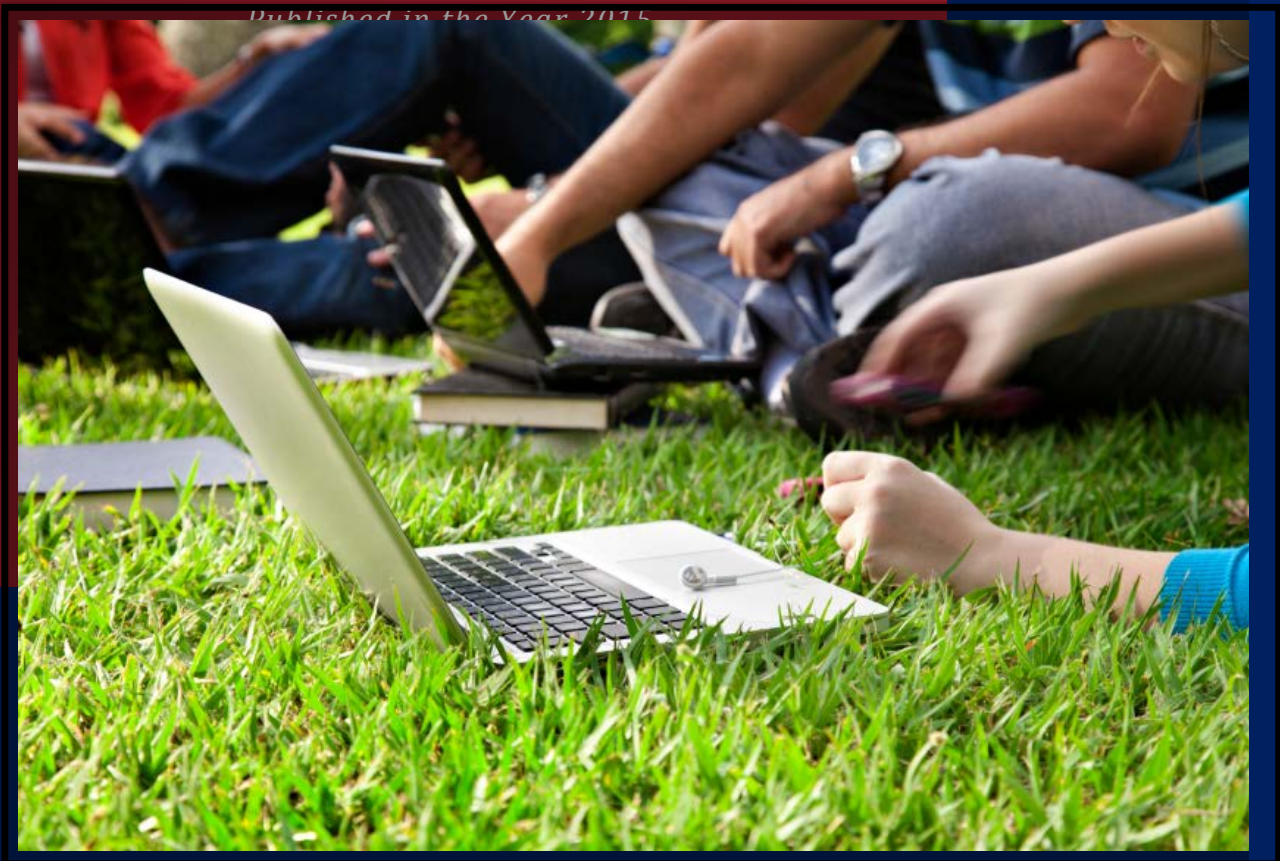




## UMSO Effectiveness and Efficiency Report



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## Section 1: Introduction

The University of Massachusetts Effectiveness & Efficiency initiative serves as an on-going opportunity for the university to reflect on operational practices and prioritize strategic priorities to remain competitive as a world-class research university.

### *Mission*

The efficiency and effectiveness effort facilitates cross campus coordination; ensures better performance across the University and optimizes the resources devoted to teaching, research, and the overall student experience. The University seeks to be good stewards of public resources, tax dollars and student dollars, by sustaining a management culture driven on not only fiscal responsibilities but also on continuously examining efficiencies that bolster our high quality for students, faculty, and other stakeholders.

### *Goals*

Enhance quality and produce better outcomes by improving the efficiency and effectiveness of the University's operations by doing the following:

- Review core business processes and controls to ensure best practices and desired outcomes are achieved on a constant and consistent basis
- Implement strategic priorities to streamline IT services
- Leverage the University's purchasing power
- Support investments and programs that reduce energy consumption and increase overall sustainability
- Redirect efficiency savings to support the University's strategic priorities
- Track and report on progress across the system

In FY13, the University, through its Board of Trustees created a permanent Task Force on Efficiencies and Effectiveness charged with ensuring 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.

Under the leadership of Trustee Maria Furman, the entire University of Massachusetts Board of Trustees has actively participated in the Efficiency & Effectiveness effort over the past year as she has coordinated quarterly meetings to focus on priority areas around energy, procurement and information technology to ensure that efforts are being made in these areas and results are being tracked. It is because of these efforts, coupled with increased State support, that the Board has been able to hold fees flat for in state students for the last 2 years. Through finding efficiencies in the budget, meaningful savings are achieved that help offset other areas of the budget where growth is necessary.

The second annual Effectiveness & Efficiency (E&E) Report provides a detailed view of the efforts undertaken by the university over the past year. The details of this report represent the projects and initiatives undertaken from January 2014 to January 2015. The guiding principles of the E&E initiative have become cultural norms across the university's management team. Some Universities or systems across the country have adopted similar efforts, however many

adopt them as snapshot analysis for savings over a shorter period of time. UMass has committed to an on-going, dynamic, and innovative approach that reaches across University divisions and departments.

In addition to the 8 new projects and adjustments to existing projects which adds \$7.5 million in projected savings over the life of their implementation, this year's report provides some new components worthy to note which showcases the work being done across the University. This year's annual report includes a sample of E&E projects from each campus to illustrate that these type of projects are being undertaken at the University level as well as at the local campus level. The E&E effort has been driven from the top but each campus has embraced the effort and the savings that can be achieved and has many local projects underway specific to their campus. Additionally, the University Information Technology Services has launched an E&E idea submission pilot program facilitating employee engagement in the E&E effort. Ideas come from within and we want to make sure we are engaging staff at all levels for their ideas to save money and make processes more efficient, specifically when it comes to the use of technology. We hope that this pilot project will transcend into other areas of the University and simply become part of the culture. Finally, a new section has been included devoted to "What's Next?," which details the projects or initiatives that are currently being designed and will be implemented in the near future since ideas are constantly being researched and developed around this effort.

UMass is the only research university in Massachusetts whose mission is to serve the Commonwealth and all the diverse regions of the state. The University honors its Constitutional mandate to "cherish the interests of literature and the sciences" and spread educational "opportunities and advantages" throughout the Commonwealth. The UMass system (across all campuses) is a key economic driver in the Commonwealth, directly or indirectly affecting every person in the state. The UMass system generated \$6.1 billion in economic activity in FY2013 – more than a 25% increase over the \$4.8 billion we generated for the state in FY2010. In FY 2013, the University employed 15,782 full and part-time faculty and staff and had an enrollment of 70,774 students. During FY2014, research expenditures in the UMass system topped \$603 million. UMass awarded 16,447 degrees and certificates in the academic year 2012-2013. Jobs associated with the University's activities climbed to 45,334 statewide, about a third more than the 33,321 jobs in 2010. UMass faculty make outstanding contributions across the full range of disciplines – in psychology, sociology, criminal justice, political science, the arts, music, literature, management, and a multitude of fields beyond the hard sciences, engineering, medicine or computer science. In addition to the economic impact the University has on the state, the University of Massachusetts advances knowledge and improves the lives of the people of the Commonwealth in many other ways:

- Generating breakthroughs and discoveries that have led to the creation of new companies and new jobs – six in the past year.
- Recording 157 patent applications and 180 faculty invention disclosures in FY2014 – the University's best-ever yearly performance.
- Ranking among the top 100 universities in the world – and the No. 1 public university in New England – in The Times Higher Education World University Ranking.

In FY14 and FY15, the Commonwealth of Massachusetts made public Higher Education funding a budget priority by investing in what is known as the 50/50 Plan. The key tenet of the 50/50

Plan is to have the State Appropriation cover 50% of the cost to educate a student while the student supports the remaining 50%. It is the responsibility of the University to keep the overall cost of education affordable while not compromising on quality so that the State can continue to invest in the plan and Massachusetts students can afford to attend. While certain costs continue to rise such as contractual obligations, inflation, and debt service associated with investments in our capital program, the University has committed to examine business practices and implement meaningful, financially impactful improvements wherever possible.

As the State's public research university, we remain committed to spending our funds wisely while maintaining our commitment to quality. This third annual report on the University's Efficiency & Effectiveness efforts continues a sustained effort toward increased accountability, transparency and efficiency for the University and demonstrates the focus on this effort at all levels of our organization. In order to preserve the mission of the University:

*“To provide an affordable and accessible education of high quality and to conduct programs of research and public service that advance knowledge and improve the lives of the people of the Commonwealth, the nation, and the world.”*

We must develop innovative ways to maximize available funding and preserve quality for our students, faculty and other stakeholders. Through the University wide E&E effort our goal is to redirect resources through savings achieved toward activities that will maintain and enhance the academic experience.

## Section 2: Executive Summary of Savings and Cost Avoided

In addition to the overall enhancements to the report, 8 new projects and adjustments to existing projects have been added that total \$7.5 million in savings and cost avoidance over the life of their implementation which include: Under Information Technology, 6 new projects have been added with estimated cost avoidance and savings in the areas of software maintenance and automated tools testing. In addition, 2 new projects are currently being further researched for future implementation. Under Procurement, an update to an existing project with Xerox will result in \$4.4 million in savings over the next five years, while in Energy, our Solar Net Metering Project is expected to net close to \$3 million more than original estimates projected therefore those projects have been updated to reflect new estimates. Along with updating estimates and realizing savings, the University's Task Force continues to seek out new ideas and research best practices to implement.

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. Even under the best fiscal conditions, the University takes its responsibility seriously for ensuring that both taxpayer and student dollars are used in the most efficient and effective manner. Many demands are upon the limited resources that fund the University and we take our responsibility of being good stewards of these limited resources seriously. The University also understands that along with fiscal responsibility we must demonstrate that we are driving efficiencies and improving quality everywhere for our students.

### Cost Savings and Cost Avoidance

In order to ensure that cost savings are being appropriately estimated, the University has created two categories by which costs savings are evaluated. **Cost Savings** represent the amount of actual savings due to the implementation of an initiative. This could be in the form of the newly negotiated contract compared to the old contract, value of employees that have been eliminated or some other amount that is a tangible savings compared to previous spend. It is usually only shown as savings for the first year of the implementation of an initiative even though the savings may last the life of a contract or even be permanent. **Costs Avoided** represent the amount of costs averted due to the implementation of an initiative. This savings is generally used to present the years beyond the first year savings (but no more than 3 years beyond that first year) of a contract or initiative, but may include the first year to the extent costs were averted that would otherwise have been spent.

University E&E Projects and Savings Estimates (\$ 000's)

2014 Report	# Projects	Cost Savings	Cost Avoidance	Total Savings
Purchasing Initiatives	20	\$11,540	\$24,080	\$35,620
Energy & Sustainability	33	\$13,160	\$61,624	\$74,784
IT Initiatives	70	\$4,920	\$29,120	\$34,040
<b>Subtotal</b>	<b>123</b>	<b>\$29,620</b>	<b>\$114,824</b>	<b>\$144,444</b>

To date, the E&E Administrative Task Force has identified 123 projects totaling \$144.4 million in cost savings and avoidance over the life of the projects. Compared to last year's report, an

additional 7 projects were added totaling \$7.5 million in cost savings and avoidance over their project lives and some of those projects added are still developing savings estimates for the future. To date, the E&E effort for the University has created tangible savings of \$44.5 million which the campuses have benefitted from and have been able to use to manage costs in other areas of their budgets.

2014 Report	# Projects	Total Savings	FY10-12	FY13	FY14	FY15	FY16	FY17	FY18+
Purchasing Initiatives	20	\$35,620	\$2,293	\$1,055	\$2,950	\$5,848	\$6,012	\$12,912	\$4,550
Energy & Sustainability	33	\$74,784	\$4,233	\$7,556	\$7,726	\$7,885	\$3,961	\$4,121	\$39,302
IT Initiatives	70	\$34,040	\$10,209	\$957	\$7,528	\$7,872	\$5,560	\$1,845	\$69
<b>Subtotal</b>	<b>123</b>	<b>\$144,444</b>	<b>\$16,735</b>	<b>\$9,568</b>	<b>\$18,204</b>	<b>\$21,605</b>	<b>\$15,533</b>	<b>\$18,878</b>	<b>\$43,921</b>
			<b>\$44,507</b>			<b>\$99,937</b>			
			<b>Savings to Date</b>			<b>Projected Savings + Costs Avoided</b>			

In addition to the projects underway at the University level focused on by the Task Force, the University of Massachusetts Building Authority has taken steps to implement costs savings and cost avoidance initiatives that support campus savings in light of the capital planning taking place on all of the campuses. Later in the report, a specific section further details the UMBA initiatives that have allowed for significant savings to be reinvested into campus capital and operating plans. In addition, as previously mentioned, a new section has been added that provides a sample of campus specific E&E projects currently underway and the savings that campuses have been able to achieve through their own efforts to ensuring that State and student resources are spent efficiently.

<i>Other E&amp;E Initiatives</i>	# Projects	Cost Savings	Cost Avoidance	Total Savings
Building Authority Initiatives	13	\$0	\$137,940	\$137,940
Campus Initiatives	112	\$59,582	\$48,318	\$104,290

In order to ensure that the University's E&E efforts are integrated at every level within the organization, several sub-groups have been organized to focus on specific areas of business and to bring subject matter experts from each of the campuses and the President's Office together to drive efficiency initiatives and ultimately change our practices to be more efficient and effective. The working groups include:

- IT Steering Committee – Under the leadership of Chancellor Collins of the Medical School and the University's Vice President and Chief Information Officer Robert Solis, the IT Steering Committee meets quarterly with an aggressive agenda to identify E&E efforts from procuring IT goods and services to collaborating on system-wide efforts to developing a business strategy that improves customer service, improves operations and maximizes the use of technology to improve services University-wide.
- Strategic Energy Committee – Under the Leadership of Vice Chancellor for Administration and Finance Yestramski from the Lowell campus and the University's Senior Director of Enterprise Procurement John Healey, the Energy Committee meets quarterly with the objectives of leveraging system-wide volume for energy procurements, sharing and implementing best practices and developing standards that measure and analyze building efficiency. In addition to the Strategic Energy Committee, the UMass Sustainability Committee, comprised of the campus Sustainability/Energy Managers and President's Office Budget Staff has been meeting quarterly to discuss Sustainability/Energy Management topics ranging from clean energy and efficiency, to

the reduction of greenhouse gas emissions as well as: waste reduction, water conservation, green buildings, alternative fuels, efficient transportation, and recycling.

- Purchasing Council – Under the Leadership of Chancellor Motley from the Boston campus and the University’s Senior Director of Enterprise Procurement John Healey, the Purchasing Council meets monthly and utilizes data to identify opportunities to leverage the University’s economies of scale. The Council evaluates whether common vendors are used on separately negotiated contracts, where common spending occurs using diverse vendors and where automation of processes may drive efficiency.
- Academic Efficiencies & Effectiveness – Under the leadership of President Caret, Senior Vice President Williams and Chancellor Grossman, the Academic E&E group meets quarterly to evaluate campus practices around degree requirements, practices that promote productive and timely degree completion, curricular redesign and options available to students that can reduce time to degree, expenses or both.
- UMass Building Authority (UMBA) – Under the leadership of Executive Director Patricia Fillipone, UMBA has been aggressively working to implement best practices in borrowing by effectively managing borrowing schedules and plans and introducing more competition, a more diverse pool of project management, construction and legal teams, and bringing certain planning and legal activities in-house.
- Campus Working Groups - In addition to these working groups coordinated at the System level, each of the campuses is working to implement efficiency and effectiveness measures that are either specific to their campus needs or that may be used as a pilot that could later be implemented and benefit all of the campuses. This year’s report provides detailed examples of projects happening on the campus level.

In addition to the efforts of each of these groups to identify and implement E&E efforts both at the campus level and system-wide, the University has been working to ensure that a project inventory is maintained and that savings estimates are consistently calculated as to accurately reflect the financial impacts of our collective efforts. A database has been developed that more efficiently tracks initiatives and allow for more timely updates to projects as well as preserving information that can ultimately be used for informational and comparative purposes.

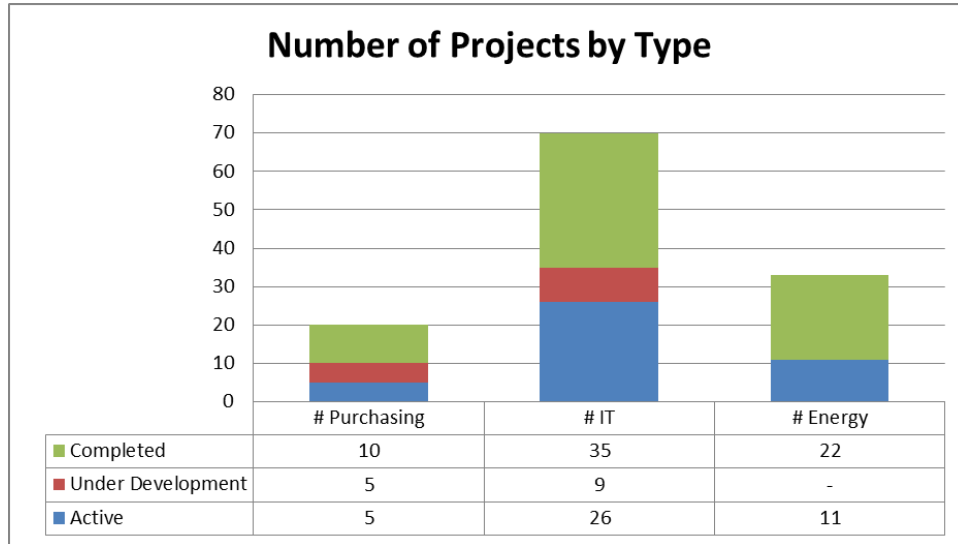
In addition to the overall costs saved or avoided, the database reflects the estimated breakout of the cost reductions and savings by the fiscal year in which the savings will be recognized. The first year of savings typically represents actual cost saved for that year along with any avoided costs that have been specified. The out-years of a project typically reflect the costs avoided for the life of a contract. For those initiatives that are not contract driven, a period of 3 years is typically used to represent the savings even if the savings is permanent.

