The University of Pittsburgh
Cost Containment Efforts
February 23, 2012

- An examination and documentation of cost containment efforts within units of the University from fiscal year 2009 through fiscal year 2012.
The University of Pittsburgh – Cost Containment Efforts

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Executive Summary

The University of Pittsburgh has made dramatic progress in its drive to ever-higher quality—in academic excellence, path-breaking research, community outreach, and all other aspects of this major public research university—even as it has controlled its expenses by creating efficiencies, cutting costs, raising revenues from federal research grants and private fundraising, and tightening its overall budget. In addition, Pitt continues to be a primary driver of the Western Pennsylvania economy. All this has been accomplished in spite of continuing dwindling state support.

Pitt has continued to succeed in the face of state budgets that have severely eroded the Commonwealth’s original commitment to the University since it became state-related. The steady erosion of state support has resulted in reductions to Pitt’s appropriation in 8 of the past 12 years. Pitt has implemented a number of cost-saving measures including a salary freeze in FY 2010 for all staff and faculty (including senior executives whose salaries were also frozen in FY 2009) and canceled, delayed, or reduced the scope of as many construction projects as possible. The University has redesigned its postretirement medical benefits program to increase eligibility requirements and cap University contributions for a cumulative 20-year savings estimated at over $390 million. In 1996 the University extended the employee vesting period for its defined contribution plan, saving more than $40 million, including $3.4 million in FY 2010. The University continues to consolidate suppliers and negotiate better pricing and volume discounts. Through energy conservation initiatives, the University achieved recurring utilities savings of $2.2 million in FY 2010 and cumulative savings of $16 million since 2003. Through various improvements in telecommunications strategy and sourcing, the University is saving $1 million annually. The Channeled Spending Program consolidated University suppliers and has resulted in cumulative savings of $98 million. The University’s cost containment efforts have enabled the University to fund cost increases and make strategic investments in faculty, facilities, and students, protecting the core business of the University.

This report outlines the cost-containment approaches units within the University have taken since fiscal year 2009, with the addition of some salient examples from previous years that continue to provide the University with ongoing savings. This report provides a descriptive summary of the University’s cost-containment strategies as directed by its guiding principles and is punctuated by descriptive examples of specific cost-cutting measures. A companion appendix follows that lists hundreds of recent and precise examples of cost-cutting measures within the units with cost savings, actual or estimated, ascribed where appropriate. Guided by core principles, the University continues to achieve efficiency without compromising excellence.
Introduction

In the preamble to the Act of February 2, 1787, which established the academy that would become the University of Pittsburgh, the Pennsylvania legislature declared that “the education of youth ought to be a primary object with every government.” For nearly 225 years, state support for Pitt has been built on a basic belief in the power of education, not only as an essential element of individual growth but also as a key to building community vitality and economic strength.

Forty-five years ago, when Pitt became a state-related university, the Commonwealth assumed a more central role in supporting high-quality programs of higher education. That new role created larger numbers of reasonably priced opportunities to meet the higher aspirations of Pennsylvania families. It also reflected the recognition that a competitive state economy would require an increasingly well-educated citizenry. The basic understanding was straightforward—the state would provide an appropriation large enough to enable Pitt to set a tuition rate for Pennsylvania students that was markedly lower than what it had been charging, and would have continued to charge, as a private university. In the process, the state also would provide support to an institution that would become increasingly central to the Commonwealth’s collective progress.

Unfortunately, the level of Commonwealth support has fallen significantly over an extended period of time, with the Commonwealth appropriation representing more than 30 percent of the University’s budget in the mid-1970s, to less than 20 percent by the mid-1990s, to less than 5 percent today should the Governor’s recent proposal succeed. This would be the lowest level of support (adjusting for inflation) since Pitt became a state-related university. Comparisons to the levels of support provided by many other states are striking. For example, most of the institutions that have been grouped with Pitt in the very top cluster of public research universities in the annual assessment of the Top American Research Universities enjoy markedly higher levels of state support as a percent of their total budget: Berkeley – 25%; Florida – 32%; North Carolina – 22%; and Wisconsin – 18%. With the top group, only Michigan, at 7%, shares a lack of support similar to Pitt.

This fiscal year began with a 22 percent—or $40 million—combined reduction to Pitt’s education and general appropriation and the academic medical center support lines. Late in the fall, Pitt was notified that the annual capital projects support would be cut in half, from $40 million to $20 million. Then, just last month, the University was directed to put another 5 percent—or $7 million—into “budgetary reserve.” Pitt’s accumulated cuts for this fiscal year total $67 million. After a past decade that brought cuts to Pitt’s appropriation almost every year and a past year that brought the steepest cuts in Pitt’s history, the Governor has proposed an additional cut of 30 percent to Pitt’s education and general appropriation for the next fiscal year and a 10 percent reduction to the academic medical line items, a blended reduction of about 29...
percent that totals nearly $42 million. The latest proposal would take the University’s cumulative two-year cuts in state support to well over $100 million.

Over the past decade, as the Commonwealth of Pennsylvania support for the University of Pittsburgh has been flat and, this past year, significantly declined, Pitt has managed to advance its mission and the institution by focusing on priorities and finding ways to do more with less. In the spirit of shared sacrifice, Pitt has made up for much of this massive loss of state support through budget reductions that either were managed centrally or were distributed by senior leaders to the units reporting to them. This approach was fairer in human terms and also made good business sense, because the demand for Pitt services remains high and does depend upon the quality of those services. This ongoing process of identifying ways to conserve resources and reallocate to advance University priorities has become an engrained part of Pitt’s culture – it is, simply, the way we do business. And, because the University prefers to put the spotlight on the efforts and successes of our students, faculty, and researchers, rather than our challenges in the face of diminishing Commonwealth support, it has not been our habit to publicly display the scope and magnitude of the University’s cumulative cost savings efforts. Now, however, it has become clear that we need to publish these efforts to make the case more effectively with those whose support Pitt needs to succeed in its core missions.

This report is a compilation of cost-saving measures that have been taken in University units over the past four years with some estimated savings assigned. Moving forward, it is important that Pitt continues to identify cost-saving resources available in the future.

- Derived from excerpts from the Chancellor’s statements to the University Community

Guiding Principles

- Continue to invest in core strengths of the University
- Focus resources on our core mission of research, teaching, and public service
- Achieve efficiency without compromising excellence
- Carefully manage resources to enhance a world-class student experience
- Reduce the cost and complexity of administrative operations
- Use the best technology available to contain costs and increase efficiency
Cost Containment Strategies and Approaches

Smarter Contract Negotiation

- Using more aggressive tactics in contract negotiations
- Renegotiating existing contracts to improve cost savings
- Using internal resources when more cost efficient

Examples:

Facilities Management purchases electricity and natural gas from various energy suppliers through pricing agreements that vary in length depending on market conditions. For electric purchases, the market is closely monitored and when rates are favorable, competitive pricing is obtained for various periods of time. Recently, while rates were trending downward, a five-year contract was locked for the purchase of electricity from January 2012 through December 31, 2016. This new five-year fixed-price contract is projected to save the University $17 million over the next five years when compared to the prior contract.

Through continual efforts to optimize software license management, Computing and Systems Development (CSSD) realized an annual cost savings of $487,000 since FY 2009. In addition, an agreement for dark fiber service to University buildings was renegotiated and will save the University $1.17 million over the next seven years.

The Office of Human Resources aggressively renegotiated health benefit contracts, resulting in reduced optional life insurance rates in 2009 and again in 2011 by 19% and 17% respectively. This resulted in a $100,000 annual savings for the University and a $1,100,000 annual savings for employees. The prescription drug agreement was renegotiated, resulting in an annual savings of $1,100,000.

The cost for Computing and Systems Development (CSSD) to pull horizontal cabling for Facilities Management and Property Management campus renovation and construction projects was approximately 10-25% lower than bids from outside contractors. The University will save $130,000 by using CSSD to pull fiber on three new construction projects: Freshman Housing, Freshman Wellness Center and Pharmacy, and 5607 Baum Boulevard.
Channeled Spending Program and Strategic Purchasing

- Centralizing oversight of purchasing
- Purchasing re-usable components
- Using successful projects as models

Examples:

The University consolidated suppliers and negotiated better pricing and volume discounts resulting in cumulative savings of $78 million over the past four years. Prospectively, a new contract for scientific supplies will save the University approximately $7 million over the next five years.

Based on the success of the Biological Sciences stockroom project completed in fiscal year 2010, the Kenneth P. Dietrich School of Arts & Sciences had the same vendor lead the Chemistry stockroom implementation. Project highlights include a 70% reduction in the types of products carried, an 83% reduction in the number of suppliers, and 18% product cost savings with an overall total savings estimated at $446,000. This includes upgrades and improvements to the physical stockroom, which have led to increased safety, customer satisfaction and service.

The School of Health and Rehabilitation Sciences (SHRS) added additional managerial controls within departments to reduce costs. SHRS reviews line item-specific funding and made reductions in costs through decisions including limiting the number of Alumni publications annually as well as the page length of each publication. Cost savings have been allocated to the purchasing of resources in support of leading-edge technology for teaching.

The Department of Environmental Health and Safety (EH&S), in conjunction with the RBL management team, elected to purchase reusable components in the Pitt RBL ($300 each). The alternative equipment is single-use and disposable ($30), and has become a standard in many bio-containment facilities across the nation. Despite the $300 cost, the selected equipment can be sanitized and reused for hundreds of entries into the RBL. The estimated savings is $170,000 per year.

In the School of Information Sciences (SIS), the procurement and distribution of all office supplies and related materials are now managed centrally, avoiding duplication and minimizing inappropriate use. SIS has saved $103,000 per year in orders and related expenses.

In FY 2009, the University of Pittsburgh at Johnstown introduced tighter control on purchasing to include lower limits of approval and approval by Cabinet-level administrators for purchases over $250. The Purchasing Department was charged with being more aggressive in negotiating prices and contract terms with suppliers and were asked to more closely identify savings with contracted vendors to maximize savings. These activities resulted in an estimated savings of $140,000 since FY 2009.
Assessing Services and Centralizing Operations

- Centralizing services for efficient operations
- Carefully monitoring the use of services
- Strategically phasing out under-utilized or obsolete services

Examples:

Computing and Systems Development (CSSD) centralized email and Web services as enterprise services, eliminating the need for departmentally managed services and accompanying hardware and software. Seventy departmental servers were eliminated, saving the University $3.4 million annually in equipment maintenance and operating costs.

The Department of Environmental Health and Safety (EH&S) reduced University costs by 90%, or $88,000 per year, by implementing a centralized process whereby investigators bring materials to a central site where they are given directly to the reverse distributor. On average, 12 investigators use this service per collection event and share the costs.

Computing and Systems Development (CSSD) carefully monitors the utilization of services, and has saved $518,200 annually through the phasing out of under-utilized or obsolete services including the retirement of the MVS and TBM mainframes. This resulted in a $415,000 savings in software and hardware maintenance, cancelation of low usage Feeds, and the retirement of the modem pool.

In the School of Education, each department had its own financial processing. The dean’s staff used external consultants even for routine and modest spreadsheet tasks. Financial and related management issues for sponsored projects was extremely weak, with PI’s getting very little support or warning about situations in which it could be predicted that they would run out of funds before they completed the mandated work. The School of Education worked with Human Resources to clarify their actual financial processing needs, review the skills of current staff, and reconfigure into the needed pattern of roles. The end result is that finances are now managed centrally and extremely well. Grant management staffing has been improved, with greater focus on helping PIs get grants and manage them rather than simply focusing on screening proposals before they went to the Office of Research. Overall, the School of Education now has better support staffing for the School and are saving about $126,000 per year.

In FY 2009, recognizing how most students rely on personal cell phones rather than landlines, the University of Pittsburgh at Johnstown (UPJ) eliminated voicemail service in the residence facilities, saving $120,000 since FY 2009.
Leveraging Information Technology

- Moving to virtual servers
- Automating services and processes
- Making improvements in telecommunications

Examples:

Virtual infrastructure makes it possible to create virtual servers from a centralized cluster of physical servers, thereby reducing costs and eliminating the purchase of new servers for every project. The virtualization of enterprise and departmental servers at the Network Operations Center will save the University $2.7 million (excluding savings in power/energy) between FY 2011 and FY 2012.

