

**MANAGING FOR RESULTS  
ANNUAL PERFORMANCE REPORT**

Prepared for

**THE SENATE BUDGET AND TAXATION COMMITTEE**

And

**THE HOUSE APPROPRIATIONS COMMITTEE**

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

**DEPARTMENT OF BUDGET AND MANAGEMENT**

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**FEBRUARY 2015**

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## EXECUTIVE SUMMARY

The State Finance & Procurement Article, §3-1002 (E) requires the Department of Budget and Management (DBM) to provide an annual report to the Senate Budget and Taxation Committee and the House Appropriations Committee discussing the State’s progress toward achieving the goals outlined in the Managing for Results (MFR) State Comprehensive Plan (the State Plan). The Plan is available on the DBM Web site at this [link](#). Note that 2015 is a year of transition between Administrations and, as such, the Plan will be different for the 2016 report.

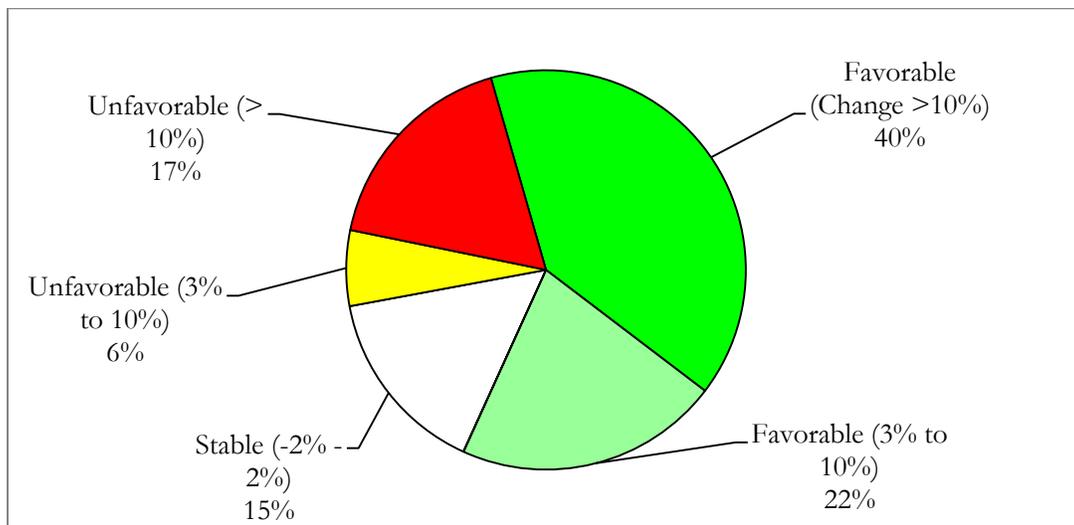
Data concerning each of the performance measures included in the State Plan are presented within the following priority areas:

- Education (16 measures)
- Economic Growth (20 measures)
- Environment (15 measures)
- Health and Safety Net (32 measures)
- Public Safety (13 measures)
- Fiscally Responsible (5 measures)

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.<sup>1</sup> 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.

<b>Favorable Performance (Change &gt;10%)</b>
Favorable Performance (3% to 10%)
Stable Performance (-2% to 2%)
Unfavorable Performance (-3% to -10%)
Unfavorable Performance (< -10%)

The following chart summarizes overall performance for measures in the State Plan. The majority of measures are moving in a favorable direction, 61.2% compared to 56.3% in last year’s report. Performance is stable for 15.3% of measures. When combined, 76.5% of measures are either moving in a favorable direction or are stable, compared to 74.7% last year.



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

<sup>1</sup> For determining trends when the beginning value is zero, the difference between zero and the ending value is calculated rather than a percent change.

# 1. EDUCATION

## Performance Overview

Performance Status	Number of Indicators	Percent
Favorable (Change >10%)	6	37.5%
Favorable (3% to 10%)	5	31.3%
Stable (-2% to 2%)	3	18.8%
Unfavorable (-3% to -10%)	0	0.0%
Unfavorable (< -10%)	2	12.5%
<b>Total</b>	<b>16</b>	<b>100%</b>

In the area of Education, 87.5% of Maryland indicators either performed favorably or held stable between the 2011 and 2015 report years. The next section highlights and explains the factors behind significant performing trends, but particularly notable favorable trends were seen in the following areas:

- the number of Advanced Placement (AP) exams where students received a 3, 4, or 5 jumped 22.4%,
- prekindergarten enrollment grew 14.0%,
- high school dropout rates declined from 11.9% to 9.4%,
- the number of graduates in science, technology, engineering, and math (STEM) from Maryland's higher education institutions grew 12.1%,
- the number of graduates in nursing from Maryland's higher education institutions soared 24.8%, and
- the number of graduates in teaching from Maryland's higher education institutions grew 20.2%.

The only areas which saw unfavorable performance were the two measures related to college affordability, where negative performance is largely due to the sluggish economy and slow growth in median family income.

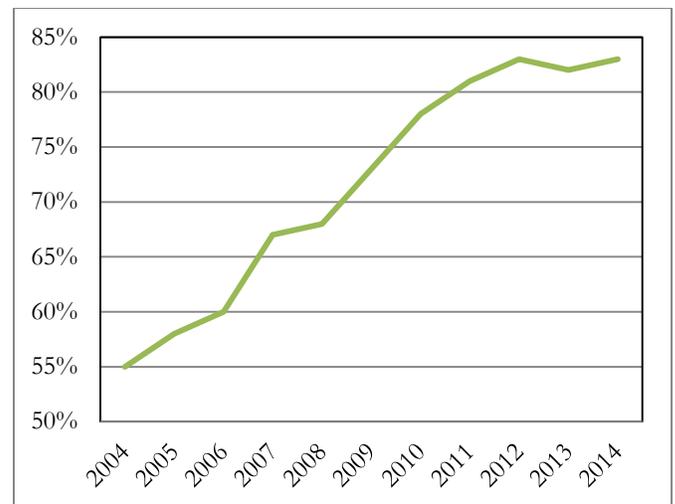
Note that all measures pertaining to Maryland School Assessments (MSAs), including the School Progress Index, have been replaced in the report this year. This is because in the most recent (2013-14) assessment year the MSAs were completed while the curriculum had transitioned to new College and Career Readiness Standards (CCSS). This disconnect between curriculum and tests means that assessment results are not meaningful starting in 2014. New Partnership for Assessment of Readiness for College and Careers (PARCC) tests based on CCSS start statewide in Maryland in school year 2014-15, and performance goals related to those assessments will be established thereafter.

## Significant Performance Trends

### Indicator 1.1: Percent of students entering kindergarten demonstrating Full Readiness on the Maryland Model for School Readiness (MMSR) Kindergarten Assessment<sup>2</sup>

The MMSR Kindergarten Assessment evaluates what each child knows and is able to do in seven Domains of Learning<sup>3</sup>. While performance remained stable from 2012 to 2014, with 83% of kindergarten students evaluated by their teachers as “fully ready” in 2014, **Exhibit 1.1** shows that the State has seen 51% growth in the past decade. State strategies to improve school readiness are focused on the quality of teaching personnel, the quality of early care and education programs, and increased awareness and involvement of families in the early education of their children.<sup>4</sup>

*Exhibit 1.1 Percent of students entering Kindergarten demonstrating Full Readiness, AY 2004-2014*



### Indicator 1.2: The number of advanced placement (AP) exams receiving grades 3, 4, or 5<sup>5</sup>

This performance measure saw rapid growth of 22.4%, increasing from 54,370 in 2010 to 66,538 in 2014. This is

<sup>2</sup> The Maryland Model for School Readiness (MMSR) Kindergarten Assessment is administered by local public schools, and data are collected by the Maryland State Department of Education.

<sup>3</sup> Full readiness is defined as consistently demonstrating skills, behaviors, and abilities that are needed to successfully meet kindergarten expectations in these seven developmental and curricular domains.

<sup>4</sup> Children Entering School Ready to Learn, 2010-2011 Maryland Model for School Readiness, Maryland State Department of Education.

<sup>5</sup> Achievement of a grade of 3, 4, or 5 may qualify the student to receive college credit or advanced placement.

a continuation of trends over the past decade, as exams receiving a 3, 4, or 5 has jumped 94% since 2004. This reflects the trend in growth in the number of AP student test-takers, which has grown from 28,219 in 2004 to 58,039 in 2014. In addition, Maryland has led the nation in the percentage of seniors who earned a score of 3 or higher on Advanced Placement (AP) exams for eight years in a row.

**Indicator 1.3: Prekindergarten enrollment**

The growth in the number of students enrolled in prekindergarten in Maryland—from 26,147 in 2010 to 29,811 in 2014—reflects a growing national emphasis on the importance of prekindergarten for student achievement. With \$4.3 million in new State funds in fiscal 2015 to expand access to prekindergarten to low-income families, and \$15 million in new federal grants in fiscal 2016, Maryland’s upward prekindergarten enrollment trend should continue in future years.

**Indicators 1.4 and 1.5: High school completion:**

- Indicator 1.4: High school graduation rate
- Indicator 1.5: Percent of high school dropouts

Graduation rates and dropout rates are two sides of the same equation regarding high school completion. Completion of high school program requirements indicates students’ potential readiness for post-secondary education and/or employment.<sup>6</sup> At the same time, failure to complete high school is closely linked with decreased employment opportunities, low pay and limited paths to advancement.<sup>7</sup> High school dropouts have unemployment rates that are nearly three times higher than individuals with bachelor’s degrees.<sup>8</sup> From school year 2010 to 2013 (the most recent year with available data), Maryland performed strongly in both areas, with high school graduation rates growing from 82% to 85% and dropout rates declining from nearly 12% to 9.4%.

**Indicator 1.9: Percent of bachelor’s degrees awarded to racial/ethnic minorities at public and private Maryland colleges and universities**

From 2010 through 2014, the percent of bachelor’s degrees awarded to racial/ethnic minorities at Maryland colleges and universities increased by 9.2% (31.6% to 34.5%), nearing the goal of 38% by 2018. From 2012 to 2013, the percentage of degrees awarded to racial/ethnic

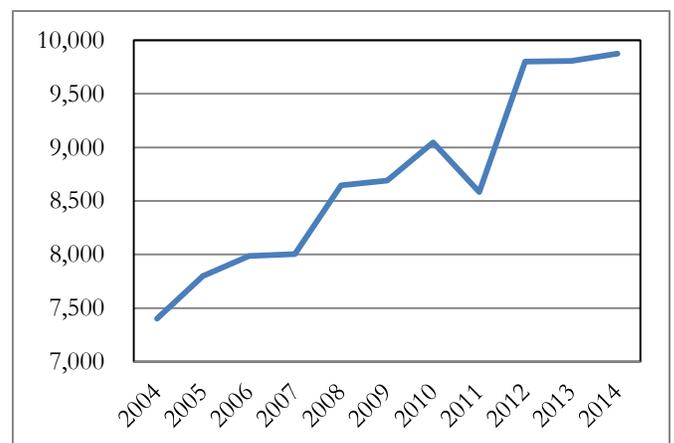
minority students increased by 5.2%, accounting for more than half of the increase from 2010 to 2014.

The Maryland Higher Education Commission (MHEC) will continue to work with the Segmental Advisory Council and representatives of its member campuses to discuss the merits and outcomes of plans designed to increase the degree attainment rate of minority students.<sup>9</sup> MHEC’s work on near completers, reverse transfer, and course redesign is expected to increase degree attainment, particularly for students from minority backgrounds. In addition, MHEC will continue to work with the Historically Black colleges and universities to revise and refine the summer bridge programs and other initiatives funded with Access and Success funds.

**Indicator 1.10: Number of community college students who transfer to a Maryland public four-year campus**

Maryland has made much progress in eliminating barriers to community college transfer to a Maryland public four-year campus, including facilitating strong articulation agreements related to the transfer of credits such as those earned for Associate of Arts in Teaching and Associate of Science in Engineering. The number of community college students who transfer to a Maryland public four-year campus grew from 9,046 in 2010 to 9,875 in 2014, a 9.2% increase. **Exhibit 1.2** shows that this growth continues a trend over the past decade.

*Exhibit 1.2 Number of community college students who transfer to a Maryland public four-year campus, FY 2004-2014*



Community colleges play a pivotal role in Maryland’s efforts to improve degree completion and workforce preparation. In 2011, Maryland secured a grant from Complete College America to underwrite efforts to

<sup>6</sup> Maryland Results for Child Well Being 2009.

<sup>7</sup> Maryland Results for Child Well Being 2009.

<sup>8</sup> 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

<sup>9</sup> Fiscal year 2016 MFR Strategies, Maryland Higher Education Commission.

improve degree completion, particularly through the redesign of remedial mathematics courses.<sup>10</sup> MHEC continues to work collaboratively with higher education institutions to support initiatives connected with the Complete College grant, particularly those designed to improve outcomes in remedial courses.<sup>11</sup> In addition, the Commission is implementing a new initiative, the 2+2 Scholarship, which provides financial incentives for students who complete associate degrees at a community college before they transfer to four-year institutions.

**Indicators 1.11 & 1.12: Percent of Maryland median family income required to cover tuition and fees**

- Indicator 1.11: At Maryland public four-year institutions
- Indicator 1.12: At Maryland community colleges

The State is committed to ensuring that more Marylanders have access to its postsecondary institutions, and keeping colleges and universities affordable is a major part of this effort. In fiscal 2006, Maryland’s resident tuition at public four-year colleges and universities was the 8th highest in the United States, and resident tuition at Maryland community colleges was the nation’s 9th highest. Due to the State freezing tuition at public four year colleges and universities from fiscal year 2007 through 2010, and capping growth in tuition for in-state undergraduates at the University System of Maryland at 3% or less in subsequent years, Maryland’s tuition costs declined to 27th highest and 20th highest respectively by fiscal 2014.<sup>12</sup>

Unfortunately, sluggish growth in median family income has resulted in unfavorable trends in these metrics in recent years. The percent of median family income required to cover tuition and fees at public four-year institutions has grown from 8.6% in 2010 to 11.3% in 2014, and for community colleges from 3.9% to 5.2%.

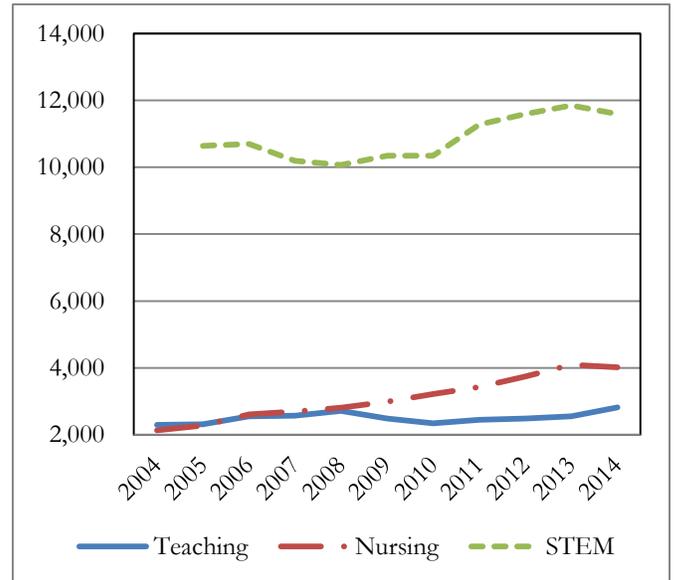
**Indicators 1.13-1.15: Graduates from Maryland’s public and private higher education institutions**

- Indicator 1.13: In science, technology, engineering and math (STEM)
- Indicator 1.14: Teacher candidates
- Indicator 1.15: In nursing

Identifying workforce shortages and determining how to best meet them is important to maintaining a strong

economy. More than 2,500 students graduated with degrees in nursing, teaching, or a STEM field in fiscal year 2014 than in fiscal 2010, an increase of 15.9%. Over that timeframe, the largest growth occurred in STEM with 1,251 more graduates in fiscal 2014 followed by nursing with 799 more graduates. **Exhibit 1.3** displays the trends in these areas through time.

