## Higher Education Fiscal 2014 Budget Overview

Department of Legislative Services Office of Policy Analysis Annapolis, Maryland

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#### **Higher Education** Fiscal 2014 Budget Overview

## **State Funding Changes for Higher Education** (\$ in Thousands)

	2013 Working <u>Approp.</u>	2014 <u>Adjusted<sup>1</sup></u>	2013 Working – 2014 Adjusted <u>Change</u>	% Change
Public Four-year Institutions				
$USM^2$	\$1,082,065	\$1,163,179	\$81,114	7.5%
Morgan State University	74,198	79,868	5,670	7.6%
St. Mary's College	18,458	18,809	351	1.9%
Fiscal 2014 Cost-of-living Adjustment		21,345	21,345	
Subtotal – Public Four-year	\$1,174,722	\$1,283,201	\$108,479	9.2%
Other Higher Education				
Maryland Higher Education Commission				
Administration	\$5,454	\$5,343	-\$111	-2.0%
Deficiencies	3,010		-3,010	
Fiscal 2014 Cost-of-living Adjustment		49	49	
Financial Aid	102,900	105,121	2,221	2.2%
Deficiencies	6,750		-6,750	
Educational Grant	6,543	6,352	-191	-2.9%
Deficiencies	270		-270	
Non-USM Regional Higher Education Centers	1,750	2,550	800	45.7%
Independent Institutions	38,056	41,292	3,236	8.5%
Aid to Community Colleges	269,320	286,580	17,260	6.4%
Deficiency	3,000		-3,000	
Baltimore City Community College	40,565	41,828	1,264	3.1%
Fiscal 2014 Cost-of-living Adjustment		414	414	
Subtotal – Other Higher Education	\$477,618	\$489,530	\$11,912	2.5%
Total Higher Education	\$1,652,340	\$1,772,731	\$120,391	7.3%

MHEC: Maryland Higher Education Commission

USM: University System of Maryland

Note: State funds include general funds, Higher Education Investment Funds and special funds supporting educational grants, financial aid programs, reimbursable funds supporting financial aid programs, and the Maryland Fire and Rescue Institute. A 3% cost-of-living adjustment (COLA) is budgeted in the Department of Budget and Management for all State employees including higher education

Source: Governor's Budget Books, Fiscal 2014; HB 100 - Budget Bill

<sup>&</sup>lt;sup>1</sup> 2014 Adjusted reflects reductions related to health insurance spending assumed in the Governor's allowance.

<sup>&</sup>lt;sup>2</sup> USM funding includes tuition replacement funding to hold tuition increases to 3%.

#### Higher Education - Fiscal 2014 Budget Overview

State support for higher education grows \$120.4 million in fiscal 2014, or 7.3%, after accounting for an across-the-board reduction to health insurance assumed in the Governor's allowance. That reduction totals \$1.3 million across all of higher education. Unlike in prior years, the higher education formulas for community colleges and private, nonprofit institutions are not affected by actions contingent on legislation and are fully funded.

The University System of Maryland (USM) receives the biggest increase of \$81.1 million, or 7.5%, after accounting for the across-the-board reduction. Much of that increase will support current services costs, but the system does plan to allocate \$14.7 million of the increase for student completion initiatives and science, technology, engineering, and math (STEM) programs. Another \$6.8 million will support a technology transfer enterprise agreement between the University of Maryland, Baltimore (UMB), University of Maryland, College Park (UMCP), and University of Maryland Baltimore County (UMBC).

The fiscal 2014 allowance continues the practice of appropriating funds intended to offset greater tuition increases than those for which the allowance currently plans, which is 3.0% for in-state undergraduate students at most institutions. The Governor's allowance includes \$4.6 million for USM for this purpose, which roughly equates to a 1.0% increase of in-state tuition. Tuition replacement money from fiscal 2013 has been built into the institutions' base budgets. Morgan State University (MSU) had already planned a 3.0% tuition increase and does not receive tuition replacement funding in fiscal 2014, but its overall increase, 7.6%, is greater than USM and St. Mary's College of Maryland (SMCM), which grow 7.5 and 1.9%, respectively. The fiscal 2014 allowance also includes funds for a 3.0% cost-of-living allowance beginning in January 2014 for all State employees. These funds are budgeted in the Department of Budget and Management (DBM).

Most other parts of the higher education budget also increase. Funding for the State's locally operated community colleges grows \$17.3 million. Support for the community colleges through the Senator John A. Cade Funding Formula and miscellaneous grant programs increases \$13.9 million, while State funding of community college retirement benefits grows \$3.3 million. The allowance also includes a fiscal 2013 \$3.0 million deficiency appropriation for the Health and State Manpower Grant Programs, a miscellaneous community college grant with an accrued liability of over \$6.0 million. General funds for Baltimore City Community College (BCCC), Maryland's only State-operated community college, increase \$1.3 million, or 3.1%.

The only decreases in the higher education budget are to the Maryland Higher Education Commission (MHEC) budget. Small declines are seen in the administration budget and educational grant programs administered by the agency, which decline \$0.1 million and \$0.2 million, respectively.

MHEC also receives deficiency appropriations for the administration, scholarship, and educational grants budget programs. Included in the MHEC Administration allowance is \$2.0 million in special funds for the Nurse Support Program II, \$0.5 million in special funds for the Health Personnel Shortage Incentive Program, and \$0.5 million in general funds for personnel costs. The Scholarship Program includes \$6.5 million in Educational Excellence Awards in the scholarship programs budget. This money is available from the Need-based Student Financial Assistance Fund, a special fund comprised of unused scholarship awards from fiscal 2011 and 2012.

#### Higher Education - Fiscal 2014 Budget Overview

Funding for the State's senior public higher education institutions from fiscal 2010 to the 2014 allowance is shown in **Exhibit 1**. Funding grows 7.7%, or \$87.3 million, in fiscal 2014. The biggest increase is to UMCP, which grows \$30.8 million. The smallest increase is at SMCM, which grows \$0.3 million. All colleges are receiving an increase, which is a change from recent years, when at least one college received less than it had in the prior year.

# Exhibit 1 State Support for Public Universities Fiscal 2010-2014 (\$ in Thousands)

Analysis	<u>Institution</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	Working <u>2013</u>	Allowance 2014	Annual % Change <u>2010-13</u>	\$ Change <u>2013-14</u>	% Change <u>2013-14</u>
sis o	Univ. of Maryland, Baltimore	\$184,874	\$184,460	\$185,040	\$186,455	\$200,103	0.3%	\$13,647	7.3%
of the	Univ. of Maryland, College Park	376,899	374,804	377,297	377,934	408,722	0.1%	30,789	8.1%
he 1	Bowie State University	35,349	34,921	35,829	36,033	38,753	0.6%	2,720	7.5%
FY	Towson University	89,299	89,945	90,924	91,854	99,615	0.9%	7,761	8.4%
201	Univ. of Maryland Eastern Shore	30,769	29,503	30,126	29,946	32,223	-0.9%	2,277	7.6%
4 1	Frostburg State University	32,711	32,852	33,471	33,559	36,579	0.9%	3,020	9.0%
1ar	Coppin State University	37,899	37,775	37,943	38,194	41,118	0.3%	2,925	7.7%
4 Maryland	University of Baltimore	30,461	30,124	30,321	30,554	33,022	0.1%	2,469	8.1%
L .	Salisbury University	38,662	39,049	39,597	39,971	42,944	1.1%	2,973	7.4%
Exe	Univ. of Maryland Univ. College	29,805	31,430	32,759	34,143	36,270	4.6%	2,128	6.2%
Executive	Univ. of Maryland Baltimore County	93,030	94,500	95,570	96,696	103,809	1.3%	7,113	7.4%
ive	Univ. of Maryland Center for Environ. Science	18,517	18,644	19,299	19,646	21,046	2.0%	1,400	7.1%
Bu	University System of Maryland Office	22,136	19,330	15,417	19,341	21,337	-4.4%	1,997	10.3%
Budget,	Morgan State University	73,855	72,946	73,002	74,198	79,955	0.2%	5,757	7.8%
ř, 2	St. Mary's College	17,215	17,518	17,962	18,458	18,809	2.4%	351	1.9%
2013	Total	\$1,111,482	\$1,107,801	\$1,114,558	\$1,126,980	\$1,214,306	0.5%	\$87,326	7.7%

Note: The exhibit does not reflect the across-the-board reduction assumed in the fiscal 2014 budget or fiscal 2014 cost-of-living adjustment budgeted in the Department of Budget and Management. Figures exclude funding for cooperative agricultural and extension programs, the Maryland Fire and Rescue Institute, and Regional Greenhouse Gas Initiative funding.

Source: HB 100 – Budget Bill; Governor's Budget Books, Fiscal 2011-2014

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#### **Higher Education Investment Fund Grows \$17 Million Fund Balance**

The Higher Education Investment Fund (HEIF) receives 6% of corporate tax revenues, estimated at \$65.4 million in fiscal 2014. However, the fiscal 2014 allowance appropriates \$82.3 million due to an accumulated fund balance of \$17.2 million. **Exhibit 2** shows an accounting of the HEIF since its creation in the special session of 2007 through the fiscal 2014 allowance.

Exhibit 2
Higher Education Investment Fund
Revenues, Expenditures, and Balances
(\$ in Millions)

	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	Est. <u>2013</u>	Est. <u>2014</u>
Opening Balance		\$16.0	\$2.2	\$5.6	\$10.0	\$4.9	\$17.2
Revenue	\$16.0	47.0	45.7	46.6	53.2	62.3	65.4
Appropriation		60.8	42.3	42.1	58.4	50.0	82.3
Closing Balance	<b>\$16.0</b>	\$2.2	<b>\$5.6</b>	\$10.0	<b>\$4.9</b>	<b>\$17.2</b>	<b>\$0.4</b>
Tuition Stabilization Trust Acco	ount			0.1	0.2	0.2	0.2

Source: Department of Legislative Services; HB 100 – Budget Bill

Starting with an initial appropriation of \$16.0 million, a fund balance began to accumulate in the HEIF from the beginning. In some years, fiscal 2012 for example, the Administration attempted to spend down the fund balance by appropriating more than that year's projected revenue. However, as the economy began to improve, corporate tax revenues have started to exceed projections, and the year ended with a \$4.9 million fund balance. There has also been a significant write-up of expected fiscal 2013 revenues, and the opening balance for fiscal 2014 is projected to be \$17.2 million.

The allowance leaves \$0.4 million in the HEIF for fiscal 2015 based on current projections, but the final amount will differ based on actual revenues. Held within HEIF and a part of the \$0.4 million, is the Tuition Stabilization Trust Account. Created by Chapters 192 and 193 of 2010, the account is intended to increase the predictability of tuition increases at State institutions by accumulating a reserve of funds to offset significant tuition increases, as were seen in 2003 to 2006 in Maryland. The bill also set a goal that tuition increases not exceed the three-year rolling average increase in median family income. The most recent actual for that figure is -0.2%, compared to the average tuition increase of 3.3% proposed for fall 2013.

State law specifies that the Tuition Stabilization Trust Account should maintain a balance of between 1 and 5% of prior-year in-state undergraduate tuition revenues received at public four-year colleges. In fiscal 2012, the most recent actual data available, 1% of in-state undergraduate tuition revenues was \$4.8 million, and 5% was \$23.9 million.

