R30B31 University of Maryland Baltimore County University System of Maryland

Operating Budget Data

(\$ in Thousands)

	FY 14 <u>Actual</u>	FY 15 Working	FY 16 <u>Allowance</u>	FY 15-16 Change	% Change Prior Year
General Funds	\$95,903	\$106,898	\$112,612	\$5,714	5.3%
Deficiencies and Reductions	0	-3,623	-8,076	-4,452	
Adjusted General Fund	\$95,903	\$103,275	\$104,537	\$1,262	1.2%
Special Funds	5,791	4,848	5,067	219	4.5%
Adjusted Special Fund	\$5,791	\$4,848	\$5,067	\$219	4.5%
Other Unrestricted Funds	205,541	210,960	218,115	7,155	3.4%
Adjusted Other Unrestricted Fund	\$205,541	\$210,960	\$218,115	\$7,155	3.4%
Total Unrestricted Funds	307,234	322,707	335,795	13,088	4.1%
Deficiencies and Reductions	0	-3,623	-8,076	-4,452	
Adjusted Total Unrestricted Funds	\$307,234	\$319,083	\$327,719	\$8,636	2.7%
Restricted Funds	87,028	82,200	83,816	1,616	2.0%
Adjusted Restricted Fund	\$87,028	\$82,200	\$83,816	\$1,616	2.0%
Adjusted Grand Total	\$394,263	\$401,283	\$411,535	\$10,252	2.6%

Note: The fiscal 2015 working appropriation reflects the Board of Public Works reductions. The fiscal 2016 allowance reflects back of the bill reductions to the University System of Maryland, which were allocated to institutions based on the Department of Legislative Services estimates.

- The general fund increases \$1.3 million, or 1.2%, in fiscal 2016 after adjusting for a fiscal 2015 Board of Public Works reduction and \$8.1 million back of the bill reductions in fiscal 2016.
- The Higher Education Investment Fund (HEIF) increases \$0.2 million, or 4.5%, in fiscal 2016, resulting in an overall growth of 1.4%, or \$1.5 million, in State funds above fiscal 2015.

Note: Numbers may not sum to total due to rounding.

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Personnel Data

	FY 14 <u>Actual</u>	FY 15 Working	FY 16 Allowance	FY 15-16 Change				
Regular Positions	1,944.89	1,995.23	1,995.23	0.00				
Contractual FTEs	<u>514.07</u>	425.24	<u>425.24</u>	0.00				
Total Personnel	2,458.96	2,420.47	2,420.47	0.00				
Vacancy Data: Regular Positions								
Turnover and Necessary Vacancies, Excluding New								
Positions		38.31	1.92%					
Positions and Percentage Vacant as of 1	188.94	9.5%						

[•] The fiscal 2016 allowance does not provide for any new positions.

Analysis in Brief

Major Trends

Enrollment: Undergraduate enrollment grew by 1.8%, or 209 students, in fall 2014. While continuing students grew 3.3%, first-time and transfer students declined by 2.6% and 1.6%, respectively. Graduate enrollment dropped 6.8% in fall 2014 resulting in an overall 0.1% increase in enrollment.

Student Performance: After declining to a low of 82.8% with the 2010 cohort, the second-year retention rate improved with the subsequent cohorts reaching 85.3% with the 2012 cohort. The third-year retention fell to its lowest level of 71.8% with the 2011 cohort. After declining to 64.7% with the 2005 cohort, the six-year graduation rate increased to 68.8% with the 2007 cohort, the highest rate since at least the 1991 cohort.

Degree Production Efficiency: In terms of number of undergraduate degrees awarded per 100 undergraduate full-time equivalent students, the ratio increased from 19.5 in fiscal 2011 to 22.9 in fiscal 2013 exceeding the average of the college's peers. Education and related expenditures per degree declined to its lowest level of \$58,979 per degree in fiscal 2011.

Research Expenditures and Doctorates: According to the National Science Foundation (NSF), University of Maryland Baltimore County (UMBC) ranked 167 out of 653 institutions in total research and development expenditures, which totaled \$45 million in fiscal 2012. In fiscal 2012, according to NSF, UMBC ranked 166 out of 415 institutions in the number of earned doctorates.

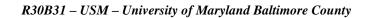
Issues

Meeting College Expenses: While total expenditures on institutional aid grew 12.7%, or \$2.3 million, since fiscal 2011, only a relatively small portion, an average of 12.6%, went toward need-based aid. In fiscal 2014, 87.8% of those receiving need-based institutional aid were Pell-eligible students who received an average award of \$1,438.

Science, Technology, Engineering, and Mathematics Transfer Student Success Initiative: UMBC received a total of \$3 million in grants from the Bill and Melinda Gates Foundation to support the planning of the science, technology, engineering, and mathematics (STEM) Transfer Student Success Initiative. UMBC is working with four community colleges from which it receives the majority of its transfer students to develop a tool kit that other institutions can use to help STEM transfer students earn a four-year degree.

Recommended Actions

1. See the University System of Maryland Overview for systemwide recommendations.



R30B31

University of Maryland Baltimore County University System of Maryland

Operating Budget Analysis

Program Description

The University of Maryland Baltimore County (UMBC) is a mid-size public research and doctoral university offering undergraduate, master's, and doctoral programs in the arts and sciences and engineering. It is an honors university, providing academically talented undergraduate students a strong foundation, preparing them for graduate and professional study, entry into the workforce, community service, and leadership. At the graduate level, emphasis is placed on science, engineering, information technology, human services, and public policy.

While a majority of students are from the Baltimore region, an increasing number are coming from other areas of Maryland, other states, and foreign countries. UMBC pays special attention to the needs of nontraditional, evening, and part-time students. Well-qualified students are recruited through special scholarships initiatives, such as the Humanities Scholarship Program and the Meyerhoff Scholarship Program for talented high school graduates interested in science and engineering.

UMBC contributes to the economic development of the State and region through the transference of faculty research to the public and industry through the research park, business incubator, and technology transfer program. UMBC also provides workforce training, K-12 partnerships, and technology commercialization with public agencies and the corporate community.

