



University of Massachusetts

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As part of the Commonwealth's budget process, the University of Massachusetts submits a formula-based budget to the Department of Higher Education, the Executive Office for Administration and Finance, and the Ways and Means Committees of both the House of Representatives and Senate. This budget request is required by M.G.L. Chapter 75 and M.G.L Chapter 29 as well as some provisions of Chapter 15A. As defined by the current formula, the total funding that should be made available to the University to deliver core teaching, research and public service is \$1.867 billion and would result in a State funding gap of \$573 million for fiscal year 2014. To put this gap in context, the University's current appropriation from the State is \$444 million.

We understand that in this current fiscal environment State revenues are not strong enough to support a more than 100% increase in the state appropriation for the University, as suggested by the current formula. We also know, however, that in these difficult times there has been greater demand on the University as the citizens of the Commonwealth seek an affordable, high-quality education, as well as cutting-edge research and development that can provide a vital stimulus to the state's economy and help expand its revenue base. Over the past few years, the University has seen this demand result in enrollment growth of over 8,400 student FTEs. To keep up with the increased enrollment, and maintain high-quality, continued investments in our faculty, financial aid, and student supports that enhance academic experience and boost research are needed.

Trends in Higher Education Funding:

During this period of enrollment growth we have also seen a massive cost shift in how higher education is funded in the United States, and here in the Commonwealth, where student charges continually increase and state support per student declines. To put this in context, in FY08 State support accounted for approximately 57% of the education revenues for the University. In FY13 the relationship between tuition and fees versus State support has flipped in the opposite direction. This trend is of great concern and presents significant challenges for both students and the University.

If state funding for higher education is to remain uncertain while the University educates more students, finances a larger percent the capital investments at our campuses, covers significant portions of the salary and fringe benefit costs, and continues to ramp up financial aid (University aid increased over 400% in the last decade) to ensure access for all of the Commonwealth's citizens, the University will need to find alternative ways to fund its operations while continuing to achieve the same and better results through more efficient and effective management of its operations.

The 50/50 Funding Formula:

For FY14 we are proposing that an equitable solution for Massachusetts families hoping to provide their children with an excellent, affordable education would be for the Commonwealth to provide 50% of cost of educating a student in the Commonwealth. Currently, the average cost to educate a student is approximately \$23,274 per year. If the State were to provide 50% of that cost it would require an increase in State support of approximately \$99 million. Again, recognizing the current fiscal challenges the State faces, this increase could be phased in over a two year period and could be achieved in many ways; the state appropriation is just one mechanism. If the State appropriation were used the 50/50 split could be achieved by a \$35.88 million increase in the state appropriation and 27.5% matching fringe support of \$13.6 million for total support of \$50 million.

FY2014 State Budget Request:

The table below shows, by line item, what the University is requesting for funding in FY14 and compares it to current levels of funding provided for in the FY13 GAA. Again, the request assumes that the 50/50 formula would be achieved through an increase in the State appropriation, although other options exist.

		FY2013 GAA	FY14 Request
7100-0200	UMass Appropriation <i>Amount Needed to Phase in 50/50 Formula Over Two Fiscal Years (1)</i> Collective Bargaining Costs (previously funded in items 1599-4440 & 4444)	\$ 418.11 \$ 35.88	\$ 418.11 \$ 25.69
7100-0200	UMass Base Appropriation:	\$ 443.79	\$ 479.67
7100-0500	Commonwealth Honors College	\$ -	\$ 3.63
1599-7104	Star Store - Dartmouth	\$ 4.00	\$ 5.40
1599-3857	Advanced Manufacturing & Tech. Ctr	\$ 1.58	\$ 1.90
1599-4417	Collins Ctr. Public Mgt. UMB	\$ 0.40	\$ 0.54
7100-0700	Massachusetts Office of Public Collaboration	\$ 0.65	\$ 0.94
2210-0105	Toxics Use Reduction Institute - Lowell Earmark	\$ 1.66	\$ 1.66
Sub-total:		\$ 8.29	\$ 14.07
Total FY2014 Request		\$ 452.08	\$ 493.74

(1) Does not include State support for fringe cost of \$13.6 million bringing the total support to \$49.5 million

The fundamental mission of the University is to provide, within available resources, the highest possible quality of instruction, research and public service to the widest possible segment of the citizens of the Commonwealth. The University is committed to providing, without discrimination, diverse program offerings to meet the needs of the whole of the state's population. The University's five campuses and UMassOnline are geographically dispersed throughout Massachusetts and possess unique and complementary missions. The University plays a positive role in the economic development of the Commonwealth, contributing over \$4.8 billion in economic activity according to a recent analysis. Our research enterprise alone brings to the Commonwealth over \$508 million in external funds.

The level of state support requested for FY2014 is vital to the overall success of the University and will allow the University's five campuses to continue to provide high quality and accessible education, cutting edge research, and valuable public service and economic development programs to the citizens of the Commonwealth.



ATTACHMENT A

EFFICIENCY AND EFFECTIVENESS

"Achieving Better Results through Efficient and Effective Management:"

December 2012 Progress Report

Introduction

As the State's public research university, we remain committed to spending our funds wisely while maintaining our commitment to quality. We continue to examine our business practices and implement meaningful, financially impactful improvements wherever possible.

Understanding that the current fiscal environment poses significant challenges for the University and its students, we take seriously our responsibility to be a good steward of our limited resources. We understand that our ability to secure the necessary support needed to carry out our mission is directly tied to our success in demonstrating that we are driving efficiencies and improving quality everywhere we can.

Over the last few years the University has achieved savings and efficiencies approaching \$100 million and expects current efforts to yield additional savings going forward. This progress report is an update to what was released last June (included at the end of this report) and highlights many of the system-wide efforts that are currently underway as well as highlighting many of the initiatives that were completed over the past four years and served as a foundation for much of the work that is being done today.

The Fiscal Environment

To put the importance of this initiative in context, the current trend of higher education funding in the United States, and here in the Commonwealth, where student charges continually increase and state support per student declines, is of great concern and presents significant challenges for students, families and the University.

If state funding for higher education is to remain uncertain while the University educates more students, finances a larger percent the capital investments at our campuses, covers significant portions of the salary and fringe benefit costs, and continues to ramp up financial aid to ensure access for all of the Commonwealth's citizens, the University will need to find alternative ways to fund its operations and will need to continue to find ways to achieve the same and better results through more efficient and effective means.

Faced with this reality, the University launched an aggressive program taking a system-wide approach to enhancing operational efficiency and effectiveness.

- In June of 2010 the UMass Board of Trustees created a Task Force on Efficiency and Effectiveness focused on achieving operational efficiencies and made the issue a top priority for University management.
- A study by Accenture and The Hackett Group conducted in May of 2011 identified opportunities in three key purchasing areas: organization and effectiveness; policy, process and tools; and technology
- The purchasing study reported savings opportunities of approximately \$40 - \$50 million if all the initiatives were to be implemented (many of them are now underway).
- In September of 2011, Huron Education was engaged to help identify opportunities to improve Information Technology service delivery.
- In the spring of 2012 campuses started to report to the President's Office and the Board of Trustees on their specific efficiency projects. A progress report from June 2012 provides greater detail on many of the campus specific initiatives.
- This past summer, the Task Force scheduled a series of meetings to focus on the various system-wide initiatives that are currently underway.
- This fall a procurement was launched to begin looking at other business areas to focus on over the next year.

The Task Force on Efficiency and Effectiveness

The University through its Board of Trustees created a permanent Task Force on Efficiencies and Effectiveness and charged them with helping to ensure that improving quality through more efficient and effective operations continues to be a priority for the University. The Task Force, along with the President's Office and the campuses are working to promote a more standardized approach for cross campus coordination and oversight of the entire effort, track and report progress, and quantify the benefits to the University and its campuses.

Over the coming weeks and months the Task Force will be holding a series of meetings aimed at reviewing the University's progress on this initiative, quantify the savings of initiatives currently underway and develop a reporting tool to monitor the progress of each of the initiatives going forward.

Enhancing Accountability and Transparency

The University will take additional steps to create more accountability and transparency with a new report next year that will measure the University's progress in several key areas and that will be made available to the public online and in booklet form. The report, to be titled *UMass Performance: Accountable and On the Move*, will measure the University's performance in six key categories: Student Experience and Success, Producing an Educated Citizenry, World Class Research & Development Enterprise, Enhancing Social Well-Being, Good Stewards of Resources, and Telling and Selling the UMass Story.

The six categories will include 21 indicators to measure success, such as the University's ability to improve student retention and graduation rates, pursue efficiencies, increase external fund-raising and alumni-giving, secure funding for major research and development centers, and make it easier for students to transfer within the state's higher education system. Many of these indicators will help demonstrate how efficient and effective the University is.

The first performance report, scheduled for release by spring 2013, will lay out those priorities with reports in subsequent years assessing the University's progress on each key indicator. The report builds on the University's well-established Performance Measurement System, which has monitored the University's performance in various areas and been the go-to source for public data on the UMass system for the past 15 years.