The allowance proposes to spend all of the accrued HEIF funding in fiscal 2014, leaving only \$0.2 million in the Tuition Stabilization Fund. The Department of Legislative Services (DLS) recommends retaining \$4.8 million in the Tuition Stabilization Trust Account in fiscal 2014 to meet its minimum statutory funding levels. DLS further recommends that in future years, if the balance falls below 1%, overattainment of HEIF revenues be allocated first to the Tuition Stabilization Trust Account until it reaches its statutory minimum level. Revenues above that should be held in fund balance for appropriation in future years.

#### **Maryland Continues to Fare Well in National Comparisons**

Maryland's support for public higher education compares well nationally, as shown in **Exhibit 3**. *Grapevine*, a higher education information resource based at Illinois State University and jointly maintained by the State Higher Education Executive Officers, recently updated its nationwide statistics on state support for higher education. Using *Grapevine's* figures, Maryland's spending between fiscal 2012 and 2013 increased 0.2% compared to a decline of 0.4% nationally. Also shown are Maryland's competitor states, four of which increased spending at a greater rate in fiscal 2013. However, only one competitor state did so between fiscal 2008 through 2013 – North Carolina, which increased spending by 6.6%.

Exhibit 3
Higher Education Support
Maryland vs. Competitor States

	FY 2012-2013	<b>FY 2008-2013</b>
Maryland	0.2%	3.7%
California	-5.7%	-23.9%
Massachusetts	-0.6%	-22.1%
Minnesota	0.1%	-17.6%
New Jersey	-5.5%	-7.6%
New York	5.4%	2.8%
North Carolina	4.5%	6.6%
Ohio	1.3%	-10.9%
Pennsylvania	-0.5%	-18.3%
Virginia	4.9%	-9.7%
Washington	0.8%	-22.4%
Nationwide	-0.4%	-10.8%

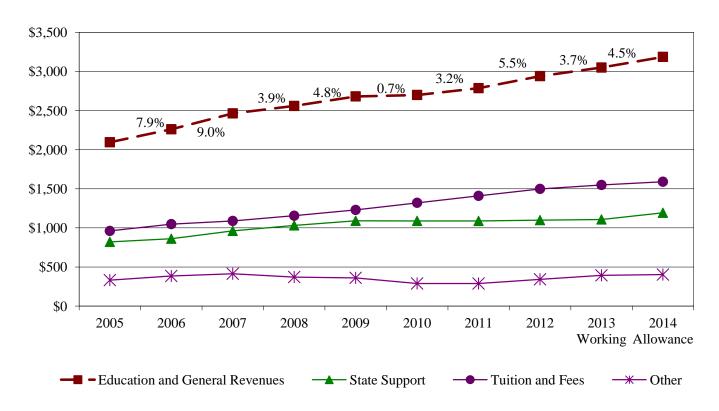
Source: Grapevine, www.grapevine.ilstu.edu

The State's tuition rates also compare favorably to other states. Nationally, Maryland's average tuition and fee rate at public four-year institutions in fall 2012 was the twenty-seventh most expensive in the country, an improvement from twenty-third most expensive a year ago and from eighth most expensive in fall 2005.

#### **Education and General Revenues**

**Exhibit 4** shows total education and general (E&G) revenues at public senior higher education institutions from fiscal 2005 through the 2014 allowance. E&G funding is comprised of tuition and fee revenues, State funds, and other education-related revenues. Auxiliary income from sources such as dining halls and athletics are excluded, as well as hospital spending, which impacts UMB. Also excluded are agricultural and cooperative extension programs at the State's two land grant institutions, UMCP and the University of Maryland Eastern Shore (UMES), and funding for the Maryland Fire and Rescue Institute at UMCP.

# Exhibit 4 Education and General Revenues<sup>1</sup> Fiscal 2005-2014 (\$ in Millions)



<sup>&</sup>lt;sup>1</sup> Education and General Revenues represent tuition and fees, State support (general funds and Higher Education Investment Funds), grants and contracts (federal, State, and local), and sales and services of educational activities less auxiliary enterprise revenue. Figures exclude funding for cooperative and agricultural extension programs and the Maryland Fire and Rescue Institute. For the University of Maryland, Baltimore, hospital expenditures are excluded.

Source: Governor's Budget Books, Fiscal 2014; Department of Legislative Services

E&G revenues have consistently grown over the entire period with a growth rate above 3.2% every year except fiscal 2010. Revenues increase 4.5% in the allowance, although the allowance figure is often understated. For example, a year ago the fiscal 2013 allowance budgeted an increase of 1.7%, but the working appropriation shows it has grown 3.7%, driven by higher than budgeted tuition and fee revenues. Full-time equivalent student (FTES) enrollment is projected to grow 1.2% in the fiscal 2014 allowance compared to 0.3% in the fiscal 2013 allowance. In fact, enrollments may ultimately be overstated, as explained in the second issue of this analysis.

State support (general funds and HEIF) grew appreciably between fiscal 2005 and 2009, and was flat through fiscal 2013. The allowance represents the first increase above 1.0% since fiscal 2009. Tuition and fee revenues have grown consistently due to a combination of increased enrollment and tuition increases. Even during the in-state undergraduate tuition freeze from fiscal 2007 through 2010, rates for out-of-state, graduate, and SMCM students continued to grow. Trends in E&G revenues by college can be seen in **Appendices 1** through **3**.

#### **Tuition Rates at Public Four-year Colleges**

The change in in-state and out-of-state tuition rates from fall 2006 to the proposed fall 2013 rates are shown in **Exhibit 5.** Due to the governor's proposed \$4.6 million tuition replacement funding, most colleges are increasing rates 3.0%. Out-of-state tuition grows by an average of 2.6%.

Chapters 192 and 193 of 2010, the legislation that created the Tuition Stabilization Trust Account, also allows for periodic adjustments to align tuition rates with market demand and peer institutions. For the third year in a row, Salisbury University (SU) is making an adjustment higher than the other USM institutions to more closely align with tuition rates charged by peer institutions. SU proposes to increase in-state tuition by 6% in fall 2013, the same increase as fall 2011 and 2012. SMCM, which previously was not covered by that legislation (but is now covered as a result of Chapter 1 of the First Special Session of 2012), is proposing to increase rates 4% in fall 2013.

Changes in tuition rates over the entire period since fall 2006 averaged 1.7% annually for most institutions, as fall 2006 was the base year set for the tuition freezes in fiscal 2007-2010. SU and SMCM are the only colleges to have increased at a different rate. SMCM, which was not a part of the tuition freeze, grew at a rate of 4.3% over the period.

Exhibit 5 shows only tuition, but students and families must also pay mandatory fees to support activities or services, as well as room and board charges if they live on campus. **Exhibit 6** shows each college's full cost for full-time on-campus students. SMCM is the highest at \$26,959 and Coppin State University (CSU) is the lowest at \$14,203. Comparable rates from fall 2008 show that costs have grown the most by 27.3% at SU. However, SU is the fifth most expensive of the 10 colleges shown in the exhibit.

## Exhibit 5 Tuition Rates at Public Four-year Institutions

#### **In-state Full-time Undergraduate Students**

<u>Fall 2006</u>	<u>Fall 2012</u>	Proposed Fall 2013	% Change <u>2012-13</u>	Avg. % Change 2006-13
\$6,566	\$7,175	\$7,390	3.0%	1.7%
4,286	4,683	4,824	3.0%	1.7%
5,180	5,660	5,830	3.0%	1.7%
4,112	4,493	4,628	3.0%	1.7%
5,000	5,464	5,630	3.0%	1.7%
3,527	3,854	3,970	3.0%	1.7%
5,325	5,818	5,992	3.0%	1.7%
4,814	5,576	5,912	6.0%	3.0%
5,520	6,024	6,192	2.8%	1.7%
6,484	7,085	7,298	3.0%	1.7%
4,280	4,676	4,816	3.0%	1.7%
5,009	5,501	5,680	3.3%	1.8%
9,498	12,245	12,735	4.0%	4.3%
	\$6,566 4,286 5,180 4,112 5,000 3,527 5,325 4,814 5,520 6,484 4,280 5,009	\$6,566 \$7,175 4,286 4,683 5,180 5,660 4,112 4,493 5,000 5,464 3,527 3,854 5,325 5,818 4,814 5,576 5,520 6,024 6,484 7,085 4,280 4,676 5,009 5,501	Fall 2006         Fall 2012         Fall 2013           \$6,566         \$7,175         \$7,390           4,286         4,683         4,824           5,180         5,660         5,830           4,112         4,493         4,628           5,000         5,464         5,630           3,527         3,854         3,970           5,325         5,818         5,992           4,814         5,576         5,912           5,520         6,024         6,192           6,484         7,085         7,298           4,280         4,676         4,816           5,009         5,501         5,680	Fall 2006         Fall 2012         Fall 2013         2012-13           \$6,566         \$7,175         \$7,390         3.0%           4,286         4,683         4,824         3.0%           5,180         5,660         5,830         3.0%           4,112         4,493         4,628         3.0%           5,000         5,464         5,630         3.0%           3,527         3,854         3,970         3.0%           5,325         5,818         5,992         3.0%           4,814         5,576         5,912         6.0%           5,520         6,024         6,192         2.8%           6,484         7,085         7,298         3.0%           4,280         4,676         4,816         3.0%           5,009         5,501         5,680         3.3%

#### **Out-of-state Full-time Undergraduate Students**

S	<u>Fall 2006</u>	<u>Fall 2012</u>	Proposed Fall 2013	% Change <u>2012-13</u>	Avg. % Change 2006-13
UM, College Park	\$20,005	\$25,554	\$26,576	4.0%	4.1%
Bowie State University	13,805	15,239	15,391	1.0%	1.6%
Towson University	14,538	17,282	17,508	1.3%	2.7%
UM Eastern Shore	10,679	12,629	13,134	4.0%	3.0%
Frostburg State University	14,050	15,652	16,278	4.0%	2.1%
Coppin State University	10,550	8,645	8,904	3.0%	-2.4%
University of Baltimore	17,411	16,380	16,710	2.0%	-0.6%
Salisbury University	12,708	13,922	14,258	2.4%	1.7%
UM University College*	10,656	11,976	11,976	0.0%	1.7%
UM Baltimore County	15,216	18,146	18,872	4.0%	3.1%
Morgan State University	12,040	14,020	14,300	2.0%	2.5%
Average (simple)	13,787	15,404	15,810	2.6%	2.0%
St. Mary's College	19,340	25,045	26,047	4.0%	4.3%

UM: University of Maryland

Note: Fall 2013 rates pending governing board approval. Average excludes St. Mary's College of Maryland.

Source: University System of Maryland Schedule of Tuition and Mandatory Fees; St. Mary's College of Maryland; Morgan State University

<sup>\*</sup> Based on 24 credit hours.

