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

DAVID R. BRINKLEY, SECRETARY

JANUARY 2019
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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. 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).

<table>
<thead>
<tr>
<th>Performance Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Favorable Performance (Change &gt;10%)</td>
<td></td>
</tr>
<tr>
<td>Favorable Performance (3% to 10%)</td>
<td></td>
</tr>
<tr>
<td>Stable Performance (-2% to 2%)</td>
<td></td>
</tr>
<tr>
<td>Unfavorable Performance (-3% to -10%)</td>
<td></td>
</tr>
<tr>
<td>Strongly Unfavorable Performance (&lt; -10%)</td>
<td></td>
</tr>
</tbody>
</table>

The following chart summarizes overall performance for measures in the State Plan. The majority of measures are moving in a favorable direction, 55.4%. Performance is stable for 18.9% of measures and, when combined, 74.3% 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.

1For determining trends when the beginning value is zero, the difference between zero and the ending value is calculated rather than a percent change.
1. ECONOMIC DEVELOPMENT AND JOBS

Performance Overview

<table>
<thead>
<tr>
<th>Performance Status</th>
<th>Number of Indicators</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Favorable (Change &gt;10%)</td>
<td>4</td>
<td>30.4%</td>
</tr>
<tr>
<td>Favorable (3% to 10%)</td>
<td>1</td>
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<tr>
<td>Stable (-2% to 2%)</td>
<td>3</td>
<td>27.3%</td>
</tr>
<tr>
<td>Unfavorable (-3% to -10%)</td>
<td>2</td>
<td>18.2%</td>
</tr>
<tr>
<td>Unfavorable (&lt; -10%)</td>
<td>1</td>
<td>9.1%</td>
</tr>
<tr>
<td>Total</td>
<td>11</td>
<td>100%</td>
</tr>
</tbody>
</table>

In the area of Economic Development and Jobs, 72.7% of Maryland indicators either performed favorably or held stable between the 2015 and 2019 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 1.08% to 6.98%,
- total general cargo tonnage at Maryland Port Authority terminals grew by 14.6% over five years, from 9.6 million to 11.0 million tons,
- State sales tax revenue attributable to tourism jumped 19.5%, from $401.4 million to $479.8 million, and
- the number of passengers at BWI Marshall Airport reached a new record of 26.4 million, representing growth of 17.2% 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 [2012] 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 calendar year 2013 to 2017, Maryland's total real gross domestic product grew by 8.4%, just below 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 2004 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's spending pullback, Maryland was related to federal spending. However, over the past four years, Maryland's growth rebounded, narrowing the gap between it and the national average. Maryland's growth surpassed the national average in 2016 for the first time since 2011, and maintained growth at the national average through 2017.

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 2018, Maryland was ranked 34th among states and, with a value of -0.57, below the national average. Comprising this overall value, Maryland ranked as follows:

a. 36th on change in personal income with 3.5% growth compared to the national average of 4.4%,

b. 32nd in employment growth rate with 1.3% compared to the national average of 1.8%, and  
c. 19th in state population as a share of the national population, gaining 0.30% in population.

Maryland's overall ranking has fluctuated over the last four years with a peak of 0.17 in 2017 and a low of -0.57 in 2018.

**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. 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.

MPA's general cargo tonnage in fiscal 2017 set a new fiscal year record high for the 7th consecutive year, at 10.3 million tons. Nationally, the Port has been recognized repeatedly 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.

**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 $468.9 million in fiscal 2017 to $479.8 million in fiscal 2018, sales tax revenue attributable to tourism has increased in all but one year since the data was first tracked in fiscal 2005. In 2017, tourism activity supported 1 in 16.5 jobs in Maryland, or 6.1% of private employment.

The health of this indicator is driven by the annual number of visitors. While overall visitation decreased slightly to 41.5 million in 2017 from 42.1 million in 2016, there was a significant increase in visitors from targeted markets.

**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. 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. Between 2013 and 2017, the State's performance has generally fluctuated between 83% and 86%.

In response to the need for highway improvements, the Hogan Administration increased spending on maintenance by 17.5% in fiscal 2016 and 2% more in both fiscal 2017 and fiscal 2018. In addition, overall capital projects funding is $2.9 billion in fiscal 2019 to improve Maryland's transportation and infrastructure.

**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 1.07 in 2017, as the state's relative gains in the wake of the Great Recession have given way to nationwide economic recovery. Exhibit 1.2 compares the Maryland and U.S. employment rate over the past decade.
**Indicator 1.8: Employment Rate of WIOA adult program participants employed during the 2nd quarter after exit**

Maryland’s Department of Labor, Licensing, and Regulation (DLLR) is responsible for the state’s administration of the federal Workforce Innovation and Opportunity Act (WIOA). The overarching purpose of WIOA is to support statewide and local workforce systems that increase the employment, retention, and earnings of participants, and increase occupational skill attainment by participants, and, as a result, improve the quality of the workforce, reduce welfare dependency, and enhance the productivity and competitiveness of the nation. Maryland began collecting WIOA data during fiscal 2017, but only began to report on these new measures for fiscal 2018.

In fiscal 2018, Maryland’s workforce systems assisted 53,501 jobseekers. Maryland exceeded the federal goal of 72% of adult program participants that are employed during the 2nd quarter after completion of program services with 76.9%.

**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 2017, the most recent year where data is available, growth was 6.98%.

**Indicator 1.10: Homeownership**

Homeownership rates are another key economic measure, with higher rates indicating market stability. Exhibit 1.3 displays that Maryland’s homeownership rates have historically exceeded the U.S. rate. Maryland homeownership has remained somewhat flat over the last five years after many years of decline while the national rate has continued to decline. The Maryland homeownership rate in 2017 is equal to the homeownership rate in 2014.
# Performance Detail – Economic Development and Jobs

## Key Performance Area 1 – Data by Report Year

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Agency/Data Source</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>4 Year Change</th>
<th>Specific Target</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1.2.</strong> State Economic Momentum Index (CY 2014 - 2018)</td>
<td>FFIS</td>
<td>-0.55</td>
<td>-0.09</td>
<td>-0.07</td>
<td>0.17</td>
<td>-0.57</td>
<td>3.6%</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>1.3.</strong> Maryland Port Administration total general cargo tonnage, (millions) (FY 2014 - 2018)</td>
<td>MDOT</td>
<td>9.6</td>
<td>9.7</td>
<td>9.8</td>
<td>10.3</td>
<td>11.0</td>
<td>14.6%</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>1.4.</strong> Annual BWI Marshall passenger growth rate - Number of passengers (CY 2013 - 2017)</td>
<td>MDOT</td>
<td>22.5</td>
<td>22.3</td>
<td>23.8</td>
<td>25.1</td>
<td>26.4</td>
<td>17.2%</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>1.5.</strong> Total State sales tax revenue attributable to tourism (millions) (FY 2014 - 2018)</td>
<td>Commerce Comptroller</td>
<td>$401.4</td>
<td>$425.9</td>
<td>$443.5</td>
<td>$468.9</td>
<td>$479.8</td>
<td>19.5%</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>1.6.</strong> Percent of MD State Highway Administration network in overall preferred maintenance condition (CY 2013 - 2017)</td>
<td>MDOT</td>
<td>83.4%</td>
<td>83.4%</td>
<td>78.8%</td>
<td>78.6%</td>
<td>85.7%</td>
<td>2.8%</td>
<td>Maintain at or above 84%</td>
</tr>
<tr>
<td><strong>1.7.</strong> Ratio between Maryland’s unemployment rate and the U.S. rate (FY 2014 - 2018)</td>
<td>U.S. DOL/BLS</td>
<td>0.9239</td>
<td>0.9722</td>
<td>0.9239</td>
<td>0.9195</td>
<td>1.0654</td>
<td>15.3%</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>1.8.</strong> Employment Rate of WIOA adult program participants employed during the 2nd quarter after exit (FY 2014 - 2018)**</td>
<td>DLLR</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>76.9%</td>
<td>N/A</td>
<td>72%</td>
</tr>
<tr>
<td><strong>1.9.</strong> Annual percent change in Maryland per capita personal income (CY 2013 - CY 2017)**</td>
<td>U.S. Commerce BEA</td>
<td>1.08%</td>
<td>2.08%</td>
<td>7.74%</td>
<td>7.91%</td>
<td>6.98%</td>
<td>547.5%</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>1.10.</strong> Homeownership (CY 2013 - CY 2017)</td>
<td>U.S. Census</td>
<td>66.9%</td>
<td>66.2%</td>
<td>67.1%</td>
<td>66.5%</td>
<td>66.90%</td>
<td>0.0%</td>
<td>N/A</td>
</tr>
<tr>
<td>Indicator</td>
<td>Agency/ Data Source</td>
<td>2015</td>
<td>2016</td>
<td>2017</td>
<td>2018</td>
<td>2019</td>
<td>4 Year Change</td>
<td>Specific Target</td>
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</tr>
<tr>
<td>1.11. Number of jobs created/retained through Department of Commerce facility attraction and business technical assistance activities (FY 2014 - 2018)</td>
<td>Commerce</td>
<td>10,627</td>
<td>11,761</td>
<td>11,305</td>
<td>22,168</td>
<td>9,573</td>
<td>-9.9%</td>
<td>N/A</td>
</tr>
</tbody>
</table>

