

R30B22
University of Maryland, College Park
University System of Maryland

Operating Budget Data

(\$ in Thousands)

	<u>FY 15</u> <u>Actual</u>	<u>FY 16</u> <u>Working</u>	<u>FY 17</u> <u>Allowance</u>	<u>FY 16-17</u> <u>Change</u>	<u>% Change</u> <u>Prior Year</u>
General Funds	\$445,560	\$459,047	\$473,842	\$14,795	3.2%
Deficiencies and Reductions	0	6,796	-1,393	-8,189	
Adjusted General Fund	\$445,560	\$465,844	\$472,449	\$6,605	1.4%
Special Funds	20,778	21,878	23,811	1,933	8.8%
Adjusted Special Fund	\$20,778	\$21,878	\$23,811	\$1,933	8.8%
Other Unrestricted Funds	982,255	1,013,973	1,038,393	24,420	2.4%
Adjusted Other Unrestricted Fund	\$982,255	\$1,013,973	\$1,038,393	\$24,420	2.4%
Total Unrestricted Funds	1,448,593	1,494,898	1,536,046	41,148	2.8%
Deficiencies and Reductions	0	6,796	-1,393	-8,189	
Adjusted Total Unrestricted Funds	\$1,448,593	\$1,501,695	\$1,534,653	\$32,958	2.2%
Restricted Funds	401,951	416,853	427,291	10,438	2.5%
Adjusted Restricted Fund	\$401,951	\$416,853	\$427,291	\$10,438	2.5%
Adjusted Grand Total	\$1,850,543	\$1,918,548	\$1,961,944	\$43,396	2.3%

- A fiscal 2016 deficiency appropriation is provided to the University System of Maryland Office to cover an increase in health insurance, which will be allocated among the institutions, of which the University of Maryland, College Park (UMCP) share is estimated to be \$6.8 million.
- The General Fund increases \$6.6 million, or 1.4%, in fiscal 2017 after adjusting for the fiscal 2016 deficiency and \$1.4 million across-the-board reduction in health insurance in fiscal 2017.
- The Higher Education Investment Fund increases \$1.9 million, or 8.8%, in fiscal 2017 resulting in an overall growth of 1.8%, or \$8.5 million, in State funds above fiscal 2016. The fiscal 2017 allowance also includes funding for increments budgeted in the Department of Budget and Management totaling \$16.4 million, and UMCP will receive \$1.5 million in enhancement funds. If these are taken into account, State funds increase 5.4%, or \$26.5 million.

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

For further information contact: Sara J. Baker

Phone: (410) 946-5530

Personnel Data

	<u>FY 15</u> <u>Actual</u>	<u>FY 16</u> <u>Working</u>	<u>FY 17</u> <u>Allowance</u>	<u>FY 16-17</u> <u>Change</u>
Regular Positions	8,820.80	8,926.61	8,926.61	0.00
Contractual FTEs	<u>1,486.30</u>	<u>1,174.50</u>	<u>1,222.02</u>	<u>47.52</u>
Total Personnel	10,307.10	10,101.11	10,148.63	47.52

Vacancy Data: Regular Positions

Turnover and Necessary Vacancies, Excluding New Positions	215.13	2.41%
Positions and Percentage Vacant as of 12/31/15	231.48	2.60%

- The allowance does not provide for any new regular positions. Contractual positions increase by 47.52 full-time equivalent (FTE) positions related to the opening of new facilities and the salary costs associated with the data breach and Title IX compliance. UMCP notes the increase will be closer to 40 FTE due to the salary assumption being too low when calculating the FTE.

Analysis in Brief

Major Trends

Enrollment: While the total undergraduate enrollment continues to grow in fall 2015, 1.5%, the number of first-time, full-time (FT/FT) and part-time students declined 4.9%, or 191 students.

Student Performance: The FT/FT 2013 cohort was retained at the highest rate since the 1993 cohort with a second-year rate of 95.6%. Within six years of enrolling at UMCP 84.0% of the 2008 FT/FT cohort graduated compared to 75.0% of the transfer students.

Expenditures Per Degree: When only considering the UMCP two peer institutions that do not have a medical school, UMCP expenditures consistently fell below the average, with the difference widening by \$17,669 in fiscal 2012. This indicates UMCP is more efficient in producing degrees.

Research Expenditures and Earned Doctorates: In fiscal 2014, federal research and development (R&D) expenditures declined 2.7%, or \$9.4 million, with the largest decline of \$8.3 million seen in Department of Defense expenditures. Overall, UMCP ranks 43 out of 632 institutions in total R&D expenditures, which totaled \$485.1 million in fiscal 2014.

Issues

Differential Tuition: In response to the slow growth in State funding coupled with low tuition increases, UMCP implemented differential tuition in fall 2015 for business, engineering, and computer science majors, as a means of maintaining the quality of these high-demand, high-cost programs.

Meeting College Expenses: Since fiscal 2011, when expenditures on need-based aid were at their lowest of \$12.2 million, spending has increased to \$16.2 million in fiscal 2015. The portion of Pell-eligible students receiving need-based aid increased from 66.1% to 67.6% between fiscal 2010 and 2015.

Innovation, Entrepreneurship, and MPowering: MPowering, a formal alliance between UMCP and the University of Maryland, Baltimore leverages the resources of both campuses and is intended to result in improved and enhanced academic programs, research, technology transfer, and commercialization. In addition, legislation was passed to encourage economic development activities in and around institutions.

Recommended Actions

1. Concur with Governor's allowance.

R30B22 – USM – University of Maryland, College Park

R30B22
University of Maryland, College Park
University System of Maryland

Operating Budget Analysis

Program Description

Designated as the flagship campus of the University System of Maryland (USM), the University of Maryland, College Park (UMCP) aspires to be one of the nation's preeminent public research universities, recognized nationally and internationally for the quality of the faculty and programs. UMCP attracts highly qualified students to undergraduate and graduate programs from the State, country, and the world. It serves the citizens of Maryland through a mission of teaching, research, and outreach; advancing knowledge; stimulating innovations and creativity; and educating tomorrow's leaders.

UMCP offers baccalaureate, master's, and doctoral programs in liberal arts and sciences, social sciences, the arts, applied areas, and selected professional fields. The university also offers certificates in certain upper-level and graduate courses of study and provides honors, scholars, and departmental honors programs.

One of the UMCP missions as the State's land grant university is to deliver educational programs to the citizens of the State through the Maryland Cooperative Extension (MCE) program and the Maryland Agricultural Experimental Station (MAES) program. The MCE applies practical research-based knowledge to issues facing individuals, families, communities, and the State with offices in every county and Baltimore City. The MAES was established to ensure that agricultural research geared to specific geographic locations would be conducted. The MAES maintains four research and education centers in Western Maryland, the lower Eastern Shore, Central Maryland, and the Wye Center. These programs are funded by federal, State, and local governments.

Carnegie Classification: RU/VH Research University (very high research activity)

Fall 2015 Undergraduate Enrollment Headcount

Male	14,805
Female	12,638
Total	27,443 (77% In-State) (732 at Shady Grove)

Fall 2015 Graduate Enrollment Headcount

Male	5,556
Female	5,141
Total	10,697

Fall 2015 New Students Headcount

First-time	3,939
Transfers/Others	2,346
Graduate	2,992
Total	9,277

Campus (Main Campus)

Acres	1,335
Buildings	253
Average Age	45 years
Oldest	Rossborough Inn – 1798

Programs

Bachelor's	91
Master's	107
Doctoral (Research/ Professional)	83
Total Programs	281

Degrees Awarded (2014-2015)

Bachelor's	7,166
Master's	2,562
Doctoral (Research/Professional)	693
Total Degrees	10,421

Proposed Fiscal 2017 In-state Tuition and Fees*

Undergraduate Tuition	\$8,315
Mandatory Fees	\$1,910

% Graduates with Debt	45%
Average Debt	\$25,131

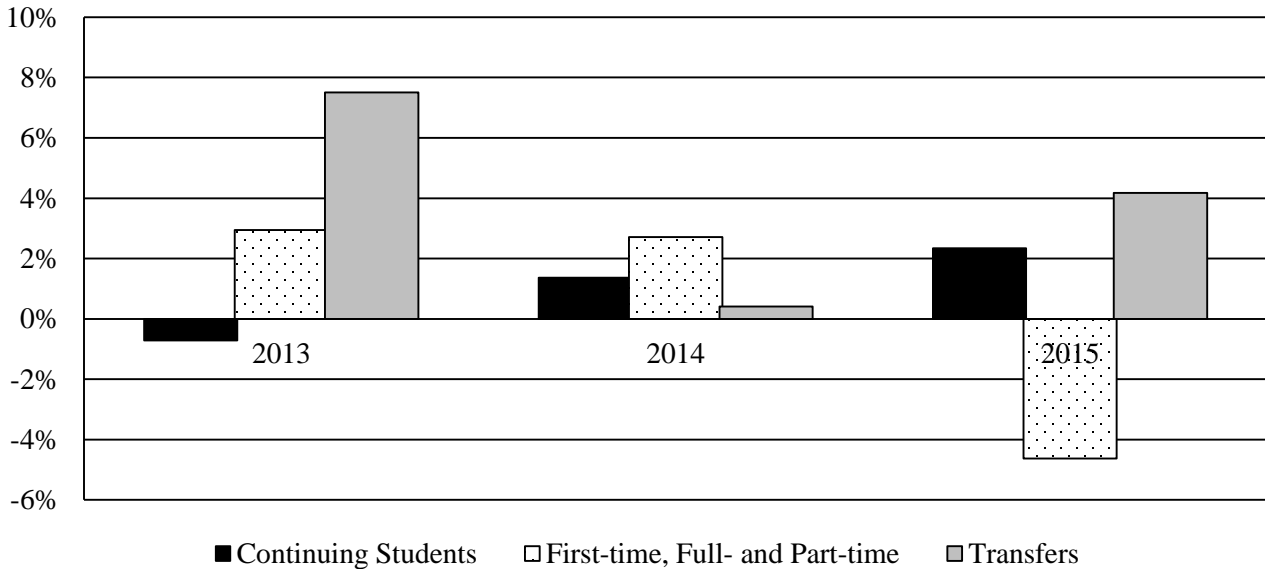
*Contingent on Board of Regents approval.

Performance Analysis

1. Enrollment

Total undergraduate enrollment grew 1.5%, or 387 students in fall 2015. However, the number of first-time, full-time (FT/FT) and part-time students declined 4.9%, or 191 students, as shown in **Exhibit 1**, reflecting a national trend, which is partly related to the number of 18- to 24-year olds remaining fairly flat. Since fall 2013, the number of FT/FT and part-time students has fallen 2.0%. Continuing students increased 3.8% since fall 2013 indicating that efforts to improve retention of students have been successful. Graduate enrollment increased 1.3% in fall 2015 resulting in total enrollment growth of 1.4%.

