

R30B21
University of Maryland, Baltimore
University System of Maryland

Operating Budget Data

(\$ in Thousands)

	<u>FY 11</u> <u>Actual</u>	<u>FY 12</u> <u>Working</u>	<u>FY 13</u> <u>Allowance</u>	<u>FY 12-13</u> <u>Change</u>	<u>% Change</u> <u>Prior Year</u>
General Funds	\$177,583	\$174,993	\$176,252	\$1,259	0.7%
Contingent & Back of Bill Reductions	0	0	-\$103	-\$103	
Adjusted General Fund	\$177,583	\$174,993	\$176,149	\$1,156	0.7%
Special Funds	6,877	9,533	8,037	-1,496	-15.7%
Contingent & Back of Bill Reductions	0	0	\$103	\$103	
Adjusted Special Fund	\$6,877	\$9,533	\$8,140	-\$1,393	-14.6%
Other Unrestricted Funds	335,049	337,452	342,143	4,691	1.4%
Adjusted Other Unrestricted Fund	\$335,049	\$337,452	\$342,143	\$4,691	1.4%
Total Unrestricted Funds	519,509	521,977	526,432	4,454	0.9%
Adjusted Total Unrestricted Funds	\$519,509	\$521,977	\$526,432	\$4,454	0.9%
Restricted Funds	467,037	481,449	492,422	10,973	2.3%
Adjusted Restricted Fund	\$467,037	\$481,449	\$492,422	\$10,973	2.3%
Adjusted Grand Total	\$986,547	\$1,003,426	\$1,018,854	\$15,427	1.5%

- General funds increase approximately \$1.16 million, or 0.7%, in the fiscal 2013 allowance. Overall, funds increase approximately \$15.43 million, or 1.5%.
- Contingent on the enactment of the Budget Reconciliation and Financing Act (BRFA) of 2012, \$102,624 in general funds would be reduced and replaced with the same amount of Higher Education Investment Fund dollars.

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

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Personnel Data

	<u>FY 11 Actual</u>	<u>FY 12 Working</u>	<u>FY 13 Allowance</u>	<u>FY 12-13 Change</u>
Regular Positions	4,703.56	4,880.18	4,880.18	0.00
Contractual FTEs	<u>306.04</u>	<u>327.18</u>	<u>327.18</u>	<u>0.00</u>
Total Personnel	5,009.60	5,207.36	5,207.36	0.00

Vacancy Data: Regular Positions

Turnover and Necessary Vacancies, Excluding New Positions	68.8	1.4%
Positions and Percentage Vacant as of 12/31/11	213.6	4.4%

- As of December 31, 2011, the University of Maryland, Baltimore (UMB) had 213.6 vacant positions, of which 6.0 are State-supported.
- The allocation reflects no changes in regular positions or contractual positions.

Analysis in Brief

Major Trends

Extramural Funding Resumes Growing: The amount of funding received for research grants and contracts and for scholarships decreased \$9 million, or 1.6%, in fiscal 2011 due to the completion of the American Recovery and Reinvestment Act of 2009. Estimates for 2012 and beyond foresee funding growing again.

Production of Health Degrees Continues to Grow: Efforts to boost health occupation degrees in recent years have proved successful; however, nursing degrees have leveled off after growing over 46% in five years. Pharmacy and dentistry graduates are also up 39 and 18%, respectively.

Issues

Affordability of Undergraduate Studies: UMB offers several health-related undergraduate degrees, some with tuition and fees around \$9,000 a year. Despite growth in tuition rates over the past several years, institutional aid to the neediest segment of students has only grown by about \$16,000 from fiscal 2007 to 2011.

Affordability of Graduate and Professional Studies: The professional degrees UMB awards are known for being especially expensive – medical, legal, dental, etc. To assist students, the university offers institutional aid to meet costs. Although the total amount of aid awarded declined from 2008 to 2010, aid increased by nearly \$400,000, or 6%, in 2011.

Technology Transfer: Technology transfer is a source of millions of dollars in revenue for highly productive research universities such as UMB. However, UMB trails its peers in patents, licensing, and revenue from technology transfer. Several recent institution- and State-level programs have pushed UMB to produce more marketable ideas and foster greater collaboration between its faculty and the private sector.

Recommended Actions

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

Updates

Retention of Critical Staff and Faculty: The BRFA of 2011 required the University System of Maryland (USM) to create a policy for the administration of salary increases to retain “operationally critical staff” and report the increases awarded under this designation. From July 1 to November 15, 2011, UMB had 80 of all critical positions in USM. Out of \$3.0 million in total compensation used for retention, UMB received about \$1.9 million of all funding.

R30B21 – USM – University of Maryland, Baltimore

R30B21
University of Maryland, Baltimore
University System of Maryland

Operating Budget Analysis

Program Description

The University of Maryland, Baltimore (UMB) offers primarily graduate and professional degrees in the fields of health, applied health, biomedical science and technology, social work, and law. The professional programs include the Schools of Dentistry, Law, Medicine, Nursing, Pharmacy, and Social Work. Less than 15% of the enrollment at UMB is in baccalaureate programs.

UMB is located in downtown Baltimore and has two clinical partners – the University of Maryland Medical Center and the Veterans Administration Medical Center. UMB absorbed components of its research partner, the University of Maryland Biotechnology Institute (UMBI), in fiscal 2011.

The mission of UMB is to:

- continue to evolve and maintain a competitive edge as a center of excellence in the life and health sciences, law, and social work; and
- conduct recognized research and scholarship in the life and health sciences, law, and social work that fosters social and economic development.

The institution aims to respond to the State's critical need for health and human services professionals. Many of the university's programs are designed for full-time students. However, the Schools of Nursing and Social Work and the Medical Research Technology program have a significant number of part-time students. The Schools of Nursing, Pharmacy, and Social Work offer full programs at the Universities at Shady Grove.

UMB also aims to provide public service to all citizens in all sectors and geographic regions of Maryland, especially the community surrounding the urban campus. The institution provides legal and dental clinics, community outreach services, support to the Maryland Poison Control Center, and staff to its clinical partners. The university also strives to increase fundraising to deliver programs more effectively and to encourage entrepreneurial activities that generate economic development.

Carnegie Classification: Research and Special Focus Institution: Medical

Fall 2011 Undergraduate Enrollment Headcount		Fall 2011 Graduate Enrollment Headcount	
Male	121	Male	1,767
Female	610	Female	3,897
Total	731	Total	5,664
Fall 2011 New Students Headcount		Campus (Main Campus)	
First-time	0	Acres	71
Transfers/Others	214	Buildings	65
Graduate	1,651	Average Age	23
Total	1,865	Oldest	1812
Programs		Degrees Awarded (2010-2011)	
Bachelor's	3	Bachelor's	359
Master's	13	Master's	739
Doctoral	28	Doctoral	875
		Certificate	31
		Total Degrees	2,004

Proposed Fiscal 2013 In-state Tuition and Fees*

Undergraduate Tuition**	\$7,498
Mandatory Fees	1,675
M. D. Program Tuition	28,187
Mandatory Fees	1,696

