



MARYLAND SENATE BUDGET & TAXATION
SUBCOMMITTEE ON EDUCATION, BUSINESS & ADMINISTRATION

UNIVERSITY SYSTEM OF MARYLAND
TESTIMONY OF USM CHANCELLOR WILLIAM E. KIRWAN
THURSDAY, FEBRUARY 7, 2013

Chairman Madaleno, and members of the Committee . . . thank you for the opportunity to testify on the Governor's FY 2014 budget recommendations for the University System of Maryland (USM). Once again, let me begin my testimony by thanking you, the members of this committee, your colleagues in the General Assembly, and Governor O'Malley for the support you have provided to higher education and the USM over the past several years.

As you know, this support for higher education and the USM has not gone unnoticed. I am sure you all read the prominent item in *The Washington Post* late last year: Prices spike at public universities, except in Maryland. As the piece noted, for in-state students the cost of attending a public university in Maryland has risen a mere 2 percent—adjusted for inflation—since 2007; the smallest increase in the nation. This 2 percent rise compares to an average national increase of 27 percent, with some states experiencing an increase of more than 70 percent. You, your colleagues, the Governor—all of us—should take great pride in Maryland's leadership.

The Governor's FY 2014 budget builds on this momentum, with \$1.2 billion in state funds for the USM, a funding increase of \$82.3 million, which represent a 7.7 percent increase. Of the \$82.3 million, \$57.9 million is for current services, or mandatory cost increases, and \$24.4 million is for enhanced funding in vital areas of state and USM needs: STEM and health education; commercialization; and academic transformation. These are, of course, the priorities Maryland's leaders have established as the areas that will propel the state forward—economically and socially—well into the future.

The USM will further advance our progress in these areas with an additional \$10 million of internal institutional funds, bringing total enhancement funding to more than \$34 million.

In addition, the Governor's budget proposal would enable USM to keep our tuition increases modest (3%), helping to preserve Maryland's reputation as a national leader in keeping college affordable.

On behalf of the USM and—most importantly—the students we serve, I thank you for your past support, continue to value the relationship we have forged with leaders in Annapolis, and encourage you to support the Governor's budget request.

Before turning to the issues raised—and recommendations made—by the Department of Legislative Services, I draw your attention to the packet of slides provided to you. These slides crystalize the progress the USM has made in recent years in affordability, completion, and innovation, as well as the impact we are already seeing in the early stages of the University of Maryland: *MPowering the State* initiative.

[WALK THROUGH SLIDES] / [BACK TO TESTIMONY]

It is also important to note that the achievements these slides outline did not happen by accident. It took vision, leadership, partnership, and support within the system, by the Governor, and by the General Assembly. Our success was not easy—and it was by no means guaranteed—but by working together we have accomplished a great deal. Your support—and our commitment to align USM priorities with those of the state—have been key to our success.

The \$24 million in targeted investments in the governor's budget, augmented with \$10 million in USM internal funding, will further boost USM's impact on Maryland's long-term success and strengthen Maryland's leadership in the innovation economy. I will briefly highlight the potential we can unlock in the three areas of enhancement.

STEM Enrollment Initiative

As you know, the USM's strategic plan features a concerted effort to attract, retain, and graduate more students in the STEM disciplines of Science, Technology, Engineering, and Mathematics. Since the development of the strategic plan, we have seen significant success. The number of undergraduate STEM degrees has increased by 9 percent. Enrollment at the undergraduate level in STEM is up 7 percent. And enrollment in the traditional STEM teacher preparation programs—mathematics and science education—has risen an astonishing 63 percent over the past three years. On most campuses, we have reached the limit of our abilities to serve more STEM students and yet the demand is there. We need to expand our capacity to grow STEM enrollments further.

As proposed, this budget would provide \$12 million targeted to increase STEM, cybersecurity, and health-related enrollment by more than 1,000 students. This would ultimately lead directly to 700 additional degrees in the areas that will continue to drive the new economy.

MPowering The State

The USM's strategic plan also includes a strong focus on expanding our research agenda to include technology transfer and commercialization.

While less than a year old, University of Maryland: *MPowering the State*—a key element of this strategy—is already producing significant results. We celebrated the launch of the collaborative University of Maryland School of Public Health. A joint UMB and UMCP research team received a \$2 million grant from the National Institutes of Health (NIH) under *MPowering*. A new Center for Health-Related Informatics and Bioimaging was established. And University of Maryland Ventures was launched to boost technology transfer and commercialization.

Under the Governor's proposed budget—and, again, supplemented by internal funds—the USM would have \$10 million in enhancement funds to advance these initiatives and heighten the impact of Maryland's research efforts on the state's economy.

Academic Transformation and College Completion Initiatives

The final area of enhancement is perhaps the most compelling. As you know, we have arrived at an intersection where advances in information technology and breakthroughs in cognitive science hold incredible promise as potential “game changers” in higher education. The USM—an “early adaptor” in this movement and the first to adopt it as a system wide priority—has seen both improved results in student learning in redesigned courses as well as significant cost savings.

To improve Maryland’s position as the national leader in the academic transformation movement, we have established a new Center for Innovation and Excellence in Learning and Teaching (CIELT). The center will assess trends, analyze results, research what works, develop “best practices”, and create a culture of academic innovation involving the USM, community colleges, and private institutions across Maryland. CIELT has already secured funding from the Gates Foundation to support its efforts.