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

**DLLR no longer collects the prior metric. Maryland began collecting WIOA data during FY17, but only began to report on these new measures FY 2018. DWDAL changed the measures to reflect the federal law in a previous submission.
2. REDUCED TAXES AND FEES

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."12

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 2013.13

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 following two gubernatorial proposals:

- 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.

For the 2018 Legislative Session, the Hogan Administration introduced legislation to protect Marylanders from an increased tax burden as a result of the federal Tax Cuts and Jobs Act of 2017 by decoupling the State income tax from specified amendments to the federal Internal Revenue Code that result in increased State revenues. The General Assembly did not pass this legislation, but Governor Hogan did sign legislation to increase the State standard deduction in tax year 2018 from $2,000 to $2,250 for single taxpayers and from $4,000 to $4,500 for taxpayers filing jointly.

The Hogan Administration also introduced and the General Assembly passed Small Business Relief Tax Credit legislation to help small businesses with implementation of new paid sick leave requirements. Additional tax relief legislation passed in 2018 included:

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

• the Hometown Heroes and Veterans Act of 2018, which increased from $10,000 to $15,000 the maximum amount of military retirement income that can be excluded from Maryland income tax liability,
• repeal of the minimum age requirement for the Earned Income Tax Credit, and,
• an increase to $7,000 in the value of the subtraction modification for volunteer fire, rescue or emergency medical services personnel.

Heading into the 2019 Legislative Session, the Hogan Administration is proposing the following tax relief legislation:

• Doubling the deduction for contributions to 529 trusts and investment plans to $5,000 and increasing to 100% the deduction on student loan interest;
• Expanding the types of retirement investments defined as retirement income excluded from taxation;
• Expanding the More Jobs for Marylanders tax credit to include Opportunity Zones; and,
• Expanding the Hometown Heroes tax credit.

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. 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

• 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 child support income tax intercept fee

Since this initial action, 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 tates 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. In May 2018, the cost of an EZPass transponder for new customers was completely eliminated, saving Marylanders approximately $46 million over 5 years.

Since taking office, the Administration has delivered more than $1.2 billion tax, toll, and fee relief.

14 “Governor Hogan Eliminates or Cuts Fees Statewide,” Governor Hogan Press Release September 15, 2015.
3. FISCAL RESPONSIBILITY

Performance Overview

<table>
<thead>
<tr>
<th>Performance Status (percentages are rounded)</th>
<th>Number of Indicators</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Favorable (Change &gt;10%)</td>
<td>0</td>
<td>0.0%</td>
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<tr>
<td>Favorable (3% to 10%)</td>
<td>1</td>
<td>16.7%</td>
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<tr>
<td>Stable (-2% to 2%)</td>
<td>1</td>
<td>16.7%</td>
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<tr>
<td>Unfavorable (-3% to -10%)</td>
<td>2</td>
<td>33.3%</td>
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<tr>
<td>Unfavorable (&lt; -10%)</td>
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<td>33.3%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>6</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

In the area of Fiscal Responsibility, two out of six indicators either performed favorably or held stable in between the 2015 and 2019 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 exceed 8% of revenues. Each year during the period of fiscal 2014 through 2018, the capital debt service as a percent of State revenue was below the affordability benchmark of 8%.

Overall, there was an 11.4% increase in the debt to revenue ratio from 2014 to 2018 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 either at or below the limit recommended by the Spending Affordability Committee in order to 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 the results of that reform are starting to be realized. The funding level has steadily ticked up to 72.5% from a low of 64.1% in fiscal 2010.

Exhibit 3.1 Maryland State Retirement and Pension System Funded Ratio, FY 2000-18

![Exhibit 3.1 Maryland State Retirement and Pension System Funded Ratio, FY 2000-18](image-url)
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 System's portfolio returned 8.06% on investments for fiscal year 2018—exceeding the plan's 7.50% assumed actuarial return rate and the policy benchmark of 7.59%. As a result, the fund's performance raised the assets of the System to $51.8 billion, an increase of $2.8 billion over the previous fiscal year.

Exhibit 3.2 shows the degree to which the system either fell below (-%), met (0%), or exceeded (+%) this assumption over the past fourteen years. In ten 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.

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 24%. While the percentage of repeat findings has remained virtually unchanged since fiscal 2014, the number of findings declined over the same period. 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 2006-18
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 97.6% to just 92.0%, 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.

The fiscal 2018 budget, however, faced growth in Medicaid spending, softening revenues and new mandated spending enacted in the 2016 and 2017 sessions. 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. The administration set forth an $80 million plan to help offset potential revenue reductions, which was approved by the Board of Public Works. Shortly after, 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 through thoughtful cost containment strategies including limiting growth of legislative mandates, realizing favorable trends in Medicaid and employee health insurance spending, and using bond premiums to offset debt service costs.

The state closed FY 2018 with a surplus of $589 million—nearly $400 million larger than estimated. The budget surplus was primarily the result of higher than estimated revenues, and secondarily because state agencies returned more funds to the Treasury than estimated for the fourth consecutive year. When combined with moderating enrollment in entitlement programs such as Medicaid and Temporary Assistance for Needy Families, this has set the stage for a smoother than anticipated short-term budget outlook than just one year ago.

The State general fund budget was structurally balanced in FY 2018 and is structurally balanced again in FY 2019. Per the Department of Legislative Services, the FY 2019 budget has a structural surplus in excess of $350 million.17

Understanding that the additional revenue is attributable to volatile revenue sources, the fiscal 2020 budget as introduced aims to make prudent use of a likely one-time surplus as well as save for the future. The fiscal 2020 budget as introduced includes cash reserves totaling more than $1.3 billion, continues investments in Maryland pension systems, reserves funding for future costs associated with the recommendations of Commission on Innovation and Excellence in Education (“Kirwan Commission.”) This is all achieved with an executive branch the smallest it has been since 1986.

Additionally, the FY 2020 revenue estimate is the first one where revenues are reduced by an amount (almost $94 million) to account for volatility in non-withholding personal income tax revenue. Doing so is a conservative approach to revenue estimating and provides a cushion should revenues not meet the estimate.

