

OFFICE OF THE VICE PRESIDENT FOR RESEARCH

ANNUAL REPORT

JULY 1, 2006 TO JUNE 30, 2007

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INTRODUCTION

University research is fostered through improving campus research services and support, but more importantly through building multidisciplinary research programs and partnerships, both on and off campus, thereby enhancing the university's capacity for research excellence.

It is the mission of the Research Office to provide an environment that facilitates and stimulates research, scholarship, and creative activities by:

- Providing leadership to identify and pursue promising research opportunities.
- Providing resources to help recruit and retain outstanding faculty and students.
- Improving research support services that are highly responsive and efficient.
- Fostering a culture of academic research integrity that discloses and manages conflicts-of-interest and conflicts-of-commitment, and that is consistent with federal regulations.
- Identifying, protecting, and, where appropriate, commercializing intellectual properties for the benefit of authors/inventors, the university, and society.

Core campus constituencies of the Research Office are faculty, students, and unit administrators. The VPR chairs the University Research Council, which consists of deans, major center directors, and student and faculty representatives. Because deans, center directors, and department heads are appropriately most concerned with their respective units, the VPR must take a broader, campus-wide perspective.

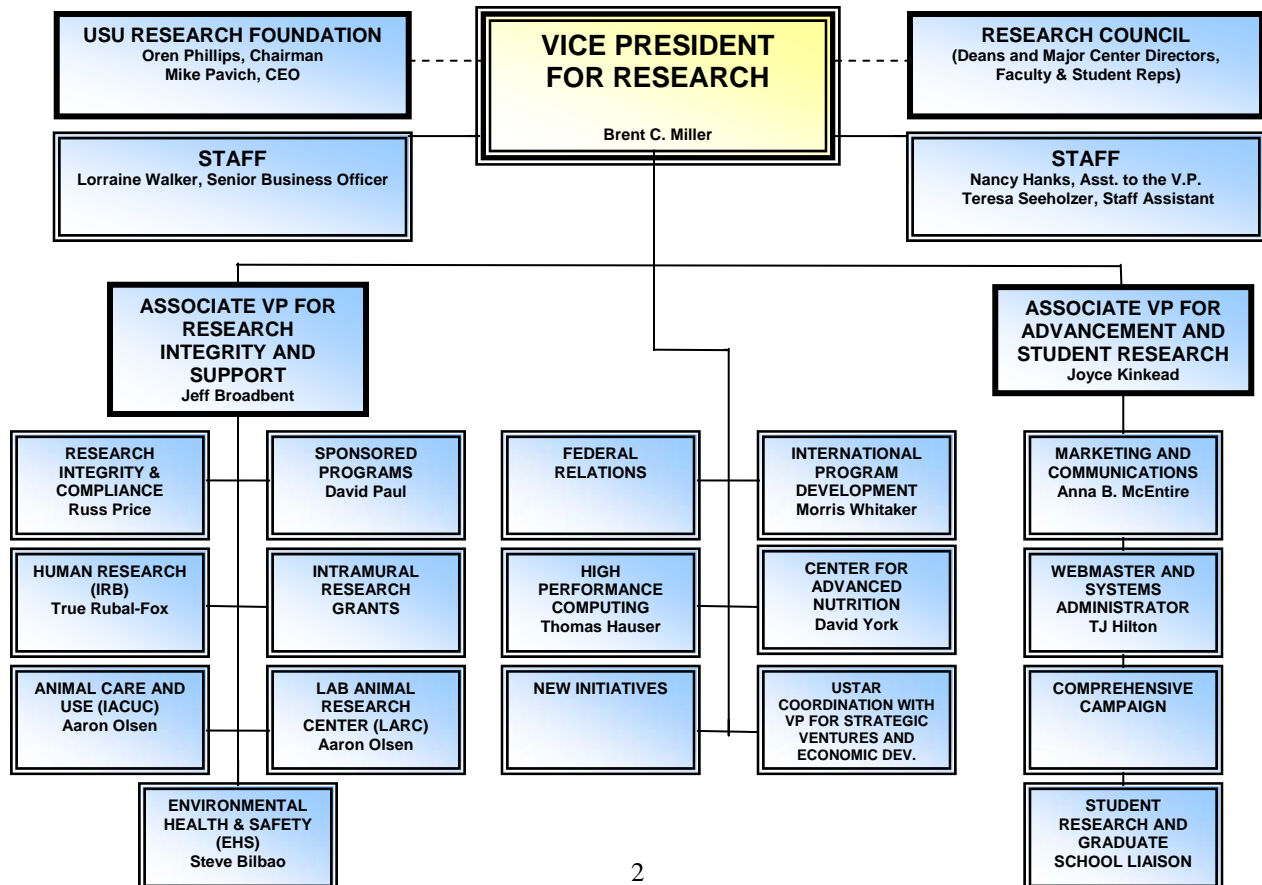
The VPR needs to be actively engaged in professional networks and with societies that have the advancement of research as their mission. The VPR also must be engaged with external constituencies, including local and state elected officials, as well as federal and industry funding sponsors to advance university research.

