

Annual Administrative Efficiency and Effectiveness Report

A report of the University of Massachusetts
January 2018



University of Massachusetts

Amherst • Boston • Dartmouth • Lowell • Medical School • UMassOnline

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INTRODUCTION



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Introduction

The University of Massachusetts Effectiveness & Efficiency (E&E) initiative serves as an ongoing opportunity for the University to review its operational practices and strategic priorities to continue its growth as a world-class research university. This E&E Report provides a detailed update to previous reports and outlines key aspects of University operations where future E&E efforts are being planned. The details of this report represent the spending landscape for Fiscal Year 2016. This report should be viewed in consultation with the past University reports, which can be found here: <https://www.umassp.edu/budget-office/efficiency-effectiveness>. References will be made throughout the document to previous reports, which provide clarifying details about past initiatives and history on the Task Force on Efficiencies and Effectiveness.

In 2013, the University launched the Task Force on Efficiencies and Effectiveness in order to focus efforts on core areas of the University's operations. The three committees of the Task Force focused on procurement, information technology, and energy represented the areas with the most opportunities to implement efficiency projects. Over time the focused efforts on these specific administrative areas has resulted in significant cost savings. The successes in these areas illustrate the potential for the University to continue to replicate cost-saving measures in other functional divisions or operational areas. Recently, the University has established new work streams under the Task Force in order to broaden the scope of the E&E efforts. The inclusion of areas such as human resources and facilities management indicates that as a University we will not rest on our laudable accomplishments. We will continue to search for new opportunities to foster efficient and effective best practices. The work undertaken by the Task Force and members of the University staff to investigate additional opportunities for savings and advance new projects is a never-ending endeavor.

While we track the number of projects and the savings associated with them, the true impact of the E&E efforts are more difficult to measure and track. Undertaking these types of programs has had a broader palpable effect on the institution and the staff dedicated to furthering the University's mission. The University does not view the E&E program as a temporary initiative with a completion date in mind. Efficiency and Effectiveness has become an integrated part of the University and a cultural norm for members of the organization to be looking for better ways to conduct our operations. Ultimately, the work being accomplished through these efforts is dedicated to increase the share of resources available to the academic mission and the student experience. Our mission is to deliver students a world-class education preparing them to lead in the 21st century economy. At the same time, higher education is confronted with dynamic challenges such as escalating costs and shifting demographics. UMass is not immune to those challenges which prompts the University to innovate in our business practices and leverage our capacity as a system to achieve savings for the benefit of our mission. The University has a duty to act considering the challenges facing higher education. Thanks to the work accomplished and the framework established by the Task Force, the University is well-positioned to not only confront the challenges, but also lead the field in administrative efficiency and effectiveness.

Executive Summary

During 2016-2017, the University is tracking 154 projects managed across five subcommittees of the E&E Task Force. These projects represent \$170.9 million in cost savings over the life of their implementation. The total savings figure consists of \$31.4 million in cost reduction, or the amount of actual savings due to the implementation of an initiative, and \$139.4 million in cost avoidance, or the amount of costs averted due to the implementation of an initiative. The implementation of these projects in FY16 resulted in \$20.7 million in total cost savings for the University. This year's report features an analysis of the University's spending landscape providing important context around the impact of the E&E efforts and the potential for future initiatives. University staff have developed data dashboards to assist in the analysis of the spending and tracking E&E activities addressing the spending. A number of the dashboards are featured throughout the report. Through the examination of University expenses, the analysis provides a better understanding of the types of spending considered to be addressable by our E&E efforts. The University's collective efforts around E&E are driven by our spending trends and new initiatives are being developed to address areas where the impact can be felt.

Key Highlights

- The total FY16 expenses for the University were \$3.24 billion. The University and Campus Procurement Directors have identified \$796.4 million as spend that can be targeted for realizing efficiencies and impacted by contract negotiations, bid processes, and negotiating better pricing.
- A section on *Better Together*— The University's business process review to establish a university system of standards and alignment that maximizes resources and fosters collaborative efficiency and effectiveness, enabling reinvestment in campus-focused functions and positioning the operations for future enhancements
- The section on Committee Reports outlines the work underway by each Task Force subcommittee and working group including new projects planned and accomplishments within the last year. New projects and additional adjustments to existing projects have added \$15.5 million in cost reductions and cost avoidance over the life of their implementation.

Over the next year, the University's E&E efforts will continue to expand based on planned projects as well as develop new frontiers for working groups to form and foster new initiatives based on spending data. The concept, born out of the creation of spending dashboards featured throughout the report, is to allow subcommittees and working groups easy access to spending data. The desire is for more committees and working groups to be charged with tackling projects within the addressable spend category as the E&E effort continues to mature. Some key planned efforts for next year around E&E include:

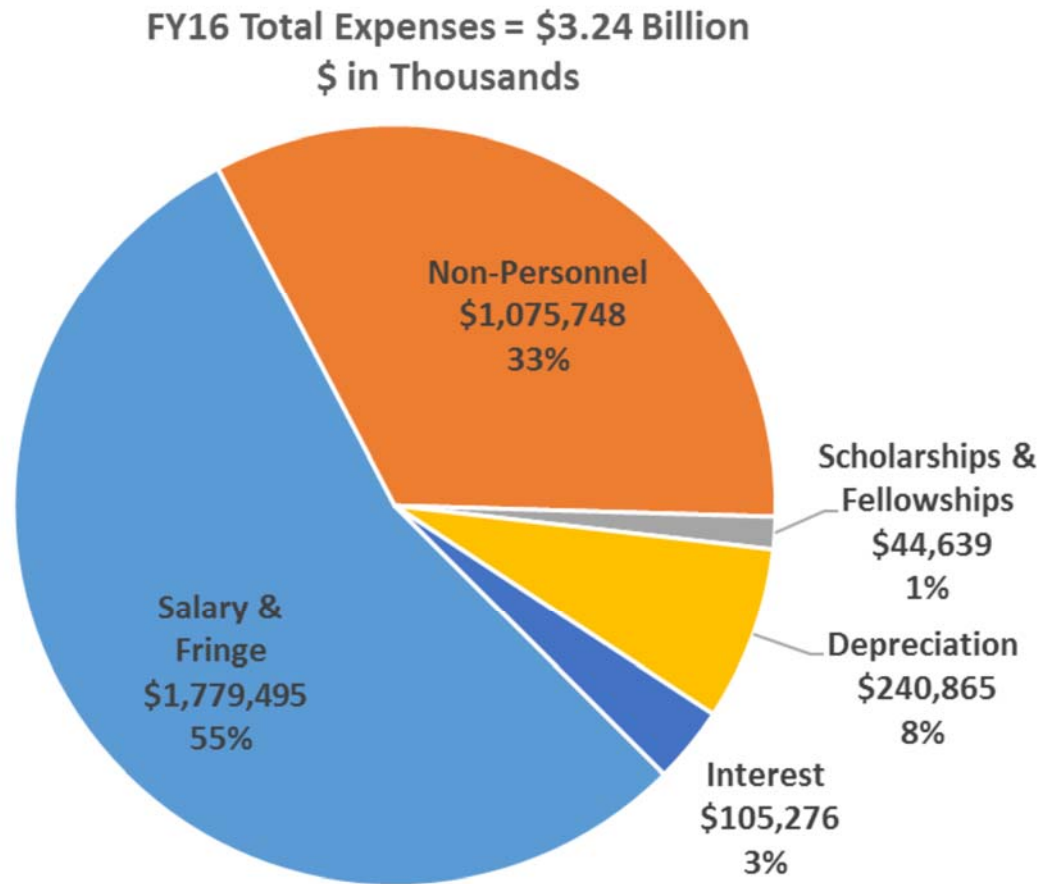
- Developed projects from the Facilities Working Group rolled out into the implementation phase so their impact can begin to be felt across the organization.
- Establishment of high-level goals and targets for E&E subcommittees and working groups to drive their efforts forward and measure their successes.
- Continued utilization and development of spending dashboards to conduct analysis at the committee level.
- Implementation of projects and initiatives originating from the *Better Together* BPR efforts.

SPENDING LANDSCAPE



Spending Landscape

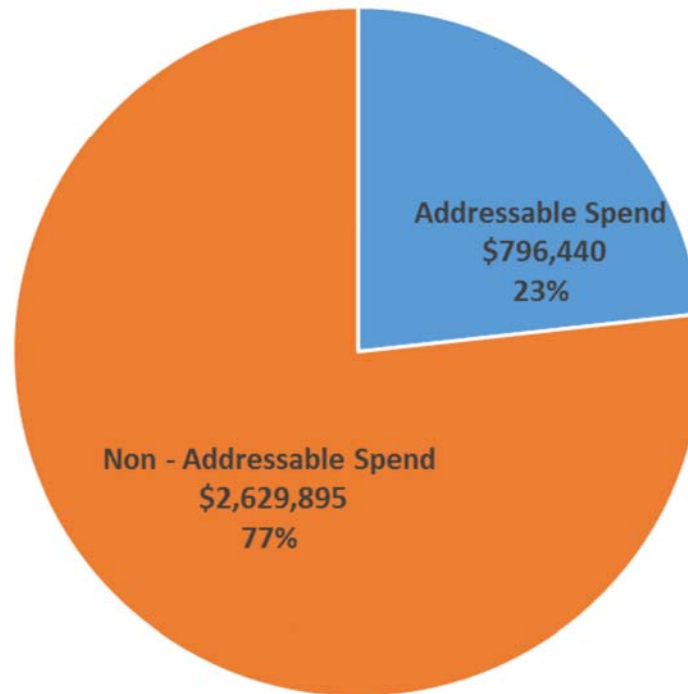
In order to define the scope for the Efficiency & Effectiveness efforts, the University has defined the types of spending which occurs throughout various operational areas of the institution. The total FY16 expenses for the University were \$3.24 billion. Below, spending is shown according to the categories of expenses outlined in the annual Operating Budget adopted by the Board of Trustees.



The University's budgeted expenses provides the high-level categories of spending that are occurring on an annual basis. When considering the E&E efforts it is important to remember that we have a focused approach to developing projects based on our spending data. It is critical to point out that the E&E efforts do not impact all areas of expenses, which is intentional. The efforts have been strategically focused on the areas where the most impact is actionable and the efficiencies realized can be managed through the Task Force working groups and senior leaders. The University's E&E efforts are outlined throughout this report by design to place the appropriate context around the various areas of spending. The Task Force and working groups have been achieving successes in their defined areas, but, when considering the other areas of spending, we recognize that there is still room for the University to develop E&E projects in new areas.

Spending Landscape

Total Addressable vs. Non-Addressable Spend = \$3.24 Billion
\$ in Thousands



For the purposes of E&E , the University expenses of \$3.24 billion are broken down into two different types of spending:

- **Addressable Spend**—\$796.4 million—has been identified by the University and Campus Procurement Directors as spend that can be targeted for realizing efficiencies and impacted by contract negotiations, bid processes, and negotiating better pricing. This area of spending represents opportunities to reduce spending processed through accounts payable or Procard purchases.
- **Non-Addressable Spend**—\$2.62 billion—includes payments deemed to standard transfers between related UMass business units. Some examples of these types of spending includes transfers of funds between the Commonwealth of Massachusetts, UMass Building Authority, UMass Foundation and other campuses. This category of spending includes a variety of other selected types of transactions such as: stipends, human subjects, speakers, writers, etc. The full listing of exclusions can be found at the end of the report.

The spending in these two areas is important to recognize the scale at which E&E projects have been developed to impact the addressable spending for the University in the areas of the working groups.

Spending Landscape

<i>\$ in Thousands</i>	Addressable	Non - Addressable
Accounts Payable & Procard	\$796,440	\$0
Vendor & Account Exclusions	\$0	\$343,614
Payment Type Exclusions	\$0	\$2,286,281
Total	\$796,440	\$2,629,895

For the purposes of the E&E efforts, the focus has been on addressable spend totaling \$796.4 million. This spending is identified as if the transactions are completed via accounts payable or a Procard.

- **Accounts Payable:** University payments made to vendors for services rendered or items purchased via purchase orders. Payments are made by paper check or pay mode also know as ACH (automatic clearing house transactions).
- **Procard:** Items purchased on the University's credit card - meals, memberships, office supplies, business meetings, team travel, printing, postage, advertising, lab supplies, animals, library material, tools or equipment.

There are types of spending which are deemed non-addressable due to the manner in which the transaction is processed for payment or a vendor of accounts has been excluded. The chart above illustrates where those types of spending exist and the key methods of payment where addressable spending is under examination.

The non-addressable spending is identified as:

- **Vendor & Account Exclusions:** specific listing of vendors due to the nature of the transactions and accounts due to the type of activity reported to them.
- **Payment Type Exclusions**
 - **Employee Reimbursement:** Includes expenses for employee reimbursements such as travel, mileage, airfare, lodging, meals, conferences and/or business meetings which are paid through the University's expense module.
 - **Transfers:** Includes transactions directly posted to the General Ledger and those from an external source, which includes expenses generated due to an existing agreement with an entity outside of the University, for example: transfers between campuses, clinical cross funded school payroll, depreciation, recharges, reclass entries, and corrections.
 - **Grants Management:** The University's Facilities & Administrative (F&A) rate or the indirect cost of administrative and facilities expenses for sponsored programs.
 - **Payroll:** Includes full and part-time employees, faculty, students, post-docs, medical students, interns, overtime, holiday, sick and vacation pay, health and welfare, payroll fringe, etc..

Spending Landscape

- **Payments to Students:** Includes those transactions related to student waivers, loans, scholarships and educational assistance and other programs.

Total Non-Addressable Spend = \$2.63 Billion

Vendors

- Commonwealth of MA
- Public Sector Partners
- UMass
- UMass Building Authority & Foundation
- UMass Memorial Medical Center/Group
- University Health Plans
- UMass Amherst Foundation
- MA Green High Performance Computing Center
- UMass Union Dental and Vision Plan
- UMass Club LLC
- UMass Dartmouth
- Massachusetts Institute of Technology
- Beth Israel Deaconess Medical Center
- Towns of Amherst & Dartmouth
- Maximus
- City of Worcester
- UHealth Solutions
- University of North Carolina & Duke University Health Systems

Accounts

- Indirect Costs
- Fund Deductions
- Other Accrued Expense (229500)
- General Income (695000)
- Revenue Redistribute (699100)
- Non Employee Expenses (734241)
- Human Subj Comp (742000)
- Honoraria (757150)
- Writers (757280)
- Performers (757300)
- Instructors/Lecturers (761500)
- Interpreters (761510)
- Individual Services (769100)
- Stipends (788100)

Payment Type =

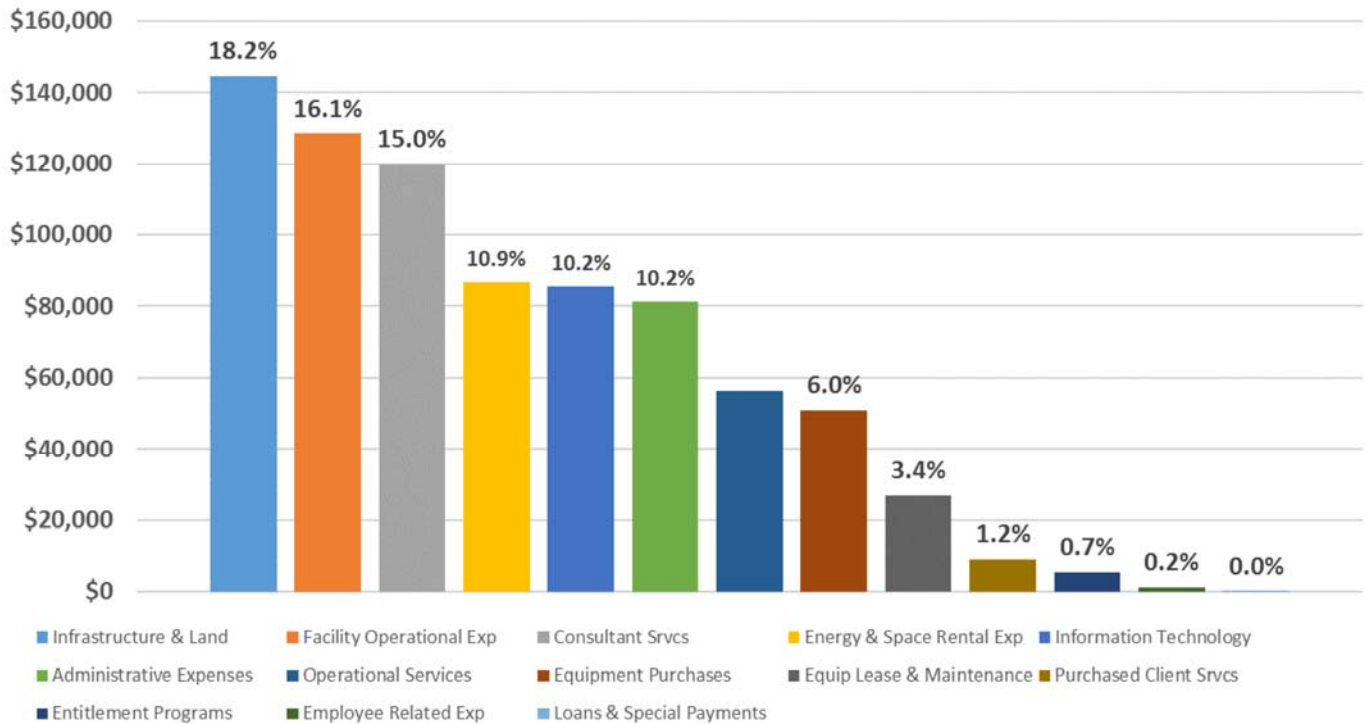
\$2.2 Billion

- Employee Reimbursement
- Transfers
- Grants management
- Payroll (\$1.67 Billion)
- Payments to Students

The non-addressable spend for the University is shown here, broken out by the three ways in which spend can be deemed to be non-addressable, with the listing of exclusions utilized to cull out the transactions in our finance system.

Spending Landscape

Addressable Spend by Expense Category
\$ in Thousands



The University’s addressable spend is substantially split among thirteen different categories of spending. You will notice in the bar chart that it displays the percentage share of each expense category to the total addressable spending. The expense categories found in addressable spend are also listed with corresponding spending.

Spending Landscape

\$ in Thousands

<u>Expense Category</u>	<u>Spend</u>
Infrastructure & Land	\$144,625
Facility Operational Expense	\$128,462
Consultant Services	\$119,812
Energy & Space Rental Expense	\$86,681
Information Technology	\$85,401
Administrative Expenses	\$81,446
Operational Services	\$56,268
Equipment Purchases	\$50,888
Equip Lease & Maintenance	\$26,936
Purchased Client Services	\$9,182
Entitlement Programs	\$5,448
Employee Related Expense	\$1,260
Loans & Special Payments	\$30

The University is evaluating each spending category in order to assign spending areas to a specific working group within the E&E Task Force to better understand if there are more opportunities for savings projects for the University to undertake. There is some potential for additional working groups to be charged with new areas of spending if it is determined there is significant work to be done in order to work on the specific category.