Carnegie Classification: RU/H Research Universities (High Research Activity)

Fall 2014 Undergraduate Enrollment Headcount		Fall 2014 Graduate Enrollment Headcount				
Male	6,254	Male	1,323			
Female	5,125	Female	1,277			
Total	11,379	Total	2,600			
Fall 2014 New Students Ho	eadcount	Campus (Main Campus)				
First-time	1,629	Acres	512			
Transfers/Others	1,335	Buildings	75			
Graduate	750	Average Age	29 years			
Total	3,714	Oldest	Surge Facility #3 (1920)			
Programs		Degrees Awarded (2013	3-2014)			
Bachelor's	54	Bachelor's	2,250			
Master's	40	Master's	590			
Doctoral	24	Doctoral	102			
		Total Degrees	2,942			
Proposed Fiscal 2016 In-st	ate Tuition and Fees*					
Undergraduate Tuition	\$7,894					
Mandatory Fees	\$2,984					

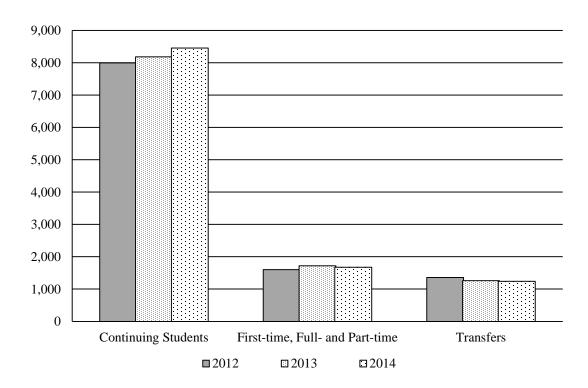
^{*}Contingent on Board of Regents approval.

Performance Analysis

1. Enrollment

Undergraduate enrollment grew by 1.8%, or 209 students, in fall 2014. While continuing students grew 3.3%, first-time and transfer students declined by 2.6% and 1.6%, respectively, as shown in **Exhibit 1**. While total undergraduate enrollment has grown 3.9%, since fall 2012, the number of transfers fell 8.5%. Graduate enrollment dropped 6.8% in fall 2014. This resulted in an overall 0.1% increase in total enrollment. According to UMBC, the decrease in graduate enrollment was due to several factors including a higher than expected number of requests for admission deferral due to transitions to new jobs especially in information technology programs; a large decline in the Master of Arts in Education, that is based on contracts with school districts, which have reduced funding to reimburse teachers for graduate work (several cohorts completed programs last year, but there were no new cohorts in fall 2014); and some doctoral programs admitted fewer students due to the reductions and uncertainties in federal research funding.

Exhibit 1 Undergraduate Headcount Enrollment Fall 2012-2014

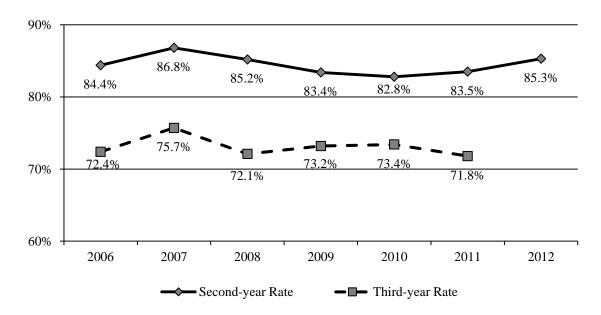


Source: University System of Maryland

2. Student Performance

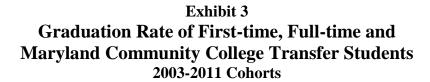
Student persistence, or retention, provides a measure of student progress and an indication of an institution's performance; the higher the retention rate, the more likely students will persist and graduate. After the 2007 cohort achieved the highest second- and third-year rates of 86.8% and 75.7%, respectively, the rates fell with the 2008 cohort, as shown in **Exhibit 2**. After declining to a low of 82.8% with the 2010 cohort, the second-year rate subsequently improved, reaching 85.3% with the 2012 cohort. While the third-year rate typically mirrors the second-rate trend that is not the case with the 2009 to 2011 cohorts whose rates move in opposite directions. After falling to 72.1% with the 2008 cohort the third-year rate improved to 73.4% with the 2010 cohort but subsequently fell to its lowest point of 71.8% with the 2011 cohort.

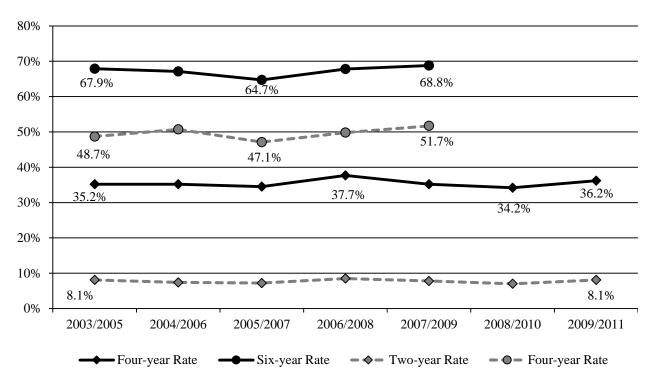
Exhibit 2
Second- and Third-year Retention Rates
First-time, Full-time 2006-2012 Cohorts



Source: Maryland Higher Education Commission, Retention and Graduation Rates at Maryland Four-year Institutions, October 2014

Graduation rates are, in part, another measure of student persistence and efficiency – as more students graduate, it "frees up" more room, allowing an institution to enroll more students. **Exhibit 3** shows the four- and six-year graduation rates for first-time, full-time (FT/FT) and the equivalent rate for transfer students: the two- and four-year graduation rates. The two-year graduation rate of the transfer students remained fairly stable for the past six cohorts. The 2009 transfer cohort achieved the





Note: The graduation rates for the first-time full time cohort includes those graduated from the institution or those that transferred and graduated from any Maryland public four-year institution. The rates for the Maryland community college transfer includes those that graduate from the institution or those that transferred and graduated from any other University System of Maryland institution.