ANNUAL REPORT

This annual report to the Faculty Senate covers the major activities of the Research Office and the Research Council from July 1, 2006 through June 30, 2007. It is a summary of all units for which the VPR has responsibility. It also includes a summary of units for which the Office of the Vice President for Strategic Ventures and Economic Development has responsibility. This report is organized in five parts:

1. Overview of the VPR Office and Related Service Units
 - A. Sponsored Programs Office
 - B. Environmental Health and Safety Office
 - C. Institutional Review Board
 - D. Laboratory Animal Research Center
 - E. Center for High Performance Computing
 - F. International Program Development
2. Overview of the VP SVED and Related Strategic Units
 - A. Innovation Campus
 - B. Technology Commercialization Office
 - C. USTAR
3. Research Council Membership and Functions
4. Use of Facilities and Administration (F&A) Funds at USU, FY2006-2007
5. Selected Research Issues at USU

Utah State University Vice President for Research Organization



1. OVERVIEW OF VPR AND RELATED SERVICE UNITS

The VPR was responsible for the units shown in the previous diagram during fiscal year 2006-2007. The USU Research Foundation (USURF) is a wholly-owned subsidiary of the university. It is a major organization with large-scale research programs, most notably the Space Dynamics Laboratory (SDL). A cooperative working relationship with the Research Foundation is essential for accomplishing the research mission of the university. The USU Research Council advises the VPR, providing a forum for considering major research issues.

A) Sponsored Programs Office (SPO)

The USU Sponsored Programs Office (SPO) is responsible for supporting and protecting the university and individual researchers as they propose, submit, and administer externally funded sponsored research projects. This role puts SPO in a unique situation to interact with virtually every college, department, research center, and administrative unit at USU. Further, the interdependent nature of contracting requires universal accountability if research endeavors are to be successful. Therefore, SPO makes every effort to provide the excellent service, effective resources, timely responsiveness, and accountability necessary to not only promote a successful research environment, but also to build the strong relationships necessary to promote continued research growth.

Some of the specific responsibilities of SPO include providing training and workshops, budgeting and proposal development assistance, assisting in the completion of mandatory internal and external forms, communicating and negotiating with sponsors to develop mutually advantageous agreements that protect the researchers as well as the university, and administering awards. Consequently, SPO has offered and will continue to offer workshops for grant writing, locating funding opportunities, industry contracting, and electronic research administration. SPO has also recently begun a Compliance Professional Educational Program to communicate university, federal and state regulations, policies and procedures to promote compliance and consistency throughout the university.

SPO fosters research at the university by helping researchers to develop and submit proposals that have the highest likelihood for success. To accomplish this, SPO provides the following services: budget development, interpreting contractual terms and conditions, completing required forms, grant editing, tracking pending proposals, notifying researchers upon award, and negotiating award terms and conditions with sponsors to protect the researcher and university. SPO also works closely with the Controller's Office to ensure that accounts are set up properly and that USU is compliant with federal and state regulations as well as sponsor-specific terms and conditions.