Through this coordinated effort, the University can ensure that the importance of these efforts is being properly communicated to the entire University and also ensure that we are consistently gathering and reporting information associated with our efforts.



## Section 3: Administrative Effectiveness and Efficiency

The University is currently implementing 123 efficiency projects. Not including the 13 cost avoidance projects initiated by the UMass Building Authority, the total savings is projected to be approximately \$144.4 million for Administrative E&E efforts - an increase of \$7.5 million over the amount reported last year. These initiatives utilize the System Office to leverage the University’s purchasing power, achieve economies of scale and create shared services in the areas of purchasing, energy and IT service delivery.



## IT Steering Committee

### *IT Efficiency*

The IT Steering Committee was created to guide in the University IT efforts towards greater operational effectiveness; 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; identify common services that can be provided effectively and efficiently through shared arrangements, ultimately reducing redundancy and costs; and to collectively prioritize efforts and focus on key initiatives.

The IT Steering Committee is evaluating and implementing 70 projects with an estimated savings of \$34.0 million. The IT Task Force has added 8 new projects this year of which 6 will result in \$789,000 in savings and cost avoidance; the remaining 2 are projects under development.

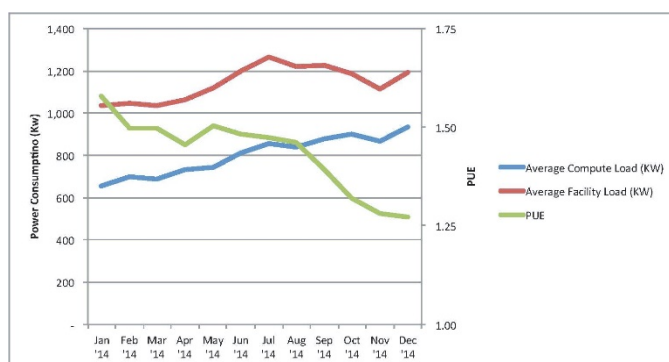
	# Projects	Cost Savings	Cost Avoidance	Total Savings
IT Initiatives	70	\$ 4,920	\$ 29,120	\$ 34,040

2014 Report	# Projects	Total Savings	FY10-12	FY13	FY14	FY15	FY16	FY17	FY18+
IT Initiatives	70	\$34,040	\$10,209	\$957	\$7,528	\$7,872	\$5,560	\$1,845	\$69
			<b>\$18,694</b>			<b>\$15,346</b>			
			<b>Savings to Date</b>			<b>Projected Savings</b>			

Some examples of initiatives that are currently underway and have successfully yielded savings include:

- Massachusetts Green High Performance Computing Center (MGHPCC)** - An example of the University's commitment to collaboration while striving to address the needs of the Commonwealth is the MGHPCC, located in Holyoke, which opened in 2012 and is dedicated to research computing. The center has the capacity to house approximately 10,000 high-end computers used for extensive research projects. The MGHPCC serves the ever-expanding need of the top five research universities in the Commonwealth; Boston University, Harvard University, the Massachusetts Institute of Technology, Northeastern University, and the University of Massachusetts. The MGHPCC was intentionally designed to control energy consumption. The facility utilizes technology able to reliably operate at higher temperatures and circulates outside air to cool the facility rather than traditional chiller operations. The facility construction was completed on time and under budget. The facility achieved LEED Platinum certification becoming the first University-based research computing facility to receive this designation. The collaboration among the five universities, state government, and the private sector to construct this center has forged a solid foundation supporting the future research computing needs of the Commonwealth.

The operations group meets weekly to identify and apply opportunities to improve facility efficiency. This figure shows the Power Usage Effectiveness (PUE) trend of the facility (green line). PUE is a measure of how efficiently a computer data

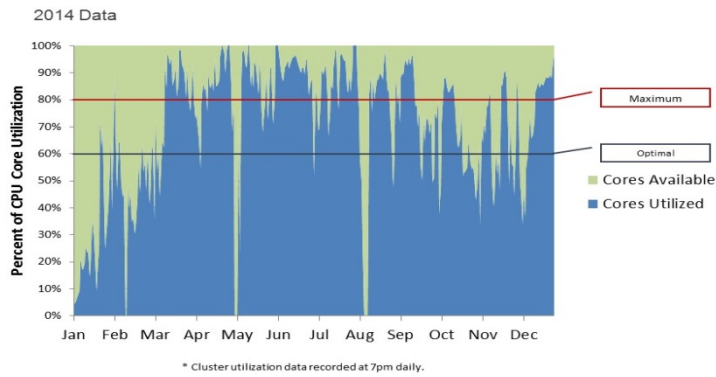


center uses energy.  $PUE = \frac{\text{Total Facility Energy}}{\text{IT Equipment Energy}}$ . In Q4 2014, a PUE of 1.27 was reached. A typical data center operates at a PUE of 1.9. Simply stated, this means that for every 1000kW of power used for compute, the MGHPCC facility uses an additional 270kW of power for cooling vs. 900kW in a traditional data center. This efficiency is remarkable and will result in significant energy cost savings over time.

UMass deployed a shared HPC cluster environment consisting of approximately 5,800 computer cores and 500 Tb of high speed storage. The core count will increase to about ~10,000 core in Q1 2015. The increase is necessitated because of the rapid adoption by

UMass researchers. The system utilization is frequently above the accepted measure for maximum utilization. The active user count across UMass campuses by the end of 2014 reached 740 researchers representing diverse subject areas. UMass researchers performed an aggregate of 3059 cpu years of computation on the cluster in 2014. The daily core utilization represent a measure of ROI. Silo systems are often underutilized and

### Daily Core Utilization\*



have poor PUE measures thus are expensive per unit of compute provided. This figure shows that the UMass shared system is fully utilized in a facility with comparatively low operating expenses.

- Automated Testing Tools** – The rollout of this applications development software tool allows “scripts” to be written to automate application testing typically performed manually by applications developers/specialists. This type of testing needs to be performed any time there is a software update including patches, fixes or upgrades. Savings relate primarily to productivity gains and are initially estimated to be just under \$100 thousand annually. As the product matures and is further implemented across all software products, these cost savings are expected to increase thereby allowing key resources to focus on new, more strategic initiatives.
- Identity Finder (Data Loss Prevention)** – The Identify Finder software tool was implemented to support data loss prevention related to personally identifiable information (“PII,” including birth dates, social security numbers, names, etc.). This product was rolled out to all campuses and there is a continuing effort to fully implement across all installed devices. Since March 2014, 18 million potentially sensitive records have been discovered; of those, 9.5 million have been remediated. While it is difficult to estimate avoided costs related to the remediated records, the Ponemon Research Organization estimated that it costs an organization about \$211 per breached record related to providing credit counseling & protection services in addition to liability related costs. Given the ever changing landscape associated with large scale data breaches, investment in this software tool is a fundamental step towards mitigating the University’s risk of PII data loss.
- Shared Resources** – The System office is actively collaborating with the campuses with regard to sharing key resources where possible and applicable. One example of this

includes sharing project management resources with the Amherst campus related to a major, multi-year networking project. It is estimated that this shared resource will save the University approximately \$400 thousand annually for the duration of the project in external consulting costs that would otherwise be spent to manage a project of this complexity and magnitude. Another example includes the Eduroam wireless roll-out at all campuses, which automates network Wi-Fi access for faculty, staff and students using local campus credentials within the US and internationally (approx. 12,000 participating sites). This Wi-Fi network greatly standardizes and streamlines network access making it easier for all to perform necessary work and/or academic functions.

- ***Virtual Desktop Initiative (VDI)*** – This initiative provides file sharing of common software packages via networks and the internet to desktop/laptop platforms used by faculty and students. This technology has been extensively rolled out at the Lowell campus with smaller rollouts at other campuses and the system office. The key benefit of this technology is that it eliminates local installation of common software saving time related to updates, patches and fixes and the coordination of help desk resources. This leads to productivity savings and a better customer service experience on the part of faculty and students.
- ***UMassnet*** – The UMassnet project focused on upgrading the wide area network (WAN) infrastructure between the five UMass campuses, the System Office and the Mass Green High Performance Computing Center (MGHPCC). This upgrade replaced first generation infrastructure that lacked capacity and connectivity to all of the campuses and resulted in a state of the art, redundant fiber optic network that will form the backbone for data transfer for years to come. Some key benefits of this project included: alleviating current campus constraints for Internet access, maximizing MGHPCC research potential, increasing UMass’s ability to support other education institutions within the Commonwealth, enhancing network security and support of new technologies such as virtual computing labs, virtual desktops, telepresence and voice over IP. This project also demonstrated collaboration across all of the campuses resulting in the adoption of consistent hardware and software standards through the entire network.
- ***Leveraged IT Procurement Committee*** – This committee is focused on consolidating contracts for hardware and software University-wide with a goal of driving cost savings and improving service offerings and efficiencies by leveraging economies of scale. Reported savings to date exceed \$1,000,000. Additionally, site license agreements have improved access to products including: MatLabs, SPSS, Atomic Learning, Adobe and Microsoft.

### ***IT Effectiveness***

The IT Steering Committee has adopted strategic drivers to ensure the investments in key technology projects are aligned with the strategic goals and vision of the University and respective campuses. The strategic drivers are: Drive a laser focus on teaching, learning, and research technology; Differentiate strategically significant initiatives through web and mobile; Adapt a service orientation that meets the ‘on demand’ world of today and tomorrow; Optimize

IT staffing and resources system wide; Profoundly simplify administrative processes and systems; and Build and extend sustainable shared IT infrastructure.

During the course of this fiscal year, the following metrics have been developed in order to measure the University’s effectiveness in the area of Information Technology and currently the data is being gathered to analyze this information to be reported in future reports.

Key Indicators	Metric	Benchmark
Foster Supportive campus environment	Improve overall student satisfaction with information technology	Student survey response on a scale of 1-5 with 3 being satisfied
Foster Supportive campus environment	Improve overall student satisfaction with information technology staff interactions	Student survey response on a scale of 1-5 with 3 being satisfied
Through increased research grow utilization of the University shared HPC cluster at MGHPC	Active labs utilizing the shared HPC cluster	# of active labs
Through increased research grow utilization of the University shared HPC cluster at MGHPC	CPU utilization (CPU years used on the shared HPC cluster)	CPU years used
Generate significant IT savings and/or increased service for students, faculty and staff.	Leverage University buying power to achieve savings and/or improve services	IT Procurement Metric
Provide standardized, technology enhanced classrooms for faculty and students	Leverage IT classroom technology spending to drive towards 100% coverage	Campus IT Metric

In Fall 2014, the University Information Technology Services launched a pilot program named “Think Smart,” designed to solicit E&E opportunities from the grassroots. A dedicated website has been created, [www.thinksmart.umassp.edu](http://www.thinksmart.umassp.edu), to collect submissions from employees. An online E&E idea submission form offers a platform to simply provide details to identify the idea. The appropriate E&E task force will review the submissions and will investigate the most promising leads. The ideas that are implemented will be entered into our tracking database and reported on in future annual updates. The pilot program is currently being marketed to staff through posters, emails, and future “On the Move” articles. There is certainly opportunity to engage larger audiences in the E&E effort with this program. Expanding the program to the entire System Office and beyond is currently under consideration. “Think Smart” serves as an example of the commitment to including every level of the University in the E&E effort.



## Strategic Energy Committee

### Energy Efficiency

A Strategic Energy Committee made up of the University System Office along with the five campuses was formed to engage 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). Additionally, The UMass Sustainability Committee, has been meeting regularly to discuss Sustainability/Energy Management topics ranging from clean energy and efficiency, to the reduction of greenhouse gas emissions as well as: waste reduction, water conservation, green buildings, alternative fuels, efficient transportation, and recycling. The group uses this collaboration to invite vendors and organizations to present on topics of common interest that will help create efficiencies in the areas of sustainable programs, data analysis and facility usage. Updated estimates from CES reflect that the solar net metering project will generate savings beyond additional projections that have been included in the numbers provided below.

Energy Initiatives	# Projects	Cost Savings	Cost Avoidance	Total Savings
Energy & Sustainability	33	\$ 13,160	\$ 61,624	\$ 74,784

2014 Report	# Projects	Total Savings	FY10-12	FY13	FY14	FY15	FY16	FY17	FY18+
Energy & Sustainability	33	\$74,784	\$4,233	\$7,556	\$7,726	\$7,885	\$3,961	\$4,121	\$39,302
			<b>\$19,515</b>			<b>\$55,269</b>			
			<b>Savings to Date</b>			<b>Projected Savings</b>			

Some examples of initiatives that are currently underway and have successfully yielded savings include:

- Solar Net Metering** - In FY13, this project began with a Solar Net Metering project which reduces the cost of power to our campuses and eventually the region through credit earned from contractual support of solar development. In addition to savings, this effort created internships at several companies to support the UMass student experience. Competitive Energy Services (CES) is an energy expert retained by the University who immediately identified Net Metering Credits as one of the most significant opportunities for savings across the UMass system. CES worked with the system office and the individual campuses to issue three RFPs for net metering credits. CES has finalized contracts for each campus for the individual solar projects that were selected from the RFP process. The University of Massachusetts System has realized savings to-date of approximately \$3.5 million and estimates that a total of \$68 million of costs will be avoided over the life of the contracts developed through this process which range from 20-30 years. Additionally, four paid student internships were made available by the solar developers for UMass students.
- Electricity & Natural Gas** - The University has combined its campus needs for electricity and natural gas into a University wide bid process. The resulting contract locks in electricity rates that are projected to save the University \$3.9 million for the three-year contract term. The natural gas contract locks rates for a range of 1 to 3 years and are projected to save approximately \$725,000.

- ***Energy Efficient Installations*** - Each of the campuses is completing its own array of energy efficient installations of products such as lighting, boilers, chillers, and photovoltaics among other products that will support their facilities and generate savings from the operation of their buildings. Estimated savings from such projects across all of the campuses is \$12 million.

### ***Energy Effectiveness***

The Strategic Energy Committee has adopted metrics or strategic drivers to measure the progress of projects to ensure they are being effectively implemented. These metrics aim to track the implementation of projects while providing useful data on the effectiveness of the project or initiative. The following are the metrics being utilized: leverage economies of scale to increase supplier participation; effective portfolio management to adjust to market changes and implement hedging strategies. Currently, data is being gathered to measure these areas to determine the evaluate the University's effectiveness.

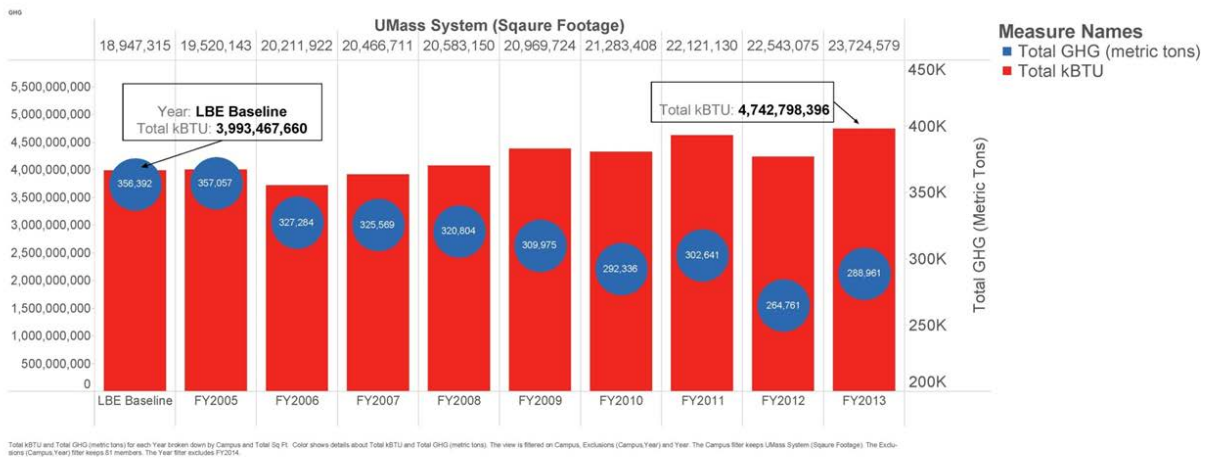
# Sustainability Committee

## Sustainability Efficiency

The Energy Committee has targeted collaborative work with the Sustainability Committee to establish and implement system-wide sustainability strategies. In October, the Sustainability Committee partnered to represent the University at the American College & University Presidents' Climate Commitment (ACUPCC) Conference held in Boston. This year the annual conference of the organization was for the first time held in Boston allowing the University to participate on the host committee. The University was well-represented at the conference which included a Boston campus tour, World Climate simulation developed by the Lowell campus, and UMass was featured in six displays during the conference exhibition. The conference highlighted sustainability as a strategic priority across the University and the benefits of implementing sustainability strategies through campus collaborations.