## Performance Detail – Fiscal Responsibility

### Key Performance Area 3 – Data by Report Year

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Agency/Data Source</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>4 Year Change</th>
<th>Specific Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1. Bond rating from all three nationally recognized bond rating agencies for each issuance of State General Obligation bonds (maintain AAA rating) (CY 2014 – CY 2018)</td>
<td>Treasurer’s Office</td>
<td>AAA</td>
<td>AAA</td>
<td>AAA</td>
<td>AAA</td>
<td>AAA</td>
<td>No change</td>
<td>Maintain AAA</td>
</tr>
<tr>
<td>3.2. Capital debt service as a percent of State revenue (FY 2014 - FY 2018)</td>
<td>CDAC</td>
<td>6.86%</td>
<td>6.90%</td>
<td>7.27%</td>
<td>7.53%</td>
<td>7.64%</td>
<td>1.14% (At or below 8%)</td>
<td></td>
</tr>
<tr>
<td>3.3. Asset to liability ratio for the MD State Retirement and Pension System (funded ratio) (FY 2014 – FY 2018)</td>
<td>State Retirement and Pension System</td>
<td>68.7%</td>
<td>69.7%</td>
<td>70.5%</td>
<td>71.8%</td>
<td>72.5%</td>
<td>5.5% (100% funded by 2039)</td>
<td></td>
</tr>
<tr>
<td>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 2014 - FY 2018)</td>
<td>State Retirement and Pension System</td>
<td>6.7%</td>
<td>-4.9%</td>
<td>-6.4%</td>
<td>2.5%</td>
<td>0.56%</td>
<td>-91.7% (0.0% or higher)</td>
<td></td>
</tr>
<tr>
<td>3.5. Percent of repeat DBM audit findings for State agencies (FY 2014 - FY 2018)</td>
<td>DBM</td>
<td>23%</td>
<td>23%</td>
<td>23%</td>
<td>23%</td>
<td>24%</td>
<td>4.3%</td>
<td>N/A</td>
</tr>
<tr>
<td>3.6. Projected percentage of ongoing revenues covering ongoing spending based on the Governor’s 5-year plan included in the budget allowance (FY 2016 - FY 2020)</td>
<td>DBM</td>
<td>99.2%</td>
<td>97.6%</td>
<td>93.9%</td>
<td>93.8%</td>
<td>92.0%</td>
<td>-7.2%</td>
<td>N/A</td>
</tr>
</tbody>
</table>
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.

During the 2019 Legislative Session, the Hogan Administration is introducing legislation requiring the Department of Budget and Management to facilitate training for State agencies regarding economic impact analysis of proposed regulations (HB 157).

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 existing process for procurement was unpredictable and discouraged 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 Administration 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.

This merged State procurement office will take effect in FY 2020, and the Chief Procurement Officer will work to
modernize the State’s information technology systems that help vendors work with the State.

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 initially 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 fiscal 2018, the Workgroup received more than 51,000 customer survey responses, and 87.7% expressed satisfaction with the level of customer service they had received – up from 81.7% in the previous year.\(^{18}\)

Ethics Reform

In January 2017, Governor Hogan introduced major legislation representing the first significant overhaul of State ethics law in 15 years.\(^{19}\) 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,
- increases the mandatory fine for State officials found guilty of bribery,
- strengthens financial disclosure requirements for State officials to include spouses and all major business activities, and,
- establishes the Citizens’ Advisory Board for Legislative Ethics to offer recommendations to changes in public ethics laws.

Government Efficiency and Transparency

The Hogan Administration has taken 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 Technology. This consolidation will annually save State tax dollars and improve efficiency.

The Governor’s Office of Performance Improvement (GOPI) was established in October 2015 (Executive Order 01.01.2015.26) to improve business processes throughout Maryland State agencies through greater accountability. GOPI strives to increase the responsiveness and level of customer service of State agencies and departments; regularly review procedures, rules, and regulations of State agencies and departments to increase their efficiency and effectiveness; and promote business process improvement strategies to make government more efficient and responsive to taxpayers.

GOPI also helps to curate the Maryland Open Data Portal. Since 2015 the state has nearly tripled the number of datasets (more than 1,000) available on the portal, providing constituents with more self-service access to state data than ever before.

In 2018, GOPI launched a new Data Analytics initiative to support state agencies with improved access to business intelligence tools and to drive better management insights. As a result of this work, there are currently a dozen analytics apps available to state agencies through a secure portal.

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.

\(^{18}\) Governor’s Annual Customer Service Initiative Annual Report 2018.

\(^{19}\) “Governor Larry Hogan Announces Integrity in Government Initiative” Governor Hogan Press Release January 19, 2017.
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,
- 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.20 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 called Maryland OneStop. 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 began work to modernize many licenses and permits that currently have paper-based processes. Through the OneStop 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.

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.

The Hogan Administration continues to work to identify aging systems in need of replacement to dramatically improve processes for Marylanders. The Strategic Enterprise Application Network (SEAN) will allow tax credit applicants to self-check the status of their submissions, receive automated and individualized communications from the Department of Assessments and Taxation, and more easily facilitate necessary corrections or updates based on those submissions. Customers will have access to an online, interactive help guide and receive an instant receipt when working with the application, providing better customer service to the applicants.

The Department’s current practices involving a cumbersome paper-based process will be replaced by a system that includes a built-in auditing functionality that will greatly expedite same-year audits of applications and also cut down on waste and abuse.

5. IMPROVED QUALITY OF LIFE

Performance Overview

<table>
<thead>
<tr>
<th>Performance Status</th>
<th>Number of Indicators</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Favorable (Change &gt;10%)</td>
<td>18</td>
<td>31.6%</td>
</tr>
<tr>
<td>Favorable (3% to 10%)</td>
<td>17</td>
<td>29.8%</td>
</tr>
<tr>
<td>Stable (-2% to 2%)</td>
<td>10</td>
<td>17.5%</td>
</tr>
<tr>
<td>Unfavorable (-3% to -10%)</td>
<td>3</td>
<td>5.3%</td>
</tr>
<tr>
<td>Unfavorable (&lt; -10%)</td>
<td>9</td>
<td>15.8%</td>
</tr>
<tr>
<td>Total</td>
<td>57</td>
<td>100%</td>
</tr>
</tbody>
</table>

The final major Hogan Administration priority, improving quality of life, encompasses many areas of performance across the State. Overall, 78.9% of related indicators either performed favorably or held stable between the 2015 and 2019 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 9.36% to 8.21%.
  - The percent of bachelor’s degrees awarded to racial/ethnic minorities at public and private Maryland colleges and universities jumped by 13.5%.
  - The number of higher education graduates in science, technology, engineering, and math (STEM) fields grew by 25.2%, from 13,082 to 16,378.

- **Public Safety**
  - The number of offenders under Department of Public Safety and Correctional Services (DPSCS) jurisdiction declined by 9.6%.
  - The percent of all DPSCS cases released from supervision where the offender was employed at closing grew by 6.9%.
  - 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 5.7%.
  - The Part I crime offense rate per 100,000 went from 3,128 to 2,762, a decline of 11.7%.

- **Health and Human Services**
  - Maryland’s uninsured rate was reduced by almost half in the past four years, from 11.7% to 6.6%.
  - The rate of new HIV diagnoses dropped 22.1% between 2013 and 2017.
  - The percent of related children and youth under age 18 whose families have incomes below the poverty level declined by 12% from 2013 to 2017.
  - The rate of live births to adolescents between 15 and 19 plummeted by 28.1% in the past five years.
  - The rate of children placed in out-of-home care dropped from 11.2 per 100,000 to only 6.7, a decline of 40.2%.

- **Environment**
  - The Maryland Chesapeake Bay Habitat Index improved by 28.2% over five years.
  - Acreage of submerged aquatic vegetation (SAV) in the Maryland portion of the Bay grew by 116.4%, from 28,815 to 62,356 acres.
  - The dredge survey index of stock crab size grew from 32 to 41, an increase of 28.1%.
  - The estimated nitrogen load to the Chesapeake Bay dropped by 9.8%.
  - The three-year average of days that eight-hour ozone standards were exceeded declined by 22.7% from 22.0 to 17.0.
  - The number of children under 6 years of age with elevated blood lead levels dropped by 21.8%.

The following section discusses significant trends in performance.

**Significant Performance Trends - Education**

**Indicator 5.3: Prekindergarten enrollment**

Prekindergarten enrollment in the State of Maryland has grown from 29,811 students in 2015 to 30,422 students in 2019, an increase of 2.0%. In FY 2019, the Hogan Administration dedicated $8.5 million in funding to support and expand prekindergarten with an additional $5.1 million of support committed in FY 2020. Under the Hogan Administration, state funding to expand access to prekindergarten education has grown by 1,011%. Numerous studies have shown that prekindergarten programs have beneficial and lasting impacts on all children, with an additional emphasis on those from low-income and disadvantaged families. Children enrolled in prekindergarten programs are less likely to be held back through middle and elementary school, and have

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statistically higher high school graduation rates.\textsuperscript{22} The Hogan administration acknowledges difficulties that disadvantaged families face with accessibility to prekindergarten programs and is investing in meaningful ways to help all families.