In order to further increase efficiency and improve faculty and student services, a new student administration system, PeopleSoft, was implemented, providing online course information, access to grades, degree progress reports and, in 2009, online student self-registration and address change. The move to student self-registration freed up valuable advisor time, which is now used for more in-depth discussions of academic and career aspirations and the appropriate choice of courses to achieve these goals. The increased use of technology has also significantly reduced the use of multi-copy paper forms, resulting in savings for the Office of the University Registrar as well as for academic departments.

The Office of Research has leveraged technology for significant savings. They developed standard nomenclature for activity log entries. These activity log notes make it possible for the community to check the status of their work electronically rather than calling Office of Research personnel, so the cost for departments as well as Office of Research processing is reduced. The Office of Research has also made changes so that all required documentation for account number activations can be transferred electronically. The Account Activation Process starts with the electronic circulation of the grant award, and ends with the electronic transfer of all documentation to Research Accounting. Savings include reduced processing time, clear notes describing status, and quicker turnaround of account numbers that reduces downstream non-salary and salary cost-transfers. The streamlined process shortened the submission process by 50%. The Office of Research has implemented Document Management, a 100% document scanning/uploading procedure that covers all major items within a grant/contract record. This cuts down on supplies, retrieval time, and follow-up questions for staff since the documents are available to the public.
Utilizing Digital Alternatives

Examples:

- Adopting paperless review processes
- Transitioning from print to electronic communications
- Aggressively procuring digital library resources

Advancing the University’s vision of a paperless environment, Management Information and Analysis (M&A) worked with numerous colleagues in the B&C and CSSD to migrate the entire University to electronic reporting of previously paper “level reports” after the January 2010 closing. This conversion from paper to electronic delivery included some 18 financial, payroll, and sponsored award reports. Using the portal, users can now log in and view or run electronic versions of their reports. The project also included introduction of the COGNOS “Jobs” functionality, enabling users to create and schedule “Jobs” that easily and efficiently distribute reports to appropriate recipients. This process results in the reduction of printing, copying, and distribution costs related to monthly financial report production, a savings of over $800,000 annually.

In a move to better utilize staff time and to contain costs, the Office of Admissions and Financial Aid has adopted an online application and paperless review process, saving considerable paper, space, and staff time. The School of Medicine has implemented a system called HENRY for the paperless review of all faculty tenure and promotion cases. The Office of the Provost is currently piloting software that will allow nearly all transactions within the office to occur digitally.

The Payroll Department made online pay statements available to all active employees in September 2010. An electronic pay service is now accessible through secure access over the Internet. In April 2011, the Payroll Department successfully eliminated printed pay statements for all employees paid on a monthly basis, with a few exceptions. By eliminating the need to print, package and distribute approximately 168,000 statements per year, the process improvement is estimated to save the University $250,000 annually in printing and distribution.

The University Library System (ULS) has improved access to valuable resources and increased space by implementing a comprehensive Google-like discovery system which makes available millions of full-text articles and open access publications, as well as traditional library holdings. In FY 2011 this included 109,955 e-journals (a 37% increase over five years), 744,629 e-books (a 70% increase over five years), and 1,460,841 locally digitized items. Investment in electronic resources ranks ULS 8th in North America among all research libraries (ARL members). The percent of ULS’ budget on electronic versus print resources increased from 45% in 2005 to 71% in 2010. Using digital resources over print has saved a considerable amount of valuable space and has increased the usability and access of library resources. Using digital alternatives in the Law library alone resulted in a cumulative savings of $400,000.
 Achieving Energy Efficiency

Examples:

- Insisting on green standards for new construction
- Developing an automated curtailment program
- Installing LED lighting, light sensors, and other retrofit lighting projects
- Investing in sustainability initiatives

Facilities Management continually develops and updates University design standards. Examples of sustainable design standards include:

- electronic ballasts and fixtures,
- no new incandescent lighting unless required for research,
- Direct Digital Controls (DDC) required for all mechanical system installations or upgrades, all DDC controls must be tied into the campus energy management system,
- energy efficient control strategies such as occupancy sensors required for all new construction and renovations and low temperature transformers,
- standard carpeting installations must include a minimum of 25% recycled content, carpet adhesives contain no VOC, the majority of paints qualify as Low VOC.

LEED (Leadership in Energy and Environmental Design) is the nationally accepted benchmark for the design, construction, and operation of high-performance green buildings. There are 4 levels of LEED certification: Platinum, Gold, Silver, and Certified. The University is pursuing LEED certification for several new construction and renovation projects. The University’s first LEED Certified building was the McGowan Center for Regenerative Medicine. The University achieved a LEED Gold certification from the U.S. Green Building Council for the McGowan Institute in 2005; the Institute was the first LEED Gold certified laboratory building in Pennsylvania. The Mascaro Center for Sustainable Innovation (MCSI) just achieved LEED Gold Certification, as did the Benedum Hall renovation. Ten additional LEED projects are in design or construction at the University.

From FY2009 to FY2011, Facilities Management has saved nearly $3.25 million in utility budget savings. This was achieved primarily via energy conservation efforts, diligent energy purchases, equipment and infrastructure upgrades, and improved control of buildings. Two examples include upgrades to chilled water plants and distribution system to improve plant efficiency and control, and electric curtailment during peak periods using an automated curtailment program that sheds electric load during peak periods. It is estimated that in the summer of 2011, electric consumption was reduced by 253,000 kilowatt hours, an estimated savings of $22,000. This program is being expanded to increase the number of buildings involved, which will result in additional future savings. Another benefit to this program is that
the University's peak capacity values can be reduced. These values are used by the electricity providers to determine yearly generation and transmission rates. Keeping peak demands lower will help to suppress generation rates. The curtailment program also allows the University to respond to emergencies more quickly, such as the massive power outage experienced in August 2011.

Lighting retrofit projects at Frick Fine Arts and the SIS building resulted in an estimated annual savings of $49,000. Lighting retrofits on the first and second floors of Posvar Hall resulted in an estimated annual savings of $32,000. This project also received an Act 129 rebate from Duquesne Light in the amount of $11,051. Lighting control at Posvar Hall was improved resulting in an estimated annual savings of $27,000.

The Center for Energy, housed in the Swanson School of Engineering, is dedicated to improving energy technology development and sustainability, including energy efficiency, advanced materials for demanding energy technologies, carbon management, and energy diversification. The Center has assembled a team of more than 70 faculty members already working in energy research from the Departments of Chemical Engineering, Chemistry, Civil and Environmental Engineering, Electrical Engineering, Industrial Engineering, Geology, and Mechanical Engineering and Materials Science for the purpose of leveraging their work and expertise. Areas of research range from clean coal technologies to harnessing solar energy, and include subjects as diverse as synthetic and biomass-derived fuels, gas hydrates, high-temperature coatings, and fuel cells.

More Efficient Utilization of Space

Examples:

- Consolidating space and creating multi-purpose spaces
- Repurposing under-utilized facilities
- Developing priorities for renovation and new construction that are aligned with academic goals and institutional resources

Over the past five years, the University Library System (ULS) has taken significant steps to save valuable space and resources. ULS has consolidated the holdings of six libraries (Darlington, Math, Physics, Graduate School of Public and International Affairs/Economics, Chemistry (downsized), and Information Sciences) into the Hillman Library and an off-site high-density storage facility. Closing the departmental libraries has saved over 11 staff and faculty librarian positions and freed up more than 20,000 square feet of space valued at over $490,000. This space is now being used for expanded classrooms, space and seminar rooms for graduate students and faculty, three Centers/Institutes (Humanities Center, Institute for Entrepreneurial Excellence, and
the Johnson Institute for Responsible Leadership), and one of the most widely used study halls on campus.

The Facilities Planning Committee was charged with proposing a realistic funding plan that recognizes continuing fiscal constraints. In responding to its charge, the committee, recognizing the success of the process utilized by the earlier facilities planning committee, established a set of principles and developed priorities to guide its efforts. These principles and priorities included renovating current facilities as a cost-effective way to meet future academic program needs rather than building expensive new facilities. For example, Clapp/Langley/Crawford and Parran/Crabtree would cost $486 per gross square foot to construct and $211 and $132 respectively to renovate.

Since FY 2009, the University of Pittsburgh at Johnstown (UPJ) has repurposed nearly 10,000 square feet of space for academic use (classrooms and faculty offices). This was done by more efficiently allocating space to non-academic areas and student services operations. Creating new construction rather than repurposing space would have cost approximately $5 million.

In 2011, space in Office of the University Registrar was reduced by approximately 1,500 square feet providing additional space for the Dietrich School of Arts and Sciences. Existing space was reconfigured to provide an efficient multi-purpose student services area.

Greater Staff Productivity

Examples:

- Continually assessing needs and priority areas
- Reallocating resources appropriately
- Streamlining staff and automating processes to handle higher volumes

The Health Sciences Library System has compensated for reduced staffing through innovative reorganization, resulting from careful analysis of service points and user behavior. Three hospital branch libraries were eliminated. The number of service points was reduced by combining the reference and circulation desks and cross-training staff in Access Services and Document Delivery. With the help of an outside consultant, the Technical Services department and Computer Services department were combined into one Digital Library Services department in FY2012. This will realize greater efficiency, and allow the Health Sciences Library to focus staff resources on the areas of greatest need.

The Research and Cost Accounting Department (RCA) continues to achieve productivity gains through the use of a specialized Oracle-based reporting and accounting system, an improved
organizational structure, and more efficient operations. The productivity gains in the department have allowed for relatively steady staffing levels since 1998 despite a 206% increase in the research base. Research dollars administered per person has increased by nearly $10 million in the past five years.

The Office of the University Registrar has taken measures to improve services for students while decreasing costs even as enrollment on the Pittsburgh campus has increased by 7% over the past five years. Focusing on efficiency, the Office of the Registrar has reduced its staff by 12% since 2009. Students were provided with access to enrollment verification via the National Student Clearinghouse, which improved service and reduced staff time.

The Office of Research has made considerable progress in enhancing processes and technology and improving communication and customer service, despite the 25% increase in workload resulting from the American Recovery and Reinvestment Act. The processing of Notices of Awards has improved so now the Office of Research can process the Notice of Awards in a matter of a day or two, rather than weeks. In addition, by switching from a paper to an electronic system, the Office of Research has cut the lead time for submission of proposals in half (from 10 days to five). The projected annualized savings is $185,416.

Financial Information Systems’ (FIS) Business Solutions area worked closely with the Office of Human Resources and the Payroll Department to successfully implement the Oracle Time and Labor module on January 1, 2010. The PRISM Time Record Keeping System (TRKS) was the most significant application added to the PRISM System in two years. This application’s primary purpose is to provide centralized tracking and consistent administration of time and attendance for approximately 6,400 full-time regular and part-time regular classified University staff. Additionally, the application establishes an online approval mechanism for over 2,100 employees who have supervisory or approval authority for time and attendance records. PRISM TRKS allows for easy online entry and approval of timecards and maintains accurate balances for sick, vacation, personal, and compensatory time for employees. The new application eliminated the need for University departments to submit paper timesheets in order to pay compensatory time and paper Employee Record forms to pay vacation and/or eligible sick time when an employee terminates employment from the University

Adopting Smarter Strategies with Health/Retirement Benefits

Examples:

- Funding and cost sharing for retiree medical benefits
- Taking better advantage of federal laws and regulations
- Providing wellness programs to faculty and staff
The University created the Defined Dollar Benefit (DDB) Program. Eligibility requirements were increased and the University contributions were capped. Cumulative savings over a 20-year period are $390 million; annual savings is $19,500,000. Under the DDB program, retirees may continue enrollment in University-sponsored coverage or they may elect other retiree medical coverage.

The University implemented optional provisions of Omnibus Budget Reconciliation Act (OBRA) that allows health plan members on extended disability to move primary coverage to Medicare for an annual savings of $3,000,000.

The University offers a variety of programs and resources to help its employees live more healthful lives. Life Solutions provides a broad range of services to faculty, staff and their families to balance the stresses of work and daily life at no cost. Fitness for Life encompasses a variety of health and wellness initiatives and incentives for faculty and staff, encouraging proactive healthcare management including Weight Watchers on-campus meetings. The University Wellness Program, sponsored by the School of Education, provides physical fitness assessments, personalized exercise plans, body fat analysis, nutritional counseling, and a number of other tools to promote wellness. Smoking cessation assistance is available. Bellefield and Trees Fitness Centers are open for use by faculty and staff through the Pitt Intramurals program.