Exhibit 1
Percentage Change in Undergraduate Enrollment
Fall 2013-2015



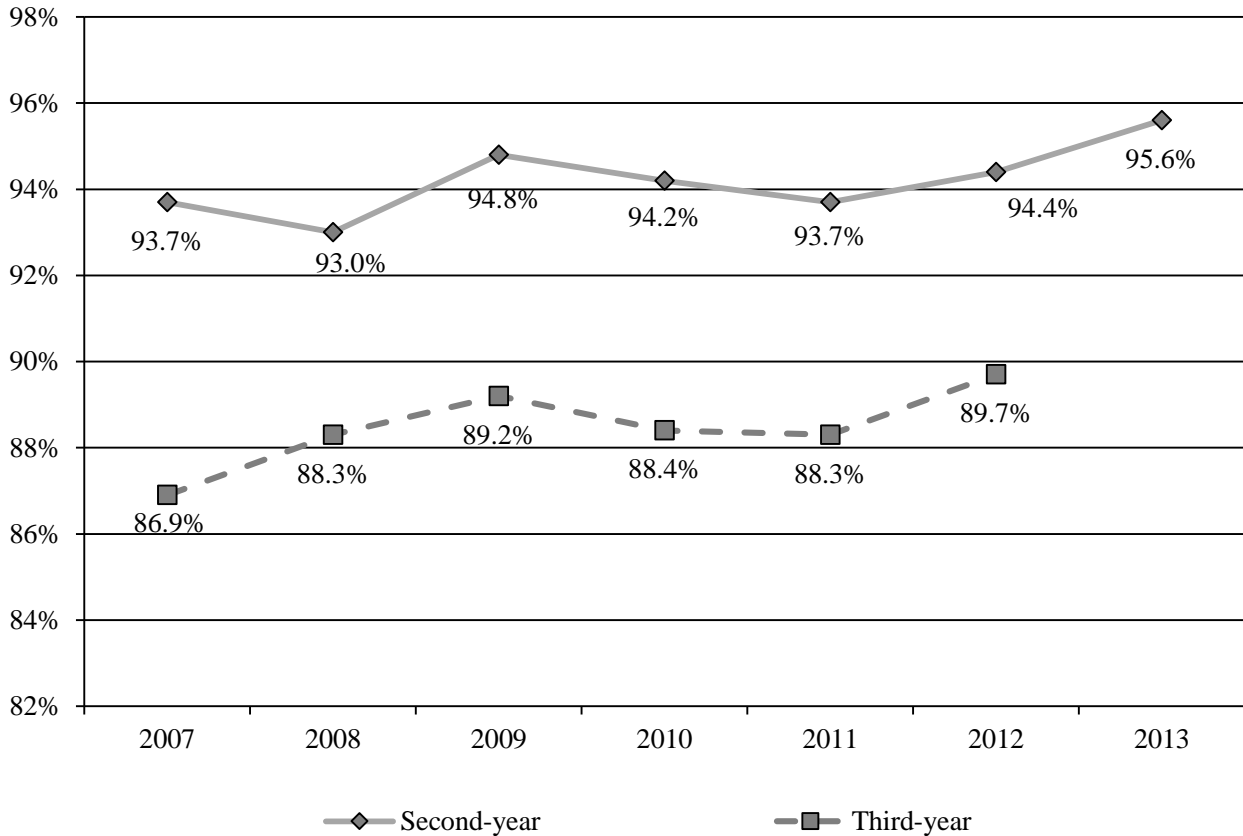
Source: University System of Maryland

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. The FT/FT 2013 cohort were retained at the highest rate since the 1993 cohort with a second-year rate of 95.6%, as shown in **Exhibit 2**. Given a certain percentage of students will leave school after the first year for a variety of reasons, an institution will unlikely achieve a retention rate of 100.0%, therefore, UMCP may be at its optimal second-year rate. The third-year rate mirrors the trends of the second-year rate with the 2012 cohort achieving the highest rate since the 1993 cohort of 89.7%.

Completion rates are greatly influenced by time – the longer it takes a student to graduate, the more likely (s)he will dropout as other priorities compete with classes. Longer completion times translate into increased costs, not only for the student, but the institution and State as well. According to College Measures the total cost of attrition for all FT/FT students not returning for a second year at UMCP is \$4.5 million, or \$17,983, per student in fiscal 2012. The average time to degree, according to the *Report on the Instructional Workload of the USM Faculty* for those graduating in 2015 was 4.4 years, up slightly from 4.3 years in 2014.

Exhibit 2
Second- and Third-year Retention Rates
First-time, Full-time 2007-2013 Cohorts



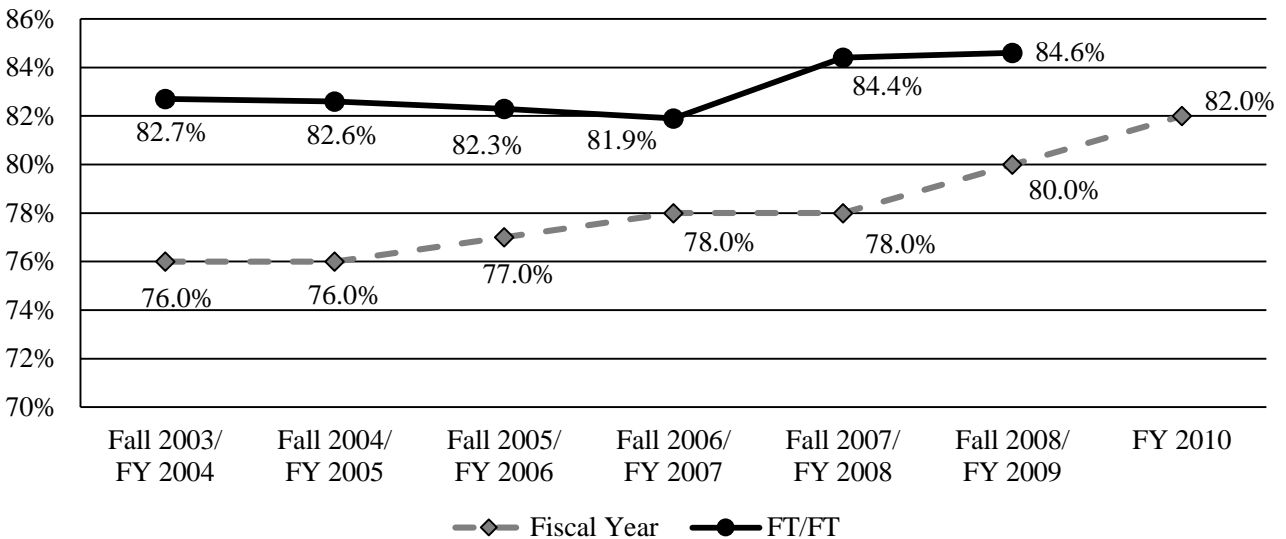
Note: Percentages represent first-time, full-time students who remained enrolled at the same institution in the subsequent fall semesters.

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

Traditional student progress measures, such as those reported by the Maryland Higher Education Commission (MHEC) and the federal government, only track the success of the “traditional” FT/FT student – those enrolled at an institution at the start of the academic year and continuously enrolled as a full-time student until completion. These measures do not include part-time students, transfer students, those who enroll in the spring, changed enrollment status, or stopped-out, thereby, only providing a partial picture of an institution’s performance. USM revised the measure to include these students by defining the cohort as all new degree-seeking students who enrolled during the fiscal year. **Exhibit 3** compares the traditional MHEC six-year graduation rate to the USM revised measure. Overall, UMCP performs well in graduating FT/FT students, 84.6% with the 2008 cohort,

the highest level in the period shown. When all students are included, graduation rates are lower, indicating transfer students graduate at a lower rate. However, the rate grew for each of the last three fiscal year cohorts reaching 82.0% with the fiscal 2010 cohort, indicating programs or initiatives implemented by UMCP, to improve graduation rates for transfer students are proving to be successful.

Exhibit 3
Comparison of Six-year Graduation Rates
First-time, Full-time 2003-2008 Cohort and Fiscal 2004-2010 Cohorts



FT/FT: first-time, full-time

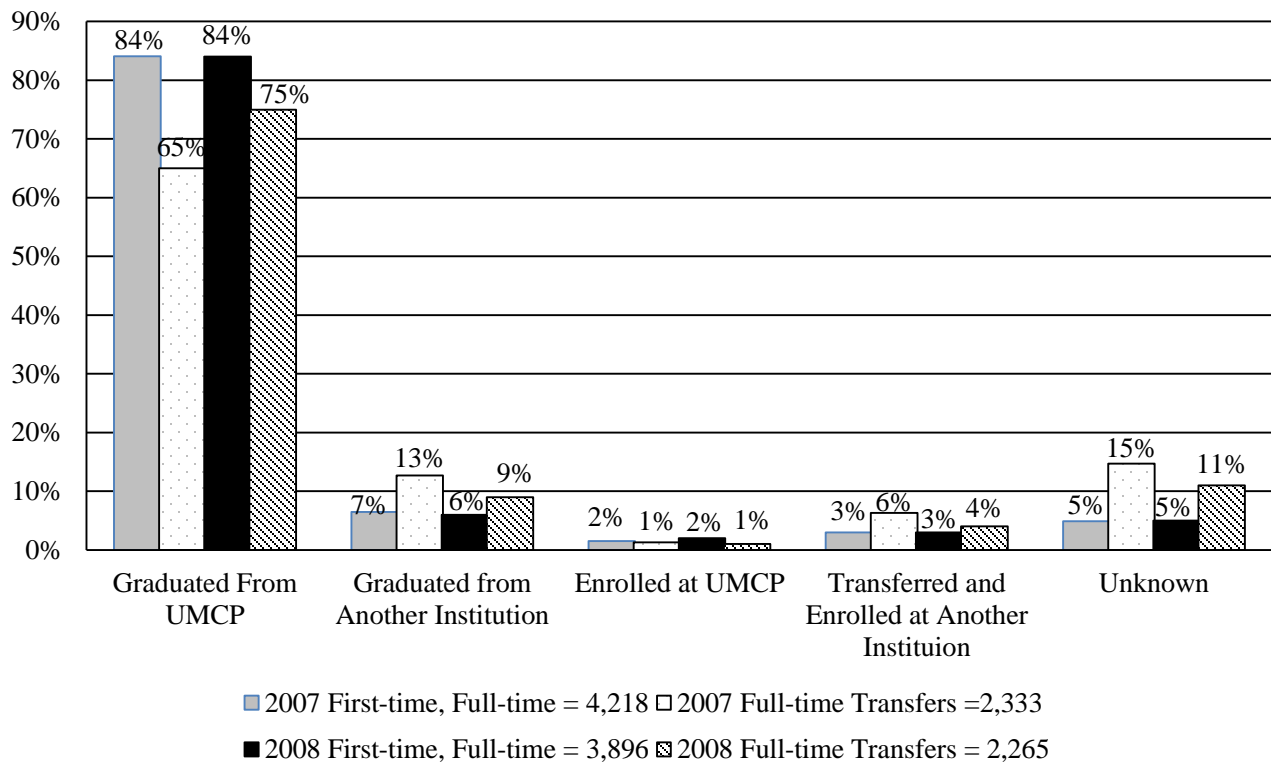
Note: FT/FT cohorts include students who persisted at and graduated from the institution they initially enrolled in and those who transferred and graduated from any Maryland public or private four-year institution. Fiscal year cohorts include all degree-seeking students (e.g., FT/FT, part-time, transfers, spring admits) who enrolled in the fiscal year.