Utilizing the Appendix

This report includes an appendix section which provides extensive details on the expense categories highlighted in the previous chart. The intent of this section is to provide the reader with a guide to exploring the details within the appendices. It can be overwhelming to review the large swaths of data without the details on how to read through these reports and utilize them to learn more about specific type of University spending. If you begin by viewing the Addressable Spend by Expense Category chart on the previous page, this is the first layer of the data providing an overview of the types of spending which make up the addressable spend. If we take the Energy & Space Rental Expense category and are interested in learning more about this spending in the appendix reports.

Spending Landscape

Example using Appendix for detailed information on GG: Energy & Space Rental

In Appendix B—Spend by Category Report: this report provides the reader with details on the spending broken down for each spending category by addressable and non-addressable spending.

Spend Amount - Detail		
Category	Account Desc - ID	Addressable Spend
GG Energy & Space Rental Exp	754100 - Space Rental	13,478,523
	754121 - Rent Expense & O/H Exempt	61,620
	754200 - Electricity	33,831,943
	754210 - Electricity Solar Energy Credits	(499,313)
	754300 - Rchg Bulk Fuel	1,444
	754400 - Fuel for Vehicles	910,173
	754600 - Fuel Oil #6	79,063
	754610 - Fuel Oil-Other	1,934,671
	754690 - Fuel For Buildings	282
	754690 - Other Fuel for Building	3,586,752
	754700 - Diesel #2	20,626
	755000 - Sewage Disposal	306,924
	755050 - Water	1,671,484
	755200 - Energy Savings	790,418
	755300 - Natural Gas	30,506,370
GG Energy & Space Rental Exp Total		86,680,980

Then in Appendix C—Addressable Detail Report: allows the reader to view the addressable spend within the spend category by campus to see the spending over \$2 million with the number of vendors in each line of spend.

Spend Category	Account ID - Desc	Amherst	Boston	Dartmouth Amount	Lowell	Medical	Total Amount	Total Vendors
Energy & Space Rental Expense	754100 - Space Rental		3,418,009	3,632,936		2,482,623	9,533,568	81
	754200 - Electricity	5,221,830	6,972,907	3,333,387	7,088,404	11,132,494	33,749,022	42
	754610 - Fuel Oil-Other	1,934,014					1,934,014	6
	754690 - Other Fuel for Building	3,574,046					3,574,046	5
	755300 - Natural Gas	14,449,981		3,079,775		11,001,751	28,531,506	23
	OTHER	2,079,327	1,796,724	868,981	3,326,195	291,942	9,358,823	127
Energy & Space Rental Exp Total		27,259,198	12,187,640	10,915,078	10,414,599	24,908,810	86,680,980	284

Spending Landscape

Analysis of the spending and the work to shift our spending to University-wide contracts are critical data points to tracking our E&E efforts. The following dashboards provide details on the activity in this area.

Vendor by Annual Spend - Accounts Payable Spend Only

Spend Range (\$ in Thousands)	# of Vendors	% of Vendors	% of Spend	UMass			Buying Consortium Contracts	*Under Review	
				UMass System Contract	campus or multi-campus contracts	State Contract			
\$5 Million +	15	0.1%	\$161,509	21.7%	6	5	4	1	-
\$2 Million - \$5 Million	45	0.3%	\$134,035	18.0%	10	20	9	6	
\$1 Million - \$2 Million	63	0.4%	\$85,692	11.5%	5	3	3	3	49
\$500K - \$1 Million	128	0.9%	\$89,086	11.9%	7	3	3	4	111
\$100K - \$500K	732	4.9%	\$158,066	21.2%	10	-	-		727
UNDER \$100K	14,070	93.5%	\$117,250	15.7%	6	-	-		14,063
Total	15,053	100%	\$745,638	100%	44	31	19	14	14,950

*at the time of publication categorization of vendor by contract type was in progress and will be continuously updated with a focus on the highest annual \$ spend, in ascending order.

The Procurement Council focuses on the highest volume spend vendors and collaborates across all campuses to target the most appropriate contracting strategy. UMass system-wide agreements have proven to be the most effective in terms of leveraging maximum value with regard to pricing and service enhancements. Single or multi-campus agreements are targeted when the services contracted are not required at all campuses, or there are specific financial arrangements or cultural needs that need to be accommodated. State contracts and consortium contracts are beneficial to access publically bid contracts that offer value without engaging in a University bid process that typically takes 4-6 months.

Ultimately, the goal for the Procurement Team is to maximize resources by bidding the contracts/services that potentially yield the greatest value to the University, and using alternate contracting tools to manage other areas of spend. Based on that strategy, there will be an increasing number of system-wide and campus contracts, particularly in the highest spend vendors. Reliance on State and Consortium contracts will still play significant roles, but in lower spend vendor contracts.

Categorization by contract type will continue to progress in ascending order as indicated in the table above as analysis continues. As per University policy, vendors providing the University with goods or services with annual spend exceeding \$50,000 require a public bid process, State or Consortium contract, or no bid/sole source justification. Goods purchased totaling \$10,000-\$49,999 annually require 3 quotes.

Spending Landscape

The Procurement team has focused on managed of the largest dollar volume vendors and has strategically contacted with all of the vendors over \$5 million as indicated in the chart below. In areas of large spend such as energy, strategic, university-wide committees of senior-level subject matter experts have been formed to collaborate and leverage university economies of scale to drive costs down, increase service offerings, and share best practices to enhance efficiencies. The Committee Reports section of this report will provide additional details.

Vendors over \$5 million Annual Spend

Vendor	Current Year Spend (\$ in thousands)	Contract Term	Contract Type	Product/Service
Xerox Prescription Services ⁽¹⁾	21,137		State Contract	Prescription Audit Services
Xerox Multifunction Devices ⁽¹⁾	2,501	2010 - 2019	UMass System	Copiers-Printers
Performance Food Group Inc	18,565	2014 - 2019 (+3,1)	UMass Campus	Food Service
Direct Energy Business ⁽²⁾	18,129		UMass System	Gas-Electricity
Aramark Corporation	15,768	2030	UMass Campus	Food Service
Compass Group USA Inc	11,560	2011 - 2021 (+1,5)	UMass Campus	Food Service
Eversource Energy ⁽²⁾	11,325		UMass System	Gas-Electricity
National Grid - Electric ⁽²⁾	9,428		UMass System	Gas-Electricity
Fisher Scientific Company Inc	7,956	2015 - 2020 (+2,1)	UMass System	Scientific Supplies
Carousel Industries	7,762	Annual	State Contract	Hardware, Software
Dell Marketing LP	7,385	2015 - 2018 (+2,1)	UMass System	Laptop-desktop
Sprague Operating Resources ⁽²⁾	7,103		UMass System	Gas-Electricity
EBSCO	6,142		Consortium	Journal Subscriptions
SOHO Development LLC	5,692		State Contract	Gen Contractor
Permidion Inc	5,530	2015 - 2020	UMass Campus	Healthcare Consultant
Suffolk Construction	5,525	Event Driven	State Contract	Gen Contractor
Total	161,509			

(1) Xerox Corporation spend split as 2 different contracts in place. Prescription services contract is contracted with Commonwealth Medicine through the State and Xerox was awarded a subcontract through a bid process. The multifunctional device contract was awarded through a University System contract bid award. (2) Energy contracts have varying end dates based on hedging & contracting strategies at a campus level, however contracts are awarded through the university system bid process.

Definitions of Contract Types

UMass System Contract: Contracts bid at a system level with all campuses participating in contract for services or contract pricing available to all campuses through the Buyways system (commodity purchases). In rare circumstances, a single institution may not require service, or there may be circumstances that limit the campuses ability to participate (e.g., Elevator maintenance contract all campuses are participating excepting the Medical School as the Medical School is contracted with the UMass Memorial Hospital for this service).

Spending Landscape

UMass Campus or Multi-Campus Contract: Contracts bid/negotiated at a campus or multi-campus level that provide value to those campuses, but are not suited for all campuses for a variety of reasons such as: contracts may be revenue generating for a campus or include vendor investment in the campus; not all campuses have a need for the good/service; conflicting contract terms exist; etc. These contracts are continuously reviewed for potential system-wide contracting as circumstances change.

State Contract: Contracts publically bid through the State's procurement team and available to all campuses.

Consortium Contract: Contacts available through industry consortiums such as Mass Higher ED (MHEC), Educational & Institutional Purchasing Cooperative (E & I), and others (see detail below). These consortium contracts are typically awarded through a public bidding process and are available to all campuses. All consortiums are reviewed and approved by the UMass Procurement Council.

University System Agreements

System contract opportunities are targeted based on supplier spend, contract expiration/renewal opportunities for common spend areas where volumes can be accumulated for bidding purposes, and common vendor contracts that exist at individual campuses that allow for the formation of a negotiated system-wide contract. The chart on the following page provides a detailed listing of the contracts broken down by spending categories.

Spending Landscape

UMass System Wide Agreements to Date (and curenly in place)

<u>Vendor</u>	<u>Spend</u>		<u>Comments</u>
	<u>(\$ in Thousands)</u>	<u>Product/Service</u>	
Over \$5 million Annual Spend			
Direct Energy Business	\$ 18,129	Gas-Electricity	
Eversource Energy	\$ 11,325	Gas-Electricity	
National Grid - Electric	\$ 9,428	Gas-Electricity	
Fisher Scientific Company Inc	\$ 7,956	Scientific Supplies	
Dell Marketing LP	\$ 7,385	Laptop-desktop	
Sprague Operating Resources	\$ 7,103	Gas-Electricity	
\$200 - \$4,99 Million Annual Spend			
Oracle America Inc	\$ 4,572	Financial-HR System	
Elsevier Inc	\$ 4,035	Library Subscription Services	
Nstar Electric	\$ 3,496	Gas-Electricity	
Life Technologies Inc	\$ 3,918	Life Science Products	
Illumina Inc	\$ 3,829	Life Science Products	
Office Max North America	\$ 3,495	Office Supplies	
Otis Elevator Company	\$ 3,315	Elevator Maintenance	4/5 campuses participating
BoatHouse Group Inc	\$ 3,434	Advertising	
Xerox Multifunction Devices	\$ 2,501	Copiers-Printers	
National Grid-Gas	\$ 2,292	Natural Gas	
\$100 - \$199 Million Annual Spend			
BlackBoard Inc	\$ 1,835	Learning Sysytem	Converted to State contract
EMC	\$ 1,455	Hardware-software services	
Agilent Technologies	\$ 1,253	Life Science Products	
McKesson Corp	\$ 1,207	Pharmacy Distribution	
Sigma-Aldrich Inc	\$ 1,146	Life Science Products	
\$500-\$999 Thousand Annual Spend			
Whalley Computer Associates	\$ 931	Desktop/laptop distribution	
Qiagen Inc	\$ 930	Life Science Products	
Buyer Advertising	\$ 888	Advertising Services	
Grant Thornton LLP	\$ 750	Consulting-Audit Services	
Sightlines LLC	\$ 528	Facilities Consulting Service	
SciQuest Inc	\$ 522	Procurement System	
Constellation Energy Services	\$ 517	Gas-Electricity	
\$100-\$499 Thousand Annual Spend			
Echo360	\$ 470	Lecture Capture Tech	
Microsoft	\$ 365	Software & Support	Purchased through re-seller
Competitive Energy Services	\$ 360	Energy Consulting Services	
Korn Ferry	\$ 318	Executive Search Services	
Adobe	\$ 313	Software	Purchased through re-seller
IBM-SPSS	\$ 297	Teaching-Learning Software	
McAfee	\$ 199	Software & Support	
Public Financial MGT	\$ 199	Budgeting Tool	
Mathworks	\$ 142	Teaching-Learning Software	
Atomic Learning	\$ 118	Training Software	
Less than \$99 Thousand Annual Spend			
iParadigms	\$ 88	Teaching-Learning Software	
Qualtrics	\$ 65	Survey Tool	
Wolfram	\$ 48	Teaching-Learning Software	
Bright Cove	\$ 48	Video Streaming Service	
Stata Corp	\$ 39	Teaching-Learning Software	
SAS	\$ 28	Teaching-Learning Software	
Total	\$ 111,272		

Spending Landscape

UMass Supplier Diversity Program

The UMass supplier diversity program was updated during FY14 to include reporting at a system level. Equifax was awarded a contract to support all levels of supplier certifications/classifications at both a system and campus level. An automated reporting system was implemented internally to provide trending and additional analysis. The procurement team opted to focus on the specific diversity categories that the State of Mass Supplier Diversity Office was focused on so that comparative data could be shared. The team engaged with the teams at both the State Office of Supplier Diversity and the Governor's Office for Access & Opportunity. The UMass team hosted supplier diversity events at the Shrewsbury Office and the Springfield Satellite Campus, participated in panel discussions at the Roxbury Community College, Reggie Lewis Center, and the Governor's Office, and attended numerous networking events hosted by the State of MA and the Greater New England Minority Council. The UMass Procurement team is also represented on a Steering Committee formed by the Governor's Office for Access & Opportunity, and has led discussion with the State Colleges & Universities regarding collaborating to share best practices with regard to reporting & best practices related to supplier diversity. UMass was awarded a citation from the Governor for leadership in this area.

Despite these ramped up efforts during FY16, overall spending with certified vendors has remained relatively flat over the past 3 years. Actions to remedy include: collaborative reporting & standardizing program methodology with the State Office for Supplier Diversity, automating supplier registration to allow access to more certified suppliers, improving access to University bids through a more centralized bid posting page, and enhancing bid documents to initiate second-level supplier reporting, described as certified suppliers who are supplying direct suppliers to the University who may not be certified (e.g., Office Max). This is a practice that the State currently employs.

Supplier Diversity Trend Reporting

Classification	FY2014	FY2015	FY2016
Disadvantaged Business Enterprise	\$1,066,197	\$977,709	\$1,343,007
Minority-Women Owned Business Enterprise	\$2,123,585	\$1,978,334	\$2,160,455
Minority-Owned Business Enterprise	\$18,105,914	\$23,181,826	\$20,142,972
Service Disabled Veteran Business Enterprise	\$197,747	\$304,281	\$184,556
Small Business Enterprise	\$237,416,283	\$238,176,449	\$233,598,382
Veteran-Owned Business Enterprise	\$2,611,438	\$3,712,854	\$2,448,466
Women-Owned Business Enterprise	\$28,705,780	\$31,590,663	\$26,339,133
Total	\$290,226,944	\$299,922,116	\$286,216,971

Spending Landscape

Disabled Business Enterprise

DIS are businesses that are at least 51% owned and controlled by a handicapped individual or service disabled individual. A handicapped individual is a person who has a physical, mental or emotional impairment, defect, ailment, disease, or disability of a permanent nature, which in any way limits the selection of any type of employment for which the person would otherwise be qualified.

Minority/Women Owned Business Enterprise

M/WBE businesses are at least 51% owned and controlled by individuals belonging to certain ethnic minority groups and/or are female in gender.

Minority-Owned Business Enterprise

MBE businesses are at least 51% owned and controlled by individuals belonging to certain ethnic minority groups. "Ethnic minority groups" are people of Asian, African-American, Hispanic and Native American descent.

Disabled Veteran Business Enterprise

DVETs are businesses that are at least 51% owned and controlled by one or more Disabled Veterans. The home office must be located in the United States and the home office cannot be a branch or subsidiary of a foreign corporation, foreign firm or other foreign based business. A Disabled Veteran is a veteran of U.S. Military service and has a service-connected disability of at least 10% or more.

Small Business Enterprise

SBEs are businesses that are smaller than a given size as measured by its employment and/or business receipts in accordance with the U.S. SBA numerical size standards as defined in the Small Business Size Regulations, 13 CFR PART 121.

Veteran-Owned Business Enterprise

VET businesses are at least 51% owned and controlled by U.S. citizens who are Veterans of the U.S. Armed Forces.

Women-Owned Business Enterprise

WBE businesses are at least 51% owned and controlled by individuals who are female in gender.

Spending Landscape

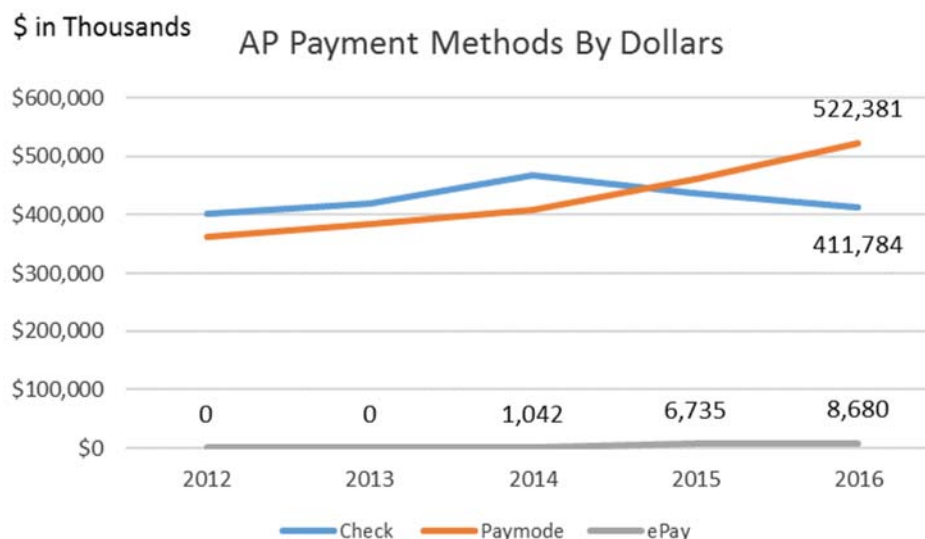
Accounts Payable E&E Efforts

The University Treasurer's Office tracks the payment method utilized to process our accounts payable transactions for a variety of reasons. Over the last nine years, the Treasurer's Office has been working to process transactions with vendors electronically instead of by paper. The office has tried to educate vendors about these electronic options on a routine basis, with more and more vendors enrolling on the electronic platforms. There are currently three Accounts Payable payment methods which create payments directly to vendors:

- Paper check – low end estimates to produce a paper check are \$3 per check
- Paymode – an ACH payment sent through an output file from AP to a 3rd Party Vendor Portal – we pay \$0.20 per transaction
- ePay – an electronic form of payment using a 3rd Party Payment Card – there is a fee for the University, but we earn an annual rebate on transaction volume

The Treasurer's Office is currently working to identify vendors who still receive paper checks and promote our electronic payment methods. The individual vendors, like consultants or contractors, are more problematic because many of the payment portals are business-to-business payments.

The Treasurer's Office and HR also just finished a "Paperless Payroll" campaign. We stopped printing payroll Advices beginning this Fiscal Year and we have made Direct Deposit mandatory for all employees and student employees who do not receive Federal Work Study Wages



Transaction Count	FY2012	FY2013	FY2014	FY2015	FY2016
Check	74,573	72,766	71,670	66,329	65,205
Paymode	24,718	24,541	28,982	34,723	41,349
ePay	-	-	224	1,173	1,807
Total	99,291	97,307	100,876	102,225	108,361

Spending Landscape

Efficiency Improvements Resulting from Implementation of Procurement Automation—Buyways System

In FY14, the University implemented an automated procurement system with the goal of enhancing the procure - to - pay process through the introduction of electronic creation of requisitions, purchase orders, and invoices. Additionally, the University implemented electronic signature capability. The metrics below quantify savings related to automating those processes.