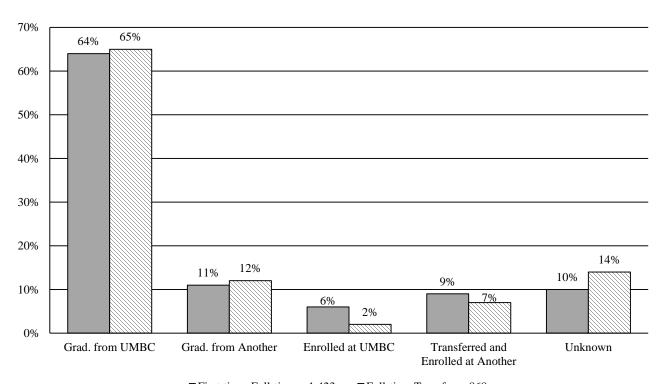
Source: Maryland Higher Education Commission, Retention and Graduation Rates at Maryland Four-year Institutions; University System of Maryland, Transfer Students to the University of Maryland System

highest four-year rate of 51.7%. Overall, the FT/FT graduation rate improved by 1 percentage point from 35.2% to 36.2% between the 2003 and 2009 cohorts, respectively. In terms of the six-year rate, after declining to 64.7% with the 2005 FT/FT cohort, the rate increased to 68.8% with the 2007 cohort, the highest rate since at least the 1991 cohort.

Traditionally, retention and graduation rates, as previous discussed, only measure the progress of FT/FT students and do not account for students who enroll in multiple institutions over the course of their college career. One in five students who complete a degree will do so at a different institution than the one they first enrolled in, according to the National Student Clearinghouse. Student Achievement Measures (SAM) provides a more comprehensive picture of a student's progression to

completion by tracking student movements across institutions. Overall, within six years of first enrolling at UMBC, transfer students graduate at a slightly higher rate (65%) than FT/FT students (64%), as illustrated in **Exhibit 4**. However, the status of 14% of the transfer students is unknown compared to 10% of the FT/FT students.

Exhibit 4
Status of First-time, Full-time and Full-time Transfers Seeking a
Bachelor's Degree After Six Years
Fall 2007 Cohort



■ First-time, Full-time = 1,423 ■ Full-time Transfers =868

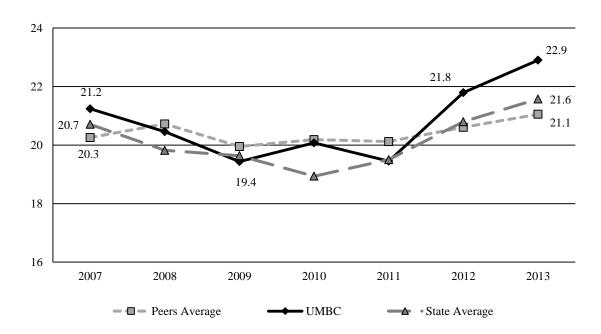
UMBC: University of Maryland Baltimore County

Source: Student Achievement Measures

3. Degree Production Efficiency

How well an institution meets its mission is ultimately measured by the number of undergraduate degrees awarded. Trends in the number of undergraduate degrees awarded per 100 undergraduate full-time equivalent students (FTES) shows if an institution is being more or less productive in graduating students. Ideal performance on this indicator would be 25 completions per 100 FTES since, in general, one-quarter of all students enrolled would graduate each year. **Exhibit 5** compares UMBC's ratio to the average of its peers and the State's public four-year institutions. Peer institutions are those used to benchmark UMBC's performance in the University System of Maryland's (USM) Dashboard Indicators. After exceeding the average of its peers in fiscal 2007 at 21.2 degrees, the ratio declined to 19.4 in fiscal 2009. UMBC remained below the average of its peers until fiscal 2012 when the ratio increased to 21.8 degrees. The ratio reached its highest point of 22.9 degrees in fiscal 2013. The increase between fiscal 2011 and 2013 can be attributed to an increase in undergraduate degree production coupled with fairly flat enrollment growth.

Exhibit 5 Undergraduate Degrees Per 100 Full-time Equivalent Students Fiscal 2007-2013

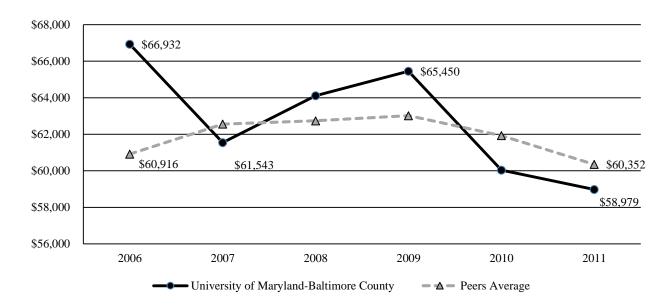


UMBC: University of Maryland Baltimore County

Source: Integrated Postsecondary Education System; Department of Legislative Services

Education and related (E&R) expenditures per degree measures the cost of producing a degree, showing if an institution is becoming more or less productive over time in using its resources to produce degrees. Therefore, the lower the expenditures, the more efficient an institution is in producing degrees. This measure shows if an institution is becoming more or less productive over time in using its resources to produce degrees. In fiscal 2007, expenditures per degree declined to its lowest level of \$61,543 but subsequently increased by \$3,907 to \$65,450 in fiscal 2009, as illustrated in **Exhibit 6**. In the following year expenditures per degree dropped by \$5,417 to \$60,033 per degree, which can be attributed to a decline in E&R revenues. Expenditures per degree declined to its lowest level of \$58,979 in fiscal 2011.

Exhibit 6
Education and Related Expenditures Per Degree Completed
Academic Year 2006-2011



Note: Education and related expenditures includes direct spending on instruction; student services; and education share of spending on academic and institutional support; and operations and maintenance. All dollar amounts are reported in 2011 dollars (Higher Education Price Index adjusted).

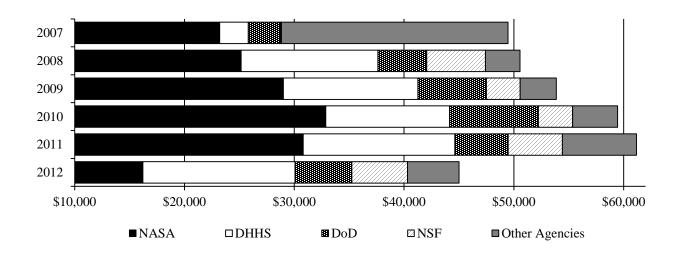
Source: Delta Project, Trends in College Spending Online; Department of Legislative Services

4. Research Expenditures and Doctorates

A goal of UMBC is to be ranked among the top three public research peer institutions in a five-year average growth rate in federal research and development (R&D) expenditures. This not only serves to measure productivity but the capacity to pursue research that attracts and retains faculty. Between fiscal 2007 and 2011, federal R&D expenditures grew 23.7%, or \$11.7 million, primarily due

to increases of \$11.2 million and \$7.6 million in Department of Health and Human Services (DHHS) and National Aeronautics and Space Administration (NASA), respectively, as shown in **Exhibit 7**. However, these increases were partially offset by a \$13.9 million decline in other federal agencies. It should be noted in fiscal 2007, some National Science Foundation (NSF) and DHHS grants and contracts were included in the other agencies category. In fiscal 2012, NASA expenditures fell 47.4%, or \$14.6 million, due to a loss of a contract contributing to total R&D expenditures declining by \$16.2 million. Overall, federal R&D expenditures decreased 9.9% from fiscal 2007 to 2012. According to the NSF, UMBC ranked 167 out of 653 institutions in total R&D expenditures, which totaled \$45.0 million in fiscal 2012.