Source: Maryland Higher Education Commission; University System of Maryland

While the new six-year graduation provides a more accurate picture of the total graduation rate of an institution, it does not tell what happened to those who did not graduate nor how transfers perform. To help address this lack of information the Student Achievement Measures was created, which is a voluntary reporting system that tracks the progress of FT/FT and full-time transfer students throughout their college career. Overall, UMCP graduates FT/FT students at a higher rate than transfer students, as shown in **Exhibit 4**. However, within six years of enrolling at UMCP, the graduation rate for transfers improved from 65% (2007 cohort) to 75% (2008 cohort). UMCP notes in 2008 they initiated a Pre-Transfer Advising Program (PTA) to advise prospective transfer students on the courses needed for their major and to help prepare them to successfully obtain a bachelor’s degree. Advisors assess

students’ readiness to transfer and estimate time to degree completion. A PTA plan is established so that by the end of the sophomore year students have completed lower level coursework needed to move seamlessly into upper level courses. In fiscal 2015, advisors worked with 1,946 students through walk-in appointments, online chats, telephone meetings, or scheduled appointments. In addition, UMCP is working with the community colleges to help transfer students understand and plan for the financial aid they can receive from UMCP.

Exhibit 4
Status of First-time, Full-time, and Full-time Transfer Students Seeking
a Bachelor’s Degree within Six Years
Fall 2007 and 2008 Cohort



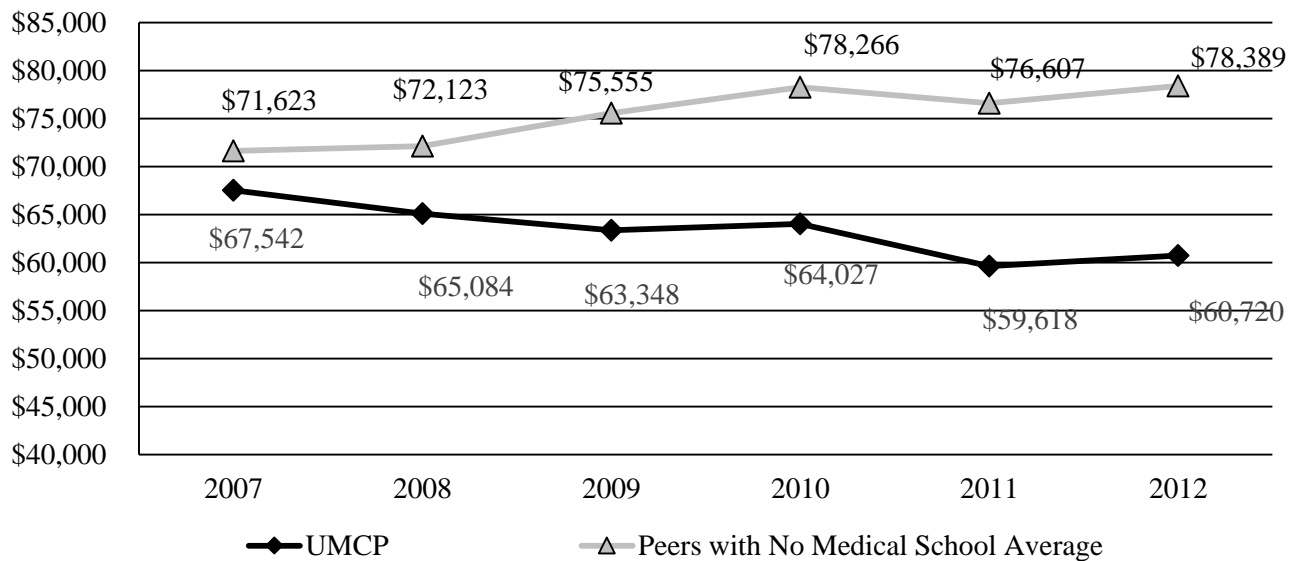
UMCP: University of Maryland, College Park

Source: Student Achievement Measures

3. Expenditures Per Degree

Education and related expenditures per degree measure 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. **Exhibit 5** compares UMCP expenditures per degree to the average of its peers, which are those used to benchmark the UMCP performance in the USM Dashboard Indicators. However, three out of the five peer institutions have a medical school that have a higher cost per degree than institutions without a medical school. The average cost of a degree at those institutions with a medical school was \$130,150 in fiscal 2012. When only considering the two institutions that do not have a medical school, UMCP expenditures consistently fell below the average, with the difference widening by \$17,669 in fiscal 2012.

Exhibit 5
Expenditures Per Degree
UMCP Peers with No Medical School Average
Fiscal 2007-2012



UMCP: University of Maryland, College Park

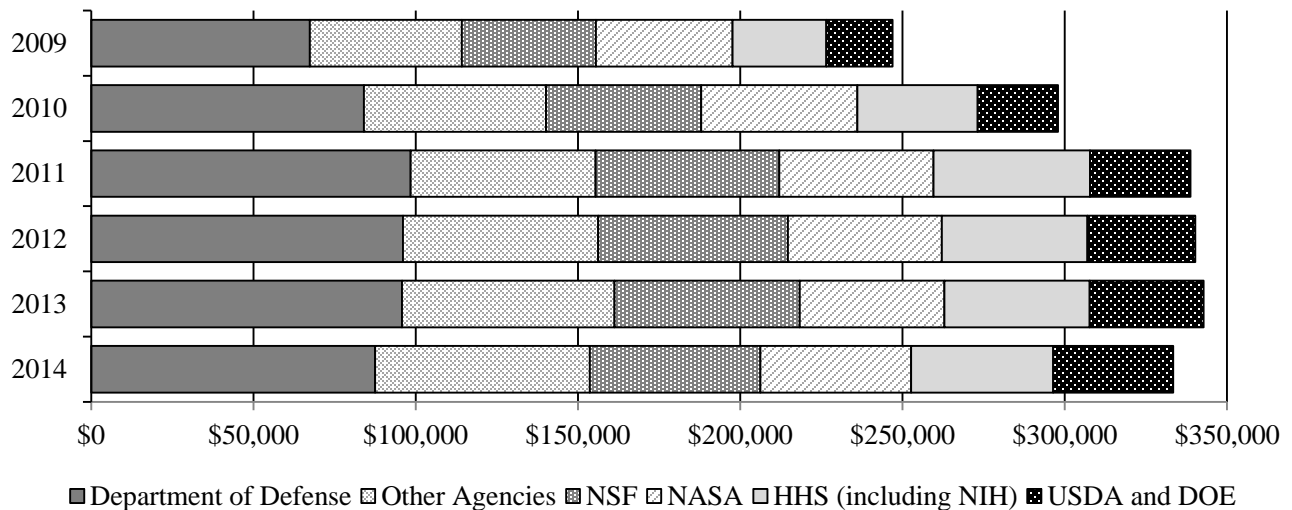
Note: Education and related expenditures include direct spending on instruction, student services, education share of spending on academic and institutional support, and operation and maintenance. All dollar amounts are reported in 2012 dollars (Higher Education Price Index adjusted). Direct educational costs per degree are calculated as the total education and related expenses for all students divided by all degrees (undergraduate, graduate, and professional) awarded in that year.

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

4. Research Expenditures and Earned Doctorates

UMCP strives to provide the State with a public research university whose programs are nationally and internationally recognized and, as such, seeks to increase grants and contract funding. This not only serves to measure productivity but the capacity to pursue research that attracts and retains faculty. Overall, federally funded research and development (R&D) expenditures have increased 35.0%, or \$86.4 million between fiscal 2009 and 2014, as shown in **Exhibit 6**. The effects of federal stimulus grants and awards can be seen in fiscal 2010 and 2011, when expenditures increased \$50.9 million and \$40.9 million, respectively. However, despite the end of the stimulus funding and a tightening of federal spending generally, expenditures still increased by \$4.0 million between fiscal 2011 and 2013. In fiscal 2014, expenditures declined 2.7%, or \$9.4 million, with the largest decline of \$8.3 million seen in Department of Defense expenditures. In terms of total R&D expenditures, which totaled \$485.1 million in fiscal 2014, UMCP ranked 43 out of 632 institutions according to the National Science Foundation (NSF).

Exhibit 6
Federally Funded R&D Expenditures by Federal Agency
2009-2014
(\$ in Thousands)

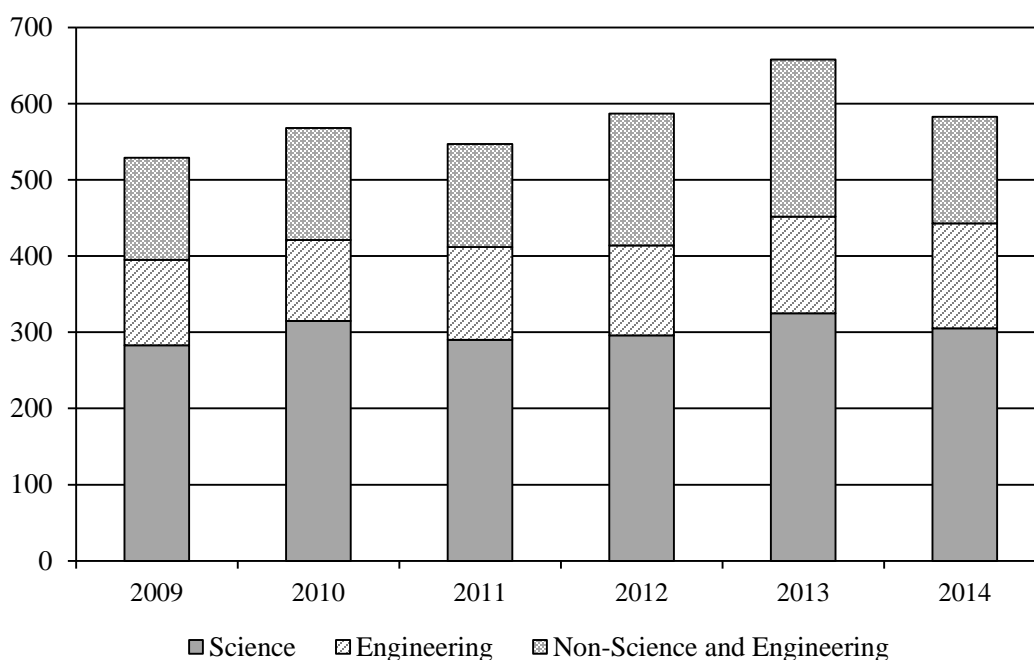


DOE: Department of Energy
HHS: Department of Health and Human Services
NASA: National Aeronautics and Space Administration
NIH: National Institutes of Health
NSF: National Science Foundation
R&D: research and development
USDA: United States Department of Agriculture

Source: National Science Foundation, National Center for Science and Engineering Statistics, *Higher Education R&D Survey*

Over the past five years, the number of earned research doctorates fluctuated from 529 in 2009 to 658 in 2013, as shown in **Exhibit 7**. A majority of the doctorates are in the science area, with social sciences accounting for approximately a quarter of the degrees. While the total number of doctorates declined to 583 in 2014, 138 engineering doctorates were awarded, the most in the past five years. In 2014, according to NSF, UMCP ranked 17 out of 422 institutions in the number of earned research doctorates.

Exhibit 7
Number of Earned Research Doctorate Degrees
2009-2014



Note: A research doctorate is a doctoral degree that (1) requires completion of an original intellectual contribution in the form of a dissertation or an equivalent culminating project (*e.g.*, musical composition) and (2) is not primarily intended as a degree for the practice of a profession. The most common research doctorate degree is the PhD.

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

Fiscal 2016 Actions

Proposed Deficiency

A fiscal 2016 deficiency would provide the University of Maryland System Office (USMO) with \$16.5 million to cover an increase in health insurance costs at all USM institutions (see USM Overview for further discussion). The UMCP estimated portion of the deficiency is \$6.8 million.