*Exhibit 1.3 Graduates from Maryland’s public and private higher education institutions, FY 2004-14*



The STEM and Competitiveness Initiative launched by the University System of Maryland focuses on developing strategies that “strengthen STEM education at the K-12 level, prepare a highly skilled workforce for STEM-based jobs, and promote the innovation and entrepreneurship necessary to position Maryland for leadership in today’s global knowledge economy.”<sup>13</sup> Additionally, Maryland launched the Maryland STEM Innovation Network to promote the delivery of high quality STEM education at all levels. The Nurse Support Program II, one strategy addressing the nursing shortage, funds partnerships between Maryland hospitals, colleges and universities, and MHEC to increase the number of nursing graduates.<sup>14</sup>

<sup>10</sup> Fiscal year 2013 MFR Performance Discussion, Maryland Higher Education Commission.

<sup>11</sup> Fiscal year 2016 MFR Strategies, Maryland Higher Education Commission.

<sup>12</sup> Fiscal year 2016 MFR Performance Discussion, Maryland Higher Education Commission

<sup>13</sup> NEA Press Release, July 6, 2010.

<sup>14</sup>Fiscal year 2016 MFR Performance Discussion, Maryland Higher Education Commission

## Performance Detail

### Key Performance Area 1 – Data by Report Year

Indicator	Agency/ Data Source	2011	2012	2013	2014	2015	4 Year Change	Specific Target
1.1. Percent of students entering Kindergarten demonstrating Full Readiness on the Work Sampling System Kindergarten Assessment (AY 2010 - AY 2014)	MSDE	78%	81%	83%	82%	83%	6.4%	N/A
1.2. AP Exams - Receiving grade 3, 4, or 5 (AY 2010 - AY 2014)	MSDE	54,370	57,573	62,952	65,460	66,538	22.4%	N/A
1.3. Prekindergarten enrollment (AY 2010 - AY 2014)	MSDE	26,147	27,337	28,850	29,671	29,811	14.0%	N/A
1.4. High School Graduation Rate (AY 2010 - AY 2013)- prior year data not comparable	MSDE	N/A	81.97%	82.82%	83.57%	84.97%	3.7%	N/A
1.5. Percent of children in grades 9 through 12 who drop out of school in an academic year (AY 2010 - AY 2013) - prior year data not comparable	MSDE	N/A	11.93%	11.22%	10.22%	9.36%	-21.5%	N/A
1.6. Percent of core academic subject classes staffed with highly qualified teachers (AY 2010 - AY 2014)	MSDE	91.7%	92.4%	93.1%	93.8%	92.4%	0.8%	100% by 2016
1.7. Percent of Maryland schools that are safe as defined by COMAR 13A.08.01.18B(5) (AY 2010 - AY 2014)	MSDE	99.7%	99.7%	99.7%	99.4%	99.7%	0.0%	99% by 2016
1.8. Six year graduation rate of first-time, full-time students at public four-year colleges and universities (all groups) (FY 2010 - FY 2014)	MHEC	64.7%	64.1%	63.3%	61.6%	63.8%	-1.4%	67% by 2018
1.9. Percent of bachelor's degrees awarded to racial/ethnic minorities at public and private Maryland colleges and universities (FY 2010 - FY 2014)	MHEC	31.6%	31.8%	32.7%	34.4%	34.5%	9.2%	38% by 2018
1.10. Number of community college students who transfer to a Maryland public four-year campus (FY 2010 - FY 2014)	MHEC	9,046	8,582	9,801	9,807	9,875	9.2%	11,000 by 2018
1.11. Percent of Maryland median family income required to cover tuition and fees at Maryland public four-year institutions (FY 2010 - FY 2014)	MHEC	8.6%	8.7%	9.4%	11.2%*	11.3%	31.4%	Below 10% by 2018
1.12. Percent of Maryland median family income required to cover tuition and fees at Maryland community colleges (FY 2010 - FY 2014)	MHEC	3.9%	4.0%	4.3%	5.1%*	5.2%	33.3%	Below 4% by 2018
1.13. Number of graduates in science, technology, engineering, and math (STEM) from Maryland's public and private higher educational institutions (FY 2010 - FY 2014)	MHEC	10,341	11,277	11,592	11,850*	11,592	12.1%	Above 13,000 by 2018
1.14. Number of graduates in teaching from Maryland's public and private higher educational institutions (FY 2010 - FY 2014)	MHEC	2,349	2,451	2,491	2,555	2,823	20.2%	Above 3,250 by 2018

Indicator	Agency/ Data Source	2011	2012	2013	2014	2015	4 Year Change	Specific Target
1.15. Number of graduates in nursing from Maryland public and private higher educational institutions (FY 2010 - FY 2014)	MHEC	3,217	3,429	3,748	4,097	4,016	24.8%	4,300 by 2018
1.16. Percent of teacher candidates from Maryland public and private higher educational institutions who pass Praxis II (FY 2010 - FY 2014)	MHEC	96.0%	98.0%	99.0%	100.0%	98.0%	2.1%	98% in 2017

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

## 2. ECONOMIC GROWTH

### Performance Overview

Performance Status	Number of Indicators	Percent
Favorable (Change >10%)	7	35.0%
Favorable (3% to 10%)	5	25.0%
Stable (-2% to 2%)	4	20.0%
Unfavorable (-3% to -10%)	2	10.0%
Unfavorable (< -10%)		
<b>Total</b>	<b>20</b>	<b>100%</b>

In the area of Economic Growth, 80% of Maryland indicators either performed favorably or held stable between the 2011 and 2015 report years. The next section highlights and explains the factors behind significant performing trends, but particularly notable favorable trends were seen in the following areas:

- the Maryland Port Administration total general cargo tonnage grew 26.3%, from 7.6 million to 9.6 million,
- State sales tax revenue attributable to tourism grew 17.4%, from \$342 million to \$402.4 million,
- the number of bioscience establishments operating in Maryland increased by 18.4%,
- passenger trips on bus and rail transit grew 22.7%, and
- percent change in State employment jumped 811.1%.

However, two indicators did experience more negative performance. First, the State Economic Momentum Index that ranks states based on their most recent performance in three key measures of economic vitality: personal income growth, employment growth and population growth, has dropped from 1.16 in 2010 to 0.55 in 2014. Second, the ratio between Maryland unemployment and U.S. unemployment grew from 0.76 to 0.93 when ideally Maryland would perform more strongly than the national average.

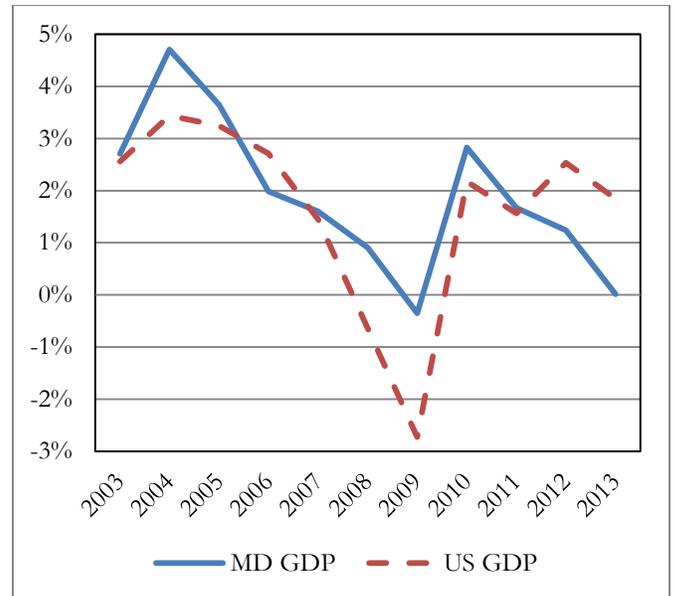
### Significant Performance Trends

#### Indicator 2.1: Maryland's growth in total real gross domestic product (in millions of chained [2009] dollars)

Total real GDP by state is an inflation-adjusted measure of each state's production, wherever sold, that is based on national prices for the goods and services produced within that state. The all industry total includes all private industries and government. Over the period of 2009 to 2013, Maryland's total real gross domestic product grew by 5.9%, compared to 8.4% growth nationwide.

Exhibit 2.1 displays the Maryland and nationwide trends over the past decade. It shows that Maryland's economy generally performed more strongly than the U.S. as a whole from 2003 through 2011 (except 2006), but in 2012 Maryland's growth was 1.3% lower than the nationwide average and in 2013 it was 1.8% lower than the national number.

Exhibit 2.1 Annual Gross Domestic Product Growth, Maryland and the U.S. 2003-2013



#### Indicator 2.2: Maryland State Economic Momentum Index

As noted previously, The State Economic Momentum Index 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 most recent one-year changes in these three components are averaged and each state's score is expressed as a percent above or below the national average which is set at zero.<sup>15</sup>

Maryland's economic momentum declined in both 2013 and 2014, losing 0.48 percentage points from 2012 to 2013 and another 0.36 points from 2013 to 2014. Due to Maryland's proximity to the nation's capital, the impact of the Federal sequestration, furloughs, and the threat of a Federal government shutdown disproportionately harmed Maryland's economic recovery.

<sup>15</sup> State Policy Reports, Federal Funds Information for States.

### **Indicator 2.3: Maryland Port Administration (MPA) total general cargo tonnage, (millions)**

General cargo includes foreign and domestic waterborne cargo - it does not include bulk commodities, container tare weight, empty containers, or domestic non-waterborne cargo.<sup>16</sup> “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 MPA’s influence that impact the movement of freight, i.e. national and world economic trends, labor costs (here and at competing ports), value of the U.S. dollar, rail and highway service and rates, prolonged weather phenomena, and changes in vessel sizes.<sup>17</sup>

After declining by 2.6% from fiscal year 2009 to 2010, principally due to the global recession and a plunge in U.S. auto sales,<sup>18</sup> general cargo tonnage rebounded in 2011, and grew steadily in 2012 and 2013. The increase in cargo overall from 2010 to 2011 marked the greatest increase of growth by any major U.S. port in 2011.<sup>19</sup> In 2012, the Port ranked 13<sup>th</sup> in the nation for total foreign cargo for both public and private terminals at the Port, moving up from 15<sup>th</sup> in 2009. The Port of Baltimore remained the number one port in the nation for handling roll on/roll off cargo, imported forest products, imported gypsum, and imported sugar. Baltimore is second in the nation in handling international automobiles.<sup>20</sup> Total general cargo increased again by 3.2% from 2012 to 2013 and remained stable into 2014. The Port is an economic engine in Maryland, generating about 16,700 direct jobs, and about 120,000 jobs that are linked to Port activities.<sup>21</sup>

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<sup>16</sup> Maryland Department of Transportation 2010 - 2012 Annual Attainment Reports on Transportation System Performance, and Maryland Port Administration fiscal year 2012 MFR Performance Measure Profile

<sup>17</sup> Maryland Department of Transportation, Maryland Port Administration, FY 2015 MFR budget book submission; Maryland Department of Transportation 2012 Annual Attainment Report on Transportation System Performance

<sup>18</sup> Maryland Department of Transportation 2010 - 2012 Annual Attainment Reports on Transportation System Performance

<sup>19</sup> Port of Baltimore saw largest growth among all major U.S. Ports in 2011, Port’s Nearly 38 Million Tons of Cargo was 15 Percent Increase From 2010; Many Other Records Set - Maryland Port Administration Press Release, April 23, 2012

<sup>20</sup> Maryland Department of Transportation 2012 Annual Attainment Report on Transportation System Performance

<sup>21</sup> Maryland Department of Transportation 2012 Annual Attainment Report on Transportation System Performance

### **Indicator 2.6: Total State sales tax revenue attributable to tourism (millions)**

This performance measurement reflects revenue collected by the Comptroller in specific sales tax categories that are tourism-related. Seven of the eight performance measurements under this metric saw increases in FY 2014, with the only decline associated with Hotels, Motels Selling Food (with beer, wine and liquor license). This 3.1% decrease is directly correlated to the government shutdown in October 2013, with the following federal-facility heavy counties most impacted: Anne Arundel (Fort Meade – down 7.7%); Montgomery (NIH – down 9%) and Prince George’s (down 8.5%).<sup>22</sup> With the exception of fiscal 2010 when there was a small decline, this performance metric has seen annual growth since it was first tracked in fiscal 2005.

### **Indicators 2.7 & 2.8: Bioscience establishments operating in MD**

- Indicator 2.7: Employment
- Indicator 2.8: Number of establishments

The four bio industry sub-sectors included in the bio/life science definition for these indicators are (1) Research, Testing and Medical Laboratories, (2) Medical Devices and Equipment, (3) Drugs and Pharmaceuticals, and (4) Agricultural Feedstock and Chemicals.

Both indicators experienced positive performance in 2013, with the number of firms jumping 18.4% over five years and private employment growing 2.2% in the same time period. In the last year, firm growth was strongest in the categories of Drugs and Pharmaceuticals (18.6%) and Agricultural Feedback and Chemicals (10.5%). However in the last year, what had previously been strong annual growth in the establishment of firms—averaging 5.7% from 2008 to 2012—declined to only 1.7% growth. This, coupled with a 1.5% annual decline in employment, may indicate a slowdown in the Maryland bioscience sector.

**Exhibit 2.2** (next page) shows this change in trends.

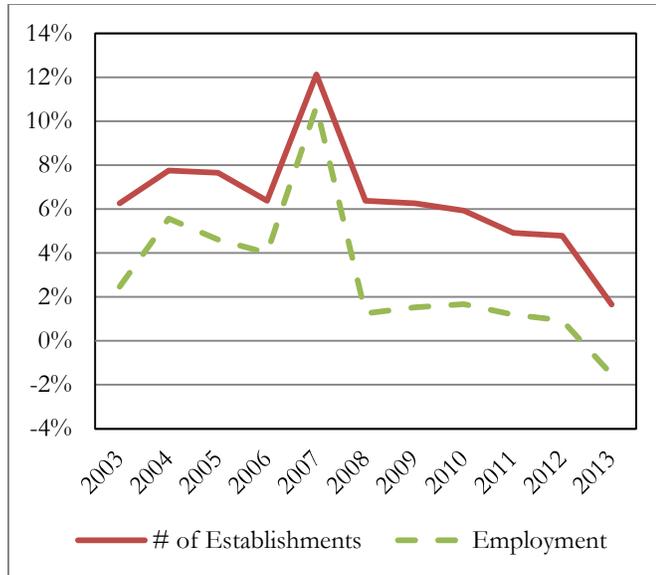
Maryland has a number of initiatives in place to support growth in technology, bioscience in particular. The State has made significant investments in bioscience including creation of the Biotechnology Center in 2009, and doubling of funding available through the Biotechnology Investment Incentive Tax Credit Program that allows for a tax break for investors in qualified biotechnology companies. Other resources supportive of Maryland’s bioscience industry include the Maryland Technology Incubator Program run by the Maryland Technology

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<sup>22</sup> Fiscal year 2015 MFR Performance Discussion, Department of Budget and Management

Development Corporation (TEDCO); the Maryland Technology Enterprise Institute (Mtech) of the University of Maryland that educates the next generation of technology entrepreneurs, creates successful technology ventures, and connects companies with university resources to help them succeed<sup>23</sup>; and InvestMaryland that is aimed at creating a public-private partnership to fuel venture capital investment in Maryland’s “Innovation Economy” such as bioscience companies.<sup>24</sup>

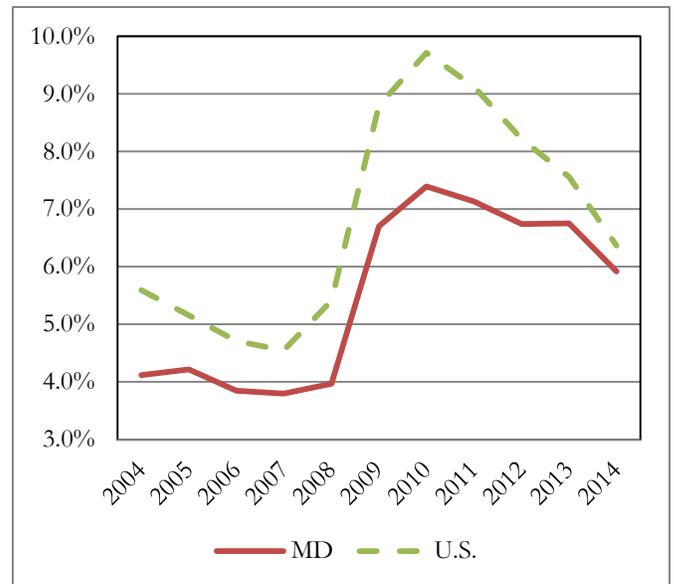
*Exhibit 2.2 Growth in the Number of Bioscience Establishments and their employment, 2003-2013*



**Indicator 2.13: Ratio between Maryland's unemployment rate and the U.S. rate**

While the ratio between Maryland’s unemployment rate and the U.S. rate has grown in recent years, from 0.76 in 2010 to 0.93 in 2014, Maryland’s rate continues to compare favorably to the U.S. unemployment rate. Between 2010 and 2014, the difference between the two ranged between 7% to 24%. **Exhibit 2.3** compares the Maryland and U.S. employment rate over the past decade.