Leveraging the University's System-wide Purchasing Power

A University Procurement Council comprised of the senior procurement officer from each campus and chaired by the Senior Director of Enterprise Procurement was created to develop and implement system-wide procurement guidelines and strategies that support the University's Board Policies and leverage the collective campus purchasing power in order to reduce costs and enhance efficiencies. To date, the various initiatives of the council have resulted in over \$20 million in savings and anticipate nearly \$4 million more in the upcoming year.

- *The e-Procurement (SciQuest):* Initiative is a cloud based Procurement tool that will offer the University purchaser an Amazon like shopping experience. It supports strategic procurement by identifying and establishing contracts with preferred suppliers, driving spend to those contracts and promoting process efficiencies through electronic transactions. The plan is to have a pilot program in place by March 1st.
- *Library Services Committee:* Currently several buying consortiums are used for accessing contracts and there are some multiple campus contracts in place. It was agreed that regular meetings with the Library directors would result in potential savings and service enhancements for the University.
- *Travel Services Program:* The University will participate in a travel consortium managed by Medical Academic Scientific Community Organization (MASCO) along with 32 academic and healthcare organizations located in the Greater Boston area. The program's rollout is targeted for first quarter of 2013 at the Dartmouth and Lowell campuses.

System-wide Strategic Energy Initiatives

A Strategic Energy Committee made up of the University System's Office along with the five campuses was formed. They have engaged in a full scope of energy services ranging from procurement, budgets, analysis, demand and various other special projects, in partnership with Competitive Energy Services (CES). To date, the University has realized of approximately \$1 million. The projected savings of actions taken to-date is \$48 million and will be realized over the next 20 years. Below are some of the specific projects that are currently underway.

- *Solar PV Net Metering Credits:* Net Metering Credits has been identified as one of the most significant opportunities for savings across the UMass system shortly after being retained. The system office along with individual campuses issued two RFPs for net metering credits. With the exception of UMass Lowell, which has already started realizing savings from a Net Metering Credit agreement that was negotiated with the Westford Solar Project, savings will not start until the individual projects come online throughout 2013.

- *Liquefied Natural Gas (LNG) Project:* An economic analysis was performed for a temporary LNG facility that would primarily displace ultra-low sulfur diesel (ULSD) oil during the peak winter heating season. The project is slated to improve operating efficiency and improve emissions. The project went “live” on December 10th, 2012 and is slated to operate a minimum of two years. The financial analysis was conducted in August and the estimated savings for the project are \$1.2 million/per annum based on the analysis conducted and the prevailing market conditions on August 15, 2012
- Electricity Procurement: renegotiated contracts for power across several campuses has resulted in savings of over \$400K

System-wide Approach to Streamlining & Enhancing IT Service Delivery

An IT Steering Committee has been created to guide in the efforts towards University-wide operational effectiveness; to provide a means for collaborative decision making and coordinated implementation in the pursuit of future strategic services and needs that are common to the campuses; to identify common services that can be provided effectively and efficiently through shared arrangements, ultimately reducing redundancy and costs; and to collectively prioritize efforts to focus on key initiatives.

- *Data Center Optimization:* To create a UMass System Data Center strategy by reviewing the viability and needs of current campus data centers; assess future needs by campus and System and leverage the existing Worcester data center and the new data center at Amherst as potential centers for hosting and disaster recovery. This initiative will improve data center expertise, operations and security.
- *Mobile Device Services Optimization:* To develop a consistent and thorough mobile device and services policy and corresponding processes that proactively optimizes plans and services that establish a predictable foundation for cost-savings realization.
- *Massachusetts Green High Performance Computing Center (MGHPCC):* To provide a state-of-the-art green data center to support the future of high-performance computing needs for the University community.
- *Network* - To provide scalable, cost-effective reliable high capacity networking connectivity between the campuses, ensuring adequate connectivity between campuses and external networks to support campus priorities including MGHPCC, Data Center Optimization, Virtual Computing Labs, and Unified Communications.
- *Telepresence:* To develop a reliable, cost-effective videoconferencing solution for fixed and mobile devices leveraging web conferencing capabilities.
- *Virtual Computing Lab:* To provide a software solution that allows students, faculty and staff to reserve and use software anytime/anywhere through a web browser instead of a computer lab.

Campus Led Efforts

Currently campuses are tracking over 30 projects. Many of them serve as pilot projects that may become adopted by other campuses or become larger system-wide projects. Areas of focus include competitive contracting, revenue enhancements, space and building efficiencies and personnel actions. The progress report from June of 2012 highlighted many of these projects and has been included at the end of this report for convenience.

Completed Efficiency Initiatives

While our efforts to achieve savings through greater efficiencies have been ratcheted up over the past two years, this is not a new initiative for the University. Since the economic downturn in 2008 the University has seen enrollment grow by nearly 8,400 student FTEs, research funding has increased and there have been major investments made to enhance our facilities. During this same period, the University took steps to reduce expenses by nearly \$68 million. Current efficiency efforts have resulted in additional savings of \$29 million and future savings of \$5 - \$8 million annually are expected based on initiatives currently underway. This does not include certain collective bargaining costs and other expenses that the University has been forced to absorb over this period of time. Highlights include:

- During the first two fiscal years of the recession, the University eliminated approximately 525 positions through layoffs, retirement and attrition.
- Additional reductions in part-time and overtime expenditures, energy/conservation measures and departmental budget cuts resulted in significant annualized savings of nearly \$51 million.
- As a result of the extensive financial planning efforts across the University, the campuses implemented additional reductions during FY11. Another 118 positions were eliminated or held vacant either through layoffs, attrition or retirements. The positions eliminated cut across the spectrum of University activity and resulted in additional savings of \$17 million.
- Recent efficiency strategies have realized a cost savings of approximately \$29 million annually, much of the savings achieved through purchasing, information technology initiatives and business process improvements.

Again, these efforts are being implemented (some over multiple years) simultaneously as University enrollment, research, and our facilities footprint are growing. Although critical positions have been eliminated, the campuses have made targeted investments and changed the way they do business permitting the University to operate more efficiently.

Better Financial Reporting and Monitoring

- Single Vendor File - the Amherst campus maintains the vendor file for the entire University.
- Implemented a Single Automated Travel & Expense system for University employees – these payments previously were processed through Accounts Payable as vouchers which generated checks. These payments are now processed via payroll by-weekly. This system also has full auditability as the approvals are all performed on-line with scanned receipts captured in the Peoplesoft system.

- Workspaces/Sharepoint used for audit files – this allows access to documentation for all who are involved in the generation of the annual financial report and A-133 report of Federal funds.
- Single Chart of Accounts for the University – allows for system level reporting, monitoring of proper use, and single report development from Peoplesoft that can be run for each of the business units/campuses
- Single Fund structure for the University – allows for system level reporting, monitoring of proper use, and single report development from Peoplesoft that can be run for each of the business units/campuses
- New External Audit Contract – after 20 years with the same firm (Coopers & Lybrand/PricewaterhouseCoopers), switched to Grant Thornton which is a savings of approximately \$200,000 annually. Now includes Building Authority, UMass Foundation, and WCCC all under the same contract.

Innovative Approaches to Human Resource Management

- Employee Self-Service - employee self-service allows faculty and staff to manage much of their own Human Resources-related data without involving HR Department staff. Employee Self-Service transactions include updating personal information, like address, phone number and emergency contact; payroll-related information like direct deposit (bank account) and tax withholding status; and training records.
- On-Line Time and Labor Entry/Approval - although under the larger scope of employee self-service, on-line time and entry/approval is a specific feature that eliminates paper timesheets, by allowing faculty and staff to record time (or exceptions) directly into the HCM system. Workflow tools also allow first line supervisors to approve entries directly in the system, eliminating the paper-based approval system.
- Enforcing Direct Deposit/Pay Advice Suppression - by tightening up the policy on live checks and pre-printed pay advices. Checks and pre-printed pay advices have been reduced by more than 85%, significantly reducing print and distribution costs.
- “Driving” Faculty and Staff to the HCM System - the above-listed items require faculty and staff to log onto the HCM system on a more regular basis. As a result, the system can be used for notifications—notably the required Ethics Commission Annual Notification of the Conflict of Interest Law. Using the system eliminated printing, distributing, and collecting and tracking acknowledgment of receipt notices.
- Centralizing the Annual Statement of Financial Interest Notification Process - centralizing the Annual Statement of Financial Interest notification process has eliminated campus HR staff time and increased consistency in the process.
- Centralizing Faculty and Staff Pre-Employment Background Screening - a system wide contract for pre-employment background screening reduced individual campus rates and added consistency in the process.
- Collective Bargaining Library - using existing technology, creating a central collective bargaining agreement library added efficiencies by allowing central and campus staff to research common issues across the bargaining units and eliminated the need for multiple printed copies.