Exhibit 6
Tuition, Fees, and Room and Board Rates at Public Four-year Institutions
In-state Full-time Undergraduate Students
Fall 2008 and 2013

		Fai 201		Fall 2008			
	<b>Tuition</b>	Mandatory <u>Fees</u>	Room & Board	Total <u>Charge</u>	Total <u>Charge</u>	2008-2013 <u>Change</u>	% Change 2008-13
Univ. of MD, College Park*	\$7,390	\$1,763	\$9,893	\$19,046	\$17,113	\$1,933	11.3%
Bowie State University	4,824	2,147	8,266	15,237	12,415	2,822	22.7%
Towson University*	5,830	2,494	10,338	18,662	15,620	3,042	19.5%
Univ. of MD Eastern Shore	4,628	2,370	8,324	15,322	12,922	2,400	18.6%
Frostburg State University*	5,630	2,098	7,352	15,080	13,246	1,834	13.8%
Coppin State University	3,970	1,912	8,321	14,203	12,279	1,924	15.7%
Salisbury University	5,912	2,216	9,850	17,978	14,120	3,858	27.3%
Univ. of MD Baltimore County	7,298	2,787	10,125	20,210	17,500	2,710	15.5%
Morgan State University	4,816	2,336	8,595	15,747	14,248	1,499	10.5%
St. Mary's College	12,735	2,629	11,595	26,959	21,844	5,115	23.4%

<sup>\*</sup>Indicates fall 2013 room and board rates are not available. Fall 2012 rates were used in their place. The figure is likely understated as a result, and the percent change between fall 2008 and 2013 is lower than it will likely be when the college sets this rate.

Note: Fall 2013 rates are those proposed by the University System of Maryland, St. Mary's College of Maryland, and Morgan State University pending approval by their governing boards.

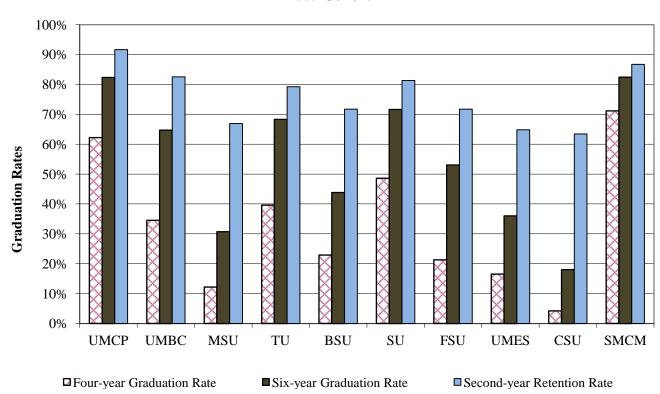
Source: St. Mary's College of Maryland; Morgan State University; University System of Maryland; Department of Budget and Management

#### **Productivity Measures**

Maryland's graduation and retention rates are high compared to other states, and the State's six-year graduation rate increased from 55.4% for the 1993 cohort to 63.3% for the 2005 cohort, the most recent actual data available. However, although there were increases for 11 years in a row, the last two cohorts have experienced declines totaling 1.4 percentage points. In fact, only two colleges had increases for the 2005 cohort: Bowie State University (BSU) (2.8%) and SMCM (0.3%).

There is wide variability between colleges in terms of graduation rates, as shown in **Exhibit 7**. SMCM and UMCP have the State's highest six-year graduation rates, at 82.4 and 82.3%, respectively. The lowest is CSU, where 18.0% of students graduate after six years. The exhibit also shows each college's four-year graduation rate, which is often significantly lower than the six-year graduation. The average student's time to graduation is more than four years.

Exhibit 7
Second-year Retention and Four- and Six-year Graduation Rates 2005 Cohort



BSU: Bowie State University
CSU: Coppin State University
FSU: Frostburg State University
MSU: Morgan State University

SMCM: St. Mary's College of Maryland

SU: Salisbury University

UMBC: University of Maryland Baltimore County UMCP: University of Maryland, College Park UMES: University of Maryland Eastern Shore

TU: Towson University

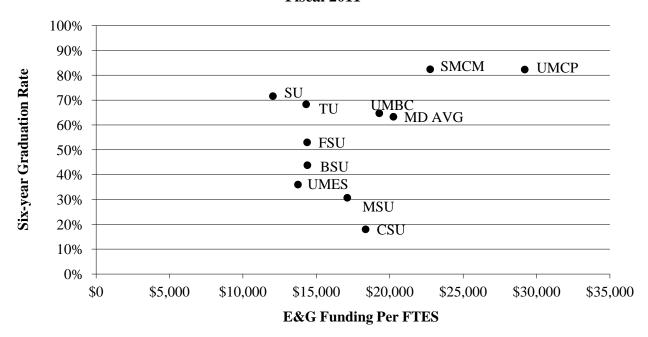
Source: Maryland Higher Education Commission Retention and Graduation Rates at Maryland Public Four-year Institutions, December 2012

Also shown in the exhibit are each college's retention rates. Retention rates foreshadow graduation rates, as the colleges with high retention rates are also those with high graduation rates. SMCM and UMCP again have the State's highest retention rates, with UMCP outpacing SMCM 91.6 to 86.7%. CSU again has the State's lowest retention rate at 63.4%.

#### **Productivity on a Per Student Basis**

Another way to analyze college success is to examine what is produced for the State's investment. **Exhibit 8** compares the six-year graduation rate of the 2005 cohort with each college's E&G revenue per FTES in fiscal 2011. The colleges in the upper left quadrant of the exhibit are those that achieve higher than average graduation rates while receiving less than average revenue per FTES and are considered more efficient. For the 2005 cohort, SU and TU are again the State's most efficient institutions by this measure. SU in particular has a graduation rate of 71.6% while receiving the least revenue per FTES statewide, \$12,041. SU and TU have consistently been the State's most efficient for many years.

Exhibit 8
E&G Revenues Per FTES and Six-year Graduation Rates
Fiscal 2011



BSU: Bowie State University
CSU: Coppin State University

E&G: Coppin State University
E&G: education and general
FSU: Frostburg State University

FTES: full-time equivalent student

MSU: Morgan State University

SMCM: St. Mary's College of Maryland

SU: Salisbury University

UMBC: University of Maryland Baltimore County UMCP: University of Maryland, College Park UMES: University of Maryland Eastern Shore

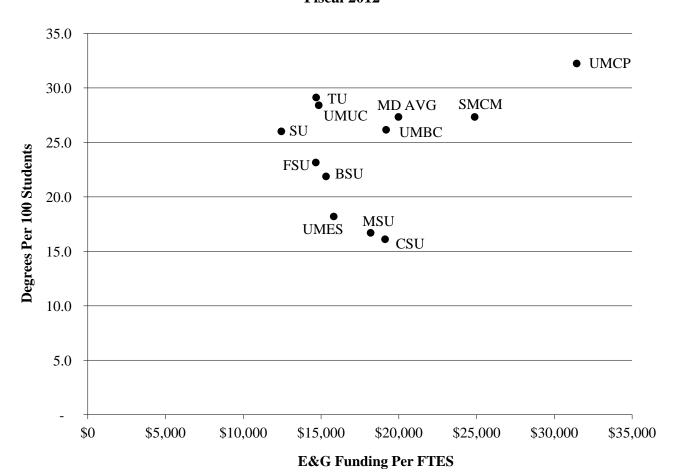
TU: Towson University

Note: University of Maryland, Baltimore; University of Maryland University College (UMUC); and University of Baltimore are not included. UMUC had an E&G per FTES funding level of \$13,623 in fiscal 2011 but is not displayed because the Maryland Higher Education Commission does not report a six-year graduation rate for the institution. UMUC recently began to track success rates of students comparable to those reported for the other institutions in this exhibit, beginning with the fall 2006 cohort. The data in this exhibit represents the fall 2005 cohort.

Source: Maryland Higher Education Commission; Governor's Budget Books, Fiscal 2013

**Exhibit 9** shows each college's E&G revenues per FTES this time graphed against degrees awarded per 100 FTES in fiscal 2012, the most recent actual available. By this measure, SU and TU are again the most efficient, along with the University of Maryland University College (UMUC). CSU was the least efficient, awarding 16.1 degrees per 100 FTES with E&G revenues of \$19,111 per FTES. At the other end of the spectrum is UMCP. Although it awards the most degrees per 100 FTES in the State, it does so while spending nearly two-thirds more than the State average.

Exhibit 9
E&G Revenues Per FTES and Degrees Awarded Per 100 FTES
Fiscal 2012



BSU: Bowie State University
CSU: Coppin State University
TU: Towson University

E&G: education and general

UMBC: University of Maryland Baltimore County

FSU: Frostburg State University

UMCP: University of Maryland, College Park

FTES: full-time equivalent student

UMES: University of Maryland Eastern Shore

UMUC: University of Maryland University College

SMCM: St. Mary's College of Maryland

Source: Department of Legislative Services; Governor's Budget Books, Fiscal 2014

#### 1. Disruptive Technology Could Change Future of Higher Education

In less than a year, the concept of a "massive open online course" (MOOC) has grown from a novel idea to a full-fledged phenomenon. The major change started in fall 2011, when two Stanford engineering professors put three of their courses online for free, creating Coursera. Some of its courses attract over 100,000 enrollments. As of December 2012, Coursera reported that 10,717 Marylanders had registered for a course and logged onto the course website at least once, and Coursera expected that number of registrants to grow significantly as its course offerings were to more than double in January 2013.

Like Coursera, other MOOC providers, such as Udacity and EdX, allow people to enroll for free in hundreds of courses from leading, elite-level universities from the United States and overseas. EdX, for example, was started with a partnership between Harvard University and the Massachusetts Institute for Technology. UMCP is one of the colleges offering MOOCs using Coursera's platform.

MOOCs are offered completely online. Some include video-taped lectures, but few offer students significant professor interaction. The websites host discussion forums where students are able to answer each others' questions. One of the more controversial aspects of MOOCs is peer-grading – some student work is graded by their classmates, not the professor or a teaching assistant.

If credit can be awarded, MOOCs have the potential to greatly expand access to higher education for people with few other options, like working adults or those who do not live near a college. When a student successfully completes a course, they are often awarded something indicating the accomplishment. Coursera, for example, awards a Statement of Accomplishment. This does not represent college credit, however, or an endorsement of the course's home college. If a sustainable method can be found to award credits for MOOCs, there is great potential for those for whom cost and time are the major impediments.

#### **Awarding Credits?**

There are movements nationally and within Maryland toward providing credits for MOOCs. The American Council on Education (ACE), an organization that makes determinations as to whether certain military or corporate training programs are worthy of college-level credit, has announced partnerships with Coursera and Udacity to review courses on both sites and determine if they are worthy of a credit recommendation. Many of ACE's member institutions accept transfer credits based on ACE's credit recommendations. Georgia State University individually plans to review MOOCs for transfer credits in the same way it reviews courses from other colleges.

Additionally, the Gates Foundation plans to award grants to research how MOOCs could improve quality and success in developmental courses. There are concerns that developmental students need more personalized support from professors, but USM has found success with computer-based modular techniques in many of its redesigned courses.

In Maryland, UMUC currently allows MOOC completers to do "course challenges," where students take a final exam in lieu of the entire course. If he or she successfully passes that exam, the exam grade is earned for the course and credit is awarded.

Students can also enroll in a portfolio course where they can attempt to show how they have already mastered the material of one or more UMUC courses. Both the course challenge and portfolio methods are existing options for nontraditional credit at UMUC, and students must pay at least as much as for a traditional online course offered by the college. Although this allows students to translate learning from MOOCs into college credit, it takes more time and is still costly for the student. Additionally, State law dictates that students may not acquire more than 60 credits using this method.