*Contingent on Board of Regents Approval

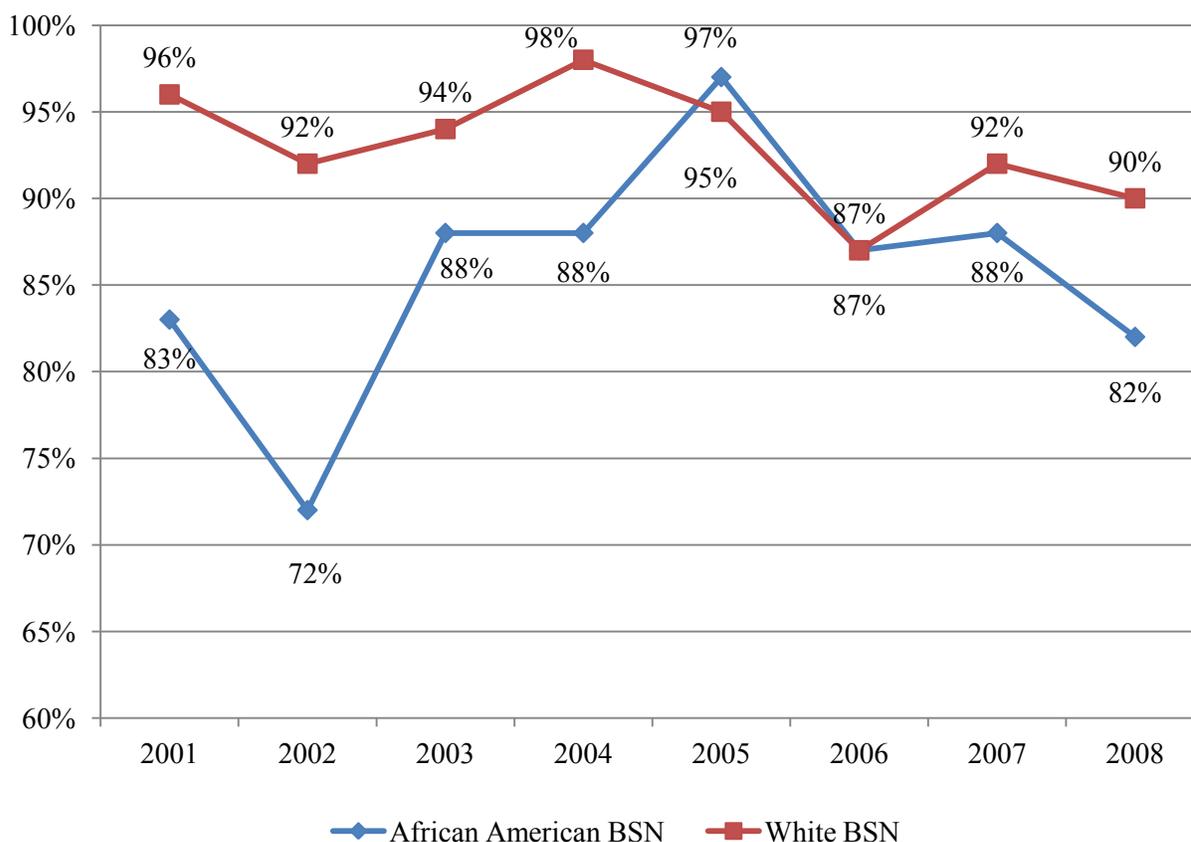
**Nursing program

Performance Analysis: Managing for Results

Colleges and universities measure success in many ways, but graduation and retention rates are two of the main modes of comparison. The University System of Maryland (USM) recently started the *Closing the Achievement Gap* initiative, focusing on increasing the success rates of undergraduate minority students compared to the overall undergraduate student average. Since UMB's undergraduate students are all junior year transfers and are mainly enrolled in the Bachelor of Science in Nursing (BSN) program, UMB's Closing the Achievement Gap initiative focuses on the BSN program.

Exhibit 1 shows three-year graduation rates of African American and White students, or the percent of students who have graduated within three years after transferring into the BSN program at UMB. With the exception of the fall 2005 and 2006 cohorts, the graduation rate of African American students trails that of White students, and the most recent cohort has an 8 percentage point gap. The small size of African American BSN cohorts contributes to the variability in data.

Exhibit 1
Three-year BSN Graduation Rate
African American and White Students
2001-2008 Fall Cohorts



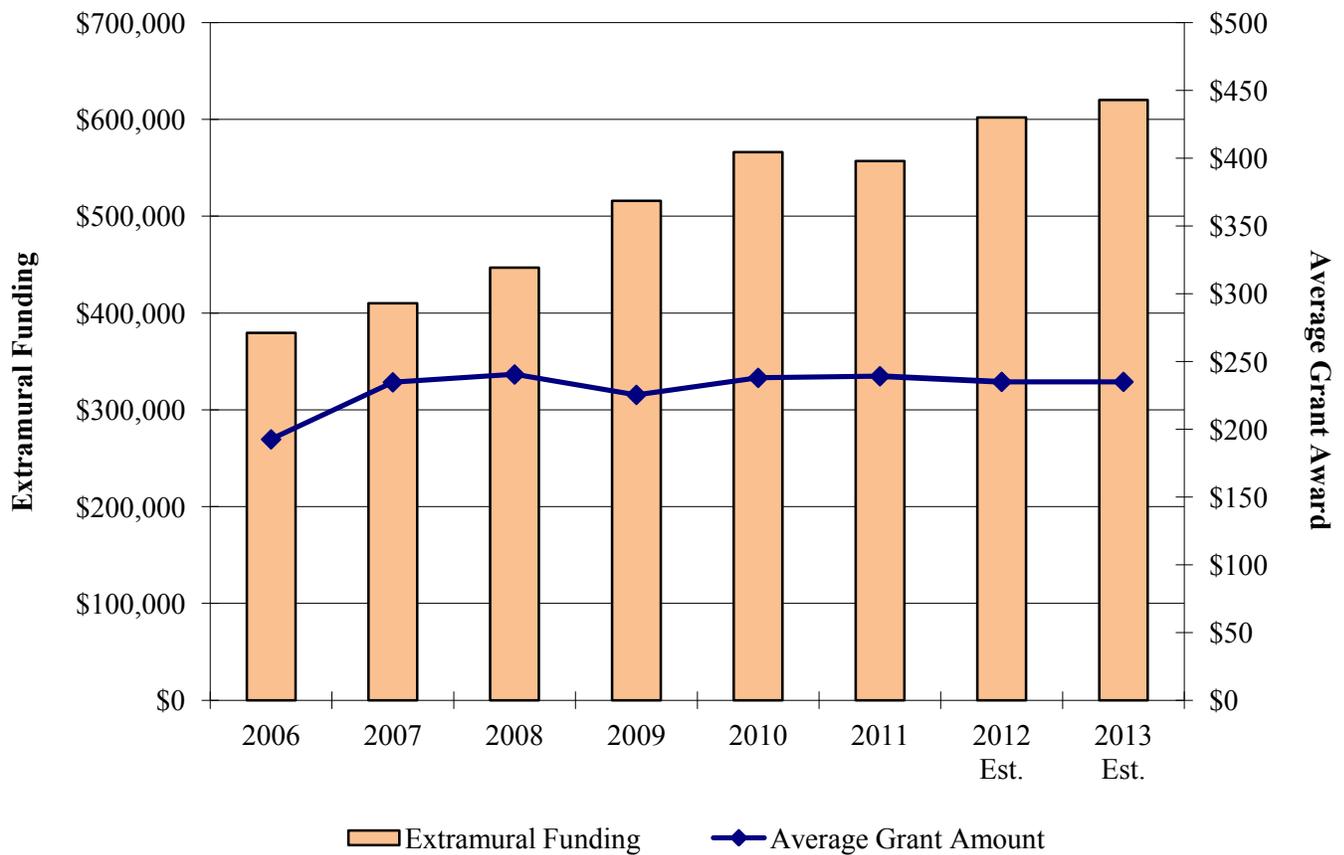
BSN: Bachelor of Science in Nursing

Source: University of Maryland, Baltimore

UMB is working to close the achievement gap by establishing the Student Success Center, which focuses on identifying and supporting BSN students most at risk of not succeeding. The center assists faculty with identifying at-risk students and also analyzes student performance in the two most challenging courses. **The President should comment on UMB's *Closing the Achievement Gap* initiatives and why it seems the achievement gap has grown in the two most recent cohorts. The President should also comment on why the 2006 cohort dropped significantly for both groups of students.**

As a highly productive research institution, UMB receives a significant amount of research and scholarship funding from State, local, and private sources. Extramural funding and the average grant amount awarded to faculty between fiscal 2006 and the 2013 estimate are shown in **Exhibit 2**. In fiscal 2010, extramural funding increased \$50 million over fiscal 2009, \$40 million more than was projected a year ago. UMB reported the growth was due to the increase in funding made available by the American Recovery and Reinvestment Act of 2009 (ARRA) and also to increases in grant funding to the Schools of Nursing and Social Work. The temporary boost from the ARRA explains the slight decrease in total funding in fiscal 2011. The projected growth in 2013 is relatively small, only 3%, compared to a 2006 to 2012 yearly average of about 8%. **The President should comment on UMB’s recent successes in extramural funding and how it can continue this success given the state of the national economy.**