Cost Containment

Cost containment measures in fiscal 2016 resulted in a 2%, or \$9.4 million, reduction in UMCP appropriations. This was met by eliminating 36.5 vacant positions (\$4.1 million) and reducing expenditures on facilities renewal (\$4.6 million) and general operations (\$0.7 million) including travel, staff development, and supplies and material.

Proposed Budget

As shown in **Exhibit 8**, the general fund allowance for fiscal 2017 is 1.7%, or \$8.1 million, higher than in fiscal 2016 after including the fiscal 2016 deficiency, adjusting for the fiscal 2017 across-the-board reduction for employees health insurance based on a revised estimate of the amount of funding needed, and enhancement funds. The Higher Education Investment Fund (HEIF) increases 8.8%, or \$1.9 million, over fiscal 2016, resulting in an overall growth in State funds of 2.1%, or \$10.0 million, to \$497.8 million. However, when including \$16.4 million for salary increments budgeted in the Department of Budget and Management, State funds grow 5.4%, or \$26.5 million. Other unrestricted funds grow 2.4%, or \$24.4 million, primarily due to tuition and fees and auxiliary revenues increasing \$10.1 million and \$9.0 million, respectively.

The fiscal 2017 allowance includes \$1.6 million to replace revenues equivalent to a 1.0% increase in resident tuition rates. The Governor's allowance assumes a 2.0% increase in resident undergraduate tuition. As previously mentioned, the allowance provides for a salary increment, which totals \$24.5 million of which the general fund portion is \$16.4 million with the remaining \$8.0 million to be funded from other current unrestricted and restricted revenues.

UMCP was awarded \$1.5 million of the \$6.3 million of enhancement funding included in USMO's budget (see USM Overview for further discussion). Funds will be used to provide financial aid to transfer students (\$0.9 million) and to expand existing programs targeting transfer students including the PTA program, identify and support students in science, technology, engineering, and mathematics (STEM) disciplines, and to provide financial assistance so transfer students can participate in internships and study abroad programs.

The allowance provides \$16.2 million in unrestricted funds for expenses related to financial aid (\$5.8 million), facilities renewal (\$3.2 million), information technology (IT) upgrades (\$2.5 million),

new facilities (\$2.4 million), debt service (\$1.3 million), and Title IX compliance (\$1.0 million) and an increase in the veterinary medicine agreement (\$97,710).

Exhibit 8
Governor’s Proposed Budget
University of Maryland, College Park
(\$ in Thousands)

	FY 15	FY 16	FY 17	FY 16-17	% Change
	<u>Actual</u>	<u>Adjusted</u>	<u>Adjusted</u>	<u>Change</u>	<u>Prior Year</u>
General Funds	\$445,560	\$459,047	\$473,842		
Deficiencies		6,796			
Across the board			-1,393		
Enhancement Funds			1,500		
Total General Funds	\$445,560	\$465,844	\$473,949	\$8,105	1.7%
HEIF	20,778	21,878	23,811	1,933	8.8%
Total State Funds	\$466,338	\$487,722	\$497,760	\$10,038	2.1%
Other Unrestricted Funds	982,255	1,013,973	1,038,393	24,420	2.4%
Total Unrestricted Funds	\$1,448,593	\$1,501,695	\$1,536,153	\$34,458	2.3%
Restricted Funds	401,951	416,853	427,291	10,438	2.5%
Total Funds	\$1,850,543	\$1,918,548	\$1,963,444	\$44,896	2.3%

HEIF: Higher Education Investment Fund

Note: Fiscal 2016 general funds are adjusted to reflect the University of Maryland, College Park estimated portion of the deficiency, and fiscal 2017 is adjusted to reflect the across-the-board reduction and enhancement funds.

Source: Governor’s Budget Books, Fiscal 2017; Department of Legislative Services

Budget changes by program area in the allowance are shown in **Exhibit 9**. This data includes unrestricted funds only, the majority of which consist of general funds, the HEIF, and tuition and fee revenues. Education and general (E&G) expenditures grew 3.9% in fiscal 2016. Spending on academic support, institutional support, and student services decline primarily due to several significant fiscal 2015 costs associated with a data breach and IT security, Title IX compliance, higher than anticipated accrued leave payout and retiree health costs, and Provost Initiatives. The \$14.2 million increase in operation and maintenance of plant in fiscal 2016 is related to lower than anticipated fuel and utility expenditures in fiscal 2015 due to favorable prices and clement weather, and an increase in fiscal 2016 costs associated with equipment purchases for the St. John’s Learning Center, operating cost of new facilities, debt service, fuel and utility inflation, and personnel costs.

Exhibit 9
UMCP Budget Changes for Unrestricted Funds by Program
Fiscal 2015-2017
(\$ in Thousands)

	<u>Actual</u> <u>2015</u>	<u>Working</u> <u>Adjusted</u> <u>2016</u>	<u>%</u> <u>Change</u> <u>2015-16</u>	<u>Adjusted</u> <u>2017</u>	<u>%</u> <u>Change</u> <u>2016-17</u>	<u>\$</u> <u>Change</u> <u>2016-17</u>
Expenditures						
Instruction	\$463,525	\$492,360	6.2%	\$498,895	1.3%	\$6,536
Research	125,670	125,556	-0.1%	128,683	2.5%	3,127
Public Service	33,448	39,998	19.6%	40,514	1.3%	516
Academic Support	160,650	157,723	-1.8%	160,558	1.8%	2,835
Student Services	57,699	52,545	-8.9%	54,125	3.0%	1,580
Institutional Support	112,182	105,960	-5.5%	111,347	5.1%	5,387
Operation and Maintenance of Plant	159,224	173,430	8.9%	181,660	4.7%	8,230
Scholarships and Fellowships	66,010	69,640	5.5%	73,577	5.7%	3,937
Deficiency/Across the board Enhancement Funds		6,796		-1,393 1,500		-8,189
Education and General						
Total	\$1,178,407	\$1,224,009	3.9%	\$1,249,466	2.1%	\$25,458
Auxiliary Enterprises	\$270,185	\$277,686	2.8%	\$286,687	3.2%	9,001
Grand Total	\$1,448,593	\$1,501,695	3.7%	\$1,536,153	2.3%	\$34,458
Revenues						
Tuition and Fees	\$519,955	\$545,829	5.0%	\$555,966	1.9%	10,138
General Funds	445,560	465,844	4.6%	473,949	1.7%	8,105
HEIF	20,778	21,878	5.3%	23,811	8.8%	1,933
Other Unrestricted Funds	210,258	205,215	-2.4%	210,496	2.6%	5,281
Subtotal – State Supported	\$1,196,550	\$1,238,765	3.5%	\$1,264,223	2.1%	\$25,458
Auxiliary Enterprises	265,081	277,686	4.8%	286,687	3.2%	9,001
Transfer (to)/from Fund Balance	-13,039	-14,757		-14,757		
Grand Total	\$1,448,593	\$1,501,695	3.7%	\$1,536,153	2.3%	\$34,458

HEIF: Higher Education Investment Fund

UMCP: University of Maryland, College Park

Note: Fiscal 2016 general funds are adjusted by \$6.8 million to reflect proposed deficiency. Fiscal 2017 general funds are adjusted to reflect a \$1.4 million across-the-board reduction and \$1.5 million in enhancement funds.

Source: Governor's Budget Books, Fiscal 2017; Department of Legislative Services

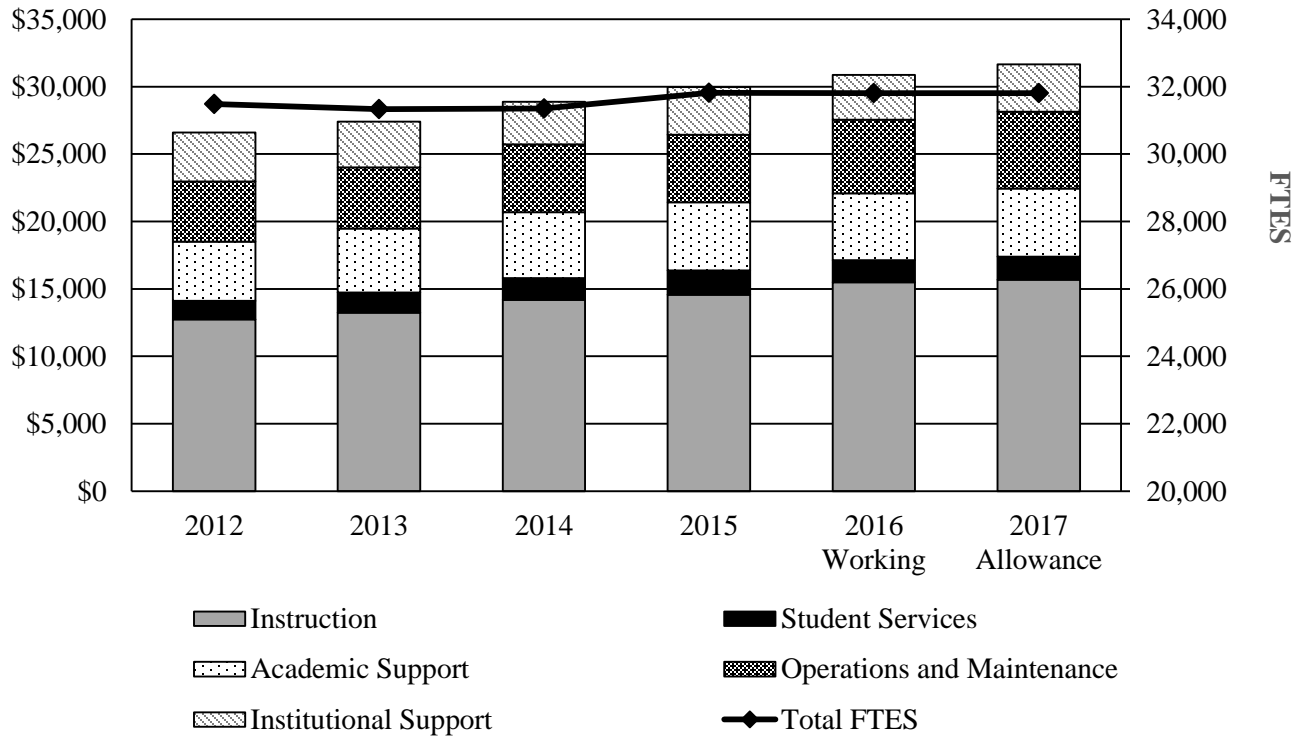
In fiscal 2017, E&G expenditures grow 2.1%, or \$25.5 million, mainly due to increases in personnel costs. When including \$16.4 million for salary increments in fiscal 2017, E&G expenditures increase 3.4%, or \$41.9 million. Spending on operations and maintenance of plant grows 4.7%, or \$8.2 million, due not only to personnel costs (\$2.1 million) but also facilities renewal (\$3.1 million), new facilities – St. John’s Learning and Teaching Center and two renovations (\$2.4 million) and debt service (\$1.3 million), which partially offset changes in the calculation of health insurance.

UMCP plans to transfer a total of \$42.6 million to the fund balance between fiscal 2015 and 2017. It is estimated that by fiscal 2017, the UMCP unrestricted funds fund balance will total \$423.1 million, of which \$178.9 million is the State-supported portion. Overall, UMCP will account for 42.8% of the USM total fund balance.