Apart from UMUC, USM is working with the Bill and Melinda Gates Foundation and Ithika S+R, a research group, to study the effectiveness of MOOCs in educating students. The Gates Foundation awarded \$1.4 million to USM and Ithika, which will study the success rates of students enrolled in traditional courses compared with those in the course's MOOC counterpart. The students will take the same final exam, and grades will be compared. There will also be a cost analysis to see if MOOCs save institutions money for the number of students served. The tentative plan is to start in the spring 2013 semester with two statistics courses.

If USM's study shows students receive a quality college-level education through MOOC, and a workable model is developed to award college-level credit at a low cost, it may be the beginning of a complete change in the higher education delivery model. Colleges would be able to enroll more students, boost degree completion, and expand access for those who never before could pursue a college education. The Secretary and segment heads should comment on MOOCs, how they are viewing the movement, and if they are considering MOOC based offerings.

#### **Low Completion Rates**

Although 10,717 Marylanders had registered for a course on Coursera, only 850 had earned a Statement of Accomplishment, a very low completion rate. However, since they enrolled knowing there was no college credit for a successful completion, the majority of these people were likely not interested in a formal higher education. If credit were a possibility, degree-seeking students with a higher level of commitment may turn to MOOCs and successfully earn credits, increasing completion rates.

#### 2. Higher Education Enrollments Decline, First Since 1996

For the first time since 1996, total headcount enrollments at Maryland's higher education institutions declined compared to the prior year. Although individual institutions have fluctuated year to year, the overall headcount usually grew. However, in fall 2012, enrollments at community colleges, public four-year institutions, and private nonprofit colleges declined 1.7% compared to fall 2011.

**Exhibit 10** shows the change at the State's community colleges, which exhibited the largest overall decline of 2.5% in fall 2012. Although seven colleges experienced increases, nine declined. The largest enrollment reductions were at BCCC (-22.7%) and Chesapeake College (-10.8%). The largest increase was at Hagerstown Community College, which grew 6.8%. The data reported here are headcount enrollments, as opposed to FTES enrollments discussed elsewhere in the analysis.

Fall 2012

10%

5%

0%

-5%

-10%

-20%

-25%

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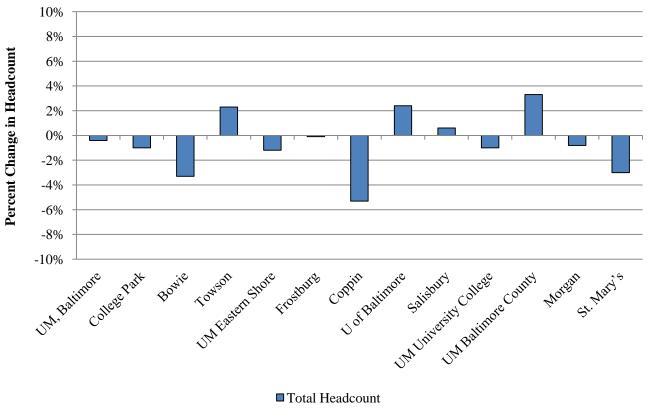
Exhibit 10
Percent Change in Headcount Enrollments, Community Colleges
Fall 2012

Source: Maryland Higher Education Commission Opening Fall Enrollments, 2012

Similar data for the State's public four-year institutions is shown in **Exhibit 11**. On average, the changes are of a smaller magnitude when compared to the community colleges, and the overall change was smaller as well, a decline of 0.2%, or 287 students. The college-by-college changes range from an increase of 3.3% at UMBC to a decline of 5.3% at CSU.

■ Total Headcount

Exhibit 11
Percent Change in Headcount Enrollments, Public Four-year Institutions
Fall 2012



Source: Maryland Higher Education Commission Opening Fall Enrollments, 2012

#### **Causes of Declines**

Declining enrollment is not unique to Maryland; enrollments declined 1.8% nationwide in fall 2012. The Western Interstate Commission on Higher Education estimates that the number of students graduating from high school likely peaked in 2011, although individual states would certainly differ. The National Center for Education Statistics estimated that there would be a 1.8% decline in high school graduates in Maryland in spring 2012. College enrollments are also correlated to the unemployment rate, and enrollments fall as the economy improves.

The decline in high school graduates and the improving economy explain some of the decline statewide, but it does not explain the larger changes seen at some of Maryland's campuses. Changes in federal financial aid likely also played a role. In 2011, the United States Congress approved two major changes to the eligibility requirements for Pell Grants, a need-based financial aid program used by the majority of low-income students:

- Over a lifetime, students may receive a maximum of 12 semesters worth of assistance (down from 18 semesters), and the equivalent of two semesters a year maximum, so a student cannot enroll full time in the fall and spring semesters and also take courses in the summer or winter with a Pell Grant. Additionally, this change was applied retroactively, so students who had already exceeded the 12-semester limit were effectively cut off.
- Remedial courses must now be counted toward satisfactory progress measures, which are defined as a minimum grade point average (GPA) of 2.0. In addition, Pell Grants will only pay for a student to take a course twice. In the event he or she fails it twice, the student will have to pay for it him or herself. Once successfully completing the course or raising his or her GPA to above 2.0, Pell Grant eligibility returns. BCCC specifically pointed to these changes as one of the major reasons for its large 22.7% decline in enrollments.

These changes will hit hardest the students who are least prepared for college and those who have the greatest economic need. Those with the greatest remedial education often need more than a year to complete the necessary work required before they can begin credit-bearing courses, time that will now count toward the 12-semester maximum.

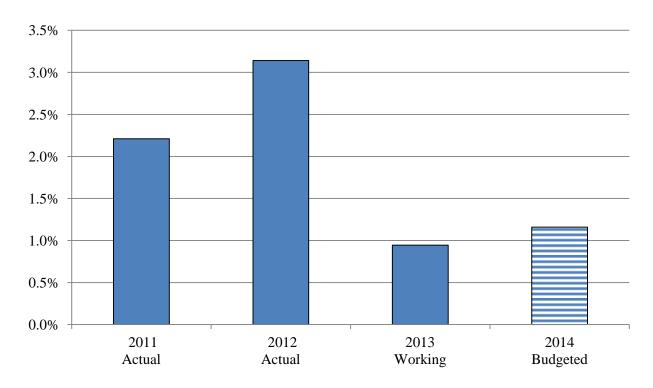
Generally, colleges with the highest Pell Grant rates declined the most. BCCC and CSU have the highest Pell-eligible populations in each segment and also serve those least prepared for college academically. There were exceptions, however, like SMCM (lowest Pell enrollment, -3.0% decline).

Increasing enrollments, together with improved degree completion rates, were the major strategies identified by the higher education segments toward reaching the State's 2025 degree completion goals. Should the trend of declining enrollments continue, the State may be at risk of missing that goal. The challenge is to increase the college participation rate of minority and nontraditional students who will make up a majority of high school graduates in Maryland to maintain enrollment levels. The Secretary and segment heads should comment on enrollment trends at the State's public colleges.

#### Fiscal 2014 Enrollment

The fiscal 2014 allowance was calculated assuming a 1.2% increase in FTES enrollment. **Exhibit 12** shows enrollment growth from fiscal 2011 to the Governor's allowance. FTES enrollments grew 2.2% in fiscal 2011 and 3.1% in fiscal 2012. The working budget is showing much slower growth, 0.9%. The 1.2% increase assumed in the allowance may ultimately be overly optimistic.

Exhibit 12 FTES Enrollment Changes at Public Four-year Institutions Fiscal 2011-2014



FTES: full-time equivalent student

Source: Governor's Budget Books, Fiscal 2013-2014

#### **MHEC's Official Enrollment Projections**

MHEC, as the State's higher education coordinating board, is responsible for calculating the State's official enrollment projections. Typically published in early summer each year, the projections come out before actual enrollments are finalized. For example, the 2012 report was made public in July 2012, shortly before every college was to report actual fiscal 2012 enrollments. As a result, the most recent actual data used in MHEC's report is one year old, and even lags behind the allowance, which is able to account for opening fall enrollments.

As enrollments are changing significantly for some institutions, there are large year-to-year changes that are not accounted for in the State's official enrollment projections. For example, BCCC's fiscal 2012 actual enrollment figure shows a 3.6% decline, something not accounted for in the projections. The Secretary should comment on the timing of MHEC's enrollment report and how the numbers are used for projecting future State needs.

#### 3. Oversight Authority in Maryland

State oversight is generally intended to limit duplication and promote efficiencies in higher education. Maryland's oversight of higher education is mainly based in three bodies, MHEC, DBM, and the General Assembly. MHEC is the State's coordinating board for higher education. Under State law, all academic programs offered by public institutions must be reviewed and approved by MHEC. The law also identifies all of the public higher education institutions who have the authority to award degrees. In terms of facilities, the General Assembly must approve all public academic facilities, whether they are financed with State debt or institutional resources.

#### **Recent Actions Appear to Circumvent Oversight Process**

Recent proposals and actions from several institutions appear to be circumventing the established oversight structure, whether deliberately or not. If proper procedure is not followed, it is possible that the State will be asked to fund programs and facilities that it did not actually approve.

#### **Research Center Desires Degree-granting Authority**

At its June 2012 meeting, the USM Board of Regents approved a request by the University of Maryland Center for Environmental Science (UMCES) to seek accreditation from the Middle States Commission on Higher Education (Middle States) to award a joint degree with UMCP in Marine-Estuarine-Environmental Sciences, which is currently administratively housed at UMCP. UMCES indicated it will begin the first phase of the accreditation process with Middle States after USM board approval.

According to the Middle States' website, a candidate for accreditation must provide written documentation that it is authorized to operate as an education institution and award postsecondary degrees. However, as a research institute under current law, UMCES does not have the degree-granting authority that the other constituent institutions of USM have. Although State law requires the Governor and General Assembly to approve new institutions and grant them the authority to award degrees, the Board of Regents' item did not mention seeking approval to grant degrees from the Governor, legislature, or MHEC. Departmental legislation has been introduced by USM as HB 268 – UMCES – Joint Graduate Degree Granting Authority to authorize UMCES to grant joint graduate degrees.

#### **Towson University Building on Harford Community College's Campus**

In December 2008, TU entered into an agreement with Harford Community College (HCC) to construct a TU dedicated facility with the purpose of offering upper-level undergraduate courses on HCC's west campus. Initially, the facility was considered a public-private partnership (P3) between HCC and the Maryland Economic Development Corporation (MEDCO) with TU entering into a leasing agreement with MEDCO.

During the 2010 legislative session, concerns were raised that by entering into such a relationship, TU had found a way to circumvent policies governing the creation of a branch campus

and the formal approval for construction of the facility; TU's plan also did not include seeking program approval from MHEC. In fall 2010, TU submitted site specific program and capital plans to MHEC and DBM and proposed to finance the proposed \$28 million facility by drawing down a portion of its fund balance rather than use MEDCO. The facility was then approved and is scheduled to be completed by fall 2014.

Other Maryland institutions raised concerns over one institution having an exclusive facility on HCC's campus. As a result, the plans MHEC approved provided MSU with an option to co-own or lease space in the new facility in order to offer programs and courses there.

#### **Baltimore City Community College East Side Location**

For many years, BCCC has discussed the need for a presence on the east side of Baltimore City. The city notes the region has higher than average unemployment, lower than average income, and very low rates of college completion. There is also little access to quality higher education available in that area. BCCC has identified an abandoned public high school (known as the Gompers Building) as a possible location, but it comes with a \$26 million cost estimate for purchasing the property and renovating into usable academic space.