Better Cash Management and Financial Operations

- Reduction in staff - Four positions were eliminated saving \$242,500 per year - positions have not been refilled
- Extended our Banking Services contract – Results in cost avoidance \$130,000/year compared to published studies of bank fees.
- Refunding of Bonds - certain WCCC and University Bonds were refunded generating net present value savings of approximately \$5.1 million.
- System wide Armored Car procurement – now pay approximately what we paid to service three campuses. In addition, Amherst was able to return two senior officers to campus patrol duties, eliminate the cost of the armed van and overtime to cover for senior officer's days off operating their van service.
- Paymode – when program was implemented we had 1348 vendors in the program and we now have 3313. Having vendors in the program eliminates the issuance of paper checks for those vendors, takes advantage of ACH technology to reduce payment expense and eliminates the cost of postage and escheat processing.
- Mandatory elimination of the printing of pay stubs - Costs perhaps captured in UITS materials but would include labor, paper and equipment costs and delivery.
- Revenue Credits program and lower cost share class - moved participants to the lowest share class and identified overcharges in the 403(b) programs – creates an expense charge for plan participants that is appropriate and saves participants money. The savings are small by participant however they add up across 4,000 participant accounts.
- The hourly cost of legal assistance associated with external review of Executive Compensation programs has been reduced by half as a result of a very productive RFP process.
- Consolidated purchasing associated with the University's insurance programs has resulted in savings for the University and WCCC and is more efficient as it is managed through one central office.
- Eliminated certain bank accounts - specifically established to record the University's credit card transactions resulted in annual savings of \$36,000/year.
- Automated the payroll deductions paycycle and eliminated the associated paper checks, postage and turned a four day per month process for one individual into a one day per month process. The distribution of those funds is also more timely.
- Implemented Commerce Manager - a third party platform which allows campuses to host credit card functionality in a secure and cost effective manner. This has helped to reduce the proliferation of third party software solutions intended to process credit card charges at the campuses.
- Centrally manage the annual PCI certification process - in addition to support in managing campus implementations of third party software. This central process has streamlined and focused our compliance efforts.
- Facilitated with the Connector Authority and DHE the purchase of student health insurance and scholars coverage - the program has resulted in generally better insurance coverage for these groups at competitive rates. Further consolidation amongst campuses is the next opportunity.
- Combined our General Liability and Limited Professional Liability coverage which produced initial savings of \$100,000.

- Locked in multi-year rates on certain insurance coverage and decreased the average annual premiums for those years.
- Manage in-house claims associated with General Liability incidents thus allowing the General Counsel's Office to focus on litigation and not administration matters.
- Manage the Private Use initiative through one person in Treasury - The ability to manage this centrally has allowed us to be efficient and move the project forward at all campuses on differing schedules.
- Eliminated the pre-note process thus eliminating the need to generate a paper check when an employee is first hired.
- Implemented two external vendor programs that allow international students to pay their tuition and fees electronically and in their own currency - this program has reduced bank fees we paid and improved the reconciliation process.
- Negotiated an AMEX rate of 2.2% for all campus vendors - AMEX had previously charged in excess of 3.0% to 4% at all campus locations that accepted the card.
- Enhanced Abandoned Property reporting with the campuses using Workspaces.
- Implemented the MBTA deduction through Benefit Strategies - this program improved customer service and streamlined the campus payroll deduction procedures and backlogs.
- Managing payments to foreign persons and companies has been an area of interest of the US Treasury. We manage this process centrally thus saving campuses time and energy with regards to compliance.
- Closed additional bank accounts and merged others in an effort to streamline reconciliations and save money.
- Changed the process to manage most of the Letter of Credit and wires business electronically via our use of mailboxes and other online technology - this has made the process more efficient and has reduced the time needed to process a payment.



University of Massachusetts Progress Report

Efficiency & Effectiveness Initiatives

June, 2012

- System wide E-procurement implementation initiated with SciQuest - conservative estimates projecting \$1.4 million annual net savings by Year 2 which escalate to \$1.8 million annual net savings by Year 5
 - Improve customer/department experience
 - Enhance productivity - simplify/standardize process (includes automatic payment)
 - Mitigate risk – reduce use of pro-card and ensures contract compliance
 - Provide higher level of visibility into University spend to enhance system wide contract opportunities
- Completed Energy Services contract with full system participation
 - Enhanced services for cost containment, savings initiatives, and renewable technologies
 - Kickoff meeting for UMass Strategic Energy Committee held on May 24th
- Moving forward on trial launch of a University Travel Program
 - Single point of access to comprehensive service offerings that include; ability to track University travelers, discounted airline, auto and hotel rates, emergency response services, and safety awareness programs
 - System-wide projected annual program savings \$300-\$400k
- System-wide mobile device optimization project
 - Annual projected savings of \$250k
 - Implementation to begin July, 2012
- Establishment of University Shared Security Operations Center
 - Implementing a shared service to deliver on compliance offers us the ability to leverage the University's scale to better negotiate shared technology contracts as well avoid redundancy in staffing and consulting costs.
 - Addresses known security vulnerabilities uniformly across the University
 - Minimizes the likelihood of a data breach and the impact to the University should a breach occur
 - Professional security agencies estimate that a major security breach can cost an institution from \$4M - \$7M in direct and indirect costs.
 - Reduces cost of securing University assets through shared service approach
 - \$100k estimated annual cost savings and \$165k annual cost avoidance

Energy Conservation Programs:

- Amherst Campus participation in Demand Response and Alternative Power Supply programs has realized \$5 million in revenue. The campus is using these funds to finance future energy savings initiatives and deferred maintenance projects.
- Comprehensive Energy Savings Project at the Dartmouth Campus done in collaboration with DCAM and financed through Commonwealth's low-interest Clean Energy Investment Funding. Annual cost savings estimated at \$3 million annually.
- Lowell Campus's strategic renegotiation of energy contracts coupled with boiler replacements and other efficiency projects has resulted in a slowing of the growth in utility costs despite significant growth in square footage. Costs lowered by \$1 million annually.
- Medical School utility conservation efforts reduced costs by \$630k annually.

Competitive Contracting:

- Amherst Campus new contracts for various supplies & services (elevator maintenance, office and science/lab supplies, copier contracts) realizing annual cost savings of \$350k
- Boston Campus led strategic bidding of electricity procurement resulting in \$1.47 million annual savings
- Boston Campus competitively bid contracts for design and construction and professional services lowering costs by \$1.8 million annually
- Dartmouth Campus renegotiated utility contracts and cable contract for cost avoidance of \$500k annually.
- Lowell Campus bulk agreement on cable purchase lowered costs but also allowed the Campus to avoid \$750k of capital improvements.
- Medical School adjusted purchasing strategy on commonly used office and laboratory supplies to lower costs by approximately \$275k.

Revenue Enhancements:

- Boston Campus implemented MapWorks program in order to increase student retention, which is projected to increase annual revenues by \$2 million.
- Dartmouth Campus instituted Customer Relations Management Tool to enhance recruitment and yield of students projected to increase annual revenue by \$2 million.
- Lowell Campus restructuring of retail food commissions increased revenue by \$300k.
- Lowell Campus adjustment of parking rates led to \$1.4 million of increased revenue.
- Lowell Campus has a new Bookstore agreement which is estimated to produce average of \$793,000/year for 10 year agreement, which is \$326,000/year greater than prior agreement. In addition, new management company is providing enhanced services, including expanded book rental program, resulting in student savings of over \$500k in 2011/12 Academic year
- Medical School increased overhead charges on external service-center activity in order to grow revenue by \$325k.

Space and Building Efficiencies:

- Boston Campus improved space management to identify all spaces supporting funded research, provide information to allow maximum utilization of existing facilities to avoid use of temporary or leased space and to direct space use to strategic priorities. Avoided costs estimated at \$300k annually.
- Boston Campus investing to increase operating efficiency of central utility plant in order to provide full capacity of chillers and boilers leading to \$2.7 million cost reduction.

- Lowell Campus negotiated a 10-year agreement to manage food service that includes a \$7 million dollar investment in food service infrastructure in addition to any sales commissions.
- Lowell Campus relocation of administrative services has freed up space for academic program expansion and faculty offices on South and North campuses. Relocation allowed the campus to avoid \$12 million of capital improvements.
- Medical School identified additional opportunities for rental income resulting in revenue growth of \$550k.

Technology Initiatives:

- Full implementation of electronic pay advice system at Boston Campus resulting in \$150k of annual cost savings.
- Boston Campus utilizes document imaging for registrar/admissions resulting in a cost avoidance of \$210k annually
- Boston Campus outsourced student email system to lower costs by \$120k annually and reducing required IT equipment investments by \$1.2 million
- Print Management & Optimization Program at the Dartmouth Campus estimated to avoid \$300k of costs.
- Lowell Campus outsourced student email system to avoid \$1.2 million of costs over 3 years.
- Lowell Campus increased virtual server environment in data center to avoid \$225k of costs and reduce environmental impact.
- Online Board of Trustees portal estimated to provide an annual direct cost savings of \$225k

• **Personnel Actions:**

- Boston Campus focused management on vacancy savings and hiring plans allowing the campus to reallocate funding and assist with the funding of new strategic initiatives. Estimated cost savings as a result of focus are \$500k.
- Dartmouth Campus used non-unit furlough program in FY10 to save \$762k
- Lowell Campus utilized early retirement incentive program to realize cost savings of \$1 million.
- Lowell Campus implemented HR Direct program for student employees and Campus Police, lowering costs by \$207k annually
- Medical School implemented a 10% reduction in total expenditures for Administrative and Support Services departments, which included the loss of 80 full-time positions. Annual savings from these reductions estimated at \$10.8 million.
- Medical School adjusted HR policies on overtime, insurance, and vacation time to reduce annual costs by \$1.1 million.