The combined impact of the Governor’s budget and USM’s internal funding would support the academic transformation and college completion agenda with an additional \$12 million. This funding would specifically allow for the redesign of 48 additional courses, serving more than 12,000 additional students, essentially doubling our efforts. In addition, the targeted need-based financial aid this budget would make available would further support completion and help close achievement gaps. Finally, this funding would strengthen CIELT, cementing Maryland at THE “go to” state for academic transformation.

Current Services Recommendation (CSB)

As I noted a moment ago, the lion’s share of the increase in the USM budget is related to mandatory cost increases. The Current Services Budget (CSB) increase is funded by state funds and tuition and fees. Increases in employee salaries via the Cost of Living Adjustment (COLA) and the merit pay increase as well as employee benefit costs comprise the majority (55.4%) of the CSB increase. Other key mandatory cost increases go for facilities renewal and financial aid (26.1%). Operating funds for new building openings and debt service on bonds are also included in the CSB.

The 7.7 percent increase in state funds in the total USM budget recommendation is made up of a 5.4 percent increase for the CSB and a 2.3 percent increase for enhancements.

CLOSING

Before turning to your questions and the analysts’ concerns, I want to close with an observation: FY 2014 marks the first time in five years that the USM is slated to receive any increase in programmatic funding whatsoever. Over the past few years we have experienced cuts, or received minimal increases to offset tuition hikes. At the same time, as I have noted, we have been able to engineer very real progress. Imagine what we can achieve with added support.

The USM is committed to increased STEM degree production; expanding the educational, research, and economic impact of *MPowering*; doubling the number of students in redesigned courses; and enhancing completion initiatives. We are ready to advance these key areas and we are ready to be held accountable for our progress. But without a reciprocal commitment to the Governor's full funding level, USM will be unable to achieve our mutual goals.

The USM has a proven track record as an exemplary steward of public funds. The \$356 million in savings we have generated throughout the course of our Effectiveness and Efficiency (E&E) initiative underscore this fact.

In addition, the trust and cooperative partnership we share with both the Governor and the General Assembly—which is fully reflected in this budget, based on state priorities—has established the USM as a good investment that will benefit the state as a whole.

Turning now to the issues raised—and recommendations made—by the Department of Legislative Services.

The USM recommended Reductions:

1. **Page 22** - DLS recommends reducing the USM's general funds provided for current serviced costs by \$10M.

Chancellor's Response:

The USM opposes the recommended reduction of \$10 million to the Governor's Allowance, based on the following factors:

The analysis suggests that the state's share of current services increase is excessive at 64%. This conclusion is based on the fact that in 2013 State funding for the USM's total **Unrestricted Budget** stood at 30 percent. This is flawed for two reasons:

- The state share of the current services increase and the state's share of the total unrestricted budget are two different things. A correct comparison would show that the FY 2014 state funding level included in the Governor's Allowance represents 31 percent of the total unrestricted budget. This level is 1 percent point above the 30 percent level cited by DLS for FY 2013. As recently as FY 2009, state funding represented 34 percent of the total unrestricted budget well above the 31 percent level in FY 2014.
- The increase in state funding levels in FY 2014 is directly related to the reinstatement of wage increases and state fringe benefit adjustments.

Additionally, DLS contends that tuition and fees will come in higher than budgeted thus, general funds can be reduced. While it is true that there has been some over attainment of tuition revenue, this is directly related to enrollment increases, mainly at University of Maryland University College (UMUC). UMUC is an open enrollment institution funded overwhelmingly by tuition. They are, in fact, the lowest funded institution on a per student basis in the State (approximately \$1,300 per student). If UMUC exceeds their enrollment estimate (a common occurrence for an open enrollment institution) the institution must hire faculty and incur other instruction related costs. UMUC must also self-fund facilities with tuition revenue.

Several other institutions generated increased revenue due to enrollment increases including Salisbury, UMBC, and UMCP. Cutting state funds as workload increases would be particularly harmful. Salisbury has one of the lowest state funds per FTES at \$5,400 per student and is \$2,500 behind its peer institutions. UMBC is also funded below peer student levels by \$5,800 and UMCP is \$4,300 behind the per student funding of its peers.

Therefore, it must be stressed that the over attainment of tuition is a direct result of increased enrollment and institutions should not be penalized. These additional students come with added costs for the institutions. Reducing state funding to these institutions based on tuition revenue would be inequitable and divert funding away from instruction, financial aid, student services, and other institutional requirements.

2. **Page 24** – DLS recommends reducing UMB and UMCP's general funds provided for the Joint School of Public Health by \$950,000

Chancellors Response: USM opposes the recommended reduction of \$950,000 provided in the Governor's Allowance. While the Board of Regents did indeed envision a joint UMCP/UMB School of Public Health, it was determined that the first phase would require the establishment of an accredited public health program at each campus. In response, and as reflected in the Board's minutes, it approved the establishment of a School of Public Health at College Park in June 2007. The funding provided over the period FY 2007-2009 was intended to expand and enhance academic programs in the UMCP College of Health and Human Performance, in order meet specific criteria necessary for an accredited School of Public Health. This effort was successful; the School has been established and has been accredited by The Council on Education for Public Health (CEPH). Enrollments at both the undergraduate and graduate levels have increased significantly in recent years.