A single point of contact approach allows researchers to easily identify their assigned SPO administrator. Further, this approach allows each SPO administrator to become more familiar with sponsor-specific regulations as well as to familiarize themselves with individual researchers and their unique needs. SPO has also developed an excellent

working relationship with the Controller's Office creating a team approach for pre- and post-award functions that further supports research efforts.

SPO continues to update its website (<http://spo.usu.edu>) to enhance proposal development, provide more user-friendly interfaces, and making information more accessible and easier to locate. SPO policies and procedures are posted on the web and additional policies and procedures continue to be developed and published. Some new features and information available on the website include: guidelines for industry contracting; distinguishing between gifts, grants and contracts; export control; and resources for graduate/undergraduate students. SPO is also working on a step-by-step guide for PIs that provides information to simplify the entire grant lifecycle process (i.e. from locating funding opportunities to closeout procedures).

SPO provides monthly reports to the VPR regarding the status of research proposals and awards at Utah State University. Appendix A provides a summary of Sponsored Program Awards, FY2003 through FY2007. Appendix B compares awards by month and type of award for FY2006 and FY2007. Appendix C provides a summary of Sponsored Program Awards by Awarding Agency, FY2003 through FY2007; and Appendix D provides a summary of Sponsored Program Awards by Research Center, FY2003 through FY2007.

Note that awards in the Colleges of Agriculture, Engineering, and Science (Appendix A) were much lower in FY2005 than FY2004, mostly because USURF awards were removed from colleges and shown separately for the first time in FY2005. Note also that total awards were about \$40 M lower in FY2005 than FY2004 (\$122 M vs. \$162 M). This is largely due to the cancellation of RAMOS, the largest program at Space Dynamics Laboratory.

B) Environmental Health and Safety Office (EH&S)

The EH&S Office provides expertise and guidance for compliance with federal, state, and local safety and health regulations, as well as current professional practices and guidelines. Its goal is to prevent injuries, illnesses, and environmental damage through the recognition, evaluation, and control of potential hazards arising from university activities. This is accomplished through services that ensure a safe and healthy environment for all students, faculty, and staff at USU and the surrounding community. Services include assisting in compliance with regulations and training university personnel and students in appropriate safety measures. General areas of focus include biological, radiological, occupational, and chemical health and safety.

The EH&S Office interacts with many governmental regulators in the course of normal business, including: Environmental Protection Agency (EPA), State of Utah-Department of Environmental Quality (DEQ), Division of Radiation Control (DRC), Occupational Safety and Health Administration (OSHA), Centers for Disease Control (CDC), and the National Institutes of Health (NIH). Many of these entities perform routine and unannounced inspections and require written programs, documented training, permits, and numerous reports of differing types that the EH&S Office completes for the university.

Responsibilities of the EH&S program cross many traditional aspects of the campus community. In FY2007 EH&S accomplished the following:

- Transported, managed and disposed of approximately 78,430 lbs. of hazardous waste, 600 lbs. of biological waste, approximately 1,980 lbs. of radiation waste, and recycled 63,390 lbs. of hazardous materials.
- Continued application of the radioactive waste volume reduction plan that results in cost savings by reducing the amount of waste shipped off-site for disposal by 125 lbs.
- Provided safety training to approximately 1,011 faculty, staff and students in 36 courses.
- Provided Logan City Fire Department 435 pre-incident plans for campus buildings. Provided Geographical Information System (GIS) emergency response data for all academic units (100% complete), non-academic units (35% complete), and for Innovation Campus (95% complete).

C) Institutional Review Board (IRB)

The IRB is charged with protecting the rights and welfare of human research participants. All research involving human participants, including unfunded research, must be reviewed in compliance with the Code of Federal Regulations. USU has a Federal Wide Assurance with the National Institutes of Health (NIH) that commits USU to comply with federal regulations governing human participants in research and which is required for Department of Health and Human Services-funded research. This Assurance is renewed every five years.

The IRB consists of volunteer members with diverse expertise to provide adequate and comprehensive review of USU research activities. Regulations require that an IRB have at least one scientist, one nonscientist, and one member not affiliated with the institution; terms of service are three years and can be renewed.