Exhibit 7
Federal Research and Development Expenditures
Fiscal 2007-2012



DHHS: Department of Health and Human Services

DoD: Department of Defense E&R: education and related

NASA: National Aeronautics and Space Administration

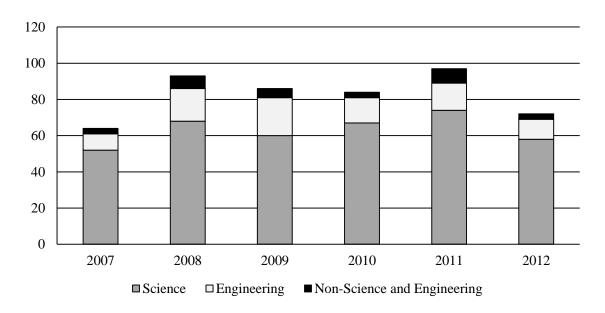
NSF: National Science Foundation

Source: National Science Foundation, National Center for Science and Engineering Statistics, Higher Education E&R

Survey

Over the past five years, the number of earned doctorates fluctuated from a low of 64 in fiscal 2007 to a high of 97 in fiscal 2011, as shown in **Exhibit 8**. A majority of the earned doctorates are in the sciences area with computer sciences accounting for approximately a quarter of the degrees. In fiscal 2012, the number of doctorates awarded, declined by 25 degrees primarily due to 16 less science degrees being awarded. In fiscal 2012, according to NSF, UMBC ranked 166 out of 415 institutions in the number of earned doctorates.

Exhibit 8 Number of Earned Doctorate Degrees Fiscal 2007-2012



Source: National Science Foundation, National Center for Science and Engineering Statistics, Survey of Earned Doctorates

Fiscal 2015 Actions

Cost Containment

The Board of Public Works (BPW) has approved two rounds of cost containment measures in fiscal 2015 resulting in total reductions of \$4.2 million to UMBC's State appropriation. In July 2014, BPW reduced UMBC's State appropriation by \$0.6 million, which resulted in the elimination of 3 vacant positions and \$66,027 in salary and wages associated with those positions. The remaining \$0.5 million was allocated across the campus with each college and division reducing various operating expenditures such as supplies and travel.

In January 2015, BPW approved a \$3.6 million reduction of UMBC's State appropriation. UMBC's plans to meet this reduction through a combination of reducing expenditures, and using fund balance and other revenue sources. UMBC will reduce operating expenditures by \$1.9 million, which includes: \$0.9 million in various operating costs *e.g.*, contractual services, supplies, and travel; \$0.5 million from a hiring freeze; \$0.3 million from part-time/contractual positions; and \$0.2 million from facilities renewal.

In terms of using other revenues, \$0.5 million from an overattainment of tuition revenue and \$1.2 million transfer from the fund balance will be used to cover operating expenses. After the transfer, UMBC's balance in the State-supported portion of the fund balance will total \$17.3 million. UMBC plans to transfer \$3.2 million to its fund balance in fiscal 2015 resulting in the total estimated ending balance of \$64.2 million, \$17.3 million of which is State-supported funding.

Proposed Budget

As shown in **Exhibit 9**, the general fund allowance for fiscal 2016 is 1.2%, or \$1.3 million, higher than fiscal 2015 after including the fiscal 2015 cost containment actions and adjusting for across-the-board reductions in the fiscal 2016 allowance. Across-the-board reductions include a general 2.0% reduction, elimination of employee increments, and a 2.0% pay reduction. The Department of Legislative Services estimates UMBC's share of these reductions to be \$8.1 million. The Higher Education Investment Fund (HEIF) increases 4.5%, or \$0.2 million, over fiscal 2015, resulting in an overall growth in State funds of 1.4%, or \$1.5 million, to \$109.6 million. Other unrestricted funds grow 3.4%, or \$7.2 million due to \$5.6 million and \$2.3 million increase in tuition and fees and auxiliary revenues, respectively. The increase in tuition and fees is partly due to a planned 5% increase in resident undergraduate tuition.

The allowance also provides \$4.7 million in current unrestricted funds for expenses related to: increases in contractual services (\$1.4 million); fuel and utilities (\$1.1 million); financial aid (\$0.9 million); facilities renewal (\$0.4 million); information technology security and compliance (\$0.4 million); debt service payments (\$0.3 million); and costs related to implementing sexual misconduct policy (\$0.2 million).

Budget changes, by program area in the allowance, are shown in **Exhibit 10**. This data includes unrestricted funds only, the majority of which consist of general funds, the HEIF, and tuition and revenue fees. Overall expenditures increase 5.1% from fiscal 2014 to 2015, adjusted for cost containment and a \$1.2 million transfer from fund balance. However, it is not known how the \$1.9 million reduction in operating expenditures related to the January cost containment will be allocated among the program areas, while \$1.7 million of other revenues will be used to cover expenses related to the remaining portion of the reduction. Expenditures in instruction and academic and institutional support increased due to a growth in personnel expenditures (*e.g.*, annualization of the fiscal 2014 salary increments and the cost-of-living adjustment (COLA), the fiscal 2015 COLA and salary increments, and adding positions in response to enrollment growth). Operations and maintenance of plant also include increases in facilities renewal and contractual services for housekeeping, mechanical systems, and grounds. A decrease of \$0.2 million student services is due to reduced spending on contractual services, supplies, and materials.