**Indicators 5.4 and 5.5: High school completion:**

- **Indicator 5.4:** High school graduation rate
- **Indicator 5.5:** Percent of high school dropouts

High school graduation rates have improved in recent years, from 85.0\% in 2014 to 87.7\% in 2019, an increase of 3.2\%. At the same time, high school dropout rates have experienced a decline from 9.4\% in 2015 to 8.2\% in 2019, a decrease of 12.3\%. Completion of high school program requirements indicates students' readiness for post-secondary education and/or employment.\textsuperscript{23} At the same time, failure to complete high school is closely linked with decreased employment opportunities, low pay, and limited paths to advancement.\textsuperscript{24} Unemployment rates of high school dropouts are nearly three times higher than that of individuals with bachelor's degrees.\textsuperscript{25} Maryland high schools have experienced favorable trends in the past five years which can be attributed to revised dropout policies, funding opportunities, and educational advancement.

**Indicator 5.2: Percent of AP exams with a passing score of 3 or above**

Maryland high schools have experienced a large increase in the amount of passing Advanced Placement (AP) exam scores. These exams test students in advanced level topics on a score of 1 to 5, with a score of 3 or higher typically being accepted as college credit to many nation-wide colleges and universities.\textsuperscript{26} Students in the state experienced an increase in the rate of passing scores from 61.0\% in 2015 to 65.5\% in 2019, a jump of 7.4\%.

At the nation-wide level, the State of Maryland had the 11\textsuperscript{th} highest passing student body score in 2018,\textsuperscript{27} showing a state-wide educational trend that places high emphasis on excellence, dedication, and improvement. Students with AP credit moving into their college career can have quicker graduation rates and movement into the workforce.\textsuperscript{28}

**Indicators 5.8 and 5.10:**

- **Indicator 5.8:** Six year graduation rate of first-time, full-time students at public four-year colleges and universities
- **Indicator 5.10:** Four-year transfer and graduation rate of first-time community college students

Graduation rates of those pursuing higher education after high school in the state have also increased in recent years. From 2015 to 2019, the six-year graduation rate for those in four-year colleges and universities has increased by 5.0\% while the transfer and graduation rate for those at community colleges has increased by 9.8\%.

Part of this growth rate can be attributed to low tuition and fees costs for residents of the State at public institutions. In FY 2006, Maryland's resident tuition and fees at public four-year colleges and universities were the 8\textsuperscript{th} highest in the United States.\textsuperscript{29} Since then, the State has incorporated many initiatives and financial investments to cap tuition growth for in-state undergraduate students in the University System of Maryland (USM). From 2011 to 2019, Maryland's public four-year in-state tuition and fees increase by a total of 11\%, while the average growth rate during this same time for the nation was 19\%, a stark difference that shows the continuing commitment and investment that the State has made in its students.

In addition, from 2011 to 2019, strategic investments in the State's community colleges has slowed tuition growth, making the growth rate of in-district tuition at public two-year community colleges in the State the 14\textsuperscript{th} lowest in the nation.

**Exhibit 5.1** compares the average public four-year in-state tuition and fees for Maryland to the nationwide average. Of note, the State-wide average for Maryland has fallen slightly below the national average since 2012.

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\textsuperscript{22} The Current State of Scientific Knowledge on Pre-Kindergarten Effects, 2017.

\textsuperscript{23} Maryland Results for Child Well Being, 2009.

\textsuperscript{24} Maryland Results for Child Well Being, 2009.

\textsuperscript{25} 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.

\textsuperscript{26} AP Students, College Board.

\textsuperscript{27} AP Program Participation and Performance Data 2018, Retrieved from https://research.collegeboard.org/programs/ap/data/participation/ap-2018

\textsuperscript{28} “Are AP Students More Likely to Graduate from College on Time?” College Board, 2013.

\textsuperscript{29} 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
Indicator 5.1: Average Public Four-Year In-State Tuition and Fees for Maryland Compared to the National Average (Including the District of Columbia), 2005 – 2019, in 2018 Dollars.30

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

From 2015 to 2019, the percent of bachelor’s degrees awarded to racial/ethnic minorities at public and private Maryland colleges and universities increased by 13.5%, from 35.9% to 40.0%.

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 designated to increase the degree attainment rate of minority students. MHEC’s work on near completers, reverse transfers, 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 (HBCU) to revise and refine the summer bridge programs and other initiatives.

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

The number of graduates in science, technology, engineering, and math (STEM) from Maryland’s public and private higher educational institutions has increased from 13,082 in 2015 to 16,378 in 2019, a jump of 25.2%. STEM graduates are particularly important for a developing workforce and STEM job concentration has been noted as remarkable high in the State since 2015.31

To continue this trend, the State has continually included investments into the University System of Maryland for STEM initiatives and has emphasized the need to have a workforce that is not only competitive but remarkably educated in the ever-changing needs of this century. In FY 2020, the State has committed $20 million to continue the support of these initiatives. The Hogan Administration has recognized that these investments in STEM education are not only worthwhile, but necessary to make a growing and competitive workforce in the State for years to come.

Significant Performance Trends – Public Safety

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 through 2017, resulting in a 49% increase since 2014. This trend mirrors nationwide data, where murder rates grew nationally in 2015 and in 2016.32

In Maryland, the State has continued to see a slight, but slowed, increase in the overall homicide rate. This contrasts with the homicide rate for children and youth, which has decreased by 12.7% from 2016 to 2017. Exhibit 5.2 displays the entire population trend in Maryland through time.

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30 College Board, Tuition and Fees by Sector and State over Time, Retrieved from https://trends.collegeboard.org/college-pricing/figure-tables/tuition-fee-sector-state-over-time

31 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%202017%20State%20Plan%20for%20Higher%20Education.pdf

Exhibit 5.2 Homicide Rate per 100,000 Population, Report Year 2014 - 2018

Indicator 5.17: Traffic fatality rate per 100 million miles traveled

As shown in Exhibit 5.3, Maryland’s traffic fatality rate has increased from 0.89 between CY 2015 and CY 2016 to 0.93 in CY 2017. The exhibit also shows that Maryland’s fatality rate remains below national averages. Both rates have increased significantly since calendar year 2014, with the national traffic fatality rate increasing by 9.3% since 2014 and Maryland’s traffic fatality rate increasing by 18.4% over the same period.33

Exhibit 5.3 Traffic Fatality Rate per 100 Million Miles Traveled, 2014 - 2018

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. This plan aims to reduce statewide traffic fatalities per 100 million miles traveled to 0.64 or fewer by calendar year 2020 and 0.53 by calendar year 2030.34

Recently enacted legislation has enhanced traffic safety. Improvements include 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.35

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.36 Overall, the Part I crime rate declined by nearly 36% since 2004. Exhibit 5.4 shows trends in this measure through time.

Exhibit 5.4 Maryland Part I Crime Rate, 2014 - 2018

Maryland is fighting and solving crime through a variety of strategies including increasing inter-agency cooperation, aligning State resources with the priorities of local

35 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
36 Department of State Police, fiscal year 2012 MFR Data Definition and Control Procedures
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.37 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.38

**Indicator 5.19: Offenders under Correctional Jurisdiction**

Correctional offenders under Department of Public Safety and Correctional Services jurisdiction have continued to decline. As shown in Exhibit 5.5, offenders in correctional institutions have declined by 9.6 percent since 2014. Currently, the number of incarcerated offenders is at its lowest level since 1991.

Exhibit 5.5 Maryland Offenders under Correctional Jurisdiction, Fiscal Year 2014-18

Over this time period the Maryland General Assembly passed the Justice Reinvestment Act (JRA), which is a nationwide, data-driven approach to public safety seeking to reduce corrections spending and reinvest savings in evidence-based strategies to decrease crime and reduce recidivism. Key provisions of the bill include the elimination of mandatory minimum sentences for certain drug convictions, enhanced administrative release procedures, and greater emphasis on drug treatment diversionary programs for defendants while expanding penalties for violent offenders and high-level drug traffickers.39 As the Justice Reinvestment Act matures, it will manifest further decreases to correctional populations.