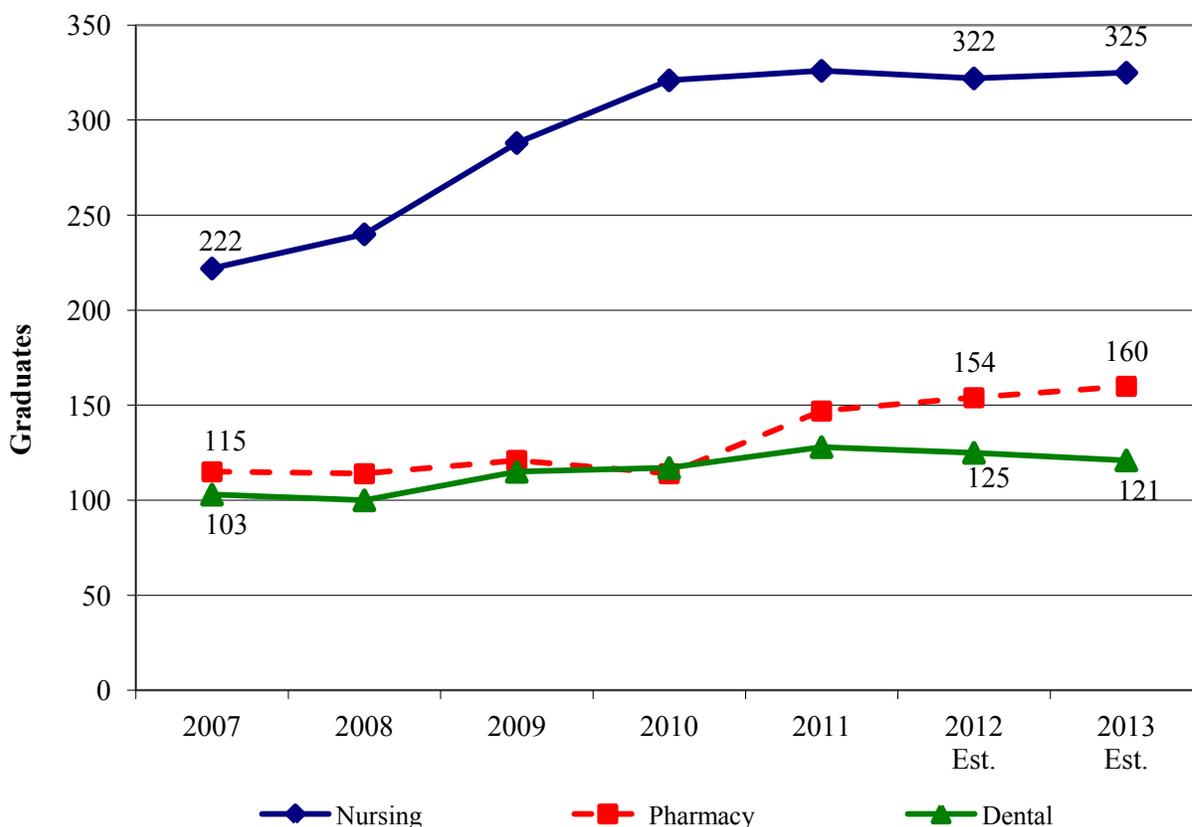
Exhibit 2
Extramural Funding and Average Faculty Grant Award
Fiscal 2006-2013
(\$ in Thousands)



Source: Governor’s Budget Books, Fiscal 2009-2013

UMB is the State’s only public medical and dental school and the largest public nursing and pharmacy school, and part of its mission is to meet the State’s critical need for health and human services professionals. **Exhibit 3** shows the number of graduate degrees awarded from UMB’s nursing, pharmacy, and dental schools. The nursing program continues to show the greatest growth, but it began leveling out in fiscal 2011 at around 320 degrees. However, the program still denies admission to about 30 qualified nursing applicants each year. Pharmacy degrees increased starting in fiscal 2011 due to cohorts now graduating from the Universities at Shady Grove campus. Over this time period, nursing degrees grew about 46.4%, pharmacy by 39.1%, and dental by 17.5%. **The President should comment on UMB’s success in growing in-demand allied health field degrees and whether there is high demand for future growth in these, or related, degree programs at UMB. The President should also comment on what would be necessary to admit all qualified nursing applicants.**

Exhibit 3
Master’s and Doctoral Nursing, Pharmacy, and Dental Graduates
Fiscal 2007-2013



Source: Governor’s Budget Books, Fiscal 2010-2013

Fiscal 2012 Actions

Section 47 of the fiscal 2012 budget bill required the Governor to abolish 450 positions as of January 1, 2012. USM’s share of the reduction was 60 positions with a corresponding \$2 million reduction in general funds. UMB lost 12 positions in this reduction. Further discussion of UMB’s personnel is included in the Update section of this analysis.

Proposed Budget

Exhibit 4 shows funding for UMB between fiscal 2011 and the 2013 allowance. A loss of Higher Education Investment Funds (HEIF) of \$1.4 million, or 15.7%, is offset by an increase in \$1.2 million, or 0.7%, in general funds. Overall, State funds decline about \$237,000 in fiscal 2013, for a net loss of 0.1%. Other unrestricted funds increase about \$4.7 million, or 1.4%, as restricted funds grow \$11.0 million, or 2.3%. Total funding rises \$15.4 million, or 1.5%.

Exhibit 4
Proposed Budget
University of Maryland, Baltimore
Fiscal 2011-2013
(\$ in Thousands)

	<u>2011</u> <u>Actual</u>	<u>2012</u> <u>Working</u>	<u>2013</u> <u>Adjusted</u>	<u>2012-13</u> <u>Change</u>	<u>% Change</u> <u>Prior Year</u>
General Funds	\$177,583	\$174,993	\$176,149	\$1,156	0.7%
Higher Education Investment Fund	6,877	9,533	8,140	-1,393	-14.6%
Total State Funds	\$184,460	\$184,526	\$184,289	-\$237	-0.1%
Other Unrestricted Funds	335,049	337,452	342,143	4,691	1.4%
Total Unrestricted Funds	519,509	521,977	526,432	4,454	0.9%
Restricted Funds	467,037	481,449	492,422	10,973	2.3%
Total Funds	\$986,547	\$1,003,426	\$1,018,854	\$15,427	1.5%

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

Changes by Budget Program

Changes by budget program are shown in **Exhibit 5**. Between fiscal 2012 and 2013, the increases are generally less than 1%. Scholarships and Fellowships shows the largest growth of 6.0%, or \$576,000, to meet growing student financial aid needs. Institutional Support also grows 3.4%, or \$2.4 million, to account for growing university operations. Among revenues, the largest growth is a \$5.6 million increase in tuition and fee revenue. Although undergraduate tuition rates are increasing 3.0%, increases in graduate tuition and fee rates range from 2.0 to 8.0%. General funds grow slightly by \$1.2 million.

Exhibit 5
Budget Changes for Unrestricted Funds by Program
Fiscal 2011-2013
(\$ in Thousands)

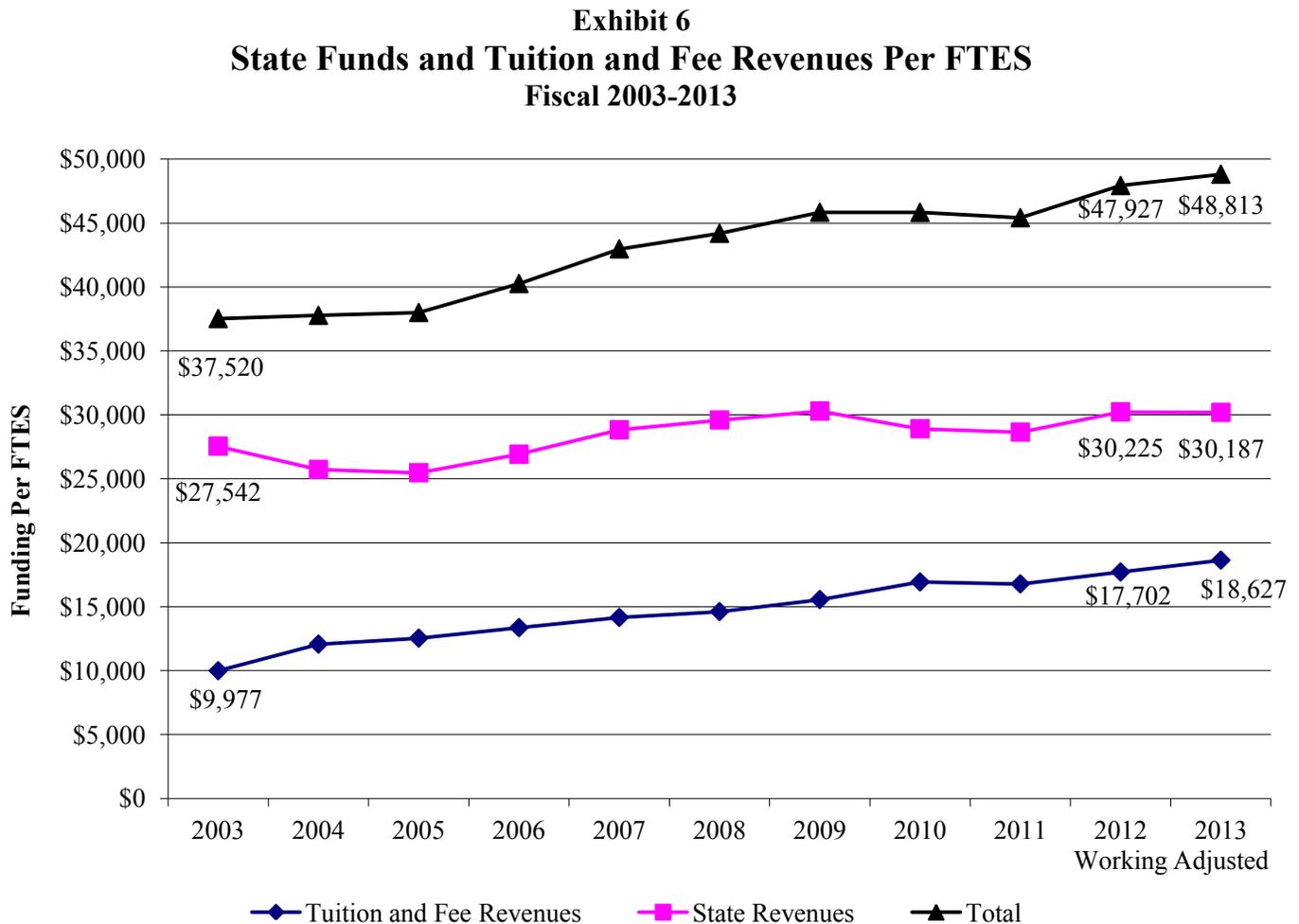
	<u>2011</u> <u>Actual</u>	<u>2012</u> <u>Working</u>	<u>2011-12</u> <u>% Change</u>	<u>2013</u> <u>Adjusted</u>	<u>2012-13</u> <u>Change</u>	<u>2012-13</u> <u>% Change</u>
Expenditures						
Instruction	\$175,722	\$176,968	0.7%	\$176,582	-\$385	-0.2%
Research	69,591	67,482	-3.0%	67,425	-57	-0.1%
Public Service	3,648	3,871	6.1%	3,880	9	0.2%
Academic Support	51,960	53,475	2.9%	53,884	409	0.8%
Student Services	3,414	3,668	7.4%	3,668	0	0.0%
Institutional Support	69,475	70,449	1.4%	72,879	2,430	3.4%
Operation and Maintenance of Plant	71,743	74,603	4.0%	76,028	1,425	1.9%
Scholarships and Fellowships	9,250	9,596	3.7%	10,171	576	6.0%
Education and General Total	\$454,804	\$460,110	1.2%	\$464,517	\$4,407	1.0%
Hospitals	35,404	35,377	-0.1%	35,377	0	0.0%
Auxiliary Enterprises	29,302	26,537	-9.4%	26,537	0	0.0%
Grand Total	\$519,509	\$522,025	0.5%	\$526,432	\$4,407	0.8%
Revenues						
Tuition and Fees	\$107,984	\$108,069	0.1%	\$113,717	\$5,648	5.2%
Higher Education Investment Fund	6,877	9,533	38.6%	8,140	-1,393	-14.6%
General Funds	177,583	174,993	-1.5%	176,149	1,156	0.7%
Other Unrestricted Funds	213,973	202,992	-5.1%	202,036	-957	-0.5%
Subtotal	\$506,417	\$495,587	-2.1%	\$500,041	\$4,454	0.9%
Auxiliary Enterprises	30,481	27,932	-8.4%	27,932	0	0.0%
Transfer (to)/from Fund Balance	-17,389	-1,542	-91.1%	-1,542	0	0.0%
Grand Total	\$519,509	\$521,977	0.5%	\$526,432	\$4,454	0.9%