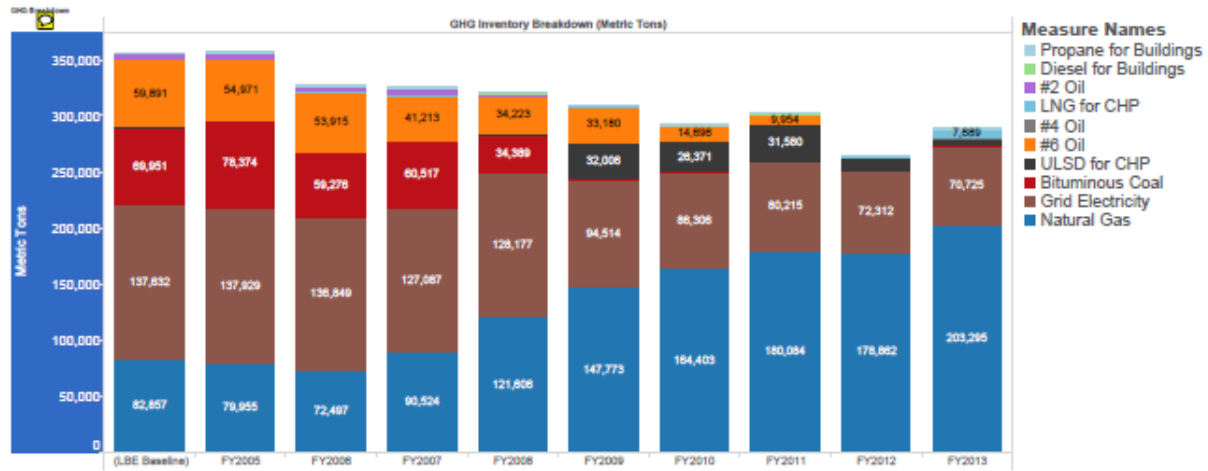
## Sustainability Effectiveness

While continuing to promote sustainability and behavior change, each campus has achieved notable success in the areas of energy conservation and waste reductions including investments in LED lights, HVAC control measures, and utility retro-commissioning on the Amherst campus, hydration stations have reduced plastic pollution by 400,000 bottles of water per year at the Boston campus, increased the recycling rate from 8.7% to 27% at Dartmouth, recycled over 30,137 pounds of electronics in Lowell and investing in a cogenerating facility and upgraded lighting infrastructure at the Medical School. The chart below shows that since 2005, the University's physical footprint has grown 25% or 4 million square feet and energy consumption has grown 19% or by 750 million kBTU. However, the carbon emissions or greenhouse gases, measured in metric tons, have decreased by 19% during this same period of growth. The University's goal of reducing greenhouse gas emissions converged with the goal to realize energy savings, creating a unique opportunity to achieve both while expanding the University physical plant.

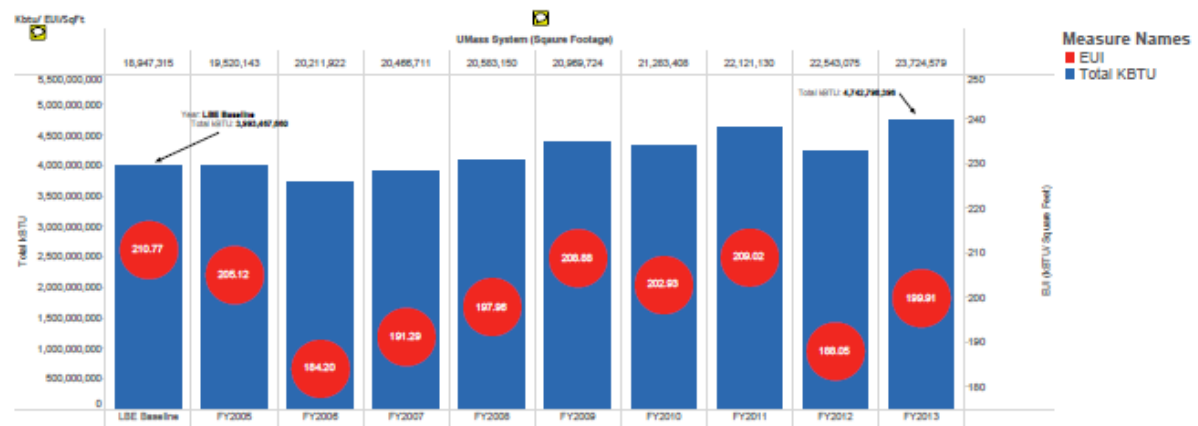




The decrease in GHG emissions occurred even as UMass expanded its physical campus infrastructure by roughly 4 million square feet. The UMass System shifted from higher carbon fuels like coal, #6 oil and #2 oil, to lower carbon fuels like natural gas, liquid natural gas and propane. Natural gas is being used to generate both heat and power in cogeneration facilities at several UMass campuses further reducing the amount of electricity procured from the electric grid. Cogeneration makes use of the waste heat associated with the generation of electricity, improving overall efficiency and reducing greenhouse gas emissions.



EUI is calculated as total kbtu (energy usage) divided by total square footage (area). A lower EUI signifies better energy efficiency relative to a higher EUI. Relative to the (FY 2002-2004 Average Leading by Example Baseline), EUI decreased (improved) by about 5% through FY 2013. This decrease is significant as the UMass System has added roughly 4 million square feet; with the majority of that space coming from high tech laboratory space where EUI's can range from 250-350 relative to basic office and classroom facilities which have EUI's in the 80- 150 range.



While many of the initiatives underway have been recognized at the campus level, many grants and other forms of recognition have been awarded to our campuses in 2014:



### Amherst

- University Recycling Award from MassRecycle
- Second Nature's 2014 Climate Leadership Award
- "Innovation" and "Colleges & Universities" Award from EPA Food Recovery Challenge Program

### Boston

- Named one of the Most Environmentally Responsible Colleges in the U.S & Canada by the Princeton Review for the fifth year in a row
- 2014 Excellence in Commuter Options (ECO) Leadership Award recipient

### Dartmouth

- Received over \$400,000 from the New England Transportation Research Consortium for projects to study pavement material construction and sustainability
- Green Move Out program recognized for diverting approximately 4,000 pounds of clothing, household items and food to local, charitable

### Lowell

- First New England College to receive the Greenguard Certification
- \$1.9 Million grant for developing next-generation wind-turbine blades

### UMMS

- Finalist for the Second Nature Climate Leadership Award
- Received a DOER grant to operate additional electric vehicles for campus operations

Additionally, while each campus has made great strides in its attention to sustainability there continue to be opportunities to expand programs, share best practices, assess current practices and increase capacity. The working groups established to develop projects will continue to create new ideas and initiatives and seek engagement from the University's leadership, students and staff.

## Purchasing Council

### *Purchasing Efficiency*

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. In this year's report, it is reflected that the University System completed a

contract extension with Xerox for MFD's that will result in \$4.4 million in savings over the next five years.

Purchasing Initiatives	# Projects	Cost Savings	Cost Avoidance	Total Savings
University Purchasing Initiatives	20	\$ 11,540	\$ 24,080	\$ 35,620

2014 Report	# Projects	Total Savings	FY10-12	FY13	FY14	FY15	FY16	FY17	FY18+
Purchasing Initiatives	20	\$35,620	\$2,293	\$1,055	\$2,950	\$5,848	\$6,012	\$12,912	\$4,550
			<b>\$6,298</b>			<b>\$29,322</b>			
			<b>Savings to Date</b>			<b>Projected Savings</b>			

Some examples of initiatives that are currently underway and have successfully yielded savings include:

- SciQuest (BuyWays) Project** - In July 2013, the University rolled out a new eProcurement system from SciQuest, which was branded UMass BuyWays. BuyWays is used for purchasing goods and services needed by the University and replaced the requisitioning and Purchase Order processes which had previously been performed in PeopleSoft. The BuyWays implementation was a 12 month project led by the system office with significant participation from all campuses. The project has improved the quality of service to users by providing an intuitive, 'Amazon-like' shopping experience for purchasing goods and services. Other benefits include (1) a reduction in maverick spend and Procard activity by directing users to University contracts and preferred vendors through the use of 'Punch-out' and 'Hosted' catalogs,(2) an increase in the use of electronic transactions for purchase orders and invoices, (3) takes advantage of early payments discounts, made possible by a more efficient invoicing process and (4) captures detailed, item level spend activity by campus to improve spend analysis capabilities and strategic sourcing efforts. Savings and avoided cost over the 8 year life of the contract are estimated to be \$16.6 million.
- Office Supplies Contract** - The University System recently completed a public bid process for office supplies for all 5 campuses and the President's Office. The bids received were very competitive and have resulted in the University selecting Office Max as the most advantageous bid received based on pricing, user features, and other functionality. Based on the new contract, the University System will save approximately \$1.2 million annually over 5 years from this while reducing suppliers and standardizing purchases. Additionally, \$300,000 in athletic sponsorships were made available, as well as a student internship program.
- Travel Program** - The University implemented a University-wide Travel Program in order to facilitate University-related travel in the most efficient and cost effective manner. The goals of the program include providing University travelers the highest level of customer service support and reducing University travel costs. The new program consolidates the travel ticketing process by offering two travel agency options: (1) an on-line self-booking option through Egencia (corporate version of Expedia); and (2) a more traditional live booking agency. The benefits available to University travelers by streamlining University business travel reservations through these two agencies include

leveraging the lowest available airline, hotel, auto rental, and rail service discounts and ensuring that University employees traveling on business internationally are aware of University sponsored programs should emergency services be required. The Travel Program is projected to save the University approximately \$2.1 million over a 3 year period.

- ***Xerox Multi-Functional Device (MFD) Contract Extension*** - The University System completed a contract extension with Xerox for MFD's that will result in \$4.4 million in savings over the next five years. This initiative includes the implementation of electronic invoicing and payment that will eliminates approximately 8,500 paper invoices annually. This extension will allow the further expansion of the standardization of MFD's across the campuses and position University to drive associated costs down at the expiration of the extension term.

***Purchasing Effectiveness***

The Purchasing Council has begun developing metrics to measure the progress of projects to ensure they are being effectively implemented across the University. These metrics aim to track the implementation of projects while providing useful data on the effectiveness of the project or initiative. The SciQuest (BuyWays) project implementation serves as an excellent example. The project has the following goals: improve the quality of service to the users; Reduce maverick spend and Procard activity, by directing users to University contracts and preferred vendors through the use of 'Punch-out' and 'Hosted' catalogs; Increase the use of electronic transactions for purchase orders and invoices; Drive Cost Saving – the projected ROI for the first year is \$1 Million. During the first full year of operations, over 2,220 unique users used BuyWays to process over 36,000 requisitions. Procard spend was down over \$10 million from the previous year. Additionally, we processed over 150,000 electronic transactions and achieved savings of \$1.9 million. Utilizing these metrics provides necessary context to how a project progressed through implementation.

<b><i>Procurement Effectiveness Measures</i></b>	<b><i>FY13</i></b>	<b><i>FY14</i></b>	<b><i>Goal</i></b>
Number of Electronic Transactions - Purchase Orders	2,400	107,000	100% Electronic Achieved
Number of Electronic Transactions - Electronic Invoices	3,000	45,000	60,000 by FY16

## What's Next?

The University has committed to an E&E program that facilitates on-going evaluation to maximize University operations for all stakeholders. Over the past three years, the E&E principles have been integrated into the administrative practices carried out by the University's management. These efforts are not solely focused on an arbitrary "snap-shot" in time but rather dedicated to pursuing efficiencies over the long-term. Maintaining this posture will only bolster our standing as a world-class public research university and remain competitive among our peers. The standard practice for each E&E task force has been, and continues to be, implementing projects and initiatives as well as mapping out future projects for consideration. This process has created a pipeline of projects for each task force to tackle as they successfully implement projects. The "under-development" projects represent the ideas worthy of future study or those on the brink of implementation.



The E&E Committees have recognized the importance in not only advancing projects but developing efficiency or effectiveness concept ideas for the committees to continue their important work. The creation of a pipeline of projects at each committee level allows for

prioritization of projects as well as managing the efforts of the committee. A robust pipeline of projects sustains our E&E efforts over the long-term and strategically organizes our time and efforts.

## Campus Efforts Re: Administrative E&E

Each campus has been actively participating in the University E&E Task Force working groups and benefiting from the cost savings that has been achieved through the projects implemented. In addition, there are many projects happening at the campus level implemented through collaboration at the local level with the Budget, Procurement, Facilities, Housing, and other members of the Campus community. The projects described below and listed further in the appendices are a sampling of the many efforts taking place on a daily basis at the campus level and are not an inclusive list of the many projects underway.

### Amherst

The Amherst campus E&E initiatives will generate over \$6 Million of total savings over a four year period. These savings are the result of continuous analysis and coordination of activity throughout the campus and University system. Implementation of E&E initiatives reflects the campus' commitment to containing the cost of education for our students through the efficient use of resources.

*Amherst was listed by U.S. News as one of the top most efficiently operating public Universities. For this analysis, U.S. News looked at the public and private colleges that scored the highest on overall undergraduate academic educational quality, as measured by their position in the 2015 Best Colleges rankings, but that spent relatively less on their educational programs to achieve that quality.*

The Amherst campus continues to be a national leader in sustainability and energy conservation. Continuing investments in the state-of-the-art natural gas fired central heating plant (CHP) will provide future energy conservation and savings.

*In October, the Amherst campus was honored with a Climate Leadership Award at the American Colleges & Universities Presidents' Climate Commitment's (ACUPCC) 2014 Presidential Summit on Climate Leadership hosted in Boston. The award recognizes the campus for its "innovative and advanced leadership in education for sustainability, climate mitigation and adaptation, and institutionalized sustainability efforts."*

Many of the investments are funded from clean energy credits received from the state for the efficient energy production on campus. With additional campus investments in energy

reduction, reclaimed water and solar power, the campus expects to save over \$3.0 Million in net energy costs over the four year period.

There are many initiatives implemented to improve service for our students and customers. An example the campus is especially proud of is delivering course materials through an in-house Online Web-based Learning (OWL) system allowing students to obtain textbook material at a much reduced cost. In the Fall students will also be able to buy most of their textbooks through Amazon at an average 31% savings to the students. The program, highlighted by the Boston Globe, will offer students digital access or printed materials with the convenience of shipping to areas around campus and an Amazon distribution center in the campus center. Other administrative systems have been implemented to streamline management and reporting in areas such as Cleary Act and security, construction and maintenance and asbestos removal.

<b>Amherst</b>	<b># Projects</b>	<b>\$ Projects</b>
Purchasing	2	\$ 50,000
Energy & Sustainability	6	\$ 9,331,000
IT	4	\$ 930,000
Revenue	1	\$ 100,000
Space & Building	3	\$ 770,000
HR Processes	5	\$ 206,000
<b>TOTAL</b>	<b>21</b>	<b>\$ 11,387,000</b>

\*Full project listing in Appendices

## Boston

The University of Massachusetts Boston E&E report reflects the consistent effort to support the University’s work on this front. In addition to the number of system led E&E projects that UMass Boston is actively engaged in there are many additional projects underway at the campus level. The projects submitted provide a sampling of UMass Boston’s continued efforts in its work to provide more efficient, enhanced and improved administrative infrastructure and services to its students, faculty and staff.

The highlighted projects offer a sampling of the work underway at UMass Boston that give us an opportunity to enhance and improve service offerings, improve our administrative infrastructure and/or result in cost reductions/cost avoidances. It is important to note that it is difficult to quantify savings or cost avoidances on a number of these projects. It is estimated that of the projects noted in the report, UMass Boston may realize a savings and/or cost avoidance over \$11.7 million between the period of FY14-FY16. Beyond financial, other benefits to implementing these programs include improved and enhanced services, productivity improvements and higher levels and improved levels of customer service to our students, faculty and staff.

UMass Boston is committed to our work in this area and will continue to look for opportunities to introduce new projects that will offer service and administrative improvements to our faculty, staff and students.

<b>Boston</b>		
Purchasing	1	\$ 277,908
Energy & Sustainability	8	\$ 2,554,078
IT	9	\$ 960,000
Revenue	2	\$ 3,309,049
Space & Building	7	\$ 4,622,000
HR Processes	3	\$ -
<b>TOTAL</b>	<b>30</b>	<b>\$ 11,723,035</b>

\*Full project listing in Appendices

## Dartmouth

The Dartmouth campus strives towards continuously implementing E&E initiatives that result in streamlined services, improved business standards and cost savings that enhance the student and the university community’s experience.

The Dartmouth campus has engaged in a \$40M Energy Performance Project being implemented by NORESO and managed through the DCAMM. A two phased infrastructure upgrade



program and is aimed at improving the performance and efficiency of mechanical, electrical and plumbing systems while reducing the University's operating expenses and carbon footprint.

- Phase I – Included eighteen energy conservation measures to address energy and water savings opportunities, the retrofit of existing lighting fixtures with new energy efficient lamps and ballasts, HVAC system upgrades and replacements, installation of new building management controls and major improvements to the plumbing infrastructure. The phase of the project is complete and is now in the operational phase.
- Phase II – The construction of the 1.67 MW Kawasaki gas turbine based cogeneration system. The gas turbine generator will generate electricity to UMass-Dartmouth's electrical grid and hot gas exhaust to a Heat Recovery Steam Generator to produce steam for the campus. The gas turbine generator and heat recovery steam generator have been installed. The cogeneration system is undergoing a series of testing, commissioning and start up.