**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 12.4% since 2012 and 11.0% since 2016. Maryland experienced a reversal of a seven year decline in the youth arrest rate beginning in 2014, nevertheless, the metric has been more than halved over the last decade. Exhibit 5.6 shows trends in this measure over the report period.

Exhibit 5.6 Youth Age 10 to 17 Arrest Rate (per 100,000), 2014 - 2018

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

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37 Fiscal year 2015 MFR Performance Discussion, Department of Public Safety and Correctional Services.
38 Fiscal year 2014 and 2015 MFR Performance Discussion, Department of Public Safety and Correctional Services.
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**

The uninsured rate for individuals under 65 in Maryland declined nearly fifty percent in the last five years as only 6.6% remain uninsured in 2018.

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. 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 5.7 displays immunization rate trends both in Maryland and the U.S. over the past eight years. 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 exceeded the national rate in all years except 2010, and remained at or above 80% for the past four years.

*Exhibit 5.7 Children Fully Immunized in Maryland and the U.S., 2010-2017*

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40Maryland's Results for Child Well-Being 2010.

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.41

**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 estimates the proportion of underage high school students who have ever smoked a whole cigarette and is from a survey administered every two years. The percent change from the calendar year 2000 baseline for underage high school students who ever smoked a whole cigarette is on a steady downward trend, with a decline of 212% since the start of the survey.

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.\textsuperscript{42} 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.\textsuperscript{43}

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 is administered every two years. Early use of alcohol 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.\textsuperscript{44} The percentage of high school students drinking alcohol is in decline, down to 25.5\% in 2017 from 42.9\% in 2007.

**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 21.6\% of all deaths in Maryland in 2017.\textsuperscript{45} The overall cancer mortality rate in Maryland declined by 5\% from calendar year 2013 to 2017, a reduction of eight 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 2015 it was 3.7 deaths per 100,000 persons below the national rate. Exhibit 5.8 shows trends through time for both Maryland and the nation as a whole.

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."\textsuperscript{46}

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 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.

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\textsuperscript{42}Strategies and Discussion of Program Performance, FY 2015 MFR submission, Cigarette Restitution Fund–Tobacco Use Prevention and Cessation Program–Family Health Administration.

\textsuperscript{43}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.

\textsuperscript{44}Maryland's Results for Child Well-Being 2011, Governor's Office for Children and the Children's Cabinet.


**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. Heart disease continued to be the leading cause of death in Maryland in 2017, accounting for 23.3% of all deaths. The age adjusted heart disease mortality rate was 155.5 per 100,000 population in 2017, 9.4% below the rate five years ago. The Centers for Disease Control and Prevention reports the national heart disease mortality rate was 165.0 in 2017. Exhibit 5.9 shows trends through time for heart disease mortality in Maryland.

![Exhibit 5.9 Heart Disease Mortality Chart (per 100,000 population), 2006-2017](image)

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 22.1% from 2013 through 2017. 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.

**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. Maryland's rate of primary/secondary syphilis cases per 100,000 population historically exceeded the national rate over the past decade. Maryland currently ranks the twelfth highest state in terms of the syphilis cases rate, down from fifth place in 2013.

The rate of syphilis incidence in Maryland increased by 23.4 percent since 2013. From 2015 to 2016 the rate remained stable but increased by 1 case per 100,000 population in 2017, reflective of national trends. Maryland continues to focus on collaborative public health efforts to expand the infrastructure and expertise of Sexually Transmitted Infection (STI) prevention staff and to connect patients to timely treatment to interrupt the spread of the infection and contribute to the long-term reduction of the syphilis epidemic. The governor's fiscal 2020 budget includes $136 million for HIV/STI prevention and treatment programs, nearly $33 million more than fiscal 2019.

**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

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47 Fiscal year 2012 MFR Data Definition and Control Procedures, Family Health Administration, Department of Health and Mental Hygiene
48 Centers for Disease Control and Prevention, 2017 Heart Disease Mortality by State
49 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
50 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
51 Centers for Disease Control and Prevention, 2017 Sexually Transmitted Diseases Surveillance
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. In most households with very low food security, the survey respondent reported that they were 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 from state-to-state. Therefore, a 3-year average is used to provide more reliable statistics at the state level.

**Exhibit 5.10** shows that, over the past decade, Maryland’s prevalence of household-level very low food security was equal to or below the U.S. level. The recession was a significant factor contributing to household level food insecurity, but Maryland continues to maintain food insecurity rates below peak recession levels with only slight increases in recent years. Since 2013 the prevalence of household-level food insecurity declined by 12.2%.

Over the last several years, Maryland 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 charged his Children’s Cabinet with four major initiatives, one of which is to continue efforts to reduce the incidence of child hunger. 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. During the 2017-2018 school year over 340,000 students were enrolled in free lunch program throughout Maryland.

**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. Maryland’s rate of live births to adolescents between 15 and 19 years of age compared favorably to the U.S. rate for each year in the last decade. In the last five years, the Maryland rate declined by 28.2%, reflecting a national trend.

Maryland uses 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. gained increasing media and policy attention over the past few years, and Maryland is no exception. In the past five years, the number of heroin overdose-related deaths in Maryland grew from 462 to 1,078 (132.3%).

In response, Governor Hogan issued Executive Orders 01.01.2015.12 and 01.01.2015.13, and State resources are 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.

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52 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).


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 members, educators, faith leaders, elected officials, law enforcement, addiction treatment professionals, and other stakeholders. The Task Force issued its final report in December 2015, including contributions from 431 stakeholders and 33 recommendations. It is a major priority of the Hogan Administration to implement these recommendations.

In January 2019, the Governor signed Executive Order 01.01.2019.02 establishing the Commission to Study Mental and Behavioral Health in Maryland. The Commission will be chaired by the lieutenant governor and will include representatives from each branch of state government, representatives from the state departments of Health, Public Safety and Correctional Services, and Human Services, as well as the Maryland State Police, the Maryland Insurance Administration, the Opioid Operational Command Center, and six members of the public with experience related to mental health. The commission is tasked with studying mental health in Maryland, including access to mental health services and the link between mental health issues and substance use disorders.

The governor's fiscal 2020 budget continues to demonstrate a strong commitment to combating the opioid crisis. In addition to the $172 million dedicated to non-Medicaid substance use disorder and addiction programs, it includes $41.8 million in new funding for the state's response to the heroin and opioid epidemic. This includes $3 million in grant funding to establish new and expand existing behavioral health crisis response programs services for local jurisdictions. Additionally the fiscal 2020 capital budget includes $378 million over five years for the design and construction of a Therapeutic Treatment Center in Baltimore City that will specialized in providing mental health and substance use treatment services and care to nonviolent offenders.

Governor Hogan declared a State of Emergency in March 2017 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. In keeping with the governor's five year $50 million commitment, the FY 2020 budget includes the third installment of $10 million to fund activities of the OOCC. 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 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 annual in the Chesapeake Bay Report Card. The data presented is for both the Maryland portion 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 33% to 50% between 2012 and 2018. At the same time, the score for the entire Chesapeake Bay rose from 47% to 54%. As Exhibit 5.11 shows, Maryland and Bay-wide scores can vary widely from year to year depending on trends in weather, etc.

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.

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.

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In 2017, the greatest improvement of the fifteen regions scored in the Bay Health Index was in the Elizabeth, James, and Choptank Rivers. While there is still improvement to be made in this region, the implementation of Enhanced Nutrient Reduction (ENR) technologies at wastewater treatment facilities along the rivers and elsewhere in Maryland will make the process of nutrient removal more effective going forward. ENR is instrumental in reaching the goals of the Chesapeake Bay 2000 Agreement.

As Maryland prepares the Phase III Watershed Implementation Plan (WIP), it will continue to strategize how best to reduce nutrient loads into the Chesapeake Bay. In addition to fully funding the 2010 Chesapeake and Atlantic Coastal Bays Trust Fund, the Hogan Administration has also dedicated funding from the Bay Restoration Fund for the Clean Water Commerce Act, which will jump-start nutrient trading markets in the State and region.