Note: Unrestricted funds only. Fiscal 2012 revenues are reduced by \$1,213,439 in general funds and \$1,137,411 in other unrestricted funds to reflect back of the bill and contingent reductions.

Source: Maryland State Budget

Funding Per Full-time Equivalent Student

Exhibit 6 shows State funds and tuition and fee revenues per full-time equivalent student (FTES) from fiscal 2003-2013. Although funding per FTES increases in the allowance, it is entirely due to rising tuition and fee revenues. State funds decline \$39 per FTES. Tuition and fee revenue have increased every year. In fiscal 2013, the increase is \$925 per FTES, or 5.2%.



FTES: full-time equivalent student

Source: Governor’s Budget Books, Fiscal 2005-2013

Federal Changes

Every year since 1990 Congress has mandated a provision limiting the direct salary that an individual may receive under a National Institute of Health (NIH) grant. In fiscal 2012, Congress reduced the salary for the first time to \$179,700, a decrease of \$20,000. This affects the sources of external income currently used to fund a faculty member's institutional base salary. The federal government is reducing the support available to fund the time or effort spent on sponsored research. This change also reduces the coverage of fringe benefits, since this coverage is driven by salary. This change affects most federal grants issued after December 22, 2011.

UMB expects its operations, especially within the School of Medicine (SOM), will need to use other non-State sources to fund any increase in “over the cap” cost sharing. At the SOM alone, 181 faculty members currently have salaries over the new cap; however, not all are NIH-funded, and the cap-lowering will only occur when an NIH grant is renewed. The SOM faculty are expected to generate a certain portion of their salaries, and if they are not able to do so, a salary reduction may result (this primarily applies to clinical faculty who generate revenue from direct patient care). Currently, less than 15% of State funds support the SOM's faculty salaries. **The President should comment on any updates regarding how the NIH rule change will affect UMB, especially the SOM, and if the rule change may jeopardize retention of any critical faculty.**

Issues

1. Affordability of Undergraduate Studies

Financial aid is an important component to helping many students succeed in earning a degree. Lack of financial support frequently contributes to a student's decision to stop or drop out of college. Generally, by combining various types of aid – federal, State, and institutional – students are able to effectively lower the cost of college. UMB is unique among Maryland schools for its focus on graduate studies. While the school does offer several bachelor's degrees in allied health fields, undergraduates only make up about 11% of the total student body. Proposed undergraduate tuition at UMB in 2013 varies by program, from \$6,371 for dental hygiene studies to \$9,173 for nursing studies.

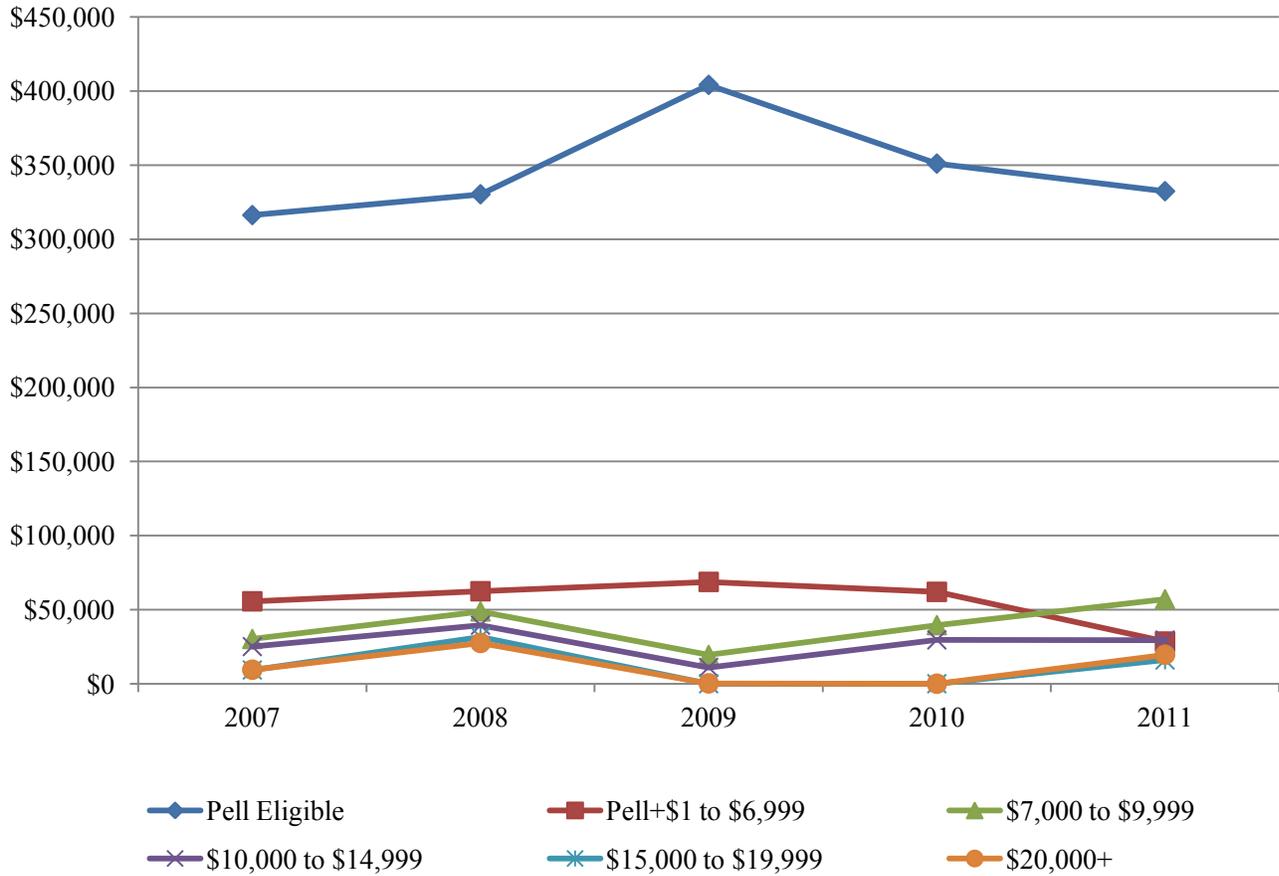
Institutional Aid and Pell Awards

Exhibit 7 shows the total amount of institutional aid (grants and scholarships) and federal Pell grants that UMB appropriates by expected family contribution (EFC). In fiscal 2011, UMB directed a majority of its institutional aid to the Pell-eligible students. Pell awards are given to students that could not otherwise afford college and have an EFC of less than a specified amount, which is \$5,273 in fiscal 2011. 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 need. From fiscal 2007 to 2011, aid to Pell-eligible students increased 5.1%, although it peaked in fiscal 2009 at just over \$400,000. Total institutional aid and Pell grants grew 8.3%, from about \$460,000 to \$483,000.