*Exhibit 2.3 MD and U.S. Unemployment Rate, 2004-2014*



**Indicator 2.14: Percent change in Maryland employment from 2001 baseline (12 month average)**

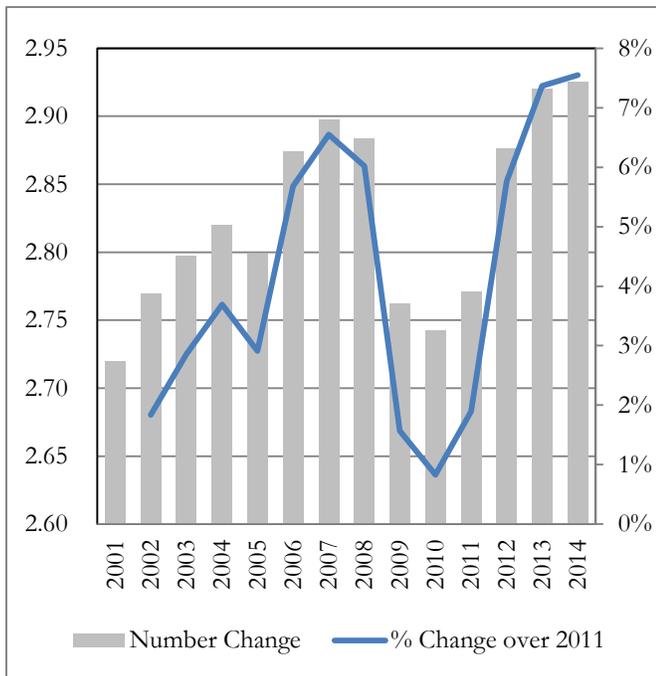
The national economic downturn significantly impacted Maryland’s labor market. Maryland’s 2009 employment was only 1.57% over the 2001 baseline and there was virtually no employment growth in 2010. In 2011, there was slight growth of 1.9% from the 2001 baseline, with employment returning to slightly more than the 2009 level. 2012 brought healthy growth of 3.9% above 2011, with 5.8% growth over 2001. **Exhibit 2.4** (next page) shows trends in Maryland employment.

Growth in employment continued to accelerate in 2013, increasing by 7.4% above the 2001 baseline. However, because of the significant federal employment base in Maryland, economic stability was threatened by the impact of the January 2013 federal sequestration, the on-going need for continuing resolutions for the Federal budget and for raising the Federal debt ceiling, and contention in Congress over the Federal budget. Therefore, only minimal year-over-year growth was experienced in 2014 (0.2%).

<sup>23</sup> <http://www.mtech.umd.edu/>

<sup>24</sup> Press release, June 1, 2010, “Governor Martin O’Malley Announces InvestMaryland Proposal to Spur Jobs, Investments in Maryland’s Innovation Economy”

Exhibit 2.4 MD Employment (millions), 2001-2014



**Indicators 2.17: 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 \$8,000 to \$10,000) the national per capita personal income for the past eight years. Maryland has a large Federal employment base, as well as an economic concentration in industries such as information and business, and professional services that frequently require college and advanced degrees,<sup>25</sup> and therefore pay higher salaries.

After a small decline in 2009 (-0.99%), Maryland’s per capita income has increased annually for the past four years, growing 1.52% in 2010, 4.31% in 2011, 2.81% in 2012, and 0.31% in 2013. This minimal growth in 2013 is likely the continuing impact of Federal issues mentioned above.

<sup>25</sup> Moody’s Investors Service, Moody’s assigns Aaa rating to Maryland’s \$728 million General Obligation State and Local Facilities Loan of 2012, Second Series, July 18, 2012

## Performance Detail

### Key Performance Area 2 – Data by Report Year

Indicator	Agency/ Data Source	2011	2012	2013	2014	2015	4 Year Change	Specific Target
2.1. Maryland's growth in total real gross domestic product (in millions of chained [2009] dollars) (CY 2009 - CY 2013)	U.S. Commerce BEA	\$304,414	\$313,016	\$318,242	\$322,188	\$322,234	5.9%	N/A
2.2. State Economic Momentum Index (2010 - 2014)	FFIS	1.16	-0.32	0.29	-0.19	-0.55	-147.4%	N/A
2.3. Maryland Port Administration total general cargo tonnage, (millions) (2010 - 2014)	MDOT	7.6	8.7	9.3	9.6	9.6	26.3%	N/A
2.4. Annual BWI Marshall passenger growth rate - Number of passengers (2009 - 2013)	MDOT	20.9	21.9	22.4	22.7	22.5	7.4%	N/A
2.5. Number of non-stop markets served by BWI Marshall Airport (2010 - 2014)	MDOT	72	75	76	73	74	2.8%	Maintain at or above 70
2.6. Total State sales tax revenue attributable to tourism (millions) (2010 - 2014)	DBED Comptroller	\$342.0	\$359.5	\$377.5	\$381.4*	\$401.4	17.4%	N/A
2.7. Average employment in bioscience establishments in MD (2009 - 2013)	DBED	33,049	33,602	34,001	34,316	33,789	2.2%	N/A
2.8. Number of bioscience establishments operating in MD (2009 - 2013)	DBED	1,654	1,752	1,838	1,926	1,958	18.4%	N/A
2.9. Percent of State system roadway mileage with acceptable ride quality (2009 - 2013)	MDOT	87%	86%	86%	86%	86%	-1.1%	Maintain at or above 84%
2.10. Percent of bridges on Maryland State Highway Administration portion of the National Highway System that will allow all legally loaded vehicles to safely traverse (CY 2009 - CY 2013)	MDOT	99%	99%	99%	99%	99%	0.0%	N/A
2.11. Percent of MD State Highway Administration Network in overall preferred maintenance condition (CY 2009 - CY 2013)	MDOT	86.9%	85.8%	82.2%	85.1%	83.4%	-4.0%	Maintain at or above 84%
2.12. Total number of passenger trips per service mile traveled for bus and rail transit (2010 - 2014)	MDOT	2.2	2.7	2.8	2.6	2.7	22.7%	N/A

Indicator	Agency/ Data Source	2011	2012	2013	2014	2015	4 Year Change	Specific Target
<b>2.13.</b> Ratio between Maryland's unemployment rate and the U.S. rate (2010 - 2014)	U.S. DOL/BLS	0.7614	0.7817	0.8205	0.8931	0.9293	22.1%	N/A
<b>2.14.</b> Percent change in Maryland employment from 2001 baseline (12 month average) (2010 - 2014)	DLLR	0.83%	1.90%	5.77%	7.37%	7.55%	811.1%	N/A
<b>2.15.</b> Rate that adult employment trainees enter employment (2010 - 2014)	DLLR	77.3%	76.8%	81.5%	79.5%	80.3%	3.9%	Meet or exceed federal standard
<b>2.16.</b> WIA adult program participant employment retention rate (2010 - 2014)	DLLR	87.0%	88.1%	87.5%	89.6%	88.4%	1.6%	Meet or exceed federal standard
<b>2.17.</b> Annual Percent change in Maryland per capita personal income (CY 2009 - CY 2013)*	U.S. Commerce BEA	-0.99%	1.52%	4.31%	2.81%	0.31%	131.4%	N/A
<b>2.18.</b> Home ownership (CY 2009 - CY 2013)	U.S. Census	69.6%	68.9%	69.7%	68.5%	66.9%	-3.9%	N/A
<b>2.19.</b> Percent of "other" investment leveraged by the State Rehabilitation Tax Credit in the rehabilitation of historic commercial properties (2010 - 2014)	MDP	80%	80%	80%	85%	91.0%	13.6%	At least 80% per project
<b>2.20.</b> Percent of private investment leveraged by the State Rehabilitation Tax Credit for restoration and preservation of historic residential properties (2010 - 2014)	MDP	80%	80%	81%	79%	80%	0.3%	At least 80% per project

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

### 3. ENVIRONMENT

#### Performance Overview

Performance Status	Number of Indicators	Percent
Favorable (Change >10%)	9	60.0%
Favorable (3% to 10%)	2	13.3%
Stable (-2% to 2%)	1	6.7%
Unfavorable (-3% to -10%)	0	0.0%
Unfavorable (< -10%)		
<b>Total</b>	<b>15</b>	<b>100%</b>

In the area of the Environment, 80% of Maryland indicators either performed favorably or held stable between the 2011 and 2015 report years. The next section highlights and explains the factors behind significant performing trends, but particularly notable favorable trends were seen in the following areas:

- the Oyster biomass index grew from 0.9 to 2.1 (133.3%),
- the acres of cover crops planted doubled from 206,810 to 415,550,
- the number of waters impaired by nutrients per the Integrated Report of Surface Water Quality fell from 62 to only 14 (-77.4%),
- the percent of Marylanders served by public water systems in significant compliance with all new and existing regulations grew from 80% to 96%,
- by 2013, there was a decline of 10.1% in per capita electricity consumption compared to the 2007 baseline,
- the three year average of days the eight hour ozone standard was exceeded declined from 32.3 to 22.0, and
- the percent of newly purchased light duty vehicles in the State fleet that are hybrid or alternative fueled vehicles grew 144.9%, from 27% to 66%.

However, several Bay-related indicators did experience more negative performance, largely due to extreme heat combined with heavy rain events that increased runoff. The acreage of submerged aquatic vegetation (SAVs) declined by 38.9%. The crab dredge survey declined from 67 in 2010 to 32 in 2014. Finally, the Maryland score on the Bay Report Card declined from a C- to a D+.

#### Significant Performance Trends

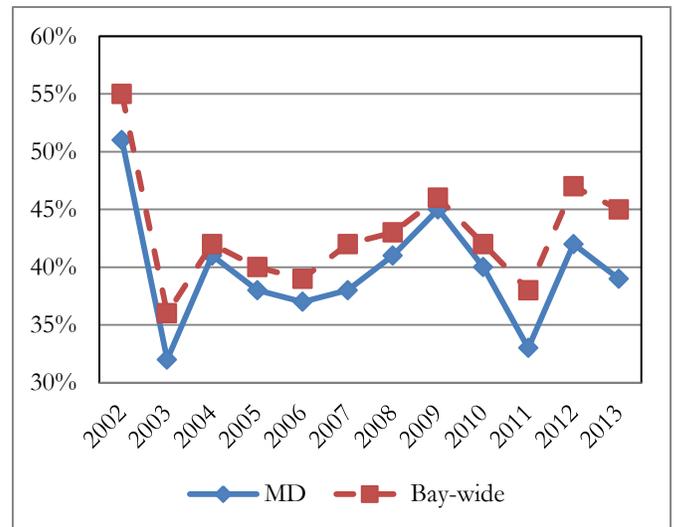
##### Indicator 3.1: Chesapeake Bay Habitat Health Index - Maryland

The Chesapeake Bay Habitat Health Index measures the progress of three water quality indicators and three biotic

indicators<sup>26</sup> against scientifically derived ecological thresholds or goals. The six indicators are combined into one overarching Bay Health Index. The health of the Chesapeake Bay is reported annually in the Chesapeake Bay Report Card. The data presented is for both the Maryland portion<sup>27</sup> of the Chesapeake Bay and the Bay-wide number.

In the period from 2009 to 2013, Maryland's score dropped from 45% (C) to 39% (D+). At the same time, the score for the entire Chesapeake Bay remained almost the same going from a 46% (C) in 2009 to a 45% (C) in 2013. The primary reason for the declining Maryland score, and the slight dip of Maryland's score in particular, was a hot, dry summer with intense rain events that increased nutrient and sediment runoff. As **Exhibit 3.1** shows, Maryland and Bay-wide scores can vary widely from year to year depending on trends in weather, etc.

*Exhibit 3.1 Maryland and Bay-wide Report Card Score, 2002-13*



The varying primary nitrogen sources (for example agriculture and point sources) and the Bay health scores highlight the need for targeted implementation of best management practices. Some of the most important best management practices being undertaken in agriculture and urban areas include cover crops, septic upgrades,

<sup>26</sup> 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.

<sup>27</sup> 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.

stormwater management control, and enhanced nutrient removal through upgraded wastewater treatment plants.

The Federal Environmental Protection Agency (EPA) is leading a major initiative to establish and oversee achievement of a strict “pollution diet” known as a Total Maximum Daily Load (TMDL), that will drive actions to clean local waters and the Chesapeake Bay. Maryland, as well as the other five jurisdictions in the Bay watershed, has prepared Phase I and Phase II Watershed Implementation Plans (WIP) detailing how the State will accomplish its portion of the pollution diet. These Plans identify how the Bay jurisdictions will achieve nutrient and sediment clean-up goals.

### Indicator 3.2: Acres of submerged aquatic vegetation

Bay grasses are a key indicator of Chesapeake Bay health because of their sensitivity to small changes in water pollution. Not only are aquatic grasses, or SAV, one of the most important habitats in the Chesapeake Bay, bay grasses can improve water clarity. Other important ecological roles of SAV include stabilizing sediment at the bottom of the water column; releasing oxygen which is essential to underwater organisms such as fish; inhibiting wave action that erodes shorelines; and absorbing excess nutrients. Factors that affect growth of bay grasses include excess nutrients that can cause increases in algae which affect the amount of available light for the grasses to grow. Unfavorable weather including extreme heat, heavy rain and tropical storms also impact SAV abundance. A photographic survey of all shallow waters of the Bay is annually conducted and analyzed to determine estimates of the extent of SAV in the Bay.

After SAVs increased 11.3% from 2008 to 2009, acreage experienced several years of decline through 2012, falling to almost half of their 2009 levels. 2013 saw some rebound, with 17.9% growth from 24,512 to 28,905. Bay grass restoration is a continuing effort.