• **Process Redesign:**

- Amherst Campus's Administration & Finance IT services have been reorganized into one existing unit allowing synergies of knowledge and coordination of critical data security measures. Anticipated cost avoidance to be realized from a more secure environment.
- Boston Campus establishment of Business Service Centers creating administrative efficiencies expected to save more than \$500k annually
- Lowell Campus's switch to e-billing for student accounts improved services and lowered costs by \$69k annually.
- Medical School decreased their utilization of consulting contracts, lowering annual costs by \$500k.

Attachment B

Additional University Line Items

1. Commonwealth Honors College **Amount: \$3.63 million**

The University is requesting re-funding of this line item in FY2014. Commonwealth Honors College mission is to provide an excellent and affordable education to academically talented students from all backgrounds and to prepare them for responsible engagement in society by fostering intellectual curiosity, interdisciplinary analysis, and academic rigor within a supportive, socially-just community. We have used the state funding appropriately to provide excellent courses with small student enrollments and to provide students with the opportunity to create new knowledge consistent with a Research Intensive University. Specifically, for example, 72 percent of the College budget is used for the direct benefit to the students, including faculty instruction, advising, and student scholarships.

2. **New Bedford College of Visual & Performing Arts and additional educational facilities** **Amount: \$5.4 million**

- A. \$3.7 million is requested to support the New Bedford CVPA, also known as the Star Store facility, which is a state-of-the-art facility home to hundreds of artists working in a variety of disciplines and has developed strategic partnerships with New Bedford arts organizations such as the Zeiterion Theater. The Star Store is also home to a number of impressive exhibition spaces--most notably the University Art Gallery, which features exhibitions of local, national, and international renown. The facility includes administrative and academic office space, provides learning spaces for Bristol Community College, and provides quality meeting space for community organizations.
 - B. \$1.7 million is also requested for the lease and operations of educational facilities procured by the University of Massachusetts to alleviate educational programmatic overcrowding

3. Fall River Advanced Technology & Manufacturing Center **Amount: \$1.9 million**

The Advanced Technology and Manufacturing Center (ATMC) provides infrastructure for early-stage and transition companies as they grow and mature.

The primary objective of the ATMC is to provide an environment where technology companies will develop into employers located in Southeastern Massachusetts. By attracting these companies to the ATMC, the University facilitates the economic growth of the region. Participating companies benefit from an environment that includes quality space, complete facilities and support services, technical and business expertise, and proximity to other companies facing similar challenges. Access to UMass Dartmouth faculty and staff, as well as the fully-equipped research laboratories, is one of the most beneficial resources. Additionally, business and technical support is available from the UMass Dartmouth. The services include strategic and business planning, financial and capital planning as well as market research. The University will also help with legal and intellectual property issues as needed. The Center has established commercial alliances with accounting, legal, human resources and funding organizations. The ATMC also provides a wide array of intern and work experiences for UMass Dartmouth students.

4. Toxics Use Reduction Institute Earmark (TURI) Amount:\$1.66 million

The Massachusetts Toxics Use Reduction Institute (TURI) at the Lowell campus was created to promote reduction in the use of toxic chemicals and the generation of toxic by-products in industry and commerce in the Commonwealth of Massachusetts and has received a separate line-item appropriation for a number of years.

5. Massachusetts Office of Public Collaboration **Amount: \$938,000**

- A. Massachusetts Office of Public Collaboration : The MA Office of Public Collaboration is seeking \$238k of state operational funding to carry out its statutory state-wide mission as the state dispute resolution office pursuant to G.L. Ch. 75, Section 46. The office's public mandate is to assist the three branches of government (executive, judicial and legislative), municipalities and public authorities with the design and administration of dispute resolution programs, mediation of public policy disputes, and facilitation of collaborative problem-solving and community involvement on contentious public issues. MOPC serves as a neutral forum and state-level resource for skilled assessment, systems design and process management services, and expedites access to qualified mediators and collaborative practitioners for service on public contracts.
- B. Massachusetts Office of Public Collaboration - Community Mediation Center The Massachusetts Community Mediation Center Grant Program, administered by the Massachusetts Office of Public Collaboration under G. L. Ch. 75, Section 47, is requesting \$700k to provide operational funding to community mediation centers in order to broaden access to dispute resolution for all Massachusetts residents by promoting community mediation as an affordable public service. The CMC Grant Program provides a sustainable funding framework that enables investment in existing and new community mediation programming and infrastructure. It was built on the findings and recommendations from the *Legislative Study: A Framework to Strengthen Massachusetts Community Mediation as a Cost-Effective Public Service*, conducted by MOPC in 2011.

6. Edward J. Collins, Jr. Center for Public Management **Amount: \$541,000**

The Edward J. Collins, Jr. Center for Public Management at the University of Massachusetts at Boston's McCormack Graduate School of Policy Studies is requesting funding of \$541,000 for its operations in FY2013.

This level of funding will allow the Center to continue providing Massachusetts state and local governments with cost-saving, revenue-enhancing, and performance-improving services. These services include assistance to Massachusetts municipalities to achieve savings through consolidated purchasing, service exchanges, governance reforms, cost-saving technologies, and incentive programs, as well as revenue-enhancement support. Through this work, the Collins Center is helping to relieve serious fiscal pressures faced by Massachusetts municipalities.

7. State Matching Endowment Incentive Program

State matching funds programs serve as powerful incentives for public universities to raise funds from private sources. Public colleges and universities that fully utilize state matching funds programs maintain a considerable competitive advantage over their peer institutions. The availability of matching funds from state appropriations is a major factor in the fundraising success of many public universities.

In the past, the Commonwealth's Public Higher Education Endowment Incentive Program matched 50 percent of gifts to the University's endowment, funds that can be designated for academic purposes, including scholarships, facility construction or named faculty chairs. Endowment giving for faculty support, faculty-led research programs and financial aid provide opportunities for positive press and the building of a donor base.

For public universities with modest fundraising histories, matching funds provide a strong incentive to flag the important role that the endowment can play in supporting University operations. The use of matching funds to encourage endowment giving has produced dramatic results.

The last endowment match program sponsored by the Commonwealth helped the University to raise over \$92 million in private funds and added \$142 million to the University's endowment. This fueled the establishment of more than 70 endowed professorships and chairs and numerous scholarships for students.

Attachment C

Fiscal Year 2014 Funding Formula

Summary of FY2014 Formula Funding Results

The University of Massachusetts is required by Chapter 75, the University's enabling act, as well as some provisions of Chapter 15A (public higher education) and Chapter 29 (public finance) to prepare and submit a formula budget request. For FY14 the current funding formula has determined that the total that should be available to deliver the core teaching, research and service mission need for the University is \$1,876.8 billion and would result in a total state funding gap of \$573.2 million. To fill one-tenth of the funding gap, as well as cover the estimated cost of all state-funded collective bargaining agreements for FY2014 would require a State appropriation of \$498.6 million for FY14.

I. TOTAL FORMULA FUNDING NEED	\$1,876,801,425
II. CURRENT NON-STATE REVENUES	
Tuition & Fees Revenue (net of scholarship allowances)	\$658,337,000
Other Non-Operating revenues (unrestricted)	\$84,577,963
TOTAL CURRENT NON-STATE REVENUES	\$742,914,963
III. NET STATE SUPPORT NEEDED (I-II)	\$1,133,886,463
IV. CURRENT STATE SUPPORT (FY13 est.)	
State Maintenance (plus retained tuition)	\$446,113,309
Stimulus Funding (FY12 only*)	\$0
Fringe Benefits (FY2013 actuals)	\$114,598,352
TOTAL CURRENT STATE SUPPORT	\$560,711,661
V. ADDITIONAL FUNDING NEEDED -- "The Gap" (III.-IV.)	\$573,174,801
(less Strategic Priority Funding/Elimination of Stimulus Funding)	
Requested State Budget Appropriation Increase to Close the Gap in 10 years	\$57,317,480
	13.7%
<hr/>	
FY2013 State Appropriation (does not include Tuition Retention)	\$418,107,753
FY14 Costs of Year 2 of Coll. Barg. Contracts	\$15,228,434
Requested Increase	\$72,545,914
Total Requested FY2014 Maintenance Appropriation	\$490,653,667
	17.4%

Fiscal Year 2014 Funding Formula Detail

Overview

Formula budgeting for the University of Massachusetts takes a bottom up approach to determine the total cost of core activities funded by the state and other unrestricted revenues sources, primarily students: instruction, research, public service, etc. Its aim is to determine how much it costs to do these things well.