**Other Revenue Sources**

Examples:

- Aggressively pursuing grants and contracts
- Creating programs in demand and establishing online programs
- Facilitating the development and commercialization of Pitt innovations

The School of Health and Rehabilitation Sciences (SHRS) has significantly increased research funding from FY 2009 to FY 2012 from $11,419,579 to $20,711,661 per year. Research funds provide 36% of all 128 faculty salaries, about 30%-38% of staff salaries, and approximately 75% of all graduate student positions. SHRS has worked hard to increase its funding from the Department of Defense (from $1,238,647 in FY 2009 to 6,070,501 to 2012), doubling funding received from the NIH, increasing VA funding by 42% and Department of Education funding by 35%.

The Health Sciences Library System (HSLS) has increased revenue by successfully competing for grants and contracts. In July 2009, HSLS and Pitt's School of Information Sciences were
awarded a three-year grant for $991,311 from the Institute of Museum and Library Services (IMLS) to support the development of a Post Master's Degree Certificate of Advanced Studies in Health Sciences Librarianship (HealthCAS), managed jointly by the SIS and HSLS. HSLS received support for .5 FTE librarian-manager, and shares 50% of the school's tuition revenue from HealthCAS students. In 2011, HSLS was awarded a five-year contract by the National Library of Medicine to serve as the Regional Medical Library for the Middle Atlantic Region of the National Network of Libraries of Medicine. This contract supports five new faculty librarians and one new staff person, in addition to a portion of the HSLS Director's salary (20% in Year One, 10% in Years 2-5). The contract amount for Year One is $1,213,533, including overhead/indirect costs of 24%.

The School of Health and Rehabilitation Sciences’ enrollment grew from 1,087 in FY 2009 to 1,299 in FY 2012—an increase of 212 students. Two new professional graduate programs were also started: the Physician’s Assistant Studies program and the Prosthetics and Orthotics program. Tuition revenues have increased over 25% since FY 2009.

Pitt Online’s mission is to provide graduate professional programs of the same quality, taught by the same faculty, and with the same superb level of support services as their counterparts offered to resident students enrolled on the Pittsburgh Campus. Pitt Online was initiated in 2007, and in fall 2012, 9 programs from 5 schools are offered to 178 students who reside from 21 states.

The Office of Technology Management facilitates the development and commercialization of Pitt innovations, helping innovators to patent their intellectual property, market it to potential outside partners, execute commercial licenses/options, and launch new companies. The number of University of Pittsburgh innovations that have moved from the lab to commercialization increased by 31 percent in fiscal year 2011, resulting in 105 licenses or options to industry and two start-up companies for Pitt technologies. This increase in commercialization activity also included 37 U.S. patents that were awarded to the University in 2011 and the submission of 257 new invention disclosures by Pitt faculty, according to Pitt’s Office of Technology Management (OTM). More than 400 Pitt researchers submitted invention disclosures in FY 2010-2011.

### Limiting Spending on Travel, Meetings, Events, Supplies, and Resources

Examples:

- Using technology in place of traditional travel
- Minimizing catering at events and keeping events localized
- Reducing or eliminating resources and supplies

The Katz School of Business reduced recruiting travel by participating in a virtual career fair through the Economist, saving $95,000.
The School of Pharmacy’s budget reductions have resulted in the reduction of catering expenses associated with national meeting receptions and in-house receptions. Both have been either eliminated or significantly reduced in expense. Additionally, internal programs have been re-designed. The Distinguished Lecture Series was redesigned to a more locally contained seminar series so that expenses are reduced while maintaining high quality. The cumulative savings from FY 2009-FY 2012 was $90,000.

Since FY 2009, the School of Engineering has permanently reduced operating budgets used for travel, lab supplies, paper, and part-time teaching by approximately $543,000.

The Health Sciences Library System has absorbed cuts by eliminating all print journals and canceling some e-journals, cutting some databases, and reducing expenditures for books and annuals. Over the three-year period, HSLS saved $523,523 from database and e-journal cancellations. The book budget was reduced by 65%, from $113,000 in FY 2009 to $40,000 in FY 2012. The budget for annuals was reduced by 72%, from $53,000 to $15,000. In all, the total savings over three years was approx $666,500.
Conclusion

Assessment and cost containment are at the core of the University and pervade every aspect of its culture. As a public research University facing decreasing Commonwealth support, Pitt has grown to operate as an institution that carefully assesses its priorities and allocates its resources strategically and with purpose. As Commonwealth support has decreased, cost containment has become not only a high priority, but an absolute imperative to the ongoing success of the University.

Even as the University has succeeded in containing costs, as documented very specifically within this report, recent and proposed budget cuts imposed by the Commonwealth have not and will not be easily absorbed. Reduction to faculty and staff, elimination of outreach programs, and tuition increases borne by students and their families are all recent examples of how dramatic reductions in Commonwealth support have negatively impacted not only the University, but the citizens of the Commonwealth of Pennsylvania.

The University has taken a comprehensive and thoughtful approach to cost containment and resource reallocation from its centralized business operations all the way through the units at every level of the institution. This careful approach and shared sacrifice has allowed Pitt to continue to advance the core academic mission of the University during a period of faltering Commonwealth support while remaining among the very top public research universities in the world.
APPENDIX

Smarter Contract Negotiations

- Integrated Security showed a reduction of $539,064 over the last three years by reducing costs from the more expensive third party vendor through contract negotiations with equipment suppliers and bulk purchasing.

- Computing Services and Systems Development (CSSD) realized an annual cost savings of $487,000 since FY 2009 through continual efforts to optimize software license management. This does not include savings passed on to departments. CSSD negotiated an agreement that saves departments $180 per person over three years.

- Computing Services and Systems Development renegotiated an agreement for dark fiber service to University buildings that will save the University $1.17 million over the next seven years.

- Database subscription savings via membership consortium reduced the cost of some large database subscriptions each year for the University Library System, saving $674,421 cumulative for FY 2009 – FY 2012.

- The School of Pharmacy has increased the number of maintenance agreements with the University-contracted vendor, for scientific equipment coverage. There are currently 21 pieces of equipment covered through this vendor. The average cost savings is 25%. Cumulative savings from FY 2009 - FY 2012 is $21,200.

- The School of Pharmacy continues participation in the University of Pittsburgh Channeled Spending Program. The last report provided indicated that the School grew to 87% on-contract spending through targeted commodities. Cumulative savings FY 2009 – FY 2012 is $202,800.

- The Department of Environmental Health and Safety (EH&S) reduced University costs by 90% or $88,000 per year by implementing a centralized process whereby investigators bring unwanted and expired controlled substances to a central site where the material is given directly to the reverse distributor. On average, 12 investigators use this service per collection event and share the disposal costs.

- During the planning of the Pitt Regional Biocontainment Laboratory (RBL), there was discussion regarding utilization of a vendor to provide training on the operation of this
biocontainment facility. In FY 2007, an estimate was obtained for $30,000. When the Pitt RBL opened in FY 2009, it was decided to utilize existing personnel to create and implement the necessary training. Internal staff positions that are funded by the Schools of Health Sciences and the Department of Environmental Health and Safety were involved in creating this training, which is now recognized as the benchmark standard in training for RBLs across the country. The training continues on an annual basis (although portions have recently been replaced by an online learning module). The estimated savings is $30,000 per year.

- The University elected not to hire third-party consultants to validate certain decontamination processes in the RBL. These processes were validated by internal personnel that are funded by Facilities Management, the Schools of Health Sciences, and the Department of Environmental Health and Safety. The validation processes can take weeks to complete, but invaluable information was gained regarding the processes and the associated equipment. Other RBLs hired a manufacturer's representative or a specific consultant to perform these tasks. The estimated savings is $10,000-$50,000.

- Facilities Management purchases electricity and natural gas from various energy suppliers through pricing agreements that vary in length depending on market conditions. For electric purchases, the market is closely monitored and when rates are favorable, competitive pricing is obtained for various periods of time. Recently, while rates were trending downward, a five-year contract was locked for the purchase of electricity from January 2012 through December 31, 2016. This new five-year fixed-price contract is projected to save the University $17 million over the next five years when compared to the prior contract.

- The University of Pittsburgh Press is negotiating contracts with new authors to reduce or eliminate royalties, particularly on first printing.

- The University of Pittsburgh at Titusville negotiated equipment leases for better rates, and decreased costs for lab equipment by comparing suppliers.

- During FY 2010, Supplier Management completed a major six-month sourcing project covering $27 million of annual purchases from the University’s top twelve suppliers of scientific supplies. The project was overseen by a commodity advisory team consisting of representatives from the Dietrich School, the Schools of Health Sciences, and the Office of Budget and Controller. Prior to requesting supplier proposals, the team conducted a thorough analysis of the University’s purchasing preferences, service requirements, and the scientific supplies market segment.
As a result of a competitive bidding process, a company was awarded a contract as the preferred provider of scientific supplies, scientific equipment, and instrumentation. The new contract will result in very significant product cost savings, approximately $7 million over five years, for University faculty and researchers on products that they purchase from this vendor. In addition to product savings, the contract includes free freight via normal delivery methods and very significant discounts on any new lab start-up.

As a convenience to its researchers, the University maintains several onsite stockrooms of scientific supplies. In addition to an average 11% reduction in the cost of stockroom items, as part of the prime contract requirements, a vendor will provide inventory management expertise, software, and other support for University stockrooms. One full-time stockroom support person is now onsite to train University personnel in modern stockroom management and customer service best practices. Major stockroom process improvements include a new automated inventory management system, which enables modern stockroom management techniques such as velocity analyses (inventory turnover).

Also, integration of the inventory management system with PantherBuy has resulted in streamlined ordering and accounting processes. Researchers may now view stock availability online, and withdraw and return inventory via PantherBuy without completing paper forms. Physical improvements include environmental health and safety remediation, new lighting, racking, painting, and other aesthetic upgrades.

- Risk Management was again successful in securing an “integrated” liability insurance program, which allows cost savings as well as seamless coverage to be achieved through the use of the same insurer for both liability lines (ELL/GL). This integrated program structure is estimated by underwriters to save between $200,000 and $300,000 annually in premiums over separately placed coverage lines. The only other university that has been able to secure a similar program structure is Ohio State.

- Despite the growth in the University’s risk base (headcount, payroll, etc.) and increasing exposure from international activity, the Office of Risk Management and Insurance secured the University’s major integrated liability insurance (General Liability and Educators' Legal Liability) program at a slight reduction to the expiring premium. Small premium increases that would have been applied to the University’s primary Educators Legal Liability and first layer of excess General Liability were offset by a 4% United Educators premium credit for confirming certain “best practice” risk management techniques through a checklist completed by the Office of Risk Management and Insurance.
Despite the high risk an urban campus fleet represents, the Office of Risk Management and Insurance was able to maintain a very low liability insurance premium renewal rate of $547 per vehicle. This rate is 40% less than the median rate paid by our peers as referenced in Marsh’s most recent Education Risk Benchmark report. Total premium costs have decreased by approximately 55% since 2002-03, a cumulative savings of just under $270,000. The University compares even more favorably with peers compiled in Marsh’s benchmark report, with the University is paying 44% less than the average of $970/vehicle. Similarly, the University’s “Total Cost per Vehicle” —which includes self-insured physical damages, etc.—is about one-third less than all industries pay.

Implementation of Comprehensive Rate Information System (CRIS): In FY 2010, the Research and Cost Accounting Department (RCA) worked with a contractor to develop the University’s Facilities and Administrative (F&A) Cost Rate Proposal. The F&A rate is applied to federal research awards and represents the University’s percentage of overhead applicable to direct costs incurred on these awards. The proposal is prepared periodically and reviewed and approved by the federal government. Prior to the implementation of CRIS, the F&A Rate Proposal was prepared using a series of data warehouse queries coupled with Excel spreadsheets—a process that was not as efficient as using a software tool such as CRIS, which is specifically designed to prepare F&A proposals. The application allows for “what if” analysis, which is useful in providing instant feedback on the impact that certain cost accounting decisions may have on the rate. The application also will be useful in calculating a full administrative component of the F&A rate rather than the flat 24% that the University has used historically.