Exhibit 9 Proposed Budget University of Maryland Baltimore County Fiscal 2014-2016 (\$ in Thousands)

	2014 <u>Actual</u>	2015 Adjusted	2016 Adjusted	2015-16 <u>Change</u>	% Change Prior Year
General Funds	\$95,903	\$107,464	\$112,612		
July 2014 BPW		-566			
January 2015 BPW		-3,623			
Across the Board			-8,076		
Total General Funds	\$95,903	\$103,275	\$104,537	\$1,262	1.2%
HEIF	5,791	4,848	5,067	219	4.5%
Total State Funds	\$101,694	\$108,123	\$109,604	\$1,481	1.4%
Other Unrestricted Funds	205,541	210,960	218,115	7,155	3.4%
Total Unrestricted Funds	\$307,234	\$319,083	\$327,719	\$8,636	2.7%
Restricted Funds	87,028	82,200	83,816	1,616	2.0%
Total Funds	\$394,263	\$401,283	\$411,535	\$10,252	2.6%

HEIF: Higher Education Investment Fund

Note: The fiscal 2016 allowance is adjusted to reflect the University of Maryland Baltimore County's (UMBC) portion of the University System of Maryland's (USM) across-the-board reductions: \$2.3 million related to the 2% reduction was based on UMBC's share of USM's total State appropriations; \$2.4 million for the fiscal 2015 cost-of-living adjustment (COLA) was calculated by annualizing the half year fiscal 2015 COLA; and \$3.4 attributed to salary increments was based on UMBC's portion of fiscal 2016 salary increments as estimated by the Department of Legislative Services.

Source: Governor's Budget Books, Fiscal 2016; Department of Legislative Services

Exhibit 10
UMBC Budget Changes for Unrestricted Funds by Program
Fiscal 2014-2016
(\$ in Thousands)

		2015				
	2014	Adjusted	2014-2015	2016	2015-2016	2015-2016
	<u>Actual</u>	Working	% Change	Adjusted	Change	% Change
Expenditures						
Instruction	\$100,592	\$107,665	7.0%	\$112,156	\$4,491	4.2%
Research	16,224	16,476	1.6%	16,820	343	2.1%
Public Service	4,370	4,233	-3.1%	4,084	-149	-3.5%
Academic Support	20,690	21,500	3.9%	22,394	894	4.2%
Student Services	15,064	14,828	-1.6%	16,041	1,213	8.2%
Institutional Support	33,743	37,071	9.9%	38,892	1,821	4.9%
Operation and						
Maintenance of Plant	30,773	33,378	8.5%	35,211	1,834	5.5%
Scholarships and						
Fellowships	21,337	21,191	-0.7%	22,184	993	4.7%
Fund Balance		1,244				
Education and General						
Total	\$242,793	\$257,585	6.1%	\$267,783	\$10,198	4.0%
Auxiliary Enterprises	64,441	66,365	3.0%	68,011	1,646	2.5%
Net Cost Containment/						
ATB		-2,327		-8,076		
Total	\$307,234	\$321,623	4.7%	\$327,719	\$6,096	1.9%
Revenues						
Tuition and Fees	\$116,794	\$117,002	0.2%	\$122,573	\$5,571	4.8%
General Funds	95,903	103,275	7.7%	104,537	1,262	1.2%
HEIF	5,791	4,848	-16.3%	5,067	219	4.5%
Other Unrestricted Funds	27,469	26,200	-4.6%	24,286	-3,158	-11.5%
Fund Balance		1,244				
Subtotal	\$245,957	\$252,569	2.7%	\$256,463	<i>\$3,894</i>	1.5%
Auxiliary Enterprises	71,943	72,282	0.5%	74,610	2,328	3.2%
Transfer (to)/from Fund						
Balance	-10,665	-3,227		-3,354		
Total	\$307,234	\$321,623	4.7%	\$327,719	\$6,096	1.9%

ATB: across-the-board

HEIF: Higher Education Investment Fund UMBC: University of Maryland Baltimore County

Note: Net cost containment is adjusted to reflect a \$1.2 million transfer from fund balance that will partially offset the \$3.6 million reduction. Fiscal 2015 general funds reflect \$3.6 million in cost containment actions. Fiscal 2016 general funds are adjusted by \$8.1 million to reflect across-the-board reductions.

Source: Governor's Budget Books, Fiscal 2016; Department of Legislative Services

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In terms of revenue, other unrestricted funds decrease \$1.3 million, or 4.8%, in fiscal 2015, due to a decline in other sources, primarily a \$2.2 million decrease in foundation revenues.

Overall, revenues in fiscal 2015 (after adjusting \$1.2 million from fund balance to cover a portion of the January 2015 cost containment) total \$252.6 million, excluding auxiliary enterprises. Educational and general expenditures total \$255.3 million (after adjusting for \$2.4 million in cost containment and \$1.2 million transfer from fund balance) exceeding revenues by \$2.7 million. However, auxiliary enterprise revenues exceed expenditures by \$5.9 million, which can be used to cover expenses in the academic portion of the budget.

Total expenditures grow 2.3%, or \$7.4 million, in fiscal 2016 after adjusting for across-the-board reductions of \$8.1 million. However, at this time, it is not known how institutions will allocate the reductions across the program areas, it is difficult to compare differences in expenditures between fiscal 2015 and 2016. The President should comment on institutions' priorities when determining how reductions will be allocated over the program areas, in particular, minimizing the impact on financial aid.

Issues

1. Meeting College Expenses

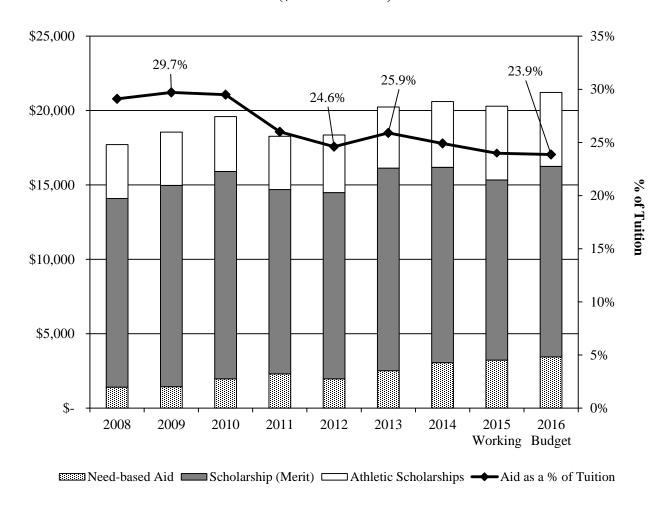
The lack of financial resources frequently contributes to a student's decision to stop or drop out of college. As the costs of a college education continue to escalate, students and families are relying more on various types of financial aid, *e.g.*, federal, State, and institutional to effectively bring down the cost of college. According to the National Center for Education Statistics' College Navigator, the total cost for a FT/FT Maryland undergraduate student at UMBC in fiscal 2013 was \$24,150 (based on tuition, mandatory fees, books and supplies, other expenses, and the weighted average of room and board). However, when accounting for the average amount of federal, State, and institutional aid, the average net price was \$14,321, a 40.7% reduction in the net cost of attendance.