Expenditures Per FTES

Expenditures per full-time equivalent student (FTES) grow 19.0% between fiscal 2012 and 2017 from \$26,600 to \$31,649, respectively, with over half of the increase related to spending on instruction, as shown in **Exhibit 10**. The largest increase occurred in fiscal 2014 when expenditures grew 5.4%, or \$1,479 per FTES, with instruction and operation and maintenance of plant increasing \$943 and \$505, respectively. Those increases were offset by a decrease in institutional support of \$239 per FTES. This increase in expenditures per FTES in fiscal 2014 was in spite of cost containment measures that resulted in a \$9.5 million reduction of the UMCP budget. In fiscal 2015, expenditures per FTES again increased 3.7%, \$1,076, despite experiencing \$18.1 million in budget reductions, which was partially offset by a 2.0% mid-year tuition increase. Overall, despite low enrollment growth (1.0% from fiscal 2012 to 2015) and budget reductions, UMCP was able to increase spending on the academic enterprise.

Exhibit 10
Unrestricted Fund Expenditures Per Full-time Equivalent Student
Fiscal 2012-2017



FTES: full-time equivalent student

Note: Does not reflect fiscal 2016 deficiency or fiscal 2017 across-the-board reduction or enhancement funds.

Source: Governor’s Budget Books; Department of Legislative Services

Issues

1. Differential Tuition

Historically, states provide funding to institutions to subsidize tuition in order to facilitate residents access to higher education. In return, institutions charge in-state students tuition below the cost of education. Traditionally, institutions charge all undergraduate students the same tuition rate regardless of program/major or class standing. Under this model lower level students subsidize upper level students while those in less expensive majors subsidize the cost of instruction for those in more expensive programs, *i.e.*, STEM programs, business, and music. According to Kevin Strange’s study *Differential Pricing in Undergraduate Education: Effects on Degree Production by Field*, cost analysis data from large systems – Florida, Illinois, New York, SUNY, and Ohio – shows upper division courses cost approximately 40% more per credit hour than lower division courses and upper division engineering, physical science, and visual/performing arts were also about 40% more expensive than less costly majors.

Differential pricing can be applied to various student attributes including residency, level of study (*i.e.*, undergraduate, graduate, or professional), major, class standing, or type of instruction (*i.e.*, traditional or online). Public institutions have implemented some form of differential pricing since the 1970s when public institutions charged out-of-state undergraduate students a higher tuition rate than in-state students, and graduate students were charged a different rate than undergraduate students. While controversial at first, the practice is widespread and common today.

The cost of education continues to increase faster than the rate of state funding of higher education. In this environment, institutions across the country are turning to differential tuition or pricing as an alternative to implementing across-the-board tuition increases. It is also seen as a more equitable way to maintain the quality of those more expensive programs. Furthermore, differential tuition is seen as better aligning price with the student’s ability to pay: students taking upper level courses are more likely to graduate and earn more, while those in more expensive majors such as engineering and business tend to command higher salaries and, therefore, are more able to finance their education.

A 2011 *Survey of Differential Tuition at Public Higher Education Institutions* conducted by Cornell Higher Education Research Institute found of the 143 public institutions with some type of differential pricing, 41% were doctoral institutions of which over half were flagship institutions. The survey found that, in general, differential pricing at the doctoral institutions was implemented by college or major with only a small percentage charging more per credit for upper division courses. The most common majors charging a higher rate were business, engineering, and nursing.

One concern with differential pricing is the impact it could have on enrollment, particularly that of low-income students. While little research has been done on this issue, Kevin Strange looked at the effect on enrollment at public research institutions that implemented differential pricing. The study found such pricing policies did effect enrollment for some majors: enrollment in engineering and business programs declined 1.1 and 0.8 percentage points, respectively. However, there was a small,

though statistically insignificant, increase in nursing programs. The study also found that enrollment of female and minority students were more likely to be adversely affected by higher tuition rates and there was no evidence that increases in financial aid offset the impact of differential pricing. In addition, based on the findings concerning engineering programs, the author cautions institutions may not realize an increase in tuition revenue if enrollment declines.

Differential Tuition at UMCP

In response to the slow growth in State funding coupled with low tuition increases, UMCP implemented differential tuition in fall 2015 for business, engineering, and computer science majors as a means of maintaining the quality of these high-demand, high-cost programs. According to UMCP, these program met the five criteria developed that a program must meet in order to qualify for differential tuition:

- (1) **Student Demand** – Engineering and business are limited enrollment programs with enrollment capped at 3,000 and 2,000 to 2,200, respectively. All students are admitted in the computer science program. Over the past five years the number of new freshmen applying to engineering grew 25.1% and business by 23.8%. On average, 1,759 and 1,229 new freshmen are admitted to engineering and business, respectively. Undergraduate enrollment in computer science more than doubled over the past five years from 1,327 in fall 2011, to 2,708 in fall 2015.
- (2) **Instructional Cost** – According to UMCP, the cost per undergraduate credit in engineering and business is \$130 and \$85 higher than the average of other majors. The calculation of the differential is based on the median of the Big Ten institutions (see **Appendix 3** for differential tuition at Big Ten institutions). In its calculation of the differential tuition, it appears UMCP used \$120 as the average cost for an upper level credit hour. However, UMCP can neither confirm nor deny the average cost of an undergraduate credit is \$120. **The President should comment on how it was determined that the cost of undergraduate credit for engineering and business was higher than the average cost of other majors if it is unable to demonstrate how it calculated the average cost for an upper level credit hour.**

Additionally, according to UMCP, the cost per undergraduate credit for computer science is actually lower than the average of other majors due to growing enrollment. However, UMCP was not able to provide a cost per credit hour. When the revenue from differential tuition is included in the calculation, the cost comes close to the campus average, according to UMCP. UMCP states that in order for the program to become a top 10 program it needs the additional revenue from differential tuition so it can increase faculty, advisors, staff, and infrastructure.

- (3) **Academic Quality** – In 2016, *U.S. News and World Reports* ranked computer science 17, business programs 22, and engineering 23 in academic quality.
- (4) **Job Salaries** – At graduation, 85% of students in the three majors will have jobs or have been accepted into graduate school compared to 70% in other majors, according to UMCP. The overall median starting salary for jobs in one of the three majors is approximately \$60,000 while for other majors it is \$35,000.

- (5) **Impact on State’s Economy** – According to UMCP, it ranks tenth among public universities and thirtieth among all universities in the number of new companies created by undergraduates and funded by venture capital.

The President should comment on why computer science is charging differential tuition since it does not meet the five established criteria.

In May 2015, the USM Board of Regents (BOR) approved the UMCP plan to implement differential tuition for engineering, business, and computer science. Under the plan, differential tuition is:

- **Applied to Juniors and Seniors in the Program:** Upper level students are very likely to graduate from their chosen programs while lower level students often change majors before their junior year. UMCP wants to encourage lower level students to explore introductory courses in the three fields.
- **Benchmarked to the Public Big Ten Institutions:** All public Big Ten institutions have implemented differential tuition for business and engineering, and most for computer science. The UMCP differential tuition is benchmarked to the median of the Big Ten institutions, which is \$5,600 (\$1,400 per year for four years or \$2,800 per year for two years).
- **Incremental Phase-in Over Four Years:** The differential is based on the total cost of a degree at UMCP which is currently \$38,000 (tuition and fees). In fiscal 2016, juniors will see a 2% increase, or \$700, and by fiscal 2019 (full implementation) the total cost of the degree increases by \$5,600 based on current tuition and fee levels (see **Exhibit 11**). The dollar value of the the differential in the future will increase proportionately with any increase in the base tuition, but the differential as a percentage of the base tuition and fees will remain at 15%.

Exhibit 11
Phase-in of Differential Tuition for
Upper Level Students

<u>Fiscal Year</u>	<u>Student Status</u>	<u>Financial Impact</u>	<u>% Increase</u>
2015	Current Seniors	No impact	
2016	Current Juniors	\$700	2%
2016-2017	Current Sophomores	\$2,100	6%
2017-2018	Current Freshmen	\$4,200	11%
2019 +	Future Students	\$5,600	15%

Source: University of Maryland, College Park

Overall, UMCP expects differential tuition will generate approximately \$4.0 million in additional revenue in fiscal 2016 and \$16.0 million per year starting in fiscal 2018, as shown in **Exhibit 12**.

Exhibit 12
Estimate Revenues Generated from Differential Tuition
Fiscal 2016-2018

<u>Major</u>	<u>Projected Enrollment</u>		<u>Estimated Revenues</u>		
	<u>Junior/Senior</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	
Business	2,100	\$1,470,000	\$2,940,000	\$5,880,000	
Engineering	2,600	1,820,000	3,640,000	7,280,000	
Computer Science	1,000	700,000	1,400,000	2,800,000	
Total	5,700	\$3,990,000	\$7,980,000	\$15,960,000	

Source: University of Maryland, College Park

The revenue generated from the differential will remain within the respective departments and will be used to enhance or maintain program quality, expand access, and grow enrollment. Most of the revenue (65%) will go toward improving the academic experience including:

- **Hiring Faculty:** Reducing the undergraduate student/faculty ratio and class sizes, and strengthening research and innovation. As shown in **Exhibit 13**, UMCP plans to hire 23 new faculty members. Computer science, which has the highest student-to-faculty ratio at 93.1, is only planning on hiring 6 faculty members, which will improve the ratio to 74.1. Engineering, which has the lowest ratio is planning on hiring the most faculty members (12), which is related to national accreditation standards and maintaining a specific faculty to student ratio comprised of tenure-track faculty. The School of Business and Management only plans to hire 5 faculty members because the Tyser Fellows program provides full-time, non-tenure-track faculty for undergraduate instruction. Also, due to shifting enrollment trends in the master's programs, the school is able to reassign some tenure-track faculty to undergraduate instruction. In addition, all programs will use the additional revenue to hire more academic advisors, increase student opportunities for research and internships, and improve instruction infrastructure including upgrading lab instrumentation, computing facilities, and more incubator space for student start-ups.
- **Increasing Financial Aid:** One quarter of the revenue will go toward increasing financial aid in these programs (\$1 million in fiscal 2016; \$2 million in fiscal 2017; and \$4 million in fiscal 2018 and the out-years). The funds will be used to cover the differential tuition for (1) Pell-eligible low-income students; (2) low-income students with an expected family contribution (EFC) of under \$8,000; and (3) students on full scholarships.

Exhibit 13
Improved Student-to-faculty Ratio

<u>Major</u>	<u>Current Ratio</u>	<u>New Hires</u>	<u>New Ratio</u>
Business	29:1	5	27:1
Engineering	21:1	12	20:1
Computer Science	93:1	6	74:1

Source: University of Maryland, College Park

- ***Growing Enrollment:*** The remaining 10% of the revenue will be used to grow enrollment in engineering and computer science by 40 and 20 or more, respectively. Business will maintain its limited enrollment policy not only to maintain quality but also due to space constraints. However, two new minors will be offered in General Business and Innovation Entrepreneurship, which is expected to enroll over 700 students.

UMCP will use various metrics to measure the impact of differential tuition including diversity of students; student-faculty ratio; amount of funds going toward financial aid; faculty hired; and how colleges are spending the revenue.

The President should comment on what steps will be taken if differential tuition adversely affects the enrollment of low-income, minority, and female students in these programs and if there are plans to expand differential tuition to other programs and if so, why.