Concurrently, the Masters of Public Health and Epidemiology programs, housed within the UMB School of Medicine, received separate accreditation from CEPH in 2009.

The vision of a *collaborative* School of Public Health between UMCP and UMB is one of the centerpieces of MPower and we are now positioned to accomplish this goal. By leveraging the existing expertise and resources from UMCP and UMB, this collaboration is expected to: a) enhance the size and capacity of the state's public health workforce, which will be trained to respond to emerging health issues in the state; b) conduct cutting-edge research that translates into advancements in the science and practice of public health and produces model programs, particularly in areas within Maryland where there is urgent need; and c) improve community health outcomes through direct links to the research, service and education provided by the School.

The funding request before the budget committees represents the estimated costs of establishing an **accredited, collaborative School of Public Health** and assuring its future sustainability. This will be only the third such entity in the country. The accrediting body (CEPH) has established an accreditation timeline, stipulating that we must complete a complex self-study and that we be functionally operational as a single school by November 2014, when we will submit a formal application.

The budget request is for costs associated with the personnel and administrative costs of conducting the collaborative self-study; expenses related to the integration of our educational programs; extensive operational and infrastructure costs to be incurred as we demonstrate that we are functionally operational as a single school, including a single student application process; and collaborative activities and initiatives to facilitate and enhance all of the above.

3. **Page 25** – DLS recommends reducing UMCP’s general funds provided for the College Park Academy Public Charter School, by \$500,000

Chancellors Response: The USM opposes the recommended reduction of \$500,000 provided in the Governor’s Allowance. The Governor has included critical start-up funding for the College Park Academy Public Charter School (“the Academy”) in the FY 2014 UMCP general fund appropriation. This funding is tangible evidence of the Administration’s support for the partnership between the City of College Park, the University of Maryland and the Prince George’s County Public Schools, as it seeks to expand educational opportunities for the children of our State.

The Academy has a vision: to be a high-quality, highly rigorous college preparatory public school, rivaling the very best in the nation. The mission of the Academy is to combine advanced academic study with cutting-edge learning techniques, in partnership with the University of Maryland. Students in grades 6-12 will be provided with the opportunity to earn up to 60 college credits before graduation, while thriving in a best-practices learning environment that adapts to their needs and maximizes their personal academic performance.

This unprecedented partnership between key stakeholders could provide a new, innovative option for the education of our State’s children. Because of the involvement of the university faculty, the strategic use of technology, and the long history of collaboration among the partners, the Administration believes that this partnership could create an important tool for preparing students for the world they will enter after high school.

While the inclusion of this start-up funding in the University’s budget is atypical, these funds have been proposed by the Governor out of the belief that the partnership could become an important model for innovative collaboration between state and local educational leaders. As the proposed funding is critical to the current efforts to open the Academy with 300 students in grades 6-7 in September 2013, the sub-committee’s approval is urgently requested.

4. **Page 25** - DLS recommends reducing USM’s fiscal 2014 general fund appropriation by \$8.0 million.

Chancellors Response: The USM opposes the recommended reduction of \$8 million provided in the Governor’s Allowance. The FY 2014 USM Operating Budget was built as a broad strategic investment of State resources to both benefit the students we serve and bolster the State of Maryland’s leadership in the innovation economy. These targeted funds are essential for the USM to make significant progress in the priority areas stressed by State leaders. Specifically, these funds would support initiatives to meet STEM enrollment and workforce needs to grow Maryland ‘s economy, strengthen the impact of the new UMB - UMCP MPower initiative to enhance Maryland’s ability to capitalize on our strength in academic research, and advance USM’s national leadership in academic transformation and college completion initiatives.

The USM has been reallocating resources to fund initiatives in these areas for the past several years. For example UMB and UMCP have invested over \$5.9M of institutional funds for MPower since its inception. All USM institutions continually reallocate funds through the E&E process. And finally, it is important to note that the \$24 million in programmatic enhancements included in the Governor's Allowance—out of which this \$8 million cut would come—is **already** supported with an additional USM commitment of \$10M that will come from institutions making reallocations in support of these strategic initiatives.

This recommendation, along with the collective DLS reduction recommendations estimated at \$24M, will severely cripple the USM's ability to accomplish the strategic goals articulated by this legislature and set forth in the budget.

5. **Page 25** - DLS recommends restricting the remaining \$14.9 million of USM's fiscal 2014 appropriation for program enhancements until USM submits a report detailing specifically how these funds will be used and metrics that will be used to measure the progress or results of the activities funded with State funds.

Chancellors Response:

The USM has made accountability a cornerstone of our operations and, as such, would certainly accept performance metrics and report specifically how any enhancement funds would be used. Clearly, however, this reporting would be relevant only if enhancement funds are provided. If the analyst's recommendations are accepted, there will be no state funds remaining for which to account. But, if the General Assembly provides enhancement funds the USM will develop appropriate metrics and a reporting mechanism.

6. Adopt committee narrative requesting continued reporting on faculty workload.

Chancellor's response: USM concurs with the recommendation and will provide data for USM institutions.

7. Adopt committee narrative requesting continued reporting on institutional aid by expected family contribution.

Chancellor's response: USM concurs with the recommendation and will provide data for USM institutions.

8. Adopt committee narrative requesting a report on loan data by expected family contribution

Chancellor's response: USM concurs with the recommendation and will provide data for USM institutions.