Conversion to Electronic Requisitions and Purchase Orders

Fiscal Year	Number of Electronic Purchase orders	Savings per Transaction ⁽¹⁾	Total Savings
FY14	106,336	\$33	\$3,509,088
FY15	114,868	\$33	\$3,790,644
FY16	122,098	\$33	\$4,029,234
Total	343,302		\$11,328,966

(1)Aberdeen, a consulting service, estimated savings per transaction from paper to electronic requisition and purchase orders = \$33 per transaction.

Conversion to Electronic Invoices

Fiscal Year	Number of Electronic Invoices	Savings per Transaction ⁽¹⁾	Total Savings
FY14	72,000	\$10	\$720,000
FY15	80,000	\$10	\$800,000
FY16	107,000	\$10	\$1,070,000
Total	259,000		\$2,590,000

(1)Aberdeen estimated savings per transaction from paper to electronic invoicing = \$10

Reduction in Maverick Spend from Catalog Spend

Fiscal Year	BuyWays Catalog Requisitions	Total Spend with Catalog Vendors	Est. Percentage Savings from Reduction in Maverick Spend(1)	Total Estimated Savings
FY14	42,164	\$29,804,089	11%	\$3,278,450
FY15	56,061	\$35,970,893	11%	\$3,956,798
FY16	61,203	\$42,021,847	11%	\$4,622,403
Total	159,428	\$107,796,829		\$11,857,651

(1)Accenture, a consulting service, benchmarked 9-13% savings through reduction maverick spend on market-place catalogue vendors.

By automating the purchase process and directing UMass shoppers to the contracted vendors through a “punch out” it ensures the shopper selects a contracted vendor and that the correct contracted pricing is extended.

Spending Landscape

Total Savings Related to Automation

Fiscal Year	Requisitions and Purchase Orders	Electronic Invoices	Reduction in Maverick Spend from Catalog Spend	Electronic Signature	Total Savings
FY14	\$3,509,088	\$720,000	\$3,278,450	\$47,570	\$7,555,108
FY15	\$3,790,644	\$800,000	\$3,956,798	\$84,950	\$8,632,392
FY16	\$4,029,234	\$1,070,000	\$4,622,403	\$72,900	\$9,794,537
Total Savings	\$11,328,966	\$2,590,000	\$11,857,651	\$205,420	\$25,776,617

Cost avoidance related to automation for 3 years exceeds \$25 million. For the same period of time investment in the Buyways system is approximately \$2.5 million.

Other Impacts of Automation

In addition to driving cost savings, efficiencies gained through automation allow for redeployment of resources for more focus on contract management, reporting and internal customer service.

Also, there is a direct impact on credit card (ProCard) use through the implementation of the Buyways system. As vendors are added to the catalogue, the shopper receives next day delivery as they would through ProCard use, with the added value of ensuring the correct contract pricing. Additionally, the Buyways system captures the specific item purchased that a ProCard would not, allowing the Procurement Team to complete more effective bids, further driving cost savings.

Accordingly, the Procurement Team has implemented a ProCard reduction plan which includes 2 actionable strategies:

1. Targeted elimination of ProCard purchases with any vendor available as a catalogue vendor in Buyways. A standard automated report has been created that allows the campus Procurement Directors to track purchases made from catalogue vendors with ProCard. This allows for follow up directly with the purchaser.
2. Identifying additional high activity ProCard vendors for conversion to Buyways (e.g. Amazon). This is an ongoing effort to reduce ProCard use.

COMMITTEE REPORTS



University of Massachusetts

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Committee Reports

This year's report provides a detailed update on the University's efforts on E&E projects. The preceding section highlighted the spending landscape for the University, showcasing the opportunities for E&E committees to undertake projects or initiatives which reduce spending or avoid future costs. The analysis conducted on our spending trends informs the Task Force committees to prioritize their efforts in order to maximize the impact of projects. This section on Committee Reports outlines the work underway by each Task Force sub-committee and working group, including new projects planned and accomplishments over the last year. New projects and additional adjustments to existing projects have added \$15.5 million in cost reductions and cost avoidance over the life of their implementation. In addition to updating estimates and realizing savings, the University's Task Force is continuing to develop new areas of our operations in order to foster new projects and research the best practices for implementation.

Cost Reduction 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 Reduction 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, staffing efficiencies, or some other amount that yields tangible savings when compared to prior spending. It is usually presented as savings for the first year of the implementation even when the savings may last the remaining length of a contract or even indefinitely.

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 that costs were averted that would otherwise have been spent. As the E & E effort matures and contracts are in the second or third iteration of bid processes (e.g., elevator maintenance, office supplies), first year cost reductions will be less common, and savings will be increasingly weighted to cost avoidance.

University E&E Projects and Savings Estimates

(\$ in Thousands)	# Projects	Cost Reduction	Cost Avoidance	Total Savings
Purchasing Initiatives	25	\$13,288	\$38,780	\$52,068
Energy & Sustainability	30	\$12,975	\$66,083	\$79,058
IT Initiatives	77	\$5,103	\$34,621	\$39,724
Facilities	8	\$0	\$0	\$0
Human Resources	21	\$71	\$0	\$71
Total	161	\$31,437	\$139,484	\$170,921

Committee Reports

E&E Project Savings by Fiscal Year

(\$ in Thousands)	# Projects	Total Savings	FY10-12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20+
Purchasing Initiatives	25	\$52,068	\$2,293	\$1,025	\$2,800	\$5,818	\$8,561	\$15,831	\$5,818	\$5,447	\$4,475
Energy & Sustainability	30	\$79,058	\$4,233	\$7,556	\$7,826	\$9,379	\$5,681	\$3,481	\$3,481	\$3,481	\$33,940
IT Initiatives	77	\$39,724	\$10,209	\$957	\$7,528	\$7,862	\$6,478	\$4,161	\$1,343	\$686	\$500
Facilities	8	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Human Resources	21	\$71	\$0	\$0	\$0	\$0	\$0	\$71	\$0	\$0	\$0
Total	161	\$170,921	\$16,735	\$9,538	\$18,154	\$23,059	\$20,720	\$23,544	\$10,642	\$9,614	\$38,915
								\$88,206		\$82,715	
								Achieved to Date		Projected Savings + Costs Avoided	

Better Together—Business Process Redesign



In early 2016, in response to a review of the current finance/HR enterprise system, Vice Chancellors of Administration and Finance and campus leadership held a one-day working session in Amherst to discuss business process review and shared services. The session produced a resounding commitment to a Business Process Redesign (BPR) review and agreement to leverage respective strengths to restructure business processes, eliminate redundancy, establish standardization and create alignment of the critical functions in finance and human resources.

In order to support the dedicated resources needed for this project, the University applied for, and received, a \$400,000, two-year grant from the Davis Foundation. In making the award, the trustees remarked that the project was an enormous and complex undertaking and assessed the leadership team as strong and competent. The grant, along with \$670,000 in University cost share resources, will support project management and change management costs.

The BPR primary goals are:

- Conduct a business process review to establish a university system of standards and alignment that maximizes resources and fosters collaborative efficiency and effectiveness, enabling reinvestment in campus-focused functions and positioning the operations for future enhancements.
- Challenge how we do business by exploring: A. cost of risk versus benefits achieved and B. cost of risk versus lost opportunities.
- Increase the level and quality of customer service by embracing a customer-centric approach to work.
- Engage and empower, at every level, the A&F and Grant Administration staffs with a process improvement mentality approach to work that creates agility and resilience.
- Prepare for a modified or new ERP system.

Committee Reports

The timeline for the project is through the end of 2018. In January 2017, a process consultant was hired to lead the project across the five campuses and the President's Office. A first step in the BPR review was an in-depth inventory of processes in the President's Office and the associated processes on campuses. This compiled inventory established the target list of processes to evaluate for redesign. On March 31, The We Are Better Together initiative officially kicked off with a working session that introduced the BPR approach. Key participants from all campuses actively participated in shaping the future A&F university system by identifying key processes that would offer the greatest opportunities for improvement based the BPR defined goals. In the late Spring, the BPR approach and first level of training will be presented on all campuses to ensure the entire A&F staff is aware and involved in the process of increasing quality, efficiency and service.

Recognizing that a BPR is fluid and requires communication, cooperation and engagement at every level of the organization, the We Are Better Together initiative includes a website (<https://www.umassp.edu/better-together>) which offers full transparency and two-way communication with A&F and Grant Administration staff. To demonstrate the depth and breadth of the university system's commitment to efficiency and engagement, the site includes Work-in-Process projects, E&E Task Force information, ThinkSmart initiatives and a Hall of Success, which highlights completed process redesigns and their associated metrics.

Because solid BPR work begins at the ground level where functional work happens, staff engagement at all levels of the organization will include LEAN and process thinking training. Additionally, LEAN certification training will be available to staff as an added commitment to the empowerment of staff and sustainability of a structured approach to process and project work.

After the full program launch (Summer 2017), three redesign projects, 2 smaller projects and one long-term project will be underway simultaneously at all times. This will enable multiple teams from different departments to tackle projects that serve the overarching goals and will allow wider exposure to the BPR methodology.

The three current projects have recently launched and begun their work to scope out their content areas which will inform a developing work plan. The first project is on Sponsor/Customer Set-Up for pre- and post-award offices to streamline billing and other administrative practices. The goal of the project is to eliminate some redundancies and eventually centralize the sponsor/customer setup process for improved compliance with state and federal regulations. The second project is on Employee FTE Reporting to adopt a transparent and consistent methodology to calculate full-time equivalency utilizing currently available tools. The goal of this project is to identify the appropriate methodology and ensure data sources are regularly updated and available to all business units. The third project is on Position Management to utilize a system which assists the University leadership with real-time data to make strategic staffing decisions based on business needs

Committee Reports

and available resources. The goal of the projects is to create an understanding of the importance of position management as a tool and design a process to fill identified gaps across business units in order to consistently utilize it as a strategic tool.

Success of each redesigned process will be measured based on 1) Value added to the customer, 2) increase in the quality of consistent data, processes and standardization across campuses 3) cost savings, and 4) contribution to the overarching BPR goals.

Committee Reports

Leveraged IT Committee

Under the leadership of the University's Chief Information Officer, John Letchford, and with assistance from the University's Chief Procurement Officer, John Healey, the Leveraged IT 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.

The IT Steering Committee is evaluating and implementing 77 projects with estimated savings of \$39.7 million.

Project Summary

(\$ in Thousands)	# Projects	Cost Reduction	Cost Avoidance	Total Savings
IT Initiatives	77	\$5,103	\$34,621	\$39,724

Project Summary By Fiscal Year

(\$ in Thousands)	# Projects	Total Savings	FY10-12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20+
IT Initiatives	77	\$39,724	\$10,209	\$957	\$7,528	\$7,862	\$6,478	\$4,161	\$1,343	\$686	\$500
\$33,034								\$6,690			
Achieved to Date								Projected Savings + Costs Avoided			

Initiatives completed during FY17 include:

- 1 Year extension of the Adobe agreement resulting in cost avoidance of \$45,000
- New 2 year agreement with McAfee resulting in \$30,000 cost avoidance
- Successful renewal of 9 system-wide software agreements resulting in cost avoidance of \$200,000 annually
- Migration of Echo360 (lecture capture) contract to cloud hosted model resulted in projected cost avoidance of \$150,000 over 3 years

Projects initiated during FY17 include:

- Implementation of employment verification project projected to save \$60,000 over 2 years
- Implementation of dashboards for immigration management, asset management, system time approval, security administration, and spend analysis projected to result in savings of \$172,000 annually
- Implementation of document imaging for financial aid projected to save \$188,000 annually

Committee Reports

IT Steering Committee (\$ in Thousands)

Project Title	Status	Cost Avoidance	Cost Savings	Total Savings
Adobe	Active	\$123	\$39	\$162
Automated Testing Tools	Active	\$255	\$0	\$255
Business Intelligence	Active	\$90	\$0	\$90
Cognos Transition & Mobius Retirement	Active	\$1,000	\$0	\$1,000
Data Center Optimization	Active	\$5,019	\$0	\$5,019
Desktop & Laptop	Active	\$3,455	\$300	\$3,755
Document Imaging Program	Active	\$0	\$614	\$614
DTR Boston Data Center Move	Active	\$0	\$0	\$0
Forms Automation - HR	Active	\$2,800	\$0	\$2,800
Help Desk Migration to STAT	Active	\$0	\$8	\$8
Identity Management Update	Active	\$150	\$0	\$150
International Office	Active	\$0	\$0	\$0
IT Reseller RFP	Active	\$384	\$64	\$448
IT Staff Augmentation Bid	Active	\$300	\$38	\$338
MGHPCC	Active	\$800	\$0	\$800
Mobile device Optimization	Active	\$1,902	\$528	\$2,430
New Applicant Tracking System	Active	\$0	\$100	\$100
Project Implementation				
Methodology - HCM 9.2 Upgrade	Active	\$4,001	\$0	\$4,001
Qualtrics - Survey Tool	Active	\$70	\$10	\$80
Security Operations Center (SOC)	Active	\$330	\$0	\$330
Shared Services Portal Expansion	Active	\$10	\$0	\$10
Telepresence	Active	\$300	\$0	\$300
Terra Dotta Risk Management System	Active	\$0	\$0	\$0
Terra Dotta Study Abroad System	Active	\$0	\$0	\$0
UMassNet	Active	\$0	\$0	\$0
Virtual Computing Labs (VCL)	Active	\$570	\$0	\$570
VM Ware	Active	\$1,005		\$1,005
9C Budget Re-Alignment - Non-Personnel	Completed	\$0	\$56	\$56
9C Budget Re-Alignment - Personnel	Completed	\$0	\$1,500	\$1,500
Adobe	Completed	\$45		\$45
Advancement Implementation	Completed	\$0	\$0	\$0
Anti Virus Software	Completed	\$20	\$10	\$30
Apple System wide agreement	Completed	\$0	\$90	\$90
Atomic Learning	Completed	\$35	\$4	\$39
BoardVantage	Completed	\$0	\$141	\$141
CedarCrestone	Completed	\$0	\$72	\$72
Checkpoint Security Software	Completed	\$187	\$0	\$187
Dell (KACE End Point Software)	Completed	\$106	\$12	\$118
EMC	Completed	\$300	\$50	\$350

Committee Reports

IT Steering Committee (\$ in Thousands)

Project Title	Status	Cost Avoidance	Cost Savings	Total Savings
EMC Data Domain (Accunet)	Completed	\$769	\$109	\$878
Fujitsu Maintenance	Completed	\$7	\$4	\$11
Integration Partners	Completed	\$300	\$0	\$300
Lecture Capture software (Echo360)	Completed	\$780	\$0	\$780
Lenovo	Completed	\$0	\$0	\$0
Lenovo Self Maintainer	Completed	\$26	\$0	\$26
License & Maintenance Reductions - Ongoing	Completed	\$0	\$91	\$91
License & Maintenance Reductions - Ongoing	Completed	\$300	\$150	\$450
License & Maintenance Reductions - Ongoing	Completed	\$0	\$400	\$400
Lightspeed Maintenance	Completed	\$6	\$9	\$15
Math Works (Mat Lab)	Completed	\$129	\$0	\$129
Metrics & PPM Programs	Completed	\$0	\$0	\$0
Microsoft Licensing	Completed	\$106	\$64	\$170
Open Position Elimination	Completed	\$450	\$0	\$450
Oracle Licensing Re-Negotiation	Completed	\$204	\$0	\$204
Oracle Maintenance Savings	Completed	\$193	\$0	\$193
Project Implementation				
Methodology - FIN9.1 Upgrade	Completed	\$4,934	\$0	\$4,934
Safari Books	Completed	\$15	\$0	\$15
Server/Storage Architecture	Completed	\$1,130	\$0	\$1,130
Systems Administration				
Improvements: System Monitoring; EMC VPLEX Technology; Network Global Site Selection; Ticket System Consolidation	Completed			\$0
UITS Applications Management Re-Org	Completed			\$0
UITS Personnel Re-Organization	Completed	\$0	\$500	\$500
UMOL Blackboard Learn9 LMS Implementation	Completed	\$0	\$0	\$0
Virtualization Strategy	Completed	\$1,281	\$0	\$1,281
Document Imaging Program	Completed	\$188		\$188
Employment Verification	Completed	\$55	\$60	\$115
Dashboard development-multiple	Completed	\$196		\$196
Immigration Dashboard	Completed	\$95	\$80	\$175
Echo 360 Contract Re-negotiation	Under Development	\$150		\$150
Entersys	Under Development	\$0	\$0	\$0
Fujitsu	Under Development	\$0	\$0	\$0
IBM	Under Development			\$0
IBM (SPSS)	Under Development	\$50	\$0	\$50
Identity Finder (Data Loss Prevention)	Under Development			\$0
Juniper	Under Development	\$0	\$0	\$0
Mobile Computing	Under Development	\$0	\$0	\$0
Student Success Outcomes	Under Development	\$0	\$0	\$0
Virtual Desktop Initiative (VDI)	Under Development	\$0	\$0	\$0
Grand Total		\$34,621	\$5,103	\$39,723

Committee Reports

Strategic Energy Committee

The Strategic Energy Committee is evaluating and implementing 30 projects with estimated savings of \$79 million. The Strategic Energy Committee continues to work alongside the UMass Sustainability Committee to investigate appropriate energy management strategies and collaborate on addressing important sustainability initiatives. **It is crucial to note that updated estimates from Competitive Energy Services (CES) reflect that the solar net metering project will generate savings beyond additional projections that have been included in the numbers provided below.**

Under the leadership of Associate Vice Chancellor for Facilities Management Tom Dreyer from the Lowell campus and the University's Chief Procurement Officer, 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, composed 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.

Project Summary

(\$ in Thousands)	# Projects	Cost Reduction	Cost Avoidance	Total Savings
Energy & Sustainability	30	\$12,975	\$66,083	\$79,058

Project Summary By Fiscal Year

(\$ in Thousands)	# Projects	Total Savings	FY10-12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20+
Energy & Sustainability	30	\$79,058	\$4,233	\$7,556	\$7,826	\$9,379	\$5,681	\$3,481	\$3,481	\$3,481	\$33,940
							\$34,675				
							Achieved to Date	Projected Savings + Costs Avoided			

Initiatives completed during FY17 include:

- Energy contracts bid process; contract refresh resulting projected savings \$1.5 million over next 3 years
- Natural Gas bid process; contract refresh resulting projected savings \$900,000 over next 3 years
- Solar net metering update: 12 projects on-line, 45MW under contract, 40MW currently operational. Savings of \$5.2 million since initiation, \$2.5 Million during FY17

Projects initiated during FY17 include:

- Battery Storage Bid process; Bid process completed for battery storage projects.