Instead of requesting funds in the capital budget through DBM, BCCC has proposed that MEDCO issue debt in the necessary amount, acquire and renovate the property, and then lease it back to BCCC. In the past, MEDCO has financed nonacademic facilities such as residence halls, but MEDCO is not currently authorized to perform these kinds of financing deals; legislation would be required before the debt could be issued. Legislation to provide the necessary authority was introduced in the 2012 session and passed the House of Delegates (HB 1109), but no action was taken in the Senate.

If the college were to proceed without prior approval from the Governor and General Assembly, the State would become responsible for supporting a major new academic facility without giving formal approval. Even with those approvals, BCCC would still need to receive program approvals from MHEC. The college plans to offer 10 programs at an east side location, and although BCCC is authorized to offer these programs on its main campus, MHEC must separately review and approve all programs to be offered at off-campus locations. MHEC reports that it has not been contacted by BCCC regarding the proposed site or its programs, and DBM has not been contacted regarding renovation plans. BCCC's Board of Trustees has put the project on hold in order to evaluate whether, and how, to go forward with it.

#### **Organization of Community Colleges**

Maryland's community colleges operate much more independently than in many other states, where there is a central governing body. In Maryland, each community college has its own governing board, and except for Baltimore City, is a unit of county government. MHEC is the State's coordinating board and performs that function for community colleges, but is relatively weak in terms of implementing changes or holding the institutions accountable. The Maryland Association of Community Colleges performs additional coordination, with administrative level workgroups meeting

regularly to discuss common issues. The community colleges also collaborate on completion initiatives and annually hold a Completion Summit to share best practices.

However, if the State were to decide to pursue a policy of common course numbering or that a statewide articulation agreement should be created, there are few mechanisms that MHEC, the Governor, or the General Assembly could exercise to accomplish that goal. This is in contrast to many other states, which have strong central governing boards and can more strongly influence policy or direction. The State's community colleges point out that they are structured to respond to local concerns in addition to State goals, and that the institutions are held accountable at each level, and by accrediting bodies.

#### **Is Stronger Oversight Needed?**

Maryland's oversight structure covers the creation of degree programs and new academic facilities, but in recent years colleges have started to find ways around the proper approvals, whether deliberately or not. The roles of MHEC and the General Assembly may have to be clarified to ensure that new academic buildings and programs receive the proper approval prior to funding requests. In addition, greater oversight and coordination of the community colleges may be needed as the State works to achieve statewide goals like the 55% by 2025 goal. The Secretary should comment on MHEC's oversight role and whether stricter or clearer rules are required of the State's designated oversight bodies.

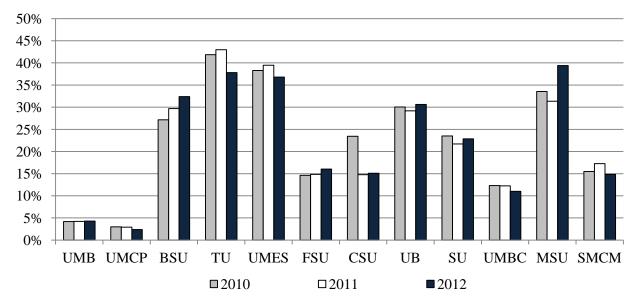
#### 4. Increasing Reliance on Adjuncts

Over the past few decades, the composition of faculty has changed with adjuncts making up a greater proportion of instructional staff. Traditionally, adjuncts were hired to fill in for professors on sabbatical or as an outside expert to teach a specialized course. This started to change over 40 years ago but has accelerated over the past 10 years as institutions contended with reductions in state funding coupled with growing enrollments. Nationally, by 2007, adjuncts comprised 68.7% of faculty, up from 43.2% in 1975, according to research by Perez and Litt at the University of California, Los Angeles. During the same time period, tenured/tenure-track faculty dropped from 56.8 to 31.2%. While numerous factors contributed to the increasing use of adjuncts, the rapid rise in health insurance and retirement benefits over the years created incentives for institutions to hire adjuncts who typically do not receive benefits, thereby avoiding future personnel expenses.

Institutions have turned to adjuncts to help rein in personnel costs while meeting the demand for courses. Although there is no conclusive evidence correlating student success with increased use of adjuncts, MHEC is currently studying this issue as it relates to the historically black institutions, as required under Chapter 223 of 2011. In terms of accreditation, the Middle States Commission on Higher Education does not provide any guidance on what is an acceptable ratio of adjuncts to tenured/tenure-track faculty. In its standards for accreditation, the commission only states "[t]here should be an adequate core of faculty..." with faculty broadly defined to include third parties contracted by the institution, part-time, or adjunct faculty.

As with other institutions around the country, Maryland's public four-year institutions have increased the proportion of adjunct faculty teaching courses, as shown in **Exhibit 13**. UMCP has the lowest proportion of adjuncts that in 2012 comprised 2.4% of the total FTE faculty, a decline from 2.9% in 2011. This reduction can be attributed to UMCP's reallocation of State-supported unrestricted funds within the institution, a component of its strategic plan to focus on hiring faculty.

**Exhibit 13 Full-time Equivalent Faculty That Are Adjuncts** 



BSU: Bowie State University
CSU: Coppin State University
FSU: Frostburg State University
MSU: Morgan State University

SMCM: St. Mary's College of Maryland

SU: Salisbury University

TU: Towson University UB: University of Baltimore

UMB: University of Maryland, Baltimore
UMBC: University of Maryland Baltimore County
UMCP: University of Maryland, College Park

UMES: University of Maryland, Conege 1 ark
UMES: University of Maryland Eastern Shore

Notes: Percentages reflect the reported number of filled positions as of October 2010, 2011, and 2012.

Source: Department of Legislative Services

Over the past three years, on average, TU had the highest proportion of adjuncts comprising 40.9% of faculty, followed by UMES and MSU at 38.2% and 34.7%, respectively. The increase at TU is not unexpected given the rapid enrollment growth of 22.2%, or 3,199 FTES between 2006 and 2010. The number of adjuncts would be expected to continue rising despite lower enrollment growth in 2011 due to attrition and the length of time to hire regular faculty. TU reduced the proportion of adjuncts from a high of 44.3% in 2011 to 37.8% in 2012 due to a concerted effort to reallocate resources to hire regular faculty. Conversely, MSU increased the proportion of adjuncts from 31.3% in 2011 to 39.4% in 2012. This reflects a decision in fiscal 2012 to use \$1.7 million of \$2.0 million in additional tuition revenue to hire more adjuncts rather than tenure-track faculty.

Representatives from the four-year institutions should comment on the reliance on adjuncts, the impact on the quality of education, and what steps are being taken to reduce reliance on adjuncts, particularly at those institutions with a high portion of adjuncts.

#### 5. Performance-based Funding for Maryland

In response to a 2012 *Joint Chairmen's Report* (JCR) request, on December 19, 2012, MHEC submitted a report on a framework for performance-based funding (PBF). MHEC, in conjunction with USM, MSU, SMCM, and the Maryland Association of Community Colleges developed a framework and recommended metrics to allocate State funds based on institutional and student performance. Overall, the proposed framework incorporates State goals and priorities, accounts for mission differences, and includes metrics specific to at-risk students. However, based on the lessons learned from other states, the proposed metrics can be refined to be more effective in rewarding institutions for improved performance or outcomes.

#### A Past Era – Funding Based on Enrollment

For years, many states funded higher education based on enrollment, which ensured access but did not guarantee student success nor predict an institution's performance. For a brief period, Maryland provided USM additional funding to grow enrollment. Between fiscal 2007 and 2009, an additional \$30 million of general funds were incorporated into USM's base budget to fund growth, also referred to as the enrollment funding initiative (EFI). EFI proved to be successful with first-time full-time undergraduate enrollment increasing 8.5%, or 1,015 students, from fiscal 2007 to 2009. However, since fiscal 2010, enrollment has fallen from a high of 13,213 to 12,179 students in fiscal 2012. Given the additional EFI funds provided in the USM base budget, enrollment should have at least remained at the fiscal 2010 level.

#### **PBF 2.0**

The first versions of PBF were implemented in 26 states between 1997 to 2007; 14 discontinued PBF and 2 have re-established new programs. These early models were poorly designed and implemented, *e.g.*, metrics were too complex or did not account for institutional differences. More significantly, these efforts failed due to insufficient funding for PBF to create incentives for institutions to change and improve performance. Given the current economic climate and the priority placed on the completion goal, states are once again turning to PBF as a method to link resources with accomplishments. This new generation of PBF, PBF 2.0, integrates lessons learned from earlier models such as incorporating PBF into base funding instead of being a bonus and emphasizing progression. As illustrated in **Exhibit 14**, according to the National Conference of State Legislatures, 10 states have PBF in place, 5 are in transition meaning PBF has been approved but they are working on the details, and 18 states (including Maryland) have entered into formal discussions although some are further along than others. In Arizona, for example, \$5 million of the fiscal 2013 base funding will be reallocated based on performance metrics. Since these models have only been in place for a year or two it is too soon to determine if PBF 2.0 will produce significant results.

MT ND OR WY NE UT KS TN OK AZ NM TX Formal Discussion on Performance Funding Performance Funding in Place Transitioning to Performance Funding No Formal Activity

**Exhibit 14 Performance-based Funding Nationwide** 

Source: National Conference of State Legislatures

#### **Proposed Maryland Framework**

#### **Four-year Institutions**

While the workgroup convened by MHEC was able to produce a framework, reservations were expressed about the State adopting PBF due to the lack of research documenting the effectiveness of PBF. This is due to the relatively limited amount of time that PBF 2.0 has been implemented nationally. In order to fund PBF, the workgroup recommended a set-aside approach that "...provides conservative levels of new funds..." The amount set aside for the four-year institutions would be based on a small percentage of the current services budget (CSB) and would be in addition to the CSB and enhancement funding (new funding provided for new programs or

initiatives). However, the purpose of PBF is that institutions have to "earn" additional state funding based upon performance toward not only meeting their mission but the goals and priorities of the state. DLS is concerned with the proposed funding framework institutions would still be able to receive new State funds in excess of those covering the CSB regardless of an institution's performance.

The workgroup used 1% of the CSB, equivalent to approximately \$11 million that would be allocated among 13 institutions, to illustrate PBF. DLS is concerned that this small amount, less than \$1 million per institution, is not sizable enough to create an incentive for institutions to improve their performance. As previously stated, a primary reason PBF was unsuccessful in the past was due to insufficient funding. While there is no definitive answer as to what is the optimal level of funding to garner results, states have drawn their own conclusions, which varies from 3% in Michigan to 100% in Tennessee. While institutions will always prefer that a small amount be allocated so as to minimize their risk, in order for PBF to succeed in Maryland, enough funds need to be allocated to focus on achieving the State's priorities and goals.

**DLS recommends that at a minimum all new State funds for enhancement should be tied to performance metrics.** Since enhancement funds are in addition to the CSB and are generally used for those expenses associated with enrollment growth, new programs, or initiatives, these funds should be allocated based on performance. Institutions would receive the same level of base funding as the previous year with any new funding allocated based on performance metrics. Those funds earned through improved performance in one year will be added to an institution's base funds the following year. This would ensure institutions a minimum level of funding, thereby allowing for predictability in budgeting.