Higher Education Overview recommended action – reduce \$4.8M in HEIF funds – will impact USM.

The recommended actions are:

- **Retaining \$4.8 million in the Tuition Stabilization Trust Account in fiscal 2014 to meet its minimum statutory funding levels.** Further recommends that in future years, if the balance falls below 1%, over attainment of HEIF revenues be allocated first to the Tuition Stabilization Trust Account until it reaches its statutory minimum level. Revenues above that should be held in fund balance for appropriation in future years.

USM Response:

The USM opposes the recommended reduction of \$4.8 million provided in the Governor's Allowance. These funds are an essential component of the programmatic funding included in the USM Budget. Initiatives these funds would support include meeting STEM enrollment and workforce needs to build the Maryland economy, strengthening the impact of the new UMB - UMCP MPower initiative, and advancing USM's national leadership in academic transformation and college completion initiatives.

FY 2014 marks the first year USM is slated to receive any programmatic funding in five years. Specifically, our outcomes include: increasing STEM degree production 10% or 700 degrees, expanding the educational, research, and economic impact of MPower (e.g. starting 33 companies per year), doubling the number of students in re-designed courses to 24,000, and enhancing completion initiatives. But without a reciprocal commitment to the Governor's full funding level, USM will be unable to achieve our mutual goals.

It is important to note that in FY 2009 and FY 2010, when mid-year Board of Revenue estimates projected an under attainment of the HEIF fund, the USM's budget was reduced. This is the State's protocol for special funds: HEIF is a special fund. Should the HEIF fund fall short of the estimated balance, the USM will once again adjust its budget.

The USM has a proven track record as an exemplary steward of public funds. The \$350 million in savings we have generated throughout the course of our Effectiveness and Efficiency (E&E) initiative underscore this fact. The trust and cooperative partnership we share with both the Governor and the General Assembly are reflected in this budget. The budget is based on state priorities, and has established the USM as a good investment that will benefit the state as a whole.

The USM feels that the HEIF and its component Tuition Stabilization Trust Account are being used consistent with the original legislative intent and the law. This funding is allowing USM to hold down in state undergraduate tuition growth to a modest 3% in stark contrast to national trends. Maryland law states that "a balance of between 1% and 5% should be maintained in the Trust Account", not that it shall or must. Further the law states, "Money in the Trust Account may be

expended only to supplement General Fund appropriations to public senior higher education institutions for the purpose of stabilizing tuition cost of resident undergraduate students.” USM feels that the system and the state are doing exactly that.

Chancellor asked to comment:

Page 25 - The Chancellor should comment on the misalignment between use of enhancement funds and positions provided in the allowance.

Chancellor's response: The administration requested that the USM not create new positions as part of the budget request. In order to accommodate the need for faculty and other positions that were part of the enhancement initiatives and properly reflect these expenditures, the institutions classified these personal costs as contractual. Then as part of the working budget process, the institutions will request regular positions through the flexibility legislation as was done in previous years.

Page 33 - The Chancellor should discuss the benefits to the State of having another degree granting institution, especially one offering a graduate degree in one specialized area (UMCES).

Chancellor's response: Since its inception 33 years ago, UMCES has been a key participant in the System-wide Graduate Program in Marine-Estuarine-Environmental Sciences (MEES) Program, the System's oldest, largest and arguably most successful multi-campus graduate program. In recent years, over half of the students receiving M.S. and Ph.D. degrees in this program have been directed by UMCES professors and housed in UMCES laboratories. In addition, the UMCES faculty has taught over two-thirds of the MEES courses. UMCES faculty members are granted graduate faculty status at UMCP and the degrees for these have been awarded by UMCP and, occasionally, other System institutions. The MEES Program has been subject to an external review and several internal reviews that have identified number of needed curricular and administrative improvements that await implementation.

Accreditation would offer several benefits to graduate and professional education in environmental sciences and to the University System. Commensurate with its already substantial role in the MEES Program, UMCES would assume greater responsibility for improving the rigor of the MEES Program by more formal commitments to curriculum delivery and recruitment of outstanding students. This would help the evolution of a very good program to truly great graduate program. Diplomas would clearly recognize the association with UMCES, an internationally recognized research institution.

UMCES would also qualify for major grants for training and interdisciplinary research centers that require that the institution is an accredited degree-granting institution. This would enhance the System's competitiveness in attracting external support. The institution would have the authority and flexibility to respond to the substantial demand for professional development courses that provide learning from some of the region's prominent marine and environmental scientists. Governmental and private employers generally require the formal award of credits in order to cover the costs of

professional development courses. This would be an important new contribution to workforce development within Maryland by the System and would generate revenues for the educational enterprise.

No new State Appropriations are required for the accreditation process or for the administration of the joint degree and certificate programs. Funds from tuition revenues have been reserved for this purpose. An existing academic administrative officer will be responsible for managing tuition revenues to deliver and enhance the programs.

Page 35 - The Chancellor should comment on the ICA deficit situations and ways to keep athletic expenses in line with the revenue generated by the programs.

Chancellor Response: At its fall meeting, the Board of Regents adopted a new Policy on Intercollegiate Athletics. The policy revision expands financial information routinely provided to encompass all resources and spending of the ICA program, information on assets, liabilities and commitments that may not rise to the level of financial accounting recognition as a liability. The policy also clarifies Regents expectations as to the extent to which intercollegiate athletics are to operate on its own resources, provides for protection of compensation and other sensitive information such as student academic performance data, and implements a system of annual presidents' and athletic directors' assertions to several Regents expectations.