In response to increasing use of smartphones and personal digital assistants (PDAs), the University of Pittsburgh’s Office of Budget and Controller and Computing Services & Systems Development (CSSD) have undertaken an extensive and detailed review of the University’s expenditures on cellular services. As a result of this review, the University has negotiated new agreements with two companies. These new agreements include the following features: Migration of all existing University wireless plans to a shared or pooled plan structure; increases in discounts for University-paid wireless plans to 20%; increases in discounts for employees’ personal wireless plans to 20%; and improved functionality for the University to manage the allocation of wireless plans with each wireless provider. The net result of these new agreements will be an annual savings to University departments totaling approximately $226,000 per year for wireless services. The University has also achieved a cost savings agreement with another company, which will offer a more cost-effective bundled plan of services, and a 15% discount to University departments and employees for certain devices.
• The University’s telephone directory is going the way of party lines and pay phones. The 2011-12 edition of the book will be the last to appear in print form as Pitt phases out its phone books. Fewer copies of this year’s book are being printed, and instead of being delivered University-wide, they will be sent on request. Some 15,000 copies were printed last year, but Computing Services & Systems Development has cut the print run to 5,000 for the edition that is expected to become available sometime around Thanksgiving 2011. Next year, the printed directory will be eliminated altogether.

• The Auxiliary Services areas consistently review costs and attempts to control them. Cost containment ranges from negotiating contracts for goods and services to challenging tax assessments. The areas reduced cost by over $80,000 over the last three years, while the levels of service have remained constant or improved.

Channeled Spending Program and Strategic Purchasing

• Pantherbuy, has become the purchasing system of choice, accounting for 60% of total purchase orders. Currently, 1.5 million catalog items are available from 53 contracted, high-volume, high-quality, low-cost suppliers. PantherBuy also improves operational efficiencies. By adding new contracted suppliers and continuing our education efforts, the University increased PantherBuy spending by $6.3 million, or 20%, in FY 2010 to a total of $37.4 million for the year. Approximately 96,000 PantherBuy purchases were placed in FY 2010, an increase of 11,000 orders, or 13%. The cost to process a PantherBuy purchase order is approximately $32 less than a traditional purchase order using the Oracle System. Therefore, the increase in orders placed via PantherBuy during FY 2010 resulted in an estimated $352,000 of additional administrative costs savings for departments across the University.

• The PantherBuy System Expansion Project was launched in FY 2011 and will move University purchasing and payment forward toward greater efficiency and purchaser satisfaction. In 2010, Huron Consulting estimated that moving all purchasing and invoice and payment request processing to the PantherBuy system would save approximately $1.7 million per year.

• The School of Law decided to publish only one issue of Pitt Law Magazine instead of two and to switch to a shorter format and a more economical vendor for a cumulative savings of $380,000 from FY 2009 – FY 2012.

• The Department of Environmental Health and Safety (EH&S), in conjunction with the RBL management team, elected to purchase reusable components in the Pitt RBL ($300
each). The alternative equipment is single-use and disposable ($30), and has become a standard in many bio-containment facilities across the nation. Despite the $300 cost, the selected equipment can be sanitized and reused for hundreds of entries into the RBL. The estimated savings is $170,000 per year.

- In the School of Information Sciences, the procurement and distribution of all office supplies and related materials are now managed centrally, avoiding duplication and minimizing inappropriate use. This saves $103,000 per year in orders and related expenses.

- The School of Pharmacy has determined it viable to functionally extend computer life. The standard computer replacement policy was extended from every three years to every four years beginning in FY 2010 for a cumulative savings from FY 2009 – FY 2012 of $16,800.

- The Graduate School of Public Health saved $9,600 per year by recycling furniture with other departments and saved an additional $2,400 by coordinating use of University trades across schools.

- The School of Education now has limited funds for furniture replacement, and whenever possible use recycled furniture made surplus by other units.

- The School of Health and Rehabilitation Sciences has added managerial controls within departments to reduce costs.

- Katz/CBA extended the life and vendor discounts on hardware and limited hardware for an annual savings of $25,000.

- In FY 2009, the University of Pittsburgh at Johnstown introduced tighter control on purchasing to include lower limits of approval and approval by Cabinet level administrators for purchases over $250. The Purchasing Department was charged with being more aggressive in negotiating prices and contract terms with supplies. Purchasing was asked to more closely identify savings with contracted vendors to maximize savings. These activities resulted in an estimated savings of $140,000 since FY 2009.

- The University of Pittsburgh at Greensburg stocked their career library with used books rather than purchasing new ones.

- The University of Pittsburgh at Greensburg switched cable providers. Current cost is $390 but overall package included purchase of equipment that will be amortized over five
years; once paid off, there will be an **annual savings of $36,050**.

- The University of Pittsburgh at Greensburg purchased tents for move-in day instead of renting them, **saving $1,600 per year**.

- The University of Pittsburgh at Greensburg installed a new BlackBoard Transaction System during off-peak time, **saving $20,000**.

- The School of Education strictly monitors choice of suppliers on all purchases, permitting use of non-preferred vendors only when no preferred vendor can provide the item needed.

- The life of classroom equipment was extended by delaying some purchasing, extending the Center for Instructional Development and Distance Education’s upgrade cycle, and repurposing some equipment. This resulted in **a $50,000 savings** to the University this year.

- Based on the success of the Biological Sciences stockroom project completed in fiscal year 2010, the same companies were asked by Arts & Sciences to lead the Chemistry stockroom implementation. Project highlights include a 70% reduction in the types of products carried, an 83% reduction in the number of suppliers, and 18% product cost savings with an overall **total savings estimate of $446,000**. This includes upgrades and improvements to the physical stockroom, which have led to increased safety, customer satisfaction and service.

- To increase leverage with suppliers and to drive down the internal contract management costs, Supplier Management has joined forces with other institutions with similar contracting goals for widely used commodities and services.

- The University has outsourced its copier equipment supply and administrative function, resulting in cumulative savings of nearly $10 million since 2003 and **ongoing annual savings of $1.2 million**.

- The University has experienced good success in leveraging its resources via collaboration with a purchasing cooperative. The cooperative has over 1,600 member colleges, universities, K-12 schools, and hospital purchasing organizations located throughout the United States. The cooperative has over 75 national and regional contracts available to its members and the University has implemented several of these. For example, during 2010, the University implemented the cooperative’s contract with a car rental company for car rentals and another company for library furniture and shelving.
As a state-related institution, the University works with the Pennsylvania Department of General Services (DGS) to participate in State contracts under its COSTARS program. The University reviews DGS contracts for their price competitiveness and uses those contracts that offer value and cost containment opportunities while still meeting the University’s specific business requirements.

The University saved $130,000 by using Computing Services and Systems Development to pull the fiber on three new construction projects: Freshman Housing, Freshman Wellness Center & Pharmacy, and Baum Blvd.

Surplus Property handles the receipt, storage, distribution, and disposal of all surplus property (i.e., equipment, supplies, and materials) for the University community. Furniture reissued back to the University department is cleaned, with minor repairs made or painted to accommodate department requests. Equipment and furniture are available for sale to outside sources.

Emeritus certificates for retired faculty are now prepared and printed in the Office of Faculty Records. The diploma jackets that provided for each certificate cost $12.95 each. Personnel folders used for all faculty are now ordered through a large company at less cost. Previously, the office had purchased the file folders already assembled at a cost of about $1,000.00 per year. They then began to purchase the components of the folder separately and assembled them in-house, which has cut the cost of folders in half, saving us about $540.00 per year.

Assessing Services and Centralizing Operations

The School of Education analyzed technology needs and stopped duplicating work that could be provided through Computing Services and Systems Development, saving the school $50,500.

Computing Services and Systems Development centralized email and Web service, eliminating 70 department serves saving the University $3.4 million.

The University Center for Social and Urban Research utilized All Temps for screening temp staff, saving $10,000 a year.
• The Graduate School of Public Health hired centralized staff to work across departments for a $50,000 savings per year.

• The Graduate School of Public Health merged an independent school-wide research center into a department, reducing overall operating and infrastructure expenses.

• The School of Information Sciences continues its long-term strategy of increasing professional support by reducing clerical activities and leveraging central University support whenever the opportunity presents itself (e.g., through retirements). Over the past four years, this has resulted in three positions being eliminated following retirement.

• Computing Services and Systems Development has phased out under-utilized services for a savings of $518,200 annually. The savings were realized by retiring MVS and TBM mainframes, canceling low usage UseNet Feeds, and retiring the modem pool in January 2012.

• The University of Pittsburgh at Johnstown eliminated voice mail service in residence halls for a savings of $120,000 since FY 2009.

• The University Library Systems ceased binding print periodicals for a cumulative total of $383,979 from FY 2009 – FY 2012.

• The School of Education eliminated telephones that are not currently and actively needed.

• The Planning & Analysis Department (P&A) conducted a proof-of-concept review (completed in September 2010) to evaluate the feasibility of migrating the CFO’s current financial data warehouse to the COGNOS-based data marts maintained by Computing Services and Systems Development. Although the basic financial reports (Level Reports) have been converted to the COGNOS database, the CFO’s Office operates its own financial data warehouse. This warehouse has been used for the past 15 years to generate essential reporting and analyses (e.g., the annual financial statement, the Facilities & Administration cost rates, fringe benefit rates, grants management reporting, financial analyses, etc.). This data warehouse is also accessed by the departments of the CFO as well as a handful of tech-savvy operating units (e.g., School of Medicine, Nursing, and a few others). Because this data warehouse is a mission-critical component of daily operations in the CFO, P&A was charged with determining the feasibility of integrating this functionality into the COGNOS Data Mart environment. While this appeared to be a logical strategic move, P&A conducted a proof of concept to evaluate the mechanics,
challenges, and benefits. The study identified numerous challenges with migrating to a new environment, but concluded that the long-term benefits would be profound.

- During FY 2011, Purchasing Services implemented a large company’s delivery service at the University. Once implemented, this free service allows researchers to receive eligible deliveries in a reusable plastic tote that the delivery person will take back, thereby significantly reducing the amount of corrugated material entering the University’s waste stream.

**Leveraging Information Technology**

- The School of Information Sciences phased out shadow systems and introduced commercial information systems that interoperate with University systems, resulting in an estimated **annual savings of $23,500** in postage, labor, and related expenses.

- Computing Services and Systems Development virtualized enterprise and departmental servers at the Network Operations Center to save **$2.7 million between FY 2011 and FY 2013**.

- The School of Education is working with Computing Services and Systems Development to replace 20 independent servers with a virtual server for a **savings of $20,000 a year**.

- UCSUR virtualized servers and desktops, saving **$100,000 in three years plus $54,000** for desktops.

- The Graduate School of Public and International Affairs saved **$27,000** by virtualizing 6 servers.

- Computing Services and Systems Development made improvements in telecommunications, saving **$668,000 since FY 2009**. Savings were realized through improvements in telecommunications strategy, contract negotiations, and consolidation of network traffic.

- The Office of Faculty Records has discontinued the use of the network ports in the B-40 office, which has resulted in a **4.8% savings** in telecommunication fees.
• Computing Services and Systems Development migrated telephone lines to the University’s PBX voice network to reduce costs by $120,000 annually.

• The Graduate School of Public Health is running a virtual system of 12 servers. This yields a total costs savings of $78,000.

• The Katz Graduate School had a one-time savings of $200,000 for its virtual server infrastructure.

• The Payment Processing Department rolled out iExpense, automating travel and business forms. A total of 418 staff were trained and are able to enter travel and business expense reports for 2,578 employees. The second phase of a multi-year project to streamline travel and business expense reimbursements was substantially completed in FY 2010. In the first phase, a clarified travel and business expense reporting policy was published, direct deposits of reimbursements were implemented, and the use of a P-card was enabled for certain travel expenses. Since it costs approximately $3 less to process an iExpense reimbursement request, we estimate a savings of approximately $132,000 for the 44,000 Travel and Business expense reports processed each year. This new system also captures more detailed information about travel and business expenses which will be used to improve management of travel costs and auditing and controls over travel and business expense reimbursement requests.

• Business Solutions worked closely with the Office of Human Resources and the Payroll department to successfully implement the Oracle Time and Labor module on January 1, 2010. The PRISM TRKS (Time Record Keeping System) Project was the most significant application added to the PRISM System in two years. This application’s primary purpose is to provide centralized tracking and consistent administration of time and attendance for approximately 6,400 full-time regular and part-time regular classified University staff. Additionally, over 2,100 employees were identified as having supervisory or approval authority for time and attendance records so they were also included in the implementation. The benefits of PRISM TRKS include increased confidence in compliance with the Fair Labor Standards Act via consistent application of policy, consistent processing and record-keeping systems across all schools and departments, improved controls over time record approvals, and improved management of accrued paid time off banks.