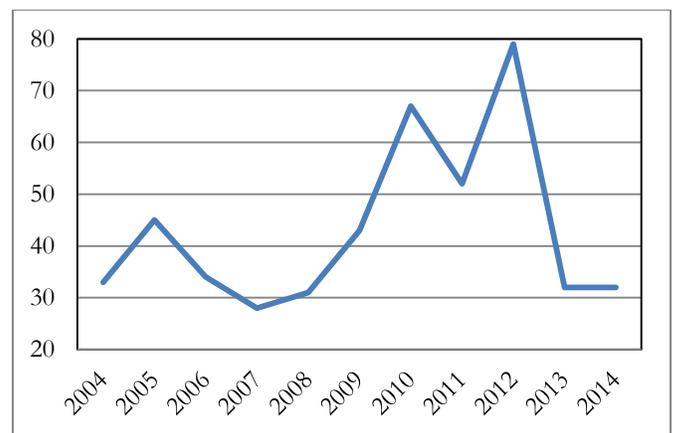
### Indicator 3.3: Dredge Survey Index of stock size (crabs) – estimated

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

corrected for the efficiency of the dredge gear and overwintering mortality.<sup>28</sup>

The Index value declined by 52.2% over the five year period from 2010 to 2014, with fluctuating values during the intervening years. After reaching a 19 year high in 2012,<sup>29</sup> the Maryland blue crab population dropped below the 2009 level in 2014, declining 59.5% from 2012. As **Exhibit 3.2** shows, the blue crab population can vary dramatically from year to year. Crabs are vulnerable to extreme cold, particularly prolonged cold winter temperatures.

Exhibit 3.2 Dredge Survey Index - Crab Stock Size, 2004-14



Bills were passed during the 2011 legislative session that increased enforcement authority and penalties for certain violations of rules related to striped bass, oyster and blue crab. Legislation passed in 2012 aimed at the Bay’s water pollution problems including curtailing septic pollution, allowing upgrades to sewage treatment plants, etc.<sup>30</sup> In 2012 and 2013, DNR facilitated the initiation of a Blue Crab commercial fishery harvest accountability pilot. Commercial harvest tracking is critical to well managed fisheries and can provide flexibility for harvesters.<sup>31</sup>

### Indicator 3.4: Oyster biomass index

The Oyster Biomass Index measures the status of the oyster population. The biomass of an oyster is its living tissue, not including the shells. As the Bay’s oyster population improves or declines, so does the biomass. The Maryland Department of Natural Resources (DNR) samples selected oyster bars each year, assesses the amount of oyster biomass in the samples, and calculates

<sup>28</sup> Maryland Department of Natural Resources, Fisheries Service, Data Definition and Control Procedures, fiscal year 2012 and 2013

<sup>29</sup> Office of the Governor, More Blue Crabs newsletter, May 3, 2012

<sup>30</sup> Office of the Governor, More Blue Crabs newsletter, May 3, 2012

<sup>31</sup> Maryland Department of Natural Resources, Fisheries Service, MFR Performance Discussion, fiscal year 2015

an Index based on this data. The Oyster Biomass Index remained stable at 0.9 from 2004 through 2011. The Index increased 78% to 1.6 in 2012, showing an increase in the health of the oyster population. The Index remained stable at the 2012 level in 2013, then grew 31% to 2.1 in 2014.

Major challenges to oyster restoration efforts include illegal harvests, sedimentation, and disease. Oyster habitat is increased through creation of new shell reefs and protected sanctuaries to provide increased numbers and biomass of oysters, and additional brood stock for future natural oyster production. DNR is implementing Maryland's Oyster Restoration and Aquaculture Development Plan. As part of the oyster restoration program, the Department plants shells and other habitat materials on the Bay bottom to increase and improve habitat to provide increased numbers and biomass of oysters, and additional brood stock for future natural oyster production.

### **Indicator 3.5: Estimated nitrogen load to the Chesapeake Bay from Maryland (in million lbs.)**

The main cause of the Bay's poor water quality and loss of aquatic habitat is elevated levels of two nutrients - nitrogen and phosphorous. Nitrogen occurs naturally in soil, animal waste, plant material, and even the atmosphere. When too much nitrogen enters local rivers, streams and the Bay, it can create harmful conditions by causing more algae to grow, blocking out sunlight and reducing oxygen for Bay grasses, fish, blue crabs, and other Bay life. The top two sources of nitrogen delivered to the Bay come from emissions (from vehicles, industries, agriculture, electric utilities and other sources), and chemical fertilizers.<sup>32</sup> Strategies to reduce nitrogen load include nutrient management plans and key conservation practices (best management practices).

The methodology for calculating estimates of nitrogen load to the Chesapeake Bay changed in 2009, and therefore 2008 data is not comparable to data reported for subsequent years. The particularly wet year in 2010 was significant enough to mask effects of management actions such as plant upgrades for that year. The estimated nitrogen load to the Chesapeake Bay has declined by an average of 2.7% over the past five years.

Maryland has continued its leadership in Bay restoration through actions such as:

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<sup>32</sup> Chesapeake Bay Program - [http://www.chesapeakebay.net/status\\_nitrogensources.aspx?menuitem=19797](http://www.chesapeakebay.net/status_nitrogensources.aspx?menuitem=19797)  
<http://www.chesapeakebay.net/websitesearchresults.aspx?>

- Being the first state in the watershed to receive federal approval for the Concentrated Animal Feeding Operation program that meets the new EPA regulations and requires comprehensive nutrient management on poultry farms for the first time;
- Being the first State in the watershed to require nutrient removal technology for new and failing septic systems in its Critical Area;
- Creating the Chesapeake Bay 2010 Trust Fund to fund cost-effective projects to reduce non-point source pollution with required monitoring that tracks implementation and progress;
- Achieving a record setting commitment by farmers to plant cover crops – one of the most cost effective nutrient reduction practices available;
- Being the first state in the watershed to require environmental site design to reduce stormwater runoff on all new development approved after May of 2010; and
- Implementing one of the most progressive set of stormwater requirements for a stormwater (MS4) permit in the Bay Watershed.<sup>33</sup>

### **Indicator 3.6: Acres of cover crops planted**

Maryland's Chesapeake Bay Tributary Strategy Implementation Plan of January 2008 includes an agricultural strategy for improving the health of the Chesapeake Bay and its tributaries. Expanding the cover crop program is part of that agricultural strategy, and is one of the primary efforts to reduce nutrient and sediment loads to the Chesapeake Bay.

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.<sup>34</sup> The Cover Crop Program provides cost share assistance to farmers to implement this best management practice.<sup>35</sup> Through the cover crop program, the number of acres planted has increased dramatically. A record number of acres of cover crops were planted during 2010 to 2014 (1.8 million acres), increasing by 100.9% during that timeframe, with 2014 representing an all-time high.

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<sup>33</sup> Maryland Phase I Watershed Implementation Plan – Executive Summary Submitted Final 12/03/10

<sup>34</sup> Overview, Chesapeake Bay Report Card, 2010, Chesapeake EcoCheck

[WWW.eco-check.org/reportcard/chesapeake/2010/overview/](http://WWW.eco-check.org/reportcard/chesapeake/2010/overview/)

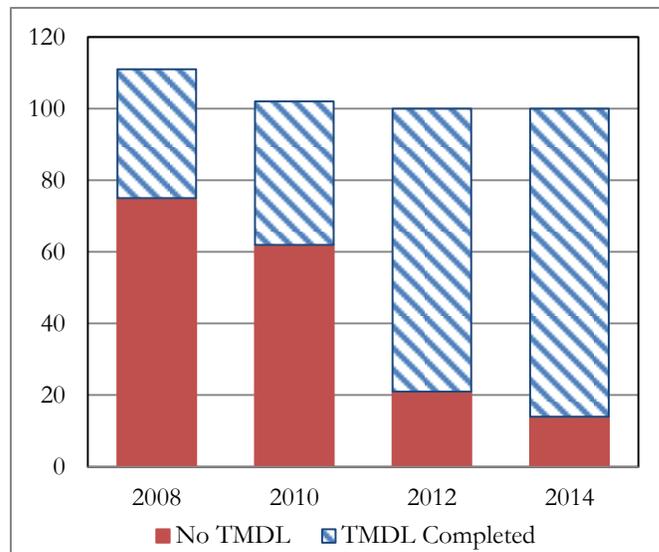
<sup>35</sup> Cost-share support is administered through Maryland Agricultural Water Quality Cost-Share (MACS) program, Maryland's Chesapeake Bay Tributary Strategy Implementation Plan, January 2008

**Indicator 3.7: Number of waters impaired by nutrients per the Integrated Report of Surface Water Quality**

The Federal Clean Water Act requires states to identify waters assessed as not meeting water quality standards<sup>36</sup>, 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.

**Exhibit 3.3** shows the number of water bodies impaired by nutrients both with and without a completed TMDL for 2008, 2010, 2012, and 2014 (data reported biannually). Over that time period, the number of impaired bodies without a TMDL declined by 81%. This strong performance is largely the result of the completion of the Chesapeake Bay TMDL which was finalized in December 2010. Since December 2010, Maryland has completed the Phase I Watershed Implementation Plan (WIP), and has finalized with additional updates and refinements the Phase II WIP. MDE has worked extensively with inter-jurisdictional and inter-agency workgroups and committees over the last three years to provide technical expertise and guidance to ensure that the Bay TMDL addressed the nutrient and sediment impairments in all of Maryland’s tidal waters listed as impaired by those pollutants on the State’s Integrated Report of Surface Water Quality.<sup>37</sup> Phase III WIPs will be submitted in 2017 with a focus on ensuring that all practices are in place by 2025 as needed to fully restore the Bay and its tidal waters.

*Exhibit 3.3 Number of Waters Impaired by Nutrients Per the Integrated Report of Surface Water Quality*



**Indicator 3.8: 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.

Beginning with 2009 data, this measure reflects the percent of Marylanders served by public water systems in compliance with all new and existing regulations that have been adopted and implemented since 2002. Since that time, compliance has jumped from 80% to 96%. Most violations for fiscal 2014 were technical violations that were associated with additional monitoring deadlines.<sup>38</sup>

In FY2016, implementation of a new regulation called the Revised Total Coliform Rule is anticipated. Every time a new rule is introduced, it poses a compliance challenge for public water systems, especially the small ones that lack the technical sophistication that these federal mandates require. Due to this fact, performance is anticipated to decline somewhat.

<sup>36</sup> A water quality standard is the combination of a designated use for a particular body of water and the water quality criteria designed to protect that use – Maryland Department of Environment’s Web site about the Integrated Report of Surface Water Quality found at: <http://www.mde.maryland.gov/programs/Water/TMDL/Integrated303dReports/Pages/Programs/WaterPrograms/TMDL/Maryland%20303%20dlist/index.aspx>

<sup>37</sup> MDE Chesapeake Bay TMDL, Developing the Bay TMDL: A Pollution Diet for the Chesapeake Watershed, <http://www.mde.md.us/programs/water/tmdl/chesapeakebaytmdl/pages/programs>, October 17, 2012

<sup>38</sup> Fiscal year 2016 Performance Discussion, Maryland Department of the Environment.

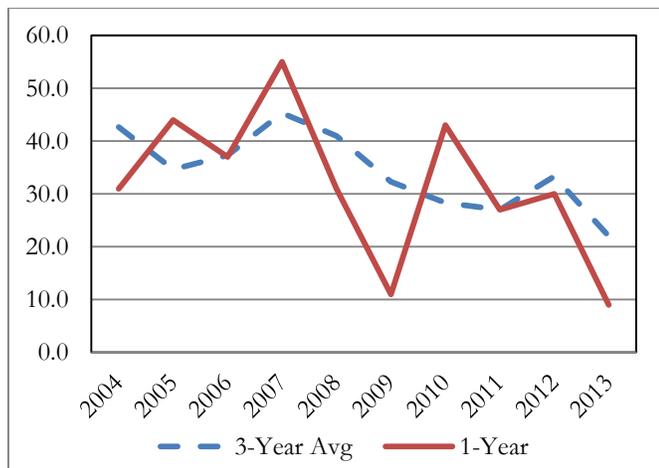
**Indicator 3.9: Three-year average of days the eight hour ozone standard was exceeded**

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 problem is 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 Maryland Department of the Environment reported that legal challenges to Federal rules concerning power plants have prevented the rules from being fully approved and implemented. Therefore, out-of-state pollution reductions have been somewhat delayed, which affects Maryland’s ability to meet the Federal ozone standard. Additionally, weather conditions, particularly prolonged periods of very hot weather, tend to generate high ozone levels.

The three year average of days the eight-hour ozone standard was exceeded declined significantly by 32% from 2009 to 2013. The annual number of days the eight-hour ozone standard was exceeded increased dramatically from 2009 to 2010, principally due to the record breaking hot summer Maryland experienced in 2010. Cooler weather trends have suppressed the annual experience since then, particularly during the summer of 2014. **Exhibit 3.4** displays the one-year and three-year trends through time.

*Exhibit 3.3 Days the 8 Hour Ozone Standard Was Exceeded*



**Indicator 3.12: Percent change from the 2008 base year (13.03 millions of MMBTU’s) in energy consumption by all State government facilities**

Maryland implemented the EmPower Maryland initiative in 2007 reduce stress on Maryland’s energy markets and improve the environment. Under EmPower Maryland, the goal is to reduce energy consumption by 15% by 2015. Among other objectives, Maryland is working toward reduction of energy usage across all State operations through use of the Statewide Energy Database (a utility management system), Energy Performance Contracts, an Electricity Purchasing strategy, and the Renewable Energy Initiative.

The Department of General Services (DGS) has been working with State agencies with the goal of substantially reducing Maryland's government energy consumption through energy efficiency projects. To date, the Board of Public Works has approved 34 Energy Performance Contract (EPCs) projects, 21 which have been completed. These projects are helping Maryland achieve contractually guaranteed energy and operational savings of approximately \$203.9 million to be realized throughout the life of the contracts (\$21 million annually). Other strategies implemented to reduce consumption include the use of Solar PV Panels on four DGS buildings and three other State agencies, and construction of two Leadership in Energy and Environmental Design (LEED) certified buildings, as well as designing and constructing eight new green State projects.

The baseline consumption by State government facilities in 2008 was 13.03 million MMBTU’s.<sup>39</sup> State government consumption stayed level in 2009 at 13.03 million MMBTU’s. Energy consumption declined each year from 2010 to 2013, but after reaching a 11% reduction in 2013 energy use grew by 4.1% in 2014 leading to a 7.44% reduction from the base year. DGS cites the significant increase in the days below freezing compared to a normal Maryland winter for the increase in energy consumption in 2014.

**Indicators 3.14 and 3.15: Percent of alternative fuel vehicles and hybrid-electric vehicles**

- Indicator 3.14: Newly purchased in the State vehicle fleet
- Indicator 3.15: Registered in Maryland

Use of alternative fueled and hybrid vehicles is a strategy to reduce consumption of petroleum, thereby reducing the negative impact on air quality. These alternative fuels tend to have lower greenhouse gas, particulate matter and

<sup>39</sup> MMBTU=one million British Thermal Units

volatile organic compounds emissions. From 2010 to 2014, the percent of newly purchased vehicles in the State fleet that are alternative fueled and hybrid grew from 26.85 to 65.7%. In Maryland as a whole, the annual change in the number of alternative fueled and hybrid vehicles registered in the State grew from -15% to 25%.

As of 2011 and 2012, prices for ethanol vehicles became equivalent to the prices for the same category of gasoline fueled vehicles, and ethanol vehicles became available in nearly every class of vehicle. These changes in prices and availability have influenced the purchasing and registering of alternative fueled vehicles.<sup>40</sup>

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<sup>40</sup> Fleet Administration Unit, Department of Budget and Management, February 2015.