In fiscal 2014, 27.5% of UMBC's undergraduate students receive Pell awards, which are given to those who otherwise could not afford college and have an expected family contribution (EFC) of less than a specific amount, which was \$5,081 in fiscal 2014. The EFC is an indicator of the amount a family is required to contribute to pay for a student's college education; therefore, the lower the EFC, the greater the financial aid.

While total expenditures on institutional aid grew 12.7%, or \$2.3 million, from fiscal 2011 to 2014, only a relatively small portion, an average of 12.6%, went toward need-based aid, as illustrated in **Exhibit 11**. Between fiscal 2009 and 2011, during the recession, expenditures on need-based aid increased 59.4%, or \$0.9 million, but fell by \$0.3 million in fiscal 2012. Spending on need-based aid increased by \$1.1 million in fiscal 2014, yet it comprised only 14.8% of total institutional aid expenditures. While total expenditures on aid declines \$0.3 million in fiscal 2015, the amount going toward need-based aid increases \$0.2 million. In terms of institutional aid as a percentage of undergraduate tuition revenue, after falling to 24.6% in fiscal 2012, it increases to 25.9% in fiscal 2013 but since declines to 23.9% in fiscal 2016.

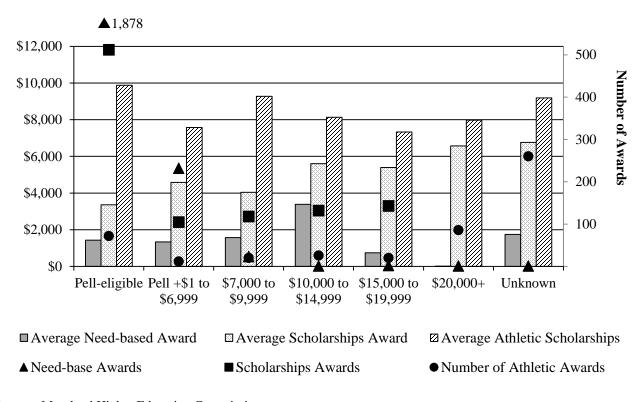
In fiscal 2014, 87.8% of those receiving need-based institutional aid were Pell-eligible students who received an average award of \$1,438, as shown in **Exhibit 12**. Students in all EFC categories received institutional scholarships. Of the 2,347 institutional scholarships awarded, 57.0% were in the \$20,000 and above and unknown category (these are students who did not file a Free Application for Federal Student Aid or FAFSA), receiving the average awards of \$6,567 and \$6,767, respectively.

Exhibit 11
Institutional Aid and Percentage of Undergraduate Tuition
Fiscal 2008-2016
(\$ in Thousands)



Source: University System of Maryland; Department of Legislative Services

Exhibit 12
Number and Average Amount of Institutional Aid Received Per Recipient
Fiscal 2014
(\$ in Thousands)

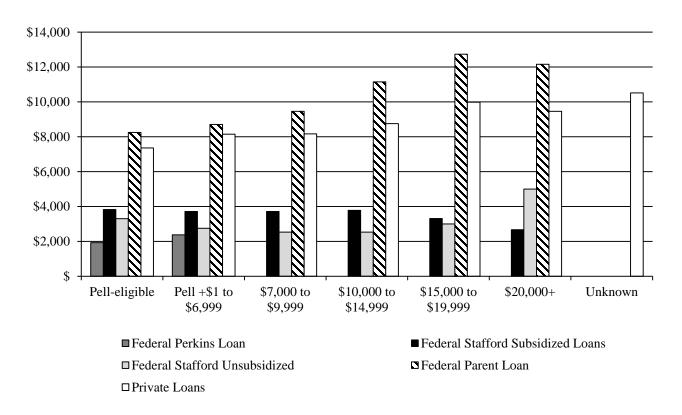


Source: Maryland Higher Education Commission

While the students with the greatest financial need typically receive Pell and institutional aid, it is still not enough to cover the cost of college. As shown in **Exhibit 13**, students in all EFC categories take out various types of loans to finance their education. There are three types of loans:

- federal subsidized loans are based on financial need with the government paying the interest while the student is enrolled in school (Perkins and Stafford loans);
- federal unsubsidized loans generally for those who do not demonstrate financial need with the interest added to the balance of the loan while the student is enrolled in school; and
- private loans.

Exhibit 13
Mean Loan Amount by Type and Expected Family Contribution
Fiscal 2014
(\$ in Thousands)



Source: University System of Maryland

In fiscal 2014, of the 3,353 Pell-eligible students, 85.2% and 98.5% used a Stafford subsidized and unsubsidized loan, respectively, to help finance their college education with average loans of \$3,829 and \$3,304. On average, the federal parent plus loans were the highest loans taken out for those in all EFC categories with those with an EFC of \$15,000 to \$19,999 taking out the highest loan amount of \$12,737.

The President should comment on the relatively low portion of institutional aid going toward need-based aid and if financial literacy or other programs are offered to students to educate them about options and implications of using various methods to finance their college education.

2. Science, Technology, Engineering, and Mathematics Transfer Student Success Initiative

In June 2011, UMBC received a \$0.4 million grant from the Bill and Melinda Gates Foundation to support the planning of the science, technology, engineering, and mathematics (STEM) Transfer Student Success Initiative and in November 2012, received a \$2.6 million, three-year grant from the foundation to implement this initiative. UMBC is working with the four community colleges from which it receives the majority of its transfer students: Anne Arundel Community College, Community College of Baltimore County, Howard Community College, and Montgomery College to help ensure students transfer successfully to UMBC and earn a degree in a STEM discipline. An objective of the grant is to develop a tool kit that other institutions can use to help STEM transfer students earn a four-year degree.