*UMass Dartmouth has received a Leading by Example (LBE) State Higher Education Award by the Massachusetts Department of Energy Resources for their commitment to clean energy and reducing their environmental impact of the campus. University officials received the Award at the annual LBE Awards ceremony, which recognizes state agencies, municipalities, public colleges and universities and individuals for significantly reducing energy use and greenhouse gas emissions, increased recycling, the use of renewable energy and other clean energy and environmental initiatives.*

In concert with the implementation of the UMassD Transform 2020 Strategic plan the Dartmouth campus has begun the process of updating the Campus Master Plan. The Master Plan has set goals to create efficiencies through the following: (1) Verify and validate the space needs of all academic programs; (2) Propose means to modernize facilities in response to evolving pedagogies and demands for research space. An example of this is the renovation of the Carney Library which was repurposed as a campus community gathering point; (3) Enhance the aesthetics of the campus without diminishing the strong architectural style of the Paul Rudolph buildings; (4) Generate a phased implementation plan that will enable continued growth of the student population and the expansion and development of the full range of UMass Dartmouth's diverse academic programs, community outreach programs, on-campus housing for graduate and undergraduates, research programs, and its industry and business partnerships for the near future; and (5) Provide a well-documented framework that explains the variables that need to be considered relative to the proposed prioritization of projects in order for the University to fully understand the ramification of potential options in its decision making process. This Master Plan will reassess the prioritization of these projects to align them with the University's Strategic Goals and the recommendations of this Master Plan Update.

The campus is also completing the construction of a new Food Service and Campus Center Loading dock and Freezer and cold storage building; the new freezer and cold storage building in process is approximately 1200 sf, helps eliminate staging of storage which in turn allows for bulk buying creating a cost savings to the University.

In collaboration with the Lowell campus; the Dartmouth campus has partnered through a procurement initiative for Labor Construction Electronic Specification & Bid Document Development. With the goal of implementing BidDocs Online, Incs "SmartSpec" module for the electronic development and management of labor construction design specification and solicitation documentation. The objective is to improve quality assurance, reduce cycle times and improve efficiencies.

In addition, the campus is facilitating an IT Asset Management Redesign. This cradle to grave analysis of the management of IT assets is to improve overall efficiencies, enhanced quality assurance and improved customer service for the life of IT Assets.

The campus has implemented several other initiatives to improve the quality of our students and clients' experience and to assist in decreasing expense through streamlining services. Examples include: Distributed steam and condensate line replacements, improvements to physical access and security through surveillance systems and card access, outsourcing of the campus bookstore, outsourcing of non-police security services within our residence halls, and centralization of Conference and Events Services. We have also launched technologies to improve student access to financial information (Ebilling) and document imaging.

The Dartmouth Campus is broad-minded towards enhancing services and creating efficiencies which are woven into the fabric of the UMassD Transform 2020 Strategic plan. The Dartmouth campus is committed to ongoing cost containment efforts to improve efficiency and effectiveness throughout the institution and in partnership with the UMass System's Efficiency and Effectiveness Task Force initiatives.

<b>Dartmouth</b>			
Purchasing	2	\$	822,521
Energy & Sustainability	4	\$	146,313
IT	3	\$	35,000
Revenue	1	\$	147,975
Strategic Re-allocation	5	\$	675,000
Space & Building	2	\$	300,000
HR Processes	4	\$	-
<b>TOTAL</b>	<b>21</b>	<b>\$</b>	<b>2,126,809</b>

\*Full project listing in Appendices

## Lowell

The Lowell campus continues to implement E&E initiatives that result in cost savings and increased service to students and the university community.

In addition to the system-wide contracting and procurement initiatives reported at the system level, the Lowell campus has found additional savings by: negotiating and re-negotiating various IT maintenance and equipment contracts; strategic sourcing of furniture, fixtures & equipment (FF&E) costs for our new University Crossing facility; and implementing improvements to construction bidding procedures. The campus has negotiated significant capital contributions from our food service, bookstore and beverage partners to advance our strategic capital program and provide improved service and support to students.

The Lowell campus has partnered with DCAMM on a \$24 million to \$26 million performance contract to renew campus infrastructure that will reduce energy consumption by at least 25%. Other efforts to improve energy efficiency and reduce greenhouse gas emissions on campus include a strategic use of net metering credits and third party incentive programs as well as a comprehensive effort to improve lighting indoors and in parking lots and improve how we control and manage HVAC, steam and water systems.

There are many other initiatives implemented to improve service for our students and customers and to reduce campus costs. Examples include: workforce management and organizational development efforts to reorganize and realign administrative service areas including outsourcing of non-police security services; deploying new technologies such as virtual desktops, document imaging and management solutions (incl. eForms); and providing additional payment options and systems for students and families to pay tuition, room and board costs.

Striving to improve services and support a sustainable financial future are key elements of the Entrepreneurial Stewardship Pillar of Lowell's 2020 Strategic Plan. The campus E&E initiatives reflect our on-going commitment to these goals.

<b>Lowell</b>		
Purchasing	4	\$ 15,140,608
Energy & Sustainability	4	\$ 22,403,900
IT	4	\$ 2,551,051
Strategic Re-allocation	3	\$ 4,349,630
Space & Building	-	\$ -
HR Processes	4	\$ -
<b>TOTAL</b>	<b>19</b>	<b>\$ 44,445,189</b>

\*Full project listing in Appendices

## Medical School

UMMS began its Excellence Program (EP) in FY 2011 to initiate an inclusive process for reducing operational costs and providing optimal service to mission-based operations in teaching, research and patient care. The EP has been extremely effective in using a diagnostic model to achieve the goal of flattening organizational bureaucracy, centralizing and streamlining administrative and operational efforts and reducing or eliminating wherever possible. Initially set-up with overarching committees for each administrative area, e.g. Human Resources, Finance, I.T., the EP has evolved to an annual set of goals or initiatives monitored by the EP Steering Committee. The EP Steering Committee includes academic and administrative leaders from all UMMS' mission areas, and their task is to assure that EP initiatives do not inadvertently disrupt or harm critical services to faculty and staff performing necessary activities for our customers and constituencies.

Beginning in FY 2013, the EP began the use of LEAN methodology in its analysis of potential initiatives and to produce options for improvements in all administrative functions. Over 453 personnel have been trained in LEAN methodology and the goal is 550 by the end of FY 2015. Not only has the training brought additional rigor to the analysis of "pain points" in our operations, it has become a culture change agent which will help engrain efficiency and effectiveness as key factors in all our current and planned initiatives and services.

For the current year, FY 2015, EP initiatives are organized into 3 major categories: administrative services, non-core services and consolidated services. Examples of successes include the initiation of Administrative Services Groups (ASG's) which combined small, localized support staff into more robust and self-sustaining service groups that provide greater expertise and continuity for a larger clientele with less staff (FTE's) overall; sale of off-campus properties with high operational costs parallel with consolidation of the staff to the central campus; development of a consolidated contract for recycling at over 60 Hospital and School locations to reduce \$600,000 by approximately 10%; and, IT staff re-alignment with the reduction of 43 positions whose responsibilities were strategically re-aligned through 39 new hires – changing the skill set and organizational abilities and focus of IT to match current demands.

UMMS continues to strive to make the Excellence Program as effective as possible without harming essential activities and services. The parallel efforts to use the EP to change the culture of accepting annual incremental increases in operating expenses as the norm to one of constant evaluation and initiative towards better methods and outcomes is a core value to all UMMS's administrative and academic leaders.

<b>Medical School</b>		
Purchasing	1	\$ 555,000
Energy & Sustainability	7	\$ 5,598,000
IT	1	\$ 559,000
Revenue	1	\$ 6,720,000
Space & Building	3	\$ 13,823,000
Strategic Re-allocation	3	\$ 6,971,000
HR Processes	5	\$ 382,637
<b>TOTAL</b>	<b>21</b>	<b>\$ 34,608,637</b>

\*Full project listing in Appendices

## President's Office

The University of Massachusetts System Office (UMSO) provides the university system a centralized coordinating office to serve the campuses and by nature creates efficient & effective business practices. The President coordinates the work of all campuses of the University and promotes the general welfare of the University as a whole and in its parts. The Office of the President is responsible for supporting the President in ensuring that the campuses develop ways of implementing Trustee policies and master plans and that the University maintains the highest and most prudent stewardship of its resources.

The University's individual campuses receive centralized support services in a range of areas including Information technology, Tax and investment services, Comprehensive financial management, Benefits administration, Liability, vehicle, and other insurance, Legal services, Internal auditing, Advocacy and Marketing and communications, among others.

Whether purchasing pens or computers, increased volume usually leads to decreased unit price. UMass's ability to consolidate purchasing and negotiate prices on a range of goods and services based on the collective volume of the five campuses saves money for every campus buyer. For instance, the central IT services organization coordinates and manages a University-wide computer purchasing program that drives purchases to a single (competitively selected) vendor.

Universities in general, and UMass campuses in particular, benefit in three primary ways from centralized support services: financial savings, breadth of support, and increased financial accountability. Centralized support services ensure system-wide financial, programmatic, and academic accountability, first because centralized accountability enables uniform definitions, data validation, procedural process, and availability of comprehensive information. Accountability is also maintained through provision of certain centralized services, including program review, internal auditing, and tenure and post-tenure review.

Just like each campus, our central departments are constantly seeking ways to conduct business in the most efficient and effective manner. Some projects are simple projects that impact the central service department while other have University wide impacts.

## Section 4: Academic Efficiency and Effectiveness

With increased attention to and focus on accountability measures to ensure that institutions are effective--from marketing to timely student matriculation--President Caret established an Academic Efficiency and Effectiveness Committee at the System level. The Committee began meeting in January with the goal of establishing a platform that can provide a more focused effort in this arena. The Committee was charged with two primary roles: First, to provide oversight of the implementation of any Board Policy that exists or is developed regarding Academic E&E, second, the promulgation of the use of selected best practices across the System.

The Committee has met monthly and has had an opportunity to hear from leaders around the country on best practices largely related to advancing retention and graduation rates and encouraging practices that help students graduate more expeditiously and with less debt.

The Committee has made a commitment to student-centeredness that strives to accomplish and maintain for students the highest quality academic programs and learning environment and to disallow actions that compromise the integrity of either. With that commitment in mind, the Committee listened to best practice presentations by each of the campuses and also reached out to several other colleges and universities to hear about some of their best practices and innovations that have proven successful in improving retention and graduation rates.

The inventory of initiatives which have now been identified as academic E&E evidences years of rigorous and dynamic diligence given to the curriculum, course development, and the learning environment at each of the campuses. The vitality of the University and its ascendancy has depended on it.

### **Best Practices for Consideration of Campus Implementation:**

Below are selected best practices that are being reviewed by the Committee.

1. Continue the work on Course Redesign
  - a. Examples include Team Based Learning, Flipped Classrooms, and looking at inter-professional courses at the Medical School to identify where a particular course such as pharmacology or biomedical ethics might be structured in a way that satisfies requirements for other majors, therefore reducing the number of sections needed.
2. Focus on unmet demand using data from ISIS (the student information system) to ensure that courses are being offered in a way that meets student demand. (Ensuring that UITS understands that a campus requesting a modification to ISIS to capture unduplicated student demand should be treated as a priority for facilitating student graduation rather than just one more request to be put in the queue).
  - a. One example is from Georgia State where they developed software that Deans use to get an unduplicated count by course and major of the unmet demand for a particular course. (It is worth noting that this initiative was originally set in

motion at Georgia State by Provost Abdelal when he was there as Dean of Arts and Sciences.) Ensuring that student demand is met facilitates a timely degree completion.

3. Complete the development of Pathfinder to allow for easier community college transfer and articulation
  - a. This is the project developed by Associate VP Gamache and is currently in trials with all 15 community colleges as part of the ABLE4STEM program. The Provosts believe it has potential beyond the current project and support is needed to further development and exploration. The program would allow for a community college student to select courses that they know will transfer to one of the UMass campuses based on the major they wish to pursue. The proposal would be to expand its use for all prospective community college students wishing to transfer to UMass, not just for those currently in the ABLE4STEM program.
4. Each campus with undergraduate programs currently has at least one articulation agreement with a community college. Regular review of these agreements and consideration of how to accomplish reverse transfers to ensure the Associates Degree for the UMass-bound community college student has merit.
5. Expand the use of summer classes to develop year-round learning opportunities.
  - a. This might be done in conjunction with a 3-year bachelor's program and might involve dual enrollment (one of the campuses expressed an interest in expanding a summer overseas program (not the same as study abroad)).
6. Expand online course offerings through UMassOnline.
7. Accelerated Degree Programs (with the caveat of not impacting financial aid eligibility; there is another important caveat that campuses will want to consider as many of our campuses hold critical to student success international opportunities and experiential learning):
  - a. 3-Year Bachelor's programs
  - b. 5-Year Master's programs
8. Develop and enhance programs designed to help students stay on track for degree requirements.
  - a. Use of enhanced behavioral analytics (for example, EAB's Student Success Collaborative helps to identify whether a student is in danger of not graduating on time. UMass Dartmouth is in its 2<sup>nd</sup> year of having successfully incorporated the EAB Collaborative.)
9. Utilize more Open Source Text Books. This is an initiative that has been launched on the Amherst campus and even in its pilot stage has saved students nearly a million dollars by making their text books and other course materials available free online.

10. Campuses might review their guidelines for adhering to minimum enrollment thresholds for courses to be offered. Such a review could ensure that a campus is not unknowingly dedicating resources to graduate or undergraduate courses that do not have sufficient demand.
  
11. There have been discussions about conjoining financial aid and academic support, but best practice recommendation on this topic would be premature.



## Section 5: UMass Building Authority (UMBA) Efficiencies

The UMass Building Authority holds a unique position in the University as the central entity able to borrow on behalf of the campuses for capital projects as well as managing large scale capital projects using professional staff and contractors that implement best practices and consistency while meeting the specific needs of each campus. UMBA has implemented several initiatives in order to avoid borrowing costs and to more effectively manage the organization.

	# Projects	Cost Savings	Cost Avoidance	Total Savings
Building Authority Initiatives	13	\$ -	\$ 137,940	\$ 137,940

UMBA ensures that both our debt service and management of the use of debt are effectively managed and benefit from the University's borrowing power, bond rating and all available resources. Examples of projects that have resulted from the effective management of the University's debt include:

- **Interest Rate Savings** - The Project Revenue Bonds, Senior Series 2014-1 (Tax Exempt) had a 4.5% total cost of financing, producing a total debt service \$13.6 million lower than the originally anticipated 5.0% total cost of financing budgeted by the campuses in FY14.
- **Refunding Savings** –On May 20, 2014, UMBA successfully priced two separate refunding series of bonds and saved the University \$25 million in future debt service over the next 15 years. UMBA issues \$67 million of the Series 2014-3 Revenue Refunding Bonds on a tax exempt basis. The new refunding bonds' interest cost equals 2.75% versus the original interest cost of the bonds refinanced of 5.05%. Total cash flow savings through the final maturity of the bonds (2030) is \$14.3 million. In addition, the Building Authority successfully priced \$168 million of the Series 2014-4 Revenue Refunding Bonds on a federally taxable basis. The new refunding bonds' interest cost equals 2.07% versus the original interest cost of the bonds refinanced of 4.04%. Total cash flow savings through the final maturity of the bonds is (2026) \$10.7 million.
- **Extension of Liquidity Facility which supports 2011-1 Bonds**- On June 9, 2011 UMBA issued Refunding Revenue Bonds, Series 2011-1. The Bonds were issued as variable rate demand obligations bearing interest at a rate that resets weekly and are subject to mandatory and optional tender. Therefore, they need to be supported by a liquidity facility, which is provided by Wells Fargo, National Association and expired June 9, 2014.

UMBA explored options to extend or replace the liquidity facility and received a favorable proposal to extend the existing facility with Wells Fargo. They offered a term sheet to extend the existing facility at 25 basis points for another three year term. This rate is very favorable based on the current rate at 40 basis points on the expiring facility, as well as current market conditions.

It should be noted that this transaction saved the campuses approximately \$500,000 in liquidity fees over a three year period by renewing this facility at the lower rate of 25 basis points.

- **Owner Controller Insurance Program (OCIP)** - OCIP II will save the Building Authority an estimated \$5.2M in savings on 14 projects worth \$500 million.

## Section 6: Participation in Consortiums

In addition to University negotiated contracts, the Procurement Council utilizes contracts negotiated by the Operational Services Division (OSD) of the State of Massachusetts and Group Purchasing Organization's (GPO's) to maximize cost savings and leverage enhanced service levels. The primary GPO's utilized are:

- ***Massachusetts Higher Education Consortium*** - MHEC membership is available to all not for profit public and private institutions of higher education, municipalities including elementary, secondary schools, technical, vocational and charter school as well as other educational organizations throughout Massachusetts, Maine, Vermont, New Hampshire, Rhode Island and Connecticut. We have been helping our members since 1977 to achieve cost savings and administrative efficiencies by aggregating spend volume to negotiate highly competitive contracts.
- ***E & I Cooperative Services*** - E&I Cooperative Services is the not for profit buying cooperative established in 1934 by members of the National Association of Educational Procurement (NAEP) to provide goods and services to members at the best possible value. The Cooperative is owned by its membership of nearly 3,000 colleges, universities, K-12, hospitals, medical research institutions and hospital purchasing organizations located throughout the United States.
- ***Medical Academic Scientific Community Organization (MASCO)*** - MASCO is a non-profit organization dedicated to enhancing Boston's Longwood Medical and Academic area (LMA) for the benefit of those who live, work, study or receive care in the area. MASCO's mission is to pursue programs that promote a sense of community among its members and to deliver services that are more efficiently developed collaboratively.
- ***US Communities*** - U.S. Communities was founded in 1996 as a partnership between the Association of School Business Officials, the National Association of Counties, the National Institute of Governmental Purchasing, the National League of Cities and the United States Conference of Mayors. U.S. Communities is the leading national government purchasing cooperative, providing world class government procurement resources and solutions to local and state government agencies, school districts (K-12), higher education institutes, and nonprofits looking for the best overall supplier government pricing.
- ***Med Assets*** - MedAssets is at the center of improving the quality and effectiveness of the healthcare industry. From establishing best practice value for clinical and labor resources to supply pricing and procurement processes to reimbursement accuracy to payor contract management and modeling—our solutions, industry experts and data-driven methodologies are helping healthcare enterprises make informed changes to drive total cost reduction, financial optimization, clinical delivery alignment and efficiency

## Section 7: Things the State Can Do to Help Us Be More Efficient

The University relies on the State as a partner in maintaining and sustaining our mission to provide an affordable, high quality education. The success of UMass could not be more closely tied to the success of the Commonwealth as UMass is an almost \$3 billion enterprise, our spending and investments account for \$6.1 billion of economic activity in the state annually and we represent an unprecedented return on the state’s investment. Through this partnership, the University is not only responsible for ensuring that the State’s and Student’s dollars are utilized in the most efficient and effective manner but also for identifying areas where the State can provide even greater support for the University’s E&E program through the implementation of certain initiatives that will have a direct impact on the operations of the University.