USU board members are:

- Gretchen Gimpel Peacock (Chair) - Department of Psychology
- Thorana Nelson (Vice-Chair) - Department of Family, Consumer, and Human Development
- Richard Albiston - Prisoner Advocate
- John Allen - Department of Sociology, Social Work and Anthropology
- Kim Corbin-Lewis – COMDDE
- Melanie Domenech-Rodriguez - Department of Psychology
- Joanna Endter-Wada - Environment and Society
- Chris Fawson - Department of Economics
- True Fox - Administrator.

- Julie Gast - Department of Health, Physical Education and Recreation
- Stacey Hills - Department of Business Administration
- Stuart Howell - Community Representative
- Mike Monson (alternate) – Community Representative
- Bob Morgan - Department of Special Education and Rehabilitation
- Ron Munger - Department of Nutrition and Food Sciences
- Russ Price - Compliance Assistance
- Ed Redd - Deputy Director of the Bear River Health Services
- Noreen Schvaneveldt - Department of Nutrition and Food Sciences
- Tim Slocum (Alternate) - Department of Special Education and Rehabilitation
- David Wiley - Department of Instructional Technology

The IRB meets monthly to review protocol applications requiring regulatory approval. Certain research protocols do not require full board review and can be classified as “Exempt” or “Expedite.” All reviews follow criteria provided in federal regulations. All on-going research projects are reviewed yearly; however, if there is more than a minimal risk, the continuation research reviews are more frequent. Any proposed change or revision to a currently approved study that affects human participants must be reviewed and approved by the IRB prior to the implementation of that change. A special Amendment/Revision document is required from the PI.

The IRB Office documents compliance with federal regulations by maintaining a database of all research protocols submitted and of actions taken by the board. Written policies and procedures congruent with federal guidelines have been instituted by the board to address procedures such as yearly continuing review, reporting of adverse events, changes in research methods and objectives, and researchers’ conflict of interest. An IRB Handbook is available on the VPR website at <http://irb.usu.edu/>

The IRB Administrator is actively involved in implementing revised federal procedures and updating USU procedures; providing continuing education for faculty, students, and board; and helping to coordinate ethics-in-research training for researchers and IRB members. Appendix E illustrates the number of IRB research applications by types of review categories from 2003 through 2007.

D) Laboratory Animal Research Center (LARC)

The primary mission of the LARC is to support university animal research, testing, and teaching by providing resources for animal procurement, housing, husbandry and care, health care, and disposal. Space is also provided for researchers to conduct short- and long-term research. The LARC staff is also a resource for expert information on the use of live animals in research and teaching. The LARC is an Association for Assessment and Accreditation of Laboratory Animal Care (AAALAC) International accredited, Public Health Service (PHS) assured, and a United States Department of Agriculture (USDA) registered animal research center.

The permanent LARC staff consists of the following: A director (A. Olsen), who is a

Utah-licensed and USDA-accredited veterinarian and is a member of the American Association of Laboratory Animal Practitioners and the American Association of Laboratory Animal Science; a full-time supervisor (K. Udy), who is a certified Registered Laboratory Animal Technologist by the American Association of Laboratory Animal Science; a full-time secretary (B. Demler); one full-time animal caretaker (T. Lauritzen); and a part-time animal caretaker (L. Potter). There are also part-time students employed who work in the washroom and provide basic animal care. In exceptional cases, researchers provide part or all of their own animal care. The Director (Olsen), full-time supervisor (Udy) and secretary (Demler) have shared assignments with the Institutional Animal Care and Use Committee (IACUC).

Major accomplishments for FY2007:

- The USDA inspector found the LARC to be in full compliance during the annual facility inspection.
- All available animal space is occupied.
- Capital equipment upgrade continued.
- Remodeling continues to upgrade facilities for additional work in the antiviral program.