In general, STEM transfer students face the same challenges as any other transfer students such as courses that do not align between the two institutions, credits not transferring, and adjusting to the different culture at a four-year institution. However, STEM transfers face additional obstacles such as not taking the right courses at the community college that can require taking additional courses, and in turn, increase the time that it takes to earn their degree. While the participating institutions have articulation agreements, these do not ensure that students have the knowledge expected for higher level courses. This can be due to the fact that, while professors at the two- and four-year institutions may use the same textbook, they may teach different chapters or use different tests and types of questions. Work on this initiative focuses on those high-impact interventions that can be scaled up to reach the most number of transfer students, ensuring that they have the support and tools needed to succeed.

Over 100 faculty and staff from the participating institutions are working together to:

- better align STEM curricula, thereby reducing credit "leakage" and the need for students to retake courses. Activities include analyzing data to identify opportunities to improve student success; instituting a set of shared best practices to increase the alignment of courses across institutions; agreeing upon a set of STEM competencies; and developing a test bank;
- improve academic and career advising through increased use of online tools. This includes hiring part-time pre-transfer advisors at each participating institution who provide resources, support, and tools for prospective STEM transfer students and the launch of a website (stemtransfer.org) in May 2014, which provides the tools and resources needed to help students identify STEM careers that align with their skills and interests, and ease the transfer to UMBC;
- create programs such as peer mentoring and transfer seminars, to better support students during the transition from a two-year to a four-year institution. Accomplishments include implementing a Peer Alumni from Community College program (PACC), a peer network connecting prospective transfer students with current UMBC STEM students who transfered from a partner institution. To date, there have been 110 interactions through scheduled hours at the community college campuses, and 533 students have attended PACC programs; and

• develop a "Transfer STEM Scholar Pathway" that lays out a clear program of study from the community college to university to graduation. The initiative is relying on UMBC's compliance activities associated with SB 740 in developing pathways for community college transfer students, which will be used as the basis for creating the STEM scholar pathway. Once UMBC establishes an overall transfer pathway, participating institutions will consider if additional targeted strategies are needed.

The President should comment, with grant funding coming to an end in fiscal 2015 and given the current budget situation, how the initiative plans to maintain momentum in developing a national STEM transfer model.

Recommended Actions

1.	See the U	Jniversity S	System o	of Maryland	Overview 1	for systen	nwide recomn	nendations.

Current and Prior Year Budgets

Current and Prior Year Budgets University of Maryland Baltimore County

(\$ in Thousands)

	General Fund	Special Fund	Federal Fund	Other Unrestricted Fund	Total Unrestricted Fund	Restricted Fund	Total
Fiscal 2014	runu	<u>r unu</u>	runu	runu	runu	<u>r unu</u>	<u>10tai</u>
Legislative Appropriation	\$96,861	\$6,847	\$0	\$191,298	\$295,007	\$87,271	\$382,277
Deficiency Appropriation	-2,482	0	0	-423	-2,905	0	-2,905
Budget Amendments	1,659	-46	0	19,243	20,856	2,549	23,405
Reversions and Cancellations	-134	-1,011	0	-4,578	-5,723	-2,792	-8,515
Actual Expenditures	\$95,903	\$5,791	\$0	\$205,541	\$307,234	\$87,028	\$394,263
Fiscal 2015							
Legislative Appropriation	\$106,541	\$4,579	\$0	\$208,477	\$319,597	\$85,862	\$405,459
Cost Containment	-566	0	0	0	-566	0	-566
Budget Amendments	923	270	0	2,483	3,676	-3,662	13
Working Appropriation	\$106,898	\$4,848	\$0	\$210,960	\$322,707	\$82,200	\$404,907

Note: Numbers may not sum to total due to rounding. The fiscal 2015 working appropriation does not include January 2015 Board of Public Works reductions and deficiencies.

Fiscal 2014

For fiscal 2014, the general fund decreased \$1.0 million. This included a \$2.5 million decrease through deficiency appropriations related to health insurance, retirement, and the State personnel system and an increase by \$1.7 million through budget amendment related to a 3% COLA. Language in the fiscal 2014 budget bill transferred funds to the Maryland Higher Education Commission to provide additional funding for the Educational Assistance Grants. However, since the funds were not used for this purpose, \$0.1 million was reverted to the general fund.

The special fund appropriation decreased \$46,057 related to language in the fiscal 2014 budget bill that transferred a portion of the HEIF to St. Mary's College of Maryland. A cancellation of \$1.0 million is due to the underattainment of HEIF revenues.

Other unrestricted funds increased by \$18.8 million, which included a reduction of \$0.4 million in deficiency appropriations related to retirement. Increases of \$19.2 million by way of budget amendment included:

- \$15.0 million in the sales and services of auxiliary enterprises related to retiring debt on two residence halls and the renovation of two resident halls;
- \$1.7 million in tuition and fees revenues from additional enrollment of 263 FTES;
- \$1.2 million in indirect cost recovery;
- \$0.5 million in the sales and services of educational activities;
- \$0.4 million not being transferred to the fund balance; and
- \$0.4 million in miscellaneous revenue.

This increase was partially offset by cancellations of unrestricted funds amounting to \$4.6 million due to using plant funds instead of unrestricted funds for the renovations of Potomac Hall and an end-of-year transfer of fund balance to the general funds as required by language in the Budget Reconciliation and Financing Act of 2014.

Restricted funds budget amendments added \$2.5 million including \$3.9 million in private gifts and contracts and \$1.9 million in State grants and contracts that is partially offset by a \$3.2 million decline in federal grants and contract to align the budget with expenditures.

Cancellations of restricted funds totaled \$2.8 million due to the GE Healthcare project (\$0.8 million) and Johns Hopkins Applied Physics award (\$0.3 million) ending earlier than expected; and expenditures on contracts from the Howard Hughes Medical Institute (\$0.3 million) and the Department of Health and Mental Hygiene (\$1.3 million) being less than anticipated.

Fiscal 2015

For fiscal 2015, general funds for UMBC have increased \$0.4 million with budget amendments adding \$1.2 million related to the fiscal 2015 2% COLA that was partially offset with \$0.6 million in cost containment measures. General funds also decline \$0.3 million, offset by a corresponding increase in HEIF. An increase of \$2.5 million in other unrestricted funds is derived from increases of \$5.4 million in other sources of income, \$1.2 million in tuition and fee revenues due to additional enrollment of 200 FTES, \$0.5 million in the sales and services of educational activities, and \$65,856 not being transferred to the fund balance; increases are partially offset by decreases of \$4.2 million in the sales and services of auxiliary revenues to realign the budget with current projections and \$0.5 million in indirect cost recovery.