#### **Two-year Institutions**

As with the four-year institutions, the workgroup recommended only setting aside a small percentage of new dollars based on the total funds provided through Cade and the Baltimore City Community College formulas. The workgroup also used 1% of the formula funding to illustrate how funding would be determined which equates to \$2.4 million that would be allocated among 16 institutions. As stated above, this would not provide a sufficient amount of funding to promote improved performance at the community colleges.

#### **Assessment of the Common Metrics**

For the four-year institutions, the workgroup proposed a combination of required or common progression metrics and optional metrics from which institutions must select. Community colleges would use seven common metrics.

Overall, the metrics capture the priorities of the State (completion and STEM degree production), account for mission differences, and are sensitive to differing student populations. Based on the lessons learned from other PBF efforts, these metrics can be refined to be more easily understood and clearly articulate what outcomes are being rewarded. The proposed metrics for the four-year and two-year models are shown in **Exhibit 15**.

## **Exhibit 15 Proposed Performance-based Funding Metrics**

#### **Four-Year Institutions**

In the proposed model, funds would be allocated based on each institution's performance on six metrics compared to its performance in the prior year.

- One common metric comprised of four submetrics with varying weights, with Pell Grant recipients receiving an addition weight of 2.0. Performance in the submetrics is based on the percentage increase of:
  - freshmen  $\rightarrow$  sophomores (1.25);
- juniors  $\rightarrow$  seniors (1.0); and
- sophomores  $\rightarrow$  juniors (1.0);
- seniors  $\rightarrow$  bachelor's degree (2.0)
- Five mission metrics from which each institution chooses three:
  - 1. Reduce achievement gap by one percentage point.
  - 2. Increase extramural research by 1%.
  - 3. Increase STEM bachelor's degree production.
  - 4. Increase graduate degree production.
  - 5. Improve math throughput completion by one percentage point.
- Four group options from which each institution chooses two:
  - 1. Improve progression and completion of African American and Hispanic students by 2.5 points.
  - 2. Improve progression and completion of Male students by 2.5 points.
  - 3. Improve progression and completion of Adult students by 2.5 points.
  - 4. Increase number of community college transfers with 56 credits.

#### **Two-year Institutions**

The model for the two-year institutions is comprised of seven common metrics:

- Improve student progression.
- Increase certificate and degrees awarded.
- Increase students transferring with 12 or more credits.
- Increase equated FTES in noncredit workforce training.
- Increase STEM degrees awarded.
- Increase English throughput completion percentage.
- Increase Math throughput completion percentage.

FTES: full-time equivalent student

STEM: science, technology, engineering, and math

Source: Maryland Higher Education Commission

In order to be successful, PBF needs to reflect the importance of the State's 55% completion goal. However, this priority is not clearly articulated in the common metric, and the significance is diluted as it is incorporated into a calculation that includes three progression metrics. Therefore, the completion and progression metrics should be separate, as they are in the two-year model, rewarding

institutions not only for student progression but also for increasing the number of degrees. In addition, another priority of the State is to increase the number of STEM graduates and teachers, and as such, this should not be an optional measure but a common metric.

Complete College America recommends two questions to test metrics: (1) if an institution sought to maximize the benefit of each metric what would it do, e.g., what is the easiest way to win; and (2) will it elicit the intended behavior?

Rewarding institutions for improving the progress of students is important especially when first implementing PBF, for it is difficult to increase degree production in a year. It also encourages institutions not only to retain students but move them along to earn the credits needed to graduate. Therefore, institutions should be rewarded for increasing the number of students that achieve certain progression milestones, *e.g.*, completing 30, 60, and 90 credits, and not increasing the percentage of sophomores, juniors, or seniors. The use of percentages or rates creates problems such as defining what variables to include in the calculation. More specifically, using percentages lends itself to institutions "gaming the system" by, for instance, being more selective in the students admitted. Therefore, percentages are not a reliable metric. The metrics should be based on numbers – a student either did or did not graduate or complete 30 credits.

As with the four-year model, the two-year model measures student progression in terms of percentage increases, which create ambiguities as opposed to using numbers which avoid uncertainty and manipulation.

#### **Optional Metrics**

While the optional metrics and, to some extent, the common metric take into account improvements in graduating at-risk students, the metrics are based on a target, *e.g.*, improve male student progression and degree completion by 2.5 points. In general, the setting of targets is not a good idea; institutions should be rewarded for continuous improvement, not the attainment of a goal. This is because targets are either set too low so as to ensure success or viewed as unattainable, resulting in institutions not even trying to make an effort to succeed.

Finally, the metrics needs to reflect the importance community college transfers have in helping institutions and the State increase degree production. Hence, the group option metric relating to community college transfer should be elevated to a "common" metric further stressing the importance of these students. This can be further refined by weighing the number of credits completed at the upper division, e.g., 60 and 90 credits, more heavily than those at the lower level.

#### **Further Considerations**

In regards to "high performing" institutions, the report noted the model may be modified to provide a "maintenance of effort" (MOE) provision, which would allow PBF allocations based on the continued level of high performance. In reality, these institutions are producing their current level of outcomes at the existing level of funding, therefore, it would be expected that any infusion of new funds will result in a higher, not the same, level of performance. If an MOE is included in the four-year model, the Missouri model should be considered, which includes a component of sustained

excellence. This acknowledges that institutions that have achieved a level of excellence on a particular measure have little room for improvement but should be encouraged to sustain this high level over time.

There are questions as to how UMB would benefit from PBF given its mission of providing graduate and professional education. UMB has relatively few undergraduate students, with the majority in the nursing program, which has limited capacity to grow. Therefore, there is little to no opportunity to earn extra funds based on the common metric, although some of the optional metrics may be applied to UMB. Under PBF, it is important that all institutions have an opportunity to benefit by excelling at their different missions; hence further consideration may be needed on how to incorporate the unique mission of UMB into a PBF model.

Institutions are concerned about the fiscal impacts of PBF as it pertains to developing budgets. To ease this uncertainty, states such as Ohio and Washington incorporated a learning year in the process. During this time, detailed reports were provided in order to inform institutions about the expected fiscal impacts of the policy.

DLS recommends that MHEC reconvene the workgroup to further revise and refine the framework to ensure the metrics are appropriate, are easily understood, and are difficult for institutions to game. The JCR request specifically stated "...the framework should incorporate the recommendations on predictive performance methods that an MHEC workgroup is completing..." The report makes no mention of those recommendations, so it is uncertain if they were discussed or even considered when developing the performance metrics. Therefore, MHEC needs to ensure the recommendations of the predictive performance workgroup are considered when revising the metrics. The workgroup should also consider how best to ensure that UMB has the opportunity to benefit from the proposed model. Once a final model is agreed upon, MHEC should test it for a year in order to establish a baseline, evaluate the metrics to ensure they are reasonable, and determine if the data is available, reliable, and valid.

#### 6. Review of Personnel at Maryland Four-year Institutions

Higher education personnel information is not captured by the regular human resources system used by DBM, so DLS conducts an annual two-part survey of all public four-year institutions, as well as the University System of Maryland Office (USMO) and UMCES.

Part One of this survey captures individual position data, regardless of vacancy, such as salary, budget program, Equal Employment Opportunity (EEO) Code, and Fair Labor Standards Act (FLSA) classification. Part Two focuses on adjunct faculty, the data from which was used in the issue on adjunct faculty. All of this data is self-reported by the universities and is not audited by DLS. Furthermore, job classifications may differ from school to school so, while this survey data is useful in showing general trends over time, it may not be appropriate for use in direct campus to campus comparisons. However, the 2012 survey data differed from the total budgeted allowance of 24,272 FTEs by only about 56 FTEs, or 0.2% of the total, so the self-reported data appears to be fairly reliable.

#### Higher Education - Fiscal 2014 Budget Overview

This analysis compares results collected in fiscal 2007, 2010, and 2013. Higher education positions are either State-supported or non-state-supported. State-supported positions are funded with unrestricted revenues only (primarily State funds and tuition and fee revenues), excluding auxiliary sources. Non-state supported positions are personnel funded by auxiliary activities or restricted revenues, such as grants. By narrowing the survey results to State-supported positions, it is easier to see the effects of the most recent economic downturn and the period of recovery on higher education personnel.

**Exhibit 16** shows statistics related to the salaries of all State-supported personnel, as well as a count of all full-time equivalent (FTE) positions. Over the six-year period, the average salary paid in the public four-year higher education system increased nearly \$5,800, or 10.4%. It is interesting to note that the mean salary actually decreased from fiscal 2010 to 2013 in this dataset. The mean is affected by highly paid faculty and administrators, so another useful figure is the median, or middle, salary paid in each year. The median rises over the six-year period from about \$49,000 to \$54,700, an increase of about \$5,700, or 11.6%, but also decreased slightly from fiscal 2010 to 2013. The mode, or most frequently paid salary, remained at \$50,000 in each year.

**Exhibit 16 Statistics for State-supported Positions by Fiscal Year** 

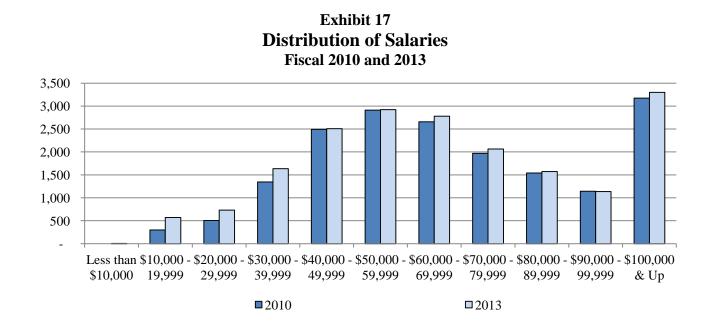
	<u>2007</u>	<u>2010</u>	<u>2013</u>	\$ Change <u>2007-13</u>	% Change <u>2007-13</u>
Mean (average)	\$56,289	\$63,418	\$62,136	\$5,847	10.4%
Median	\$49,025	\$55,309	\$54,689	\$5,664	11.6%
Mode	\$50,000	\$50,000	\$50,000	_	0.0%
Total Personnel FTEs	14,608	16,509	17,205	2,596	17.8%

FTE: full-time equivalent

Source: Department of Legislative Services, Personnel Survey Data

A frequent criticism of higher education is that growth in highly compensated positions or administrators has contributed to the increasing net price of university education. Such growth is not only costly but may divert resources away from the core mission of higher education. To investigate this issue, it is useful to look at trends in salary levels and in the number of positions.

**Exhibit 17** is a histogram, or frequency distribution, of State-supported salaries in fiscal 2010 and 2013. In fiscal 2010, salaries between \$40,000 and \$80,000 accounted for 55.6% of higher education positions. Another 17.6% of positions received a salary of \$100,000 or more. However, from fiscal 2010 to 2013, six-figure positions increased by 126, whereas total personnel grew 1,190 positions. Positions in the \$90,000 to \$100,000 range actually decreased slightly in this time. In fiscal 2013, 53.4% of the positions are in the \$10,000 to \$79,999 salary range, and the share of positions with salaries \$100,000 or greater drops slightly to 17.0%. Nearly half of the fiscal 2013 six-figure salary positions fall between \$100,000 and \$120,000.



Source: Department of Legislative Services, Personnel Survey Data

Some positions are funded from State and non-State sources or from more than one program. To the extent this occurs, Exhibit 17, which just includes State-supported funding, understates salary levels resulting in an undercounting of some higher paid positions. However, the number of positions affected by this is likely very small.