• The Office of Measurement and Evaluation of Teaching (OMET) evaluation of teaching surveys are currently conducted on paper and are administered by student proctors. OMET is currently piloting an online system that will save $35,000 in proctor payments, paper, and toner and drums for the printer.
• Financial Information Systems supported Arrival Survival with a custom system that includes an online volunteer registration form, a vetting process, shift scheduling, a personnel tracking system to monitor volunteers during the event, and attendance management. The project included conversion from an Access database to an SQL Server web application that permits wireless.

• The Center for Instructional Development and Distance Education (CIDDE) will adopt university technology standards which will result in a reduction in spending on computer room equipment, power, and cooling.

• Families seeking an estimate of college costs now have a new tool for comparison. A federal mandate requiring colleges to post net price calculators (NPCs) on their web sites took effect Oct. 29, 2011. By answering a short list of questions about the student’s age, living arrangements, residency, family size, income, and plans to apply for financial aid, prospective first-time college students can find the average net price of attendance that similar students paid in the prior academic year with a few clicks.

Pitt has posted NPCs for each campus. Each NPC generates an estimate of tuition and fees; room and board; books, supplies, and other expenses; merit and need-based grant aid; and a net price derived by subtracting the grant aid from the cost of attendance.

• The Student Payment Center migrated to self-service applications for students and parents that helped reduce credit card usage and increase e-check usage. E-check processing is a quick method of payment for students and parents and an inexpensive method of accepting payments for the University.

• The Student Accounting and Billing Office implemented the following activities:
  • e-Refunds (direct deposit) for students and parents: During FY 2008, the office processed 42% of refunds electronically and increased the number of electronic refunds by 30% during the last three years. As a result, students receive their funds faster and Student Financial Services continues to realize operational cost savings.
  • Weekly Term Comparison Reports: in an effort to closely monitor the potential economic impact of our students and parents related to tuition payments, a weekly report was created that compares tuition charges and payments to the same point in time for the three previous years. The report gives staff warnings if students and parents are finding it difficult to pay on time.
  • Student Email Notifications: Students are emailed to their Pitt email account if they have unpaid account balances that are due soon, if their unpaid balance has resulted in
a financial hold being placed on their account, and/or if their unpaid balance has resulted in their account being turned over to University Collections. Students are now informed throughout the process about increasingly severe penalties.

- The Office of Research has leveraged technology for significant savings. They developed standard nomenclature for activity log entries. These activity log notes make it possible for the community to check the status of their work electronically rather than calling Office of Research personnel, so the cost for departments as well as Office of Research processing is reduced. The Office of Research has also made changes so that all required documentation for account number activations can be transferred electronically.

The account activation process starts with the electronic circulation of the grant award and ends with the electronic transfer of all documentation to Research Accounting. Savings include reduced processing time, clear notes describing status, and quicker turnaround of account numbers that reduces downstream non-salary and salary cost-transfers. The streamlined process shortened the submission process by 50%.

The Office of Research has implemented Document Management, a 100% document scanning/uploading procedure that covers all major items within a grant/contract record. This cuts down on supplies, retrieval time, and follow-up questions for staff since the documents are available to the public.

Utilizing Digital Alternatives

- Since 2006, the Office of Finance has been leading an initiative in partnership with UPMC to institute a centralized desktop disbursement system called using stored value cards to make payments to research study participants. According to payment processing estimates in FY 2010, this system will free up as many as 3 FTE positions during peak PASA project periods. This disbursement system replaces the submission and processing of thousands of disbursement requests each year and the scores of petty cash accounts maintained to fund the requests. The result has been enormous improvement in the oversight and control of University financial assets and the elimination of cumbersome administration for General Accounting, OOF, Payment Processing, Research Accounting, Internal Audit, and the sponsoring research departments.

- In Spring 2011, the Office of Finance staff worked with the group that provides accounting and analytics software to establish a customized general ledger feed to upload directly into the University’s general ledger, eliminating the keying of manual journal
entries (more than 2,600 accounting lines in FY 2011), thereby saving considerable time and improving accuracy.

- 49 percent of all purchase order invoices were processed electronically via PantherBuy, resulting in a completely paperless buy-to-pay system for those purchases.

- In the School of Information Sciences, nearly all communications with alumni have been moved from print media to electronic media, saving more than $73,000 annually in production and mailing costs.

- Katz/CBA moved its annual report from a printed document to a smaller printed piece with associated digital multimedia, saving $14,000 annually.

- The School of Information Sciences is planning to redesign its online curriculum to take advantage of the cost-effectiveness of Pitt Online. After 4 years, the projected savings will exceed $200K per year.

- The School of Law is using digital alternatives in the library, saving $400,000 cumulatively. These savings were accomplished through a combination of increased reliance on digital alternatives, strategic partnerships allowing the sharing of materials, cancellation of library resources, use of the University Library System and Health Sciences Library System databases and resources, negotiated savings with the lead vendor, ongoing review of standing orders and subscriptions, reduced bindery costs resulting from the decision not to bind law journals, and reductions in amounts spent on supplies, computers, staff travel, etc.

- The Office of Admissions and Financial Aid (OAFA) is eliminating or reducing printing in favor of electronic communications, saving $69,579 on printing and $46,405 on postage.

- The move to paperless pay statements saves the cost of printing and distributing 168,000 pay statements each year. A 2007 cost study estimated that would save about $250,000 a year.

- The elimination of printed financial reports saved the University $210,000.

- Approximately 8.4 million sheets of paper ($60,000) will be saved between the period of September 2008 and June 2012 by the implementation of self-service printing in the campus computing labs.
• The self-service activation process saved $7,000 by eliminating the printing and mailing of account letters.

• Read Green is an opt-in service available through the Pitt Portal’s profile page that allows subscribers to receive most University mass mailings in their email, rather than receiving paper copies.

• The School of Medicine has transitioned to a paperless faculty promotion and tenure review system named HENRY.

• During 2002-2003, the University’s graduate and professional programs starting using ApplyYourself to provide online application capability for prospective graduate students. Today, programs from 10 of our schools (GSPIA, A&S, Social Work, GSPH, Engineering, SIS, SHRS, Nursing, Katz, and Dental Medicine) use ApplyYourself.

• Since December 2004, all theses and dissertations required for all doctoral, masters, and baccalaureate degree programs with a thesis requirement at the University of Pittsburgh have been produced and submitted electronically. Over 4,000 ETDs have been published by the University of Pittsburgh as of summer 2011.

• The University of Pittsburgh at Titusville reduced print advertising, and now relies more on electronic communications.

• The Graduate School of Public and International Affairs is requiring instructors to use Course Web, resulting in a savings of $2,500 a year.

• In FY 2009, efforts began to reduce the amount of printed materials distributed by the Student Services office in the School of Nursing. Previously, inquiring students were mailed brochures, curriculum information, applications and other program materials. This was replaced with an email response, accompanied by color .pdf attachments. Open house print mailings were replaced by utilizing listservs. This reduced both mailing and printing costs for a cumulative savings of $19,944.

• In June 2009, the School of Nursing discontinued transmission of distance education courses using Integrated Services Digital Network (ISDN) lines to the University of Pittsburgh at Johnstown and Bradford, switching instead to transmission using Internet Protocol (IP). ISDN transmission generated costs of $30 per transmission hour, while transmission using IP is free. In addition, the number of ISDN lines in the School was reduced from six to three. In contrast to ISDN, the quality of service of IP is not guaranteed and can diminish during times of heavy network traffic. The cumulative
savings was $48,067.

- Beginning in Spring 2011, the School of Nursing uses WebEx as the primary transmission method for distance education courses. Costs saved include the fees charged by the regional campuses: operator ($15/hr), space/equipment ($15/hr) and student ($15/student). WebEx cost is $4.20 per hour, plus the monthly line cost ($30/month). **This resulted in a savings of $9,645.**

- The School of Pharmacy transitioned from using University Marketing and Communications for printing to printing in-house in electronic format and sending documents as an e-blast for a cumulative **savings from FY 2009 - FY 2012 of $21,600.**

- The Office of Admissions and Financial Aid (OAFA) printed 12,000 fewer prospectuses, 107,000 fewer applications, and 65,000 fewer search pieces than last year. The Come Visit Campus piece switched from a 20 page, letter-sized brochure to a postcard. The Countdown to College publication, the Pitt Parent Guide publication, and the Undergraduate Research brochure publication were eliminated and Web sites were created in their place. The **total printing savings was $69,579** and the **total postage savings was $46,405.**

- Over the last three years, the University of Pittsburgh at Greensburg stopped printing and distributing copies of class schedules, **saving $6,200.** The student newspaper was put online, **saving $4,500.** The campus reduced the number of annual fund mailings to three using e-mail addresses that were currently available, **saving $2,216.** They eliminated printed housing applications and other materials, **saving $3,500,** and eliminated printing of the Student Handbook, **saving $2,000.**

- The University of Pittsburgh at Titusville made more efficient use of the in-house design, marketing, and production of printed communications. The campus combined several marketing pieces into one and eliminated many print runs for marketing/communication pieces that are now emailed and/or available electronically.

- Advancing the University’s vision of a paperless environment, the Management Information and Analysis (M&A) team worked with numerous colleagues in the B&C and CSSD to migrate the entire University to electronic reporting of previously paper-level reports. The conversion from paper to electronic delivery included some 18 financial, payroll, and sponsored award reports. Users throughout the University community were trained in application of the new system. Using the portal, users can now log in and view or run electronic versions of their reports. The project also included introduction of the COGNOS “Jobs” functionality, enabling users to create and schedule
“Jobs” that easily and efficiently distribute reports to appropriate recipients. This process results in the reduction of printing, copying, and distribution costs related to monthly financial report production, a savings of over $800,000 annually.

- In the last four years, the Center for Instructional Development and Distance Education has moved many documents and publications from print to Web format (such as the TA Handbook, the “Opportunities for Faculty” workshop guide which had been published three times per year, the Teaching Times, and various brochures and flyers), resulting in a $16,000 decrease in spending on printing and $4,000 decrease in spending mailroom charges.

- The Office of Research has standardized reports, starting with bi-weekly reports that are based on corporate and clinical agreement negotiations. These reports will be expanded to include the entire spectrum of “in-process” work. Faculty will be given these reports both through the Provost’s sponsored dashboard and via other standard means.

- There have been a number of system implementations and upgrades done to meet strategic objectives, such as:
  - Microsoft Hyper-V was upgraded to support the growing test and development demands for customers and developers. Hyper-V allows the University to make the best use of server hardware investments by consolidating multiple server roles as separate virtual machines running on a single physical machine.
  - Other server deployments included a pay station system for parking garages that performs real-time credit card transactions and reporting for the University’s automated parking payments and a POS system that allows the University to charge for dining.
  - The ID card system used by Panther Central was replaced to improve security, reliability, and functionality.
  - The lasted BlackBoard version (4.5) was deployed to achieve compliance and improve functionality. The new system allows outside vendors to accept Panther Funds or swipe the card to grant access to a location (PittArts, for example). All internal transactions were configured to work over the University network to improve reliability and transaction times.
  - Roaming profiles were implemented to support a seamless desktop environment on any FIS computer at the University by creating a new roaming profile server.
  - The Electronic Books (eBooks) system was deployed by the Pitt Book Center so the Center can now sell and distribute electronic books to students to lower costs and save resources.
• A new Active Directory Domain was created to support the growing needs of customer and vendors. It will improve availability and lower costs by deploying certificates internally.

Achieving Energy Efficiency

Sustainability at the University of Pittsburgh

• From FY 2009 to FY 2011, Facilities Management has returned nearly $3.25 million in utility budget savings achieved primarily via energy conservation efforts, diligent energy purchases, equipment and infrastructure upgrades, and improved control of buildings.

• Facilities Management (FM) continually develops and updates University design standards. These standards are distributed electronically to professional design firms. The standards stipulate many sustainable and/or energy-conserving measures for both new construction and renovations and are marked with an identifying symbol:

Examples of sustainable design standards include:
• electronic ballasts and fixtures,
• no new incandescent lighting unless required for research,
• Direct Digital Controls (DDC) required for all mechanical system installations or upgrades, all DDC controls must be tied into the campus energy management system,
• energy efficient control strategies such as occupancy sensors required for all new construction and renovations and low temperature transformers,
• standard carpeting installations must include a minimum of 25% recycled content, carpet adhesives contain no VOC, the majority of paints qualify as Low VOC.

LEED (Leadership in Energy and Environmental Design) is the nationally accepted benchmark for the design, construction, and operation of high-performance green buildings. There are 4 levels of LEED certification: Platinum, Gold, Silver, and Certified. The University is pursuing LEED certification for several new construction and renovation projects.