The formula was initially developed in the early 1990s during the time when the University was coming together as a five campus system after the 1991 reorganization. The formula was used to inform the University's annual state budget request and the allocation of state appropriations decisions from FY1994 through FY2002. Reductions in state support for the University and continuing economic instability necessitated a different approach for the FY2003 and FY2004 state budget requests. For those two annual budget requests, the University sought level funding and appropriations to support collective bargaining contracts from the Commonwealth only. The University ran the funding formula with updated data for the preparation of the FY2005 through FY2013 state budget requests and has run the formula again to inform the FY2014 submission.

Each component of the formula was initially built based on a review of practices, national norms, the experience of comparable institutions, as well as a review of formulas in place in other states during the early 1990s. Development of the funding formula is an evolving process. The assumptions and norms used have been updated and some factors have been adjusted incrementally over time. It is expected that further refinements will be incorporated, providing even better information about what we do, what the costs are, and how they compare with costs at other institutions and nationwide. Despite this ongoing assessment, however, formula budgeting should help provide a measure of stability and regularity to the University and state budget processes over time.

The formula looks at activities funded from unrestricted sources of revenue (primarily state and student revenue) that are available to support core activities. The state share includes the state maintenance appropriation and fringe benefit support. Other unrestricted revenues include: student revenues from mandatory fees and credit for tuition waivers, research overhead funds, investment income, and other sources of unrestricted revenues. Other sources of funds are excluded from the formula including revenues from restricted sources such as grants and contracts and auxiliary operations.

Medical School funding is based on a similar formula. Costs of instruction and research per medical student are based on average comparable costs at other public medical schools nationwide. Other formula costs are calculated using the same methods as in the main formula.

Key Components

The formula is made up of ten key components, the core of which is a set of standard activities defined by the federal government and used by all institutions of higher education in financial reporting. Several other components have been included that relate more particularly to features of higher education funding in Massachusetts, or to the structure of the University itself such as a separate formula calculation for the Medical School. The data used to prepare the formula request represent a combination of actual experience over the last three years, and comparative experience nationwide and at comparable public universities.

Hold Harmless

The funding formula is used to inform the state budget request and campus allocation processes. It is the policy of the University to hold campuses harmless in that current level of state support will not be reduced based on formula results. However, the distribution of state appropriated dollars above the previous year's base may be distributed by the Board of Trustees and President of the University to the campuses based the results of the funding formula.

Fringe Benefits

Fringe benefits are counted both as a revenue and expenditure wherever appropriate. The overall fringe rate used is 27.27%, which includes the FY2013 Massachusetts fringe benefit rate of 25.98% and payroll tax rate of 1.29%.

The following components comprise the approved FY2013 fringe benefit rate:

Group Insurance	18.19%
Retirement	6.76%
Terminal Leave	1.03%
Total	25.98%

The following components comprise the approved FY2013 payroll tax rate:

Unemployment	0.26%
Universal Health	0.13%
Medicare Tax	0.90%
Total	1.29%

Instruction

The instruction component represents a major portion of the formula, reflecting as it does one of the highest priorities of the University. It includes costs of all instructional activities and programs. Instructional costs have been built into the formula in four major areas:

Faculty Resources

The instruction component begins by calculating the number of instructional lines needed to carry out the basic mission of the institution at each level of instruction (lower division and upper division undergraduate; masters and doctoral). Initial guidelines for differentiating the number of faculty needed at each of these levels were based on the advice of the National Center for Higher Education Management Systems (NCHEMS), when the formula was originally developed in the 1990s. These guidelines were based on a broad understanding of standard practice at universities nationwide.

The ratios for each level of instruction were applied to the annual student credit hour enrollments to yield the total number of instructional lines needed.

- Lower division undergraduate 22.5 to 1
- Upper division undergraduate 15.0 to 1
- Masters 7.5 to 1
- Ph.D. 4.5 to 1

The dollar need for faculty resources was determined by multiplying the number of faculty lines needed by the average faculty salary. An additional 27.27% was added to this amount for fringe benefit costs.

Teaching Assistants

In addition to full and part-time faculty, a significant role in any research university is played by teaching assistants (TAs). The formula determines needs for teaching assistants by maintaining the current ratio of TAs to faculty, even though graduate activity is increasing university-wide. TAs currently make up approximately 10% of total instructional lines at the University, therefore 10% of the need for instructional lines as determined by the formula was assumed to be covered by TAs. Costs for TAs were calculated by taking the full-time equivalent value of an average TA stipend and multiplying that amount by the total FTE TA lines needed. The total cost of supporting TAs includes tuition and fee waivers as well as stipends. Therefore the average cost of providing waivers was also added to the total TA cost.

Support Staff

In addition to looking at an adequate level of instructional positions for the number of students we serve, the formula looks at an average ratio of support staff to instructional personnel. The support staff ratio is calculated at 27% of the total FTE instructional personnel needed. This percent is based on an estimate used in previous formula assessments at the University. The number of FTE support staff determined in the formula is multiplied by the average University support staff salary. An additional 27.27% of salary cost was added to cover fringe benefit costs.

Equipment/Supplies/Other Support Costs

The final area of funding for instruction is the calculation of other instruction related costs: equipment, supplies, and other support costs (these include cost of student workers and other non-benefited employees who are not counted elsewhere). The rate per FTE instructional line was calculated based on FY2012 expenditures.

Research

Research is a unique University mission, in terms of the scope and breadth of activity. A senior level university's research programs advance knowledge, understanding, and quality of life, thereby addressing a wide variety of social and economic needs. Funding from this component will serve to support current and future research activity including supplies, equipment, lab technicians, computer programmers, grant development personnel, administrative costs and other related costs that involve research. The research component is comprised of two factors: one that provides support to campuses already strong in generating externally sponsored research dollars, and one that supports non-sponsored research along with the development of new research activities.

The first factor provides a modest match of sponsored funds at the rate of \$.15 for each sponsored dollar brought into the University (15% of total grant and contract revenues less indirect costs recovery funds). The second factor is calculated by taking 3% of the dollars generated in the instruction component of the formula and is aimed at providing support of non-sponsored departmental research as well as developmental funds for future research. Both of these were standard methods used for calculating support of research activities in formulas in place elsewhere in the country at the time when the formula was initially developed.

Public Service

Public service is another key area of activity for the University. It includes use of University expertise and personnel to provide service to the state and the communities and regions immediately surrounding our campuses, and is part of the historical tradition of Public Land Grant Universities. Support for public service is calculated in the formula by taking 3% of the total generated in the instruction component of the formula.

Academic Support/Student Services

Academic support and student services have been combined into a single component. This includes support of libraries, computer labs, and student services key to successful retention and graduation of students. The combined rate per headcount student was determined by looking at equivalent average expenditures for groups of comparable peer institutions.

Plant Operations and Maintenance

Plant operation and maintenance is an area of particular concern because of the need to improve and maintain our assets. The calculation of costs for the plant component has several factors: utility costs, costs of maintaining buildings and grounds, and renewal and adaptation of plant. None of the calculations for the plant component includes the cost of maintaining properties used to run auxiliary operations such as dormitories, dining halls, or bookstores. It is assumed that the revenues from these operations cover maintenance costs. Also not included in the formula, but clearly a growing cost for the University, is the cost of debt service that supports the University's non-auxiliary capital program. In FY2012, the University expended approximately \$140 million on debt service payments for improvements to core academic and research facilities and the infrastructure needed to support those activities.

Utility costs are calculated by taking a three-year average of actual expenditures. The purpose of averaging is to avoid large swings in expenses reflective of climatic differences from one year to the next. Costs of maintaining buildings and

grounds were determined using industry standards that approximate salary and supply costs needed per gross square foot for buildings (\$4.39 per GSF) and per acre (\$6,944 per acre) for grounds maintenance.

The final factor in the plant component is renewal and adaptation. A continuous program of repair, rehabilitation and adaptation of our existing physical assets is critical to the overall success of the University. In previous years, the annual cost factor for adaptation and renewal was calculated based on 10% of the total replacement value of the physical plant estimated at \$136.38 per square foot. For the FY2014 formula, the annual cost factors changed from a 10% annual cost factor for adaptation and renewal to a 3% cost factor for adaptation and a 2% for cost factor for renewal. These percentages are based on the total replacement value of the physical plant estimated at \$292.00 per square foot. This change in the calculation is used by the Board of Higher Education in its funding formula and is based on an industry standard. For both the FY2013 and this year's formula, the renewal and adaptation factor was again calculated based on the 3% and 2% figures.

Financial Aid

The Scholarships and Fellowships component is calculated by taking 20% of total billed tuition plus mandatory fee revenues. This is comparable to methods used in formulas in place elsewhere. The percentage used is also an estimate of costs of providing financial aid to current students and is, we believe, a reasonable calculation of funding needs relative to the state's access mission for public higher education. This calculation does not include the cost of providing mandatory tuition waivers.

Institutional Support

Institutional support includes the overhead/management costs of operating the University. This component is calculated by taking 6% of the total of all other components (not including strategic priority funds). This method is also used in other formulas elsewhere in the country, and is considered a reasonable means of calculating the cost of providing all other services and programs that make up the balance of the formula.