## Performance Detail

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

Indicator	Agency/ Data Source	2011	2012	2013	2014	2015	4 Year Change	Specific Target
3.1. Chesapeake Bay Habitat Health Index- MD (CY 2009 - CY 2013)	UMCES EcoCheck	45%	40%	33%	42%	39%	-13.3%	N/A
3.2. Acres of submerged aquatic vegetation (CY 2009 - CY 2013)	DNR	47,286	40,192	34,424	24,512	28,905	-38.9%	114,000 acres of SAV
3.3. Dredge survey index of stock size - crabs (2010 - 2014)	DNR	67	52	79	32	32	-52.2%	N/A
3.4. Oyster biomass index (2010 - 2014)	DNR	0.9	0.9	1.6	1.6	2.1	133.3%	10
3.5. Estimated nitrogen load to the Chesapeake Bay from Maryland (in million lbs.) (2009 - 2013)	DNR	52.12	52.76	50.15	49.96	47.33	-9.2%	47.57 in 2015
3.6. Acres of cover crops planted (2010 - 2014)	MDA	206,810	381,257	402,000	413,826	415,550	100.9%	N/A
3.7. Waters impaired by nutrients per the Integrated Report of Surface Water Quality (2010 - 2014) – Reported biannually	MDE	62		21		14	-77.4%	N/A
3.8. Percent of Marylanders served by public water systems in significant compliance with all new and existing regulations (2010 - 2014)	MDE	80%	83%	92%	98%	96%	20.0%	At least 97%
3.9. 3 year average of days the 8 hour ozone standard was exceeded (CY 2009 - CY 2013)	MDE	32.3	28.3	27.0	33.3	22.0	-32.0%	N/A
3.10. Percent of oil-contaminated sites cleaned-up (2010 - 2014)	MDE	96%	96%	97%	97%	98%	1.9%	96%
3.11. Total acres preserved by all land preservation programs (2010 - 2014)	DNR	1,441,233	1,454,887	1,474,405	1,483,036	1,488,350	3.3%	N/A
3.12. Percent change from the base year (fiscal year 2008) in energy consumption by all State government facilities (owned and leased) (2010 -2014)	DGS	-3.61%	-6.68%	-8.67%	-11.05%	-7.44%	106.4%	15% reduction by 2015
3.13. Percent change in per capita electricity consumption compared to the 2007 baseline (12.32 megawatt hours) in megawatt hours (2009 - 2013)	MEA	-4.81%*	-2.92%*	-5.51%*	-9.43%*	-10.08%	109.7%	15% reduction by 2015

Indicator	Agency/ Data Source	2011	2012	2013	2014	2015	4 Year Change	Specific Target
<b>3.14.</b> Percent of newly purchased light duty vehicles in the State vehicle fleet that are hybrid or alternative fueled vehicles (2010 - 2014)	MEA DBM	26.8%	31.5%	71.0%	55.6%	65.7%	144.9%	N/A
<b>3.15.</b> Percent change from the prior year in number of alternative fuel vehicles and hybrid-electric vehicles registered in Maryland (2010 - 2014)	MEA	-15%	49%	53%	15%	25%	262.4%	N/A

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

## 4. HEALTH AND SAFETY NET

### Performance Overview

Performance Status	Number of Indicators	Percent
Favorable (Change >10%)	10	34.5%
Favorable (3% to 10%)	5	17.2%
Stable (-2% to 2%)	4	13.8%
Unfavorable (-3% to -10%)	4	13.8%
Unfavorable (< -10%)	6	20.7%
<b>Total</b>	<b>29</b>	<b>100%</b>

In the area of Health and Safety Net, over 65% of Maryland indicators either performed favorably or held stable between the 2011 and 2015 report years. The next section highlights and explains the factors behind significant performing trends, but particularly notable favorable trends were seen in the following areas:

- the number of children under 6 years of age with elevated blood lead levels fell 32.9%, from 533 to 371,
- the heart disease mortality rate declined from 193.9 to 171.9 per 100,000,
- the rate of new HIV diagnoses fell 23.8%,
- the rate of injury-related deaths due to accidents to children and youth between 0 and 19 years of age shrunk 21.6%,
- the rate of homicide deaths of children and youth ages 0 to 19 dropped from 4.5 to 3.5 per 100,000,
- the adolescent birth rate fell by 38.1%, and
- the percent increase in employment of adults at completion of a substance abuse treatment program funded by the Behavioral Health Administration grew from 32% to 41%.

However, several indicators experienced more negative performance. The syphilis rate grew from 5.8 to 7 per 100,000. The number of pertussis cases grew from 135 to 162. Mumps cases grew from 8 in 2009 to 87 in 2013. The percent of children under 18 whose families live in poverty grew from 11.3% to 13.3%. Finally, the prevalence of household-level very low food security grew from 4.3% to 4.9%.

Note that four of the Safety Net metrics have changed since last year's report. First, the percentage of uninsured Marylanders was previously reported as a two-year average. However, the Census Bureau has begun to report this data on an annual basis so this year's report and the Department of Health and Mental Hygiene's Managing for Results metric have both changed to the new annual measure. As of last year's report, the two-year metric had grown from 12.1% uninsured in 2001-

2002 to 15.4% uninsured in 2006-2007 then declined to 14.5% in 2008-2009.

Also, three of the metrics pertain to the measurement of consumer satisfaction with services provided by Developmental Disabilities Administration (DDA) community service agencies. Last year, DDA changed from their Ask ME Survey to the National Core Indicators (NCI) Survey. NCI interviews are based on a random sampling and are conducted by consumers, thus increasing the validity of the data.<sup>41</sup> Since 2014 was the first year of NCI surveys, there are no related performance trends to analyze at this time.

### Significant Performance Trends

#### Indicator 4.2: Percent of babies born at low birth weight (less than 2,500 grams – about 5.5 pounds), and very low birth weight (less than 1,500 grams – about 3.3 pounds)

Infant birth weight is associated with infant survival, health, and overall development. Infants weighing less than 2,500 grams are more likely to have physical and developmental problems including learning difficulties, intellectual disability, visual and hearing deficits, and chronic respiratory problems. Lack of prenatal care or late prenatal care is related to low birth weight.<sup>42</sup> Low and very low birth weight is a significant factor driving infant mortality rates. Between 2009 and 2013, the rate of low and very low birth weight fell from 9.2% to 8.5%

Reducing the percent of babies born at low and very low birth weight is an objective included in the State Health Improvement Process (SHIP). Maryland's SHIP provides a framework for continual progress toward a healthier Maryland, and includes 39 measures in six focus areas that represent what it means for Maryland to be healthy.<sup>43</sup>

#### Indicator 4.3: Infant mortality rate for all races (per 1,000 live births)

Factors contributing to Maryland's infant mortality rate include family history, personal health history, diet, environment, lifestyle, and limited access to quality health and social services.<sup>44</sup> The three leading causes in Maryland

<sup>41</sup> Maryland Developmental Disabilities Administration, MFR Definitions and Controls, fiscal year 2015

<sup>42</sup> Maryland's Results for Child Well Being 2009

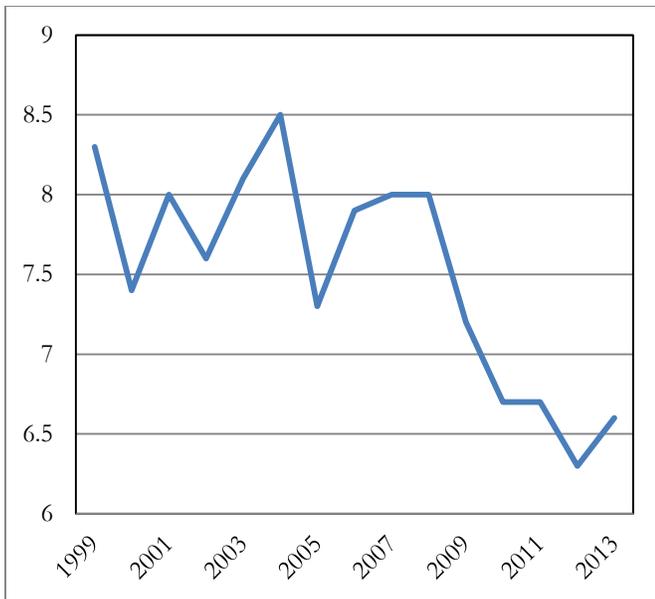
<sup>43</sup> Department of Health and Mental Hygiene – <http://dhmh.maryland.gov/ship/execsummary.html>

<sup>44</sup> Department of Health and Mental Hygiene, Babies Born Healthy, October 2011:

<http://dhmh.maryland.gov/babiesbornhealthy/>

in 2010 through 2013 were disorders relating to short gestation and unspecified low birth weight (the number one cause), followed by congenital abnormalities, and sudden infant death syndrome (SIDS).<sup>45</sup> Maryland's infant mortality rate declined 8.3% from 2009 through 2013. Maryland's 2012 infant mortality rate of 6.3 per 1,000 live births was the lowest rate ever recorded in the State. The decline in the mortality rate was spurred by a 29.5% decrease in the African American infant mortality rate since 2004. **Exhibit 4.1** shows trends in infant mortality through time.

*Exhibit 4.1 Maryland Infant Mortality Rate*



Maryland continues to address infant mortality through a number of strategies including the Babies Born Healthy Initiative, the Improved Pregnancy Outcome Program, and promoting safe sleep practices.

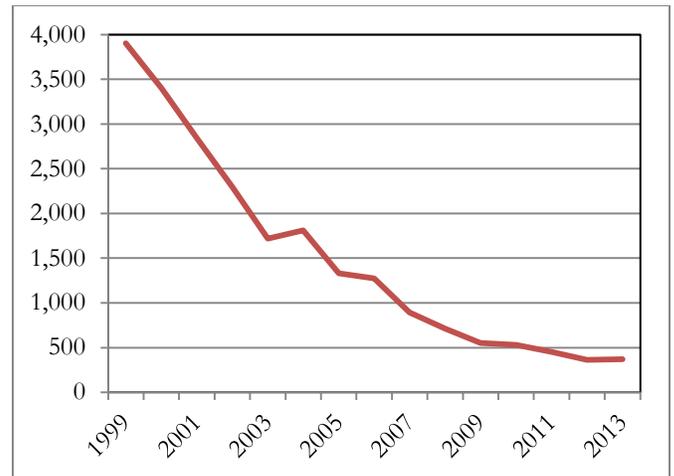
**Indicator 4.6: Number of children under 6 years of age with elevated blood lead levels (>10ug/dl)**

Lead is one of the most significant and widespread environmental hazards for children in Maryland. The major source of exposure is lead paint dust from deteriorated lead paint or from home renovation. Elevated blood lead levels are associated with a number of detrimental effects including behavioral and neuro-developmental effects in childhood such as learning and behavioral problems and lowered intelligence, and seizures and death depending on the levels of blood lead. The number of children with elevated blood lead levels (above 10 ug/dl) declined sharply from 2009 to 2013,

<sup>45</sup>Maryland Vital Statistics, Infant Mortality in Maryland, 2010, 2011, 2012, 2013

dropping by 32.9%. **Exhibit 4.2** shows trends in this metric over the past fifteen years.

*Exhibit 4.2 Number of Children Under Age 6 With Elevated Blood Levels*



The decline in blood lead levels is expected to continue due to the multiplicity of intervention strategies as well as the gradual reduction in the number of residences with lead paint hazards. A primary prevention strategy that is responsible for much of the past decline in blood lead levels is the implementation and enforcement of Maryland's "Reduction of Lead Risk in Housing" law.<sup>46</sup> However, the law only extended to rental properties built before 1950. The 2012 legislature enacted legislation giving the State greater oversight of renovation and repair of homes constructed before 1978 when lead paint was outlawed in the U.S.

**Indicator 4.7: Cumulative percent change from the calendar year 2000 baseline for underage high school students who ever smoked a whole cigarette**

This measure is an estimate of the proportion of underage high school students who have ever smoked a whole cigarette. Data for this measure is collected through a biennial survey.<sup>47</sup> The 2004 survey was not funded, and the 2012 survey was deferred until 2013. The percent change from the calendar year 2000 baseline for underage high school students who ever smoked a whole

<sup>46</sup> Maryland Department of the Environment, Lead Poisoning Prevention Program Childhood Blood Lead Surveillance in Maryland, Annual Report 2010, August 2011

<sup>47</sup> The Maryland Youth Tobacco Survey is a random, two-stage cluster survey of tobacco use behaviors, knowledge, and attitudes that uses Centers for Disease Control and Prevention (CDC) protocols and data analysis, Data Definition and Control Procedures, fiscal year 2012 and fiscal year 2013 MFR submission, Cigarette Restitution Fund – Tobacco Use Prevention and Cessation Program - Family Health Administration

cigarette has been on a steady downward trend, with a decline of 64.9 percentage points from 2002 to 2012.

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.”<sup>48</sup> 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.<sup>49</sup>

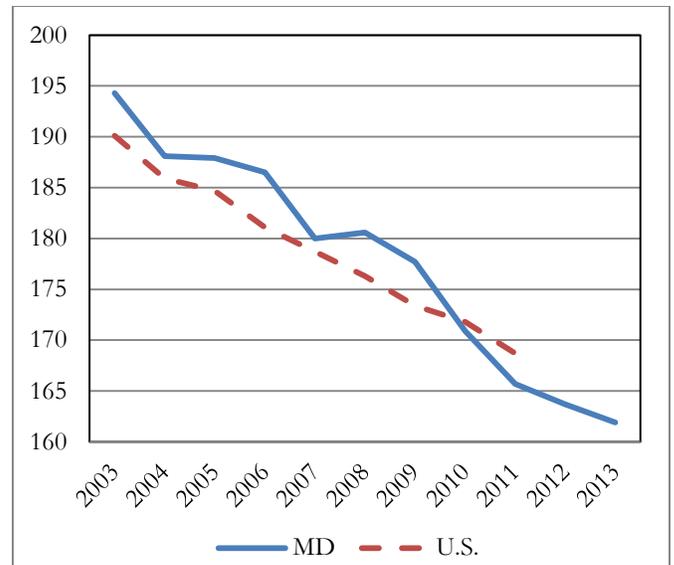
**Indicator 4.8: Overall cancer mortality rate per 100,000 persons (age adjusted to 2000 U.S. Standard Population)**

Cancer is the second leading cause of death in Maryland and the nation, and accounted for 23% of all deaths in Maryland in 2013.<sup>50</sup> The overall cancer mortality rate in Maryland steadily declined by an overall 8.9% from 2009 to 2013, a reduction of 15.8 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 2011 it was 3 deaths per 100,000 persons below the national rate. **Exhibit 4.3** shows trends through time for both Maryland and the nation as a whole.

“Improvements in the prevention, early detection, and treatment of many types of cancer have led to a decline in cancer incidence and death rates in Maryland and the nation. Despite these declines, the cancer burden in Maryland remains large when measured by human suffering, loss of life, loss of quality of life, and expenditure for medical care.”<sup>51</sup> The Maryland Comprehensive Cancer Control Plan published in 2011 by the Department of Health and Mental Hygiene presents a multitude of strategies to reduce cancer incidence and death. Primary

strategies to address cancer mortality include continuing strong public health surveillance, education, prevention, screening, diagnosis and treatment efforts, and strong cancer research.<sup>52</sup>

*Exhibit 4.3 Maryland and U.S. Cancer Mortality Rate (per 100,000 Persons)*



**Indicator 4.9: 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.<sup>53</sup> Heart disease continued to be the leading cause of death in Maryland in 2012, accounting for 25% of all deaths. The age adjusted heart disease mortality rate was 171.7 per 100,000 population in 2013, 26.6% below the rate a decade ago. From 2009 through 2013, the heart disease mortality rate declined by 11.4%, with most of the decline occurring from 2009 through 2011. **Exhibit 4.4** (next page) shows trends through time for heart disease mortality in Maryland.

<sup>48</sup> Strategies and Discussion of Program Performance, fiscal year 2015 MFR submission, Cigarette Restitution Fund – Tobacco Use Prevention and Cessation Program - Family Health Administration;

<sup>49</sup> Strategies and Discussion of Program Performance, fiscal year 2015 MFR submission, Cigarette Restitution Fund – Tobacco Use Prevention and Cessation Program – Prevention and Health Promotion Administration, Department of Health and Mental Hygiene

<sup>50</sup> Maryland Vital Statistics Annual Report 2013, Vital Statistics Administration, Department of Health and Mental Hygiene.