The University’s first LEED Certified building was the McGowan Center for Regenerative Medicine. The University achieved a LEED Gold certification from the U.S. Green Building Council for the McGowan Institute in 2005 and the Institute was the
first LEED Gold certified laboratory building in Pennsylvania. The project is unique because the University acquired the building from the Urban Redevelopment Authority after the shell was constructed.

The Mascaro Center for Sustainable Innovation (MCSI) achieved LEED Gold Certification. Energy saving strategies for the MCSI will result in a 17.5% reduction in energy consumption when compared with traditional strategies. The addition is equipped with high-performance glazing for energy efficiency and low flow plumbing fixtures, and will result in 30% reduction in water consumption when compared with traditional fixtures. The design incorporated daylighting features to reduce the need for artificial lighting and occupancy sensors in all areas. All paints, coatings, carpets, woods, adhesives, and sealants were low-VOC emitting.

The Benedum Hall renovation achieved LEED Gold certification and the Benedum Phase II Tenant project is pursuing LEED certification. Energy saving strategies for the Benedum Hall renovation will result in a 17.5% reduction in energy consumption when compared with traditional strategies, and all windows are being replaced with an energy efficient Low-E curtainwall system. The project will have the University’s first green roof, low flow plumbing fixtures that will result in 30% reduction in water consumption when compared with traditional fixtures, and daylighting features to reduce the need for artificial lighting. All construction and demolition waste is being recycled—to date, over 3,200 tons of construction waste has been diverted from the landfill (over 75% of total waste).

The Chevron Science Center Annex is tracking to be LEED Silver Certified and energy savings will result in a 15% reduction in energy consumption when compared to traditional strategies. Other projects include the Graduate School of Public Health, Salk Hall Addition, Falk School Addition/Renovation, and many more.

Building Automation

- Starting and stopping campus fan systems on an automated schedule **saves over $500,000 per year**.
- The University has invested approximately $4.8 million in the two main phases of the building automation system implementation.
- To date, the system has provided over **$15 million in energy cost avoidance**.
- Electric, steam, and chilled water metering is now automated through the building automation system. The meter data is used to identify buildings with high energy usage, and the identified buildings are then analyzed for potential savings.

- Energy Conservation
Since 1996, an estimated **cost avoidance of nearly $32 million** has been achieved in energy conservation projects.

- **Energy Master Plan**
  - In 2000, a consulting firm was hired to perform a comprehensive utility master plan.
  - The firm recommended improvements in campus utility infrastructure, building system upgrades, and energy conservation projects.
  - Approximately $6.0 million in projects with a projected simple payback of less than five years were initially funded.
  - To date, our **cumulative savings from this $6.0 million investment are estimated at over $12.5 million**.

- **Occupancy Sensors**
  - Occupancy sensors have been installed in most common areas, such as hallways, lobbies, some bathrooms, and mechanical and electrical spaces.
  - Sensors shut off the lights when they are not needed.
  - Lobbies, bathrooms, and other spaces are done as renovations occur or as lighting upgrades are done.

- **Lighting Upgrades**
  - Facilities Management developed an automated curtailment program that sheds electric load during peak periods. It is estimated that in the summer of 2011, electric consumption was reduced by 253,000 kilowatt hours, an estimated **savings of $22,000**. This program is being expanded to increase the number of buildings involved, which will result in additional future savings. Another benefit to this program is that the University's peak capacity values can be reduced. These values are used by the electricity providers to determine yearly generation and transmission rates. Keeping our peak demands lower should help to suppress generation rates, or at least help minimize rate increases. The curtailment program also allows Facilities Management to respond to emergencies more quickly, such as the massive power outage experienced in August 2011.
  - The University contracted with a lighting supplier to upgrade lighting in nine Pitt buildings to standard energy efficient lighting fixtures - **annual savings of approximately $125,000**.
    - Lighting retrofit projects at the Frick Fine Arts and School of Information Sciences buildings resulted in an estimated **annual savings of $49,000**. These projects were primarily funded via a **$236,000 grant** from the Department of Environmental Protection.
• Lighting retrofits on the first and second floors of Posvar Hall resulted in an estimated **annual savings of $32,000.** This project also received an Act 129 **rebate from Duquesne Light in the amount of $11,051.**

• Improved lighting control at Posvar Hall resulted in an estimated **annual savings of $27,000.**

• Earlier upgrades of Posvar Hall, the William Pitt Union, and the Center for Biotechnology and Bioengineering resulted in significant additional savings.

• Additional upgrades are in progress for the Frick Fine Arts and SIS buildings (PA Conservation Works! **Grant - $236,000**).

• Energy auditors from a major energy company explored several Pitt buildings to model energy usage and recommend ways the University could reduce its utility bills.

Contractors from a Colorado-based Energy Solutions Network, who are also calculating the savings from projects that already have been done on campus, documented lighting, heating and air conditioning systems and building occupancy in Posvar Hall, Bellefield Hall and Lawrence Hall as part of their energy audit. The three buildings were selected because they appear to have significant potential for energy savings. The immediate benefits are free evaluations by the consultants and hopefully significant rebates to partially or fully offset the costs of implementing the conservation measures. Future benefits include ongoing, sustainable reductions in energy consumption and costs.

• **Pollution/Emissions Reduction**

The University was recognized by the Allegheny County Health Department as an Enviro-Star Award Recipient in both 2007 and 2009. Pitt was the only award recipient to be recognized with the highest level Three-Star award in 2007. The award recognizes efforts in emissions reduction, energy conservation, recycling, and greening of the campus.

• Pitt’s steam energy has become much greener since 2009, when the Bellefield boiler plant switched from coal to natural gas, and a second plant, the Carrillo Street Steam Plant, began operation. Burning primarily natural gas, the Carrillo Street plant is equipped with state-of-the-art emissions controls, allowing it to meet an ultralow nitric oxide and nitrogen dioxide limit of nine parts per million. Pitt is believed to be the nation’s only university to own a plant that meets this limit, according to Facilities Management’s Sustainability at the University of Pittsburgh report. While the Carrillo Street plant currently provides about half of the steam energy needs for Pitt and UPMC, a full transfer from the Bellefield
plant is expected within the next several years. That full transfer is expected to reduce Pitt’s annual steam-related carbon dioxide emissions by 47 percent from FY 2009 levels.

- Upgrades were made to chilled water plants and distribution systems to improve plant efficiency and control. Between FY 2009 and FY 2011, weather-adjusted annual plant electric consumption has been reduced by nearly 5.7 million kilowatt hours, an estimated annual cost avoidance of nearly $484,000.

- Greening of the Campus
  Campus exterior appearance has greatly improved in recent years. The amount of green space on campus has expanded to include new parks and other green space, and the planting hillsides with ground cover has reduced maintenance requirements as well as lawn mower fuel use and emissions. Trees have been added to many sidewalks, four new bus shelters have been installed, and more than 50 new bicycle racks have been added across campus.

- Grounds Awards
  - In 2010, Pitt received a Merit Award from the Professional Grounds Management Society (PGMS) in the Society's 2010 Green Star Awards competition. Founded in 1911, PGMS is a membership society of grounds professionals dedicated to advancing the grounds management profession through education and professional development. The Green Star Awards program brings national recognition to grounds maintained with a high degree of excellence, complementing other national landscape award programs that recognize outstanding landscape design and construction. The Merit Award was given to Pitt in the University and College Grounds category for exceptional grounds maintenance. Overall, PGMS presented seven Grand Awards, its highest honor, as well as 14 Honor Awards and 12 Merit Awards in 13 categories of competition.

- Recycling
  - Facilities Management began an aggressive initiative in 2005 to expand and improve our recycling program in E&G facilities. They developed and implemented a recycling and trash removal training program for all custodians and supervisors and developed dual-container janitorial carts to prevent the common perception that recyclables are being disposed of as trash. These carts are currently in use in all daylight-cleaned areas. Facilities Management also recently upgraded the program to begin recycling plastic grades 1 through 5 (previously recycled only grades 1 and 2.) Its enhanced battery recycling program now recycles everyday disposable batteries as well as NiCad and Lead Acid batteries. They also implemented a Construction and Demolition debris recycling
program to recycle additional construction debris (i.e. mixed metals, stone, wood products, etc.).

- **Recycle Mania**
  - Pitt is participating in the national RecycleMania competition for the third time in 2011. The University expanded participation in 2010 to the Competition Division (full campus). Facilities Management works with the student group Free the Planet, Residence Life, Housing Services, and Sodexo to plan and promote the program. Materials are collected and measured each Friday, and results are submitted to RecycleMania on a weekly basis. The 2010 competition ended on March 27, 2010 (a ten week competition). Pitt set an internal goal to recycle 15 pounds per person (a combined goal for cans/bottles, paper, and corrugated cardboard.)
  - **Results: (internally calculated)**
    - Bottles & Cans 35,475 lb.
    - Corrugated Cardboard 329,455 lb.
    - Paper 168,873 lb.
    - Total Per Capita Recycled 14.94 lb./person (goal was 15 lb./person)
  - **2010 Results**
    - "Gorilla Prize" (highest total weight recycled) - Pitt ranked in top 10% of all schools participating.
    - "Targeted Materials – Cardboard" – top 20%.
    - "Per Capita Classic" category – top 40%
    - Big East Conference Rankings:
      - 1st in Corrugated Cardboard
      - 2nd in Grand Champion, Gorilla Prize, and Paper
      - 3rd in Per Capita Classic, Waste Minimization, and Bottles & Cans

- **Hillman Library Carpet Recycling**
  - All carpet removed from the Hillman Library building was taken by the carpet installer for recycling.
  - Once all results were tallied, over 71,240 pounds of carpet was diverted from the landfill, and over 255 tons of carbon dioxide credits were retired.

- **Other Facilities Initiatives**
  - Replacement of 770 exit signs with LED signs, resulting in a savings of 256,000 kilowatt hours each year.
  - The University surveyed nearly 1,000 steam traps in University buildings. All failed traps were replaced, resulting in steam cost savings of $165,000 per year.
- $8.7 million has been invested in upgrading 71 University elevators, providing significant electrical savings while improving elevator service and accessibility.

- The University continues to incorporate sustainable design practices into new construction and renovation projects. It will significantly reduce CO2 emissions through the transfer of steam production from the Bellefield Boiler Plant to Carrillo Street Steam Plant, and it continues to invest in energy conservation efforts. Another future goal includes expanding the recycling program, including the expansion of construction debris recycling.

- **Transportation**
  - Pitt subsidizes public transportation to offer no-cost access for all students, staff, and faculty who receive a University of Pittsburgh identification card. Discounts on parking passes for community members who carpool have been moderately successful. An extensive shuttle network is offered for campus affiliates, and the shuttle fleet has recently been converted to biodiesel. Zipcars are available on campus. The university provides bicycles that can be rented hourly or daily and also operates a free bus around campus and to some local destinations.

  The campus fleet includes hybrid, electric, and 14 biodiesel vehicles (note: this does not include the 21 biofueled shuttle buses owned and operated by an outside contractor). The fleet also includes a food services truck that runs on Veggie Diesel. The truck was retrofitted through a student project. Students designed and installed the retrofit, and continue to collect and refine the oil from campus food venues and other local establishments for use in this vehicle.

  - Commuteinfo.org is the University’s regional ridesharing partner dedicated to increasing the number of commuters in Southwestern Pennsylvania who wish to share a ride to work or school by using transit, car pools, van pools, walking, or biking.

  - The Mascaro Center for Sustainable Innovation at the University of Pittsburgh is a center of excellence in sustainable engineering focusing on the design of sustainable neighborhoods. The Center encourages and nurtures new collaborative projects based on strong and innovative research, translating the fundamental science of sustainability into real products and processes. The goal of the Center is to create innovations that positively impact the environment and improve quality of life. Its research includes projects on greening the built environment, more sustainable use of water, and the design of distributed power systems.
The Center for Energy, housed in the Swanson School of Engineering, is dedicated to improving energy technology development and sustainability, including energy efficiency, advanced materials for demanding energy technologies, carbon management, and energy diversification. The Center has assembled a team of more than 70 faculty members already working in energy research from the Departments of Chemical Engineering, Chemistry, Civil and Environmental Engineering, Electrical Engineering, Industrial Engineering, Geology, and Mechanical Engineering and Materials Science for the purpose of leveraging their work and expertise.