We continue to work with our State partners to continue or advance the initiatives highlighted below and are thankful for the support that the State has provided UMass through the commitment toward the 50/50 funding model in FY14 and FY15. Now that the Higher Education Finance Commission has released its report, we hope those recommendations will help guide State Leaders on the next phase of efficiency initiatives, best practices and funding sources that can be utilized in support of the University’s mission.

	Added Functionality	Competitive Advantage	Compliance Required	Customer Service Improvement	Equip./Services Standardization	Productivity Improvements	Reduction in Suppliers
Tuition Retention		X		X	X	X	
901 Financial Reporting		X	X		X	X	X
Disaster Recovery Funds		X			X	X	X
Allotment	X	X			X	X	X

### Higher Education Finance Commission Recommendations

The FY14 budget mandated the Higher Education Finance Commission to explore the State’s higher education funding model and to make recommendations for future support and efficiency measures. In October 2014, the Commission’s report was released including specific recommendations for future funding needs of our State’s higher education system.

Massachusetts must build one of the top 10 public higher education systems in the nation with regard to both overall performance and state investments in order to provide an affordable as well as high-quality education for all students. In addition, we must leverage the capacity of our unique constellation of private colleges and universities to help meet our higher education goals and objectives.

The report charges our public campuses to implement bold and aggressive strategies that will significantly change the ways in which our campuses operate and also the system by which state funding is allocated. The public higher education system must continue its efforts to increase operational efficiency, achieve cost savings, and maximize existing resources. This system must also increase collaboration with key stakeholders to achieve ambitious but necessary goals. Over the next five years, the Commonwealth should allocate additional funding to our community colleges, state universities, and UMass, and should also increase funding for state financial aid to students while maintaining the premise that aid programs will support students at both public and independent institutions of higher education.

The #1 recommendation is to provide adequate levels of state fiscal support and if implemented, the public higher education system will significantly limit increases for tuition rates and mandatory fees across all of the campuses, and will commit to freezing tuition rates and mandatory fees whenever possible. In addition, Massachusetts will rank among the top ten states in the nation (as well as states with comparable educational, economic, and other factors) with regard to state financial support for our public higher education system and also the proportion of college costs that are covered by state financial aid.

Lastly, the increased investment in state financial aid will dramatically enhance students' access to higher education at a time when the completion of college degrees, certificates, and other credentials is essential to lifelong success, and when the maintenance of a highly educated workforce is essential to the state's economic prosperity.

## Tuition Retention

Through the FY14, FY15 and FY16 budget processes, the University has requested a proposal allowing for full tuition retention by the University. This efficiency was first suggested nearly 24 years ago by the Saxon Commission and would allow the University to join nearly every other state in the nation by giving the public university the authority to retain tuition versus remitting it back to the State. The proposal is also an important step toward making the University more transparent to our students and their families by allowing them to see student charges in a way that alleviates much of the confusion that currently exists between tuition and mandatory fees. This proposal is also in line with President Obama's call to make Higher Education more transparent.

This proposal has no additional cost to the Commonwealth's budget as the State appropriation to the University would be reduced to account for the additional revenue being retained by the University. This proposal also complements the 50/50 funding model by ensuring that all tuition and fees along with the State appropriation will be fully supporting the cost of educating a student.

A simple bill would be given to students and parents that more accurately reflects the cost of education and separates out what is tuition, the cost of core education services, versus fees paid on other services such as, housing, food, health care, certain programs, etc. that should be fee

based. The bill would also show in-state students and parents the discount they receive through the State's commitment to public higher education.

## **901 Financial Reporting**

Because the MMARS accounting system is not the accounting system for the University, specific reporting from the University to the Commonwealth is statutorily required to ensure that the State has the information it needs to publish its Statutory Basis Financial Report. The required reporting causes a significant administrative burden to report from the University accounting system into the MMARS system. On the other hand, the University has and will continue to follow generally accepted accounting principles in producing annual financial statements which provide the exact same information which the State Comptroller requires for the annual Statutory Basis Financial Reports. This type of duplicative reporting requirement is the type of change we would like to implement to be able to more efficiently use our limited resources in the most productive manner.

Legislation has been proposed to eliminate the so-called 901 reporting while not compromising the reporting of this important financial information to the State.

## **Disaster Recovery Funds**

Since the University is partially funded by the State, when disasters occur that are declared by the Federal government, the application for reimbursement for costs must flow through the State's Emergency Management Agency (MEMA). In turn, all reimbursements for disaster related costs flow back through MEMA. For the traditional State Agency this flow of funds is appropriate as 100% of funding is supported by the State. However, in the case of the University only a portion is State supported and therefore when costs are incurred they should be reimbursed to the University as non-State revenues supported the costs incurred.

In response to the January 2011 Snowstorm (DR#1959), Tropical Storm Irene (DR#4028) and the October 2011 Snowstorm (DR#4051), several campuses (Amherst, Boston, Dartmouth and Lowell) incurred a total of \$504,245 in emergency related expenses. These storms were severe enough to qualify for federal disaster reimbursement funds for 75% of qualified expenditures totaling \$378,184. To date, the reimbursement from the January 2011 snowstorm was disbursed to the General Fund in April of 2012. The remaining reimbursements have not yet been dispersed and are currently with MEMA. The impacted campuses paid for these costs with campus funds which are generated through student fees and not with State appropriated funds as other State Agencies did. Therefore, the reimbursement of these costs should be appropriated back to the campuses for their costs incurred.

In addition to the less costly disaster related expenses described above, there are two significant disasters, Hurricane Sandy and the Boston Marathon bombing that required significant spending by the University and has been claimed to FEMA for reimbursement. If the University is not provided the reimbursement for these costs it will impact campus operations.

## Allotment

The State appropriation for the University supports only a portion of the overall operations for the fiscal year. In an effort to maximize State funds, the University utilizes the appropriation solely for payroll purposes. Because State funding only covers a portion of the overall operations, it becomes an administrative burden to move employees from the State funding source to other funding sources between allotment periods. The allotment process is governed by MGL Chapter 29, Section 9B which states:

*“Section 9B. Any monies made available by appropriation to state agencies under the control of the governor or a secretary, but not including the courts, the office of the governor and the office of the lieutenant governor, shall be expended only in such amounts as may be allotted as provided in this section. The secretary of administration and finance shall allot to each such state agency the amount which it may expend for each month out of the sums made available to it by appropriation or otherwise, taking into account the programmatic needs of the program supported by the appropriation and the cash-flow needs of the commonwealth.”*

In FY14, the State granted a full allotment to the University as of November which allowed for the streamlining of payroll and the more efficient use of our resources. Initially, the State was concerned that spending would occur more rapidly and impact State cash flow however this was not the case and cash flow was not impacted. To continue this efficiency for our campuses, it is hoped that a full allotment of the State Appropriation will be granted at the beginning of FY15.

## Section 8: Conclusion and Next Steps

Our fiscal responsibilities spur innovative efficiencies. As the State's public research university, we remain committed to spending our funds wisely while maintaining our commitment to quality. The University of Massachusetts has seen enrollment increase by 6,866 students since FY10 to nearly 73,000 students across the system. We've experienced dramatic growth in research funding, while making major investments in our facilities. Meanwhile, the operating support per student in Massachusetts has remained relatively the same as it was 20 years ago.

Because of this dedicated E&E effort that the University has underway, significant savings have been achieved. However, our efforts must continue and new ideas and projects must be explored and added to these efforts to continue to demonstrate the University's stewardship of valuable resources and to keep costs affordable to our students without compromising on quality.

## Appendices

### Previous Efforts Before 2011

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 we 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 pay cycle and eliminated the associated paper checks, postage and turned a four day per month process for one individual in to a one day per month process. The distribution of those funds is also timelier.
- 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 pay 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 Wide and Campus Projects Lists



University

Category	Status	Project Title	Description	Cost Avoidance	Cost Savings
Purchasing Council	Active	SciQuest Implementation	Create university wide market place for procurement of goods	\$10,600.00	\$6,000.00
Purchasing Council	Completed	Dorm Mattress Bid	3 campuses combined dorm mattress purchases for 3 year period.	\$60.00	\$30.00
Purchasing Council	Completed	Office Supplies-includes all five campuses and the System Office	University-wide contract w/ WB Mason for office supplies.	\$895.00	\$0.00
Purchasing Council	Active	Office Supplies-includes all five campuses and the System Office	University-wide contract w/ Office Max for office supplies. Includes an additional revenue of \$1.5million for University athletic sponsorships	\$4,800.00	\$1,200.00
Purchasing Council	Active	Athletics Advertising	University-wide contract w/ office supply vendors for advertising. Revenue generation for the University	\$0.00	\$1,500.00
Purchasing Council	Completed	Elevator Maintenance-includes 4 campuses: Lowell, Boston, Amherst, Dartmouth	Otis Elevator awarded University-wide contract	\$1,250.00	\$650.00
Purchasing Council	Completed	Copier/Printer Maintenance-Program goal convert to single vendor, multi functional devices. Align system for full bid process 2014	Xerox awarded system-wide agreement.	\$3,200.00	\$800.00
Purchasing Council	Completed	Lab Supplies- Bid two primary vendors. Contract awarded to Fisher.	Fisher Scientific awarded system-wide contract for lab supplies/distribution.	\$800.00	\$200.00
Purchasing Council	Completed	Lab Supplies- Bid two primary vendors. Contract awarded to Fisher.	Fisher Scientific awarded system-wide contract for lab supplies/distribution.	\$160.00	\$160.00
Purchasing Council	Completed	Electronic journals. Complete sytem wide agrement with Elsevier	System wide contract Completed with Elsevier	\$560.00	\$0.00
Purchasing Council	Active	Vehicle leasing- contract completed 8/13.	Replace existing campus owned vehicles with leased vehicles	\$0.00	\$0.00
Purchasing Council	Active	Travel services. Implement travel services to include travel agency, negotaited air, hotel, auto rental contracts	Implement managed travel program	\$1,100.00	\$1,000.00
Purchasing Council	Under Development	Lamps	Complete system wide contract for lamps, lighting	\$0.00	\$0.00
Purchasing Council	Under Development	Waste stream management	Complete consulting contract to evaluate current waste stream mangement practices across the university system, including solid, hazardous waste and recyucliing services	\$0.00	\$0.00
Purchasing Council	Under Development	Temporary help services	Create university wide contract for temporary help services	\$0.00	\$0.00
Purchasing Council	Completed	Executive search services	Pre-qualified list of vendors, fixed benefit offerings, ceiling pricing implemented	\$90.00	\$0.00
Purchasing Council	Completed	IT staff augmentation	Pre-qualified list of companies (suppliers). Agreed upon terms and conditions	\$15.00	\$0.00
Purchasing Council	Under Development	Dorm furniture-establish system wide contract	Complete system wide agreement for dorm furniture utilizing expertise of facility, resident life mamangers. Form user/evaluation committee	\$0.00	\$0.00
Purchasing Council	Completed	Multi-year financial planning tool	Complete contrac t for software planning tool that allows consistency in financila planning across all campuses. Contract completed with PFM consulting. Allows for campus and system level roll-up of finanacial projections. RFP process completed, low bidder not selected, however average bid price was \$310k annual vs. contracted price of \$200k annual.	\$550.00	\$0.00

Category	Status	Project Title	Description	Cost Avoidance	Cost Savings
Purchasing Council	Under Development	Printing- review current printing practices across the university system and determine strategy to evaluate current practice vs. potential system wide outsource contract	Standardize vendor for letterhead, business cards	\$0.00	\$0.00
Energy Committee	Completed	Solar/Net Metering Contract	Reduction in energy spend through credit earned from contractual support of solar development.	\$1,500.00	\$0.00
Energy Committee	Completed	Solar/Net Metering Contract	Reduction in energy spend through credit earned from contractual support of solar development.	\$10,418.00	\$0.00
Energy Committee	Completed	Solar/Net Metering Contract	Reduction in energy spend through credit earned from contractual support of solar development.	\$20,500.00	\$0.00
Energy Committee	Completed	Solar/Net Metering Contract	Reduction in energy spend through credit earned from contractual support of solar development.	\$18,000.00	\$0.00
Energy Committee	Active	Electricity Bid	4 campus combined bid for electricity supply.	\$1,200.00	\$0.00
Energy Committee	Active	System-wide bid process for natural gas supply.	System-wide bid process for natural gas supply.	\$541.00	\$185.00
Energy Committee	Completed	Natural gas procurement-bid process		\$200.00	\$0.00
Energy Committee	Completed	Electricity Procurement-bid process		\$0.00	\$0.00
Energy Committee	Completed	Solar - net metering	Reduction in energy spend through credit earned from contractual support of solar development.	\$1,600.00	\$0.00
Energy Committee	Completed	LNG Temporary Facility	Operational 12/2012	\$0.00	\$2,300.00
Energy Committee	Completed	Energy conservation effort	Multi -faceted energy conservation program	\$2,400.00	\$0.00
Energy Committee	Completed	Lighting Occupancy Sensors Library, Gorman Dorm Steam Line Replacement, CHP Gas Compressor Motor Eff.	Annual energy reduction project	\$1,140.00	\$570.00
Energy Committee	Completed	Gas turbine generator upgrade		\$0.00	\$1,425.00
Energy Committee	Completed	Lamp replacement project	Replacement of 1,700 T8 florescent lamps	\$0.00	\$159.00
Energy Committee	Completed	Installation new boiler		\$0.00	\$165.00
Energy Committee	Active	Energy performance project	\$40m energy performance project implemented by NORESKO and managed through DCAM	\$1,600.00	\$0.00
Energy Committee	Completed	Wind turbine project		\$125.00	\$0.00
Energy Committee	Completed	Photovoltaic arrays installation	Installation on the Tripp Athletic Center	\$0.00	\$150.00
Energy Committee	Completed	energy & natural gas procurement	Bid process and hedging strategy for electricity and natural gas supply	\$0.00	\$226.00
Energy Committee	Completed	Energy procurement	Bid process and hedging strategy for electricity and natural gas supply	\$0.00	\$1,180.00
Energy Committee	Completed	Energy efficiency projects	UMMS received \$8.5m in incentives from National Grid, resulting projects will generate \$6.8m future electric savings	\$0.00	\$6,800.00
Energy Committee	Active	Hadley Horse Farm Solar PV	2 MW Solar PV Field. Combination Net Metering / Research Project.	\$0.00	\$0.00
Energy Committee	Active	Regional Anaerobic Digester	A DCAMM and MADEP effort to install a Regional Anaerobic Digester for the Amherst area on University property.	\$0.00	\$0.00
Energy Committee	Active	Install Energy Efficient Chiller - Weed	Remove Absorber and reduce GHGs and energy by replacing with Magnetic Levitation Chiller.	\$0.00	\$0.00
Energy Committee	Active	Install North Campus Boiler Plant	Deferred Maintenance/ Energy Project - installing 2 new dual fuel boilers, combustion controls and BAS, economizers, steam turbine BFP and Variable Speed BFPs. We will have capability to burn ULSD and Nat. Gas on all three boilers.	\$0.00	\$0.00

Category	Status	Project Title	Description	Cost Avoidance	Cost Savings
Energy Committee	Active	ICC BAS and update to new vav boxes	Update BAS to new DDC web based system	\$0.00	\$0.00
Energy Committee	Completed	ICC fuel switch from electric to nat. gas heat	Replace older Rooftop makeup air unit using nat. gas instead of electric heat.	\$0.00	\$0.00
Energy Committee	Completed	Steam trap repair and replacement program	Replace approx 200 traps in Coburn and Mahoney and additional areas on north campus.	\$0.00	\$0.00
Energy Committee	Completed	Replace Zamboni Boilers, add VFDs to AHUs and retroCx HVAC units and controls	Reduce heat and electricity by improving energy efficiency	\$0.00	\$0.00
Energy Committee	Completed	Add DDC conrols to Donahue, Sheehy	Add DDC BAS controls to three residence halls	\$0.00	\$0.00
Energy Committee	Active	Complete ETIC, HSSB, North Campus Garage	Two New LEED Constuction buildings plus a parking garage	\$0.00	\$0.00
Energy Committee	Active	Mutiple Lighting upgrades	Olney, Olsen, Ball, Univ. Ave Exterior	\$0.00	\$0.00
Energy Committee	Active	AEP	Total Campus AEP	\$2,400.00	\$0.00
IT Steering Committee	Completed	Microsoft Licensing	Complete an RFP for Microsoft licensing through re-seller (MicroSoft does not deal directly). This would include all campuses for immediate contracting and Amherst rolling into contract when current campus expires 6/2013.	\$69.00	\$41.00
IT Steering Committee	Completed	Apple System wide agreement	Work with Apple by and all campuses to create a University wide agreement that provides an enhanced level of dicounting and standadr business terms	\$0.00	\$90.00
IT Steering Committee	Under Development	IBM (SPSS)	Goal is to increase access across the University while reducing cost per usage. Update 12/5/14: System wide contract completed. Additional investment to include all campusee covered under University site license. additional product and access for students, faculty. System contract resulted in one year cost avoidance of \$50,000	\$50.00	\$0.00
IT Steering Committee	Completed	Math Works (Mat Lab)	5 campuses utlizing software (no use System Office). Update 12/5/14: Year two of contract, cost avoidance based on unlimited license vs. cost of individual campus licenses \$30,000	\$43.00	\$0.00
IT Steering Committee	Active	IT Reseller RFP	Issue RFP for University wide IT reseller services (exclusive of laptop/desktop, Microsoft and Adobe-products currently under contract ) update 12/5/14: contract awarded to Gov Connection.	\$256.00	\$64.00
IT Steering Committee	Active	Anti Virus Software	Current campus contracts expire, evaluate university-wide contract. Update 12/5/14: System contract completed with McAfee. All campuses participating except the Medical School.	\$50.00	\$0.00
IT Steering Committee	Active	Desktop & Laptop	Usave programs through Dell and Lenovo. Discounts range from 25% to 36% off standard configurations with non-standard at 28%. Savings analysis assumes 25% in the interest of conservatism. Update 12/5/14: Contracts improved as a result of presence in Buyways resulting in an additional savings of \$355,000 during fiscal 2105. System wide bid process to be initiated for 2016	\$955.00	\$300.00
IT Steering Committee	Active	Adobe	Prepare for System wide bid process 2/13. Update 12/5/14: Three year contact completed, tortal annaul cost avoidance \$39,000. Improved product offering, Adobe Creative Cloud. all campuses and System Officve participating excepting the Medical School.	\$78.00	\$39.00