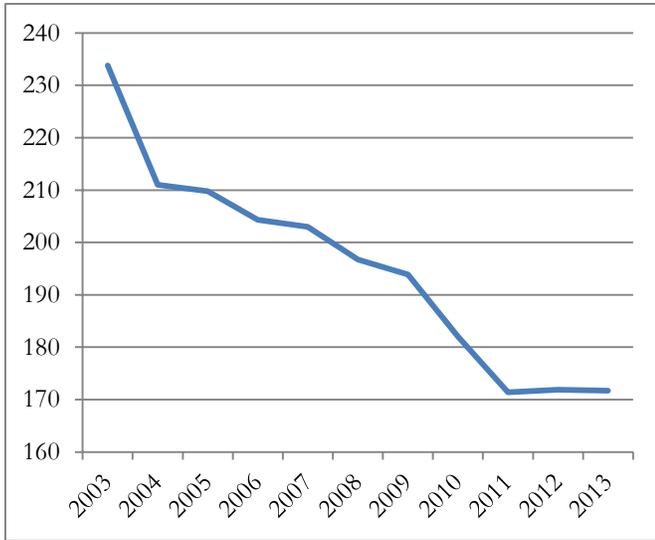
<sup>51</sup> The Maryland Comprehensive Cancer Control Plan, Executive Summary, 2011:

<http://fha.maryland.gov/cancer/cancerplan/publications.cfm>

<sup>52</sup> Fiscal Year 2013 MFR Strategies, and fiscal year 2014 and 2015 MFR Performance Discussion, Cigarette Restitution Fund-Cancer Prevention, Education, Screening and Treatment Program-Prevention and Health Promotion Administration, Department of Health and Mental Hygiene

<sup>53</sup> Fiscal year 2012 MFR Data Definition and Control Procedures, Family Health Administration, Department of Health and Mental Hygiene

*Exhibit 4.4 Heart Disease Mortality Chart (per 100,000 population)*



Public health efforts contribute to Maryland's comprehensive approach in addressing heart disease mortality including surveillance, screening, diagnosis, and treatment efforts.<sup>54</sup>

**Indicator 4.10: 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 23.8% from 2009 through 2013. 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.<sup>55</sup>

<sup>54</sup> Fiscal year 2014 and 2015 MFR Strategies and Discussion of Program Performance, Family Health and Chronic Disease Services, Prevention and Health Promotion Administration, Department of Health and Mental Hygiene

<sup>55</sup> 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

**Indicator 4.11: 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.<sup>56</sup> Maryland's rate of primary/secondary syphilis cases per 100,000 population exceeded the national rate from 2008 through 2011. National data is not yet available for 2012. After the rate of syphilis incidence in Maryland dropped by 17.9% in 2009, it rebounded in 2011, increasing by 2 cases per 100,000 population (34.5%) over 2010. It then dropped by 6.4% in 2012 and rebounded to almost the same level in 2013. Maryland has focused on collaborative public health efforts to reduce the communicable diseases.

**Indicators 4.12, 4.13, 4.14, & 4.15: Number of reported cases of vaccine preventable communicable diseases**

- Indicator 4.12: Hepatitis A
- Indicator 4.13: Pertussis
- Indicator 4.14: Measles
- Indicator 4.15: Mumps

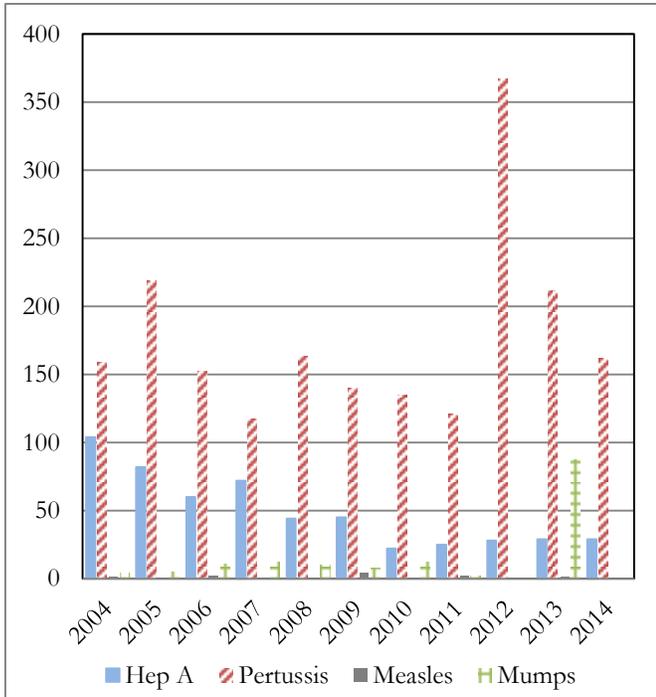
Reported cases of hepatitis A declined by 51% from calendar year 2009 to 2010, increased by three cases (13.7%) in 2011, increased by one case in 2012 (4%), and remained at the 2012 level in 2013. Reported cases of pertussis declined by 14.3% from calendar year 2009 to 2010, followed by a significant increase of 160.8% in 2011. Pertussis cases declined by 42% in 2012 then declined again by 24% in 2013.

The number of reported cases of measles in Maryland has remained low – between zero and four during the period of 2009 through 2013, with no cases during 2008, 2010, and 2012. The number of reported cases of mumps has also varied largely through time, but increased sharply (987.5%) from 2009 to 2013 with 87 reported cases in 2013.

**Exhibit 4.5** (next page) shows trends in all four diseases through time. Maryland has focused on collaborative public health efforts to reduce communicable diseases.

<sup>56</sup> 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

*Exhibit 4.5 Reported Cases of Vaccine Preventable Communicable Diseases*



**Indicator 4.16: Rate of injury-related deaths due to accidents to children and youth between 0 and 19 years of age (per 100,000 children)**

Injury-related deaths due to accidents is associated with social, economic, and environmental threats to a child’s life, including risk and exposure to violence, lack of access to medical resources, and mental health risks. Injury-related deaths due to accidents include unintentional injury, and exclude assault (homicide) and intentional self-harm (suicide).<sup>57</sup> Accidents include motor vehicle and other types. Adolescents between the ages of 15 and 17 years have the highest rates of injury deaths for nearly all types of injuries.<sup>58</sup>

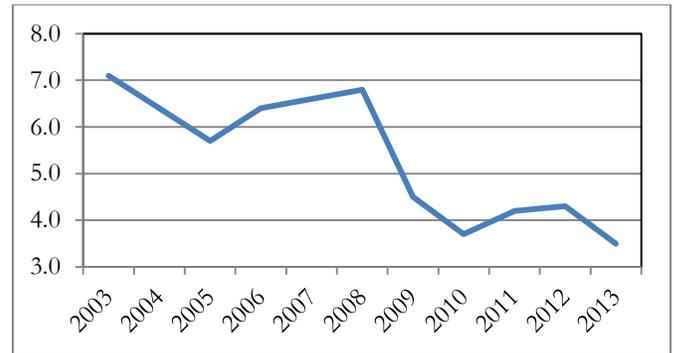
The child rate of injury related deaths due to accidents declined by 21.6% (1.6 fewer deaths per 100,000 children) from 2009 to 2013. The Maryland State Child Fatality Review (CFR) Team works to prevent child deaths by reviewing the causes and incidence of child deaths, developing plans for and implementing changes within the agencies represented on the State CFR team to prevent child deaths, and advising the Governor, General

Assembly, and the public on changes to law, policy, and practice to prevent child death.<sup>59</sup>

**Indicator 4.17: Rate of homicide deaths (assaults) of children and youth ages 0 to 19 (per 100,000 population)**

This measure is associated with risk and exposure to violence. The rate of homicide deaths of children and youth ages 0 to 19 declined by 22.2% between 2009 and 2013, an extension of a declining trend over the past decade shown in **Exhibit 4.6**.

*Exhibit 4.6 Children and Youth Homicide Death Rate (per 100,000 population)*



**Indicator 4.20: Percent of related children and youth under age 18 whose families have incomes below the poverty level (estimated)**

The percent of children in poverty is perhaps the most global and widely used indicator of child well-being.<sup>60</sup> Growing up in poverty is one of the greatest threats to healthy child development.<sup>61</sup> Children who grow up in poverty are more likely to have unmet nutritional needs, live in substandard housing, experience crime and violence, lack basic health care, and have unequal access to educational opportunities.<sup>62</sup> They are also more likely to become teen parents and earn less or be unemployed as adults. Such factors are barriers to future economic success and stability.<sup>63</sup>

As shown in **Exhibit 4.7**, (next page) the percent of related children and youth under age 18 whose families have incomes below the poverty level in Maryland has been significantly lower than the U.S. level for each year

<sup>57</sup> Maryland’s Results for Child Well Being 2009

<sup>58</sup> Child Death Report, 2008 and Child Death Report 2011, Department of Health and Mental Hygiene, Center for Maternal and Child Health, Family Health Administration

<sup>59</sup> Department of Health and Mental Hygiene, Family Health Administration

<sup>60</sup> 2011 State Profiles of Child Well-being, Kids Count Data Book, The Annie E. Casey Foundation

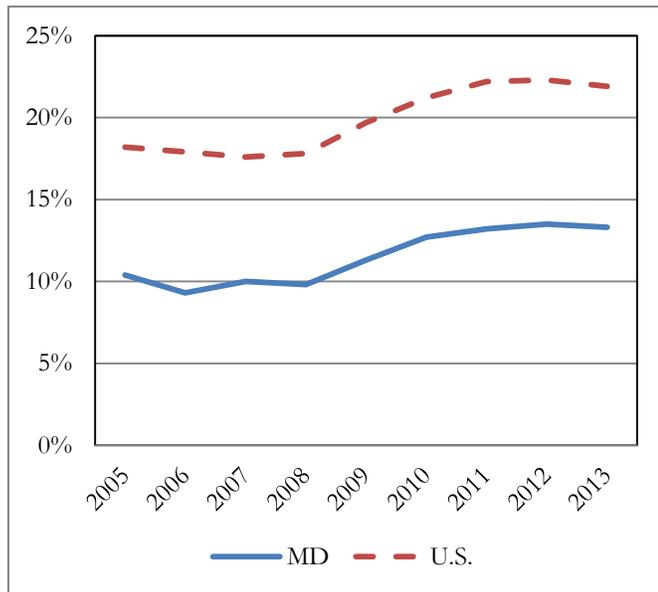
<sup>61</sup> 2012 Kids Count Data Book, The Annie E. Casey Foundation

<sup>62</sup> Maryland’s Results for Child Well Being 2010

<sup>63</sup> 2011 State Profiles of Child Well-being, Kids Count Data Book, The Annie E. Casey Foundation

2005 through 2013.<sup>64</sup> Rates of child poverty grew steadily in both Maryland and the nation from 2009 through 2013, then dipped slightly in 2013. The recession has been a significant factor contributing to child poverty. Maryland's rate of unemployment also has been a major contributor.<sup>65</sup>

*Exhibit 4.7 Percent of Maryland and U.S. Children Whose Family Live in Poverty*



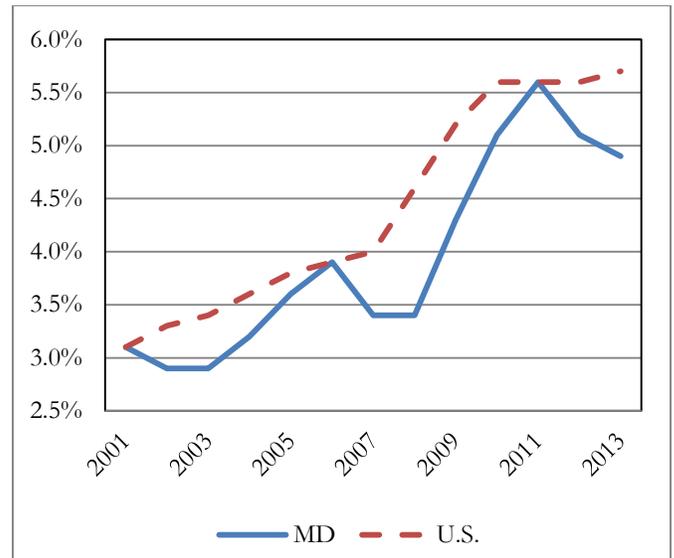
**Indicator 4.21: Maryland prevalence of household-level very low food security (3 year average)**

Very low food security is defined as households in which food intake of one member or more was reduced, and eating patterns were disrupted because of insufficient money and other resources for food. Data for this indicator are derived from responses to a survey conducted by the U.S. Census Bureau.<sup>66</sup> In most households with very low food security, the survey respondent reported that he/she was hungry at some time during the previous twelve months but did not eat because there was not enough money for food. Prevalence rates of food insecurity vary widely state to state. Therefore, a 3-year average is used to provide more reliable statistics at the state level.

**Exhibit 4.8** 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 has been a

significant factor contributing to house-hold level food insecurity.

*Exhibit 4.8 Maryland and U.S. Prevalence of Household-Level Very Low Food Security*



**Indicator 4.22: 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.<sup>67</sup> Maryland's rate of live births to adolescents between 15 and 19 years of age has compared favorably to the U.S. rate for each year in the last decade. In the last five years, the Maryland rate has declined by 38.1%.

Maryland has used a multifaceted approach to prevent teen pregnancy including health education and counseling, access to health care, outreach, and public awareness. Public health, reproductive health, and family planning services are contributing to a downward trend in teen birth rates in Maryland.<sup>68</sup>

<sup>64</sup> Data is from the U.S. Census Bureau's American Community Survey  
<sup>65</sup> Maryland's Results for Child Well Being 2010  
<sup>66</sup> 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).

<sup>67</sup> Maryland's Results for Child Well Being 2009; State Profiles of Child Well-being, 2011 Kids Count Data Book, The Annie E. Casey Foundation  
<sup>68</sup> Fiscal year 2013 MFR Strategies and Discussion of Program Performance, Family Health Administration, Department of Health and Mental Hygiene

**Indicators 4.25 & 4.26: Percent decrease in substance abuse during treatment**

- Indicator 4.25: Adults
- Indicator 4.26: Adolescents

This measure addresses the success of non-detox treatment programs funded by the Behavioral Health Administration of the Department of Health and Mental Hygiene. The percent decrease in the number of adults using substances during treatment declined by 9.6%. The decline in adolescent use was 6.2% between 2010 and 2014. The targets for adults and adolescents were met in 2011 but have not been met since then.

The Behavioral Health Administration has been utilizing regional interdisciplinary technical assistance teams to help decision makers and providers in funded programs improve treatment outcomes through planning and implementation of services.<sup>69</sup>

**Indicator 4.27: Percent increase in employment of adults at completion of substance abuse treatment**

The percent increase in employment of adults at completion of treatment improved by 28.1% from 2010 to 2014, with the greatest year to year improvement (40.6%) occurring between 2010 and 2011.