Medical School Funding

The University of Massachusetts Medical School has produced a parallel formula to that for the rest of the University, which incorporates national information on expenditure levels for instruction and research at public medical schools. Data are gathered from other public medical schools in the United States and are reflective of the average instructional costs per medical student at those schools. The remainder of the Medical School formula mirrors the methods used in calculating costs for the rest of the University.

The following table summarizes the results of the running the funding formula. Attachment 1 provides a more detailed analysis of the components of the formula. The total need determined by the formula is \$1,876.8 billion. This represents a level of support that should be available to deliver the core teaching, research and service mission.

**University of Massachusetts
FY2014 Budget Request & Formula Analysis**

I. TOTAL FORMULA FUNDING NEED \$1,876,801,425

II. CURRENT NON-STATE REVENUES

Tuition & Fees Revenue (net of scholarship allowances)	\$658,337,000
Other Non-Operating revenues (unrestricted)	\$84,577,963

TOTAL CURRENT NON-STATE REVENUES \$742,914,963

III. NET STATE SUPPORT NEEDED (I-II) \$1,133,886,463

IV. CURRENT STATE SUPPORT (FY13 est.)

State Maintenance (plus retained tuition)	\$446,113,309
Stimulus Funding (FY12 only*)	\$0
Fringe Benefits (FY2013 actuals)	\$114,598,352
TOTAL CURRENT STATE SUPPORT	\$560,711,661

V. ADDITIONAL FUNDING NEEDED -- "The Gap" (III.-IV.) \$573,174,801

(less Strategic Priority Funding/Elimination of Stimulus Funding)

Requested State Budget Appropriation Increase to Close the Gap in 10 years	\$57,317,480
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ATTACHMENT I**UNIVERSITY OF MASSACHUSETTS****FY2014 BUDGET REQUEST FORMULA: COMPONENT ANALYSIS OF TOTAL FORMULA NEED (IN MILLIONS)**
(INCLUDING MEDICAL SCHOOL)

Formula Component	Total Need	% of Total	Method of Calculation
INSTRUCTION Includes salaries and fringe benefits for faculty and instructional support staff, and costs for teaching assistants. Also includes funds for instructional equipment, supplies, and other support costs.	\$829.5	44.2%	FTE students/staffing ratios=FTE instructional lines (faculty and TA's) FTE faculty X average salary = faculty salary costs FTE faculty x fringe rate ('13) = faculty fringe costs FTE TA lines x average stipend = TA stipend costs FTE TA lines x average waiver = TA waiver costs Instructional lines x support staff ratio = FTE support staff FTE support staff x average salary = support staff salary costs FTE support staff x fringe rate ('13) = support fringe costs Instructional lines x average actual cost per instructional line = equipment/supplies/support costs
PLANT OPERATION AND MAINTENANCE Includes expenditures for building and grounds maintenance and utilities as well as funds for renewal and adaptation of plant.	\$377.5	20.1%	Utilities: actual costs (3-year average) Building Maintenance: \$4.39 per GSF Grounds Maintenance:\$6,944 per acre Renewal Costs: 3% of estimated replacement cost Adaptation Costs: 2% of estimated replacement cost
ACADEMIC SUPPORT/STUDENT SERVICES Includes support for libraries, computer centers, AV services, as well as expenditures for admissions, registrar, student counseling, etc.	\$308.4	16.4%	\$ 1,8958 to \$3,979 per HC student (CAMPUS peer averages)
FINANCIAL AID Includes support of financial aid programs except mandatory tuition waivers.	\$133.9	7.1%	20% of sum of total fiscal year billed tuition and mandatory fee revenues
INSTITUTIONAL SUPPORT operations, data processing, personnel, legal counsel, etc.	\$106.2	5.7%	6% of all other component costs (Instruction, Research, Public Services PO&M, etc.)
RESEARCH Provides matching support of current sponsored research activity plus support of non-sponsored departmental research and start-up costs for new research.	\$96.4	5.1%	15% of sponsored research dollars (3-year average) 3% of Instruction
PUBLIC SERVICE Supports non-instructional services to groups and individuals outside the University.	\$24.9	1.3%	3% of Instruction
TOTAL FORMULA NEED	\$1,876.8	100%	

TOTAL CURRENT NON-STATE REVENUES	-	\$742.9
NET STATE SUPPORT NEEDED		\$1,133.9
CURRENT STATE SUPPORT	-	\$560.7
ADDITIONAL FUNDING NEEDED -- "The Gap"		\$573.2

FY2014 University Mission & Strategic Related Goals Update

University of Massachusetts – Mission & Strategic Related Goals

The 5-campus University of Massachusetts system was created in 1991 following the release of a report entitled, “Learning to Lead: Building a World Class Public University in Massachusetts.” The essence of the report, crafted by a distinguished panel of experts led by former University of California President David Saxon, was that the effectiveness of a cohesive five-campus University system would be greater than the sum of its parts.

As the Commonwealth’s public research university, UMass aims to transform students’ lives, shape the social and economic future of the Commonwealth, and address key state needs.

In recent years, the University increased annual private support, licensing of UMass research, and external research funding primarily from the federal government. Meanwhile, the academic profile of our incoming freshmen continues its steady improvement as has the growth in applications at all campuses.

The continued ascendance of UMass, however, requires increased state support. To sustain quality, UMass must be equipped to compete for non-state funds that create the University’s margin of excellence. Sufficient state support is necessary to keep UMass competitive.

Private donors – individuals, corporations, and foundations – give to quality rather than need. Research licensing funds – generated by moving UMass science into the marketplace – arise from the quality of the faculty and facilities on our campuses. Likewise, increases in external research funding (federal, corporate, etc.) are a direct result of the quality of the faculty and facilities on our campuses. In all three cases, sufficient public support is necessary if UMass is to make a strong case for support from both the private sector and federal research agencies.

Also, the University’s ability to attract and provide access for the academically talented sons and daughters of Massachusetts is based on the quality of the faculty, staff and facilities on each campus, and our ability to keep student charges at affordable levels. Increased state support is critical to sustaining quality and access in the future.

The University has set some ambitious goals for the coming years to support our core teaching, research, and public service missions, including:

- Provide affordable and exemplary higher education
- Improve student success, retention and graduation rates
- Represent all regions and demographics of the Commonwealth
- Serve the workforce needs and economic development of the Commonwealth
- Build our reputation as a leader in research and development
- Work collaboratively to improve the Commonwealth’s education system
- Invest in campus facilities and infrastructure
- Improve the efficiency and effectiveness of University operations
- Increase external support of the University

The following sections are excerpted from campus updates to their strategic and mission related goals reports for FY2014.

University of Massachusetts – Amherst

The campus continues to achieve the two overarching goals of enhancing the student educational experience and securing and supporting the best faculty possible in the face of stable but decreased state funding from a few years ago. The state appropriation was reduced over \$35 Million between FY09 and FY12 and the campus was forced to initiate budget cuts of \$29 Million during that time period. The campus received a supplemental appropriation of \$12.5 Million in FY13 to fund contractual unit raises but has received no additional operating funds for strategic growth initiatives and renewal of aging facilities- the costs of which must be borne by increases in student fees and other sources of revenue.

To mitigate the level of budget cuts necessary to balance the budget, the campus is moving aggressively to expand its revenue base, and reduce its reliance on state funding. The campus has increased revenues over \$26 Million towards general operations since 2009 through increased indirect cost recoveries, continuing education and enrollment management and will continue to leverage these and other opportunities to position itself for a long-term future of instructional and research excellence.

The University of Massachusetts Amherst presently enjoys the largest undergraduate enrollment in its history. In terms of academic achievement, this current cohort is also its most accomplished. If historic trends continue, more than half of our students will remain in Massachusetts past graduation. This all speaks to this institution's important role in building a vibrant state economy and underscores why the current fiscal difficulties cannot disrupt the campus from carrying out its vital educational mission.

Goal #1: Enhancing the core teaching and research mission by attracting and retaining top faculty

Before the FY09 fiscal crisis began, the campus had been devoting its annual share of incremental state appropriations to restore faculty strength on the Amherst campus after more than a decade of decline. Teaching capacity has been enhanced in those colleges and departments that were the most significantly understaffed for the number of students enrolled and new positions have been added in areas exhibiting promising research strength and funding opportunities. Lack of state funding will continue to undermine instructional capacity, although limited strategic faculty hiring will continue to better match instructional supply and demand and to expand the capacity of units demonstrating strong research or creative potential.

Goal #2: Provide services to support student retention and student success

Students succeed when services and activities that promote academic achievement operate in collaboration and with considerable integration with those programs that promote student extracurricular and social development. The measure of success in this coordination and integration is improved student retention and eventual graduation. The Amherst campus continues the First Year Experience and a new Sophomore Initiative program to give students the right combination of support to ensure their academic and personal success. The one year retention rates of entering full-time first year students has been 88-89% in each of the past three years-the highest rates in over fifteen years.