## University

Category	Status	Project Title	Description	Cost Avoidance	Cost Savings
IT Steering Committee	Active	Mobile device Optimization	Consolidate all existing University mobile devices into a shared/pooled minutes program with existing carriers: completed 5/13	\$1,362.00	\$528.00
IT Steering Committee	Completed	Safari Books	Purchased subscription to online technical resource data provider for \$25K in an effort to reduce employee travel & training costs.	\$15.00	\$0.00
IT Steering Committee	Under Development	Entersys	Work with vendor to structure a system-wide contract that leverages combined buying power of the University. Secondary effort will focus on standardizing equipment where advantageous to do so.	\$0.00	\$0.00
IT Steering Committee	Completed	EMC	Work with vendor to structure a system-wide contract that leverages combined buying power of the University. Secondary effort will focus on standardizing equipment where advantageous to do so.	\$300.00	\$50.00
IT Steering Committee	Under Development	IBM	Work with vendor to structure a system-wide contract that leverages combined buying power of the University. Secondary effort will focus on standardizing equipment where advantageous to do so.	\$0.00	\$0.00
IT Steering Committee	Under Development	Juniper	Work with vendor to structure a system-wide contract that leverages combined buying power of the University. Secondary effort will focus on standardizing equipment where advantageous to do so.	\$0.00	\$0.00
IT Steering Committee	Under Development	Fujitsu	Work with vendor to structure a system-wide contract that leverages combined buying power of the University. Secondary effort will focus on standardizing equipment where advantageous to do so.	\$0.00	\$0.00
IT Steering Committee	Completed	Atomic Learning	Training software currently being bid by A, B, D, L	\$35.00	\$4.00
IT Steering Committee	Completed	Lecture Capture software (Echo360)	Standardize lecture capture software license across all campuses converting to a site license agreement	\$390.00	\$0.00
IT Steering Committee	Completed	Lenovo	2 extension of the Lenovo agreement with additional 3% discount on Lenovo equipment	\$0.00	\$0.00
IT Steering Committee	Completed	9C Budget Re-Alignment - Personnel	Reduced 9 FTE's and contract employee positions related to redundant administrative & management staff.	\$0.00	\$1,500.00
IT Steering Committee	Completed	UITs Personnel Re-Organization	Eliminated 4 FTE's related to redundant management staff.	\$0.00	\$500.00
IT Steering Committee	Completed	9C Budget Re-Alignment - Non-Personnel	Elimination of historically high budget placeholders in Admin Expenses, Temp Help, Consulting & EE Train & Travel.	\$0.00	\$56.00
IT Steering Committee	Completed	Virtualization Strategy	Strategic shift to virtualized computer processing (racks & blades) versus traditional big box server approach.	\$1,281.00	\$0.00
IT Steering Committee	Completed	License & Maintenance Reductions - Ongoing	Reduction in HW/SW maintenance related to eliminated or reduced products including: small equipment purchases, Brigadoon, Temp Help, Cognos.	\$0.00	\$91.00
IT Steering Committee	Completed	Oracle Licensing Re-Negotiation		\$204.00	\$0.00
IT Steering Committee	Completed	License & Maintenance Reductions - Ongoing	Reduction in HW/SW maintenance related to eliminated or reduced products including: Citrix, Retrofit, EIR, Oracle & Business Objects	\$300.00	\$150.00
IT Steering Committee	Completed	CedarCrestone	Brought legs & regs consulting service in-house as part of upgrade functionality/approach.	\$0.00	\$72.00

Category	Status	Project Title	Description	Cost Avoidance	Cost Savings
IT Steering Committee	Completed	Project Implementation Methodology - FIN9.1 Upgrade	Impact of moving towards in-house upgrade process vs. engaging external implementation partners	\$4,934.00	\$0.00
IT Steering Committee	Completed	Server/Storage Architecture	Change in server & storage architecture resulting in reduced hardware maintenance costs.	\$1,130.00	\$0.00
IT Steering Committee	Completed	License & Maintenance Reductions - Ongoing	Reduction in HW/SW maintenance related to eliminated or reduced products including: Xerox, EMC, Mobius, temp help	\$0.00	\$400.00
IT Steering Committee	Active	Project Implementation Methodology - HCM 9.2 Upgrade	Impact of moving towards in-house upgrade process vs. engaging external implementation partners	\$4,001.00	\$0.00
IT Steering Committee	Active	Help Desk Migration to STAT	Migrate Help Desk ticketing system to STAT from Heat, a Front Range product, and eliminate annual Heat maintenance contract.	\$0.00	\$8.00
IT Steering Committee	Completed	Lightspeed Maintenance	Network maintenance reduced by analyzing # of network elements and taking action to reduce, in addition to negotiated loyalty discount.	\$6.00	\$9.00
IT Steering Committee	Completed	EMC Data Domain (Accunet)	Consolidation of storage backup functionality to Data Domain from both Avamar and Data Domain.	\$769.00	\$109.00
IT Steering Committee	Completed	Integration Partners	Optical infrastructure HW and SW related to Umassnet rollout.	\$300.00	\$0.00
IT Steering Committee	Completed	Automated Testing Tool	THIS IS A DUPLICATE RECORD WITH #137 - SHOULD BE DELETED	\$0.00	\$0.00
IT Steering Committee	Completed	Open Position Elimination	Eliminated 4 open positions, 3 CAS and 1 ISIS.	\$450.00	\$0.00
IT Steering Committee	Completed	Metrics & PPM Programs	The metrics and portfolio project mgt programs are efficiency and quality improvement focused. By measuring progress against various KPI's and improved project mgt techniques, it is expected that this will improve UITS's overall ability to deliver quality services in a time manner.	\$0.00	\$0.00
IT Steering Committee	Completed	Systems Administration Improvements: System Monitoring; EMC VPLEX Technology; Network Global Site Selection; Ticket System Consolidation.	System monitoring improvements leads to much less time identifying root cause of system and application issues with improved ability to identify issues before users are impacted. VPLEX technology allows for increased up time for users while systems concurrently being upgraded. Site selection works in conjunction with DR site to simplify user access to critical systems. Ticketing system migrated all work intake to single system greatly enhancing work flow and communications across the organization.	\$0.00	\$0.00
IT Steering Committee	Active	Cognos Transition & Mobius Retirement	"Build SA dashboards Retire Mobius report system with XML Publisher, PeopleSoft Report Manager & Summit dashboards"	\$1,000.00	\$0.00
IT Steering Committee	Active	Identity Management Update	"Enhance security and auditing Continuation of Single Signon Ease of use and management Cost savings from above"	\$150.00	\$0.00
IT Steering Committee	Under Development	Virtual Desktop Initiative (VDI)	Provides for file sharing across the desktop/laptop of common software packages served over the network/internet	\$0.00	\$0.00
IT Steering Committee	Active	Security Operations Center (SOC)	Implement and maintain, in accordance with Board policy, a comprehensive and proactive oriented information security program for the University spanning all campuses	\$330.00	\$0.00

Category	Status	Project Title	Description	Cost Avoidance	Cost Savings
IT Steering Committee	Active	Data Center Optimization	Create a UMass Data Center strategy by reviewing viability and needs of current campus data centers, assess future needs and leverage UMW Data Center and the new UMA Data Center for hosting and disaster recovery	\$5,019.00	\$0.00
IT Steering Committee	Active	UMassNet	Provide scalable, cost-effective reliable high-capacity networking connectivity between campuses to the Internet, Internet2 and MGHPCC	\$0.00	\$0.00
IT Steering Committee	Active	New Applicant Tracking System	Implement a new applicant tracking system to improve and enrich information capture & access to information to enhance decision making and provide for a more competitive recruiting process	\$0.00	\$100.00
IT Steering Committee	Active	Business Intelligence	Dashboard development and upgrade for SUMMIT (Financials, HR and Student Administration)	\$90.00	\$0.00
IT Steering Committee	Completed	UMOL Blackboard Learn9 LMS Implementation	Support UMOL campus migration from current Blackboard Vista LMS to Blackboard Learn9	\$0.00	\$0.00
IT Steering Committee	Active	International Office	Software application to integrate with the Student and Exchange Visitor Information System (SEVIS)	\$0.00	\$0.00
IT Steering Committee	Active	MGHPCC	Provide a state of the art, green Data Center to support the future of high performance computing needs for the University research community	\$800.00	\$0.00
IT Steering Committee	Active	Telepresence	Develop a reliable, cost-effective videoconferencing solution for fixed and mobile devices to enhance the student experience with guest lecturing, faculty virtual office hours and specialized intra-campus course offerings	\$300.00	\$0.00
IT Steering Committee	Active	Forms Automation - HR	Forms Automation will enable campuses to replace their existing employee personnel action paper forms with electronic forms and streamline the process	\$2,800.00	\$0.00
IT Steering Committee	Under Development	Mobile Computing	"Enhancement of the student experience by providing utilities of information not currently accessible in one place such as bus tracking, campus maps, directories by building, news and push messages Efficient and timely access to PeopleSoft data Marketing tools (walking tours, alumni news, sports)"	\$0.00	\$0.00
IT Steering Committee	Active	Virtual Computing Labs (VCL)	Provide a software solution that allows students, faculty and staff to reserve and use software any time and anywhere through a web browser	\$570.00	\$0.00
IT Steering Committee	Active	DTR Boston Data Center Move	UMSO must move its Disaster Recovery components from Boston to UMA as part of the Data Center Optimization plan	\$0.00	\$0.00
IT Steering Committee	Completed	Advancement Implementation	"Implement Advancement system for UMB, UMD and UML Upgrade UMW to current version"	\$0.00	\$0.00
IT Steering Committee	Active	Document Imaging Program	Implement for Undergraduate Admissions	\$0.00	\$614.00
IT Steering Committee	Active	Shared Services Portal Expansion	Tool to improve internal University communications	\$10.00	\$0.00
IT Steering Committee	Under Development	Student Success Outcomes	"Allows campuses to better analyze and predict ""at-risk"" students Proactive measures can be utilized to assist student population and turn the risk into a success"	\$0.00	\$0.00
IT Steering Committee	Completed	BoardVantage	Effort to migrate Board of Trustee documents to fully paperless environment.	\$0.00	\$141.00

Category	Status	Project Title	Description	Cost Avoidance	Cost Savings
IT Steering Committee	Active	Terra Dotta Risk Management System	To provide a single University enterprise repository of initial information such as emergency contract and medical info for students, faculty & staff who travel domestically & abroad.	\$0.00	\$0.00
IT Steering Committee	Active	Terra Dotta Study Abroad System	To provide BDL Study Abroad offices with a web-based application where students, staff, faculty and parents will find the information on study abroad opportunities.	\$0.00	\$0.00
IT Steering Committee	Active	IT Staff Augmentation Bid	University-wide bid for IT staff augmentation services including pre-defined job families with not-to-exceed rates; early pay discounts; and volume hour discounts.	\$300.00	\$38.00
IT Steering Committee	Completed	Fujitsu Maintenance	Reduced maintenance negotiated. Renewal amount \$8,000 per year with Fujitsu; negotiated a three year deal with Fujitsu for \$13,500 resulting in savings of \$10,500 during over three years. Used availability of maintenance from competitor (Oracle) as leverage in the negotiation. Existing cost below includes entire contract term.	\$7.00	\$3.50
IT Steering Committee	Completed	Oracle Maintenance Savings	Negotiated a 2% renewal increase cap on all Oracle software license/maintenance renewals. Renewals typically average 3%. This was negotiated as part of a purchase deal for additional IDM-related licenses. Total FY15 (end of year) Oracle software maintenance base is \$3,204,878, renewal cap calculated over 3 years. See attached spreadsheet for savings calculations.	\$192.98	\$0.00
IT Steering Committee	Completed	UTS Applications Management Re-Organization	Reorganization of the Business Intelligence and Applications Management areas (HCM, FIN & Student) to better align resources and work flow, and improve overall productivity, service levels and work output. See attached email for additional information. No dollar savings identified, this is a soft benefit E&E item.	\$0.00	\$0.00
IT Steering Committee	Under Development	Identity Finder (Data Loss Prevention)	Purchased Identify Finder software tool to support data loss prevention related to personally identifiable information (PII). Rollout includes all campuses to varying degrees of completeness. Ongoing effort. Since March 2014 18 million sensitive records have been discovered; of those, 9.5 million have been remediated. While it is difficult to estimate avoided costs related to the remediated records, the Ponemon Research Organization estimated that it costs an organization about \$211 per breached record related to providing credit counseling & protection services in addition to liability related costs. This would translate to a \$2B avoided cost related to the 9.5 million remediated records. No cost avoidance dollar figures entered given the volatile and uncertain nature of this risk.	\$0.00	\$0.00

Category	Status	Project Title	Description	Cost Avoidance	Cost Savings
IT Steering Committee	Completed	Lenovo Self Maintainer	Entered into a "self-maintainer" agreement for Lenovo desktop/laptop purchases within SO whereby Lenovo ships parts to UITS for local repair vs. sending out a Lenovo technician and/or returning device to a "repair depot" for processing. Mainly applies to laptop purchases. Self-maintainer agreement results in \$70 per repair payment from Lenovo for laptops (slightly less for desktops/peripherals). In addition, precludes the need to purchase up-front on-site warranty option costing \$63.20 for laptops (existing cost ID'd below). Also avoids productivity loss (approximately 9 days) for "repair depot" processing. The start-up fee of \$1000 for this program was waived, in addition to a bi-annual fee of \$500. See attached spreadsheet for details.	\$26.34	\$0.00
IT Steering Committee	Completed	Dell (KACE End Point Software)	Negotiated 4 year savings off of state contract. Included in the deal were an additional 13,100 licenses, 4 additional servers (2 virtual; 2 physical), two weeks on-site training and 24 hours jump start training. The licenses and training were value added as part of the deal. Existing cost below excludes Lowell (no spend PY). Lowell generated cost avoidance savings based on their projected cost before system deal negotiated. Cost avoidance includes \$38K of avoided 4th year maintenance and \$68K of avoided product costs. Campus savings spread equally, Healey to revisit.	\$106.00	\$12.00
IT Steering Committee	Completed	Checkpoint Security Software	Negotiated savings on university contract, savings thus far limited to Lowell and Dartmouth. Preferred university wide agreement available for use by other campuses. Existing cost not used, avoidance savings relates to projected spend vs. final negotiated deal.	\$187.00	\$0.00
IT Steering Committee	Active	Automated Testing Tools	Software tool that allows "scripts" to be written to automate testing typically performed manually by application developers/specialists. Testing needs to be performed anytime there is a software update, fix, patch, etc. Savings relate to productivity gains and are categorized as cost avoidance. Total savings adjusted for upfront license cost of \$34K and annual maintenance of \$11K. This is a preliminary savings estimate and will be updated as the product matures.	\$254.60	\$0.00
<b>TOTAL</b>				<b>\$114,825</b>	<b>\$29,620</b>