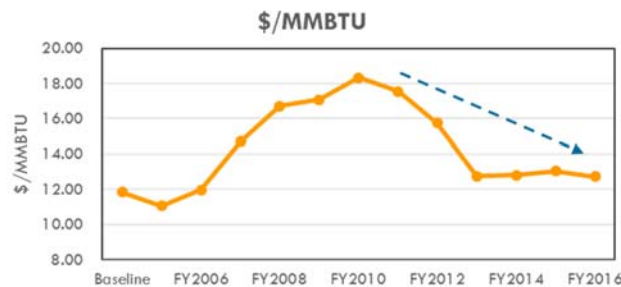
Committee Reports

- Development standard metrics for future reporting
- EverSource rate case; UMass has joined this case as an intervener of behalf of the Amherst, Boston, and Dartmouth campuses. The proposed EverSource rate increase has a minimal projected impact of \$400,000 annually on those campuses collectively, but the realized impact would most likely exceed that dollar amount significantly.
- Campus capacity tag reduction (shed load); project implemented to shed load during peak (August 2016) to reduce University capacity tag moving for FY18 forward.

University Energy Metrics



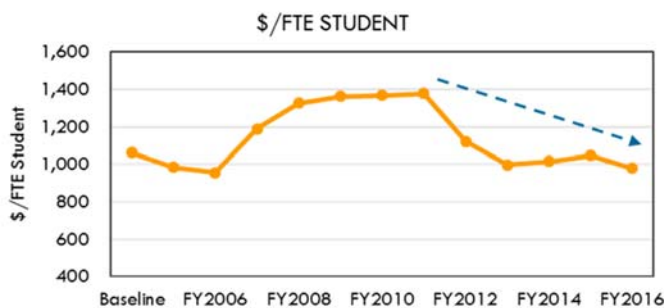
Cost of energy per square foot peaked during 2011-2012. During 2012 the University Strategic Energy Committee was formed and system wide procurements initiated.



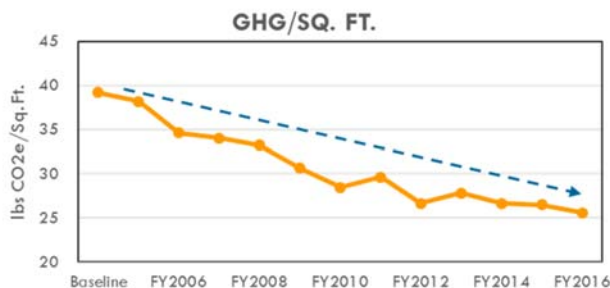
Cost of energy per unit peaked during 2010. It has decreased steadily since then due to more efficient procurement strategies, equipment and operations.

(MMBTU or One Thousand British Thermal Units is the standard unit to measure energy consumption)

Committee Reports



Cost of energy per student has decreased despite the increase in high energy intense buildings



Carbon output/square foot has decreased steadily despite growth in both square footage and student enrollment

(GHG: Green House Gas Emissions, standard unit of measure to determine carbon output)

Please note in the previous charts the Baseline is 2002-2004 when the Commonwealth of Massachusetts implemented Executive Order 484 requiring that state-owned facilities report energy usage and carbon output data to the Department of Energy Resources for the purpose of tracking progress towards energy usage and carbon output reduction goals.

Through the standardization and implementation of system-wide energy procurement strategies, implementation of energy efficiency projects, and sharing of best practices with regard to energy management, the university energy team has been able to drive down the unit cost of energy, energy consumption, and greenhouse gas emissions despite the growth of building square footage and increase in student enrollment.

Committee Reports

Strategic Energy Committee (\$ in Thousands)

Project Title	Status	Cost Avoidance	Cost Savings	Total Savings
AEP	Active	\$2,400	\$0	\$2,400
Complete ETIC, HSSB, North Campus Garage	Active	\$0	\$0	\$0
Electricity Bid	Active	\$5,800	\$0	\$5,800
Energy performance project	Active	\$1,600	\$0	\$1,600
Hadley Horse Farm Solar PV	Active	\$0	\$0	\$0
ICC BAS and update to new vav boxes	Active	\$0	\$0	\$0
Install Energy Efficient Chiller - Weed	Active	\$0	\$0	\$0
Install North Campus Boiler Plant	Active	\$0	\$0	\$0
Mutiple Lighting upgrades	Active	\$0	\$0	\$0
Regional Anaerobic Digester	Active	\$0	\$0	\$0
Add DDC conrols to Donahue, Sheehy	Completed	\$0	\$0	\$0
energy & natural gas procurement	Completed	\$0	\$226	\$226
Energy conservation effort	Completed	\$2,400	\$0	\$2,400
Energy efficiency projects	Completed	\$0	\$6,800	\$6,800
Energy procurement	Completed	\$0	\$1,180	\$1,180
Gas turbine generator upgrade	Completed	\$0	\$1,425	\$1,425
ICC fuel switch from electric to nat. gas heat	Completed	\$0	\$0	\$0
Installation new boiler	Completed	\$0	\$165	\$165
Lamp replacement project	Completed	\$0	\$159	\$159
Lighting Occupancy Sensors Library, Gorman Dorm Steam Line				
Replacement, CHP Gas Compressor Motor Eff.	Completed	\$1,140	\$570	\$1,710
LNG Temporary Facility	Completed	\$0	\$2,300	\$2,300
Natural gas procurement-bid process	Completed	\$2,200	\$0	\$2,200
Photovoltaic arrays installation	Completed	\$0	\$150	\$150
Replace Zamboni Boilers, add VFDs to AHUs and retroCx HVAC units and controls	Completed	\$0	\$0	\$0
Solar/Net Metering Contract	Completed	\$1,500	\$0	\$1,500
Solar/Net Metering Contract	Completed	\$10,418	\$0	\$10,418
Solar/Net Metering Contract	Completed	\$20,500	\$0	\$20,500
Solar/Net Metering Contract	Completed	\$18,000	\$0	\$18,000
Steam trap repair and replacement program	Completed	\$0	\$0	\$0
Wind turbine project	Completed	\$125	\$0	\$125
Grand Total		\$66,083	\$12,975	\$79,058

Committee Reports

Purchasing Council

Under the leadership of the University's Chief Procurement Officer, 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.

The Purchasing Council is evaluating and implementing 25 projects with estimated savings of \$52 million. The Council continues to develop and implement system-wide procurement guidelines and strategies that support the University's policies and leverage the collective campus purchasing power.

Project Summary

(\$ in Thousands)	# Projects	Cost Reduction	Cost Avoidance	Total Savings
University Purchasing Initiatives	25	\$13,288	\$38,780	\$52,068

Project Summary By Fiscal Year

(\$ in Thousands)	# Projects	Total Savings	FY10-12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20+
Purchasing Initiatives	25	\$52,068	\$2,293	\$1,025	\$2,800	\$5,818	\$8,561	\$15,831	\$5,818	\$5,447	\$4,475
\$20,497								\$31,571			
Achieved to Date								Projected Savings + Costs Avoided			

Initiatives completed during FY17 include:

- Implementation of an automated/integrated contract management system that creates a university-wide contract repository, offers on-line contract editing with version control, and contract expiration/renewal alerts
- Implemented an automated bidding tool that allows for vendor self-registration, on-line bid evaluation & scoring, and standardization of bid documents
- Completed a University-wide bid process to pre-qualify executive search firms that is projected to save 30% on executive search engagements and expedite the process for retaining services
- Completed a University-wide agreement for video streaming services resulting in \$15,000 annual cost avoidance and providing standardized service levels to all campuses
- Supplier diversity initiatives including leadership roles on State Steering Committee, presentation to the Governor's team for Access & Opportunity, hosting a meeting for the State Universities and Community Colleges, and hosting a meeting for the State Quasi institutions.

Committee Reports

- Audits of phone and cable charges for the President's Office and the Dartmouth campus resulting in savings of \$50,000 and avoided costs moving forward of approximately \$25,000 annually

Projects initiated during FY17 include:

- Development of University-wide janitorial supply bid projected to result in \$300,000 annual cost savings
- Development of University-wide dorm furniture bid, projected to result in \$150,000 annual cost savings
- Standardization of University bid documents
- Expansion of mobile device management program to include help desk and purchasing services
- Development of standard dashboards for reporting purposes
- Audits of telephone & cable charges broadened to include all campuses
- Implementation of vendor file management to streamline management of university's vendor base

Procurement Council (\$ in Thousands)

Project Title	Status	Cost Avoidance	Cost Reductions	Total Savings
Athletics Advertising	Active	\$0	\$1,500	\$1,500
Dorm furniture-establish system wide contract	Active	\$300	\$150	\$450
Janitorial Supplies	Active	\$600	\$300	\$900
Office Supplies-includes all five campuses and the System Office	Active	\$4,980	\$1,200	\$6,180
SciQuest Implementation	Active	\$10,600	\$6,000	\$16,600
Travel services. Implement travel services to include travel agency, negotiated air, hotel, auto rental contracts	Active	\$2,300	\$1,000	\$3,300
Vehicle leasing- contract completed 8/13.	Active	\$0	\$0	\$0
Land line-cable invoice review	Active	\$75	\$50	\$125
Copier/Printer Maintenance- Program goal convert to single vendor, multi functional devices. Align system for full bid process 2014	Completed	\$3,200	\$800	\$4,000
Dorm Mattress Bid	Completed	\$60	\$30	\$90
Electronic journals. Complete system wide agreement with Elsevier	Completed	\$560	\$0	\$560
Elevator Maintenance-includes 4 campuses: Lowell, Boston, Amherst, Dartmouth	Completed	\$1,250	\$650	\$1,900
Executive search services	Completed	\$270	\$90	\$360
IT staff augmentation	Completed	\$25	\$0	\$25

Committee Reports

Procurement Council (\$ in Thousands)

Project Title	Status	Cost Avoidance	Cost Reductions	Total Savings
Lab Supplies - Bid Two primary vendors- Contract re-bid FY15	Completed	\$5,000	\$0	\$5,000
Lab Supplies- Bid two primary vendors. Contract awarded to Fisher.	Completed	\$800	\$200	\$1,000
Lab Supplies- Bid two primary vendors. Contract awarded to Fisher.	Completed	\$160	\$160	\$320
Lab Supplies re-bid	Completed	\$6,000	\$1,004	\$7,004
Multi-year financial planning tool	Completed	\$550	\$0	\$550
Office Supplies-includes all five campuses and the System Office	Completed	\$895	\$0	\$895
Waste stream management	Completed	\$130	\$130	\$260
Campus Audits phone & cable	Completed	\$65	\$24	\$89
Elevator maintenance new-bid	Under Development	\$960	\$0	\$960
Lamps	Under Development	\$0	\$0	\$0
Temporary help services	Under Development	\$0	\$0	\$0
Grand Total		\$38,780	\$13,288	\$52,068

Facilities E&E Committee

The Facilities E&E Committee was established in FY2016 to research and recommend projects or initiatives that would improve the efficiency of maintaining University facilities and operational activities. Under the leadership of UMBA Executive Director Patricia Phillipone, the Medical School's Associate Vice Chancellor of Facilities Management John Baker, and with staff support from LeeAnn Pasquini and John Healey from the President's Office, the Facilities E&E Working Group identifies and pursues operational effectiveness and efficiency opportunities within the domain of campus facility management and operations. In a limited and fiscally constrained environment, facility operations are typically subject to budget cuts before research and academic missions are impacted. These impacts are not always immediate or evident, but eventually increase the risk to operations, deferred maintenance, and repair and appearance – and ultimately the mission of the university suffers. The team will improve operational services by promoting enhanced collaboration between the UMass system and the five campus chief facility officers.

Committee Reports

Project Summary

(\$ in Thousands)	# Projects	Cost Reduction	Cost Avoidance	Total Savings
Facilities Initiatives	8	\$0	\$0	\$0

Initiatives completed/implemented during FY17 include: (first year of committee activity/work)

- Development and implementation of strategies to address deferred maintenance
- Development of standard metrics related to facilities operations
- Development of a University-wide roof repair and maintenance agreement
- Development of standard best practices for custodial services
- Review of fleet management programs; evaluation of the University-wide fleet management contract with Enterprise
- Development of standard University-wide trade contracts
- Standardized preventive maintenance practices
- Review of Public/Private Partnerships

Facilities Working Group

Project Title	Status	Cost Avoidance	Cost Savings	Total Savings
Deferred Maintenance	Active	Since these initiatives were new to FY17, savings and cost avoidance estimates are still under-development		
Facilities Operations Metrics	Active			
Custodial Services	Active			
Fleet Management Program	Active			
Trade Contracts	Active			
Preventive Maintenance	Active			
Public/Private Partnerships	Active			
Roof Repair & maintenance	Active			
Grand Total		\$ -	\$ -	\$ -

Committee Reports

President's Office Human Resources Initiatives

The University System's Human Resources Office plays an invaluable role in delivering services to System Office employees and as a coordinating hub for the human resource areas across all the campuses. The Human Resources Office has been focused on examining areas where efficiencies can be implemented to improve services to employees and ease administrative burdens. Compliance requirements to various federal and state agencies is a critical area that Human Resources is responsible for and requires consistent action. Whenever feasible, the office works collaboratively with the Human Resources Administrators (HRA) on each of the campuses to leverage participation in shared resources and in support of the University's mission. Current and planned work speaks to the office's understanding that every aspect of the University plays a role in the larger E&E efforts.

Project Summary

(\$ in Thousands)	# Projects	Cost Reduction	Cost Avoidance	Total Savings
Human Resources	21	\$71	\$0	\$71

Initiatives completed during FY17 include:

- 403(b) supplemental retirement restructuring - streamlining the plan, enhancing compliance, implementing administrative efficiencies, improving the employee experience and retirement education, and reducing participant costs. This initiative is projected to result in annual cost savings of \$400,000 for the plan's participants. The savings are the result of a significant reduction in participant record-keeping and administrative fees; it is our expectation that the annual savings will grow as assets in the plan increase over time.
- Payroll - Direct Deposit Initiative, reducing print and mailing costs, projected to save the University \$65,000 annually
- System-wide services have been procured and contracts executed for: employee background checks with CSI; Affirmative Action consulting/reporting with DCI Consulting; applicant tracking software with PageUp; and a learning management system with Campus Clarity/LawRoom.

Committee Reports

Projects initiated during FY17 include:

- All of the above referenced system-wide services and contracts are in various stages of development and/or implementation. These initiatives will positively affect the University's ongoing compliance efforts. As an example, mandatory trainings for University employees that are required by federal and/or state legislation (including Title IX and State Ethics) will be delivered and recorded electronically through the new learning management system. Where feasible, these initiatives will also look to standardize business practices and take advantage of administrative efficiencies. For example, the implementation of the new background check services includes a review and, where applicable, revisions to all of the University's current background check packages, and standards, based on industry best practices.
- The go-live of Multi-Factor Authentication for HR Direct self-service will begin later this summer.
- W-2 and W-2c electronic consent initiative is underway for CY2017 tax forms.
- The larger Business Process Review (BPR) initiative, "Better Together," currently includes the following system-wide HR related projects: position management, and consistent employee FTE reporting.

President's Office Human Resources Initiatives (\$ in Thousands)

Project Title	Status	Cost Avoidance	Cost Savings	Total Savings
403B Supplemental Retirement Restructuring	Completed			\$0
Direct Deposit	Completed		\$65	\$65
Employee Work/Life Trainings	Completed		\$6	\$6
EPAF	Completed			\$0
EPAF II	Completed			\$0
HR Off Boarding Process (Roll Off)	Completed			\$0
Online Employee Handbook for UMSO	Completed			\$0
Affirmative Action Reporting	Under Development			
Applicant Tracking Implementation	Under Development			
UMSO APR process	Under Development			
Background Check Vendor	Under Development			
BI Initiative Reporting	Under Development			
Employee Background Checks	Under Development			
EPAF - Donahue Institute	Under Development			
Exit Interviews Guidelines	Under Development			
Law Clarity	Under Development			
Online Hiring Guide for UMSO	Under Development			
Position Management	Under Development			
System Office HR Onboarding Process PageUp	Under Development			
Tuition Credit Guidelines	Under Development			
W2 Suppression	Under Development			
Grand Total		\$0	\$71	\$71

Since these initiatives were new to FY17, savings and cost avoidance estimates are still under-development

Next Steps & Goals

The E&E efforts remain a constant focus for the University, including planning for future projects and analyzing the options available to decision-makers to optimize how the University manages its financial resources. Over the past few years, the annual report has been expanded to include new work streams and focused on various elements depending on the activity during that year. This year's report is no different. Sections covering the spending landscape of the University were included to help provide more context around the spending categories which can be addressed through our efforts. Continuing to improve on the content, context information, data analysis, visualizations, and other reporting elements is a key consideration when we're developing the annual report. Based on the development of this year's report, there are key elements which have already been outlined for their inclusion in next year's report.

- Achieve a System-wide contract for all vendors with over \$2 million of spending by the University
- Identify categories of spending to be targeted by specific E&E working groups to better understanding the activity occurring within spending categories. Completing this process will allow the committees to develop strategies based on University spending experience data and assist in sketching the roadmap for future efforts.

Conclusion

Our fiscal responsibilities spur innovative efficiencies. As the Commonwealth's public research university, we remain committed to spending our funds wisely while maintaining our commitment to quality. 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.