Over the past several years, the Board of Regents has increased their focus on effective and appropriate governance and oversight of intercollegiate athletics. In response, institutions have redoubled their efforts to manage intercollegiate athletics on a self-support basis, using only or largely resources generated from intercollegiate athletics and student athletics or activity fees. In situations where institutions have fallen short of those expectations, institutions have developed multi-year plans to bring the finances of intercollegiate athletics back into balance. Some examples of how institutions are reducing their deficits and keeping expenditures in line with revenues include:

- UMCP eliminated nine teams
- TU's Athletic Director recommended elimination of two teams.
- TU's President established a commission to review recommendations and examine alternatives for eliminating the deficit
- CSU has an ICA plan, which it is meeting the benchmarks for that will bring CSU's ICA program back into an operating budget balance.

It should also be noted that at Coppin State University the status of the intercollegiate athletics program and its role in realizing the institution's mission is currently under review by the USM Special Review Committee.

The Chancellor should also discuss the impact of UMCP joining the Big Ten conference:

Chancellor response: On July 1, 2014, the University of Maryland will become a member the Big Ten Conference. On July 1, 2013, it will become a member of the academic consortium of Big Ten universities, known as the Committee for Institutional Cooperation (CIC). This is more than a change in athletic conference. It is an institution-wide integration with the Big Ten and the CIC.

Membership in the Big Ten is in the strategic interest of the University of Maryland. It will ensure the financial vitality of Maryland Athletics for decades to come. It will enable the reinstatement of some of the teams that were recently terminated due to budget deficits. It will provide the capability to better support the University's student-athletes -- in the classroom and on the field -- to compete successfully at the highest levels.

Intercollegiate athletics is an integral part of the University of Maryland; it must be aligned with the University's academic values and priorities. Some of the new resources will be earmarked to support University-wide educational missions and to help make the University more affordable for its students. This represents nothing less than a new financial paradigm for intercollegiate athletics at the University.

The extensive opportunities within the CIC for collaborations with peer AAU and flagship universities in education, research and innovation will boost the University's ascendancy in academic excellence. Examples of CIC opportunities include: shared library resources and digitization of library holdings; study abroad programs, summer research opportunities and shared online courses for undergraduate students; traveling scholar programs for graduate students; leadership programs for faculty and professional staff; collaborative research projects; a high-speed network among CIC institutions; and group purchases of goods and services to reduce costs.

The recently-appointed "President's Commission on UMD and Big Ten/CIC Integration" has been charged with planning strategically and developing recommendations on how the University can maximize the advantages of membership in the Big Ten and the CIC to advance its excellence in the areas of (1) athletics; (2) education, research and innovation; (3) finance and business administration; and (4) communications, fundraising and marketing.

The Commission will be guided by the commitment of the University and Intercollegiate Athletics (ICA) to the success of student-athletes so that (a) they are well supported to succeed in their studies and career after graduation, and (b) they and every sponsored team have the resources to compete successfully in the Big Ten and nationally. The Commission will articulate values and principles that will guide the University in allocating some of the Big Ten revenues to support its academic mission and student financial aid.

To accomplish its work, the Commission will review the operations and finances of ICA, a self-supporting enterprise. It will also review the teams eliminated last year due to budget deficits, and recommend which ones should be reinstated, and on what timeline. Given anticipated revenues from the Big Ten, the resultant plan should ensure the financial health of Maryland Athletics for at least the next two decades.

Page 37 - The Chancellor should comment on efforts to develop new educational offerings between UMCP and UMB including establishing a 2+2 program for nursing; joint programs between the Schools of Engineering, Pharmacy, and Medicine; and other academic collaborations. The Chancellor should also discuss the impact on collaborative research, particularly if such collaborations have led to grants or awards.

Chancellor's Comment: MPower has many educational and workforce development components in addition to the MPH program described previously. The immediate ones include multiple potential offerings. Related to the School of Law, an extensive undergraduate curriculum as part of College Park Scholars and the College of Behavioral and Social Sciences is under development. Graduate Programs under immediate consideration are a Master's in Law and law-related certificate programs in homeland security and emergency preparedness, finance and securities law, regulatory law and intellectual property law. Building on the Agricultural Support Services Program, the School of Law and the Colleges of Agriculture at UMCP and UMES are evaluating a Master's in Law program for University of Maryland Extension Faculty, to enhance their training in regulatory and law to better assist the agriculture community. Related to the Schools of Engineering and Pharmacy, MPower is developing a Certificate Program in Regulatory Science, with a corresponding Master's program working through the State approval process. Related to multiple schools at each university, educational program development at the Universities at Shady Grove is underway, with complementary programs in medicine, dentistry, kinesiology, engineering and others under consideration. Related to informatics, there is a proposed training program in neuro-Imaging, with discussion as to other offerings. The Steering Committee has also scheduled a series of meetings with students at both universities to identify joint programs of interest to them.

Page 42 - The Chancellor should comment on what is next for the effectiveness and efficiency initiative and, given that funding of higher education relies on State funds and tuition revenues, how or what changes need to be made so as to "bend the cost curve."