Category*	Status	Project/Initiative Title	Project Description	New Cost	Cost Savings	Cost Avoidance	Total Savings
Energy	Active	Central Heating Plant Gas Turbine Chiller Inlet System	A Gas Turbine Generator Inlet Air Chiller System has been installed for the Gas Turbine Generator located at the Central Heating Plant. This Inlet Air Chiller System will allow the Gas Turbine Generator to generate an additional 1 Mega Watt of electricity during hot and humid conditions. This system was made possible by a \$387,000 Leading by Example Clean Energy Grant from the Massachusetts Department of Energy Resources and a \$240,000 energy incentive from Western Massachusetts Electric Company.	\$ -	\$ -	\$ 1,440,000.00	\$ 1,440,000.00
Energy	Active	WMECO Sustainability Report	Entered into a Memorandum Of Understanding with the Western Massachusetts Electric Company (WMECO) to provide a roadmap of sustainability support and the realization of established energy reduction goals for both the University and WMECO which will help reduce the University's costs, increase overall efficiency and improve building operations. WMECO's FY 15 committed Annual Incentive is \$608,000.	\$ -	\$ -	\$ 2,432,000.00	\$ 2,432,000.00
Energy / Sustainability	Active	Solar Net Metering	The UMA has participated in two off site Solar Photo Voltaic (PV) Net Metering Projects. One project located in the Town of Whately and the other project located in the town of Hadley. These projects combine for a generation capacity of 3.9 MW (DC).	\$ -	\$ -	\$ 240,000.00	\$ 240,000.00
Energy / Sustainability	Active	FY15 E Plus Project	The Physical Plant worked with DCAMM and Northeast Utilities to develop an energy reduction project that has a total project cost estimate of \$4.5 million, with expected annual savings of \$1.2 million. Additionally, the project qualifies for over \$500,000 in rebates and annually reduces the University's air emissions by 6,920 MTCO2. The project will also address significant deferred maintenance issues by replacing outdated building energy system controls and repairing leaking steam systems.	\$ -	\$ -	\$ 4,800,000.00	\$ 4,800,000.00
HR Processes	Active	Kuali UMass Ready	UMA continue to utilize Kuali "UMass" Ready in the system-wide business continuity planning tool paid by UMISO which used to develop business continuity plans for all administrative, academic and research departments.	\$ -	\$ 11,500.00	\$ 34,500.00	\$ 46,000.00
HR Processes	Active	E-Builder Project Management	F&CS will be going live with the implementation of an E-Builder project management system resulting in improved business processes including electronic processing for project funding requests, procurement/purchasing and invoices.	\$ -	\$ -	\$ 40,000.00	\$ 40,000.00
HR Processes	Under Development	Upgrade Time Reporting and Billing	F&CS is working with A&F Systems on a project to upgrade and consolidate time & attendance and billing systems. This will reduce the number of systems and interfaces that are required to support F&CS departments and provide more efficient and consistent processes.	\$ -	\$ 5,000.00	\$ 15,000.00	\$ 20,000.00
HR Processes	Under Development	Tririga O&M: Request Central feature	F&CS is working with A&F Systems on the implementation of the Request Central feature in Tririga Operations & Maintenance which will allow campus users to enter service requests directly into Tririga, thus eliminating double entry by work management staff.	\$ -	\$ 15,000.00	\$ 45,000.00	\$ 60,000.00
HR Processes	Under Development	Tririga O&M: Keys module	F&CS is working with A&F Systems on the implementation of the Keys module of Tririga Operations & Maintenance which will provide for more efficient and effective management of the campus key request process. F&CS is pursuing the acquisition of more efficient key cutting technology to enhance the key request process and allow locksmiths to have more time in the field.	\$ -	\$ 10,000.00	\$ 30,000.00	\$ 40,000.00
Information Technology	Active	Juniper Networks Equipment Donation for Advanced High-Speed Network	<b>New funding:</b> As part of a new strategic academic collaboration, Juniper Networks donated networking equipment with a list price of \$1.5 million to UMass Amherst. The campus will use the technology donation to build a dedicated high-speed network to support science research and increase the ease of use and speed of large academic data transfers across campus and to the Massachusetts Green High Performance Computing Center (MGHPCC) in Holyoke.	\$ -	\$ -	\$ 600,000.00	\$ 600,000.00
Information Technology	Active	Ebooks using Online Web-based Learning (OWL)	UMass Amherst instructors continue to use Online Web-based Learning (OWL), an online learning platform, to publish textbooks electronically. OWLBooks have successfully replaced high-cost textbooks in several computer science, chemistry and biochemistry courses with a total yearly savings of over \$300k.	\$ -	\$ 300,000.00	\$ -	\$ 300,000.00
Information Technology	Active	Improved Cellular Coverage at McGuirk Alumni Stadium	<b>New funding:</b> Verizon Wireless is providing a cell-on-wheels mobile cell site at no cost to the university to improve cellular coverage for football games at McGuirk Alumni Stadium. This constitutes a gift of over \$10,000.	\$ -	\$ -	\$ 10,000.00	\$ 10,000.00
Information Technology	Active	Class Automated Proposal System (CAPS)	CAPS enables academic departments to submit class information electronically for publication in the University's online Schedule of Classes. CAPS replaces a pen-and-paper process, providing a simple, efficient, and environment-friendly alternative that saves over 45,000 pages (more than 90 reams of paper) per year. To date the Registrar's Office has processed over 80,000 course scheduling requests from campus departments.	\$ -	\$ 5,000.00	\$ 15,000.00	\$ 20,000.00
Purchasing		Chemistry Analyzer	Clinical Laboratory review of current chemistry testing will result in competitive contracting for a new clinical chemistry analyzer. Overall cost savings will be realized on the rental, service maintenance and reagent supplies.	\$ -	\$ -	\$ -	\$ -
Purchasing		Leased Campus Vehicle Program	Facilities & Campus Services entered into a leased vehicle program with Enterprise Fleet Management. This program will replace the aging Physical Plant fleet of vehicles as they come off line over a five year period with leased vehicles.	\$ -	\$ 50,000.00	\$ -	\$ 50,000.00
Revenue Generating	Under Development	Campus Cell Coverage Improvements (DAS)	<b>New funding:</b> Starting in 2014, Verizon Wireless is compensating UMass Amherst for adding a cell phone Distributed Antenna System to campus buildings as a means to improve cellular service. Verizon customers are seeing immediate improvements in cell phone signal strength as a result.	\$ -	\$ 100,000.00	\$ -	\$ 100,000.00

Category*	Status	Project/Initiative Title	Project Description	New Cost	Cost Savings	Cost Avoidance	Total Savings
Space & Building Efficiencies		Asbestos Abatement	EH&S working with D&CM Project Managers to use UMA contracts or in-house staff to abate asbestos and perform clearances prior to contractor bidding. With a new contract we can utilize most asbestos abatement types. Estimated reduction in cost of approximately 50% per job.	\$ -	\$ 150,000.00	\$ 450,000.00	\$ 600,000.00
Space & Building Efficiencies		Service Efficiencies - New Greenhouse	Physical Plant Landscape department will be adding a second greenhouse and will be able to grow more landscaping plants in house for use on campus versus purchasing at a higher cost from outside vendors.	\$ -	\$ 7,500.00	\$ 22,500.00	\$ 30,000.00
Space & Building Efficiencies		Admin Assistant Sharing	Campus Planning will share administrative assistant with FCS Admin Services and Transportation Services	\$ -	\$ 35,000.00	\$ 105,000.00	\$ 140,000.00
Sustainability	Active	Increase Reclaimed Water Capacity	EH&S and PP working to increase reclaimed water capacity from 200,000 gpd to 350,000 gpd. After capital improvement costs, 100,000 gpd savings of potable water during cooling season April - October. Results in an annual savings of \$96,000	\$ -	\$ 96,000.00	\$ 288,000.00	\$ 384,000.00
Sustainability	Active	Landfill Disposal	Modify disposal practices for autoclaved biological waste so that it can be disposed of in landfill rather than being incinerated. This proposal has received state department of public health approval	\$ -		\$ 35,000.00	\$ 35,000.00
<b>TOTAL</b>				\$ -	\$ 785,000.00	\$ 10,602,000.00	\$ 11,387,000.00

Category*	Status	Project/Initiative Title	Project Description	New Cost	Cost Savings	Cost Avoidance	Total Savings
HR Processes	Under Development	Telecommuting/Flex Time	Develop and implement policies on telecommuting and flex time for staff. The purpose is to provide flexibility in work schedules during this time of significant construction on campus.	\$ -			\$0
HR Processes	Under Development	Implement best practices with on-line training programs	Implement on-line training programs in service areas, Procurement, Budget, Controller, Human Resources.	\$ -			\$0
HR Processes	Active	Improvements to Hiring Process	Implementation of a new Hiring Policy.	\$ -			\$0
Information Technology	Active	Document Imaging	Implement a document imaging system on campus in an effort to streamline administrative work and to provide for faster processing, streamlines processes, paper and space savings.	\$ -		\$300,000	\$300,000
Information Technology	Under Development	R25 Live	Upgrade R25 system to R25 Live. The new system will offer enhanced services, unlimited users, system reliability, new features and functionality.	\$ -		\$25,000	\$25,000
Information Technology	Active	Security Best Practices in Risk Management	Implement Security Best Practices in Risk Management - Conduct a risk assessment of our Information Security Environment starting with our networks and then moving to Web Applications and Desktop solutions.	\$ -	\$100,000		\$100,000
Information Technology	Active	Acalog Online Course Catalogue	Implementation of an online course catalogue that will offer savings in printing, improved access, improved accuracy, integration and replacement of homegrown solutions.	\$ -		\$160,000	\$160,000
Information Technology	Active	Computer Replace Program	Program to replace university PC's and laptop assets that are 4 years or older on a campus refresh model.	\$ -		\$200,000	\$200,000
Information Technology	Active	iPad in classroom	iPad to be provided in the classroom for the College of Education, Academic Support and Library.	\$ -	\$40,000		\$40,000
Information Technology	Active	Wireless network	Complete the campus wireless network redesign.	\$ -	\$40,000		\$40,000
Information Technology	Active	Installation of VoIP	Implementation of Voice over IP in the new Integrated Science Building. Replacing 80+ traditional phone lines with IP based connectivity	\$ -	\$75,000		\$75,000
Information Technology	Active	Server Virtualization	Virtualized 20% of our servers - consolidating them onto one box	\$ -		\$20,000	\$20,000
Purchasing	Completed	Campus Bid Construction	Bids for Construction Projects	\$ -		\$277,908	\$277,908
Energy	Completed	Utility Plant MUA VFD's	Existing MUA-1 provides make up air for boiler combustion and general exhaust in Utility Plant. This measure involves installing VFD to make up air fans controlling fan speed to maintain correct boiler room pressurization Received combined(\$128,522) incentive for items 21 & 22,23,24 & 25 included here.	\$ -	\$128,522		\$128,522.00
Energy	Completed	Boiler Draft Fan VFD's	Added VFD and associated air flow control to forced draft fans on 4 natural gas boilers	\$ -	\$47,516		\$47,516.00
Energy	Completed	Added Fire Hawk Control to four boilers	Added servo motor controls to four natural gas fired boilers, replacing linkage system. Allows for more precise control and eliminates hysteresis losses Received incentive of \$22,622	\$ -	\$57,308		\$57,308.00
Energy	Completed	Variable Primary Chilled Water Distribution System	Added variable speed drives to primary chilled water system	\$ -	\$88,852		\$88,852.00
Energy	Completed	Variable Saltwater Cooling	Added variable speed drives to saltwater pumps in condenser water system	\$ -	\$231,585		\$231,585.00
Energy	Completed	Variable Boiler Primary Pumping	Added variable speed drives to boiler primary pumps	\$ -	\$17,795		\$17,795.00
Energy	Active	DCAMM AEP	Forwarded DCAMM recommendation for selection of vendor to perform AEP site energy audit and NTP being issued.	\$ -	\$620,000		\$620,000.00
Energy	Active	National Grid Tariff Agreement	Negotiated with National Grid for the development and construction of an expanded gas distribution system.	\$ -		\$1,362,500	\$1,362,500.00
Revenue Generating	Active	Facilities and Administrative (F&A) Rate Proposal and Projections	Develop Facilities & Administrative (F&A) "long-form" rate proposal and projections to maximize overhead recovery.	\$ -	\$3,209,049		\$3,209,049
Revenue Generating	Under Development	Implementation of One Card system	Planning is underway for the implementation of a One-Card system that be inclusive of all service offerings on campus, dining, bookstore, library, parking. Etc.	\$ -		\$100,000	\$100,000
Space & Building Efficiencies	Under Development	Renovations to Existing Buildings (REAB)	Major capital project to renovate existing academic buildings.	\$ -			\$0
Space & Building Efficiencies	Under Development	Centralized Scheduling	Conducting a study to look at implementing a centralized scheduling system.	\$ -		\$200,000	\$200,000
Space & Building Efficiencies	Completed	Science Center Re-Use Policy	Develop a policy for the temporary re-use of the existing Science Center once existing occupants move into the new Integrated Sciences Complex.	\$ -			\$0



Boston Campus

Space & Building Efficiencies	Under Development	Improve physical access and security	Installation of an access control system. Systems installed in new Integrated Sciences Complex and in the Campus Center and will be installed in the new General Academic Building No. 1.	\$ -			\$0
Space & Building Efficiencies	Under Development	Sodexo Capital Improvements	Capital investment in dining service facilities as per contractual agreement.	\$ -		\$4,022,000	\$4,022,000
Space & Building Efficiencies	Under Development	Follett Capital Improvements	Capital investment in bookstores as per contractual agreement.	\$ -		\$400,000	\$400,000
Space & Building Efficiencies	Active	Improved space management	Improved space management through active monitoring of space usage in order to identify space eligible for F&A or which could be re-allocated to address strategic priorities.	\$ -			\$0
<b>TOTAL</b>				<b>\$ -</b>	<b>\$4,655,627.00</b>	<b>\$7,067,408.00</b>	<b>\$11,723,035.00</b>

Category	Status	Project/Initiative Title	Project Description	Cost Savings	Cost Avoidance	Total Savings
AA processes and Policies	Completed	Add Comp policy	Guidelines developed to ensure faculty additional compensation is within Federal and University requirements.			
AA processes and Policies	Completed	Course Cancellation Policy	Update/revise Course Cancellation Guidelines			
AA processes and Policies	Ongoing	University Center's Review Process	Developing a plan for center self sufficiency			
AA processes and Policies	Ongoing	Increased cross listing of courses	Dual listing of courses between two or more departments/programs			
AA processes and Policies	in Progress	PTL to FTL conversions	Recognizing need for FTLs in department relying on a large number of PTLs			
Space & Building Efficiencies	Under Development	Research Space Allocation Policy	Improved space management and allocation of research space to promote the mission and vision of the strategic plan			
AA processes and Policies	Completed	University Extension and Revenue Sharing models	Develop methodology for calculating net revenue and distribution of net revenue for online courses			
EEO/AA Processes and Policies	Active	Title IX Compliance	System wide engagement of consulting firm, NCHERM, to assist campuses to ensure compliance with Title IX, including policies and investigative procedures.			
EEO/AA Processes and Policies	Active	Outsourcing AAP (Affirmative Action Plan) statistics	Through attrition and reorganization the allocation of a staff member to produce the reporting needs for the AAP this work has been outsourced to firm			
HR Processes	Active	New Hiring process through a Applicant Interview Exchange system	Implementation of a new Hiring proces through a cloud based software system Interview Exchange.	\$0	\$0	\$0
HR Processes	Under Development	E-Forms Project	System-wide initiative is aimed at improving payroll transaction process efficiency and effectiveness.			
HR Processes	Under Development	Workforce Management	Development of Position Management Module in Peoplesoft to provide more effective and efficient management of positions/FTEs and budgeting.			
HR Processes	Active	Organizational/Departmental Restructuring	Multiple HR initiatives to support departmental reorganizations which result in organizational structures and staffing better suited to meet operational needs.			
Strategic Reallocation			Streamline the Part time Lecture hiring process (time spent reviewing the process vs the amount of actual staff hired) the Part time Lecture is hired faster will assist in the number of classes offered)			
Information Technology		Document Imaging	Implement a document imaging system on campus in an effort to streamline administrative work and to provide for faster processing, streamlines processes, paper and space savings.			
Energy		CES Energy System Management - Electricity Supply Purchase	Cross over- Oil conversion to Gas Boiler system Management of energy through reporting of spend and cost savings . Bulk purchase of electricity for the campus			
Business Process/Cost Savings	Active	Multi-Print Device Initiative	Complete Analysis and Feasibility of Optimization of Print Devices on campus with mobile print capability. Through an inventory and operational analysis of print devices provide a report on the opportunity to the campus to reduce overall cost associated with printing on campus.			
Information Technology	Active	IT Asset Management Redesign	Analysis cradle to grave of the management of IT assets to improve overall efficiencies, enhanced quality assurance and improved customer service for the life of IT Assets.			
Business Process	Under Development	Labor Construction Electronic Specification & Bid Document Development	Implement BidDocs Online, Incs "SmartSpec" module for the electronic development and management of labor construction design specification and solicitation documentation. The objective is to improve quality assurance, reduction of cycle times and improve efficiencies.			
Business Process/ Risk Mitigation	Active	Migration of UMass Credit Card (Procard) use to Buyways Vendors.	Develop review and plan to identify individuals that are using Procard to acquire products from vendors that are punchout vendors on UMass Buyways to migrate these transactions to Buyways. The goal is to transfer 50% of the historical spend and transactionsf from Procard to Buyways punchout vendors.			
Business Process	Active	Centralization of AP	This project allows for improving internal controls through redeployment of resources. The Campus is transferring invocie processing to the Central office.			
Operational Efficiency / Customer service	Completed	Centralizing Payroll	Transfer Payroll processing to Central Office to realize benefits of economy of scale and eliminate redundancies and/or duplication of effort.			
Operational Efficiency / Customer service	Active	Campus Security	Redefined the role of the student desk attendant positions in the Residence halls, allocated student staffing to a evening hours only and contract security officers for late evening and overnight security duties			
Strategic Reallocation	Active	Reducing OT spend due to call backs by enhancing second shift	Existing first shift vacancies will be filled on the second shift, in order to provide a robust and balanced staffing contingent reducing the need for call backs.		\$100,000	\$100,000