**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 2017, aquatic grasses across the Bay received the highest score since reporting began. Baywide, aquatic grasses scored 44%, a moderate score. This is a 5% increase from the 2016 score, and a 32% improvement from the 1986 score of only 12%. A scientific article titled: Long-term nutrient reductions lead to the unprecedented recovery of a temperate coastal region, published in the Proceedings of the National Academy of Science in March 2018, shows that reductions in discharges of nitrogen, phosphorus, and other pollutants have led to the largest resurgence of underwater grasses ever recorded.62

**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 within a 1,000 metered square area, 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 corrected for the efficiency of the dredge gear and overwintering mortality.

Total blue crab abundance estimated by the 2018 Bay Wide Winter Dredge Survey decreased 18% from 2017 to 372 million crabs which is below the 29 year survey average of 455 million crabs. The abundance of spawning age females decreased 42% from 2017 to 147 million crabs which is below the target abundance of 215 million. Annual harvest of blue crabs for 2017 was again below the target which is the 10th consecutive year harvest has been at or below target fishing levels.

The decline in crab density in 2018 was highly driven by environmental factors. Specifically, there was above average winter mortality of adult crabs in 2018. Additionally, recruitment (number of juvenile crabs) was below average in 2017 and 2018.64 Recruitment is mostly determined by environmental factors, but having a large population of female crabs increases the chances of having a large recruitment event. The female exploitation fraction has been below the threshold of 34 percent for the tenth consecutive year since 2008. As Exhibit 5.12 shows, the blue crab population can vary dramatically from year to year. Crabs are vulnerable to extreme cold, particularly prolonged cold winter temperatures.

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61 Maryland Department of the Environment. 2017. The Evolution to Enhanced Nutrient Removal Technology
63 Proceedings of the National Academy of Sciences of the United States of America. https://www.pnas.org/content/115/14/3658
64 Maryland Department of Natural Resources, Fisheries Service, Data Definition and Control Procedures, fiscal year 2012 and 2013.
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. The Cover Crop Program provides cost share assistance to farmers to implement this best management practice.

In recent years, the number of acres planted has increased dramatically. From 2008 to 2017, the number of acres of cover crops planted has increased by 150%, from 187,479 acres in 2008 to a record high of 558,918 acres in 2017. In 2018, planted acreage fell to 359,873 acres due to a wet summer inhibiting cover crop planting.

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

The number of waters impaired by nutrients has remained stable from 2014 to 2018, with a total of 7 measured as impaired each year. 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. In general, TMDLs set pollutant limits for all sources by dividing, or “allocating,” the maximum allowable pollutant loads among those sources.

The Chesapeake Bay TMDL was finalized in December 2010, and since then 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-jurisdictional and inter-agency workgroups and committees over the last several 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. The Phase III WIP will be finalized in 2019, and will outline 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 fell from 96% in fiscal year 2014 to 90% in fiscal year 2018. This decrease is due to several large water systems, which each serve over 10,000
people, experiencing violations during fiscal year 2018. As of fiscal year 2019, most of the violations that caused this decrease in compliance for community water systems have been resolved. The majority of the violations were technical violations for monitoring and reporting that do not impact public health.

**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 has increased from its low in 2016 but remains below the 2014 average of 22 days. Exhibit 5.13 displays the one-year and three-year trends through time. MDE attributes the improvement in performance in 2016 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. However, there has been a recent increase in days of 8-hour ozone standard exceedances, which MDE attributes to air pollution transported into Maryland from states west of the Maryland border. To address this issue of out of state air pollution impacting Marylanders, Maryland is pushing EPA to require large coal-fired power plants in other states to reduce their emissions through legal means provided under the federal Clean Air Act. Maryland also 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.

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 (>5μg/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 neurodevelopmental 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 μg/dl) declined sharply from 2014 to 2018, dropping by 21.8%.

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

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69 Fiscal year 2017 Performance Discussion, Maryland Department of the Environment.
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. 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. 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.

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71Maryland Department of the Environment, Lead Poisoning Prevention Program Childhood Blood Lead Surveillance in Maryland, Annual Report 2010, August 2011

72Fiscal year 2017 Performance Discussion, Maryland Department of the Environment.
## Performance Detail – Improved Quality of Life