Restricted funds decline \$3.7 million by budget amendment primarily due to a \$2.2 million and \$1.5 million decrease in federal and private grants and contracts, respectively, to realign the budget with actual activity. This is partially offset by a \$17,785 increase in State and local grants and contracts.

Appendix 2

UMBC Full-time Equivalent Personnel by Budget Program Fiscal 2006, 2014, and 2015

	2006		20	2014		15	2006-2015
	<u>FTEs</u>	% of Total <u>FTEs</u>	<u>FTEs</u>	% of Total <u>FTEs</u>	<u>FTEs</u>	% of Total <u>FTEs</u>	Change of <u>Share</u>
Instruction	675.1	40.5%	721.1	39.8%	744.2	41.3%	0.7%
Research	192.4	11.5%	220.1	12.2%	194.5	10.8%	-0.8%
Public Service	81.7	4.9%	90.1	5.0%	89.5	5.0%	0.1%
Academic Support	154.6	9.3%	138.1	7.6%	138.2	7.7%	-1.6%
Student Services	100.0	6.0%	131.3	7.3%	135.9	7.5%	1.5%
Institutional Support	231.7	13.9%	256.3	14.2%	263.8	14.6%	0.7%
Operations, Maintenance of Plant	83.4	5.0%	86.0	4.8%	88.0	4.9%	-0.1%
Auxiliary Enterprises	147.6	8.9%	166.9	9.2%	149.7	8.3%	-0.6%
Total	1,666.4		1,809.8		1,803.8		

FTE: full-time equivalent

UMBC: University of Maryland Baltimore County

Note: Data are for filled regular positions only. All data are self-reported and unaudited. Numbers may not sum to total due to rounding.

Source: University of Maryland Baltimore County

Object/Fund Difference Report USM – University of Maryland Baltimore County

FY 15								
	FY 14	Working	FY 16	FY 15 - FY 16	Percent			
Object/Fund	<u>Actual</u>	Appropriation	Allowance	Amount Change	Change			
n								
Positions	1.044.00	1.005.00	1.005.22	0.00	00/			
01 Regular	1,944.89	1,995.23	1,995.23	0.00	0%			
02 Contractual	514.07	425.24	425.24	0.00	0%			
Total Positions	2,458.96	2,420.47	2,420.47	0.00	0%			
Objects								
01 Salaries and Wages	\$ 216,494,390	\$ 232,839,000	\$ 243,261,636	\$ 10,422,636	4.5%			
02 Technical and Spec. Fees	1,138,560	509,896	509,896	0	0%			
03 Communication	880,913	902,043	901,565	-478	-0.1%			
04 Travel	5,089,637	3,369,699	3,369,699	0	0%			
06 Fuel and Utilities	13,298,789	13,861,292	15,115,264	1,253,972	9.0%			
07 Motor Vehicles	863,428	1,678,496	1,679,108	612	0%			
08 Contractual Services	48,411,350	49,143,276	50,842,208	1,698,932	3.5%			
09 Supplies and Materials	20,768,375	15,188,002	15,255,720	67,718	0.4%			
11 Equipment – Additional	9,509,377	7,791,431	7,791,431	0	0%			
12 Grants, Subsidies, and Contributions	48,857,914	48,223,932	49,163,120	939,188	1.9%			
13 Fixed Charges	21,569,390	22,598,607	22,537,031	-61,576	-0.3%			
14 Land and Structures	7,380,676	8,800,831	9,183,770	382,939	4.4%			
Total Objects	\$ 394,262,799	\$ 404,906,505	\$ 419,610,448	\$ 14,703,943	3.6%			
Funds								
40 Unrestricted Fund	\$ 307,234,496	\$ 322,706,505	\$ 335,794,513	\$ 13,088,008	4.1%			
43 Restricted Fund	87,028,303	82,200,000	83,815,935	1,615,935	2.0%			
Total Funds	\$ 394,262,799	\$ 404,906,505	\$ 419,610,448	\$ 14,703,943	3.6%			

Analysis of the FY 2016 Maryland Executive Budget, 2015

Note: The fiscal 2015 working appropriation does not include January 2015 Board of Public Works reductions and deficiencies. The fiscal 2016 allowance does not reflect contingent or across-the-board reductions.

Fiscal Summary
USM – University of Maryland Baltimore County

Program/Unit	FY 14 <u>Actual</u>	FY 15 Wrk Approp	FY 16 Allowance	Change	FY 15 - FY 16 <u>% Change</u>
01 Instruction	\$ 101,891,319	\$ 107,774,382	\$ 112,269,900	\$ 4,495,518	4.2%
02 Research	59,664,117	56,546,796	57,935,334	1,388,538	2.5%
03 Public Service	20,944,004	19,693,794	19,879,097	185,303	0.9%
04 Academic Support	20,690,316	21,499,893	22,394,366	894,473	4.2%
05 Student Services	15,957,809	17,089,332	18,503,383	1,414,051	8.3%
06 Institutional Support	33,743,389	37,070,710	38,892,158	1,821,448	4.9%
07 Operation and Maintenance of Plant	30,777,141	33,377,539	35,211,474	1,833,935	5.5%
08 Auxiliary Enterprises	64,441,439	66,365,348	68,011,474	1,646,126	2.5%
17 Scholarships and Fellowships	46,153,265	45,488,711	46,513,262	1,024,551	2.3%
Total Expenditures	\$ 394,262,799	\$ 404,906,505	\$ 419,610,448	\$ 14,703,943	3.6%
Unrestricted Fund	\$ 307,234,496	\$ 322,706,505	\$ 335,794,513	\$ 13,088,008	4.1%
Restricted Fund	87,028,303	82,200,000	83,815,935	1,615,935	2.0%
Total Appropriations	\$ 394,262,799	\$ 404,906,505	\$ 419,610,448	\$ 14,703,943	3.6%

Note: The fiscal 2015 working appropriation does not include January 2015 Board of Public Works reductions and deficiencies. The fiscal 2016 allowance does not reflect contingent or across-the-board reductions.

Analysis of the FY 2016 Maryland Executive Budget, 2015