Areas of research range from clean coal technologies to harnessing solar energy, and include subjects as diverse as synthetic and biomass-derived fuels, gas hydrates, high-temperature coatings, and fuel cells. Some current initiatives include: cleaner combustion of coal and converting coal to clean energy sources; carbon dioxide sequestration and conversion; new technologies for hydrogen storage and transportation; new sensors for more efficient fossil-fuel plants; more efficient turbines for power production; novel technologies for harnessing solar energy; and new materials that enhance performance in harsh environments.

While faculty members represent various disciplines in energy research, many of them are also experts in using highly sophisticated computer modeling and simulation tools to facilitate faster, more efficient, and less costly design of energy solutions. The result is a truly integrated research approach that couples experiment to theory through modeling and simulation. The Center builds on its research capabilities with additional thrusts in education including the development and delivery of graduate and undergraduate courses in nuclear power, power transmission, and mining engineering. The Center works with private-sector partners to develop solutions and to create new jobs in research, manufacturing, technology, and other sectors, making southwestern Pennsylvania a hub for energy innovation. The Center will be directly linked with the energy initiative at the University of Pittsburgh at Bradford, which has the mission to facilitate educational and outreach programs in energy, particularly the regional resources of petroleum and renewables (biomass, solar, and wind).

- The University of Pittsburgh at Johnstown installed light sensors and PED lights, saving $40,000 a year.

- The University of Pittsburgh at Titusville replaced 90% of incandescent bulbs with fluorescents, replaced televisions with energy saving models, and replaced controls in heating systems that allow for night settings.
• Computing Services and Systems Development implemented sustainability of “green IT” initiatives will reduce paper usage, postage, printing, and labor costs resulting in savings of $313,000.

• In the Center for Instructional Development and Distance Education, a departmental “green team” has worked to educate staff on energy conservation strategies as well as recycling and sustainability.

More Efficient Utilization of Space

• More Efficient Use of Space and Facilities
  • Facilities Planning 2007-2018: The Facilities Planning Committee was charged to do the following:
    • To build on the accomplishments of the previous plan;
    • To assess the condition, adequacy, and appropriateness of the University’s facilities;
    • To develop priorities for renovation and new construction that are aligned with academic goals and institutional resources;
    • To prepare a comprehensive plan that ensures the University’s continuing competitiveness in instruction, research, and student life; and
    • To propose a realistic funding plan that recognizes continuing fiscal constraints.

In responding to its charge, the committee, recognizing the success of the process utilized by the earlier facilities planning committee, established a set of principles and developed priorities to guide its efforts. These principles and priorities included:

• Renovate and renew current facilities as a cost-effective way to meet future academic program needs rather than build expensive new facilities (as examples, Clapp/Langley/Crawford and Parran/ Crabtree would cost $486 per gross square foot to construct and $211 and $132 respectively to renovate);

• Invest on a continuing basis in routine maintenance of existing facilities to ensure that they meet the needs of the programs they house;

• Develop significant additional research laboratory facilities to support projected growth and to ensure the University’s continuing competitiveness for external funding;

• Invest regularly in improving and modernizing instructional facilities to provide an effective teaching environment;

• Increase the efficiency of space utilization, particularly for classrooms and offices;
• Develop the campus utility and information technology infrastructure to support future program needs;
• Provide appropriate student life space to assist in meeting enrollment and program goals; and
• Improve athletic facilities to ensure the competitiveness of University programs.

• The Emerson Electric Building (Thomas Blvd.) improved efficiencies by using more space within the building for a savings of $46,827 over the last three years.

• In an effort to reduce space rental charges, the School of Pharmacy consolidated people from BST3 into Salk Hall beginning in March 2010 for a cumulative savings from FY 2010 – FY 2012 of $246,378.

• The Office of Admissions and Financial Aid functions as a single operating unit, delivering high quality services typically provided through two separate units at most institutions. This organizational structure has provided the University with significant cost efficiencies over many years. There is one reception area, one processing area, one webmaster, one network administrator, etc.

• The Mailing and Warehouse Services groups were relocated from a leased property to a University-owned property for a savings of $329,601.

• In the fall of FY 2009, the Office of Measurement and Evaluation of Teaching centralized its measurement and evaluation staff into one location, freeing up additional office space within the Cathedral of Learning.

Greater Staff Productivity

• The School of Education worked with Human Resources on financial processing needs and the skill-sets of staff to realign operations, saving $126,000.

• The University Center for Social and Urban Research cross-trained staff to maximize efficiency, saving $40,000 a year.

• The Health Sciences Library System has compensated for reduced staffing through innovative reorganization, resulting from careful analysis of service points and user behavior. Three hospital branch libraries were eliminated. The number of service points was reduced by combining the reference and circulation desks and cross-training staff in
Access Services and Document Delivery. With the help of an outside consultant, the Technical Services and Computer Services departments were combined into one Digital Library Services department in FY 2012. This will realize greater efficiency, and allow the Health Sciences Library System to focus staff resources on the areas of greatest need.

- In the School of Pharmacy, all staff who interact with students participated in an extensive workflow analysis. The results of this analysis resulted in a reduction in duplicative paper holdings and work processes, the creation of the Student Services Center, and the elimination of the need to hire an additional staff support to work within the group based on efficiency improvements. The cumulative savings from FY 2009-FY 2012 was $150,000.

- The School of Pharmacy uses professional service agreements for a graphic designer and a Web designer instead of hiring full-time staff at a cumulative savings from FY 2009-FY 2012 of $142,000.

- The Graduate School of Public Health scrutinized job vacancies for replacement or reclassification for a savings of $70,000 per year.

- By implementing technology wisely, outsourcing when appropriate, and analyzing business processes to gain efficiencies, Student Financial Services reduced its staffing by 18.37% since FY 2001. These reductions result in annual operating expense savings for the University, and the initiative continues to be a high priority for Student Financial Services.

- In the Center for Instructional Development and Distance Education (CIDDE), a recent project to automate the creation of courses within the learning management system freed up the equivalent time of almost 1 FTE employee. This and similar efficiency projects allow CIDDE to direct staff time away from clerical tasks and toward higher impact work, such as development of Pitt Online courses.

- In the Center for Instructional Development and Distance Education, an internal process of reviewing every employment vacancy against the strategic needs of the unit has been adopted. This and other improved business processes have led to a reduction in clerical/administrative workers and reallocation of staff to positions that directly serve faculty.

- The School of Nursing combined on-site and online courses with low enrollment. They now have three approved online programs, all with growing enrollment. In Fall 2012, five courses that were to be taught both online and on-site did not have sufficient enrollment
to justify offering both of them; however, both were required for students to progress. On-site students were combined into the online courses, allowing the faculty to be redirected to teach other courses, rather than hiring additional faculty. Fiscal year 2012 savings to date is $34,600.

- The University of Pittsburgh at Johnstown cut low enrollment courses, saving $120,000.
- The Graduate School of Public and International Affairs cut larger classes, saving $50,000-$60,000 annually.
- Between Fall 2007 and Fall 2010, The Dietrich School reduced the number of low enrollment sections by more than 20 percent.
- The Graduate School of Public Health shared positions between departments or used University services such as several days of IT support for a savings of $35,000 per year.
- The School of Social Work reallocated staff for an annual savings of $50,636 and $17,166 in fringe benefits.
- In 2010, Financial Information Systems instituted the PRISM Time Record Keeping System (TRKS).
- The Research and Cost Accounting Department (RCA) continues to achieve productivity gains through the use of a specialized Oracle-based reporting and accounting system, an improved organizational structure, and more efficient operations. The productivity gains in the department have allowed for relatively steady staffing levels since 1998 despite a 206% increase in the research base. Research dollars administered per person has increased by nearly 10 million in the past five years.
- From FY 2009 through FY2011, Facilities Management has returned nearly $2.3 million in non-utility operating budget savings achieved through a delay in filling vacant custodial and operating engineer positions, deferring major non-routine maintenance projects, and delaying the purchase of major maintenance equipment.
- The Office of Faculty Records has continued to operate efficiently even as the overall workload has increased. Focusing on efficiency, the Office of Faculty Records has had to reconfigure assignments as it has not filled a vacancy for a 60% effort position open. The office staff is being utilized along with student employment to contain costs with fewer employees on staff. This has resulted in a 6.6% decrease in operating costs per month when compared to the same time last fiscal year.
During the last four years, the staff of the Office of Measurement and Evaluation of Teaching has been reduced by 12%. Even with this decrease in staff, OMET has increased its efficiency by offering online access to forms to request surveys, to change survey information, to request past results, and to sign-up for reminders of survey request dates.

The Office of Admissions and Financial functions as a single operating unit, delivering savings in both salaries and operational costs. As an example, selected staff members are trained to perform dual functions of recruitment and admissions during peak periods of those activity cycles and then to provide financial aid services during the peak financial aid processing cycle. In addition to providing higher quality services to students/families by providing necessary financial aid information at critical times of the recruitment cycle, there are tangible cost savings from combined publications and communications.

More Timely Audited Financial Statements: The University previously had produced three separate general ledger closings at year-end. As a result, the year-end financial statements and audit report were not typically completed until late September. The prolonged closing was not caused by regulatory requirements but reflected a common practice throughout higher education. Beginning in FY 2004, we established the goal of completing year-end audit and financial statements by the end of August. That goal was met and the process has continued to accelerate. The FY 2007 and FY 2008 audits ranked second only to Syracuse University among all colleges and universities in the prestigious AAU (American Association of Universities) and was faster than many of the companies on the Dow Jones list of the top 30 industrial stocks.

Activities that expanded services and efficiencies without increasing headcount:

- In 2010, the University expanded retiree benefits administration, leading to a greatly expanded health insurance program for retirees. The alternative would have been to add staff and software to accommodate programs.

- In 2011, the student benefits administration offered enhanced and added benefit offerings to all students. This initiative has enabled the University to track international students who are now required to carry qualified health insurance coverage while attending classes.

- In 2011, the University outsourced and validated the documentation of all (Federally mandated) staff I-9 files to a third party and assumed within the Human Resources the manual processing of all faculty/students records, removing this consistent effort from department and school administrators and payroll.
The Office of Research (OR) has improved staff productivity. For example, OR cross-trains staff members within each team to perform multiple roles which decreases processing costs. They reorganized the office to reduce overlap in areas and positions and to realign processes so that clear and quick processes could be established. Their new model is based on a team model stressing cross-training and empowerment.

OR has also advertised clear checklists and procedures for major functions within the office, cutting down on questions asked to staff and reducing “redos.” They implemented “Ask the OR” and other entry-level courses for Grants.gov, NSF Fastlane, and grants/contracts principles. This increases the knowledge level of staff, cutting down on errors and redos, and reduces the overall cost of the grants process. OR’s Communication Team has successfully implemented SharePoint Technology to improve intra-office communication and to provide a shared repository of Processes and Protocols.

Adopting Smarter Strategies with Health/Retirement Benefits

- Renegotiation of contracts reduced optional life insurance rates in 2009 and again in 2011 by 19% and 17% respectively, resulting in a **$100,000 annual savings** for the University and **$1,100,000 annual savings** for employees.

- The prescription drug agreement was renegotiated for an **annual savings of $1,100,000**.

- Health insurance changes and adjustments were made such as increased co-pays and adding a fourth tier for medications for an **annual savings of $1,250,000**.

- The University created the Defined Dollar Benefit (DDB) Program. Eligibility requirements were increased and the University contributions were capped. Cumulative savings over a 20-year period are **$390 million; annual savings is $19,500,000**.

- The University implemented optional provisions of the Omnibus Budget Reconciliation Act (OBRA) that allows health plan members on extended disability to move primary coverage to Medicare for an **annual savings of $3,000,000**.

- The University applied for reimbursement of stop loss claims under the Early Retirement Reinsurance Act (ERRA) under provisions of health care reform. The program was only available in 2011 with a run-out in 2012. The savings in **2011 was $264,000 and in 2012**
the savings was $236,000.

- The University annually reviews the health insurance policy for its graduate and professional students who hold academic appointments. As needed, changes to the policy are made to balance policy coverage with premium cost. In 2011, the University chose to implement this student policy online using UPMC’s EBenefits. Many of our students (and staff and faculty) chose to use the Student Health Center. While this has no impact on policy rates, it does drive business/revenue to the University.

- **Health Resources:**
  - My Health Online is a free interactive resource provided by UPMC in which members can refill prescriptions, participate in wellness programs, research medical conditions, search discounts and cost comparisons, and request replacement membership cards.
  - UPMC HealthTrak allows you to maintain a calendar of doctors' appointments, schedule follow-up visits, receive and review test results, ask billing questions, and communicate directly with your doctor.
  - Consumer Health Information is provided by the University's Health Sciences Library System, allowing users to conduct research on drugs, diseases, conditions, and surgeries.
  - The Center for Minority Health is a resource provided by the University's Graduate School of Public Health.