APPENDIX A - DEFINITIONS

Appendix A – Definitions

- **Employee Reimbursements:** Include expenses for employee reimbursements such as travel, mileage, airfare, lodging, meals, conferences and/or business meetings which are paid through the University's expense module.
- **Transfers:** Includes transactions directly posted to the General Ledger and those from an external source which includes expenses generated due to an existing agreement with an entity outside of the University for example: transfers between campuses, clinical cross funded school payroll, depreciations, recharges, reclass entries, corrections.
- **Grants Management:** The University's Facilities & Administrative (F&A) rate or the indirect cost of administrative and facilities expenses for sponsored programs
- **Payroll:** Includes: full and part-time employees, faculty, students, Post-docs, Medical students, interns, over-time, holiday, sick and vacation pay, Health and Welfare, payroll fringe, 401A contributions, 403B contributions, housing allowances.
- **Payments to Students:** Includes those transactions related to student waivers, loans, scholarships and educational assistance and other programs
- **Employee Related Expenses:** This object class includes reimbursements and payments to state employees for job related expenses only. (Ex. In-state/out-of-state travel, conference registration)
- **Administrative Expenses:** This object class includes administrative expenditures associated with departmental operations and programs. (Ex. Office administrative supplies, printing)
- **Facility Operational Expenses:** This object class includes the cost of supplies required for operating the programs provided at state facilities including: historical sites, state parks, recreational facilities, state maintained buildings and facilities which provide educational, medical, social, rehabilitative, or protective services to persons who are in the care and/or custody of the Commonwealth. (Ex. Facility furnishing, library supplies)
- **Energy & Space Rental Expense:** This object class includes expenditures for space rentals, utilities and vehicle fuel. (ex. Electricity supply, fuel for buildings & vehicles)
- **Consultant Services:** This object class includes expenditures for temporary professional services for specific projects during defined time periods. Services are specialized and are not ordinarily provided by, or available from, state employees. Consultant Contractors (Independent Contractors) provide advice, develop programs, and provide other services. Consultants do not provide direct services to clients. (Ex. Financial services, engineering services)
- **Operational Services:** This object class includes expenditures for services related to the routine programmatic operation of departments and programs. Services are provided by Contractors (Independent Contractors), except when otherwise authorized by statute or regulation. "Operational Services" are part of the daily programmatic activities of the

department. The use of the term “persons” includes firms as well as individuals. (Ex. Laboratory services, surveyors)

- **Equipment Purchases:** This object class includes expenditures for the procurement (outright purchase) and installation of equipment to support the programmatic functions administered by state departments. (ex. Educational supplies, office equipment)
- **Equipment Lease & Maintenance:** This object class includes expenditures for non-Information Technology (IT) and non-facility infrastructure Tax Exempt Lease-Purchases (TELP), Equipment Term Leases and short-term rentals, and equipment maintenance and repair.
- **Purchased Client Services:** This object class includes expenditures for client services including, but not limited to, social, special educational, health, medical, mental health, retardation, rehabilitative, and elder programs and services to clients, residents, and students
- **Infrastructure & Land:** This object class includes expenditures for the construction, reconstruction, installation, demolition, maintenance or repair of any building (vertical structures). (Ex. Construction services, testing firms, etc)
- **Entitlement Programs:** This object class includes entitlement payments made to recipients/beneficiaries and/or service providers on behalf of recipients/beneficiaries for authorized services to Commonwealth residents. (Ex. Nutritional assistance, veterans assistance, unemployment)
- **Loans & Special Payments:** This object class includes payments on principal borrowing and interest payments
- **Information Technology:** This object class includes information technology expenditures associated with departmental operations. (ex. Software, hardware, telecommunications infrastructure)

**APPENDIX B –
SPEND BY CATEGORY REPORT**

Appendix B - FY2016 Spend by Category Report

Spend Category - Summary	Addressable Spend
BB Employee Related Exp	1,260,407
EE Administrative Expenses	81,445,678
FF Facility Operational Exp	128,462,252
GG Energy & Space Rental Exp	86,680,980
HH Consultant Srvcs	119,811,880
JJ Operational Services	56,267,813
KK Equipment Purchases	50,887,724
LL Equip Lease & Maintenance	26,935,946
MM Purchased Client Srvcs	9,182,397
NN Infrastructure & Land	144,624,795
RR Entitlement Programs	5,448,453
TT Loans & Special Payments	30,468
UU Information Technology	85,401,284
Grand Total	796,440,075

Spend Amount - Detail		
Category	Account Desc - ID	Addressable Spend
BB Employee Related Exp	726111 - OS Travel Meals	73
	726130 - Travel-Trainee	198
	726210 - Travel - Out of State	270,764
	726220 - Travel - Foreign	124,378
	726230 - Airfare - Travel -Out of State	61,002
	726240 - Lodging - Travel -Out of State	92,313
	726250 - Mileage - Travel -Out of State	8,252
	726270 - Automobile Rental	14,444
	726311 - Travel - In State	128,277
	726450 - Mileage - Travel -In State	8,580
	726500 - Overtme Meals&H	1,988
	726700 - Conf Training & Registration	106,809
	726800 - Membership Dues and Fees	160,603
	726900 - Housing Allow	41,340
	726900 - Housing Allowance	1,000
	726910 - Moving Expense	6,529
	727200 - Other Job Related Expense	179,938
	727260 - Business Meetings	35,774
	727265 - Business Meetings-Other Exp	982
	727270 - Telephone/Internet	2,150
727280 - Taxable Reimbursement	15,012	

BB Employee Related Exp Total		1,260,407
EE Administrative Expenses	700877 - Supplies & Services	250
	734140 - Insurance	3,888,317
	734180 - Malpractice	30,141
	734200 - Office & Admin Supplies	10,601,131
	734210 - Business Meetings	5,605,932
	734220 - Business Function Recharge	548
	734230 - Parking Fees	116,780
	734245 - Department Card	305,282
	734250 - Eqt Enhancemts	35
	734260 - Team Travel - Recruitment	3,588,902
	734270 - General Recruitment	719,171
	734280 - Charity Events	167,900
	734290 - Alcoholic Beverages	54,979
	734291 - Procard Supp	274,652
	734292 - Procard SMAST	26,426
	734300 - Copying Expenses & Supplies	462,136
	734301 - Copying/Printing	3,830
	734310 - Printing Expenses & Supplies	5,487,799
	734312 - Administrative Expenses Other	300
	734340 - Recyc Env,Ltr,Cat	175
	734500 - Rchg Postage	6,677
	734500 - Recharge Postage	26,941
	734550 - Postage	4,384,206
	734700 - Rchg Tele Eqt	360
	734740 - Rchg Tele Toll	16
	735000 - Subscriptions	6,212,607
	735001 - On-Line Subscriptions	351,924
	735010 - Membership Dues Institution	3,924,888
	735100 - Advertising	12,373,171
	735110 - Sponsorships	439,246
	735200 - Exhibit/Display	2,201,064
	735300 - Bottled Water	94,822
	735480 - NonEmpl Dmg Clms,Stlmt/Jdg	45,407
	735481 - NonEmpl Stlmt/Jdg wAttorney	35,000
	735482 - Employee Settlemnt/Judgmnt	54,632
	735483 - NonEmpl Stlmt/Jdgmnt Not Tax	104,411
	735485 - NonEmpl Stlmt/Jdg NoTax 3rd Py	15,468
	735500 - St Sngl Audit	19
	735600 - Fees, Fines, Lics & Permit	4,286,258
	735610 - Royalties	1,552,584
	735902 - Conference Misc & Temp Space	6,905,130
	736200 - Donations/Memorials	338,932
	736699 - Purchase Card	2,578,245
	736700 - Credit Card Fees	48
	737100 - Employee Travel - Out of State	1,689,239
	737150 - Employee Travel - Foreign	182,003

	737200 - Employee Travel - In State	210,817
	737300 - Tuition for Employees	111,778
	737400 - Confr & Train Registration Fees	1,975,276
	738900 - Rchg Admin Exp	1,100
	738980 - Trustee Travel & Other Exp	8,723
EE Administrative Expenses Total		81,445,678
FF Facility Operational Exp	727100 - Employee Recognition	150,405
	739121 - Food, Pizza, Candy	3,562
	739200 - Freight	765,389
	739301 - Food & Beverages	30,668,750
	739400 - China & Silver	299,000
	739490 - Misc Dining/Kitchen Supplies	536,399
	739500 - Medicines & Pharmaceuticals	1,868,543
	739600 - Lab Supplies	35,123,869
	739610 - Gases & Demurrage	627,271
	739630 - Chemicals	1,852,601
	739640 - Research Animals	1,835,212
	739650 - Radioactive Material	90,942
	739660 - Tax Free Alcohol	10,399
	740400 - Medical/Surgical Supplies	603,931
	740500 - Pers Med Items & Prosthetics	120,657
	740600 - Toiletries & Personal Supp	3,836
	740700 - Clothing & Footwear	3,080,392
	740800 - Window Coverings	305,331
	740810 - Bedding, Linens	97,143
	740890 - Misc Facilities Furnishings	1,805,049
	741000 - Laundry/Cleaning Supplies	2,122,375
	741010 - Janitorial Paper Supplies	591,006
	741100 - Farm Animals & Supplies	780,764
	741400 - Library & Teaching Supplies	4,129,206
	741500 - Library Books	1,899,690
	741510 - Library Periodicals	114,938
	741520 - Library On-Line Resources	13,959,447
	741610 - Film/Video Rental	49,904
	741660 - Books/Periodicals - NonLibrary	645,917
	741810 - Research Supplies	4,547,805
	741960 - Rentals	166
	742010 - Human Subject Test	67,977
	742990 - Procard	7,851,494
	742992 - Purchase Card	6,661,944
	743000 - Athletic/Recreational Supplies	1,975,415
	743010 - Entertainment & Game	1,977,796
	743100 - Manuf Suppl/Matrls/Raw Matrls	214,956
	744000 - Navig/Nautical Supplies	32,603
	744100 - Municipal Taxes	202,797
	744101 - Property Taxes	1,240
	744330 - Tools & Supplies Auto Maint	354,362

	744800 - Law Enforcement Supplies	147,657
	745000 - Book Purchases	67,139
	745050 - Wholesale Supplies for Resale	198,760
	745090 - Newspapers/Magazines Resale	2,582
	753010 - Rchg-Collge Sup	1,058
	753900 - Rchg Fac Opn Ex	14,571
FF Facility Operational Exp Total		128,462,252
GG Energy & Space Rental Exp	754100 - Space Rental	13,478,523
	754121 - Rent Expense & O/H Exempt	61,620
	754200 - Electricity	33,831,943
	754210 - Electricity Solar Energy Credits	(499,313)
	754300 - Rchg Bulk Fuel	1,444
	754400 - Fuel for Vehicles	910,173
	754600 - Fuel Oil #6	79,063
	754610 - Fuel Oil-Other	1,934,671
	754690 - Fuel For Buildings	282
	754690 - Other Fuel for Building	3,586,752
	754700 - Diesel #2	20,626
	755000 - Sewage Disposal	306,924
	755050 - Water	1,671,484
	755200 - Energy Savings	790,418
	755300 - Natural Gas	30,506,370
GG Energy & Space Rental Exp Total		86,680,980
HH Consultant Svcs	757040 - Ad Agency/Media	4,917,069
	757060 - Architcts/Space Plan/Ldscape	1,315,999
	757070 - Landscapers	131,817
	757080 - Artists/Graphic Designers	962,764
	757090 - Attorneys & Consult/Legal Svcs	6,977,026
	757100 - Financial Services	1,642,330
	757120 - Engineers	2,519,752
	757130 - Exam Dvelopers	54,492
	757140 - Health/Safety Experts	314,273
	757160 - Researchers/Scientists	2,064,236
	757190 - Mgmt Consultants	12,247,702
	757191 - Mgmt Consult Subs over \$25K	12,398,233
	757195 - Mgmt Consultants - PSP	726,552
	757196 - Real Estate Consultant	1,174,817
	757200 - Medical Consultants	17,222,541
	757210 - Recruiters	643,162
	757220 - Planners	1,117,373
	757230 - Program Coordinators	4,232,952
	757270 - Subrecipients over \$25K	42,471,484
	757271 - Subcontracts	97,923
	757275 - Subrecipients up to \$25K	5,158,280
	758901 - Consulting Services - Grants	82,687
	758980 - Travel Reim Consultants	1,227,591
	761120 - Coroners	110,827

HH Consultant Svcs Total		119,811,880
JJ Operational Services	757050 - Arbitrators/Mediators	112,896
	761010 - Accreditation Review Costs	74,732
	761040 - Art Models	28,361
	761050 - Athletic Officials	912,981
	761071 - Auctioneers/Appraisers	42,808
	761100 - Banking/Collection Services	542,004
	761101 - Collection Agency	92,304
	761140 - Legal Support Services	91,896
	761160 - Examiners/Monitors/Graders	39,555
	761200 - Guides	11,525
	761221 - OutPatient Med Svcs	7,269,212
	761222 - Ambulance/Patient Transp Svcs	87,600
	761223 - XRay/Radiology Services	410,255
	761224 - Inpatient Med Services	1,501
	761225 - Physician Services Off-Site	5,076,994
	761230 - Investig/Inspctrs/Reviewers	851,488
	761240 - Jury & Witness Fees	1,569
	761250 - Lab Services	6,950,811
	761270 - Laundry Services	282,550
	761280 - Law Enforcement	153,424
	761290 - Messenger Services	285,508
	761330 - Photo/Micrographic Services	605,555
	761380 - Religious Services	400
	761390 - Non-Hazardous Waste Rmvl	1,583,507
	761400 - Security Services	1,044,457
	761440 - Surveyors	3,509
	761460 - Temporary Help Services	4,982,159
	761520 - Veterinary Services	148,132
	761540 - Weather Reporting Services	14,301
	761560 - Food Services	20,348,319
	761561 - Food Services for Functions	47,823
	761562 - Food Services - Additional Fee	1,064,593
	761570 - Work Study Institutional	110
	761580 - Archivists/Librarians	885,038
	761590 - Movers	1,909,010
	762980 - Travel Reim Operat Services	310,926
JJ Operational Services Total		56,267,813
KK Equipment Purchases	741970 - Furnishings/Equip under \$5,000	3,826,352
	741970 - Non-Capital Equipment	696,602
	741971 - Medical Equipment Non-Capital	17,925
	763210 - Research/Educational Equipment	37,249,669
	763230 - Av Equipment	485
	763250 - Noncap Ed Equip	16,346
	763260 - Fabricated Equipment	27,164
	763400 - Facility Equipment	3,174,453
	763500 - Motor Vehicle Equipment	1,169,348

	763700 - Office Equipment	276,997
	763800 - Printing/Copying Equipment	136,703
	763900 - Office Furnishings	487,212
	763900 - Office Furnishings \$5k & above	1,964,205
	764200 - Medical Equipment	39,871
	764300 - Law/Security Equipment	180,350
	764500 - Heavy Equipment General	1,299,355
	764600 - TV Broadcasting Equipment	132,582
	765100 - Federal IT Equipment	153,076
	765210 - Federal Research Equipment	9,535
	765915 - Non-Cap Grant Rsrch/Educatn Eq	29,494
KK Equipment Purchases Total		50,887,724
LL Equip Lease & Maintenance	766210 - Research/Educ Lease/Purchase	138,071
	766210 - Research/Education Equip L/P	66,326
	766300 - Facil Equip Lease/Purchase	96,254
	766400 - Vehicle Lease/Purchase	170,079
	766500 - Office Equip Lease/Purchase	35,775
	766550 - Print/Copy Equip Lease/Purchase	180,052
	766600 - Office Furnish Lease/Purchase	77,950
	766700 - Medical Equip Lease/Purchase	20,558
	766750 - Law/Sec Equip Lease/Purchase	31,589
	766800 - Heavy Equip Lease/Purchase	44,144
	767210 - Research/Educ Rent/Lease	265,335
	767210 - Research/Education Equip R/L	790
	767230 - Ed Eqt Op-Leas	202,081
	767300 - Facilities Equip Rental/Lease	1,677,964
	767400 - Vehicle Rental/Lease	4,117,644
	767410 - Vehc Op-Lease	16,934
	767500 - Office Equip Rental/Lease	99,098
	767550 - Print/Copy Equip Rent/Lease	1,899,443
	767600 - Office Furnish Rental/Lease	83,928
	767700 - Medical Equip Rental/Lease	4,644
	767750 - Law/Sec Equip Rental/Lease	1,242
	767800 - Heavy Equip Rental/Lease	120,291
	767870 - TV Bcst Equip Rental/Lease	33,638
	768210 - Research/Ed Equip Maintenance	4,688,027
	768300 - Operational Equip Maintenance	9,935,183
	768400 - Vehicle Maintenance	559,128
	768500 - Office Equip Maintenance	99,500
	768550 - Print/Copy Maintenance	276,254
	768600 - Office Furnish Maintenance	658,825
	768700 - Medical Equip Maintenance	84,582
	768750 - Law/Sec Equip Maintenance	266,259
	768800 - Heavy Equip Maintenance	210,828
	768870 - TV Bcst Equip Maintenance	9,285
	768900 - Rchg Maintenance	764,245
LL Equip Lease & Maintenance Total		26,935,946

MM Purchased Client Srvcs	769150 - Reimbursements	47,130
	769200 - Contracts	8,567,071
	769250 - Stud/Prgm Training	36,366
	769400 - Tuition & Education Fees	522,138
	769400 - Tuition&Ed Fees	9,350
	770980 - Reimb For Trvl	342
MM Purchased Client Srvcs Total		9,182,397
NN Infrastructure & Land	741200 - Grounds Supplies	622,038
	744201 - Procard Mnt Supply	8,486
	744202 - Tools & Supplies Groundskpng	134,318
	744212 - Tools & Supplies Constr	82,140
	744300 - Tools & Supplies Other	5,924,098
	744340 - Tools & Supplies Farm Maint	13,046
	744350 - Tools & Supplies Plumbing	1,019,288
	744360 - Tools & Supplies Painting	210,171
	744370 - Tools & Supplies Carpentry	768,254
	744380 - Tools & Supplies Electrical	1,573,887
	744700 - Floor Coverings	234,496
	754900 - Heating/Air Conditioning	366,900
	754950 - Chemicals	327,893
	761090 - Cleaners/Janitors	6,990,847
	761180 - Exterminators	89,422
	761210 - Hazardous Waste Removal	2,298,088
	761430 - Snow Rmvl, Grounds Serv	1,755,162
	761600 - Tradesperson	17,753,568
	761603 - Electrical Contractors	875
	761610 - Tradesperson - Constr	34,633
	761701 - Property Management	9,954,100
	764700 - Lawn/Grounds Equipment	185,683
	766880 - Lwn/Grnds Equip Lease/Purchase	457
	767880 - Lwn/Grnds Equip Rent/Lease	8,820
	768880 - Lwn/Grnds Equip Maint	19,343
	772010 - Architects/Designers	673,620
	772020 - Artists	1,850
	772030 - Attorneys & Construction	25,991
	772040 - Appraisers	3,800
	772060 - Cost Estimators	2,000
	772080 - Engineers/Project Managers	4,183,559
	772120 - Testing Firms	127,141
	772130 - Planning & Engineering	3,500
	772140 - Haz Waste Rmvl - Construct	97,894
	772160 - Building & Land Improvement	61,368,583
	772180 - Initial Furnish/Equip Purchase	18,104
	772180 - Initial Furnish/Equip Purchase	5,029,611
	772182 - Initial Furnish/Equip - Constr	2,250,119
	772190 - Land Acquisition	32,449
	772210 - Infrastructure Construction	5,702,592

	772220 - Facility Infrastructure Maint	5,136,870
	772221 - Elevator Maintenance	147,198
	772222 - HVAC Maintenance	339,484
	772225 - Facility Infrastructure Constr	2,355,243
	772230 - Infrastructure Maint Materials	317,826
	772270 - Transportation Oper Agrmnts	6,078,124
	772281 - Claim,Settlmnts wAttorney	12,900
	773980 - Travel Reim Infrastructure	340,325
NN Infrastructure & Land Total		144,624,795
RR Entitlement Programs	786080 - Child Support	9,300
	786090 - Educational Assistance	8,500
	786120 - Stipend for the BLIND	190,000
	786180 - Employmt Asst	30,000
	787100 - Scholarships	239,643
	787110 - Refunds-Current Ye	1,389
	787150 - Fellowship & Train	230,000
	787150 - Fellowship & Training	85,500
	787210 - Trainees Allowance	5,100
	787250 - Tuition And Fees	2,749,945
	787300 - Other Allowances	648,493
	787360 - Educational Allowance	1,250,584
RR Entitlement Programs Total		5,448,453
TT Loans & Special Payments	778020 - Loan Other	5,300
	778050 - Init Prizes	25,168
TT Loans & Special Payments Total		30,468
UU Information Technology	734610 - Video Conference Service	2,546
	734791 - Telecom Services Voice	2,630,890
	734792 - Telecom Services Data Lines	1,372,357
	734794 - Telcom - Mobile Device	394,567
	734794 - Telecom Srvcs- Mobile Device	398,333
	734794 - Telecom Svcs - Mobile Device	219,078
	734800 - Software & IT Licenses	18,829,100
	734810 - Software & Support Renewal Fee	6,962,329
	741980 - IT Equipment under \$5,000	6,291,048
	741980 - Non-Capital IT Equipment	1,493,049
	757030 - IT Professionals/Consultants	13,445,331
	757037 - Telecom Consultants	32,003
	757980 - IT Consultant-Travel & Exp	74,870
	761080 - IT Cabling	512,255
	761450 - Telecom Cabling	75,565
	763100 - IT Equipment	17,738,675
	763120 - IT Equipment/Enhancement	7,122
	763140 - Telecom Equipment	237,838
	763180 - Computer Software	808,070
	763180 - Software \$100,000 and above	1,512,038
	765916 - Non-Cap Grant IT Equip	26,806
	766100 - IT Equipment Lease/Pur	2,800,790