### Key Performance Area 5– Data by Report Year

<table>
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<th>Indicator</th>
<th>Agency/Data Source</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>4 Year Change</th>
<th>Specific Target</th>
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<td>5.1. Percent of students entering Kindergarten demonstrating Full Readiness on the Kindergarten Readiness Assessment (AY 2015-2018) – test new in 2015</td>
<td>MSDE</td>
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<td>46.8%</td>
<td>45.2%</td>
<td>42.7%</td>
<td>45.0%</td>
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<td>5.2. AP Exams – Percent receiving grade 3, 4, or 5 (AY 2014 - 2018)</td>
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<td>61.0%</td>
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</tr>
<tr>
<td>5.3. Prekindergarten enrollment (AY 2014 - 2018)</td>
<td>MSDE</td>
<td>29,811</td>
<td>30,385</td>
<td>31,868</td>
<td>32,088</td>
<td>30,422</td>
<td>2.0%</td>
<td>N/A</td>
</tr>
<tr>
<td>5.4. High School Graduation Rate (AY 2013 - 2017)</td>
<td>MSDE</td>
<td>85.0%</td>
<td>86.4%</td>
<td>87.0%</td>
<td>87.6%</td>
<td>87.7%</td>
<td>3.2%</td>
<td>88.49% by 2020</td>
</tr>
<tr>
<td>5.5. Percent of children in grades 9 through 12 who drop out of school in an academic year (AY 2013 - 2017)</td>
<td>MSDE</td>
<td>9.4%</td>
<td>8.4%</td>
<td>8.1%</td>
<td>8.0%</td>
<td>8.2%</td>
<td>-12.3%</td>
<td>N/A</td>
</tr>
<tr>
<td>5.6. Number of teachers with National Board for Professional Teaching Standards Certification (AY 2014 - 2018)</td>
<td>MSDE</td>
<td>2,570</td>
<td>2,728</td>
<td>2,785</td>
<td>2,818</td>
<td>3,056</td>
<td>18.5%</td>
<td>N/A</td>
</tr>
<tr>
<td>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 2014-2018)</td>
<td>IAC</td>
<td>97.3%</td>
<td>97.1%</td>
<td>97.2%</td>
<td>97.5%</td>
<td>96.5%</td>
<td>-0.8%</td>
<td>Annual increase</td>
</tr>
<tr>
<td>5.8. Six year graduation rate of first-time, full-time students at public four-year colleges and universities (all groups) (FY 2014-2018)</td>
<td>MHEC</td>
<td>63.8%</td>
<td>63.7%</td>
<td>66.1%</td>
<td>65.5%</td>
<td>67.0%</td>
<td>5.0%</td>
<td>67% by 2018</td>
</tr>
<tr>
<td>5.9. Percent of bachelor’s degrees awarded to racial/ethnic minorities at public and private Maryland colleges and universities (FY 2014 - 2018)</td>
<td>MHEC</td>
<td>35.9%</td>
<td>36.4%</td>
<td>37.4%</td>
<td>39.3%</td>
<td>40.0%</td>
<td>13.5%</td>
<td>N/A</td>
</tr>
<tr>
<td>5.10. Four-year transfer and graduation rate of first-time community college students (FY 2014 - 2018)</td>
<td>MHEC</td>
<td>33.7%</td>
<td>33.9%</td>
<td>33.1%</td>
<td>35.8%</td>
<td>37.0%</td>
<td>9.8%</td>
<td>N/A</td>
</tr>
<tr>
<td>Indicator</td>
<td>Agency/Data Source</td>
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<td>2016</td>
<td>2017</td>
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<td>4 Year Change</td>
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</tr>
<tr>
<td>5.11. Percent of Maryland median family income required to cover tuition and fees at Maryland public four-year institutions (FY 2014 - 2018)</td>
<td>MHEC</td>
<td>11.3%</td>
<td>11.5%</td>
<td>11.5%</td>
<td>12.0%</td>
<td>11.5%</td>
<td>1.8%</td>
<td>Below 10%</td>
</tr>
<tr>
<td>5.12. Percent of Maryland median family income required to cover tuition and fees at Maryland community colleges (FY 2014 - 2018)</td>
<td>MHEC</td>
<td>5.2%</td>
<td>5.4%</td>
<td>6.0%</td>
<td>6.0%</td>
<td>5.5%</td>
<td>5.8%</td>
<td>Below 4%</td>
</tr>
<tr>
<td>5.13. Number of graduates in science, technology, engineering, and math (STEM) from Maryland's public and private higher educational institutions (FY 2014 - 2018)</td>
<td>MHEC</td>
<td>13,082</td>
<td>13,850</td>
<td>15,039</td>
<td>15,923</td>
<td>16,378</td>
<td>25.2%</td>
<td>Above 13,000</td>
</tr>
<tr>
<td>5.14. Post-secondary degree attainment rate for Marylanders ages 25 to 64 (FY 2014 - 2018)</td>
<td>MHEC</td>
<td>44.8%</td>
<td>45.0%</td>
<td>45.2%</td>
<td>46.0%</td>
<td>47.3</td>
<td>5.6%</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**Public Safety**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Agency/Data Source</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>4 Year Change</th>
<th>Specific Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.15. Homicide rate per 100,000 (CY 2013 - 2017)</td>
<td>State Police</td>
<td>6.5</td>
<td>6.1</td>
<td>9.2</td>
<td>9.6</td>
<td>9.7</td>
<td>49.2%</td>
<td>Below 6.49</td>
</tr>
<tr>
<td>5.16. Rate of homicide deaths of children and youth ages 0 to 19 (per 100,000 population) (CY 2013 - 2017)</td>
<td>State Police</td>
<td>3.5</td>
<td>3.0</td>
<td>4.9</td>
<td>5.5</td>
<td>4.8</td>
<td>37.1%</td>
<td>N/A</td>
</tr>
<tr>
<td>5.17. Traffic fatality rate per 100 million miles traveled (CY 2013 - 2017)</td>
<td>State Police</td>
<td>0.82540</td>
<td>0.78546</td>
<td>0.90909</td>
<td>0.88514</td>
<td>0.93001</td>
<td>12.7%</td>
<td>N/A</td>
</tr>
<tr>
<td>5.18. Part I crime rate (offenses per 100,000 population) (CY 2013 - 2017)</td>
<td>State Police</td>
<td>3,128</td>
<td>2,960</td>
<td>2,652</td>
<td>2,801</td>
<td>2,762</td>
<td>-11.7%</td>
<td>Below 4,800</td>
</tr>
<tr>
<td>5.19. Offenders under Department of Public Safety &amp; Correctional Services jurisdiction (FY 2014 - 2018)</td>
<td>DPSCS</td>
<td>20,868</td>
<td>20,602</td>
<td>20,274</td>
<td>19,604</td>
<td>18,869</td>
<td>-9.6%</td>
<td>N/A</td>
</tr>
<tr>
<td>5.20. Percent of all cases released from supervision where the offender was employed at closing (FY 2014 - FY 2018)</td>
<td>DPSCS</td>
<td>30%</td>
<td>28%</td>
<td>32%</td>
<td>31%</td>
<td>32%</td>
<td>6.9%</td>
<td>At least 31%</td>
</tr>
<tr>
<td>5.21. Rate per 100,000 of arrests of youth ages 10 to 17 for violent criminal offenses (CY 2013 - 2017)</td>
<td>Children's Cab. Inter-agency Fund</td>
<td>825</td>
<td>814</td>
<td>867</td>
<td>927</td>
<td>825</td>
<td>0.0%</td>
<td>N/A</td>
</tr>
<tr>
<td>5.22. Youth Recidivism: Percent of youth re-adjudicated within one year after release from all residential (FY 2013 - 2017)</td>
<td>DJS</td>
<td>18.5%</td>
<td>19.1%</td>
<td>18.2%</td>
<td>17.4%</td>
<td>17.4%</td>
<td>-5.7%</td>
<td>23.5%</td>
</tr>
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<tr>
<td>5.23. Percent of live births for which prenatal care was initiated during the first trimester (CY 2013 - 2017)</td>
<td>MDH</td>
<td>67.0%</td>
<td>66.6%</td>
<td>69.9%</td>
<td>67.8%*</td>
<td>70.9%</td>
<td>5.8%</td>
<td>At least 76.7% by CY 2018</td>
</tr>
<tr>
<td>5.24. Infant mortality rate for all races (per 1,000 live births) (CY 2013 - 2017)</td>
<td>MDH</td>
<td>6.6%</td>
<td>6.5%</td>
<td>6.7%</td>
<td>6.5%</td>
<td>6.3%</td>
<td>-4.5%</td>
<td>No more than 6.2 by CY 2018</td>
</tr>
<tr>
<td>5.25. Maryland's average annual uninsured rate among the nonelderly (under age 65; estimated) (CY 2013 - 2017)</td>
<td>MDH</td>
<td>11.7%</td>
<td>6.5%</td>
<td>7.5%</td>
<td>7.5%*</td>
<td>6.6%</td>
<td>-43.8%</td>
<td>N/A</td>
</tr>
<tr>
<td>5.26. Percent of Maryland children fully immunized (19.35 months) (CY 2013 - 2017)</td>
<td>CDC</td>
<td>81.9%</td>
<td>81.8%</td>
<td>84.3%</td>
<td>80.1%</td>
<td>80.1%</td>
<td>-2.2%</td>
<td>At least 80%</td>
</tr>
<tr>
<td>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)</td>
<td>MDH</td>
<td>-41.7%</td>
<td>-49.9%</td>
<td>-53.7%</td>
<td>-64.4%</td>
<td>-66.52%</td>
<td>-59.4%</td>
<td>N/A</td>
</tr>
<tr>
<td>5.28. Percent of public school students in grades nine through twelve who are current drinkers (AY 2009, 2011, 2013, 2015, 2017) (biannual)</td>
<td>CDC</td>
<td>37.0%</td>
<td>34.8%</td>
<td>31.2%</td>
<td>26.1%</td>