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<sup>69</sup> Behavioral Health Administration, Department of Health and Mental Hygiene fiscal year 2014 and 2015 MFR Performance Discussions

## Performance Detail

### Key Performance Area 4 – Data by Report Year

Indicator	Agency/ Data Source	2011	2012	2013	2014	2015	4 Year Change	Specific Target
4.1. Percent of live births for which prenatal care was initiated during the first trimester (CY 2010 - CY 2013 - prior year data not comparable)	DHMH		69.0%	67.7%	67.9%	67.0%	-2.9%	By CY 2015, at least 80%
4.2. Percent of babies born at low birth weight and very low birth weight (CY 2009 - CY 2013)	DHMH	9.2%	8.8%	8.9%	8.8%	8.5%	-7.6%	No more than 10.1% by 2014
4.3. Infant mortality rate for all races (per 1,000 live births) (CY 2009 - CY 2013)	DHMH	7.2	6.7	6.7	6.3	6.6	-8.3%	Reduce to 6.1 by 2015
4.4. Maryland's average annual uninsured rate over a 2 year period among the nonelderly (under age 65; estimated) (CY 2012 - CY 2013) – Note that census measurement has changed and prior year data is not comparable.					10.3%	10.2%	-1.0%	N/A
4.5. Percent of Maryland children fully immunized (by 24 months) (CY 2009 - CY 2013)	CDC	79.9%	73.3%	76.9%	73.0%	81.9%	2.5%	At least 81
4.6. Number of children under 6 years of age with elevated blood lead levels (>10ug/dl) (CY 2009 - CY 2013)	DHMH	553	531	452	364	371	-2.9%	No more than 250 by 2015
4.7. Cumulative percent change from the calendar year 2000 baseline for underage high school students smoking cigarettes (no survey in 2004) (CY 2002, 2006, 2008, 2010, 2012)	DHMH	-21.3%	-39.0%	-41.7%	-49.9%	-53.7%	151.9%	63.7% by CY 2016
4.8. Overall cancer mortality rate per 100,000 persons (age adjusted to 2000 U.S. Standard Population) (CY 2009 - CY 2013)	DHMH	177.7	170.9	165.7	163.7	161.9	-8.9%	No more than 156.1 by 2015
4.9. Heart disease mortality rate for all races per 100,000 population (age adjusted) (CY 2009 - CY 2013)	DHMH	193.9	182.0	171.4	171.9	171.7	-11.4%	No more than 163.3 by 2015

Indicator	Agency/ Data Source	2011	2012	2013	2014	2015	4 Year Change	Specific Target
4.10. Rate of age adjusted new HIV diagnoses (per 100,000 population) (CY 2009 - CY 2013 estimated)	DHMH	38.3	32.2	28.3	30.0	29.2	-23.8%	Less than 30 by 2015
4.11. Rate of primary/secondary syphilis incidence (cases per 100,000 population) (CY 2009 - CY 2013)	DHMH	5.5	5.8	7.8	7.3	7.7	40.0%	N/A
4.12. Number of reported cases of vaccine preventable communicable diseases - hepatitis A (CY 2010 - CY 2014)	CDC	22	25	28	29	29	31.8%	N/A
4.13. Number of reported cases of vaccine preventable communicable diseases - pertussis (CY 2010 - CY 2014)	CDC	135	121	367	212	162	20.0%	N/A
4.14. Number of reported cases of vaccine preventable communicable diseases - measles (difference rather than percent change) (CY 2009 - CY 2013)	DHMH	4	0	2	0	1	-75.0%	N/A
4.15. Number of reported cases of vaccine preventable communicable diseases - mumps (CY 2009 - CY 2013)	DHMH	8	12	2	0	87	987.5%	N/A
4.16. Rate of injury-related deaths due to accidents to children and youth between 0 and 19 years of age (per 100,000 children) (2009 - 2013)	Children's Cab. Inter-agency Fund	7.4	7.1	7.1	6.9	5.8	-21.6%	N/A
4.17. Rate of homicide deaths of children and youth ages 0 to 19 (per 100,000 population) (2009 - 2013)	GOC	4.5	3.7	4.2	4.3	3.5	-22.2%	N/A
4.18. Number of DJS youth who are the victims of a homicide (CY 2010 - CY 2014)	DJS		10	5	2	6	-40.0%	0
4.19. Percent of children with no recurrence of maltreatment within 6 months of first occurrence (2011 - 2014)	DHR	96.8%	92.7%	92.4%	93.2%	93.7%	-3.2%	94.6% by FY 2015

Indicator	Agency/ Data Source	2011	2012	2013	2014	2015	4 Year Change	Specific Target
4.20. Percent of related children and youth under age 18 whose families have incomes below the poverty level (estimated) (CY 2009 - CY 2013)	Children's Cab. Inter-agency Fund	11.3%	12.7%	13.2%	13.5%	13.3%	17.7%	N/A
4.21. Maryland prevalence of household-level very low food security (3 year average) (2006-2008 to 2010-2012)	USDA	4.3%	5.1%	5.6%	5.1%	4.9%	14.0%	End by 2015
4.22. Rate of live births to adolescents between 15 and 19 years of age (per 1,000 women) (2009 - 2013)	Children's Cab. Inter-agency Fund	31.2	27.2	24.7	22.1	19.3	-38.1%	No more than 23.7 by 2014
4.23. Statewide percent of current child support paid (FFY 2010 - FFY 2014)	DHR	64.5%	64.7%	65.7%	66.8%	67.8%	5.1%	1% increase each year until reach 80%
4.24. Rate of children placed in out-of-home care (per 100,000 children) (2009 - 2013)	Children's Cab. Inter-agency Fund	11.4	11.6	11.2	12.3	11.2	-1.8%	N/A
4.25. Percent decrease in substance abuse by adults during treatment (2010 - 2014)	DHMH	73%	76%	73%	67%	66%	-9.6%	74% by 2015
4.26. Percent decrease in substance abuse by adolescents during treatment (2010 - 2014)	DHMH	69%	73%	70%	62%	65%	-6.2%	72% by 2015
4.27. Percent increase in employment of adults at completion of substance abuse treatment (2010-2014)	DHMH	32%	45%	45%	43%	41%	28.1%	47% by 2014
4.28. Percent of adults receiving public mental health treatment who report being satisfied with their recovery (2012-2014)	DHMH			55.6%	55.4%	54.9%	-1.3%	56% by 2015
4.29. One-year retention of employment by people with disabilities who were assisted by the Department of Education's Division of Rehabilitation Services (2010-2014)	MSDE	85.2%	85.6%	87.8%	82.4%	85.8%	0.7%	N/A

Indicator	Agency/ Data Source	2011	2012	2013	2014	2015	4 Year Change	Specific Target
4.30. Percent of Developmental Disabilities Administration Community Service respondents of the “National Core Indicators” Survey who expressed satisfaction with Individual Outcomes (FY 2014 – first survey year)	DHMH					65.3%	N/A	N/A
4.31. Percent of Developmental Disabilities Administration Community Service respondents of the “National Core Indicators” Survey who expressed satisfaction with Family Indicators (FY 2014 – first survey year)	DHMH					76.0%	N/A	N/A
4.32. Percent of Developmental Disabilities Administration Community Service respondents of the “National Core Indicators” Survey who expressed satisfaction with Health (FY 2014 – first survey year)	DHMH					85.4%	N/A	N/A

\*Numbers have been updated since last year’s report.

## 5. PUBLIC SAFETY

### Performance Overview

Performance Status	Number of Indicators	Percent
Favorable (Change >10%)	7	53.8%
Favorable (3% to 10%)	2	15.4%
Stable (-2% to 2%)	1	7.7%
Unfavorable (-3% to -10%)	0	0.0%
Unfavorable (< -10%)	3	23.1%
<b>Total</b>	<b>13</b>	<b>100%</b>

In the area of Public Safety, over 75% of Maryland indicators either performed favorably or held stable in between the 2011 and 2015 report years. The next section highlights and explains the factors behind significant performing trends, but particularly notable favorable trends were seen in the following areas:

- the firearm homicide rate fell 15% in the last five years,
- the traffic fatality rate dropped from 0.99 to 0.83 per 100 million miles traveled,
- the crime rate fell 17.4% between 2009 and 2013,
- the number of inmates who walked off from correctional facilities, detention facilities, alternative confinement settings, and home detention plummeted 75.6%, and
- the rate of arrests for youth ages 15 to 17 for violent crime fell 21.1% over five years.

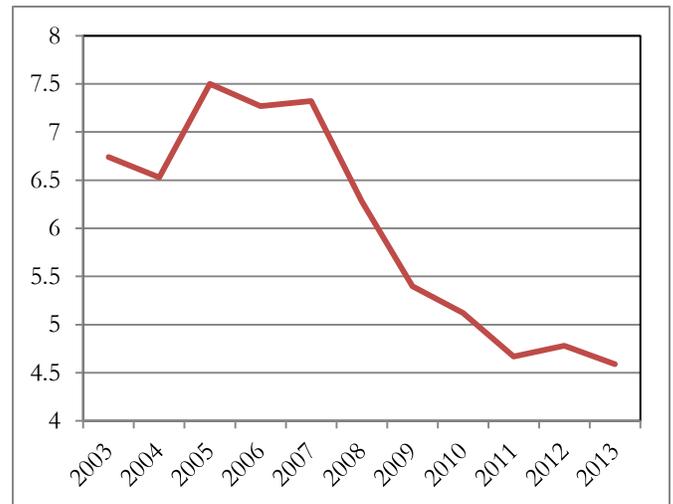
However, three indicators did experience more negative performance. Youth recidivism grew 22.4%, from 19.2% to 23.5% between 2009 and 2013. In addition, self-reported use of heroin by public school students grew from 4.1% to 4.9%. Finally, the number of matches of DNA taken during criminal investigations with DNA included in the Combined DNA Index System (CODIS) database fell 15.1% between 2010 and 2014.

### Significant Performance Trends

#### Indicator 5.1: Firearm homicide rate per 100,000 population

The rate of firearm homicides declined significantly from 2009 through 2013, with an overall drop of 15%. Key Maryland strategies driving this drop include (1) enhanced efforts, including legislation, to reduce illegal gun use and possession and (2) working with regional and local partners and creating cross-border law enforcement partnerships to crack down on gun violence and gang activity. **Exhibit 5.1** shows trends in this measure through time.

*Exhibit 5.1 Firearm Homicide Rate per 100,000 Population, 2003-13*

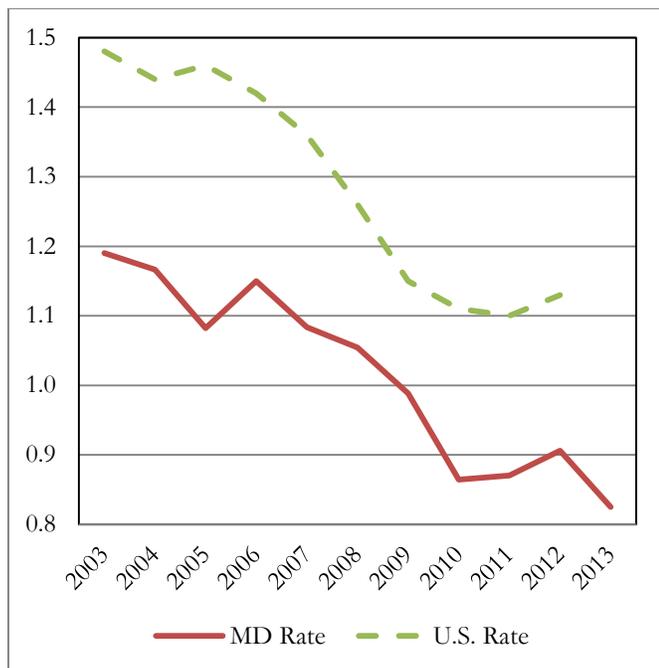


#### Indicator 5.2: Traffic fatality rate per 100 million miles traveled

Over the past five years, Maryland's traffic fatality rate has declined and remained an average of 19% below the national rate. To address traffic safety challenges, the Maryland Department of Transportation has worked with multiple agencies and jurisdictions to develop a five-year, statewide coordinated safety plan known as the Maryland Strategic Highway Safety Plan (SHSP), which provides a framework for reducing transportation fatalities and serious injuries on all public roads. Recently enacted legislation has also enhanced traffic safety, including 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, strengthening the graduated licensing process, and combating driving under the influence of

alcohol and drugs.<sup>70</sup> **Exhibit 5.2** shows Maryland and national trends in this measure through time.

*Exhibit 5.2 Traffic Fatality Rate per 100 Million Miles Traveled, 2003-13*



**Indicator 5.3: 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.<sup>71</sup> Overall, the Part I crime rate declined by 17.4% from 2009 to 2013.

Maryland is fighting and solving crime through a variety of strategies including increasing inter-agency cooperation, aligning State resources with the priorities of local governments at increased levels, enhancing warrant service to swiftly remove offenders from the streets, expanding efforts to reduce illegal gun possession and use, and improving use of technology such as DNA Fingerprinting, License Plate Recognition, Crime Mapping, Crime Analysis, and the Public Safety Dashboard.<sup>72</sup> The Violence Prevention Initiative (VPI) continues to be a primary strategy to track and supervise the State's most violent offenders in a community

<sup>70</sup> Maryland Department of Transportation, 2010 and 2011 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

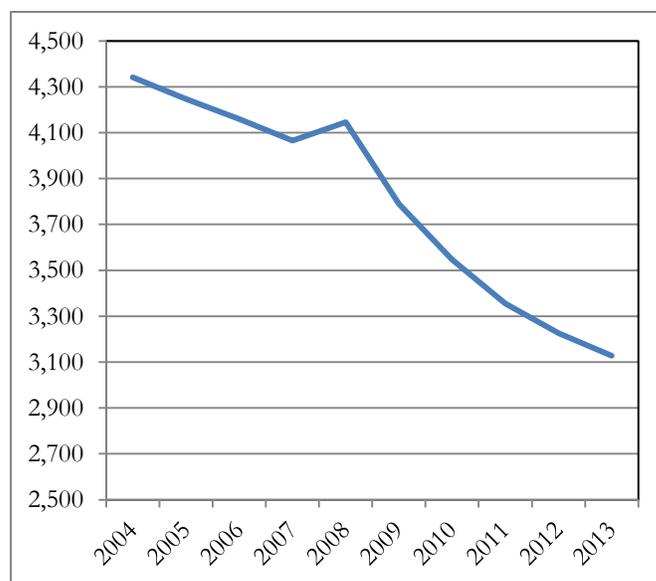
<sup>71</sup> Department of State Police, fiscal year 2012 MFR Data Definition and Control Procedures

<sup>72</sup> "State Employees Keeping Marylanders Safe," A Message from the Governor, October 8, 2010

setting.<sup>73</sup> The Initiative has been enhanced to include drug treatment, mental health counseling, family counseling, and job readiness training. Following the tragedy on September 11th 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.<sup>74</sup>

**Exhibit 5.3** shows trends in this measure through time.

*Exhibit 5.3 Maryland Part 1 Crime Rate, 2004-13*



**Indicator 5.4: Recidivism - Percent of sentenced offenders returned to DPSCS correctional or community supervision for a new offense within one year of release**

The percent of sentenced offenders returned to DPSCS correctional or community supervision for a new offense declined significantly each year from 2008 through 2011, and during the period of 2009 to 2014 recidivism declined 17.2%. Although the percent of offenders returned to DPSCS supervision increased slightly in 2012 and 2013, performance remained below the target.