Category	Status	Project/Initiative Title	Project Description	Cost Savings	Cost Avoidance	Total Savings
Strategic Reallocation	Ongoing	Reducing OT by adding dispatchers	One dispatcher has been added resulting in reduced overtime costs. A second position has been approved and will be advertised shortly.			
Operational Efficiency / Customer service		Student Billing, Payment System & Refund Process Improvements	<ul style="list-style-type: none"> <li>o Implemented in Fall 2012 (FY13)</li> <li>o Reduced the amount of paper invoices mailed to students</li> <li>o \$58,528 in reduced mailings and paper invoicing has been realized since implementation</li> <li>· Direct Deposit for Student Refunds</li> <li>o Implemented Fall 2014</li> <li>o Cost of producing a paper refund check is \$2.00</li> <li>o 1354 refunds have been processed as of 12-18-14</li> <li>· Improved access to Student Billing information in COIN by providing one link for access to all bills; previously two links were needed: one for current invoices and another to access all prior invoices.</li> <li>· Modified the health insurance charging setup to prevent charges from being assessed on students who are only enrolled in on-line courses. This change prevents the students in this situation from having to complete the process required to remove the health insurance charge</li> </ul>			
Space & Building Efficiencies	Substantially Completed	The construction of a new Center Loading dock and Freezer and cold storage building	<p>building addition provides the campus and dining services program with:</p> <ul style="list-style-type: none"> <li>- new freezer and cold storage building in process, approximately 1200 sf</li> <li>- helps eliminate staging of storage which in turn allows for bulk buying creating a cost savings to the University.</li> <li>-A dock that has a turning radius for large trucks that did not exist before which will eliminate the safety hazard of turning around in parking lot 6</li> <li>- added one additional bay for truck staging that creates less congestion and safer deliveries</li> <li>- increased loading dock storage capacity by 5 times the original dock size</li> <li>- provided for exterior cardboard recycling</li> <li>- new Handicap accessible ramp</li> <li>- new freezer and cold storage building in process, approximately 1200 sf - helps eliminate staging of storage which in turn allows for bulk buying creating a cost savings to the University.</li> <li>- safer working environment for employees</li> <li>● Reduce overtime costs through the expansion of the loading dock allowing deliveries throughout the day. Additional freezer/cooler space allows for increased purchasing of food products at a reduced costs. Potential \$300,000 savings per year.</li> </ul>			\$300,000
Operational Efficiency / Customer service	Ongoing	Centralizing Conference and Events Services	Improve the utilization of conferencing space across campus. Enhance delivery of services and branding to events through the Conference Office. Reduce costs and increase revenues.			
Strategic Reallocation	Completed	Outsourcing bookstore	Increased revenue through a commission realted contract with Follett. Reduced liability on university operation. Reduction of salaries to the university operation.			\$575,000

Category	Status	Project/Initiative Title	Project Description	Cost Savings	Cost Avoidance	Total Savings
Strategic Reallocation	Active	Update Campus Master Plan	Asset Management and Maintenance (DCAMM) through the Designer Selection Board (DSB) have retained the design team of designLab and Ayers Saint Gross to develop a comprehensive Campus Master Plan Update: <b>Goals:</b> 1. Verify and validate the space needs of all academic programs. 2. Propose means to modernize facilities in response to evolving pedagogies and demands for research space. An example of this is the renovation of the Carney Library which was repurposed as a campus community gathering point. 3. Enhance the aesthetics of the campus without diminishing the strong architectural style of the Paul Rudolph buildings. 4. Generate a phased implementation plan that will enable continued growth of the student population and the expansion and development of the full range of UMass Dartmouth's diverse academic programs, community outreach programs, on-campus housing for graduate and undergraduates, research programs, and its industry and business partnerships for the near future. 5. Provide a well-documented framework that explains the variables that need to be considered relative to the proposed prioritization of projects in order for the University to fully understand the ramification of potential options in its decision making process. This Master Plan will reassess the prioritization of these projects to align them			
Information Technology	Under Development	Improve physical access and security	Installation of an access control system door hardware and Camera Surveillance . Systems installed in new construction facilities, 125 camera installations in funnel point location in Residential, Campus life, Academic facilities. Card access installation Library renovation project to allow for monitored 24/7 access	\$35,000		\$35,000
Energy	Active	Distributed Steam and Condensate Line Replacements Steam Trap Survey	With some sections of the system reaching 50 years this project is working toward a complete campus steam and condensate line replacement and upgrade in which the oldest steam and condensate lines and manholes are replaced and/or upgraded. Both steam and condensate are leaking into the ground. >Replacement and Repair Steam and Condensate lines to mitigate water leakage into the ground >Engaged in a full campus inventory of steam traps to develop plan for repair / replacement. This will increase the efficiency of the system and reduce needless waste of steam and energy			\$0
Purchasing	Active	Negotiations Contracts				\$65,000
Purchasing	Active	Bidding Cost Savings				\$757,521
Revenue	Active	Vendor Revenue Contractual agreements				\$147,975
Energy	Active	Solar PV Solar Net Metering Credits -	In FY2013, in collaboration with the UMass system, UMD entered into contracts for Solar Net Metering Credits. There are two contracts that have been signed but only one solar farm is operational at this time. These two contracts have the potential to reduce UMD's electricity costs by \$350,000 annually, once both solar farm projects come on line. In FY 14, the active contract saved UMD \$146,313. The other solar farm project is expected to be on line in FY16.			\$146,313
Energy	Active	Energy Performance Project	The \$40M Energy Performance Project being implemented by NORESKO and managed through the DCAMM is a two phased infrastructure upgrade program and is aimed at improving the performance and efficiency of mechanical, electrical and plumbing systems while reducing the University's operating expenses and carbon footprint. o Phase I – Included eighteen energy conservation measures to address energy and water savings opportunities, the retrofit of existing lighting fixtures with new energy efficient lamps and ballasts, HVAC system upgrades and replacements, installation of new building management controls and major improvements to the plumbing infrastructure. The phase of the project is complete and is now in the operational phase. o Phase II – The construction of the 1.67 MW Kawasaki gas turbine based cogeneration system. The gas turbine generator will generate electricity to UMass-Dartmouth's electrical grid and hot gas exhaust to a Heat Recovery Steam Generator to produce steam for the campus. The gas turbine generator and heat recovery steam generator have been installed. The cogeneration system is undergoing a series of testing, commissioning and start up.			\$0
<b>TOTAL</b>				\$ 35,000	\$ 100,000	\$ 2,126,809

Category*	Status	Project/Initiative Title	Project Description	New Cost	Cost Savings	Cost Avoidance	Total Savings
Energy	Active	Utility Accounts	1) \$24-26 Million Performance Contract geared to renewing the UMass Lowell campus infrastructure of MEP equipment, systems and Controls to reduce energy usage by 25% minimum. 2) The University has increased its commitment to net metering credits to 9.6MW DC as host and 6.3 MW DC as non-host. Combined, this will reduce our annual cost of electricity by approx. \$850,000 for the next 20 years starting June 24, 2014 as all systems have been completed and are operating. 3) The Administration and Finance and the Energy Conservation and Projects Subcommittee created a Parent Energy Project account that will be funded by third party incentive programs. The University was approved for almost \$1.6 Million from National Grid in incentive funds; a little over \$1 Million of which have been received. A balance of over \$840,000 is currently in the account. This is a sustainable building practice as this program and account have been and will continue to fund energy efficiency projects in many old, new, and future buildings. 4)University Crossing - Gas and Electricity, HSSB - Electricity and Steam (Nov '12 - Feb '13)	\$ -	\$ 2,658,900	\$ 18,514,000	\$21,172,900.00
Energy	Completed	Lighting	1) Southwick Occupancy Sensors 2)Replace South Campus Outdoor Lighting with LED 3)Upgrade Lighting with High Efficiency/Replace T12 in corridors and classrooms. (For Ball, Lydon, Olsen, Olney, Weed). Exclude 1st Floors of Olsen and Lydon) 4) Cumnock: Upgrade Lighting with High Efficiency 5) North Fields Lighting Controls 6)Costello: rear and side of building overhang lighting conversion to LED or other high efficiency. Needed for safety as well. 7) Tsongas	\$ -	\$ 135,000	\$ 715,000	\$850,000.00
Energy	Active	Utility Accounts (HVAC, Steam, Water)	1) Cooling tower water metering installation at all towers - complete 2) Change showerheads & faucet aerators: CRC, Mahoney, Boathouse, Costello 3)Install weather-stripping at exterior doors 4) Steam Piping Insulation 5) Study and Execution ICC: Controls and HVAC VAV for common areas. HVAC system	\$ -	\$ 71,100	\$ 189,900	\$261,000.00
Energy	Completed	Steam Traps	North/South Campus Buildings, Phase 4 Steam Trap Maintenance	\$ -	\$ 24,000	\$96,000	\$120,000.00
HR Processes	Active	Organizational/Departmental Restructuring	Multiple HR initiatives to support departmental reorganizations, e.g., Athletics, IT, Solution Center, which result in organizational structures and staffing better suited to meet operational needs.	\$ -			\$0.00
HR Processes	Under Development	Workforce Management	(1) Development of Position Management Module in Peoplesoft to provide more effective and efficient	\$ -			\$0.00
HR Processes	Under Development	E-Forms Project	System-wide initiative is aimed at improving payroll transaction process efficiency and effectiveness. The Lowell campus has implemented E-Forms across all units except for grant-funded transactions. We expect to roll out e-forms with Principal Investigators in spring 2015.	\$ -			\$0.00
HR Processes	Active	Project Management Processes and Design Efficiencies	Development of Standard Operating Procedures such as Move Coordination Process including - Move Matrix, Move Notification Process, and Move Coordination SOP; Hardware Procurement Procedure, etc. Development of design standards for capital projects reduces the time for design development and review. Allows campus to meet aggressive schedules and complete work within a more compressed timeframe. Enables more consistent material installation of the desired quality, improving maintenance and replacement procedures as well. Design House Doctors Symposium to improve efficiency and consistency of design process on every capital project requiring design.	\$ -			\$0.00
Information Technology	Completed	Student Billing, Payment System & Refund Process Improvements	Student financial management improvement providing additional payment options for students and reducing campus processing costs: 1. Direct deposit of financial aid	\$ -	\$600,000.00	\$1,800,000.00	\$2,400,000.00
Information Technology	Completed	IT Maintenance Contracts	Renegotiated annual contract for the hardware & Software support of installed UMass Lowell telephony equipment and firewalls.	\$ -	\$39,051.00		\$39,051.00
Information Technology	Completed	Virtual Desktop Deployment	Replacement of lab/library PCs with zero footprint VDI terminals	\$ -	\$ 65,000.00		\$65,000.00
Information Technology	Completed	Document Imaging - Undergrad Admissions	Business automation project. Re-engineer document intensive business processes leveraging workflow and integration	\$ -	\$47,000.00		\$47,000.00
Purchasing	Completed	University Crossing FF&E	FF&E Procurement for the University Crossing facility	\$ -	\$737,955.00		\$737,955.00

Category*	Status	Project/Initiative Title	Project Description	New Cost	Cost Savings	Cost Avoidance	Total Savings
Purchasing	Active	Core, Aggregate and Edge Switch Equipment & Maintenance	Multi-year replacement of Core, Aggregate, and Edge Switching on campus. Equipment savings from contract pricing.	\$ -	\$968,663.00	\$2,905,990.00	\$3,874,653.00
Purchasing	Completed	Core, Aggregate and Edge Switch Equipment - Maintenance		\$ -	\$132,000.00	\$396,000.00	\$528,000.00
Purchasing	Active	Aramark Capital Investment	Capital investment - supports McG and University Crossing	\$ -	\$10,000,000.00		\$10,000,000.00
Strategic Reallocation	Active	Campus Security Cost Reduction	Outsource campus security officer positions with contract security officers	\$ -	\$468,825.00	\$468,825.00	\$937,650.00
Strategic Reallocation	Active	Furniture Re-Use, Re-Purposing, and in-house design and layout	Re-using existing furniture by reallocating elsewhere on campus instead of purchasing new. Purchased refurbished furniture from vendors such as R-Squared and Patriot Warehouse. Refurbished furniture is about 1/4 the cost of buying the same furniture new. Use of in house expertise to provide space and furniture layouts, design and finishes consultation. In house staff can provide information more efficiently, consistently and cost effectively than employing outside design consultants.	\$ -		\$ 3,009,980	\$3,009,980.00
Strategic Re-Allocation	Completed	In-house oversight of select capital project(s) normally managed by UMBA	In-house management and oversight of select capital projects to save on UMBA OPM fees and associated mark-ups (3%)	\$ -		\$ 402,000	\$402,000.00
<b>TOTAL</b>				\$ -	\$15,947,494.00	\$28,497,695.00	\$44,445,189.00

Category*	Status	Project/Initiative Title	Project Description	New Costs	Cost Savings	Cost Avoidance	Total Savings
Energy	Active	Sale of APS credits	Throughout the programming and design of the central power plant expansion project, equipment was selected for capacity, efficiency, redundancy and cost effectiveness. Under the 2009 Green Communities Act and working with the DOER, we are able to create and sell energy efficiency		\$5,000,000.00		\$5,000,000.00
Energy	Completed	Laboratory Ventilation Optimization	The optimization study and retrofit in the 370,000 sf Lazare Research Building was completed in 2014. The project included testing and balancing of the building automation	\$958,000.00	\$800,000.00		-\$158,000.00
Energy	Under Development	Power Plant dynamic equipment dispatching	Converging process analytics, real time energy market positions and plant equipment optimization protocols; a dynamic and predictive plant equipment line up will provide additional energy efficiencies and cost saving opportunities. UMMS is working with ICETEC, Industrial/Commercial Energy Technologies to converge market trading, process control and internet technologies to potentially achieve over 10% in both energy consumption and cost reductions.		\$800,000.00		\$800,000.00
Energy	Active	Building management systems analytics and fault diagnostics.	Starting in 2012, UMMS has contracted with IDS (Interval Data Systems, Waltham Ma) through a DCAMM contract to provide building management systems analytics and fault diagnostics. By real time comparison of the building's mechanical system basis of design and sequence of operations, IDS monitors the facility for occupant comfort and equipment operational effectiveness and identifies specific component variances not meeting requirements.	\$184,000.00	\$20,000.00		-\$164,000.00
Energy	Under Development	BioTech Energy Study	An energy study of the five Biotech buildings totaling over 500,000 square feet began in late 2013. This Rapid Energy and Safety Assessment, partially funded by Nstar and Ngrid and performed by ECT, Inc. of Cary, NC will provide a list of energy conservation opportunities. We expect a larger majority of these ECOs to receive payments by the two utility companies.				\$0.00
Energy	Under Development	School and Hospital AEP	Through DCAMM's Accelerated Energy Program, B2Q Consultants has been hired to develop a comprehensive energy audit and determine energy savings opportunities for over one million square feet of facilities.				\$0.00
HR Processes	Under Development	Equifax / Talx Implementation	Implement Talx service which will automate employment verifications and Immigration status letters			\$50,572.00	\$50,572.00
HR Processes	Completed	New Hire Onboarding	Incorporate the new hire and benefit information into the ICIMS (Recruiting) onboarding portal electronically		\$14,460.00	\$43,380.00	\$57,840.00
HR Processes	Active	FNIS Implementation	Implement a self service module in Tax Navigator - to be used by all employees on Visas		\$7,687.00	\$23,061.00	\$30,748.00
HR Processes / Information Technology	Active	Electronic Employee Records	Implement an electronic storage and retrieval application to replace manual filing systems for employee records		\$75,000.00	\$0.00	\$75,000.00
HR Processes / Information Technology	Active	Summit Reporting Expansion	Consolidate, design and build reports in Summit replacing dozens of manual reports each week. Creates a 'what you want - when you want it' self service environment which expands customer service while reducing costs		\$50,000.00	\$118,477.00	\$168,477.00
Information Technology	Active	Data Center Optimization	Consolidation of data center infrastructure between the Boston, Dartmouth, Lowell and Worcester campuses in the Shrewsbury data center	\$4,460,000.00	\$3,619,000.00	\$1,400,000.00	\$559,000.00
Purchasing	Active	Consolidate research equipment maintenance services	Consolidation of research equipment maintenance contracted through SUGroup to replace service agreements from individual original equipment manufacturers		\$139,000.00	\$416,000.00	\$555,000.00
Revenue Generating	Active	Tuition Retention - Clinical Years	After review of State Auditor's report and consultation with General Counsel, the President's Office has determined that tuition received for classes taught by non-state funded personnel is not required to be remitted to the state	\$0.00	\$6,720,000.00		\$6,720,000.00
Space & Building Efficiencies	Active	Sell Century Drive Building	Gain on sale of asset in year of sale, and ongoing O&M savings  Impact: UHealth Solutions will need to consolidate operations at South St. Action: Property is being actively offered by WCCC brokerage team.	\$0.00	\$5,667,000.00		\$5,667,000.00
Space & Building Efficiencies	Completed	Relocation / consolidation of MassBiologics manufacturing operations from Jamaica Plain to Mattapan			\$6,920,000.00		\$6,920,000.00
Space & Building Efficiencies	Completed	Relocation of Shriver Center from Waltham to main campus			\$1,236,000.00		\$1,236,000.00
Strategic Reallocation	Active	Reduced executive compensation plan	UMMS has reduced the number of participants by 65% and for the remaining participants, reduced the potential awards by 5%	\$0.00	\$5,786,000.00		\$5,786,000.00

Medical School

Category*	Status	Project/Initiative Title	Project Description	New Costs	Cost Savings	Cost Avoidance	Total Savings
Strategic Reallocation	Active	Academic Department Consolidations	Cancer Biology will be merged with Program in Gene Function & Expression and be re-named Molecular, Cell and Cancer Biology (MCCB); Cell & Developmental Biology will be split (anatomists / research faculty) be integrated with other existing academic departments.	\$0.00	\$1,185,000.00		\$1,185,000.00
Strategic Reallocation	Active	IT Strategic Re-alignment for the Medical School	The project consisted of eliminating 43 positions and creating 39 new positions with re-defined roles out of a total department of approx. 175.		\$0.00		\$0.00
Sustainability	Active	Recycling	Working collaboratively with UMass Memorial Medical Center and the associated partner hospitals, UMMS developed a consolidated contract for recycling and refuse disposal for over 65 locations throughout central Massachusetts. With over a \$600K annual spend, anticipated savings are \$30K to \$60K per year as recycling continues to increase. The contract stipulates a resource management effort to increase recycling, educate the staff, reduce tipping frequency and monitor results.		\$120,000.00		\$120,000.00
<b>TOTAL</b>				<b>\$5,602,000.00</b>	<b>\$38,159,147.00</b>	<b>\$2,051,490.00</b>	<b>\$34,608,637.00</b>