E) The Center for High Performance Computing (HPC)

The HPC was established in FY2006 utilizing funds from an NSF major research instrumentation (MRI) grant and the research office. A 256-processor cluster with three different networks was purchased. Thomas Hauser (faculty member in Mechanical and Aerospace Engineering) was hired as the center's part-time director, and John Hanks was hired from USU central IT as HPC system administrator to support the efforts of the center.

Major accomplishments for FY 2007:

- Organized and hosted a national symposium entitled "Challenges & Opportunities for High Performance Computing in Agriculture and Life Sciences." Dr. Colien Hefferan, USDA Administrator of CSREES, delivered the keynote speech with additional presentations from Cornell Theory Center, Cornell University, Arctic Region Supercomputing Center, University of Utah, Brigham Young University and Utah State University.
- Thomas Hauser organized and chairs the Utah Cyber Infrastructure Committee which includes partners from UoU, WSU, UVSC and SUU. The purpose of the committee is to promote, organize and seek funding to develop cyber infrastructure in support of research and collaboration in Utah and beyond.
- The HPC completed a visualization and access grid laboratory to provide faculty and students with resources for high-resolution visualization, remote collaboration through the Access Grid, and three-dimensional visualization. In addition, high

end workstations are available for faculty and students for data analysis, and pre-/post-processing.

- The HPC increased its disk storage capacity to about 10 TB.
- The HPC is available to set up supercomputers for any USU faculty or department within about three working days, and to fully integrate it to all other USU HPC resources.

F) Office of International Program Development (OIPD)

The Office of International Program Development was transferred to the Research Office from the Provost's Office to strengthen USU research efforts in the international arena. OIPD was actively involved in a variety of faculty-led international projects and activities during the last fiscal year. Among them are:

Iraq Agricultural Extension Revitalization Project (IAER) (USDA; \$5.3 million) This project involves training Iraqi professionals in Jordan and Egypt and has been well received by the participants. USU is leading the Water Resources and Irrigation component of this project, in partnership with Texas A&M University (Lead), UC-Davis, Washington State University and New Mexico State University.

Presidential Scholars Program (Dominican Republic; Phase IV: \$9.7 million, Phase V: \$7.7 million) The Office of International Program Development (OIPD) prepared the agreement documents for Phase IV and carried out negotiations during January 2007 in Santo Domingo, in close coordination with the Provost's Office, which has responsibility for the Program. OIPD is also in discussions with the DR government about possible student programs in biotechnology and instructional technology.

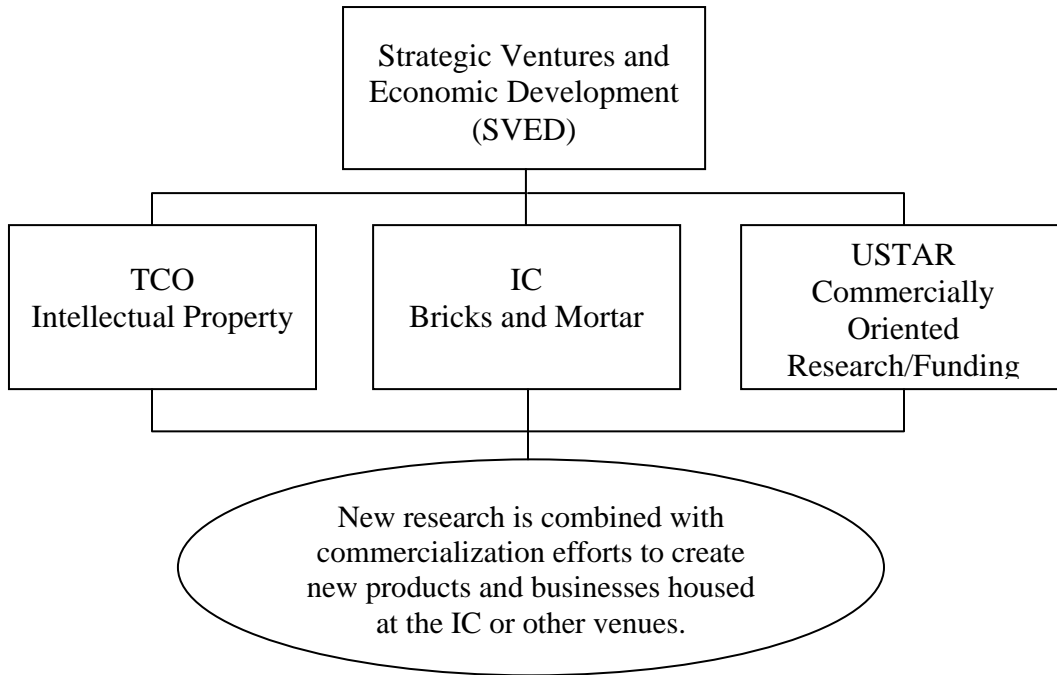
Strengthening Water Users' Association (Armenia) USU submitted a bid on a project to be funded by the Government of Armenia and the Millennial Challenge Corporation of the U.S. USU submitted a formal Expression of Interest in November 2006 and was invited to submit a full proposal in FY2008.