Starting in fiscal 2010, UMB's Diversity Awards were listed in a new financial aid category that was not captured in USM's financial aid reporting system. Thus the 2010 and 2011 amounts for total institutional and Pell aid are, according to UMB, actually \$537,592 and \$548,481, which would mean total aid has increased from fiscal 2007 to 2011.

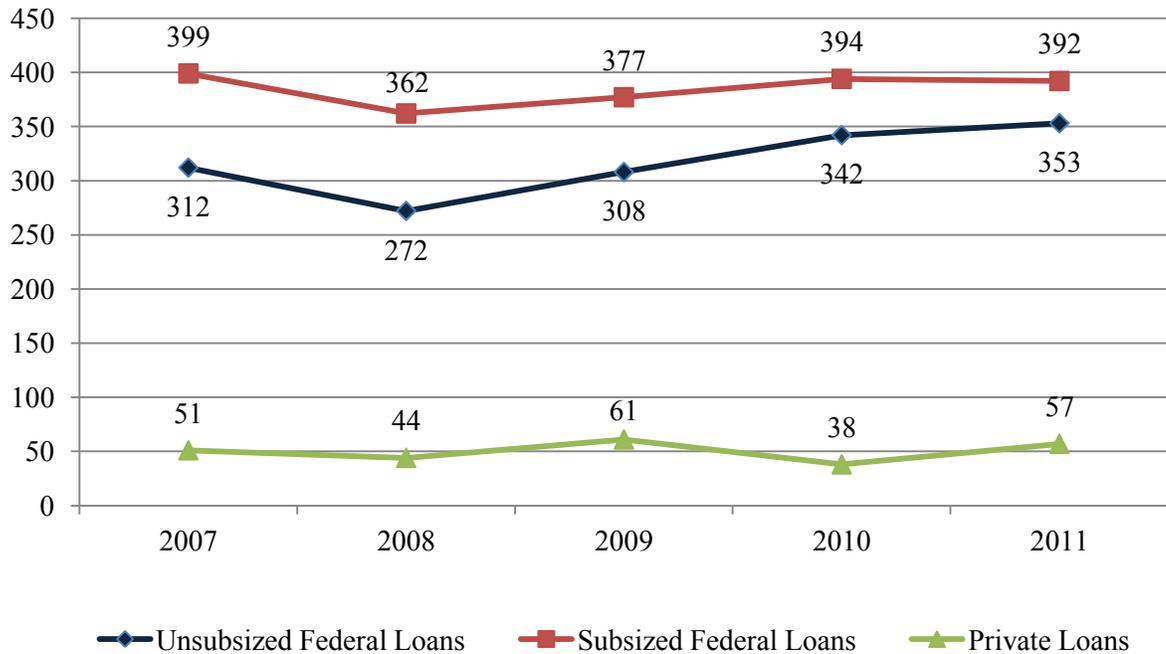
In addition to financial aid, students may take out loans to pay for their education. There are three types of loans: federal subsidized (based on financial need; the government pays the interest while the student is enrolled in school); federal unsubsidized (generally for those students who do not demonstrate financial need; interest is added to the balance of the loan while the student is enrolled in school); and private sources, such as banking institutions, whose interest rates and repayment policies vary. As illustrated in **Exhibit 8**, the number of unsubsidized loans grew 25.7%, or 70, between fiscal 2008 and 2010 suggesting the economic downturn started to impact students in fiscal 2009. This may be due to the change in the federal loan limits. In 2008 the annual loan limit for dependent students increased \$2,000 and by an additional \$2,000 for independent students.

Exhibit 7
Total Institutional Aid Plus Pell Grants
Fiscal 2007-2011



Source: University System of Maryland

**Exhibit 8
Loans at the University of Maryland, Baltimore
Academic Years 2007-2011**

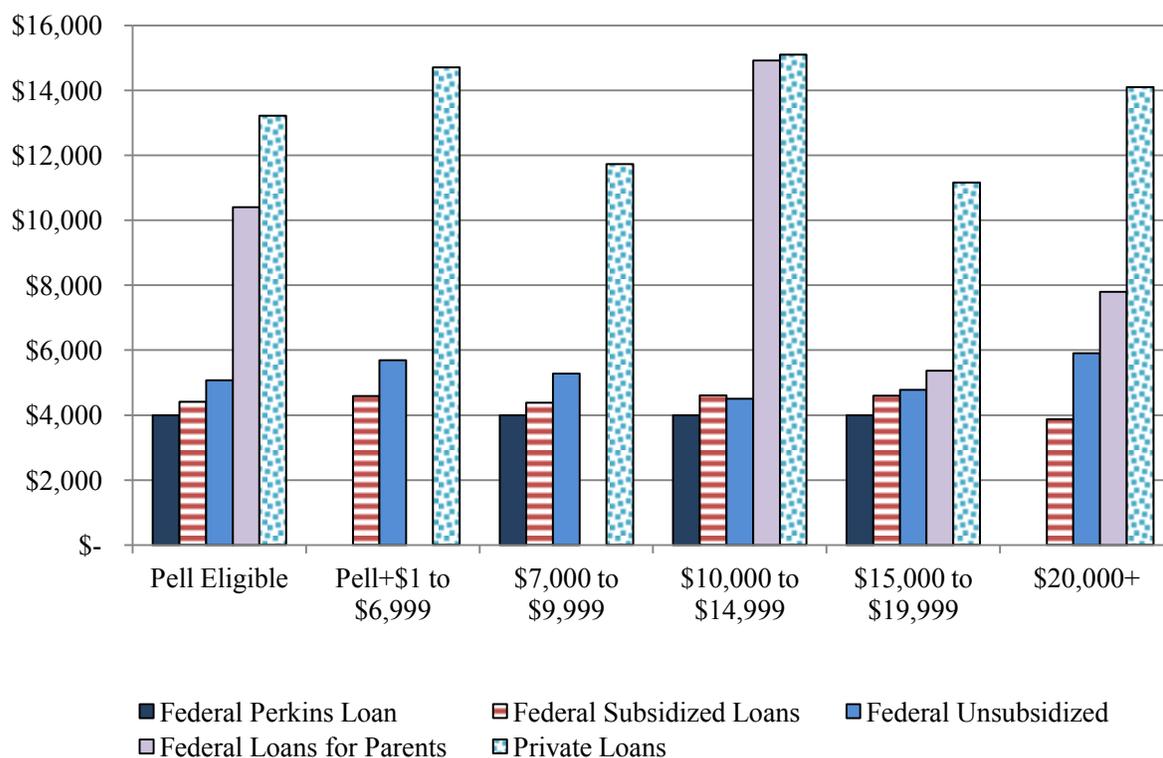


Source: University System of Maryland

Over the past four years, the number of subsidized loans taken out by UMB students and their families annually increased, on average, 3.3%. It should be noted in 2009 the Federal Family Educational Loan program was eliminated, and in addition, borrowers were no longer able to consolidate multiple federal loans into one loan. Meanwhile, the number of private loans taken out by students has remained low and fairly stable, at around 50 loans per year. This trend, coupled with the growth in unsubsidized loans, may indicate, with the continual economic downturn, that families with higher incomes are filing the Free Application for Federal Student Aid to receive unsubsidized federal loans rather than take out a typically more expensive private loan.