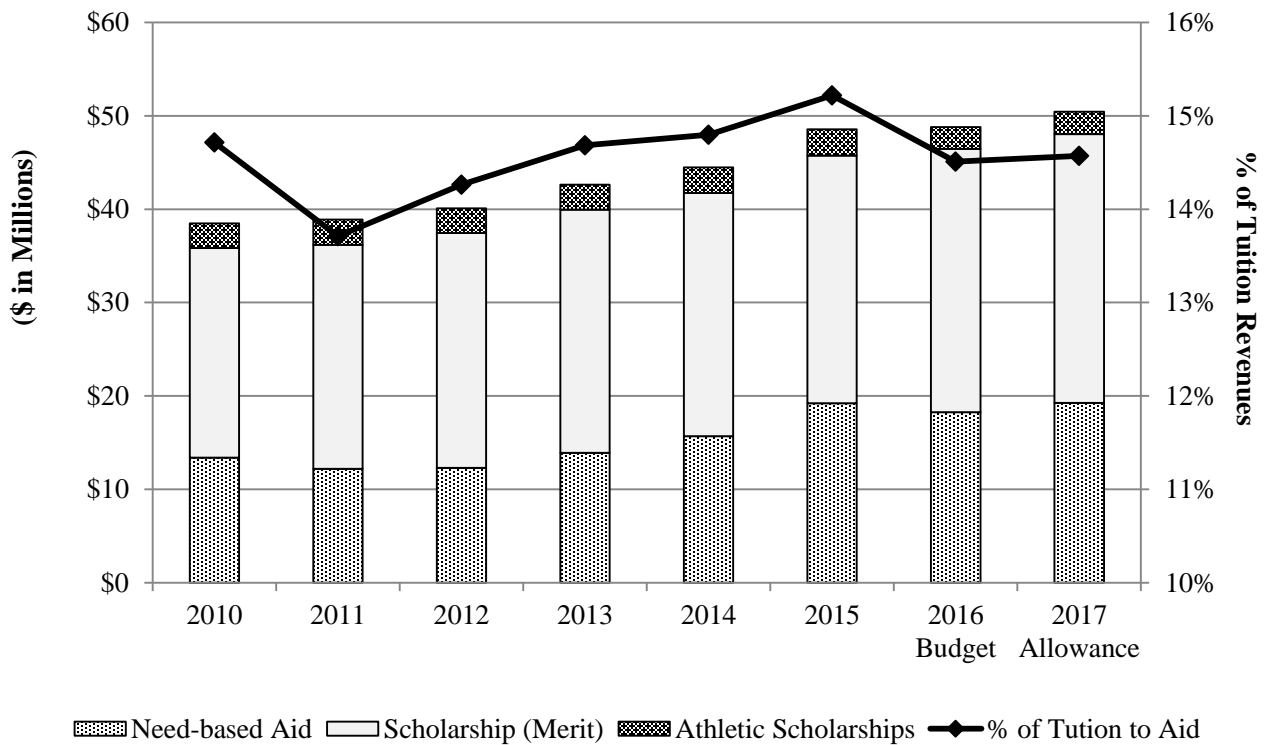
2. Meeting College Expenses

As the cost of college continues to increase, students and families are relying on a variety of financial resources to pay for college with more students taking out loans. When accounting for the average amount of federal, State, and institutional aid awarded to all UMCP students, the average net price for a FT/FT Maryland undergraduate student at UMCP was \$14,833 in fiscal 2015 compared to the list price of \$24,352 (based on tuition, mandatory fees, books and supplies, other expenses, and the weighted average of room and board), according to the National Center for Education Statistics' College Navigator. This amounts to a 39% reduction in the net cost of attendance. For those families with a family income under \$30,000, the average net price was \$6,938 in fiscal 2015.

In fiscal 2015, 19.4% of UMCP undergraduate students received Pell awards, which are given to those students who otherwise could not afford college and have an EFC of less than a specific amount, which was \$5,730 in fiscal 2015. EFC is an indicator of the amount a family is able to contribute to pay for a student's college education. Therefore, the lower the EFC, the greater the financial aid.

Total expenditures on institutional financial aid increased 26.2%, or \$10.1 million between fiscal 2010 and 2015, totaling \$46.9 million in fiscal 2015, as shown in **Exhibit 14**. Since fiscal 2011, when expenditure on need-based aid was at its lowest at \$12.2 million, spending has increased to \$19.2 million in fiscal 2015. UMCP attributed the decline in fiscal 2011 to the use of one-time resources in fiscal 2010 to assist with the many financial aid appeals received that year (in fiscal 2010 spending on need-based aid increased \$2.0 million). Spending on need-based aid declines by \$1.0 million in fiscal 2016, while scholarship spending increases \$1.7 million. Overall, spending on institutional aid only increases 0.5%, or \$0.2 million, in fiscal 2016. UMCP plans to increase spending on institutional aid in fiscal 2017 by \$1.7 million with \$1.0 million going to need-based aid. **The President should comment on decreasing spending on need-based aid in fiscal 2016.**

Exhibit 14
Institutional Aid: Total Aid and Aid as a Percentage of Undergraduate Tuition Revenues
Fiscal 2010-2017
(\$ in Millions)

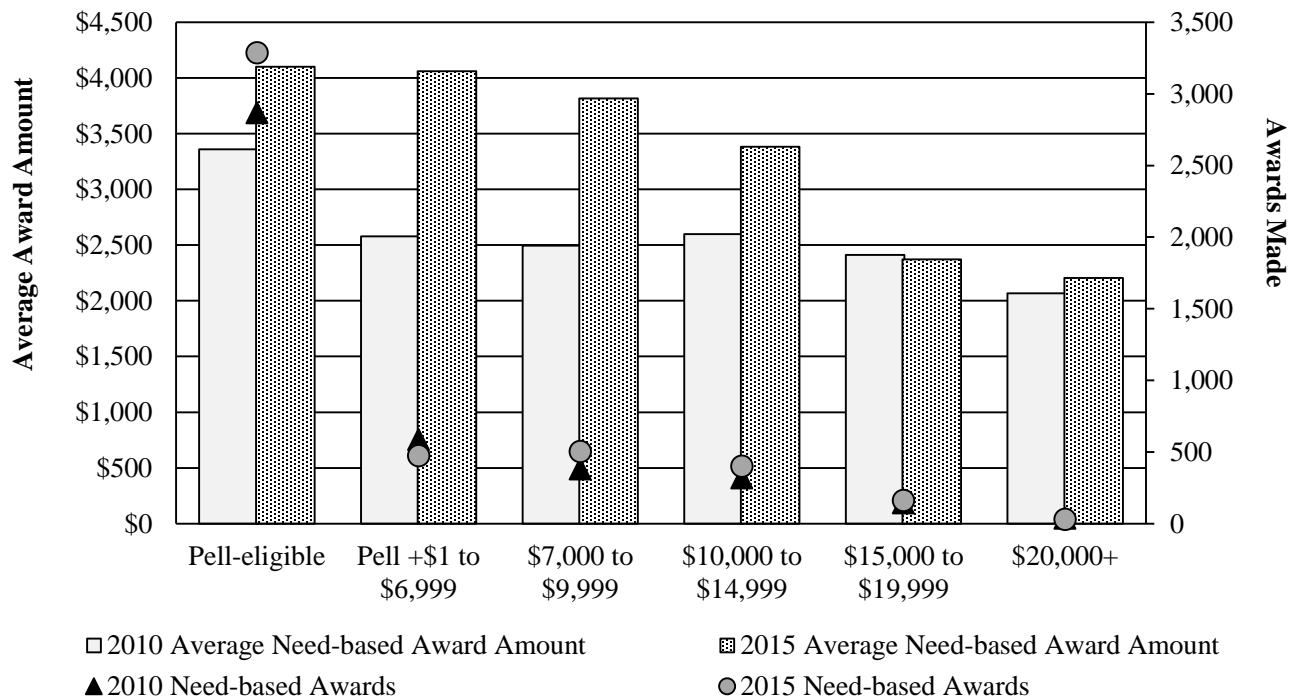


Source: University System of Maryland; Department of Legislative Services

The USM BOR has instructed institutions to use a portion of annual tuition revenue increases for institutional aid directed toward those undergraduate students with the highest financial need, offsetting increases in tuition rates, and holding harmless those with the greatest need. Since fiscal 2011, when institutional aid as a percentage of tuition revenue fell to its lowest level of 13.7%, it increased to 15.6% in fiscal 2015. However, in fiscal 2017, it declines to 14.6%.

In looking at how UMCP distributed need-based institutional financial aid between fiscal 2010 and 2015, as shown in **Exhibit 15** not only did the number of need-based aid awards going to Pell-eligible students increase (as it did in every category except for those in the category immediately above the Pell-eligible) but so did the average amount awarded,. While the average award amount for all EFC categories (except those with an EFC of \$15,000 to \$19,999) grew, Pell-eligible students received the highest award of \$4,100 in fiscal 2015. The portion of Pell-eligible students receiving need-base aid increased from 66.1% to 67.6% between fiscal 2010 and 2015.

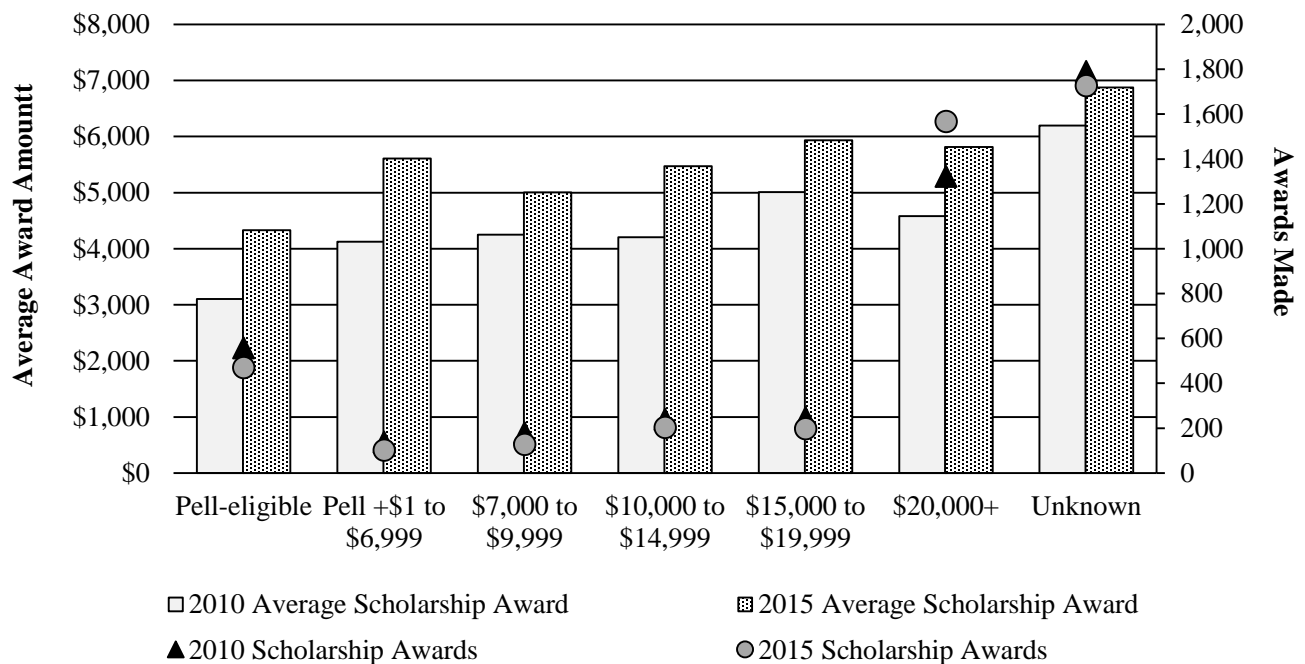
Exhibit 15
Comparison of Number and Average Amount of Need-based Aid
Received Per Recipient by Expected Family Contribution
Fiscal 2010 and 2015



Source: University System of Maryland

The average amount of scholarship awards increased 39.5% and 36.0% for Pell-eligible students and those with an EFC of Pell+\$1 to \$6,999, respectively, to \$4,330 and \$5,609 between fiscal 2010 and 2015, as shown in **Exhibit 16**. Overall, while the total number of scholarship awards declined by 75, those going to students with an EFC greater than \$20,000 increased by 245. Overall, 74.9% of the awards went to those with an EFC greater than \$20,000 or unknown (students who did not file a Free Application for Federal Student Aid or FAFSA) compared to 73.9% in fiscal 2010.

