Moving to protect more children from the health risks associated with lead paint poisoning, MDE began registering newer rental properties that will for the first time be required to comply with the provisions of Maryland's lead law. The Maryland Department of Health began a new initiative in March 2016 to test all children at ages 1 and 2, regardless of where they live. In the first nine months after the regulation took effect, the number of children ages 1 and 2 tested increased

12.2% over the six-year average. Some counties saw testing rates increase by more than 50%.[68]

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[66]Maryland Department of the Environment, Lead Poisoning Prevention Program Childhood Blood Lead Surveillance in Maryland, Annual Report 2010, August 2011
[67]Fiscal year 2017 Performance Discussion, Maryland Department of the Environment.

[68] Maryland Department of the Environment. Lead Poisoning in Maryland Drops to Lowest Recorded Levels, Testing Increases in First Year of State Initiative. Retrieved from http://news.maryland.gov/mde/2017/10/25/lead-poisoning-in-maryland-drops-to-lowest-recorded-levels-testing-increases-in-first-year-of-state-initiative/

Performance Detail – Improved Quality of Life

Key Performance Area 5– Data by Report Year

Indicator	Agency/ Data Source	2014	2015	2016	2017	2018	4 Year Change	Specific Target
Education								
5.1. Percent of students entering Kindergarten demonstrating Full Readiness on the Kindergarten Readiness Assessment (AY 2015-2017) – *test new in 2015*	MSDE			47%	45%	43%	-8.8%	Annual increase from 2015 (47%)
5.2. AP Exams – Percent receiving grade 3, 4, or 5 (AY 2013 - 2017)	MSDE	60.3%	61.0%	61.0%	62.0%	63.1%	4.6%	Annual increase
5.3. Prekindergarten enrollment (AY 2013 - 2017)	MSDE	29,671	29,811	30,385	31,868*	32,088	8.1%	N/A
5.4. High School Graduation Rate (AY 2012- 2016)	MSDE	83.57%	84.97%	86.39%	86.98%	87.61%	4.8%	88.49% by 2020
5.5. Percent of children in grades 9 through 12 who drop out of school in an academic year (AY 2012 - 2016)	MSDE	10.22%	9.36%	8.35%	8.08%	7.97%	-22.0%	N/A
5.6. Percent of core academic subject classes staffed with highly qualified teachers (AY 2012 - 2016)**	MSDE	93.1%	93.8%	92.4%	91.6%	91.1%	-2.1%	92.1% by 2017
5.7. Average percentage of schools surveyed by the Interagency Committee for School Construction in the past six years that received Superior, Good, or Adequate ratings for school maintenance (FY 2013-2017)	IAC	97.2%	97.3%	97.1%	97.2%	96.6%	-0.6%	N/A
5.8. Six year graduation rate of first-time, full-time students at public four-year colleges and universities (all groups) (FY 2013- 2017)	MHEC	61.6%	63.8%	63.7%	66.4%	65.5%	6.3%	67% by 2018
5.9. Percent of bachelor's degrees awarded to racial/ethnic minorities at public and private Maryland colleges and universities (FY 2013 - 2017)	MHEC	35.9%	36.4%	37.4%	39.3%	40.0%	11.4%	38% by 2018
5.10. Four-year transfer and graduation rate of first-time community college students (FY 2013 - 2017)	MHEC	33.5%	33.7%	33.9%	33.1%	35.8%	6.9%	N/A