Finally, **Exhibit 9** shows the average loan amount by the student’s EFC and the type of loan. Perkins loans are special low-interest loans from the federal government to needy students. A Parent PLUS loan is taken out on behalf of the student by the student’s parent or legal guardian, if the parent or guardian meets certain credit-worthiness criteria. Unsubsidized Stafford loans and Parent PLUS loans constitute the unsubsidized loan category. In fiscal 2011, although the number of private loans is low, the private loans taken out are for much larger amounts than most other loans. Parent PLUS loans are also very high in two EFC groups, Pell-eligible and EFC, \$10,000 to \$14,999,

**Exhibit 9
Average Loan by EFC and Type
Fiscal 2011**



EFC: expected family contribution

Source: University System of Maryland

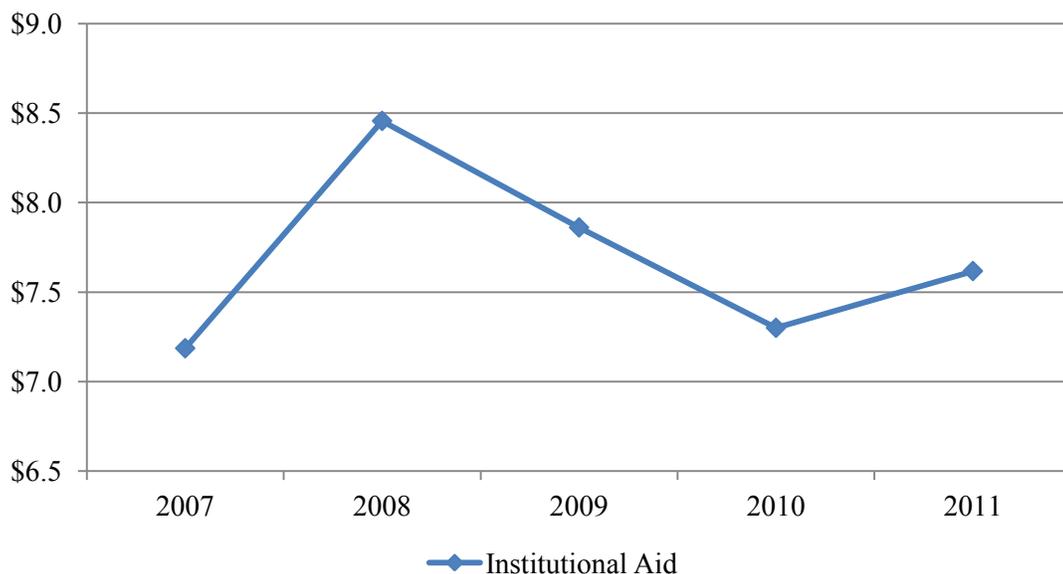
while there was no information reported for the \$1 to \$6,999 and \$7,000 to \$9,999 EFC bands. This may reflect a small population of students relying on large private loans as well as a high level of family support for students. Even the \$20,000 and higher EFC group takes out a considerable amount of private loans despite the benefit of a high EFC. **The President should comment on whether unsubsidized loans will continue increasing faster for students relative to other types of loans and if this may be a concern for students after graduation. The President should also comment on what can be done to promote alternatives to increasing student loans, such as scholarships, work study, or outside employment, while a student pursues higher education, especially for the students with lower EFCs.**

2. Affordability of Graduate and Professional Studies

UMB’s professional degrees are extremely expensive. The high operating costs of laboratories and salaries for professors make the tuition rates for medical, dental, and law degrees more expensive than many other graduate degree programs in Maryland. In addition, most students at UMB did not benefit from the State’s recent tuition freezes and limited tuition increases, which were for in-state undergraduates, as most UMB students are graduate students. The proposed in-state tuition for fall 2013 is \$29,883 for medicine, which is the highest rate of the various schools. Like all colleges, however, UMB offers institutional aid to help students pay the cost of attendance. While the following exhibits are useful in understanding UMB’s aid practices, the aid covered goes to a number of degree programs with different costs and time required for graduation.

EFC categories are not useful for graduate students because most graduate students are considered financially independent from their parents. **Exhibit 10** shows the total amount of institutional aid (grants and scholarships) that UMB appropriates for graduate students. Exhibit 10 includes Diversity Awards, which UMB considers Institutional Aid, although these awards were not included in USM’s financial aid reports in fiscal 2010 and 2011. Aid peaked in fiscal 2008 at \$8.46 million and decreased to \$7.62 million in fiscal 2011, a difference of nearly \$840,000, or 9.9%.

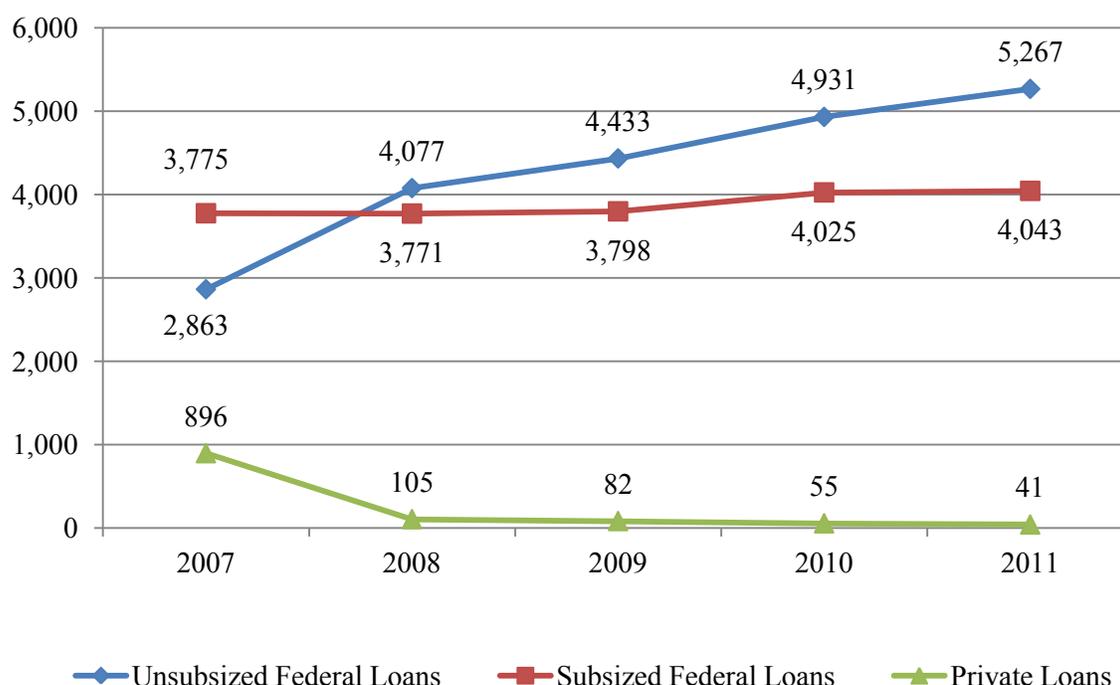
Exhibit 10
Total Institutional Aid to Graduate and Professional Students
Fiscal 2007-2011
(\$ in Millions)



Source: University System of Maryland; University of Maryland, Baltimore

Exhibit 11 shows the total loans to UMB graduate students by type of loan. This exhibit shows that total loans increased from about 7,500 loans to 9,350, or 24.2%, from fiscal 2007 to 2011. While all subsidized loans remained relatively flat, private loans fell from 896 to 41, a decline of 95.4%. Unsubsidized loans increased very quickly, 84.0%, over the time period.

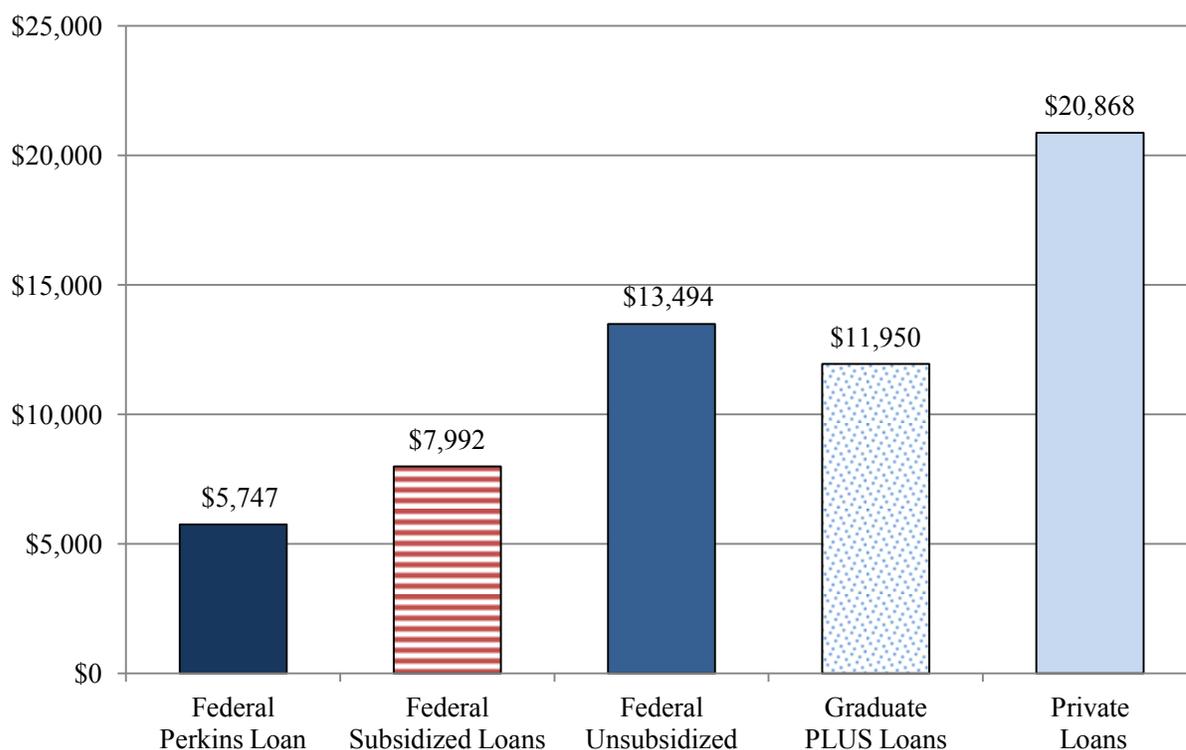
Exhibit 11
Total Number of Loans
Academic Years 2007-2011