In addition, through increased student aid, the campus continues to recruit high quality students and ensure a diverse and academically capable student body. While the university has been forced to increase tuition and fees since FY2009 to compensate for lack of state funding, institutionally funded student aid and scholarships has risen by \$23 Million (62%) over the same period.

Goal #3: Renovate and renew campus space

The restoration of faculty numbers must be accompanied by the renovation and renewal of campus space. This is happening as the campus has invested over \$1 Billion from FY2004-2012 in new and renovated facilities including historic Skinner Hall, the Studio Arts building, the Integrated Science Building and the Recreation Center. The campus will also open the new Commonwealth Honors College Residential Complex next fall increasing on-campus housing capacity by approximately 1,400 students. This aggressive capital funding was accomplished with only 10% state support with the balance borne by the campus.

Despite this very tangible progress in transforming parts of the campus, the deferred maintenance backlog of \$1.6 Billion still far exceeds the deficiencies faced by peer institutions. Increased state support for campus infrastructure is critical to the long-term success of the Amherst campus. The recently approved \$1.1 Billion FY13-17 Capital Plan contains only 30% state funding with the balance being funded by borrowing (47%) and campus and gift funds (23%). The total annual debt service burden currently at \$53 Million is budgeted to grow to over \$80 Million during the five year period. In addition, the campus will require approximately \$20 Million in increased annual operating costs (excluding auxiliaries) to adequately support and operate the new facilities.

The case has been made by the Governor and others that the Massachusetts economy is a “knowledge economy” that depends on a vibrant flagship campus to produce the next generation of skilled workers. The campus has been a good steward of its resources, working to restore faculty strength at UMass Amherst, making critical infrastructure improvements, and striving to keep its tuition costs accessible to all qualified students. Despite the very significant loss of state revenue, the campus remains committed to making progress on its strategic goals, but over the long term a sustained investment of state operating and capital funding is required if the campus is to fully carry out its obligations to the state and its citizens.

University of Massachusetts – Boston

The University of Massachusetts Boston (“UMB”) proudly speaks of itself as “a research university with a teaching soul”, with a growing reputation for innovative interdisciplinary research addressing complex urban issues, and a remarkable range of opportunities for undergraduate and graduate students. Our students benefit from greater faculty interaction rarely found at major universities and from immersion in the multiplicity, creativity and vitality of a great American city. We are committed to keeping first-rate education within reach of our diverse student population and to actively engage our local, national, and international constituents through academic programs, research centers and public-service projects.

Students

UMB’s enrollment reached 15,874 this fall and we expect our student enrollment to grow to approximately 17,000 in FY15. We continue to be an attractive option for both MA residents and out-of-state students.

Our student body represents widely varying social, cultural and ethnic backgrounds and a range of previous educational experiences. Over one-third of our students are people of color and they come from over 140 countries. UMB has also seen an upward trend in the percentage of degrees granted to minority graduates: from 29% of all bachelor’s degrees in FY07 to more than 34% in FY11, and from 17% of all master’s degrees to just under 19% over the same period.

In FY12, UMB continued its success in meeting at least 90 percent of the financial need of all in-state undergraduates receiving need-based aid by allocating over \$16 million to institutional financial aid.

Teaching and Learning

Quality Academic Programs – UMB provides students with a high-quality, high-value education. With a 16:1 faculty-to-student ratio, students easily interact with professors because most teaching occurs in small classes.

To keep pace with a rapidly changing world, the university is developing new doctoral and masters programs. At the doctoral level, four new programs came into being in 2012 and two potential new programs await Board of Trustee review. At the master’s level, the university has developed a number of new programs. And at the undergraduate level, the university has expanded opportunities in areas like engineering and communication, and strengthened programs including Instructional Design, Exercise Science, and Family Therapy.

Learning also occurs in other forums. For example, IDEAS Boston, an annual forum that brings leading-edge thinkers and innovators together to showcase the innovation and creativity coming from Boston and the surrounding region, has found a new, permanent home at UMB.

Academic Support Services –The University has a variety of programs to improve student retention and graduation rates. The two themes of our academic support programs are:

- Start on Track, Stay on Track
- Early and Often: Connect, Engage, and Build Community

We are turning these themes into reality by providing appropriate pathways through major and degree requirements, fostering quality involvement and engagement and providing academic and co-curricular experiences that are educationally purposeful.

The Research Enterprise/External Funding

In FY12, UMB continued to experience strong growth in external support, receiving \$54 million in grant funding. More than half of these external funds came from a broad array of federal agencies. Our sponsored programs also represent collaborations with scientists and policymakers at world-class research organizations and NGOs. Our success in this area resulted in The Carnegie Foundation for the Advancement of Teaching reclassifying UMB as a Research University with High Research Activity.

UMB is home to a growing number of research institutes and centers which contribute to the university's prestige and sponsored dollars by interweaving and leveraging the research that emerges from the university's teaching, scholarship and service missions.

Master Plan: Rebuilding the Campus for the 21st Century

UMB's capital master plan is supporting enrollment growth and program expansion. UMB is rebuilding its campus, with construction underway on the new Integrated Science Center and two new general academic buildings opening within the next five years. Acquisition this past year of the former Bayside Exposition Center property provides for wide-ranging options for future expansion and partnerships in expanding commercial activity in the area.

UMB's 25-year Master Plan is the physical realization of the university's strategic vision. It serves as a flexible blueprint and framework for an infrastructure and landscape that reflects UMB's highest academic ambitions, its urban mission, and its commitment to enhancing the student experience and improving connections with its neighbors.

Building Momentum with a New Strategic Plan

In 2011, UMB completed a new long-range strategic plan, *Fulfilling the Promise*. This plan presents a vision for the campus in 2025, with 25,000 students ready to succeed in a transnational world, a faculty deeply engaged in teaching, research and service, and a continued rise within the Carnegie Foundation's ranking. Our ambition is to have, by 2025, national standing and an international imprint comparable to the best public urban universities in the country. The five major goals of the new UMB strategic plan are:

- Advance student success and development
- Enrich and expand academic programs and research
- Improve the learning, teaching, and working environment
- Establish a financial resources model consistent with the university's vision statement
- Develop an infrastructure supportive of the preceding goals.

At his recent inauguration, UMass President Robert L. Caret exhorted his audience to be ambitious: “Let's dream big. Let's shape the future for Massachusetts and beyond.” At UMB, we share the President's desire to support the dreams of our students by ensuring that they are “attending a top-flight University - one that prepares and inspires the next generation of leaders to tackle our nation's most pressing challenges.”

University of Massachusetts - Dartmouth

Despite difficult fiscal challenges, the campus is making strategic investments of public and private dollars to sustain and develop the quality of its academic programs and meet the needs and aspirations of the region. In addition, the Campus continues to invest in strategic initiatives outlined in the current plan in an effort to achieve the status of becoming a research institute.

Pursuing strategic goals

The University of Massachusetts Dartmouth has strategic goals that focus on continued growth and development as a regional research university. Its mission is responsive to the needs and aspirations of the southeastern Massachusetts region.

The university has grown from approximately 6,500 students in the fall of 2000 to 9,155 students in fall, 2008. Although during the last few years growth in student population has stagnated, it is critical to stabilizing our financial condition. We expect, due to increasing demand for our programs and our steady strategic effort to “right size” the institution, to grow to approximately 10,000 students over the next 3-5 years. Our graduate enrollment has grown from approximately 700 to 1,200 during the same period.

In the recent past we have added the a PhD programs in both Nursing and SEPPCE schools; we have incorporated select high student-demand undergraduate programs (majors in crime and justice, bioengineering, and women's studies), and expanded key research-based programs that are regionally focused but have statewide and global impact (marine science, nursing, advanced materials, advanced manufacturing, math education, Portuguese studies, K-12 education and policy analysis). As evidence of the quality and impact of these programs, our faculty and staff have won major federal, state, and private grants related to these fields, including funding from the U.S. Department of Education to improve math teaching and improve the teaching corps in critical subject areas. UMASS Dartmouth will continue its effort to review and expand programs in order to enhance the student learning experience; maintain a course profile that is attractive to prospective students, and addresses current market trends in an effort to promote enrollment growth. In FY12 the campus placed an emphasis on implementing the Map Works Software program. This tool is being used successfully to improve student retention among our freshmen cohort. Success is noted through improvement in the retention rate, from 69% to 73%.

Investment in Plant

Last year we worked to negotiate the purchase of the Advanced Technology Manufacturing Center in Fall River, and broke ground for a new Bio-Manufacturing Facility both located in Fall River. The Bio-Manufacturing Center will strengthen the University's regional “innovation triangle” which includes the main campus in Dartmouth, the Advanced Technology Manufacturing Center in Fall River, and the School for Marine Science and Technology in New Bedford. Significant efforts have been made towards the major renovation of the Claire T. Carney Library, scheduled for completion this up-coming spring. Also along the lines of renovations, major improvements have been made to our laboratories that support research activity. For our general student population there are efforts underway to improve living and dining spaces, as well as, upgrade our classrooms with state-of-the-art technology to enhance teaching and learning. The Nursing program is scheduled to receive an updated computer lab as well a simulation lab that will allow students to practice real-life scenarios in a non-threatening environment. These projects were made possible through a generous benefactor as well as through University investment. These activities are examples of the campus' to the University's call to reduce the backlog of deferred maintenance costs. Initiatives in this area will continue into future years in an effort to provide living and learning environments that promote student success and support the University's strategic goals of growth in enrollment, retention and research.