	767100 - IT Equipment Rental/Lease	57,102
	767150 - Telecom Equip Rent/Lease	1,496,008
	768100 - IT Equip Maintenance	7,033,259
	768150 - Telecom Equip Maintenance	950,255
	791110 - PeopleSoft Recharge	
UU Information Technology Total		85,401,284
Grand Total		796,440,075

**APPENDIX C –
ADDRESSABLE DETAIL REPORT**

Appendix C - Addressable Detail Report

		Amherst	Boston	Dartmouth	Lowell	Medical	Total	
Spend Category	Account ID - Desc			Amount			Total Amount	Vendors
Employee Related Exp	OTHER	190,796	58,338	2,566	858,115	150,592	1,260,407	868
Employee Related Exp Total		190,796	58,338	2,566	858,115	150,592	1,260,407	868
Administrative Expenses	734200 - Office & Admin Supplies	3,721,465					3,721,465	225
	734260 - Team Travel - Recruitment	2,407,868					2,407,868	1
	735000 - Subscriptions				2,496,914		2,496,914	71
	735100 - Advertising				3,224,839		7,653,257	152
	735902 - Conference Misc & Temp Space				2,947,382		2,947,382	146
	OTHER	18,513,491	12,700,350	7,060,383	5,197,008	14,904,167	62,218,791	5,172
Administrative Expenses Total		24,642,824	12,700,350	7,060,383	13,866,144	14,904,167	81,445,678	5,767
Facility Operational Exp	739301 - Food & Beverages	29,483,997					29,483,997	103
	739600 - Lab Supplies	2,510,540				29,431,964	31,942,503	999
	741400 - Library & Teaching Supplies	3,064,816					3,064,816	122
	741520 - Library On-Line Resources	7,240,066				3,955,915	11,195,982	150
	742990 - Procard				6,354,464		6,354,464	1
	742992 - Purchase Card	6,661,356					6,661,356	1
	OTHER	14,587,020	5,483,779	4,623,332	5,686,643	9,348,018	39,759,133	4,297
Facility Operational Exp Total		63,547,795	5,483,779	4,623,332	12,041,108	42,735,898	128,462,252	5,673
Energy & Space Rental Expense	754100 - Space Rental		3,418,009	3,632,936		2,482,623	9,533,568	81
	754200 - Electricity	5,221,830	6,972,907	3,333,387	7,088,404	11,132,494	33,749,022	42
	754610 - Fuel Oil-Other	1,934,014					1,934,014	6
	754690 - Other Fuel for Building	3,574,046					3,574,046	5
	755300 - Natural Gas	14,449,981		3,079,775		11,001,751	28,531,506	23
	OTHER	2,079,327	1,796,724	868,981	3,326,195	291,942	9,358,823	127
Energy & Space Rental Exp Total		27,259,198	12,187,640	10,915,078	10,414,599	24,908,810	86,680,980	284
Consultant Svcs	757040 - Ad Agency/Media	3,445,249					3,445,249	39
	757090 - Attorneys & Consult/Legal Svcs					3,587,061	3,587,061	37
	757190 - Mgmt Consultants				1,993,632	4,635,073	6,628,705	364
	757191 - Mgmt Consult Subs over \$25K					12,398,233	12,398,233	4
	757200 - Medical Consultants					16,580,271	16,580,271	403
	757270 - Subrecipients over \$25K	11,673,895	7,953,809		3,016,380	19,153,412	41,797,497	346
	757275 - Subrecipients up to \$25K					1,904,413	1,904,413	93
	OTHER	8,710,673	5,441,070	3,218,283	5,467,063	6,313,128	33,470,450	3,215
Consultant Svcs Total		23,829,818	13,394,878	3,218,283	10,477,075	64,571,592	119,811,880	4,501
Operational Services	761221 - OutPatient Med Svcs					7,269,167	7,269,167	20
	761225 - Physician Services Off-Site					5,076,994	5,076,994	93
	761250 - Lab Services					5,651,397	5,651,397	162
	761460 - Temporary Help Services					2,332,504	2,332,504	45
	761560 - Food Services			8,450,601	11,809,082		20,259,683	7
	OTHER	5,242,136	2,121,671	2,170,732	2,583,678	3,189,971	15,678,069	2,166
Operational Services Total		5,242,136	2,121,671	10,621,333	14,392,760	23,520,033	56,267,813	2,493
Equipment Purchases	741970 - Furnishings/Equip under \$5,0	2,408,055					2,408,055	228
	763210 - Research/Educational Equipn	18,622,367	3,997,660		2,412,687	11,297,394	36,330,108	459
	763400 - Facility Equipment	2,134,430					2,134,430	60
	OTHER	3,029,303	1,482,064	2,019,816	2,981,648	433,039	10,015,131	529
Equipment Purchases Total		26,194,155	5,479,725	2,019,816	5,394,335	11,730,433	50,887,724	1,276
Equip Lease & Maintenance	767400 - Vehicle Rental/Lease				2,183,045		2,183,045	19
	768210 - Research/Ed Equip Maintenance					2,277,867	2,277,867	93
	768300 - Operational Equip Maintenanr	4,107,193				4,143,828	8,251,021	399
	OTHER	5,520,917	1,328,513	2,308,994	2,565,805	2,423,718	14,224,013	1,222
Equip Lease & Maintenance Total		9,628,110	1,328,513	2,308,994	4,748,850	8,845,413	26,935,946	1,733
Purchased Client Svcs	769200 - Contracts					8,567,071	8,567,071	6
	OTHER		522,138		47,472	45,716	615,326	61
Purchased Client Svcs Total			522,138		47,472	8,612,787	9,182,397	67
Infrastructure & Land	761090 - Cleaners/Janitors		4,142,901				4,142,901	6
	761600 - Tradesperson				13,066,593	3,954,535	17,021,128	275
	761701 - Property Management				8,424,272		8,424,272	8
	772080 - Engineers/Project Managers	3,995,482					3,995,482	55
	772160 - Building & Land Improvemen	46,156,921		5,430,009		7,209,067	58,795,997	139
	772180 - Initial Furnish/Equip Purchase					3,573,698	3,573,698	43
	772182 - Initial Furnish/Equip - Constr	2,250,119					2,250,119	32
	772210 - Infrastructure Construction					5,599,724	5,599,724	18
	772225 - Facility Infrastructure Constr	2,355,243					2,355,243	53
	772270 - Transportation Oper Agrmnts		5,644,767				5,644,767	2
	OTHER	11,885,623	4,914,066	3,347,646	5,535,299	7,078,119	32,821,464	1,802
Infrastructure & Land Total		66,643,387	14,701,735	8,777,656	27,026,164	27,415,142	144,624,795	2,433
Entitlement Programs	787250 - Tuition And Fees	2,498,752					2,498,752	45
	OTHER	871,602	7,446	136	1,136,259	11,623	2,949,701	281

Entitlement Programs Total		3,370,354	7,446	136	1,136,259	11,623	5,448,453	326
Loans & Special Payments	OTHER		15,302		15,167		30,468	67
Loans & Special Payments Total			15,302		15,167		30,468	67
Information Technology	734800 - Software & IT Licenses	4,371,779				5,345,122	15,123,215	460
	734810 - Software & Support Renewal Fee						4,797,918	38
	741980 - IT Equipment under \$5,000	3,182,872					3,182,872	57
	757030 - IT Professionals/Consultants					9,964,380	9,964,380	78
	763100 - IT Equipment	7,921,146	1,941,262			6,569,433	16,431,841	57
	766100 - IT Equipment Lease/Pur				2,671,016		2,671,016	36
	768100 - IT Equip Maintenance	2,352,981					2,352,981	71
	OTHER	6,220,868	5,153,560	3,106,425	4,916,775	6,602,797	30,877,061	1,206
Information Technology Total		24,049,646	7,094,822	3,106,425	7,587,791	28,481,731	85,401,284	2,003
Grand Total		274,598,218	75,096,336	52,654,001	108,005,838	255,888,222	796,440,075	27,491

APPENDIX D – VENDOR REPORT

Appendix D - Vendor Report

Fiscal Year 2016

Sum of amount	Type		
Vendor	Addressable	Non-addressable	Grand Total
000002286 - COMMONWEALTH OF MASSACHUSETTS		172,610,718.96	172,610,718.96
0000034589 - MAXIMUS		46,022,439.26	46,022,439.26
0000025984 - XEROX CORPORATION	23,637,708.33		23,637,708.33
0000041579 - UMASS BUILDING AUTHORITY		22,049,851.17	22,049,851.17
0000102062 - UHEALTH SOLUTIONS INC		21,723,980.14	21,723,980.14
0000105434 - PERFORMANCE FOOD GROUP INC	18,565,290.07		18,565,290.07
0000081749 - DIRECT ENERGY BUSINESS	18,129,530.93		18,129,530.93
0000106405 - ARAMARK CORPORATION	15,768,023.60		15,768,023.60
0000108751 - DUKE UNIVERSITY HEALTH SYSTEM INC		14,724,454.18	14,724,454.18
0000057633 - UNIVERSITY HEALTH PLANS INCORPORATED		11,977,229.00	11,977,229.00
0000078683 - COMPASS GROUP USA INC	11,559,855.39	988.50	11,560,843.89
0000127707 - EVERSOURCE ENERGY	11,324,765.61		11,324,765.61
0000013846 - NATIONAL GRID- ELECTRIC	9,428,162.29		9,428,162.29
0000028526 - FISHER SCIENTIFIC COMPANY LLC	7,956,061.01	117.26	7,956,178.27
0000022296 - CAROUSEL INDUSTRIES OF NORTH AMERICA INC	7,762,032.96		7,762,032.96
0000039551 - DELL MARKETING LP	7,384,981.53	1,323.78	7,386,305.31
0000135075 - SPRAGUE OPERATING RESOURCES LLC	7,103,410.27		7,103,410.27
0000036832 - EBSCO	6,142,317.39		6,142,317.39
0000113327 - SOHO DEVELOPMENT LLC	5,691,770.00		5,691,770.00
0000079218 - PERMEDION INC	5,529,847.22		5,529,847.22
0000105685 - SUFFOLK CONSTRUCTION COMPANY INC	5,525,199.00		5,525,199.00
0000017038 - KURTZ INCORPORATED	4,760,726.99		4,760,726.99
0000020736 - TOWN OF AMHERST		4,665,235.65	4,665,235.65
0000085702 - ORACLE AMERICA INC	4,571,541.03		4,571,541.03
0000054570 - PRESIDIO NETWORKED SOLUTIONS LLC	4,403,868.46		4,403,868.46
0000036357 - GLOBAL SPECTRUM LP	4,009,071.60	350,000.00	4,359,071.60
0000072690 - C&W FACILITY SERVICES INC	4,106,198.13		4,106,198.13
0000024636 - ELSEVIER INC	4,035,415.11		4,035,415.11
0000082539 - SOULIERE & ZEPKA CONSTRUCTION INC	3,968,255.25		3,968,255.25
0000096692 - LIFE TECHNOLOGIES CORPORATION	3,918,128.32		3,918,128.32
0000030220 - ILLUMINA INC	3,829,861.03		3,829,861.03
0000002193 - BETH ISRAEL DEACONESS MEDICAL CENTER		3,816,318.75	3,816,318.75
0000041944 - CITY OF WORCESTER		3,769,634.08	3,769,634.08
0000043492 - OFFICE MAX NORTH AMERICA	3,494,738.58	1,931.55	3,496,670.13
0000041843 - NSTAR ELECTRIC AND GAS CORPORATION	3,496,362.20	251.54	3,496,613.74
0000016985 - RAC BUILDERS INC	3,495,572.00		3,495,572.00
0000126396 - LIBERIA POST GRADUATE COLLEGE PHYSICIANS	3,480,226.37		3,480,226.37
0000105450 - BOATHOUSE GROUP, INC.	3,433,850.36		3,433,850.36
0000019222 - UMASS MEMORIAL MEDICAL CENTER INC		3,414,232.92	3,414,232.92
0000120882 - PAUL REVERE TRANSPORTATION LLC	3,409,912.85		3,409,912.85
0000118211 - PROMETHEUS ENERGY GROUP INC	3,408,077.01		3,408,077.01
0000076009 - FRESHPOINT CONNECTICUT LLC	3,355,783.08		3,355,783.08
0000025142 - OTIS ELEVATOR COMPANY	3,315,167.29		3,315,167.29
0000034769 - UNIVERSITY OF MASSACHUSETTS AMHERST FNDN		3,252,639.84	3,252,639.84
0000109434 - GRANVILLE BEHAVIORAL HEALTH SERVICES	3,060,993.31		3,060,993.31
0000013762 - BERKSHIRE GAS COMPANY	2,984,333.39		2,984,333.39
0000117978 - JM COULL INC	2,936,332.39		2,936,332.39
0000107109 - KLEEBERG MECHANICAL SERVICES LLC	2,806,373.21		2,806,373.21
0000019775 - INTEGRATION PARTNERS CORPORATION	2,787,579.25		2,787,579.25
0000123243 - MASS SOLAR 1 LLC	2,756,418.25		2,756,418.25
0000111126 - UNIVERSITY OF NORTH CAROLINA HOSPITALS		2,729,017.85	2,729,017.85
0000051861 - BURTON F CLARK INCORPORATED	2,716,048.00		2,716,048.00
0000020799 - TOWN OF SHREWSBURY	2,701,854.00		2,701,854.00
0000100041 - ACADEMY EXPRESS LLC	2,552,506.40		2,552,506.40
0000018383 - LEXINGTON GROUP INCORPORATED	2,504,452.99		2,504,452.99
0000039594 - APPLE INCORPORATED	2,487,097.80	12,950.00	2,500,047.80
0000014542 - PICARD CONSTRUCTION CORP	2,464,597.37		2,464,597.37
0000014408 - DENNIS K BURKE INC	2,401,732.68		2,401,732.68
0000113438 - J & J CONTRACTORS INC	2,379,704.47		2,379,704.47
0000041521 - BHE MTA HEALTH & WELFARE TRUST FUND		2,357,301.48	2,357,301.48

Vendor	Addressable	Non-addressable	Grand Total
0000055372 - CONSOLIDATED EDISON	2,353,271.92		2,353,271.92
0000059696 - FORISH CONSTRUCTION CO INC	2,302,030.97		2,302,030.97
0000065627 - NATIONAL GRID- GAS	2,292,323.06		2,292,323.06
0000086703 - CARPE DIEM TECHNOLOGIES INC	2,224,041.50		2,224,041.50
0000046055 - OVERTURE PARTNERS LLC	2,162,200.90		2,162,200.90
0000089810 - SHI INTL CORP	2,158,550.88		2,158,550.88
0000013948 - HEALTHALLIANCE HOSPITALS INCORPORATED	2,152,032.94		2,152,032.94
0000019437 - DIVERSIFIED CONSTRUCTION SERVICES LLC	2,104,299.42		2,104,299.42
0000099507 - ONX USA LLC	2,102,227.10		2,102,227.10
0000014551 - KITTREDGE EQUIPMENT COMPANY INC	2,057,296.94		2,057,296.94
0000114592 - ZSN CARE LLC	2,039,490.00		2,039,490.00
0000002167 - JACKSON LABORATORY	2,032,032.99		2,032,032.99
0000015732 - MAROIS CONSTRUCTION CO INC	2,022,732.29		2,022,732.29
0000044970 - FOLLETT HIGHER EDUCATION GROUP	1,763,599.87	217,426.68	1,981,026.55
0000091444 - SCHRAFFT CENTER LLC	1,964,807.99		1,964,807.99
0000020753 - TOWN OF DARTMOUTH		1,945,744.78	1,945,744.78
0000045384 - BLACKBOARD INC	1,891,611.15		1,891,611.15
0000002189 - MASSACHUSETTS INSTITUTE OF TECHNOLOGY		1,835,957.93	1,835,957.93
0000097802 - PERKIN ELMER HEALTH SCIENCES INC	1,835,271.25		1,835,271.25
0000065022 - FIVE STAR BUILDING CORP	1,823,885.14		1,823,885.14
0000060840 - WELLS FARGO BANK NA	1,791,097.21		1,791,097.21
0000013881 - T J CONWAY COMPANY	1,789,742.61		1,789,742.61
0000041503 - MASS PUBLIC EMPLOYEES FUND		1,756,811.27	1,756,811.27
0000018098 - UNIVERSAL ELECTRIC CO INC	1,752,869.85		1,752,869.85
0000039550 - GOVCONNECTION INCORPORATED	1,728,762.93		1,728,762.93
0000039588 - CARL ZEISS MICROSCOPY LLC	1,656,741.46		1,656,741.46
0000088536 - NRT BUS INC	1,649,519.08		1,649,519.08
0000126200 - TELLIGEN INC	1,628,000.00		1,628,000.00
0000019679 - VANGUARD CONSTRUCTION CO INC	1,617,190.42		1,617,190.42
0000132201 - MONAN PARK LLC	1,608,827.50		1,608,827.50
0000055515 - SIEMENS MEDICAL SOLUTIONS USA INC	1,600,002.00		1,600,002.00
0000053257 - OFFICE RESOURCES INC	1,594,180.56		1,594,180.56
0000124572 - POINT EIGHT POWER	1,546,739.36		1,546,739.36
0000075186 - B-G MECHANICAL CONTRACTORS INC	1,536,899.55		1,536,899.55
0000132252 - ACSTAR INSURANCE COMPANY	1,534,632.00		1,534,632.00
0000102614 - EXXACT CORPORATION	1,511,181.24		1,511,181.24
0000002287 - UNIVERSITY OF MASSACHUSETTS FOUNDATION		1,494,979.67	1,494,979.67
0000046443 - FEI COMPANY	1,486,391.18		1,486,391.18
0000019611 - ELEMENT PRODUCTIONS	1,472,182.77		1,472,182.77
0000017352 - TRIUMVIRATE ENVIRONMENTAL INC	1,463,082.16		1,463,082.16
0000015886 - EMC 2	1,455,226.38		1,455,226.38
0000037079 - SECURITAS SECURITY SERVICES USA	1,444,817.13		1,444,817.13
0000022192 - SILKTOWN ROOFING INC	1,440,417.11		1,440,417.11
0000108559 - PRIVATE DIAGNOSTIC CLINIC PLLC	1,373,704.62		1,373,704.62
0000109254 - AON RISK SERVICES NORTHEAST INC	1,354,654.26		1,354,654.26
0000071125 - CHILDRENS HOSPITAL	1,339,813.96	8,000.00	1,347,813.96
0000066555 - SOLAR TURBINES INCORPORATED	1,330,105.09		1,330,105.09
0000015841 - GARLAND CONSTRUCTION CORPORATION	1,323,335.57		1,323,335.57
0000045331 - JOHNSON CONTROLS INC	1,288,527.78	19,995.00	1,308,522.78
0000080911 - ZENSAR TECHNOLOGIES IM INC	1,306,296.79		1,306,296.79
0000039542 - VERIZON WIRELESS	1,296,207.53		1,296,207.53
0000130974 - CALHESS RESTORATION WEATHERPROOFING CORP	1,282,860.46		1,282,860.46
0000044974 - AGILENT TECHNOLOGIES INC	1,253,004.68		1,253,004.68
0000046491 - UMASS MEMORIAL MEDICAL GROUP INC		1,251,428.91	1,251,428.91
0000066977 - AVOCETTE TECHNOLOGIES INC	1,239,646.80		1,239,646.80
0000002495 - UNIVERSITY OF WISCONSIN	1,238,499.74		1,238,499.74
0000020902 - FIVE COLLEGES INCORPORATED	125,762.64	1,110,846.00	1,236,608.64
0000020231 - AMBIENT TEMPERATURE CORPORATION	1,220,369.88		1,220,369.88
0000030847 - CENTER FOR RESEARCH LIBRARIES	1,210,148.87		1,210,148.87
0000055972 - MCKESSON CORPORATION- PHARMACEUTICALS	1,207,210.96		1,207,210.96
0000015377 - BRUKER BIOSPIN CORPORATION	1,203,233.87	600.00	1,203,833.87
0000013742 - VERIZON	1,168,088.30		1,168,088.30
0000117285 - M5 SYSTEMS INC	1,164,730.00		1,164,730.00
0000014204 - POSTMASTER	1,152,123.67		1,152,123.67
0000121049 - SUNSHINE PAVING CORPORATION	1,148,899.60		1,148,899.60
0000045743 - SUBURBAN INTEGRATED FACILITIES RESOURCES	1,147,129.94		1,147,129.94