Source: University System of Maryland

Finally, **Exhibit 12** shows the average loan amounts accumulated by graduate students by type of loan. In fiscal 2011, on average, private loans were easily the largest, exceeding federal unsubsidized loans by over \$7,000. The significant average Graduate PLUS loan amount means students who have access to financial assistance from their parents receive a significant amount of support, even if many graduate students are considered financially independent. This may reflect the economic downturn and the rising cost of graduate tuition. **The President should comment on whether unsubsidized loans are a greater concern for graduate students due to the higher amounts of loans needed for graduate studies at UMB. The President should also comment on what has led to the very high amount of private and Graduate PLUS loans taken out.**

Exhibit 12
Average Graduate and Professional Loans by Type
University of Maryland, Baltimore
Fiscal 2011



Source: University System of Maryland

3. Technology Transfer

High productivity research universities can benefit from the research they produce. The \$557 million in extramural funding UMB received in fiscal 2011 supports research, development, new technologies, and new medical treatments. Some could be commercialized and licensed and generate income for the university, a stream of revenue known as technology transfer. This activity brings in revenue for the university and also stimulates public-private partnerships and job growth. USM’s 2011 *Dashboard Report* shows UMB made \$1.4 million in adjusted gross license income, or nearly two-thirds of all such income for USM. However, this is significantly less than many of UMB’s peer institutions. Public four-year institutions in Maryland as a whole have historically lagged behind other states in commercializing research. While Maryland excels in academic research activity, it fares poorly in translating that intensity of effort into commercial success.

R30B21 – USM – University of Maryland, Baltimore

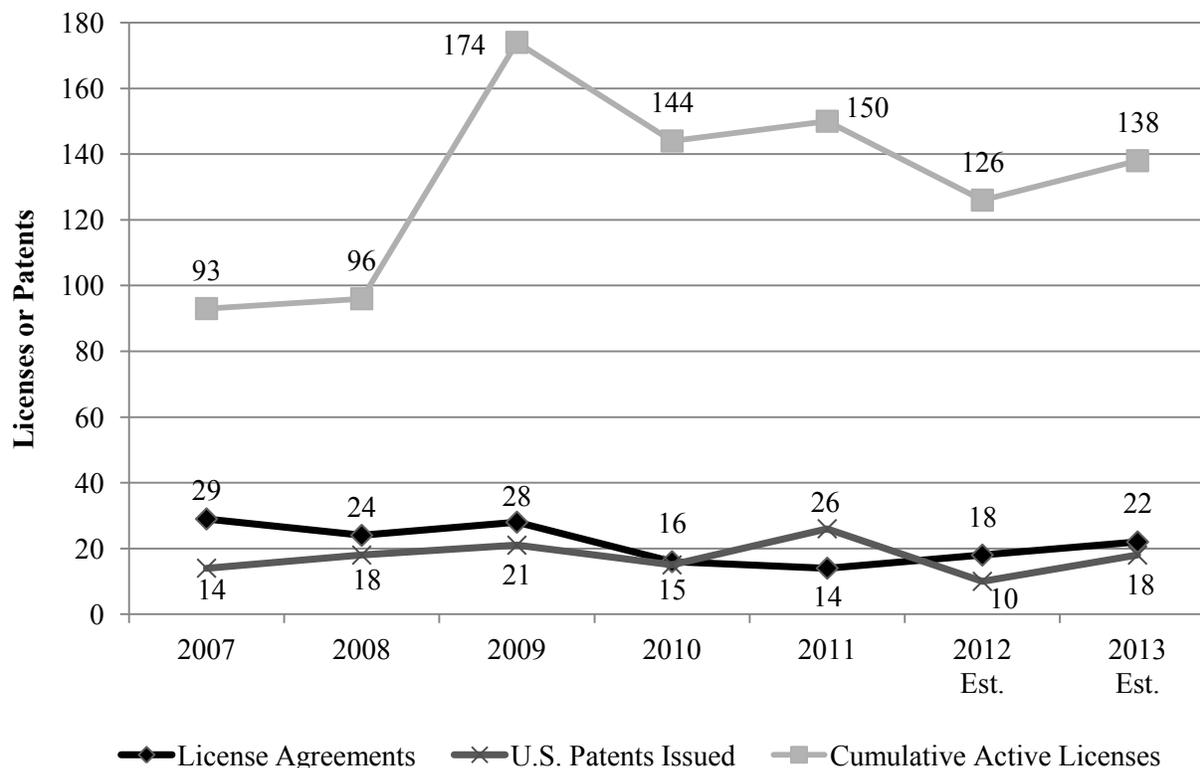
This shortcoming is addressed in Theme Two of USM’s 2010 strategic plan, *Ensuring Maryland Competitiveness in the New Economy*. USM establishes several goals related to technology transfer and commercialization:

- double USM’s externally sponsored R&D funding by 2020 from approximately \$1.2 billion in fiscal 2010;
- increase USM’s research space by 1 million new assignable square feet by fiscal 2020;
- create 325 new companies and five internationally recognized research centers by fiscal 2020;
- instill a culture of innovation and entrepreneurship through the USM and its institutions; and
- by fiscal 2020, triple the number of science, technology, engineering, and mathematics graduates produced by USM institutions.

As USM’s medical campus, with other professional programs in law and social work, UMB has a large role to play in USM’s strategic plan. However, in the wake of tight budgets and cost containment, UMB’s Office of Research and Development (ORD), which oversees technology transfer, has seen reduced State support and reduced funding from the UMB Foundation. In the past, UMB found foundation funds and one-time gifts to support technology transfer both variable and insufficient. Now these sources have been particularly hard hit by the economic downturn. UMB reports that its patent budget is roughly one-third of that at competing institutions.

The impact of a scaled-back patent budget in recent years led to lower technology transfer productivity. **Exhibit 13** shows the number of patents and license agreements at UMB from fiscal 2007 through the estimate for fiscal 2013. Fiscal 2009 was the university’s high point, with 28 new license agreements and 21 patents issued. UMB is estimating 22 license agreements and 18 patents in fiscal 2013, a 21.4 and 14.3% reduction, respectively, from fiscal 2009. Overall, active licenses and options are estimated to decline from 174 in fiscal 2009 to 138 in fiscal 2013. It is likely this will negatively impact technology transfer revenue in coming years and limit public-private collaboration.

Exhibit 13
Patents and License Agreements Produced by UMB
Fiscal 2007-2013



UMB: University of Maryland, Baltimore

Source: Governor’s Budget Books, 2011 and 2013

In the past two years, ORD’s budget has grown modestly, and ORD now has about 12 staff. Each year, ORD evaluates about 100 ideas and moves for preliminary patenting protection on promising concepts. ORD markets 20 to 25 ideas per year to biotechnology and pharmaceutical firms, with about one-third going to in-state companies. UMB is pursuing several programs to keep projects in-state and facilitate the technology transfer process. First, the university-affiliated BioPark began construction in 2003 adjacent to UMB’s campus. It currently contains 470,000 total square feet of lab and office space, which will increase by 180,000 square feet in 2012 due to new construction. Second, in December 2011, UMB’s School of Medicine launched the Clinical and Translational Sciences Institute (CTSI) to concentrate on grants from the National Institutes of Health to “facilitate the rapid advancement of basic science research discoveries into novel therapies.” CTSI will focus university faculty on the research aspects, while ORD will work on the business side. Third, UMB has other unique and highly effective assets already in place, such as the Maryland Intellectual Property Legal Resource Center, which operates from within UMB’s Law School.

The President should comment on whether UMB has adequate capacity and funding to manage, let alone grow, existing technology transfer-related resources. Also, the President should comment on what UMB’s share of USM’s strategic goals will be and how it expects to meet them while maintaining superior contributions to university teaching and academic research.