Chancellor's comments

USM launched the E&E initiative to change the way USM does business so it can effectively deal with fiscal challenges while increasing its capacity to enroll more students. E&E has proven successful and now is a standard part of doing business. This raises questions if the efficiencies achieved so far have been the easier activities or the "low hanging fruit." Are there activities or efforts that could garner more efficiencies and cost savings but require more effort and collaboration among institutions? Instead, it appears current E&E efforts are focusing more on academic initiatives, such as academic transformation while there is less emphasis on garnering even more administrative efficiencies.

The Chancellor should comment on what is next for the effectiveness and efficiency initiative and, given that funding of higher education relies on State funds and tuition revenues, how or what changes need to be made so as to "bend the cost curve."

The USM's Response:

Historically the USM's Effectiveness and Efficiency (E&E) initiative has maintained a comprehensive focus, seeking to test and improve all aspects of our operations, from academic policies that affected time to degree, faculty innovation, and student completion, to fiscal and administrative policies associated with fund management, business process reengineering, and energy conservation. The return on investment generated by this holistic approach has been \$356 million in documented cost savings achieved over the 10 years of E&E on the part of USM institutions, and a national reputation for the state of Maryland as a leader in higher education innovation and efficiency. A full breakdown of the cost savings achieved over the prior decade, analyzed both by financial class and general category, is attached at the end of this document. Looking forward, I believe that same balanced approach to E&E will be necessary if we are to truly "bend the cost curve" in higher education. With that said, I would like to offer the following thoughts on the future of E&E within the System.

I. Course Redesign, MOOCs, and Systemwide Initiatives

First, because much of the cost associated with higher education is tied to the academic mission, from the costs associated with maintaining a quality faculty to those tied to teaching and student support, much of the emphasis under phase II of the System's E&E effort – though by no means all – will be on academic initiatives. Transforming the academic model to ensure that we get greater learning outcomes for equal or less cost is the best way of ensuring that we control costs down the road and into the future.

According to the National Center for Academic Transformation, redesigned courses save money in three ways:

- They increase student enrollments with little or no change in course expenditures,
- They keep student enrollments the same while reducing the instructional resource needs, and
- They reduce the number of repetitions required to pass the course and reduce the DWF rates (drop/withdraw/failure).

Course redesign is only one manifestation of academic transformation, however. Looking down the road and around the corner, more classes will be offered on-line and through MOOCs (massive open online courses) and other non-traditional models. Many of these innovations will focus on increased student self-learning and collaboration among students, with a related reduction in traditional lectures. This trend will have an E&E impact in terms of not just the use of academic staff, but reductions in traditional learning space requirements and the need for more collaborative laboratory style environments. In a similar fashion, academic libraries are evolving from storehouses of traditional paper materials to licensors of electronic materials and databases. These transitions, while having long-term cost savings, also may require up-front investments to effect.

The USM has long delivered fully online courses, largely for non-traditional students. Complementing this, in recent years the USM has invested in redesign of large enrollment courses. Additionally, USM institutions have developed innovations to meet local academic needs. In these efforts, while there are recognized best

practices, there is no single formula that can be applied due to the diversity of disciplines and levels of instruction. One common feature of new learning environments, however, is that it is possible to collect a significant amount of data while students are actively engaged in learning as well as tracking student performance, and learning difficulties overall. The USM's current plan is to use these data to test the academic quality and efficiencies of the new models, and then make them available to our students in ways that are both cost efficient and of proven quality.

While academic innovation takes place class-by-class and institution-by-institution, the USM has the unique ability to act as a System in changing these innovations into wide spread academic transformation. The intent is to identify the best innovations; disseminate them across the System; and scale up their implementation. That is what we have done with course redesign and with innovations currently being explored. It is for this purpose that the USM is creating the Center for Innovation and Excellence in Learning and Teaching in the Office of Academic Affairs in the USM. This Center should play a major role in effecting effectiveness and efficiency in the major mission area of the System.

II. Strategic Sourcing, Energy Management and Administrative Efficiencies

In addition to efficiencies that will result from the USM's academic initiatives, we see the next generation of E&E continuing to search out and exploit new areas of potential fiscal and administrative efficiency. These areas are expected to include opportunities associated with strategic sourcing generally, and energy management and more structured approaches to design and construction, more specifically.

Use of Strategic Sourcing

In terms of strategic sourcing—which is a TQM-related strategy that continuously evaluates and seeks to improve the purchasing-related activities of a company, including those related to capital or service functions—the USM has been able to use this strategy to realize more than \$21 million in direct savings or cost avoidance since E&E began. (This does not include the nearly \$9 million in energy savings found through implementation of specific energy conservation measures and collaborations among USM institutions and the State of Maryland for the procurement of cheaper energy and the application of alternative and renewable energy initiatives discussed later below.) These savings have been accomplished not just by working with the public and private business sectors at the systemwide level to leverage the USM's purchasing power but also by having individual USM institutions, within the context of Board policy, develop strategic sourcing policy and strategies tailored to the way they manage their day-to-day operations. The result is a culture in which effectiveness and efficiencies in the procurement process are no longer viewed as separate initiatives but instead are part of the strategic sourcing process itself. Over the past decade the USM and its institutions have focused not only on the strategic sourcing of commodities but also have engaged in strategic and collective procurements for energy, software licenses, computer hardware and equipment, services for the implementation of financial management systems, research materials and supplies, anti-virus software, learning management systems and indefinite delivery contracts for design, construction and maintenance services.