Vendor	Addressable	Non-addressable	Grand Total
0000039548 - SIGMA-ALDRICH INC	1,146,102.90		1,146,102.90
0000073214 - EDUCATION ADVISORY BOARD	1,131,395.50		1,131,395.50
0000017931 - CAPITAL CARPET & FLOORING SPCL	1,130,682.80		1,130,682.80
0000072188 - BEACON HILL STAFFING GROUP LLC	1,113,016.65		1,113,016.65
0000045028 - GE HEALTHCARE BIO-SCIENCES CORPORATION	1,083,384.17	714.00	1,084,098.17
0000024765 - SLOBODY DEVELOPMENT CORPORATION	1,067,862.99		1,067,862.99
0000002257 - UNIVERSITY OF MASSACHUSETTS		1,047,760.29	1,047,760.29
0000014456 - CONTINENTAL RESOURCES INC	1,040,760.00		1,040,760.00
0000026760 - BLUE SPRUCE TECHNOLOGIES INC	1,035,413.13		1,035,413.13
0000015502 - MODUFORM INC	1,026,901.64		1,026,901.64
0000132970 - FORTE RESEARCH SYSTEMS INC	1,020,000.00	5,224.67	1,025,224.67
0000020826 - CITY OF LOWELL	1,021,060.87		1,021,060.87
0000112522 - UNC FACULTY PHYSICIANS	1,017,933.83		1,017,933.83
0000018398 - MERCIER ELECTRIC & COMMUNICATIONS INC	1,011,412.28		1,011,412.28
0000132269 - MN DEPT EMPLOYEMENT ECONOMIC DEVELOPMENT	1,005,507.63		1,005,507.63
0000002214 - THE BRIGHAM & WOMENS HOSPITAL INC	1,003,186.87		1,003,186.87
0000038117 - VWR INTL INCORPORATED	1,001,031.60		1,001,031.60
0000067954 - COMPASS RESTORATION SERVICES LLC	998,461.90		998,461.90
0000015611 - BOSTON WATER & SEWER	993,810.91		993,810.91
0000039570 - WHALLEY COMPUTER ASSOCIATES	993,112.07	550.00	993,662.07
0000045290 - NATIONAL OPINION RESEARCH CENTER	987,802.20		987,802.20
0000002192 - TUFTS UNIVERSITY	978,174.82	4,513.00	982,687.82
0000039578 - WASSMANN AUDIO VIDEO INC	979,979.69		979,979.69
0000014396 - SCHMIDT EQUIPMENT INC	974,255.38		974,255.38
0000116292 - KELLEHER & SADOWSKY ASSOCIATES INC	973,944.10		973,944.10
0000054289 - PROQUEST LLC	960,546.36		960,546.36
0000002301 - YALE UNIVERSITY	947,955.09	6,211.09	954,166.18
0000129864 - MASS PV FREETOWN	946,860.00		946,860.00
0000018009 - ADTECH SYSTEMS INCORPORATED	943,133.89	660.02	943,793.91
0000026848 - PITNEY BOWES GLOBAL FINANCIAL SERVICES	942,682.90		942,682.90
0000038789 - QIAGEN INC	930,698.61		930,698.61
0000100803 - EMD MILLIPORE CORPORATION	922,707.84		922,707.84
0000111731 - BAYSIDE MERCHANDISE MART SPE LLC	914,765.89		914,765.89
0000088317 - MA GREEN HIGH PERFORMANCE COMPUTING CTR		910,433.61	910,433.61
0000117172 - FORGE WORLDWIDE LLC	909,899.42		909,899.42
0000109496 - CAPA INTL EDUCATION LP	905,668.10		905,668.10
0000123391 - LATHROP AND GAGE LLP	905,051.89		905,051.89
0000032342 - WELLS FARGO FINANCIAL LEASING	889,035.60		889,035.60
0000014746 - BUYER ADVERTISING INC	888,264.44		888,264.44
0000013584 - BLUE CROSS BLUE SHIELD OF MA	0.00	868,059.88	868,059.88
0000025136 - NEW YORK UNIVERSITY	862,311.11		862,311.11
0000013861 - COX ENGINEERING SERVICE CO	850,463.00		850,463.00
0000002303 - UNIVERSITY OF CONNECTICUT	839,435.60		839,435.60
0000100350 - AUTOMATED LOGIC - NEW ENGLAND	838,179.60		838,179.60
0000120582 - EOS OF NORTH AMERICA INC	830,000.00		830,000.00
0000045571 - GREENWOOD INDUSTRIES INCORPORATED	827,666.34		827,666.34
0000090217 - LIGHTTOWER FIBER NETWORKS II LLC	827,405.21		827,405.21
0000083396 - SODEXO OPERATIONS LLC	821,823.17		821,823.17
0000111992 - ARDEN ENGINEERING CONSTRUCTORS LLC	815,953.40		815,953.40
0000106302 - RANDSTAD PROFESSIONALS US LLC	813,883.62		813,883.62
0000048206 - PAETEC COMMUNICATIONS INC	806,771.34		806,771.34
0000002444 - BIO-RAD LABORATORIES	805,972.41		805,972.41
0000061639 - GALLAGHER KOSTER	777,976.12		777,976.12
0000037459 - CHARLES RIVER LABORATORIES	775,461.52		775,461.52
0000028263 - WEST PHARMA SERVICES	773,966.93		773,966.93
0000023971 - NIKON INSTRUMENT INC	768,610.33		768,610.33
0000044602 - UNIVERSITY OF WASHINGTON	760,512.99	8,000.00	768,512.99
0000015312 - BUILDERS SYSTEMS INC	760,351.45		760,351.45
0000016698 - HEALTH NEW ENGLAND INCORPORATED	751,977.28		751,977.28
0000055867 - GRANT THORNTON LLP	750,833.54		750,833.54
0000026147 - THE DURKIN COMPANY	748,929.98		748,929.98
0000041590 - NORTH COAST SEAFOODS CORPORATION	747,454.86		747,454.86
0000019743 - RUTTER NETWORKING TECHNOLOGIES INC	746,584.86		746,584.86
0000092036 - TUFTS MEDICAL CENTER INC	735,904.74		735,904.74
0000087859 - NEW ENGLAND HERITAGE PROPERTIES INC	730,686.86		730,686.86
0000073456 - ALL SPRT HEROES UNFRM SPRT GD & PROM INC	728,005.78		728,005.78

Vendor	Addressable	Non-addressable	Grand Total
0000066532 - TRANSFORMATIONS BY WIELAND INC	725,498.72		725,498.72
0000033239 - RUFFALO NOEL LEVITZ	725,286.04		725,286.04
0000037823 - PITNEY BOWES RESERVE ACCOUNT	722,662.76		722,662.76
0000014114 - RH WHITE CONSTRUCTION	721,776.54		721,776.54
0000013916 - CARLYSLE ENGINEERING INC	718,854.55		718,854.55
0000098135 - US ELECTRICAL SERVICES INC	716,981.68		716,981.68
0000013919 - BOND BROTHERS INC	715,864.76		715,864.76
0000035999 - SIMPLEXGRINNELL LP	714,149.16		714,149.16
0000019999 - MCINNIS CONSULTING SERVICES INC	702,112.52		702,112.52
0000024727 - B&H PHOTO VIDEO PRO AUDIO	700,082.26	1,514.66	701,596.92
0000085241 - CARRAMORE INTL LIMITED	700,633.30		700,633.30
0000048480 - WARNER BROS LLC	699,833.77		699,833.77
0000113433 - PDS ENGINEERING & CONSTRUCTION INC	695,712.32		695,712.32
0000017996 - MICRO VIDEO INSTRUMENTS INC	691,570.82		691,570.82
0000023886 - EPPENDORF NORTH AMERICA INCORPORATED	677,118.61		677,118.61
0000002183 - BOSTON UNIVERSITY	664,859.26	8,836.84	673,696.10
0000039597 - BECKMAN COULTER INCORPORATED	673,374.61		673,374.61
0000039559 - FW WEBB COMPANY	670,566.53		670,566.53
0000043944 - NATIONAL PUBLIC RADIO	670,519.25		670,519.25
0000080803 - TRANE US INC	669,623.89		669,623.89
0000030808 - W W GRAINGER INC	661,368.71		661,368.71
0000108622 - COLETTA CONTRACTING COMPANY INC	661,282.86		661,282.86
0000039546 - CDW GOVERNMENT LLC	658,971.53		658,971.53
0000104230 - FRONTIER INDUSTRIAL TECHNOLOGY INC	655,629.60		655,629.60
0000051403 - RIGAKU AMERICAS CORPORATION	651,131.18		651,131.18
0000040248 - YBP LIBRARY SERVICES	649,163.27		649,163.27
0000018018 - LAN-TEL COMMUNICATIONS INC	639,536.75		639,536.75
0000041139 - BHE NON UNIT HEALTH & WELFARE TRUST FUND		634,852.14	634,852.14
0000002178 - NORTHEASTERN UNIVERSITY	634,801.16		634,801.16
0000015297 - ARNOLDS MEAT	634,739.36		634,739.36
0000057183 - LIGHTTOWER FIBER NETWORKS I LLC	633,902.63		633,902.63
0000041637 - CREATIVE OFFICE PAVILION	632,611.14		632,611.14
0000002342 - UNIVERSITY OF PENNSYLVANIA	623,873.95		623,873.95
0000038896 - REGENTS UNIVERSITY OF CALIFORNIA	609,648.98	10,333.32	619,982.30
0000002389 - UNIVERSITY OF CONNECTICUT HEALTH CENTER	612,347.62		612,347.62
0000017259 - THE RESOURCE CONNECTION INC	603,174.08	5,872.33	609,046.41
0000025024 - SCHOTT PHARMACEUTICAL PACKAGING	605,054.47		605,054.47
0000021970 - FUSS & O NEILL INC	603,512.03		603,512.03
0000015087 - FLAGSHIP PRESS INC	602,549.88		602,549.88
0000124020 - KEYSIGHT TECHNOLOGIES INCORPORATED	600,943.59		600,943.59
0000114129 - ANDRES S CARDEN MD	600,470.00		600,470.00
0000107650 - EBP SUPPLY SOLUTIONS INC	594,378.42		594,378.42
0000019321 - FORTUNE WANNALANCIT LLC	593,870.99		593,870.99
0000013877 - FRANK I ROUNDS CO	591,542.90		591,542.90
0000045396 - COCA-COLA REFRESHMENTS	586,198.01	3,806.35	590,004.36
0000117373 - MCGRAW-HILL EDUCATION INC	587,495.82		587,495.82
0000041365 - ASSOCIATED ELECTRO MECHANICS INC	585,391.16		585,391.16
0000017768 - RIVERSIDE COMM MENTAL HLTH & R	583,903.99		583,903.99
0000025457 - JOE CZAJKOWSKI FARM	578,999.40		578,999.40
0000056643 - AT&T MOBILITY	573,277.96		573,277.96
0000002475 - BAYSTATE MEDICAL CENTER INC	572,215.89	400.00	572,615.89
0000014229 - PETER PAN BUS LINES INC	567,557.32	5,020.00	572,577.32
0000073803 - AMERICAN CHEMICAL SOCIETY	567,013.00	297.00	567,310.00
0000110794 - COMMONWEALTH OF KENTUCKY	564,925.47	1,252.54	566,178.01
0000108096 - AIRFAX AIRLINE MARKETING ASSOCIATES INC	563,046.09		563,046.09
0000062377 - MASS STATE HEALTH CARE PRFSSNL DNTL FUND		551,688.59	551,688.59
0000026933 - DRESSER-RAND COMPANY	545,350.47		545,350.47
0000002310 - COLUMBIA UNIVERSITY	539,961.54		539,961.54
0000028365 - COMCAST	534,774.06		534,774.06
0000017736 - VALET PARK OF AMERICA	533,990.42		533,990.42
0000017385 - MINUTEMAN SECURITY TECHNOLOGIES INC	532,859.62		532,859.62
0000086557 - AETNA STUDENT HEALTH AGENCY INC		531,256.00	531,256.00
0000014142 - FOLEY HOAG LLP	530,818.88		530,818.88
0000116355 - GTC CONSTRUCTION MANAGEMENT	529,681.20		529,681.20
0000022354 - SIGHTLINES LLC	528,991.63		528,991.63
0000090399 - CENTER FOR HEALTH IMPACT	464,183.46	61,522.48	525,705.94

Vendor	Addressable	Non-addressable	Grand Total
0000126183 - NORTHEAST POWER SYSTEMS INC	524,148.00		524,148.00
0000070791 - ABM JANITORIAL SERVICES NEAST INC	523,966.57		523,966.57
0000041732 - RESEARCH PARK LP	523,769.19		523,769.19
0000103130 - SCIQUEST INC	522,937.00		522,937.00
0000131048 - OBS REIT LLC	521,646.55		521,646.55
0000002541 - UNIV OF NORTH CAROLINA AT CHAPEL HILL	518,137.25		518,137.25
0000049284 - MASS-WEST CONSTRUCTION INCORPORATED	517,662.53		517,662.53
0000113554 - CONSTELLATION ENERGY SERVICES INC	517,493.04		517,493.04
0000020347 - WHELAN ASSOCIATES LLC	515,546.28	900.00	516,446.28
0000022388 - COMPLETE STAFFING SOLUTIONS INC	514,982.12		514,982.12
0000031031 - STERICYCLE INC	511,109.47		511,109.47
0000115285 - VIBRA HOSPITAL OF W MASS CENTRAL CAMPUS	508,747.87		508,747.87
0000133914 - 160OVER90 LLC	508,640.25		508,640.25
0000022056 - WHITEHEAD INSTITUTE BIOMEDICAL RESEARCH	508,380.00		508,380.00
0000002186 - HARVARD UNIVERSITY	485,911.69	21,583.00	507,494.69
0000017742 - MASS PIRG	507,354.13		507,354.13
0000002407 - EMORY UNIVERSITY	506,596.97		506,596.97
0000123661 - NUGEN CAPITAL MANAGEMENT LLC	506,103.92		506,103.92
0000036952 - NORTHEAST ARCHIVES	506,064.59		506,064.59
0000019223 - UMASS MEMORIAL HEALTH CARE PHARMACY	500,974.84		500,974.84

**APPENDIX E –
PROJECT TRACKING REPORT**

Category	Status	Project Title	Description	Cost Avoidance	Cost Reduction
University - HR Processes	Completed	403B Supplemental Retirement Restructuring	Enhanced participants services and improved administrative efficiencies. For example, we used to send six deferral files every pay period (all with different formats and processes); we now send one file. We were previously manually entering bi-weekly elective deferrals into the payroll system; elections are now made online and uploaded into our bi-weekly payroll. Reduced overall administrative/participant costs. We currently estimate annual participant cost savings of \$400,000. It is our expectation that the annual savings will grow as assets in the plan continue to increase. Improved employee communication, education, and assistance.	\$ -	\$ -
University - IT	Completed	9C Budget Re-Alignment - Non-Personnel	Elimination of historically high budget placeholders in Admin Expenses, Temp Help, Consulting & EE Train & Travel	\$ -	\$ 56.00
University - IT	Completed	9C Budget Re-Alignment - Personnel	Reduced 9 FTE's and contract employee positions related to redundant administrative & management staff.	\$ -	\$ 1,500.00
University - Energy	Completed	Add DDC controls to Donahue, Sheehy	Add DDC BAS controls to three residence halls	\$ -	\$ -
University - IT	Active	Adobe	Prepare for System wide bid process 2/13. Update 12/5/14: Three year contract completed, total annual cost avoidance \$39,000. Improved product offering, Adobe Creative Cloud. all campuses and System Office participating excepting the Medical School.	\$ 123.00	\$ 39.00
University - IT	Completed	Adobe	Renewal for 1 year with no price increase	\$ 45.00	
University - IT	Completed	Advancement Implementation	"Implement Advancement system for UMB, UMD and UML Upgrade UMW to current version"	\$ -	\$ -
University - Energy	Active	AEP	Total Campus AEP	\$ 2,400.00	\$ -
University - HR Processes	Under Development	Affirmative Action Reporting	The University is contracting with DCI Consulting to manage the data for the University's plans, beginning on November 1. Through this engagement we will be changing the snapshot date for AAP reporting to align with IPEDS reporting.	\$ -	\$ -
University - IT	Completed	Anti Virus Software	Centralized contract completed	\$ 20.00	\$ 10.00
University - IT	Completed	Apple System wide agreement	Work with Apple by and all campuses to create a University wide agreement that provides an enhanced level of discounting and standard business terms	\$ -	\$ 90.00
University - HR Processes	Under Development	Applicant Tracking Implementation	The New ATS with PageUp is in the final implementation stages. Dartmouth, Lowell and the President's Office will look to go live with the new ATS in the early part of FY18. Amherst and Boston will look to go live towards the end of CY18.	\$ -	\$ -
University - Purchasing	Active	Athletics Advertising	University-wide contract w/ office supply vendors for advertising. Revenue generation for the University	\$ -	\$ 1,500.00
University - IT	Completed	Atomic Learning	Training software currently being bid by A, B, D, L	\$ 35.00	\$ 4.00
University - IT	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	\$ -
University - HR Processes	Under Development	UMSO APR process	The new forms are intended to support and develop greater consistency with regard to the evaluation process within the system office. Through the utilization of these new tools, it is our intention to both simplify and strengthen the collaborative evaluation process, which needs to occur between the supervisor and the employee when reviewing performance.	\$ -	\$ -
University - HR Processes	Under Development	Background Check Vendor	The System is close to finalizing this project with Creative Services Inc. The campuses will be live between June-August 2017. Each campus will have their own rollout date.	\$ -	\$ -
University - IT	Completed	BoardVantage	Effort to migrate Board of Trustee documents to fully paperless environment.	\$ -	\$ 141.00
University - IT	Active	Business Intelligence	Dashboard development and upgrade for SUMMIT (Financials, HR and Student Administration)	\$ 90.00	\$ -
University - IT	Completed	CedarCrestone	Brought legs & regs consulting service in-house as part of upgrade functionality/approach.	\$ -	\$ 72.00
University - IT	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	\$ -
University - IT	Active	Cognos Transition & Mobius Retirement	"Build SA dashboards Retire Mobius report system with XML Publisher, PeopleSoft Report Manager & Summit dashboards"	\$ 1,000.00	\$ -
University - Energy	Active	Complete ETIC, HSSB, North Campus Garage	Two New LEED Construction buildings plus a parking garage	\$ -	\$ -
University - Purchasing	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
University - IT	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	\$ -
University - IT	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