Recent external developments are also putting a renewed focus on technology transfer at UMB and within USM as a whole. A 2012 legislative proposal by the Governor, the Maryland Innovation Initiative (MII), would create a new organization within the Maryland Technology Development Corporation. In-state research universities, including UMB, would contribute \$250,000 annually to use as seed grants for high-performing start-up firms. Also, in late 2011, the USM Board of Regents endorsed a Maryland Strategic Alliance between UMB and the University of Maryland, College Park (UMCP), rather than a full merger between the research institutions. Benefits identified by the board included “more opportunities for innovation, technology transfer, and commercialization.” Very early steps include coordinating entrepreneurship and innovation workshops with UMCP’s MTech, an office with similar mission and scope to ORD.

The President should comment on how, if enacted, MII will change the way technology transfer business occurs at UMB. The President should also clarify what the opportunities are for the Strategic Alliance, how technology transfer oversight and funding will be allocated within the alliance, and the potential timeline for accomplishing that administrative transformation. The President should also specifically identify what issues may remain if each institution operates a technology transfer office independently versus a merged USM technology transfer office.

Recommended Actions

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

Updates

1. Retention of Critical Staff and Faculty

The Budget Reconciliation and Financing Act of 2011 required USM to create a policy for the administration of salary increases to retain “operationally critical staff” and report on the increases awarded under this designation. USM submitted a report on its policy in November 2011. The report has three main points.

- **Definition of “Operationally Critical Staff”:** a position with retention problems; that has specialized or unique skills that cannot be replicated by a new employee; or where the loss of the employee would result in the loss of research funding or negatively impact the ability of the institution to secure research funding.
- **Establishment of the Need for a Retention Increase:** the institution must show that the ability to retain the employee is in jeopardy, such as an employment offer from another institution, written evidence that the employee is the target of recruitment, or other strong evidence that the employee may leave.
- **Accountability:** The President of each USM institution must report on all critical employee retention increases detailing the amount of compensation and an explanation in support of each decision.

From July 1 to November 15, 2011, 139 critical positions were identified within USM at six institutions. UMB had 80 of all critical positions. Out of a \$3.0 million in total compensation used for retention, UMB received about \$1.9 million. Many of these were in highly specialized medical positions.

Current and Prior Year Budgets

Current and Prior Year Budgets University of Maryland, Baltimore (\$ in Thousands)

	<u>General Fund</u>	<u>Special Fund</u>	<u>Federal Fund</u>	<u>Other Unrestricted Fund</u>	<u>Total Unrestricted Fund</u>	<u>Restricted Fund</u>	<u>Total</u>
Fiscal 2011							
Legislative Appropriation	\$171,712	\$0	\$0	\$333,777	\$505,489	\$430,454	\$935,943
Deficiency Appropriation	0	0	0	0	0	0	0
Budget Amendments	5,871	6,877	0	\$3,471	\$16,219	40,773	\$56,992
Reversions and Cancellations	0	0	0	-2,199	-2,199	-4,190	-6,388
Actual Expenditures	\$177,583	\$6,877	\$0	\$335,049	\$519,509	\$467,037	\$986,547
Fiscal 2012							
Legislative Appropriation	\$173,432	\$9,533	\$0	\$335,098	\$518,062	\$449,928	\$967,990
Budget Amendments	1,561	0	0	2,354	3,915	31,521	35,436
Working Appropriation	\$174,993	\$9,533	\$0	\$337,452	\$521,977	\$481,449	\$1,003,426

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

Fiscal 2011

General funds increased by \$5,870,138 due to the reorganization of UMBI which was partially absorbed by UMB.

Special funds increased \$6,877,433 from the HEIF, authorized by the General Assembly to replace general funds reduced during the 2011 legislative session.

Other unrestricted funds increased \$1,271,971 overall due to a \$3,471,521 increase from tuition, federal grants, federal stimulus contracts, and other sources. A cancellation of \$2,199,550 accounted for State and Local Contracts and Grants reclassified as Private Gifts, Grants, and Contracts; sales and services of the Educational Revolving Fund were less than expected; and the net revenue decreased due to furlough reversion offset by other sources.

Restricted funds increased \$36,583,277 overall due to a \$40,772,938 increase in federal grants related to the absorption of UMBI, other federal contracts and grants, and an increase in sales and services of educational activity. A cancellation of \$4,189,661 reflected contract and grant activity that was less than anticipated.

Fiscal 2012

General funds increased \$1,560,994 to allocate funds for the \$750 bonus appropriated in the Department of Budget and Management to the various State agencies.

Other unrestricted funds increased \$2,353,933 due to an increase in indirect cost recovery, sales and services of auxiliary enterprises, other revenue sources, and a decrease from a planned transfer to the fund balance.

Restricted funds increase \$31,521,150 due to an increase of \$17,119,100 in federal and State grants, \$11,102,892 in sales and services of education activities for physician services, and \$3,299,158 due to adjustments of State, local, and private grants.

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

<u>Object/Fund</u>	<u>FY 11 Actual</u>	<u>FY 12 Working Appropriation</u>	<u>FY 13 Allowance</u>	<u>FY 12 - FY 13 Amount Change</u>	<u>Percent Change</u>
Positions					
01 Regular	4,703.56	4,880.18	4,880.18	0.00	0%
02 Contractual	306.04	327.18	327.18	0.00	0%
Total Positions	5,009.60	5,207.36	5,207.36	0.00	0%
Objects					
01 Salaries and Wages	\$ 635,518,861	\$ 657,645,100	\$ 664,455,907	\$ 6,810,807	1.0%
02 Technical and Spec. Fees	823,645	726,064	726,064	0	0%
03 Communication	5,548,087	5,754,879	5,754,544	-335	0%
04 Travel	12,250,855	12,293,142	12,293,142	0	0%
06 Fuel and Utilities	19,894,045	22,030,900	22,030,900	0	0%
07 Motor Vehicles	2,319,714	2,172,548	2,168,954	-3,594	-0.2%
08 Contractual Services	169,284,078	171,653,268	174,174,658	2,521,390	1.5%
09 Supplies and Materials	62,123,977	59,829,419	60,827,823	998,404	1.7%
10 Equipment – Replacement	3,002,029	2,778,901	2,778,901	0	0%
11 Equipment – Additional	18,226,862	12,369,241	16,540,800	4,171,559	33.7%
12 Grants, Subsidies, and Contributions	21,748,804	21,304,959	21,880,698	575,739	2.7%
13 Fixed Charges	31,760,680	31,605,569	31,959,055	353,486	1.1%
14 Land and Structures	4,045,046	3,262,474	3,262,474	0	0%
Total Objects	\$ 986,546,683	\$ 1,003,426,464	\$ 1,018,853,920	\$ 15,427,456	1.5%
Funds					
40 Unrestricted Fund	\$ 519,509,267	\$ 521,977,395	\$ 526,431,610	\$ 4,454,215	0.9%
43 Restricted Fund	467,037,416	481,449,069	492,422,310	10,973,241	2.3%
Total Funds	\$ 986,546,683	\$ 1,003,426,464	\$ 1,018,853,920	\$ 15,427,456	1.5%

Note: The fiscal 2012 appropriation does not include deficiencies.

Fiscal Summary
USM – University of Maryland, Baltimore

<u>Program/Unit</u>	<u>FY 11</u> <u>Actual</u>	<u>FY 12</u> <u>Wrk Approp</u>	<u>FY 13</u> <u>Allowance</u>	<u>Change</u>	<u>FY 12 - FY 13</u> <u>% Change</u>
01 Instruction	\$ 199,435,113	\$ 202,800,888	\$ 203,388,688	\$ 587,800	0.3%
02 Research	406,073,005	409,054,390	414,045,128	4,990,738	1.2%
03 Public Service	9,739,527	10,101,062	10,110,509	9,447	0.1%
04 Academic Support	52,080,008	53,622,501	54,031,816	409,315	0.8%
05 Student Services	3,414,149	3,667,940	3,667,272	-668	0%
06 Institutional Support	69,475,303	70,448,864	72,878,517	2,429,653	3.4%
07 Operation and Maintenance Of Plant	71,743,285	74,602,995	76,028,428	1,425,433	1.9%
08 Auxiliary Enterprises	29,354,618	26,537,479	26,537,479	0	0%
17 Scholarships and Fellowships	15,020,026	16,540,582	17,116,321	575,739	3.5%
18 Hospitals	130,211,649	136,049,763	141,049,762	4,999,999	3.7%
Total Expenditures	\$ 986,546,683	\$ 1,003,426,464	\$ 1,018,853,920	\$ 15,427,456	1.5%
Unrestricted Fund	\$ 519,509,267	\$ 521,977,395	\$ 526,431,610	\$ 4,454,215	0.9%
Restricted Fund	467,037,416	481,449,069	492,422,310	10,973,241	2.3%
Total Appropriations	\$ 986,546,683	\$ 1,003,426,464	\$ 1,018,853,920	\$ 15,427,456	1.5%

Note: The fiscal 2012 appropriation does not include deficiencies.