Indicator	Agency/ Data Source	2014	2015	2016	2017	2018	4 Year Change	Specific Target
5.11. Percent of Maryland median family income required to cover tuition and fees at Maryland public four-year institutions (FY 2013 - 2017)	MHEC	11.2%	11.3%	11.5%	11.5%	11.5%	2.7%	Below 10% by 2018
5.12. Percent of Maryland median family income required to cover tuition and fees at Maryland community colleges (FY 2013 - 2017)	MHEC	5.1%	5.2%	5.4%	5.5%	5.5%	7.8%	Below 4% by 2018
5.13. Number of graduates in science, technology, engineering, and math (STEM) from Maryland's public and private higher educational institutions (FY 2013 - 2017)	MHEC	11,850	13,082	13,850	15,039	15,923	34.4%	Above 13,000 by 2018
5.14. Post-secondary degree attainment rate for Marylanders ages 25 to 64 (FY 2013 - 2017)	MHEC	44.2%	44.8%	45.0%	45.2%	45.9%	3.8%	N/A
Public Safety								
5.15. Homicide rate per 100,000 (CY 2011 - 2015)	State Police	6.8	6.3	6.5	6.1	9.2	35.3%	Below 6.49
5.16. Rate of homicide deaths of children and youth ages 0 to 19 (per 100,000 population) (CY 2012 - 2016)	State Police	4.3	3.5	3.0	4.9	5.5	27.9%	N/A
5.17. Traffic fatality rate per 100 million miles traveled (CY 2012 - 2016)	State Police	0.90620	0.82540	0.78546	0.90909	0.88514	-2.3%	N/A
5.18. Part I crime rate (offenses per 100,000 population) (CY 2012 - 2016)	State Police	3,226	3,128	2,960	2,652	2,398	-25.7%	N/A
5.19. Offenders under Department of Public Safety & Correctional Services jurisdiction (FY 2013 - 2017)	DPSCS	21,101	20,868	20,602	20,274	19,604	-7.1%	N/A
5.20. Percent of all cases released from supervision where the offender was employed at closing (FY 2013 - FY 2017)	DPSCS	30%	30%	28%	32%	31%	3.3%	At least 31%
5.21. Rate per 100,000 of arrests of youth ages 10 to 17 for violent criminal offenses (CY 2012 - 2016)	Children's Cab. Inter-agency Fund	942	825	814	867	927	-1.6%	N/A
5.22. Youth Recidivism: Percent of youth re-adjudicated within one year after release from all residential (FY 2012 - 2016)	DJS	16.0%	18.5%	19.0%	17.6%	14.6%	-8.8%	23.5%

Indicator	Agency/ Data Source	2014	2015	2016	2017	2018	4 Year Change	Specific Target
Health and Human Services								
5.23. Percent of live births for which prenatal care was initiated during the first trimester (CY 2012 - 2016)	MDH	67.9%	67.0%	66.6%	69.9%*	70.2%	3.4%	At least 76.7% by CY 2018
5.24. Infant mortality rate for all races (per 1,000 live births) (CY 2012 - 2016)	MDH	6.3	6.6	6.5	6.7*	6.5	3.2%	No more than 6.2 by CY 2018
5.25. Maryland's average annual uninsured rate among the nonelderly (under age 65; estimated) (CY 2012 - 2016)	MDH	14.1%	11.7%	6.5%	7.5%	7.2%	-48.9%	N/A
5.26. Percent of Maryland children fully immunized (19-35 months) (CY 2012 - 2016) – *metric has been updated since last year's report, when the values were the 24 month figure in error*	CDC	78.2%*	84.3%*	81.8%	84.3%	80.1%	2.4%	At least 80%
5.27. Cumulative percent change from the calendar year 2000 baseline for underage high school students smoking cigarettes (CY 2008, 2010, 2012, 2014, 2016) (biannual)	MDH	-41.7%	-49.9%	-53.7%	-64.4%	-66.52%	59.4%	N/A
5.28. Percent of public school students in grades nine through twelve who are current drinkers (AY 2007, 2009, 2011, 2013, 2015) (biannual)	Children's Cab. Inter-agency Fund	42.9%	37.0%	34.8%	31.2%	26.1%	-39.2%	N/A
5.29. Overall cancer mortality rate per 100,000 persons (age adjusted to 2000 U.S. Standard Population) (CY 2012 - 2016)	MDH	163.7	161.9	160.9	155.0	156.6	-4.3%	No more than 146.0 by CY 2018
5.30. Heart disease mortality rate for all races per 100,000 population (age adjusted) (CY 2012 - 2016)	MDH	171.9	171.7	167.2	169.3*	157.6	-8.3%	No more than 148.3 by CY 2018
5.31. Rate of age adjusted new HIV diagnoses (per 100,000 population) (CY 2012 - 2016 estimated)	MDH	23.5*	22.6*	22.1*	22.4*	21.1	-10.2%	N/A
5.32. Rate of primary/secondary syphilis incidence (cases per 100,000 population) (CY 2012 - 2016)	MDH	7.3	7.7	7.5	8.5	8.5	16.4%	N/A
5.33. Percent of children with no recurrence of maltreatment within 6 months of first occurrence (FY 2013 - 2017)	DHS	89.2%	89.8%	90.1%	87.6%	90.8%	1.8%	90.9% or more by FY 2017