			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	\$ 3,455.00	\$ 300.00
University - IT	Active	Desktop & Laptop			
University - IT	Active	Document Imaging Program	Implement for Undergraduate Admissions	\$ -	\$ 614.00
University - Purchasing	Active	Dorm furniture-establish system wide contract	Complete system wide agreement for dorm furniture utilizing expertise of facility, resident life managers. Form user/evaluation committee	\$ 300.00	\$ 150.00
University - Purchasing	Completed	Dorm Mattress Bid	3 campuses combined dorm mattress purchases for 3 year period.	\$ 60.00	\$ 30.00
University - IT	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	\$ -	\$ -
University - HR Processes	Under Development	BI Initiative Reporting	Efforts are underway to create additional reports through Summit, including GAAP reporting and Tuition waiver Reporting. The Contract Costing Reporting component of this project has been completed.	\$ -	\$ -
University - HR Processes	Completed Effective 7/1/14	Direct Deposit	The UMSO will be moving to 100% paperless payroll distribution to all of our employees, with the exception of Federal Work study student employees.	\$ -	\$ 65.00
University - IT	Under Development	Echo 360 Contract Re-negotiation		\$ 150.00	\$ -
University - Energy	Active	Electricity Bid	4 campus combined bid for electricity supply.	\$ 5,800.00	\$ -
University - Purchasing	Completed	Electronic Journals. Complete system wide agreement with Elsevier	System wide contract Completed with Elsevier	\$ 560.00	\$ -
University - Purchasing	Under Development	Elevator Maintenance Contract Re-bid		\$ 960.00	\$ -
University - Purchasing	Completed	Elevator Maintenance-includes 4 campuses: Lowell, Boston, Amherst, Dartmouth	Otis Elevator awarded University-wide contract	\$ 1,250.00	\$ 650.00
University - IT	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
University - IT	Completed	EMC Data Domain (Accunet)	Consolidation of storage backup functionality to Data Domain from both Avamar and Data Domain.	\$ 769.00	\$ 109.00
University - HR Processes	Under Development	Employee Background Checks	The system office working in conjunction with the new background check vendor Creative Services, Inc. and HRA, have revised the background check standards/guidelines associated with the board policy. The purpose of the revision is to encompass CORI reform and establish consistent minimum checks.	\$ -	\$ -
University - HR Processes	Completed	Employee Work/Life Trainings	The New EAP contract includes 30 hours of training per campus and PO per year	\$ -	\$ 6.00
University - Energy	Completed	energy & natural gas procurement	Bid process and hedging strategy for electricity and natural gas supply	\$ -	\$ 226.00
University - Energy	Completed	Energy conservation effort	Multi-faceted energy conservation program	\$ 2,400.00	\$ -
University - Energy	Completed	Energy efficiency projects	UMMS received \$8.5m in incentives from National Grid, resulting projects will generate \$6.8m future electric savings	\$ -	\$ 6,800.00
University - Energy	Active	Energy performance project	\$40m energy performance project implemented by NORESO and managed through DCAM	\$ 1,600.00	\$ -
University - Energy	Completed	Energy procurement	Bid process and hedging strategy for electricity and natural gas supply	\$ -	\$ 1,180.00
University - IT	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.	\$ -	\$ -
University - HR Processes	Completed	EPAF	System-wide Enhancements (Gideon Taylor)	\$ -	\$ -
University - HR Processes	Under Development	EPAF - Donahue Institute	System-wide Enhancements (Gideon Taylor)	\$ -	\$ -
University - HR Processes	Completed	EPAF II	We are currently working with the Donahue to process all life cycle events, through workflow.	\$ -	\$ -
University-Purchasing	Completed	Executive Search Services	Implementing to all departments within System Office (Beginning July 2016)	\$ 270.00	\$ 90.00
University - IT	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	\$ -
University - IT	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.	\$ -	\$ -
University - IT	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
University - Energy	Completed	Gas turbine generator upgrade		\$ -	\$ 1,425.00
University - Energy	Active	Hadley Horse Farm Solar PV	2 MW Solar PV Field. Combination Net Metering / Research Project.	\$ -	\$ -
University - IT	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.	\$ -	\$ 8.00
University - HR Processes	Under Development	Exit Interviews Guidelines	Implementing a consistent set of guidelines to ensure benefitted employees receive an exit interview. The purpose of the guidelines is to identify workplace, organizational or human resources factors that have contributed to an employee's decision to leave employment; to enable the University to identify any trends requiring attention or any opportunities for improving the University's ability to respond to employee issues; and to allow the University to improve and continue to develop recruitment and retention strategies aimed at addressing these issues. These guidelines cover the procedures adopted when members of the University leave employment for whatever reason.	\$ -	\$ -

University - HR Processes	Completed	HR Off Boarding Process (Roll Off)	The System office is in the process of eliminating the manual roll off form. This process will be replaced by an automated workflow that will be sent to applicable parties at time of termination. The report that will be produced will be a scheduled query so that it will be automated and will reach all parties. Once an initiator submits an ePAF the report will be distributed to the current roll off group. If someone needs to gain access to the departing employee's drives, email etc. they will contact the helpdesk.	\$ -	\$ -
University - IT	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.	\$ -	\$ -
University - IT	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 campuses 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	\$ -
University - Energy	Active	ICC BAS and update to new vav boxes	Update BAS to new DDC web based system	\$ -	\$ -
University - Energy	Completed	ICC fuel switch from electric to nat. gas heat	Replace older Rooftop makeup air unit using nat. gas instead of electric heat.	\$ -	\$ -
University - IT	Under Development	Identity Finder (Data Loss Prevention)	Purchased Identity 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.	\$ -	\$ -
University - IT	Active	Identity Management Update	"Enhance security and auditing Continuation of Single Signon Ease of use and management Cost savings from above"	\$ 150.00	\$ -
University - Energy	Active	Install Energy Efficient Chiller - Weed	Remove Absorber and reduce GHGs and energy by replacing with Magnetic Levitation Chiller.	\$ -	\$ -
University - Energy	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.	\$ -	\$ -
University - Energy	Completed	Installation new boiler		\$ -	\$ 165.00
University - IT	Completed	Integration Partners	Optical infrastructure HW and SW related to Umassnet rollout.	\$ 300.00	\$ -
University - IT	Active	International Office	Software application to integrate with the Student and Exchange Visitor Information System (SEVIS)	\$ -	\$ -
University - HR Processes	Under Development	Law Clarity	Implementing a comprehensive Learning Management System, which includes a library of trainings covering such important areas as HR/supervision and management, Diversity, Data Security & Privacy -- to name just a few of the offerings. In addition, the system provides the University with a platform from which to deliver, and administer, certain mandatory trainings to our employees that are required by federal and/or state legislation - Title IX, State Ethics, and other compliance initiatives.	\$ -	\$ -
University - IT	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.	\$ 384.00	\$ 64.00
University - Purchasing	Completed	IT staff augmentation	Pre-qualified list of companies (suppliers). Agreed upon terms and conditions	\$ 25.00	\$ -
University - IT	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
University - Purchasing	Active	Janitorial Supplies		\$ 600.00	\$ 300.00
University - IT	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.	\$ -	\$ -
University - Purchasing		Lab Supplies - Bid Two primary vendors- Contract re-bid FY15		\$ 5,000.00	\$ -
University - Purchasing	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
University - Purchasing	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
University-Purchasing	Completed	Lab supplies re-bid	Exclusive Fisher	\$ 6,000.00	\$ 1,004.00
University - Energy	Completed	Lamp replacement project	Replacement of 1,700 T8 fluorescent lamps	\$ -	\$ 159.00
University - Purchasing	Under Development	Lamps	Complete system wide contract for lamps, lighting	\$ -	\$ -
University - IT	Completed	Lecture Capture software (Echo360)	Standardize lecture capture software license across all campuses converting to a site license agreement	\$ 780.00	\$ -
University - IT	Completed	Lenovo	2 extension of the Lenovo agreement with additional 3% discount on Lenovo equipment	\$ -	\$ -

University - IT	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	\$ -
University - IT	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
University - IT	Completed	License & Maintenance Reductions - Ongoing	Reduction in HW/SW maintenance related to eliminated or reduced products including: Xerox, EMC, Mobius, temp help	\$ -	\$ 400.00
University - IT	Completed	License & Maintenance Reductions - Ongoing	Reduction in HW/SW maintenance related to eliminated or reduced products including: small equipment purchases, Brigadoon, Temp Help, Cognos.	\$ -	\$ 91.00
University - Energy	Completed	Lighting Occupancy Sensors Library, Gorman Dorm Steam Line Replacement, CHP Gas Compressor Motor Eff.	Annual energy reduction project	\$ 1,140.00	\$ 570.00
University - IT	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
University - Energy	Completed	LNG Temporary Facility	Operational 12/2012	\$ -	\$ 2,300.00
University - HR Processes	Completed	Online Employee Handbook for UMSO	The handbook is intended to serve as a summary of the University's policies, guidelines, practices and fringe benefits.	\$ -	\$ -
University - IT	Completed	Math Works (Mat Lab)	5 campuses utilizing 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	\$ 129.00	\$ -
University - IT	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' overall ability to deliver quality services in a time manner.	\$ -	\$ -
University - IT	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	\$ -
University - IT	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.	\$ 106.00	\$ 64.00
University - IT	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)"	\$ -	\$ -
University - IT	Active	Mobile device Optimization	Consolidate all existing University mobile devices into a shared/pooled minutes program with existing carriers: completed 5/13	\$ 1,902.00	\$ 528.00
University - Purchasing	Completed	Multi-year financial planning tool	Complete contract for software planning tool that allows consistency in financial planning across all campuses. Contract completed with PFM consulting. Allows for campus and system level roll-up of financial projections. RFP process completed, low bidder not selected, however average bid price was \$310k annual vs. contracted price of \$200k annual.	\$ 550.00	\$ -
University - Energy	Active	Multiple Lighting upgrades	Olney, Olsen, Ball, Univ. Ave Exterior	\$ -	\$ -
University - Energy	Completed	Natural gas procurement-bid process		\$ 2,200.00	\$ -
University - IT	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	\$ -	\$ 100.00
University - Purchasing	Completed	Office Supplies-includes all five campuses and the System Office	University-wide contract w/ WB Mason for office supplies.	\$ 895.00	\$ -
University - Purchasing	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	\$ 4,980.00	\$ 1,200.00
University - IT	Completed	Open Position Elimination	Eliminated 4 open positions, 3 CAS and 1 ISIS.	\$ 450.00	\$ -
University - IT	Completed	Oracle Licensing Re-Negotiation		\$ 204.00	\$ -
University - IT	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	\$ -
University - Energy	Completed	Photovoltaic arrays installation	Installation on the Tripp Athletic Center	\$ -	\$ 150.00
University - IT	Completed	Project Implementation Methodology - FIN9.1 Upgrade	Impact of moving towards in-house upgrade process vs. engaging external implementation partners	\$ 4,934.00	\$ -
University - IT	Active	Project Implementation Methodology - HCM 9.2 Upgrade	Impact of moving towards in-house upgrade process vs. engaging external implementation partners	\$ 4,001.00	\$ -
University - IT	Active	Qualtrics - Survey Tool		\$ 70.00	\$ 10.00
University - Energy	Active	Regional Anaerobic Digester	A DCAMM and MADEP effort to install a Regional Anaerobic Digester for the Amherst area on University property.	\$ -	\$ -
University - Energy	Completed	Replace Zamboni Boilers, add VFDs to AHUs and retroCx HVAC units and controls	Reduce heat and electricity by improving energy efficiency	\$ -	\$ -
University - IT	Completed	Safari Books	Purchased subscription to online technical resource data provider for \$25K in an effort to reduce employee travel & training costs.	\$ 15.00	\$ -
University - Purchasing	Active	SciQuest Implementation	Create university wide market place for procurement of goods	\$ 10,600.00	\$ 6,000.00

University - IT	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	\$ -
University - IT	Completed	Server/Storage Architecture	Change in server & storage architecture resulting in reduced hardware maintenance costs.	\$ 1,130.00	\$ -
University - IT	Active	Shared Services Portal Expansion	Tool to improve internal University communications	\$ 10.00	\$ -
University - Energy	Completed	Solar/Net Metering Contract	Reduction in energy spend through credit earned from contractual support of solar development.	\$ 20,500.00	\$ -
University - Energy	Completed	Solar/Net Metering Contract	Reduction in energy spend through credit earned from contractual support of solar development.	\$ 18,000.00	\$ -
University - Energy	Completed	Solar/Net Metering Contract	Reduction in energy spend through credit earned from contractual support of solar development.	\$ 1,500.00	\$ -
University - Energy	Completed	Solar/Net Metering Contract	Reduction in energy spend through credit earned from contractual support of solar development.	\$ 10,418.00	\$ -
University - Energy	Completed	Steam trap repair and replacement program	Replace approx 200 traps in Coburn and Mahoney and additional areas on north campus.	\$ -	\$ -
University - IT	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"	\$ -	\$ -
University - HR Processes	Under Development	Online Hiring Guide for UMSO	The Manager Hiring Guide is designed to provide managers with everything they will need to know to conduct a successful job search.	\$ -	\$ -
University - HR Processes	Under Development	Position Management	In the process of assigning position numbers, and implementing position management, for all UMSO benefitted employees.	\$ -	\$ -
University - HR Processes	Under Development	System Office HR Onboarding Process PageUp	All new hire onboarding forms for System office employees will be implemented through the onboarding module in PageUP which will enhance and improve the customer experience.	\$ -	\$ -
University - HR Processes	Under Development	Tuition Credit Guidelines	The Faculty and Staff Tuition Credit Benefits outline the details of the Tuition Discounts for University Employees, Spouses, Domestic Partners and Dependents.	\$ -	\$ -
University - IT	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.	\$ -	\$ -
University - HR Processes	Under Development	W2 Suppression	The University has begun working on rolling out the W2 and W2c consent to suppress printing functionality to our employees. This will provide employees with the option of receiving their W-2 electronically and reduce printing and mailing costs.	\$ -	\$ -
University - IT	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	\$ -
University - Purchasing	Under Development	Temporary help services	Create university wide contract for temporary help services	\$ -	\$ -
University - IT	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.	\$ -	\$ -
University - IT	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.	\$ -	\$ -
University - Purchasing	Active	Travel services. Implement travel services to include travel agency, negotiated air, hotel, auto rental contracts	Implement managed travel program	\$ 2,300.00	\$ 1,000.00
University - IT	Completed	UIITS 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.	\$ -	\$ -
University - IT	Completed	UIITS Personnel Re-Organization	Eliminated 4 FTE's related to redundant management staff.	\$ -	\$ 500.00
University - IT	Active	UMassNet	Provide scalable, cost-effective reliable high-capacity networking connectivity between campuses to the Internet, Internet2 and MGHPC	\$ -	\$ -
University - IT	Completed	UMOL Blackboard Learn9 LMS Implementation	Support UMOL campus migration from current Blackboard Vista LMS to Blackboard Learn9	\$ -	\$ -
University - Purchasing	Active	Vehicle leasing- contract completed 8/13.	Replace existing campus owned vehicles with leased vehicles	\$ -	\$ -
University - IT	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	\$ -
University - IT	Under Development	Virtual Desktop Initiative (VDI)	Provides for file sharing across the desktop/laptop of common software packages served over the network/internet	\$ -	\$ -
University - IT	Completed	Virtualization Strategy	Strategic shift to virtualized computer processing (racks & blades) versus traditional big box server approach.	\$ 1,281.00	\$ -
University - IT	Active	VM Ware		\$ 1,005.00	
University - Purchasing	Completed	Waste stream management	Complete consulting contract to evaluate current waste stream management practices across the university system, including solid, hazardous waste and recycling services	\$ 130.00	\$ 130.00
University - Energy	Completed	Wind turbine project		\$ 125.00	\$ -
University-Purchasing	Completed	Campus Audits phone & cable	Implemented campus audits of phone and cable charges; President's Office, Dartmouth, additional campuses to be implemented	\$ 65.00	\$ 24.00
University-IT	Completed	Document Imaging Program Financia Aid	Created electronic workflow for campus financial aid offices, including intergration points with peoplesoft and integration with 3rd party vendors	\$ 188.00	
University-IT	Completed	Employment Verification	Automated employment verification process with Equifax	\$ 55.00	\$ 60.00
University-IT	Completed	Dashboard development-multiple	Built multiple dashboards :asset mgt, time approval, security admin , spend analysis to improve reporting-data manngement efficiency	\$ 196.00	

University-IT	Completed	Immigration Dashboard	Coordinating multiple sources of immigration reporting into single dashboard	\$ 95.00	\$ 80.00
University-Facilities	Active	Roof Repair & maintenance	Develop contract for roof repair and maintenance to provide extended warranties on selected roofs and extend roof life		
University-Purchasing	Active	land line-cable invoice review	Review and audit of invoices related to telephone (land line) and cable services . The goal is to expand to all campuses during FY18. Dartmouth and President's Office completed during FY17.	\$ 75.00	\$ 50.00
University-Facilities	Active	Deferred Maintenance	Develop and implement strategies to address deferred maintenance		
University-Facilities	Active	Facilities Operations Metrics	Development of standard metrics related to facilities operations		
University-Facilities	Active	Custodial Services	Development of standard best practices for custodial services		
University-Facilities	Active	Fleet Management Program	Review of fleet management programs; evaluation of the University wide fleet management contract with Enterprise		
University-Facilities	Active	Trade Contracts	Development of standard University-wide trade contracts		
University-Facilities	Active	Preventive Maintenance	Standardized preventive maintenance practices		
University-Facilities	Active	Public/Private Partnerships	Review of Public/Private Partnerships		
Total				\$ 139,484	\$ 31,437

**APPENDIX F –
CONSORTIUM BACKGROUND**

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.
- ***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