Looking forward, the USM will continue to implement strategies that have been successful to date. We also envision new opportunities to be found through our continued participation in various consortia, such as U.S. Communities and the Educational and Institutional Cooperative, and through our institutions seeking out collaborations with their sister institutions to engage in collective procurements. These activities will result not only in reduced costs for the acquisition of goods and services but, create efficiencies by minimizing overhead and process costs, which in turn, will allow for the more effective use of procurement staff to focus on contract management and meeting the needs of their respective constituencies.

Energy Management

Related to strategic sourcing, and one of the target areas of the E&E Initiative that has proven most productive in achieving cost savings is energy management. Within this area, the system has focused on strategies designed to strategically leverage USM buying power through pooled purchasing of energy and the implementation of cost-effective energy management strategies.

Since the initiative began, USM institutions have seen 10-15% energy price reductions from the aggregation of energy and natural gas accounts because of the competition the larger quantities attract in the supply market. Additionally, for the last six years, we have further driven down costs by aggregating with the Department of General Services (DGS), thereby tripling our purchasing power in the energy market and almost doubling it in the natural gas market. Recent purchases for long term renewable energy were also only made possible through the USM/DGS collaboration, and contributed to savings approaching 20% compared to purchases Institutions would have made if procuring renewable energy independently.

In addition to savings from energy procurement, the USM has also achieved savings associated with the implementation of energy management and conservation strategies. Participation in demand response programs which require customers to reduce energy when supply is critically short, have resulted in revenues for a number of Institutions since 2007. In total, this program contributes an additional energy savings of 2%-4% for those participating Institutions. Another energy management program is the implementation of energy performance contracts (EPCs.) EPCs allow the institutions to implement a large amount of building and system enhancements that have a resulting energy savings of approximately 20%. Originally the contracts were financed through loans with the State Treasurer's office, but going forward USM will be using a shared savings contract with the Maryland Clean Energy Center that allows the annual payments to be funded from avoided operating expenses and will have no impact to debt at the USM level.

As with the use of strategic sourcing, looking forward the USM expects to continue its focus on aggregated procurements that should yield substantial energy savings in supply costs. Further, while it has been advantageous to also aggregate with DGS, there may be opportunities in the future that USM will be able to pursue independent of DGS. USM has a Climate Commitment by each of the institutions' presidents that require us to be more aggressive in our pursuit of low and no-carbon energy supplies, as well as leaders in the areas of research and implementation. Over the next decade, there will most likely be more collaborative research across USM in the areas of energy conservation and renewable energy supply, and the campuses will serve as perfect demonstration sites for these efforts.

Design and Construction

In addition, improvements in effectiveness and efficiencies recorded by the USM have not been restricted to leveraged procurement of commodities and enhanced energy management but also have come through a more structured approach to the procurement of certain services. The Board of Regents creation of two design and construction service centers has resulted in cost savings and cost avoidance associated with the solicitation and management of design and construction contracts. Although established more than 10 years ago, these service centers continue to provide a vital source of procurement expertise that would otherwise have to be duplicated at all System institutions in the System. It is a strategic approach to effectively and efficiently managing more than \$321 million in construction and construction related contracts in FY 2012. Looking forward, we see the value and importance of these centers only increasing as the USM enhances its research, academic, and student service infrastructure in the coming decade.

III. USM Progress Toward State Environmental Goals

Finally, there is another aspect to the USM's energy management processes that is worth mentioning. While part of our overall E&E initiative, this effort goes beyond just E&E and contributes to the state's and the nation's environmental goals. In 2007, all USM institutions of the USM signed the American College and University Presidents Climate Commitment (ACUPCC). This program also helps institutions achieve State goals for reductions in energy consumption and greenhouse gas emissions. Presidents at all institutions agreed to publicly report their progress toward climate neutrality through a variety of programs and practices such as:

- Building to high efficiency "green" building standards,
- Adopting an energy-efficient appliance and environmentally friendly procurement practices,
- Encouraging use of and provide access to public transportation,
- Purchasing or producing the energy required by the institution from renewable sources,
- Reducing energy consumption through energy performance contracts and other programs,
- Supporting sustainability in all aspects of institutional operation, research and education, and
- Adopting waste minimization practices, including reporting recycling rates toward State goals.

Implementation of the Greenhouse Gas Emissions Reduction Act of 2009

In 2009, Maryland Governor O'Malley and the Maryland General Assembly passed the Greenhouse Gas Emissions Reduction Act of 2009 (GGRA). The law requires the State to develop and implement a Plan (the GGRA Plan or the Plan) to reduce greenhouse gas (GHG) emissions 25 percent from a 2006 baseline by 2020. The State's goal for all segments of higher education (including USM) totals 570,000 metric tons of carbon (MTCo2e) by 2020. **To date, the institutions of**

the USM alone have achieved a combined (documented and reported) reduction in greenhouse gas reduction of nearly 83,000 MTCO₂e. Of particular interest is that, during a period when full-time enrollment grew by 20%, carbon emissions per FTE student stayed relatively level, while emissions per gross square feet of building space dropped dramatically, by over 6 tons per 1,000 GSF.