- **Wellness Resources**
  - Life Solutions provides a broad range of services to faculty, staff, and their families to balance the stresses of work and daily life at no cost.
  - Fitness for Life encompasses a variety of health and wellness initiatives and incentives for faculty and staff, encouraging proactive healthcare management including Weight Watchers on-campus meetings.
  - University Wellness Program is sponsored by the School of Education, providing physical fitness assessments, personalized exercise plans, body fat analysis, nutritional counseling, and a number of other tools to promote wellness.
  - Smoking cessation assistance is available to University faculty and staff who are ready to kick the habit.
• Bellefield and Trees Fitness Centers are open for use by faculty and staff through the Pitt Intramurals program.

• Farms to Pitt is a program that delivers fresh local produce, meat, eggs and dairy products on a weekly or biweekly basis directly to campus for pickup by users.

Other Revenue Sources

• The University of Pittsburgh’s high-achieving faculty has made the University an internationally respected center of pioneering research. Over the course of the past decade, Pitt’s research expenditures total $5.33 billion – funds that are largely imported and locally spent. Pitt ranks among the top 10 universities nationally in terms of total federal science and engineering research and development supports, and ranks fifth in the country in terms of faculty research support from the National Institutes of Health – joining Harvard, Johns Hopkins, Penn, and the University of California at San Francisco in that distinguished group. Pitt’s research expenditures in 2009 were more than $650 million, and in 2010, University researchers brought in $737 million in funding.

• The $800 billion American Recovery and Reinvestment Act (ARRA) was signed into law on February 17, 2009 by President Obama in order to combat current economic challenges. A significant portion of this funding is being dedicated to expanding support for basic and applied research at research institutions across the country.

The University of Pittsburgh was a recipient of ARRA funds across a wide range of programs. To date, through the Office of Research, the university has received approximately 528 awards representing more than $209 million of new or continued funding. Specifically, the University of Pittsburgh has received funding from the National Institutes of Health, the Department of Education, the Health Resources and Services Administration and the National Science Foundation, including three prestigious NSF CAREER awards. Recipients were representative of the University as a whole, with individuals from various schools receiving grants. This funding will greatly benefited the local community through job creation and retention and allows for pioneering research work to be performed across a broad range of investigations.

• Pitt ranked No. 26 nationally in endowment value at the end of fiscal year 2011, according to the most recent National Association of College and University Business Officers (NACUBO)-Commonfund Study of Endowments. The previous year, Pitt’s endowment ranked No. 28 among 850 schools
The annual study, which included data from 823 institutions in FY 2011, showed Pitt’s endowment grew 24.3 percent, rising from its FY 2010 total of $2.03 billion to nearly $2.53 billion. The increase is not a measure of investment returns, but reflects the net impact of investment gains and losses as well as gifts and contributions, withdrawals and payment of management and investment fees.

According to the University’s FY 2011 audited financial report, the endowment’s investment return was 22.4 percent. In his Jan. 6 University Update, Chancellor Mark A. Nordenberg credited those investment returns and $114 million in donor support for the bulk of the endowment’s growth last year.

Harvard led the NACUBO-Commonfund FY 2011 list with an endowment valued at $31.7 billion. Its value rose 15.1 percent over its FY 2010 mark of nearly $27.6 billion.

The Health Sciences Library System (HSLS) has increased revenue by successfully competing for grants and contracts. In July 2009, HSLS and the School of Information Sciences were awarded a three-year grant for $991,311 from the Institute of Museum and Library Services (IMLS) to support the development of a Post Master's Degree Certificate of Advanced Studies in Health Sciences Librarianship (HealthCAS), managed jointly by the SIS and HSLS. HSLS received support for .5 FTE librarian-manager, and shares 50% of the school's tuition revenue from HealthCAS students.

The Health Sciences Library System receives 50% salary support from Graduate School of Public Health federal grants for the HSLS Public Health Informationist (a faculty librarian).

In April 2011, the Health Sciences Library System was awarded a five-year contract by the National Library of Medicine to serve as the Regional Medical Library for the Middle Atlantic Region of the National Network of Libraries of Medicine. This contract supports five new faculty librarians and one new staff person, in addition to a portion of the HSLS Director's salary (20% in Year One, 10% in Years 2-5). The contract amount for Year One is $1,213,533, including overhead/indirect costs of 24%.

Katz experienced significant growth. For example, Fall FTE enrollment grew from 2,426 to 2,639 while fall term tuition grew from $19.4 million to $25.4 million. The MS Program in Accounting grew from 0 to 60 students in its first three years.

Katz obtained corporate sponsorships in the College of Business Administration Career Services totaling $30,000 and corporate sponsorships of $3,800 for the International MBA program.
• At all levels, efforts are underway to admit more international students. In Fall 2011, approx. 10% of the University’s full-time students were international and in Fall 2006, approx. 6% of our full-time students were international.

• Pitt Online’s mission is to provide graduate and professional programs of the same quality, taught by the same faculty, with the same superb level of support services as their counterparts offered to resident students enrolled on the Pittsburgh Campus. Pitt Online was initiated in 2007, and in fall 2012, nine programs from five schools are offered to 178 students who reside from 21 states.

• The School of Health and Rehabilitation Sciences enrollment grew from 1,087 in FY 2009 to 1,299 in FY 2012, an increase of 212 students. Two new professional graduate programs were started: the Physician’s Assistant Studies program and the Prosthetics and Orthotics program. Tuition revenues have increased from $23.5 m in FY 2009 to an estimated $29.6m in FY 2011.

• Between FY 2009 and FY 2011, the School of Dental Medicine saw an 11% increase in clinical revenues, largely in part by implementing a new patient accounting system.

• The number of University of Pittsburgh innovations that have moved from the lab to commercialization increased by 31 percent in fiscal year 2011, resulting in 105 licenses or options to industry and two start-up companies for Pitt technologies. This increase in commercialization activity also included 37 U.S. patents that were awarded to the University in 2011 and the submission of 257 new invention disclosures by Pitt faculty, according to Pitt’s Office of Technology Management (OTM). More than 400 Pitt researchers submitted invention disclosures in FY 2010-2011. The latest launching of Ortho-Tag and LINC Design raises the total number of start-up companies established from Pitt technologies to 80 since the OTM’s inception in 1996. Other notable inventions featured in the 2011 annual report included a way to give asthma sufferers an alert to a possible attack, an improved method of diagnosing gastroesophageal reflux disease during infancy, and software that calculates cancer mortality risks by studying a person’s demographic, geographic, and work history.

• The School of Health and Rehabilitation Sciences has significantly increased research funding from FY 2009 to FY 2012 from $11,419,579 to $20,711,661 per year. Research funds provide 36% of all 128 faculty salaries, about 30%-38% of staff salaries and approximately 75% of all graduate student positions.

• The School of Health and Rehabilitation Sciences has experienced significant funding increases, including an increase from the Department of Defense from $1,238,647 in
FY09 to $6,070,501 as of January 15, 2012. NIH funding has doubled from $1,502,673 to $3,036,876, VA funding increased by 42%, and the Department of Education funding has increased by 35%.

- The School of Information Sciences received a $782K 5-year grant from the Andrew W. Mellon Foundation for seed research and education in cyberscholarship.

- The University of Pittsburgh Press (UPP) has placed 120 books in the new ProjectMUSE books database, which launched this month. Access to the database is being sold on a subscription basis, on similar terms as the ProjectMUSE journals program (and being offered in combined form to allow researchers to search across both databases at once). Cuban Studies has been in ProjectMUSE for eight years; these eight issues earned nearly $17,000 in sales income in FY 2011.

- Last FY, the University enrolled 581 students under the new GI Bill and received $3,877,690 from the U.S. Department of Veteran Affairs.

- The annual revenue from testing fees that Office of Measurement and Evaluation of Teaching earns has more than doubled since FY 2008.

Limiting Spending on Travel, Meetings, Events, Supplies, and Resources

- Katz reduced recruiting travel by participating in a virtual career fair through the Economist, saving $95,000.

- The School of Law saved $32,000 cumulative savings for staff conference travel and made admissions and financial aid office cumulative cuts of $28,424 that eliminated an admitted students’ Open House and Public Interest Scholarship luncheon, recruitment travel, and a separate yield event for scholarship recipients.

- The Graduate School of Public and International Affairs reduced the number of international student recruiting trips (four-year savings of $60,000) and eliminated U.S. recruiting trips (four-year savings of $100,000).

- For the International EMBA program, Katz saved $8,000 in reduced travel expenses.

- The University of Pittsburgh at Greensburg conducts meetings via conference calls rather than in-person. The President’s Office reduced travel to professional meetings, saving...
$4,500 over three years.

- The University of Pittsburgh at Titusville reduced the number of staff traveling to recruiting events, implemented receipt-based reimbursement instead of straight per diem, negotiated rental car rates for the busy recruiting season, and increased the use of the University bus which reduced the need for van rentals.

- The School of Nursing discontinued table incentives and giveaways at recruitment fairs for a savings of $41,813.

- The School of Nursing discontinued several alumni events, including Game Watch (young alumni event) and Women's Basketball Game and Dinner (donor and alumni event). The estimated savings is $5,000.

- The School of Nursing shares flowers with several other Pitt schools holding April graduation ceremonies in Soldiers & Sailors Memorial Hall. They also use the same set-up as other Pitt schools with receptions in the Cathedral of Learning over graduation weekend to save on facilities management charges. The estimated savings is $2,500.

- In FY 2010, the School of Nursing’s undergraduate and graduate student graduations were combined into one event. The estimated cumulative savings is $7,500. The event locations were evaluated to minimize facilities management, moving, shuttle and rental charges. The School's summer and winter graduation ceremonies are held in the largest classroom in the Victoria building. The estimated savings is $2,000.

- In FY 2010, complimentary wine was eliminated from the School of Nursing’s major fundraising event. The estimated cumulative savings is $28,500. In fiscal year 2011, favors were eliminated from most events. The estimated cumulative savings is $2,000.

- The School of Pharmacy’s budget reductions have resulted in the reduction of catering expenses associated with national meeting receptions and in-house receptions. Both have been either eliminated or significantly reduced in expense. Additionally, internal programs have been re-designed. The Distinguished Lecture Series was redesigned to a more locally-contained seminar series so that expenses are reduced while maintaining high quality. The cumulative savings from FY 2009-FY 2012 was $90,000.

- For the International EMBA program, Katz reduced $16,000 of annual printing costs, $16,000 in meal/break expenses, $10,000 by changing the Global Executive Forum format, $16,800 in reduced shipping costs, $24,000 in negotiated lower room rentals,
$2,000 in a lower hotel rate, and $13,400 for changing AV companies and reducing rental days.

- The Health Sciences Library System has absorbed cuts (flat budget results in a loss of an average of $295,000 a year in purchasing power) by eliminating all print journals and canceling some e-journals, cutting some databases, and reducing expenditures for books and annuals. Over the three-year period, HSLS saved $523,523 from database and e-journal cancellations. Their book budget was reduced by 65%, from $113,000 in FY 2009 to $40,000 in FY 2012. The budget for annuals was reduced by 72%, from $53,000 to $15,000. In all, the total savings over three years was approximately $666,500.

- The School of Medicine cut basic science department operating budgets and other operating budget areas for a cumulative total of $7,174,874 from FY 2010 to FY 2012.

- Since FY 2009, the School of Engineering has permanently reduced operating budgets by about $543,000. These would be used for travel, lab supplies, paper, and part time teaching.

- The Office of Faculty Records has reduced funds normally reserved for computing charges that are no longer billed ($750), financial charges to Payroll for manual checks ($400), mailing services that are now used less ($300), travel and business expenses ($200), telecommunications ($350), and professional services and consulting which we no longer have a need for ($200). In order to reduce postage costs, the Office mails faculty information confidentially to their campus address.

Reduction of Faculty, Staff, and Librarians

- Since FY 2009, full-time faculty positions at the University have been reduced by more than 70 (includes FY 2008 for the Dietrich School).

- Since FY 2009, full-time staff positions at the University have been reduced by more than 80, not including a half million dollar reduction to staff in one of Pitt’s larger schools.

- Since FY 2009, full-time librarian positions at the University have been reduced by more than 8.