<td>25.5%</td>
<td>-31.1%</td>
<td>N/A</td>
</tr>
<tr>
<td>5.29. Overall cancer mortality rate per 100,000 persons (age adjusted to 2000 U.S. Standard Population) (CY 2013 - 2017)</td>
<td>MDH</td>
<td>161.9</td>
<td>160.9</td>
<td>155.0</td>
<td>156.6</td>
<td>153.8</td>
<td>-5.0%</td>
<td>No more than 146.0 by CY 2018</td>
</tr>
<tr>
<td>5.30. Heart disease mortality rate for all races per 100,000 population (age adjusted) (CY 2013 - 2017)</td>
<td>MDH</td>
<td>171.7</td>
<td>167.2</td>
<td>169.3</td>
<td>164.5</td>
<td>155.5</td>
<td>-9.4%</td>
<td>No more than 148.3 by CY 2018</td>
</tr>
<tr>
<td>5.31. Rate of age adjusted new HIV diagnoses (per 100,000 population) (CY 2013 - 2017 estimated)</td>
<td>MDH</td>
<td>22.6</td>
<td>21.6*</td>
<td>20.4*</td>
<td>18.7*</td>
<td>17.6</td>
<td>-22.1%</td>
<td>N/A</td>
</tr>
<tr>
<td>5.32. Rate of primary/secondary syphilis incidence (cases per 100,000 population) (CY 2013 - 2017)</td>
<td>MDH</td>
<td>7.7</td>
<td>7.5</td>
<td>8.5</td>
<td>8.5</td>
<td>9.5</td>
<td>23.4%</td>
<td>N/A</td>
</tr>
<tr>
<td>5.33. Percent of children with no recurrence of maltreatment within 6 months of first occurrence (FY 2014 - 2018)</td>
<td>DHS</td>
<td>89.8%</td>
<td>90.1%</td>
<td>87.6%</td>
<td>90.1%*</td>
<td>89.8%</td>
<td>0.0%</td>
<td>90.9% or more by FY 2020</td>
</tr>
<tr>
<td>Indicator</td>
<td>Agency/Data Source</td>
<td>2015</td>
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</tr>
<tr>
<td>5.34. Percent of related children and youth under age 18 whose families</td>
<td>U.S. Census</td>
<td>13.3%</td>
<td>12.7%</td>
<td>12.9%</td>
<td>12.4%</td>
<td>11.7%</td>
<td>-12.0%</td>
<td>N/A</td>
</tr>
<tr>
<td>have incomes below the poverty level (estimated) (CY 2013 - 2017)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>5.35. Maryland prevalence of household-level very low food security</td>
<td>USDA</td>
<td>4.9%</td>
<td>4.8%</td>
<td>3.8%</td>
<td>3.9%</td>
<td>4.3%</td>
<td>-12.2%</td>
<td>N/A</td>
</tr>
<tr>
<td>(3 year average) (CY 2012-2014 to 2015-2017)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>5.36. Rate of live births to adolescents between 15 and 19 years of age</td>
<td>MDH</td>
<td>22.1%</td>
<td>19.3%</td>
<td>17.8%</td>
<td>16.9%</td>
<td>15.9%</td>
<td>-28.1%</td>
<td>N/A</td>
</tr>
<tr>
<td>(per 1,000 women) (CY 2013 - 2017)</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>No more than 13.3 by CY 2018</td>
</tr>
<tr>
<td>5.37. Statewide percent of current child support paid (FFY 2014 - FFY</td>
<td>DHS</td>
<td>67.75%</td>
<td>68.55%</td>
<td>68.98%</td>
<td>68.74%</td>
<td>68.74%</td>
<td>1.4%</td>
<td>N/A</td>
</tr>
<tr>
<td>2018)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1% increase each year until 80%</td>
</tr>
<tr>
<td>5.38. Rate of children placed in out-of-home care (per 100,000 children</td>
<td>Children's Cab.</td>
<td>11.2%</td>
<td>9.9%</td>
<td>7.5%</td>
<td>5.3%</td>
<td>6.7%</td>
<td>-40.2%</td>
<td>N/A</td>
</tr>
<tr>
<td>(2013 – 2017)</td>
<td>Int.-agency Fund</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>5.39. Percent increase in employment of adults at completion of substance</td>
<td>MDH</td>
<td>41%</td>
<td>43%</td>
<td>31%</td>
<td>39%</td>
<td>36%</td>
<td>-11.2%</td>
<td>N/A</td>
</tr>
<tr>
<td>abuse treatment (2014-2018)*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>40% or more by FY 2020</td>
</tr>
<tr>
<td>5.40. Percent of adults with serious mental illness who receive mental</td>
<td>MDH</td>
<td>25.6%</td>
<td>26.9%</td>
<td>26.8%</td>
<td>26.3%</td>
<td>26.3%</td>
<td>2.9%</td>
<td>N/A</td>
</tr>
<tr>
<td>health services (FY 2014 - 2018)</td>
<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>5.41. Heroin overdose-related deaths in Maryland (CY 2013 - 2017)</td>
<td>MDH</td>
<td>464</td>
<td>578</td>
<td>748</td>
<td>1,212</td>
<td>1,078</td>
<td>132.3%</td>
<td>N/A</td>
</tr>
<tr>
<td>Environment</td>
<td></td>
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</tr>
<tr>
<td>5.42. Chesapeake Bay Habitat Health Index- MD</td>
<td>UMCES EcoCheck</td>
<td>39%</td>
<td>44%</td>
<td>48%</td>
<td>50%</td>
<td>50%</td>
<td>28.2%</td>
<td>N/A</td>
</tr>
<tr>
<td>(CY 2013 - 2017)*</td>
<td></td>
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</tr>
<tr>
<td>5.44. Dredge survey index of stock size - crabs (2014 - 2018)</td>
<td>DNR</td>
<td>32</td>
<td>50</td>
<td>58</td>
<td>47</td>
<td>41</td>
<td>28.1%</td>
<td>N/A</td>
</tr>
<tr>
<td>5.45. Oyster biomass index (2014 - 2018)*</td>
<td>DNR</td>
<td>2.0</td>
<td>2.1</td>
<td>1.8</td>
<td>1.4</td>
<td>1.4</td>
<td>-30.0%</td>
<td>10</td>
</tr>
<tr>
<td>5.46. Estimated nitrogen load to the Chesapeake Bay from Maryland (in</td>
<td>DNR</td>
<td>49.81</td>
<td>48.09</td>
<td>47.47</td>
<td>45.48</td>
<td>44.94</td>
<td>-9.8%</td>
<td>45.48 in 2017</td>
</tr>
<tr>
<td>million lbs.) (FY 2014 - 2018)</td>
<td></td>
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<td></td>
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<tr>
<td>5.47. Acres of cover crops planted (CY 2014 - 2018)</td>
<td>MDA</td>
<td>415,550</td>
<td>427,458</td>
<td>499,531</td>
<td>558,918</td>
<td>359,873</td>
<td>-13.4%</td>
<td>N/A</td>
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<td>2017</td>
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<tr>
<td>5.48. Waters impaired by nutrients per the Integrated Report of Surface Water Quality (2014 - 2018) – note report done biennially</td>
<td>MDE</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>0.0%</td>
<td>N/A</td>
</tr>
<tr>
<td>5.49. Percent of Marylanders served by public water systems in significant compliance with all new and existing regulations (FY 2014 - 2018)</td>
<td>MDE</td>
<td>96%</td>
<td>90%</td>
<td>98%</td>
<td>99%</td>
<td>90%</td>
<td>-6.2%</td>
<td>At least 97%</td>
</tr>
<tr>
<td>5.50. 3 year average of days the 8 hour ozone standard was exceeded (CY 2014 - 2018)</td>
<td>MDE</td>
<td>22.0</td>
<td>14.7</td>
<td>7.3</td>
<td>13.0</td>
<td>17.0</td>
<td>-22.7%</td>
<td>0</td>
</tr>
<tr>
<td>5.51. Maryland’s recycling rate (CY 2014 - 2018)*</td>
<td>MDE</td>
<td>43.5%</td>
<td>43.2%</td>
<td>42.9%</td>
<td>44.1%</td>
<td>44.5%</td>
<td>2.3%</td>
<td>N/A</td>
</tr>
<tr>
<td>5.52. Total acres preserved by all land preservation programs (CY 2014 - 2018)*</td>
<td>DNR</td>
<td>1,530,251</td>
<td>1,551,486</td>
<td>1,562,894</td>
<td>1,585,892</td>
<td>1,589,397</td>
<td>3.9%</td>
<td>N/A</td>
</tr>
<tr>
<td>5.53. Energy consumption by all State government facilities (millions of MMBTU’s) (owned and leased) (CY 2014 - 2018)</td>
<td>DGS</td>
<td>12.06</td>
<td>12.25</td>
<td>11.54</td>
<td>11.40</td>
<td>11.77</td>
<td>-2.4%</td>
<td>N/A</td>
</tr>
<tr>
<td>5.54. Maryland per capita electricity consumption in megawatt hours (CY 2013 - 2017)</td>
<td>MEA</td>
<td>11.1</td>
<td>10.9</td>
<td>11.0</td>
<td>10.7</td>
<td>10.5</td>
<td>-5.1%</td>
<td>N/A</td>
</tr>
<tr>
<td>5.55. Percent of vehicles registered in the state that are alternative fuel, electric or hybrid-electric (FY 2014 - 2018)*</td>
<td>MVA</td>
<td>11.1%</td>
<td>11.4%</td>
<td>11.9%</td>
<td>11.9%</td>
<td>12.0%</td>
<td>8.5%</td>
<td>N/A</td>
</tr>
<tr>
<td>5.56. Number of children under 6 years of age with elevated blood lead levels (CY 2013 - 2017)</td>
<td>MDE</td>
<td>2,622</td>
<td>2,359</td>
<td>2,166</td>
<td>2,084</td>
<td>2,050</td>
<td>-21.8%</td>
<td>N/A</td>
</tr>
<tr>
<td>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 2014 - 2018)</td>
<td>MDoT</td>
<td>277,735</td>
<td>278,270</td>
<td>263,771</td>
<td>248,281</td>
<td>237,879</td>
<td>-14.4%</td>
<td>N/A</td>
</tr>
</tbody>
</table>

*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.