Achieving State Recycling Rates

Recycling is a huge, student-driven program on every USM campus. USM institutions regularly place well in national recycling competitions. **Institutions of the USM last year achieved a 37% recycling rate—far ahead of the State-mandated 30% rate for the upcoming year, 2013** and are well on track to achieving the State's goal of 40% by 2015.

Renewable Energy at USM

Jump started by the University of Maryland Easter Shore's 2MW solar farm, installed in 2009, USM in collaboration with the Department of General Services has added an additional 15MW of solar capacity from a project built at Mt. St. Mary's College through a competitive renewable solicitation called "Clean Horizons." In addition to the large solar project, two wind projects were also added under Clean Horizons, 55MW of land based wind in West Virginia, and 10MW of land based wind in Western Maryland.

In 2011, both UMCP and Coppin State added campus solar photovoltaic totaling 630kW and 500kW respectively at each campus. Most recently, USM and DGS announced plans to award a contract minimum of 10MW of poultry litter derived energy to a project on the Eastern Shore.

In total, **USM institutions have committed to over 30MW of renewable energy which supply approximately 20% of the energy needs of the system institutions.** There are additional efforts planned for 2013 to bring additional solar PV projects to institutions, as well as plans to pursue biomass produced energy. Of course, USM will also plan to buy a portion off take of any off shore wind projects in our effort to continue to increase our supply of renewable energy from diversified technologies.

IV. USM E&E Savings by Financial Class & General Category

University System of Maryland
Efficiency Initiatives by Financial Class
Shown as \$'s in (\$000)

<u>Financial Classes</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>Total</u>
Cost Avoidance	14,307	7,746	4,486	7,704	16,841	13,581	14,833	16,825	13,796	110,119
Cost Savings	41,907	38,052	38,619	44,404	32,209	40,872	38,711	43,294	38,022	356,090
Revenue	22,855	28,332	23022	18,085	12,394	16,312	17,810	14,098	9,621	162,529
Strategic reallocation	16,498	8,891	6221	7,717	13,453	8,390	10,152	20,484	11,026	102,832
Total	95,567	83,021	72,348	77,910	74,897	79,155	81,506	94,701	72,465	731,570

University System of Maryland
Efficiency Initiatives by General Category
Shown as \$'s in (\$000)

General Category	FY	FY	FY	FY	FY	FY	Total	Average	FY	FY	FY	FY	Total	Average	
	2004	2005	2006	2007	2008	2009	09	per year					FY 10 - 12	per year	
Budget Reductions	30,056	6,643					36,699	6,117							
Business Process Reengineering	1,088	4,477	2,632	2,639	3,346	3,413	17,595	2,933	5,907	8,262	3,804	17,973	5,991	204%	
Collaboration with Academic Institutions	1,022	1,039	637	408	641	914	4,661	777	1,272	1,269	1,380	3,921	1,307	168%	
Competitive Contracting	3,328	6,771	7,062	11,308	11,058	12,090	51,617	8,603	11,361	13,874	4,839	30,074	10,025	117%	
Credit Card Availability	125	143	230	142	172	159	971	162	152	26	152	330	110	68%	
Distance Education	5,189	0					5,189	865				0	0	0%	
E & E Workgroup Initiatives	1,302	4,402	8,375	2,343	2,585	3,180	22,187	3,698	404	1,801	2,849	5,054	1,685	46%	
Energy Conservation Program	4,299	4,274	4,371	11,012	8,263	8,347	40,566	6,761	8,098	4,419	10,200	22,717	7,572	112%	
Entrepreneurial Initiative	5,626	4,806	6,766	4,468	3,975	4,705	30,346	5,058	4,333	3,782	2,963	11,078	3,693	73%	
Equipment & Land Acquisitions/Donation	2,627	1,166	2,212	1,035	1,671	1,667	10,378	1,730	1,290	150		1,440	480	28%	
Indirect Cost	6,882	3,409	7,451	9,062	2,575	5,816	35,195	5,866	7,300	5,794	4,032	17,126	5,709	97%	
In-sourcing/outsourcing	1,940	2,668	3,432	4,127	3,121	2,970	18,258	3,043	2,768	2,156	2,734	7,658	2,553	84%	
Meeting Federal Requirements	215	0					215	36				0	0	0%	
Partnership with External Entities	15,142	25,541	11,779	10,451	12,773	15,120	90,806	15,134	14,085	18,512	16,067	48,664	16,221	107%	
Reallocation Process	7,106	8,976	5,828	5,239	10,415	8,540	46,104	7,684	10,671	20,965	11,547	43,183	14,394	187%	
Redefinition of Work	2,357	5,684	5,856	7,068	6,239	5,143	32,347	5,391	5,177	4,511	3,621	13,309	4,436	82%	
Space & Building Efficiencies	5,797	755	305	373	419	1,513	9,162	1,527	2,399	1,291	541	4,231	1,410	92%	
Technology Improvements	1,466	2,267	5,412	8,235	7,644	5,578	30,602	5,100	6,289	7,889	7,736	21,914	7,305	143%	
Total	95,567	83,021	72,348	77,910	74,897	79,155	482,898	80,483	81,506	94,701	72,465	248,672	82,891		

Given the analysis of our most recent trends, we expect significant gains in the future to included the following E&E categories: Energy Conservation, Entrepreneurial Initiatives, Partnership with External Entities, Technology Improvements and Internal Reallocations