Exhibit 16
Comparison of Number and Average Amount of Scholarships Received Per Recipient by Expected Family Contribution



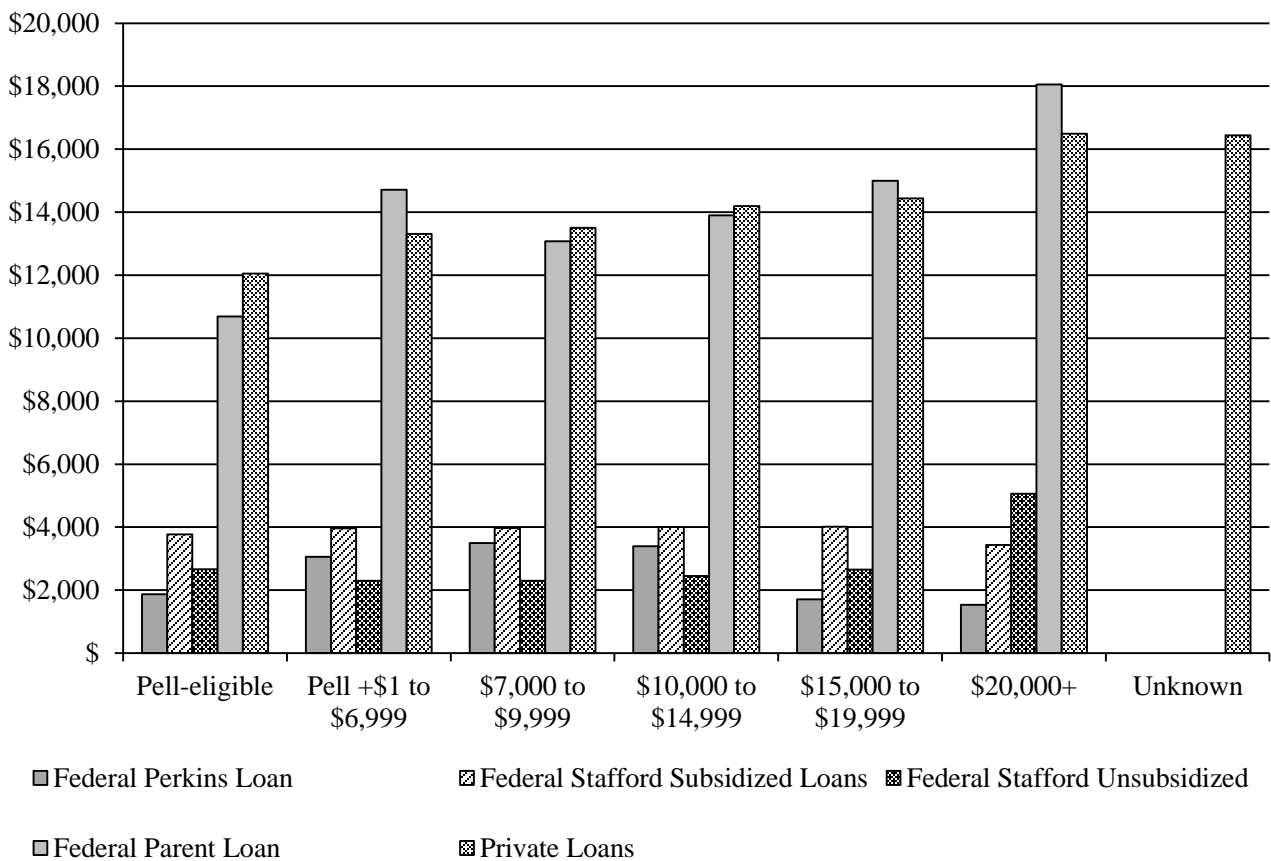
Source: University System of Maryland

While students with the greatest financial need typically receive Pell and institutional aid, it is not enough to cover the cost of college. As shown in **Exhibit 17**, students in all EFC categories take out various types of loans to finance their education. There are three types of loans:

- federal subsidized loans, which 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, which are 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 (Stafford and Parent loans); and
- private loans.

Exhibit 17
Mean Loan Amount by Type and Expected Family Contribution
Fiscal 2015



Source: University System of Maryland

In fiscal 2015, of the 5,818 Pell-eligible students, 70.7% and 51.6%, used subsidized and unsubsidized loans, respectively, to help pay for their college education with average loans of \$3,769 and \$2,662. In general, the federal parent loans were the highest average loans taken out for those in all EFC categories, with those with an EFC over \$20,000 taking out the highest average loan of \$18,052.

According to College Insight, the percentage of students graduating with debt from UMCP increased from 44% to 45% between fiscal 2009 and 2014, lower than the national average of 61% in fiscal 2014. During this time period the average debt for UMCP graduates increased 24.1%, from \$20,256 to \$25,131, which is below the national average of \$27,022 in fiscal 2014.

3. Innovation, Entrepreneurship, and MPowering

Maryland Innovation Initiative

The Maryland Innovation Initiative was established under Chapter 450 of 2012 to foster the transition of promising technologies developed at one of the five research institutions that have significant commercial potential. Each institution annually contributes either \$200,000 (UMCP, University of Maryland, Baltimore (UMB), and Johns Hopkins University (JHU)) or \$100,000 (University of Maryland Baltimore County, Morgan State University) to participate in the program that is administered by the Maryland Technology Development Corporation (TEDCO). In addition, general funds are provided in the TEDCO budget to fund awards. Recipients can receive awards up to \$265,000: a maximum of \$115,000 for technology validation and market assessment and \$150,000 for commercial launch. In fiscal 2014, \$6.4 million was awarded to 67 commercialization projects and start-up companies and \$5.8 million was available in fiscal 2015.

In July 2015, eight UMCP projects were awarded a total of \$0.8 million. Projects included a method for source code recovery; a real-time polling platform; a product to restore old football gloves to “like new;” sensors made with biocompatible materials; an automated, ultra-clean wood stove; and an ultra-low profile, low-power, and smart sensor for monitoring a variety of trace gases (*i.e.*, toxic explosive, corrosive) in the air. In previous rounds, 15 projects received a total of \$1.6 million and included collaborations with JHU and UMB which covered a variety of industries including therapeutic, software, medical devices, and mobile technologies.

Maryland E-Nnovation

The Maryland E-Nnovation Initiative Program was established under Chapter 532 of 2014, which matches State funds to private funds raised by public institutions in support of endowed chairs to further basic and applied research in scientific and technical fields. The program is administered by the Department of Commerce and matches private donations of at least \$0.5 million. In fiscal 2016, three institutions established six new research professorships with \$14.9 million in private donations and State funding with the State’s share totaling \$6.3 million. UMCP received \$2.1 million in State matching funds for two professorships:

- Reginald Allan Hahne Endowed Chair in Computer Science (\$1.5 million in private donations; \$1.1 million State match) – to support a virtual reality initiative; and
- Michael and Eugenia Brin Endowed Chair in Mathematics (\$2.5 million in private donations; \$1.1 million State match).

Regional Institution Strategic Enterprise Program

Chapter 530 of 2014 established the Regional Institution Strategic Enterprise (RISE) Zone Program that is administered by the Department of Commerce and provides income and property tax credits to qualifying businesses located within a geographic area designated as a RISE zone. RISE Zones are located in the immediate proximity to a private or public four-year institution or community college. Applications for a RISE zone must be made jointly with a county, municipal corporation, or applicable economic development agency.

UMCP, working through the College Park City-University Partnership and with Prince George's County, was designated a RISE zone. The next step will be to hold public hearings in spring 2016 with College Park and Riverdale Park on the precise boundaries of the RISE zone. UMCP expects its research park, Innovation District, and parts of the Route One/Baltimore Avenue corridor will be included in the RISE zone.

MPowering

MPowering is a formal alliance between UMCP and UMB that was approved by BOR in March 2012. Under the alliance, each institution remains a distinct, independent institution in which the resources of each will be leveraged to improve and enhance academic programs, research, technology transfer, and commercialization.

MPowering is governed by a steering committee headed by the provosts of UMCP and UMB and reports to both presidents who, in turn, report to the Chancellor and BOR. At the direction of the presidents, the steering committee will also implement any new initiative.

Accomplishments to date are:

Research – Using a shared research infrastructure for proposal development, 298 proposals were submitted, of which 81 were awarded funding totaling \$70.8 million, as shown in **Exhibit 18**.

Commercialization of Inventions – Since fiscal 2011 the number of technology licenses has doubled, as shown in **Exhibit 19**.

Education – A new Master of Law program is providing undergraduate training in law; a Master of Science in Law currently being offered at UMCP and taught by UMB School of Law faculty targets professionals working in highly regulated fields such as health care, environment, and cyber security; and a scholars program is being offered through both universities.

Service – The Agriculture Law Education Initiative has expanded statewide and a new Support, Advocacy, Freedom, and Empowerment Center for Human Trafficking Survivors will open at UMCP in 2016 and will provide comprehensive legal, social, medical, and economic empowerment services to trafficking survivors using a university-based platform that combines the resources and wide range of disciplines from both UMB and UMCP.

Exhibit 18
Joint Proposals Submitted and Receiving Awards
Fiscal 2012-2015

	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>Total</u>
Submitted	4	68	114	112	298
Awarded	1	18	26	36	81
Anticipated Award	\$2,950	\$14,552	\$27,090	\$26,178	\$70,770

Source: University of Maryland, College Park

Exhibit 19
Disclosures, Startup, and Licenses
Fiscal 2011-2015

	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>Total</u>
Invention Disclosures	206	265	264	366	306	1,407
Startups	5	7	11	8	10	41
Licenses	28	34	41	51	56	210

Source: University of Maryland, College Park

Encouraging Student Innovation and Entrepreneurship

In 2013, UMCP launched the Academy for Innovation and Entrepreneurship (AIE) that reports to the President and Provost and whose mission is to engage all students in innovation and entrepreneurship (I&E). AIE works with deans and faculty to infuse I&E into core curriculum, embedding either design thinking or learning startup into existing or completely redesigned courses, tying it into the overall course topic or project. Design thinking focuses on the innovation process where students work in teams to develop and test ideas in the field with “quick and dirty” mockups to learn what does and does not work. Learning startup focuses on the entrepreneur aspect where students get out of the classroom and off campus to interview potential customers and stakeholders to determine their needs and to receive real world insights that validate or invalidate key components of the business model. Overall, 34 departments are offering 147 I&E courses, with undergraduate enrollment in these courses increasing from 1,973 in fiscal 2013 to 6,892 in fiscal 2015.