Indicator	Agency/ Data Source	2014	2015	2016	2017	2018	4 Year Change	Specific Target
5.34. Percent of related children and youth under age 18 whose families have incomes below the poverty level (estimated) (CY 2012 - 2016)	U.S. Census	13.5%	13.3%	12.7%	12.9%	12.4%	-8.1%	N/A
5.35. Maryland prevalence of household-level very low food security (3 year average) (2011-2013 to 2014-2016)	USDA	5.1%	4.9%	4.8%	3.8%	3.9%	-23.5%	N/A
5.36. Rate of live births to adolescents between 15 and 19 years of age (per 1,000 women) (CY 2012 - 2016)	MDH	24.7	22.1	19.3	17.8*	16.9	-31.6%	No more than 13.3 by CY 2018
5.37. Statewide percent of current child support paid (FFY 2013 - FFY 2017)	DHS	66.78%	67.75%	68.55%	68.98%	68.74%	2.9%	1% increase each year until 80%
5.38. Rate of children placed in out-of-home care (per 100,000 children) (2012 - 2016)	Children's Cab. Inter-agency Fund	12.3*	11.2*	9.9*	7.5*	5.3	-56.9	N/A
5.39. Percent increase in employment of adults at completion of substance abuse treatment (2013-2017)^	MDH	43%	41%	43%	31%	39%	-8.6%	40% by FY 2019
5.40. Percent of adults with serious mental illness who receive mental health services (FY 2013 - 2017)	MDH	24.2%	25.6%	26.9%	26.8%	26.3%	8.8%	26.5% by FY 2019
5.41. Heroin overdose-related deaths in Maryland (CY 2012 - 2016)	MDH	392	464	578	748	1,212	209.2%	N/A
Environment								
5.42. Chesapeake Bay Habitat Health Index- MD (CY 2012 - 2016)*	UMCES EcoCheck	42%	39%	44%	48%	50%	19.0%	N/A
5.43. Acres of submerged aquatic vegetation (CY 2012 - 2016)*	DNR	24,509	28,815	39,400	53,783	59,277	141.9%	114,034 acres of SAV
5.44. Dredge survey index of stock size - crabs (2013 - 2017)	DNR	32	32	50	58	47	46.9%	N/A
5.45. Oyster biomass index (2013 - 2017)	DNR	1.6	2.1	2.1	1.8	1.4	-11.9%	10
5.46. Estimated nitrogen load to the Chesapeake Bay from Maryland (in million lbs.) (FY 2013 - 2017)	DNR	47.57	49.81	48.09	47.47	45.48	-4.4%	45.48 in 2017
5.47. Acres of cover crops planted (CY 2013 - 2017)	MDA	413,826	415,550	427,458	499,531	558,918	35.1%	N/A

Indicator	Agency/ Data Source	2014	2015	2016	2017	2018	4 Year Change	Specific Target
5.48. Waters impaired by nutrients per the Integrated Report of Surface Water Quality (2013 - 2017) – *note report done biannually*	MDE	20	7	7	7	7	-65.0%	N/A
5.49. Percent of Marylanders served by public water systems in significant compliance with all new and existing regulations (FY 2013 - 2017)	MDE	98%	96%	90%	98%	99%	1.0%	At least 97%
5.50. 3 year average of days the 8 hour ozone standard was exceeded (CY 2013-2017)	MDE	33.3	22.0	14.7	7.3	13.0	-61.0%	0
5.51. Maryland's recycling rate (CY 2013 - 2017)	MDE	44.5%	43.5%	44.1%	43.6%*	44.1%	-0.9%	N/A
5.52. Total acres preserved by all land preservation programs (CY 2013 - 2017)*	DNR	1,508,210	1,530,154	1,551,375	1,561,111	1,568,262	4.0%	N/A
5.53. Energy consumption by all State government facilities (millions of MMBTU's) (owned and leased) (CY 2013 - 2017)	DGS	11.59	12.06	12.25	11.54	11.4	-1.6%	15% reduction by 2015
5.54. Maryland per capita electricity consumption in megawatt hours (CY 2012 - 2016)	MEA	11.2	11.1	10.9	11.0	10.7	-4.2%	15% reduction by 2015
5.55. Percent of vehicles registered in the state that are alternative fuel, electric or hybrid-electric (FY 2013 - 2017)*	MVA	8.3%	11.1%	11.4%	11.9%	11.9%	42.8%	N/A
5.56. Number of children under 6 years of age with elevated blood lead levels (CY 2012 - 2016)	MDE	2,739	2,622	2,359	2,166	2,084	-23.9%	N/A
5.57. Maryland rapid transit trips (including Maryland Transit Administration (MTA), Washington Metropolitan Area Transit Authority (WMATA), and Locally Operated Transit Systems (LOTS)). (thousands) (CY 2013 - 2017)	MDoT	282,817	277,735	278,270	263,771	248,281	-12.2%	N/A

*Numbers have been updated since last year's report.
^ These services changed in 2016 from grant-based to fee-for-service-based, therefore data from prior years is not seen as comparable.
** No longer being reported. DBM will find a replacement measure next year.
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