To examine administrators within the personnel system, DLS considered the number of positions assigned to various budget categories. These are standardized across higher education and likely to be similarly used across institutions. There are 10 categories:

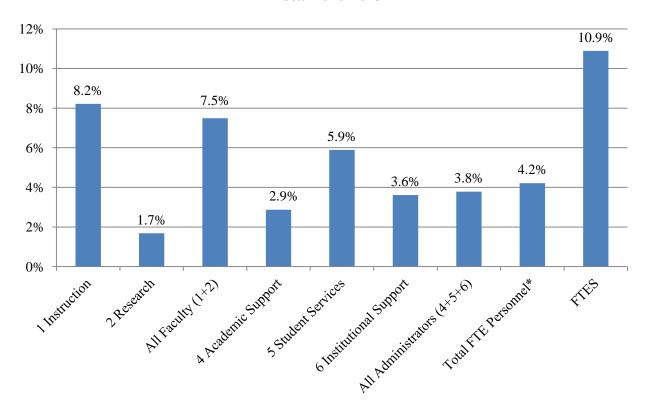
- 1 Instruction
- 2 Research
- 3 Public Service
- 4 Academic Support
- 5 Student Services

- 6 Institutional Support
- 7 Operation and Maintenance of Plant
- 8 Auxiliary Enterprises
- 17 Scholarships and Fellowships
- 18 Hospitals

DLS assumed university faculty will be captured by categories 1 and 2, while most administrative positions will fall within categories 4, 5, and 6. For simplification, the remaining categories were excluded, but are included in the FTE personnel total.

**Exhibit 18** shows the percentage growth in positions. While administrative positions grew 3.8%, this was lower than the overall personnel growth rate of 4.2%. Furthermore, FTES grew more rapidly at 10.9% over this period. The only personnel category showing comparable growth is Instruction, which would be expected to grow at or near the rate of FTES. The remaining budget code categories, 3, 8, 17, and 18, are not growing rapidly either. Due to this, the ratio of students to all personnel types increased over the period.

Exhibit 18 Change in Faculty, Administrator, and FTES Fiscal 2010-2013



FTE: full-time equivalent

FTES: full-time equivalent student

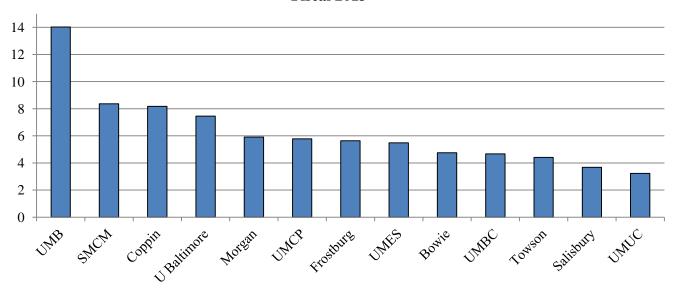
\*All personnel budget codes

Source: Department of Legislative Services, Personnel Survey Data; Maryland Higher Education Commission Data

**Books** 

Finally, **Exhibit 19** shows the number of full-time employed administrative positions per 100 FTES at each four-year institution. USMO administrators were evenly distributed across USM institutions to account for the fact St. Mary's and Morgan must duplicate USMO functions within their own personnel.

Exhibit 19 Administrative Positions Per 100 FTE Students Fiscal 2013



■ Administrators per 100 FTE Students

SMCM: St. Mary's College of Maryland UMB: University of Maryland, Baltimore UMCP: University of Maryland, College Park UMES: University of Maryland Eastern Shore UMUC: University of Maryland University College

Source: Department of Legislative Services, Personnel Survey Data

UMB has, by far, the most administrators per students, with about 14 for every one hundred students. This is due to the unique mix of resource-intensive professional graduate programs, such as medicine and law, at UMB. St. Mary's is the next highest because it is a small residential college outside of USM. Coppin and UB also have more administrators to students relative to other State schools. Conversely, UMUC has the least administrators to students due to its operations being primarily online. It is, however, interesting that Salisbury is not far ahead of UMUC, despite being a comprehensive residential campus.

#### Higher Education - Fiscal 2014 Budget Overview

Reviewing the annual personnel survey data from higher education institutions provides useful information on the composition and salaries of university faculty and staff. While administrative jobs often provide very important services to students, support faculty needs, and implement technological change on campus, in recent years, the number of administrative positions has not grown nearly as fast as student enrollment or other types of positions. Neither have higher paid positions grown at a particularly fast rate relative to other positions. For these reasons, growth in administrative positions may not be a significant factor in the increasing costs of public higher education, although the underlying number of highly paid administrators does contribute to the cost of education.

The Secretary should comment on whether the administrator to faculty or administrator to student ratio is tracked in Maryland. The segment heads should also comment on whether, based upon current trends, universities have sufficient administrative capacity to meet current needs, or if administrative hiring may increase in the near future.

#### Recommended Actions

### Amount Reduction

1. Reduce special funds appropriated from the Higher Education Investment Fund by \$4.8 million and retain these funds within the Tuition Stabilization Trust Account. The trust account is statutorily required to have between 1 and 5% of the sum of prior year in-state undergraduate tuition revenues at the State's public four-year institutions. For fiscal 2012, the most recent actual, 1% of revenue is \$4.8 million.

\$4,800,000 SF

#### 2. Adopt the following narrative:

**Performance-based Funding Model:** The committees are interested in the Maryland Higher Education Commission (MHEC) reconvening the workgroup on performance-based funding to further revise and refine the framework to ensure the metrics are appropriate, easily understood, and resistant to manipulation by the institutions. When revising the framework, the committees urge the workgroups to include all new State funds above current services costs in the performance funding framework. MHEC needs to ensure the recommendations from the predictive performance workgroup are considered when revising the framework. The workgroup also needs to consider how best to ensure that the University of Maryland, Baltimore has the opportunity to benefit from the proposed model. Furthermore, MHEC should test the revised model for a year in order to establish a baseline, evaluate the metrics to ensure they are reasonable, and determine if the data is available, reliable, and valid. The report on the revised framework should be submitted on October 15, 2013, and a report detailing the results of the testing of the revised model should be submitted on October 15, 2014.

<b>Information Request</b>	Author	<b>Due Date</b>
Report on revised performance-based model	MHEC	October 15, 2013
Report on the results of the performance-based model	MHEC	October 15, 2014

**Total Special Fund Reductions** 

\$ 4,800,000

# Trends in Education and General Revenues<sup>1</sup> Public Four-year Institutions (\$ in Thousands)

<u>Institution</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	Working <u>2013</u>	Allowance <u>2014</u>	% Annual <u>2010-13</u>	% Change <u>2013-14</u>	
Univ. of Maryland, Baltimore	\$440,744	\$453,625	\$449,709	\$461,986	\$482,113	1.6%	4.4%	
Univ. of Maryland, College Park	925,434	920,514	989,548	1,032,777	1,082,961	3.7%	4.9%	
Bowie State University	64,495	65,237	68,676	69,161	72,528	2.4%	4.9%	
Towson University	244,792	255,622	262,891	273,298	287,503	3.7%	5.2%	Hig
Univ. of Maryland Eastern Shore	50,684	56,283	65,876	62,422	66,026	7.2%	5.8%	Higher
Frostburg State University	65,221	68,018	67,541	68,723	73,315	1.8%	6.7%	Edu
Coppin State University	52,397	55,265	55,519	52,882	56,112	0.3%	6.1%	uca
University of Baltimore	86,683	92,045	94,792	98,142	101,741	4.2%	3.7%	cation
Salisbury University	88,739	91,416	97,561	103,249	108,890	5.2%	5.5%	<u> </u>
Univ. of Maryland Univ. College	280,651	337,837	376,928	391,456	396,068	11.7%	1.2%	Fiscal
Univ. of Maryland Baltimore County	212,254	202,509	206,523	224,045	234,812	1.8%	4.8%	ıl 2
Univ. of Maryland Center for Environ. Science	22,095	22,144	24,676	25,919	27,468	5.5%	6.0%	2014
Morgan State University	119,500	119,251	130,011	134,630	144,873	4.1%	7.6%	Bu
St. Mary's College of Maryland	45,513	46,597	49,772	50,868	51,635	3.8%	1.5%	Budget
Total	\$2,699,202	\$2,786,363	\$2,940,022	\$3,049,560	\$3,186,045	4.2%	4.5%	Overview

<sup>&</sup>lt;sup>1</sup> Education and general revenues represent tuition and fees, State funds (general and Higher Education Investment Funds), grants and contracts (federal, State, and local), and sales and services of education activities less auxiliary program enterprise revenue. For the University of Maryland, Baltimore, hospital expenditures are excluded from educational and general revenue. Agricultural and cooperative extension programs at the University of Maryland, College Park (UMCP) and University of Maryland Eastern Shore are also excluded. Funding for the Maryland Fire and Rescue Institute is excluded from UMCP.

Note: Numbers may not sum due to rounding.

Source: Governor's Budget Books, Fiscal 2010-2014

# 

Education and General Revenues<sup>1</sup>
Per Full-time Equivalent Student
Public Four-year Institutions

					Annual %			
<u>Institution</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	Working <u>2013</u>	Allowance <u>2014</u>	Change <u>2010-13</u>	% Change <u>2013-14</u>	
Univ. of Maryland, Baltimore	\$69,071	\$70,439	\$69,143	\$71,031	\$74,126	0.9%	4.4%	
Univ. of Maryland, College Park	29,540	29,193	31,431	32,735	34,325	3.5%	4.9%	
Bowie State University	14,231	14,388	15,316	15,718	15,975	3.4%	1.6%	
Towson University	13,917	14,305	14,680	15,095	15,560	2.7%	3.1%	
Univ. of Maryland Eastern Shore <sup>2</sup>	12,731	13,748	15,813	14,476	14,617	4.4%	1.0%	
Frostburg State University	14,038	14,371	14,657	14,914	15,807	2.0%	6.0%	
Coppin State University	16,586	18,354	19,111	18,324	18,704	3.4%	2.1%	
University of Baltimore	20,286	21,541	21,422	22,005	21,880	2.7%	-0.6%	
Salisbury University	11,955	12,041	12,441	13,153	13,836	3.2%	5.2%	
Univ. of Maryland Univ. College	13,623	15,294	14,846	15,088	15,197	3.5%	0.7%	
Univ. of Maryland Baltimore County	20,744	19,287	19,178	20,425	21,214	-0.5%	3.9%	
Morgan State University	18,021	17,107	18,183	18,415	19,316	0.7%	4.9%	
St. Mary's College of Maryland	20,782	22,753	24,874	25,940	25,817	7.7%	-0.5%	
Average <sup>2</sup>	\$19,182	\$19,377	\$20,025	\$20,599	\$21,263	2.4%	3.2%	

<sup>&</sup>lt;sup>1</sup> Education and general revenues represent tuition and fees, State funds (general and Higher Education Investment Funds), grants and contracts (federal, State, and local), and sales and services of education activities less auxiliary program enterprise revenue. For the University of Maryland, Baltimore, hospital expenditures are excluded from educational and general revenue. Agricultural and cooperative extension programs at the University of Maryland, College Park (UMCP) and University of Maryland Eastern Shore are also excluded. Funding for the Maryland Fire and Rescue Institute is excluded from UMCP.