Recommended Actions

1. Concur with Governor's allowance.

Current and Prior Year Budgets

Current and Prior Year Budgets University of Maryland, College Park (\$ 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 2015							
Legislative							
Appropriation	\$458,453	\$19,617	\$0	\$955,415	\$1,433,486	\$444,662	\$1,878,148
Deficiency							
Appropriation	0	0	0	0	0	0	0
Cost							
Containment	-18,069	0	0	0	-18,069	0	-18,069
Budget							
Amendments	5,176	1,161	0	27,317	33,653	-15,580	18,073
Reversions and Cancellations	0	0	0	-477	-477	-27,132	-27,609
Actual							
Expenditures	\$445,560	\$20,778	\$0	\$982,255	\$1,448,593	\$401,951	\$1,850,543
Fiscal 2016							
Legislative							
Appropriation	\$446,374	\$21,878	\$0	\$983,894	\$1,452,147	\$442,025	\$1,894,172
Budget							
Amendments	12,673	0	0	30,078	42,751	-25,172	17,579
Working							
Appropriation	\$459,047	\$21,878	\$0	\$1,013,973	\$1,494,898	\$416,853	\$1,911,751

Note: The fiscal 2016 working appropriation does not include deficiencies or reversions. Numbers may not sum to total due to rounding.

Fiscal 2015

The fiscal 2015 legislative appropriation for UMCP was reduced by \$27.6 million. General funds decreased by \$12.9 million which included \$18.1 million in cost containment measures. A variety of strategies to meet this reduction including increased revenue from a 2% mid-year tuition increase and a one-time surcharge of \$76; furloughs; and a \$5.6 million transfer from the fund balance. A budget amendment added \$6.3 million related to a 2% cost-of-living (COLA) adjustment and a \$1.2 million decrease was offset by a corresponding increase in the special fund appropriation, which is comprised of the HEIF.

Other unrestricted funds increased by \$26.8 million. Budget amendments added \$27.3 million including:

- \$20.6 million in auxiliary enterprises related to the intercollegiate athletic program, dining services, the conference and visitors center, and aligning revenues with the current budget;
- \$4.9 million in tuition and fee revenues due to the mid-year tuition increase and additional enrollment;
- \$2.6 million related to an increased use of fund balance;
- \$0.9 million in the sales and services of educational activities; and
- \$24,563 in miscellaneous income.

The increase was partially offset by a \$1.7 million decrease in indirect cost recovery. Cancellations of unrestricted funds amounted to \$0.5 million due to contractual services expenses being less than anticipated.

Restricted funds decreased by \$42.7 million. A budget amendment reduced funds \$15.6 million included \$25.0 million in federal and \$4.0 in private grants and contracts to realign the budget with actual activity. The decrease was partially offset by increases of \$6.8 million in federal financial aid; \$6.5 million in State and local grants and contracts; and \$32,670 related to a 2% COLA for the Maryland Fire and Rescue Institute. Cancellation of restricted funds totaled \$27.1 million due to contract and grant expenditures being less than anticipated.

Fiscal 2016

To date, the fiscal 2016 legislative appropriation has been increased by \$17.6 million. General funds increased \$12.7 million by budget amendment to restore a 2% pay reduction. Other unrestricted funds increased \$30.1 million including:

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- \$26.4 million in tuition and fees related to an increase of 230 FTE in the School of Business and graduate school (\$11.2 million), growth in non-State Extended Studies programs (\$5.6 million), tuition differential pricing (\$4.0 million), annualization of the fiscal 2015 mid-year tuition increase (\$3.1 million), and revenues being higher than originally budgeted (\$2.5 million);
- \$6.3 million in investment and endowment income;
- \$3.1 million in indirect cost recovery;
- \$3.1 million in the sales of educational activities; and
- \$2.9 million in auxiliary enterprises.

The increase is partially offset by an additional \$11.8 million being transfer to the fund balance.

Current restricted revenues decrease \$25.2 million due to realigning federal (\$13.2 million), State and local (\$6.8 million), and private (\$5.2 million) grants and contracts with current projections.

Audit Findings

Audit Period for Last Audit:	July 6, 2010 – March 4, 2014
Issue Date:	May 2015
Number of Findings:	7
Number of Repeat Findings:	0
% of Repeat Findings:	0%
Rating: (if applicable)	n/a

- Finding 1:** Faculty were not required to submit documentation to substantiate summer research work performed to support related compensation payments.
- Finding 2:** University of Maryland, College Park (UMCP) had not established independent online approval requirements for disbursement transactions it processed in its automated financial system and numerous employees were assigned access capabilities allowing them to process and release transactions for payment without approval.
- Finding 3:** Lack of sufficient control and accounting for certain cash, check, and credit card collections.
- Finding 4:** Financial aid awards and adjustments that were manually posted to student accounts were not subject to documented, independent review.
- Finding 5:** Noncash credit adjustments posted manually to student accounts receivable records were not sufficiently controlled.
- Finding 6:** UMCP had not established controls to ensure the accuracy of meal plan records in its automated system.
- Finding 7:** Access and monitoring controls over critical production data files and databases were not sufficient to protect the related data.

*Bold denotes item repeated in full or part from preceding audit report.

Total Differential Tuition or Program Fees Over Four Years at Public Big Ten Institutions

<u>Institution</u>	<u>Differential Tuition</u>			<u>Base Resident T&F</u>	<u>Cost of Four-year Degree</u>			
	<u>Business</u>	<u>Engineering</u>	<u>Computer Science</u>		<u>Four-year Base T&F</u>	<u>Business</u>	<u>Engineering</u>	<u>Computer Science</u>
Indiana University	\$4,800	n/a	\$0	\$10,388	\$44,763	\$49,563	n/a	\$44,763
Michigan State University	800	\$2,360	400	14,000	60,328	61,128	\$62,688	60,728
Ohio State University	6,680	4,712	864	10,010	43,134	49,814	47,846	43,998
Penn State University	2,924	2,924	2,924	18,174	78,314	81,238	81,238	81,238
Purdue University	5,744	8,200	0	10,002	43,100	48,844	51,300	43,100
Rutgers	1,828	4,984	0	13,009	56,058	57,886	61,042	56,058
University of Illinois	20,016	20,016	20,016	15,602	67,231	87,247	87,247	87,247
University of Iowa	7,236	6,188	0	8,079	34,814	42,050	41,002	34,814
University of Michigan	7,316	8,696	3,412	14,336	61,776	69,092	70,472	65,188
University of Minnesota	9,400	1,160	2,400	13,626	58,716	68,116	59,876	61,116
University of Nebraska	3,432	6,172	6,172	8,170	35,206	38,638	41,378	41,378
University of Wisconsin	4,000	5,600	0	10,410	44,858	48,858	50,458	44,858
Median	\$5,744	\$5,600	\$632	\$11,710	\$50,458	\$53,850	\$59,876	\$50,458
Average	6,307	6,456	3,016	12,151	52,358	58,539	59,504	55,374
UMCP (\$120 Per ULCH)	\$5,600	\$5,600	\$5,600	\$9,427	\$40,905	\$46,505	\$46,505	\$46,505
UMCP Percentile in Big 10	53%	50%	83%	21%	21%	20%	23%	47%

T&F: tuition and fees

ULCH: upper level credit hour

UMCP: University of Maryland, College Park

Source: University of Maryland, College Park

Object/Fund Difference Report
USM – University of Maryland, College Park

<u>Object/Fund</u>	<u>FY 15 Actual</u>	<u>FY 16 Working Appropriation</u>	<u>FY 17 Allowance</u>	<u>FY 16 - FY 17 Amount Change</u>	<u>Percent Change</u>
Positions					
01 Regular	8,820.80	8,926.61	8,926.61	0.00	0%
02 Contractual	1,486.30	1,174.50	1,222.02	47.52	4.0%
Total Positions	10,307.10	10,101.11	10,148.63	47.52	0.5%
Objects					
01 Salaries and Wages	\$ 1,194,272,967	\$ 1,219,310,740	\$ 1,243,396,055	\$ 24,085,315	2.0%
02 Technical and Spec. Fees	6,560,325	6,801,261	8,821,589	2,020,328	29.7%
03 Communication	17,476,329	20,350,502	20,920,638	570,136	2.8%
04 Travel	43,336,817	42,498,486	42,498,486	0	0%
06 Fuel and Utilities	55,253,769	61,450,706	64,472,098	3,021,392	4.9%
07 Motor Vehicles	5,346,470	5,636,377	5,636,377	0	0%
08 Contractual Services	158,697,964	158,204,415	164,107,622	5,903,207	3.7%
09 Supplies and Materials	90,228,091	92,310,661	99,873,145	7,562,484	8.2%
10 Equipment – Replacement	-33,896	0	0	0	0.0%
11 Equipment – Additional	42,060,216	44,289,831	44,289,831	0	0%
12 Grants, Subsidies, and Contributions	117,422,260	138,083,066	144,420,361	6,337,295	4.6%
13 Fixed Charges	55,116,274	53,498,327	52,905,613	-592,714	-1.1%
14 Land and Structures	64,805,712	69,316,942	71,994,907	2,677,965	3.9%
Total Objects	\$ 1,850,543,298	\$ 1,911,751,314	\$ 1,963,336,722	\$ 51,585,408	2.7%
Funds					
40 Unrestricted Fund	\$ 1,448,592,531	\$ 1,494,898,235	\$ 1,536,045,836	\$ 41,147,601	2.8%
43 Restricted Fund	401,950,767	416,853,079	427,290,886	10,437,807	2.5%
Total Funds	\$ 1,850,543,298	\$ 1,911,751,314	\$ 1,963,336,722	\$ 51,585,408	2.7%

Note: The fiscal 2016 working appropriation does not include deficiencies or reversions. The fiscal 2017 allowance does not include contingent reductions.

Fiscal Summary
USM – University of Maryland, College Park

<u>Program/Unit</u>	<u>FY 15</u> <u>Actual</u>	<u>FY 16</u> <u>Wrk Approp</u>	<u>FY 17</u> <u>Allowance</u>	<u>Change</u>	<u>FY 16 - FY 17</u> <u>% Change</u>
01 Instruction	\$ 476,862,124	\$ 507,210,313	\$ 513,772,465	\$ 6,562,152	1.3%
02 Research	428,765,708	429,782,163	443,223,142	13,440,979	3.1%
03 Public Service	89,651,248	103,341,250	103,954,342	613,092	0.6%
04 Academic Support	161,485,022	158,515,917	161,351,024	2,835,107	1.8%
05 Student Services	58,161,408	53,442,629	55,022,484	1,579,855	3.0%
06 Institutional Support	112,326,639	105,960,160	111,347,026	5,386,866	5.1%
07 Operation and Maintenance of Plant	159,244,002	173,430,229	181,659,931	8,229,702	4.7%
08 Auxiliary Enterprises	270,192,445	277,686,149	286,687,064	9,000,915	3.2%
17 Scholarships And Fellowships	93,854,702	102,382,504	106,319,244	3,936,740	3.8%
Total Expenditures	\$ 1,850,543,298	\$ 1,911,751,314	\$ 1,963,336,722	\$ 51,585,408	2.7%
Unrestricted Fund	\$ 1,448,592,531	\$ 1,494,898,235	\$ 1,536,045,836	\$ 41,147,601	2.8%
Restricted Fund	401,950,767	416,853,079	427,290,886	10,437,807	2.5%
Total Appropriations	\$ 1,850,543,298	\$ 1,911,751,314	\$ 1,963,336,722	\$ 51,585,408	2.7%

Note: The fiscal 2016 working appropriation does not include deficiencies or reversions. The fiscal 2017 allowance does not include contingent reductions.