Challenge and transformation

In response to the downturn the economy and resulting state budget cuts, the campus has taken action to reduce its costs without harming the quality of the education it provides to its students. Despite a decline in funding UMASS Dartmouth has been able to reallocate its current resources to allow for investments in growing research and the graduate population, improving recruitment, retention and yield, and planned investments in deferred maintenance. The fruition of these investments along with additional funding will allow UMASS Dartmouth the ability to increase its strategic investments and continue its efforts of offering affordable access to higher education.

Our research enterprise has grown from \$9.9 million in 2001 to more than \$20 million today. The Center for Marine Science and Technology is a recognized leader in marine research, and is recognized by the academic and business community as a critical hub of an emerging marine science and technology corridor. The campus's activity in bio-medical research and advanced materials is an emerging strength, rooted in the university's textile engineering history that is a catalyst for economic transformation in the region.

The Advanced Technology and Manufacturing Center in Fall River and the Star Store arts campus in New Bedford have added value to campus programs and positioned us well to provide innovative leadership support in both cultural and economic development. Several companies are being incubated at the ATMC next to UMass Dartmouth research laboratories. Over the last two years, several companies have left the incubator to expand in the region. The Star Store, meanwhile, has spurred the re-development of a dozen downtown New Bedford buildings.

UMass Dartmouth also is central to key partnerships that are leading the social and economic development of southeastern Massachusetts:

- The Connect partnership is linking all of the public higher education institutions in the southeastern area in order to serve the region more effectively.
- The SouthCoast Development Partnership is a regional coalition of higher education and business leaders designed to think and act strategically to foster sustained growth.
- The SouthCoast Education Compact is a regional coalition of higher education, K-12, and business leaders focused on increasing educational attainment levels.

UMass Dartmouth continues to advance its mission through such collaboration and very much appreciates the support of the Commonwealth within the University of Massachusetts base appropriation and targeted special appropriations described below.

University of Massachusetts – Lowell

The University of Massachusetts Lowell is a comprehensive, public institution committed to excellence in teaching, research and community engagement. We strive to transform students to succeed in college, as lifelong learners and as informed citizens in a global environment. UMass Lowell offers affordable, experience-based undergraduate and graduate academic programs taught by internationally recognized faculty who conduct research to expand the horizons of knowledge. The programs span and interconnect the disciplines of business, education, engineering, fine arts, health and environment, humanities, sciences and social sciences. The University continues to build on its founding tradition of innovation, entrepreneurship and partnerships with industry and the community to address challenges facing the region and the world.

The UMass Lowell 2020 Strategic Plan serves as a blueprint to guide the campus toward national and international recognition as a world-class institution over the next decade. The following campus goals for FY2014 are based on the benchmarks being used to track progress toward the vision set out in the Strategic Plan:

- Recruit and retain academically qualified and diverse undergraduate students who will benefit from the University's intellectually challenging environment.
- Foster excellence in teaching and learning and create a climate in which intellectual achievement is honored and encouraged.
- Strengthen international experiences for faculty and students across all disciplines.
- Enhance the student experience to increase student retention and success.
- Create national and international recognition of UMass Lowell as a research university.
- Develop and maintain a goal-oriented balanced budget supporting strategic priorities and contingencies for future uncertainties.
- Create a first rate campus environment and state of the art facilities and information technology.
- Raise the University's reputation and stature as an excellent place to develop professionally by strengthening the caliber of faculty and staff recruited and developed across the University.
- Create a culture of philanthropy across the UMass Lowell community.
- Build Alumni support and engagement with the University.
- Build a UMass Lowell brand based on its strengths and distinctive characteristics that differentiates the campus from other higher education institutions.
- Continue with aggressive implementation and assessment of the University's strategic plan UMass Lowell 2020.

The campus has made tremendous progress in many areas despite the reductions in state funding and the loss of federal stimulus funds since the beginning of FY2009. Enrollment growth is strong and sustainable; student success rates are increasing; research funding is growing; and on-line and continuing education programming and associated revenues are expanding. The campus has been working with its partners at UMBA and DCAM to implement a Master Plan that will provide the facilities and infrastructure needed to support the emerging strategic plan into the future.

Continued reductions in state support, however, will threaten UMass Lowell's ability to sustain the progress made. The funding formula gap detailed in the state budget request reflects the reality that enrollment growth, program expansion and facilities renewal require additional faculty, student support staff, financial aid and facilities funding. Additional state funding is necessary so that the campus can continue to meet its mission to the Commonwealth and our students.

University of Massachusetts - Medical School

The strategic goals for UMMS and its academic health sciences center partner, UMass Memorial Health Care, are ambitious, as befitting the institution's role in biomedical research, education and health services. We are committed to leadership in designing future models of health care delivery; training the health sciences workforce of the future; doing so in an ideal learning environment where we translate research discovery into practice; and consequently have a lasting and significant impact on the world.

In the coming year, UMMS will open and populate the Albert Sherman Center (ASC), a 500,000 square foot research and academic building with wet and dry research laboratory space; educational spaces designed specifically to accommodate the needs of the contemporary student population; and auditorium and conference facilities. In addition to providing the needed infrastructure to support the Medical School's research and educational missions, this substantial investment – delivered on time and under budget – will be an engine for economic growth in central Massachusetts, through direct and indirect job creation and the value of the discoveries made by UMMS faculty working there. Home to research programs that are breaking the boundaries between basic and clinical science, the ASC will change how health sciences education is delivered and how biomedical research is performed.

While public service and biomedical research achievement are key drivers for the Medical School's strategic growth, equally important is the centrality of the educational mission and methodical investments in facilities, faculty and curriculum. The Medical School has a straightforward commitment: prepare physicians, researchers and nurses who are caring, competent, productive and self-fulfilled in their chosen careers and who are committed to serving a diversity of patients and communities. The success of the Medical School in meeting this challenge is regularly and objectively recognized, most recently by two extraordinarily successful accreditation visits, the first by the Liaison Committee on Medical Education (LCME), a stringent and comprehensive review of curriculum, environment and resources devoted to medical education; and the second by the New England Association of Schools and Colleges (NEASC), which assesses the campus, its leadership, vision, planning and execution of its mission. Both of these regulatory bodies tested the Medical School's planning and operations and found the institution to be most deserving of a full accreditation, thereby validating the engagement of the campus, its faculty, staff and students in the strategic approach.

The recent increase in School of Medicine class size has meant adapting facilities and student services to accommodate 125 students per class, consistent with the Association of American Medical Colleges recommendation that medical schools increase the number of physicians they train to help address the looming shortage of doctors, especially those in primary care fields. Success in the Medical School's founding mission of primary care education is demonstrated by a consistent ranking in the top 10 percent of medical schools in primary care as reported by US News and World Report (ranked 7th of 149 schools in the most recent survey) with more than 50% of graduating students entering primary care disciplines upon graduation.

The strategic focus in the area of clinical and translational science is embodied in the research relationships taking shape in the Albert Sherman Center, where scientists from across disciplines are working together to shorten the distance between biomedical research discovery and medical practice. Increasingly, those relationships extend beyond the Worcester campus to include colleagues at the other UMass campuses who can offer a wealth of complementary expertise. A tangible example of the growing importance of inter-campus collaboration is the UMass Center for Clinical and Translational Sciences. The center is truly a five-campus initiative that is drawing new collaborations from across the Commonwealth in areas such as clinical trials, comparative effectiveness studies, outcomes research and quantitative health sciences and public health.

While these investments in research, education, service and the infrastructure necessary to support them are all strategic in nature, the campus does not operate in a vacuum. In order to execute campus plans, UMMS recognizes that resources are limited and competing priorities require active management of the budget and operations. Toward this end, UMMS continues to make reductions in programs and operations that offset, in part, reductions in support and service revenues over the past four years. Campus leadership has needed to be aggressive in marshalling resources for long term goals, such as implementation of curriculum reform, recruiting for the Albert Sherman Center, renewing the faculty and supporting an aging infrastructure. These are investments that an actively engaged and committed management group has been assertive in supporting. Successes in areas such as energy efficiency, service delivery and process improvements not only preserve scarce resources, but help create an environment where faculty and staff feel empowered to think creatively and challenge the status quo.

UMMS continues to reach – and surpass – the milestones in the campus strategic plan. UMMS benefits greatly from the collaboration that occurs across traditional boundaries—between scientists and across disciplines; between clinical and basic science faculty; across schools, programs, and departments—which continues to be a distinguishing characteristic that helps the campus attract the unique brands of faculty leader, student learner and committed professional that share the institution's public mission and strategic direction. It remains an article of faith at UMMS that pride in institutional success and support of common goals keeps the campus energized as a community, and ideally positions the Medical School for setting and achieving lofty goals.