Source: Department of Legislative Services; Governor's Budget Books, Fiscal 2014

<sup>&</sup>lt;sup>2</sup> The weighted average, excluding the University of Maryland, Baltimore, whose education and general revenue includes medical research funding.

#### Fiscal 2014 Revenues per Full-time Equivalent Student<sup>1</sup> **By Revenue Source Public Four-year Institutions**

					E&G	State		_	
	E&G		Tuition and		Revenues Per	Funds <u>Per</u>	T & F Per	State as %	T&F as %
Institution	Revenues	State Funds	Fees	FTES	FTES	FTES	FTES	of E&G	of E&G
Univ. of Maryland, Baltimore	\$482,113,482	\$200,102,724	\$120,665,770	6,504	\$74,126	\$30,766	\$18,553	42%	25%
Univ. of Maryland, College Park	1,082,960,797	408,722,383	486,460,009	31,550	34,325	12,955	15,419	38%	45%
Bowie State University	72,528,493	38,752,566	33,655,960	4,540	15,975	8,536	7,413	53%	46%
Towson University	287,502,572	99,615,076	177,985,492	18,477	15,560	5,391	9,633	35%	62%
Univ. of Maryland Eastern Shore	66,025,958	32,223,006	32,943,650	4,517	14,617	7,134	7,293	49%	50%
Frostburg State University	73,314,653	36,579,162	34,629,806	4,638	15,807	7,887	7,467	50%	47%
Coppin State University	56,111,513	41,118,280	16,568,276	3,000	18,704	13,706	5,523	73%	30%
University of Baltimore	101,740,609	33,022,347	68,381,781	4,650	21,880	7,102	14,706	32%	67%
Salisbury University	108,890,198	42,944,229	65,712,315	7,870	13,836	5,457	8,350	39%	60%
Univ. of Maryland Univ. College Univ. of Maryland Baltimore	396,068,278	36,270,027	352,544,491	26,062	15,197	1,392	13,527	9%	89%
County	234,812,263	103,809,351	108,963,397	11,069	21,214	9,378	9,844	44%	46%
Morgan State University	144,873,232	79,954,659	59,764,466	7,500	19,316	10,661	7,969	55%	41%
St. Mary's College of Maryland	51,634,648	18,808,997	31,785,069	2,000	25,817	9,404	15,893	36%	62%
Total Higher Ed	\$3,158,576,696	\$1,171,922,807	\$1,590,060,482	132,377	\$23,860	\$9,982	\$10,891	37%	50%

E&G: educational and general FTES: full-time equivalent student

T&F: tuition and fees

Source: Department of Legislative Services; Governor's Budget Books, Fiscal 2014

<sup>&</sup>lt;sup>1</sup> Agricultural and cooperative extension programs at the University of Maryland, College Park (UMCP) and University of Maryland Eastern Shore are excluded. Funding for the Maryland Fire and Rescue Institute is excluded from UMCP.

# Higher Education Enrollment Trends Full-time Equivalent Student Public Four-year Institutions

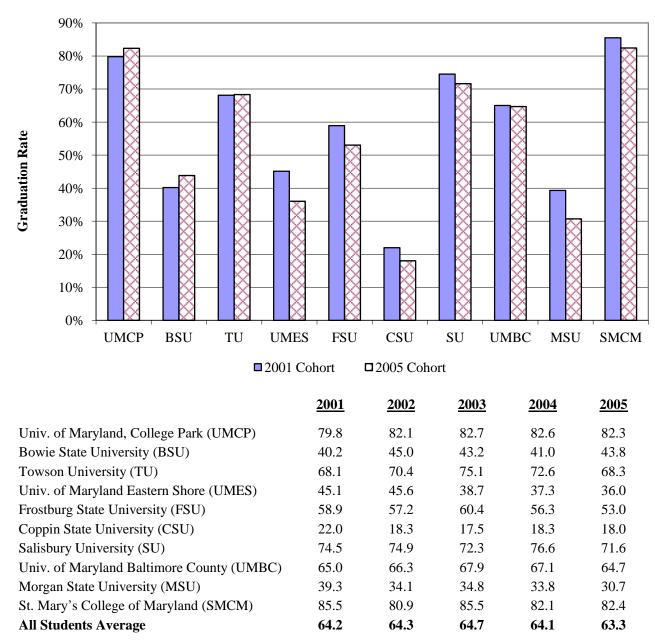
<u>Institution</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	Est. <u>2013</u>	Allow. <u>2014</u>	%Annual <u>2009-13</u>	% Change <u>2013-14</u>
Univ. of Maryland, Baltimore	5,767	5,974	6,381	6,440	6,504	6,504	6,504	2.1%	0.0%
Univ. of Maryland, College Park	30,179	30,728	31,328	31,532	31,483	31,550	31,550	1.1%	0.0%
Bowie State University	4,317	4,496	4,532	4,534	4,484	4,400	4,540	1.0%	3.2%
Towson University	16,104	17,275	17,590	17,869	17,908	18,105	18,477	2.7%	2.1%
Univ. of Maryland Eastern Shore	3,448	3,821	3,981	4,094	4,166	4,312	4,517	4.8%	4.8%
Frostburg State University	4,265	4,434	4,646	4,733	4,608	4,608	4,638	2.0%	0.7%
Coppin State University	3,000	3,175	3,159	3,011	2,905	2,886	3,000	-0.8%	4.0%
University of Baltimore	3,725	3,985	4,273	4,273	4,425	4,460	4,650	4.4%	4.3%
Salisbury University	6,828	7,219	7,423	7,592	7,842	7,850	7,870	3.5%	0.3%
Univ. of Maryland Univ. College	17,055	18,381	20,602	22,089	25,390	25,945	26,062	10.5%	0.5%
Univ. of Maryland Baltimore County	9,411	9,749	10,232	10,500	10,769	10,969	11,069	3.4%	0.9%
Morgan State University	6,136	6,287	6,631	6,971	7,150	7,311	7,500	3.9%	2.6%
St. Mary's College of Maryland	2,036	2,095	2,190	2,048	2,001	1,961	2,000	-0.4%	2.0%
Total	112,271	117,619	122,968	125,686	129,635	130,617	132,337	3.7%	1.3%

Source: Governor's Budget Books, Fiscal 2011-2014

Higher Education – Fiscal 2014 Budget Overview

Appendix 5



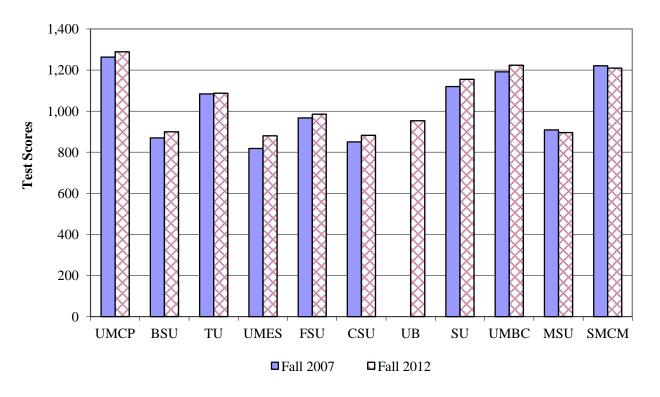


Note: Data shows the percentage of first-time students who had graduated from any campus within six years after starting in the fall of the year at the institution indicated.

Source: Maryland Higher Education Commission

Appendix 6

#### **Scholastic Aptitude Test Scores of First-year Students**



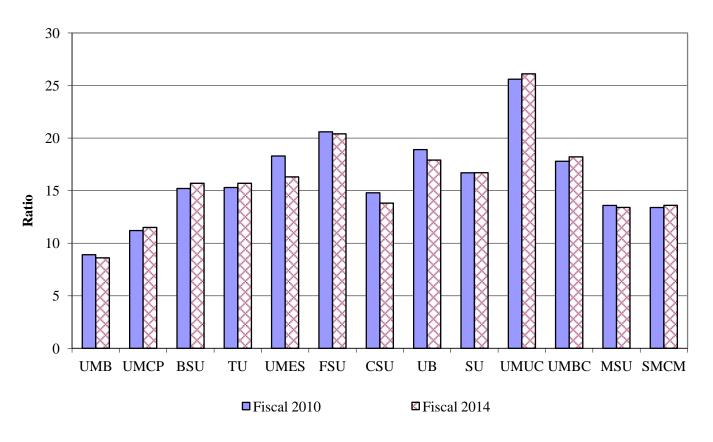
	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
Univ. of Maryland, College Park	1,263	1,268	1,285	1,283	1,287	1,289
Bowie State University	870	882	880	892	888	899
Towson University	1,084	1,074	1,080	1,081	1,087	1,087
University of Maryland Eastern Shore	818	828	847	857	879	880
Frostburg State University	967	974	963	982	985	985
Coppin State University	850	853	875	861	874	882
University of Baltimore		949	958	949	953	953
Salisbury University	1,120	1,126	1,129	1,138	1,147	1,155
University of Maryland Baltimore County	1,191	1,190	1,184	1,204	1,206	1,223
Morgan State University	909	899	904	904	909	895
St. Mary's College of Maryland	1,221	1,230	1,229	1,213	1,208	1,209
Average (unweighted)	1,029	1,025	1,030	1,033	1,038	1,042

Note: Reflects verbal (maximum 800) and math (maximum 800) scores.

Source: Maryland Higher Education Commission

#### Appendix 7

#### **Student-to-faculty Ratio**



<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>
8.9	9.0	8.6	8.7	8.6
11.2	11.2	11.4	11.4	11.5
15.2	15.9	15.6	15.1	15.7
15.3	15.3	15.3	15.4	15.7
18.3	17.1	16.3	15.6	16.3
20.6	20.9	20.4	20.3	20.4
14.8	15.2	12.7	13.9	13.8
18.9	21.1	16.8	17.2	17.9
16.7	16.6	17.3	16.7	16.7
25.6	24.5	26.8	25.7	26.1
17.8	17.6	17.7	18.2	18.2
13.6	13.5	13.2	13.5	13.4
13.4	13.3	13.6	13.3	13.6
	8.9 11.2 15.2 15.3 18.3 20.6 14.8 18.9 16.7 25.6 17.8 13.6	8.9     9.0       11.2     11.2       15.2     15.9       15.3     15.3       18.3     17.1       20.6     20.9       14.8     15.2       18.9     21.1       16.7     16.6       25.6     24.5       17.8     17.6       13.6     13.5	8.9     9.0     8.6       11.2     11.2     11.4       15.2     15.9     15.6       15.3     15.3     15.3       18.3     17.1     16.3       20.6     20.9     20.4       14.8     15.2     12.7       18.9     21.1     16.8       16.7     16.6     17.3       25.6     24.5     26.8       17.8     17.6     17.7       13.6     13.5     13.2	8.9       9.0       8.6       8.7         11.2       11.2       11.4       11.4         15.2       15.9       15.6       15.1         15.3       15.3       15.3       15.4         18.3       17.1       16.3       15.6         20.6       20.9       20.4       20.3         14.8       15.2       12.7       13.9         18.9       21.1       16.8       17.2         16.7       16.6       17.3       16.7         25.6       24.5       26.8       25.7         17.8       17.6       17.7       18.2         13.6       13.5       13.2       13.5

Source: Department of Budget and Management