<sup>73</sup> Fiscal year 2015 MFR Performance Discussion, Department of Public Safety and Correctional Services

<sup>74</sup> Fiscal year 2014 and 2015 MFR Performance Discussion, Department of Public Safety and Correctional Services

A primary strategy of the Department of Public Safety and Correctional Services is to “develop a re-entry preparation system assessing the risks and needs of offenders in an integrated manner, delivering the appropriate programming utilizing evidence-based practices through pre-trial detention, incarceration and post-incarceration monitoring.”<sup>75</sup>

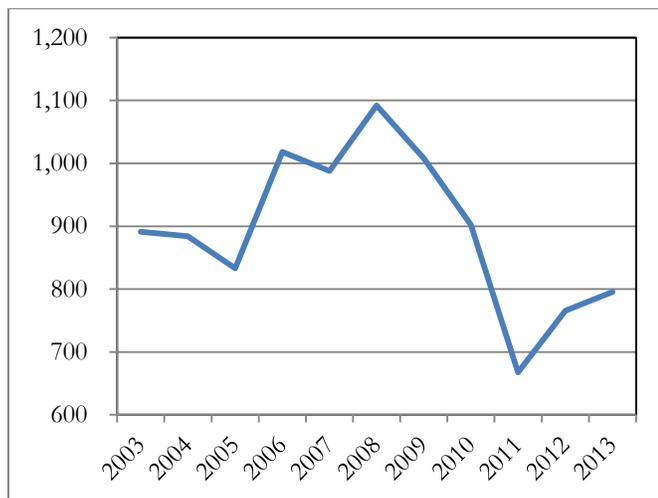
**Indicator 5.6: Total number of inmates who walk off from correctional facilities, detention facilities, alternative confinement settings, and home detention - aggregate**

Overall, the number of walk-offs has declined by 75.6% from 2010 to 2014. The Department of Public Safety and Correctional Services is focusing efforts on the facilities with the highest incidence of walk-offs, as well as identifying and implementing other strategies to reduce walk offs. Eligibility criteria for placements on outside detail or work release have been modified to further decrease walk-offs. The Department continues to develop post-incident information gathering to produce analytical reports that are used to develop strategies to minimize future walk-offs.

**Indicator 5.8: Rate per 100,000 of arrests of youth ages 15 to 17 for violent criminal offenses**

Involvement in violent offenses increases the risk of injury or death, and continued criminal activity into adulthood. Despite an uptick in 2012 and 2013, the violent offense arrest rate for youth has still declined by 21% since 2009. **Exhibit 5.4** shows trends in this measure through time.

*Exhibit 5.4 Youth Age 15 to 17 Arrest Rate (per 100,000), 2003-13*



<sup>75</sup> Strategies fiscal year 2013 MFR Submission, Department of Public Safety and Correctional Services

Success in assessing the needs of juveniles (physical and mental health services, drug abuse services, improved education, or social services), and treating troubled juveniles for their needs are important factors in preventing juvenile crime. DJS is collaborating with other child serving local and State agencies to improve outcomes for youth, including implementation of initiatives such as Operation Safe Kids which provides community-based case management for at-risk youth, and the Under 13 Initiative which provides wraparound services to pre-teens who have had contact with DJS.

**Indicator 5.9: Youth Recidivism: Percent of youth re-adjudicated within one year after release from all residential placements**

The percent of youth re-adjudicated/convicted within one year of release was relatively stable from 2009 to 2013, with a slight increase in 2013 compared to previous trends. “To help reduce the number of juvenile offenders who are involved in violent crime as either defendants or victims, the Department of Juvenile Services created the Violence Prevention Initiative (VPI) specifically crafted to target juvenile homicides and non-fatal shootings.”<sup>76</sup> The VPI provides increased supervision and prevention services for Maryland’s most at-risk youth. Each youth has a Treatment Services Plan that identifies strengths and needs of the youth, and ensures access to critical services.

**Indicators 5.10 & 5.11: Public School Student Substance Use**

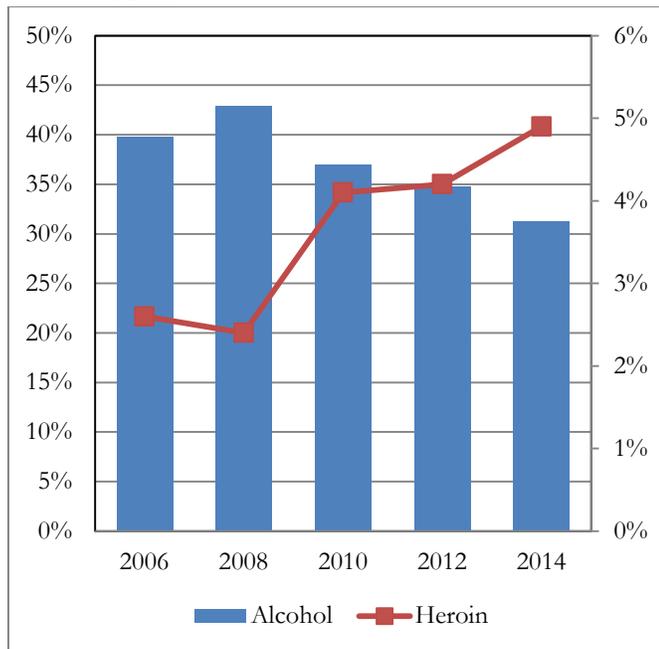
- Indicator 5.10: Students grades nine through twelve who are current drinkers
- Indicator 5.11: Students in grades nine through twelve who reported using heroin one or more times

Data for these measures come 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. Beginning in 2005, MSDE administers the survey every two years. Early use of alcohol and heroin is associated with later drug use and the prevalence of high-risk behaviors by youth. Alcohol is the most commonly used drug among Maryland youth.<sup>77</sup> While the percent of public school students in grades nine through 12 who are current drinkers is far higher than the percent who reported using heroin one or more times, heroin use increased by 19.5% from 2009 through 2013,

<sup>76</sup> Maryland’s Comprehensive State Crime Control and Prevention Plan, 2012-2014, Governor’s Office of Crime Control and Prevention  
<sup>77</sup> Maryland’s Results for Child Well-Being 2011, Governor’s Office for Children and the Children’s Cabinet

and alcohol use declined by 15.7%. **Exhibit 5.5** shows trends in this measure through time.

*Exhibit 5.5 Maryland Public School Students (Grade 9-12) Substance Abuse*



**Indicator 5.13: Number of matches of DNA taken during criminal investigations with DNA included in the Combined DNA Index System (CODIS) database**

“The use of DNA technology to identify offenders and solve criminal cases quickly is a vital instrument in Maryland’s mission to provide safe and sustainable communities for every Maryland resident.”<sup>78</sup> Maryland maximizes the use of DNA samples to identify violent criminals before they re-offend, and to exonerate the innocent. The Department of State Police, Forensic Sciences Division coordinates the collection and analysis of DNA database samples from individuals required by law to provide DNA. The known DNA profiles generated from the database samples are entered into the CODIS database and searched against the unknown DNA profiles generated from crime scene samples. CODIS is comprised of local, state, and national levels allowing for searches across jurisdictions.<sup>79</sup>

In 2009, the General Assembly passed legislation authorizing collection of DNA samples from people charged with violent crimes and burglaries, expanding Maryland’s ability to use DNA as a crime fighting tool.

This resulted in DNA matches reaching an all-time high in 2011. Results subsequently declined by 18% in 2012, principally due to the Maryland Court of Appeals ruling in April 2012 that the arrested/charged law was unconstitutional. DNA sample collection was suspended. In July 2012, the U.S. Supreme Court stayed the Court of Appeals ruling allowing the State to continue to collect DNA samples pending action by the Supreme Court. In June 2013, the Supreme Court heard the case and ruled that police in Maryland can continue the warrantless collection of DNA from people arrested for serious crimes. Legislation was enacted during the 2013 session which repealed the sunset of the State law.

DNA matches declined further from 2012 to 2013. According to the Department of State Police, factors among others that influence the number of evidence hits include the number of samples entered into CODIS (the number for the Convicted Offender Program declined by 29% from 2012 to 2013), any backlogs in entering samples to CODIS, and the amount of casework entered into CODIS by laboratories in Maryland and other states. In 2014, the number of matches experienced a 28% uptick, but the five year trend is still a negative 15%.

<sup>78</sup> Governor’s Office of Crime Control and Prevention DNA Web site: <http://www.goccp.maryland.gov/dna/index.php>

<sup>79</sup> MFR Definitions and Control Procedures, fiscal year 2013, Department of State Police, Criminal Investigation Bureau

## Performance Detail

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

Indicator	Agency/ Data Source	2011	2012	2013	2014	2015	4 Year Change	Specific Target
5.1. Firearm homicide rate per 100,000 (CY 2009- CY 2013)	State Police	5.40	5.12	4.67	4.78	4.59	-15.0%	Below 6.49
5.2. Traffic fatality rate per 100 million miles traveled (CY 2009 - CY 2013)	State Police	0.98870	0.86470	0.87060	0.90620	0.82540	-16.5%	Below 1.23978
5.3. Part I crime rate (offenses per 100,000 population) (CY 2009 - CY 2013)	State Police	3,789	3,547	3,355	3,226	3,128	-17.4%	Below 4,800
5.4. Recidivism: Percent of offenders returned to Department of Public Safety & Correctional Services supervision for a new offense within one year of their release from the Division of Correction - all releases (2009 - 2013)	DPSCS	20.4%	17.3%	15.5%	16.6%	16.9%	-17.2%	At or below 23.9%
5.5. Total number of inmates who escape (2010 - 2014)	DPSCS	1	3	2	3	1	0.0%	0 escapes
5.6. Total number of inmates who walk off (2010 - 2014)	DPSCS	78	50	59	40	19	-75.6%	At or below 38
5.7. Percent of all cases closed where the offender was employed at closing (2010 - 2014)	DPSCS	28%	27%	28%	30%	30%	7.1%	At least 31%
5.8. Rate per 100,000 of arrests of youth ages 15 to 17 for violent criminal offenses (CY 2009 - CY 2013)	Children's Cab. Inter- agency Fund	1,008.0	902.4	667.5	602.8	795.4	-21.1%	N/A
5.9. Youth Recidivism: Percent of youth re-adjudicated within one year after release from all residential (2009 - 2013)	DJS	19.2%	19.4%	20.5%	19.2%*	23.5%	22.4%	23.5% in 2015
5.10. Percent of public school students in grades nine through twelve who are current drinkers (AY 2009, 2011, 2013) (biannual)	Children's Cab. Inter- agency Fund	37.0%		34.8%		31.2%	-15.7%	N/A
5.11. Percent of public school students in grades nine through twelve who reported using heroin one or more times (AY 2009, 2011, 2013) (biannual)	Children's Cab. Inter- agency Fund	4.1%		4.2%		4.9%	19.5%	N/A

Indicator	Agency/ Data Source	2011	2012	2013	2014	2015	4 Year Change	Specific Target
<b>5.12.</b> Percentage score Maryland receives on the Centers for Disease Control and Prevention State Technical Assistance Review (TAR) (2010 - 2014)	DHMH	96%	97%	100%	100%	100%	4.2%	At least 98% by 2016
<b>5.13.</b> Number of matches of DNA taken during criminal investigations with DNA included in the Combined DNA Index System (CODIS) database (2010 - 2014)	State Police	430	540	443	285	365	-15.1%	N/A

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

## 6. FISCALLY RESPONSIBLE

### Performance Overview

Performance Status	Number of Indicators	Percent
Favorable (Change >10%)	0	0.0%
Favorable (3% to 10%)	2	40.0%
Stable (-2% to 2%)	2	40.0%
Unfavorable (-3% to -10%)	0	0.0%
Unfavorable (< -10%)	1	20.0%
<b>Total</b>	<b>5</b>	<b>100%</b>

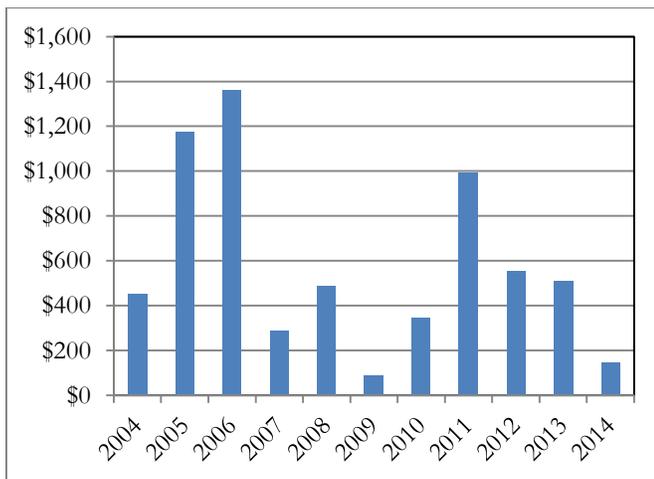
In the area of Fiscally Responsible, four out of five indicators either performed favorably or held stable in between the 2011 and 2015 report years. The next section highlights and explains the factors behind significant performing trends.

### Significant Performance Trends

#### Indicator 6.1: The annual General Fund closing balance as of June 30th available for the new fiscal year operations (in millions)

Economic conditions among other factors have an impact on the closing balance. Each fiscal year from 2010 through 2014 closed with a positive General Fund balance. However, **Exhibit 6.1** shows that, largely due to the Federal budget difficulties mentioned elsewhere in this document and resulting low revenue growth (only 1.3% growth in fiscal 2014), Maryland closed fiscal 2014 with the second lowest balance in the last decade.

*Exhibit 6.1 Annual General Fund Balance (\$ Millions)*



#### Indicator 6.2: Bond ratings from three nationally recognized bond rating agencies for each issuance of State General Obligation Bonds

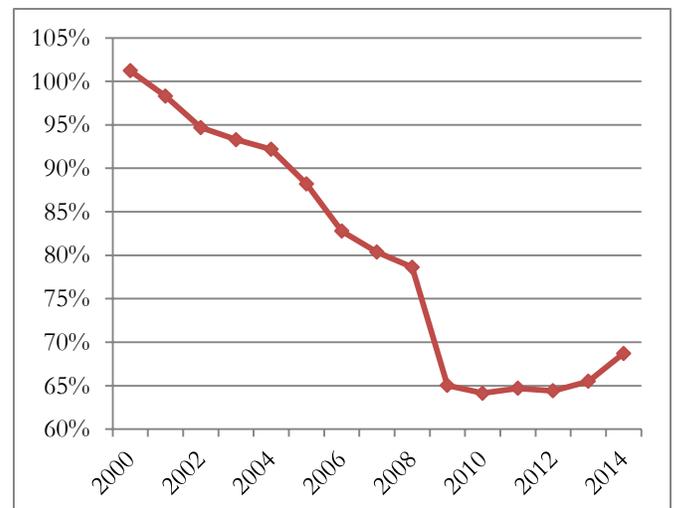
Maryland uses the proceeds from the issuance of General Obligation Bonds to finance necessary capital projects such as schools, community colleges, university projects, and hospitals. A triple A rating, the highest possible rating, means that the State has an extremely strong capacity to meet financial 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 6.4: Asset to liability ratio for the MD 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. 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 6.2** displays that, in fiscal 2014, the results of that reform are starting to be realized with an uptick of the funding level to 69% from 66% in fiscal 2013.

*Exhibit 6.2 Maryland State Retirement and Pension System Funded Ratio, FY 2015-14*



**Performance Detail**

**Key Performance Area 6 – Data by Report Year**

Indicator	Agency/ Data Source	2011	2012	2013	2014	2015	4 Year Change	Specific Target
<b>6.1.</b> Annual General Fund closing balance as of June 30th available for new fiscal year operations (millions) (2010 - 2014)	DBM	\$344.0	\$990.1	\$551.2	\$510.7	\$147.6	-57.1%	Close with a balance
<b>6.2.</b> Bond rating from all three nationally recognized bond rating agencies for each issuance of State General Obligation Bonds (maintain AAA rating) (CY 2010 - CY 2014)	Treasurer's Office	AAA	AAA	AAA	AAA	AAA	No change	Maintain AAA
<b>6.3.</b> Capital debt service as a percent of State revenue (2010 – 2014)	CDAC	6.85%	6.58%	6.68%	6.56%	6.87%	0.3%	At or below 8%
<b>6.4.</b> Asset to liability ratio for the MD State Retirement and Pension System (funded ratio) (2010 - 2014)	State Retirement and Pension System	64.1%	64.7%	64.4%	65.5%	68.7%	7.1%	100% funded by 2039
<b>6.5.</b> Percent of the total legislative appropriation for Executive departments covered by StateStat (2011 - 2015)	Governor's Office and DBM	72%	73%	73%	73%	75%	3.9%	N/A