2. OVERVIEW OF VPSVED AND RELATED STRATEGIC UNITS

In July 2006, President Albrecht hired Ned M. Weinschenker (Ph.D. in organic chemistry) as the Vice President for Strategic Ventures and Economic Development. Ned has broad experience in the start-up and development of multiple companies in the pharmaceutical industry, along with seven years as a venture capitalist.

The mission of Strategic Ventures and Economic Development is to enhance university-driven economic development by coordinating three important initiatives: The Technology Commercialization Office, the Innovation Campus, and the Utah Science Technology and Research Initiative (USTAR). Combining these three functions under a single management

umbrella allows for a streamlined process to support the evolution of research to patent to spinout companies or licenses to existing companies.



A) INNOVATION CAMPUS (IC)

The Innovation Campus is an effective working environment to conduct knowledge-based research for state-of-the-art technology enterprises, research institutes and laboratories. The Innovation Campus fosters partnerships between the University, business, government and the community, thus enhancing research opportunities and technological development. Tenants at the Innovation Campus have access to the expertise and services of USU’s research faculty and graduate students.

Although Space Dynamics Laboratory has constructed new buildings in the recent past, no new developer-owned buildings have been constructed for several years. The IC, however, continues to grow with granted rights to expand from 38 acres to 150 acres as the Agricultural Experiment Station moves to another Cache Valley location. Therefore, a plan has been initiated to begin attracting more interest in the IC. Significant additional development is expected during calendar year 2008.

The USTAR initiative also called for the construction of a research building of at least 100,000 SF that will be placed in the IC. As part of the plan, USU had to contribute \$10M to the \$60M from USTAR. A decision was made to make an existing building an in-kind donation for our match. This provided immediate space for USTAR teams and initiated the planning process for the new USTAR building. The total USTAR building space is expected

to be in excess of 125,000 SF and will be part of a 10-acre portion of the IC set aside for USU use.

As USU commercializes new research and technology, new companies will be created and grown, adjacent to and within the expanding Innovation Campus.

B) TECHNOLOGY COMMERCIALIZATION OFFICE (TCO)

The TCO complements the instructional and research activities of USU and expands the University's impact on society by commercializing technologies developed at USU. Once technologies are commercialized for public use and benefit, they provide additional income to the University and its partners.

Translating university research into commercial products and services is a multi-step process that requires a major transition from a research environment to a commercial business environment. The key to managing this process is having tech-savvy business people who can bridge this "commercialization chasm." The technology commercialization process also requires three keys for success: a robust technology addressing clearly defined needs, knowledgeable business people, and financing of early stage ventures.

TCO strives to extract the fair market value of intellectual property by using the best business practices for the benefit of the inventor, USU, the Research Foundation, and the community. By effectively commercializing technology, the TCO provides additional revenue to USU, its departments, faculty, and staff. These activities also create potential for local job creation through formation of new businesses. Each TCO staff member combines business experience with a strong science and technology understanding. The TCO is committed to serving the interests of technologists, companies, and USU. Appendix F illustrates TCO accomplishments in FY2007, which are highlighted below:

- Increased license revenue to \$573,000 from \$500,000 in FY2006.
- Executed eight licenses.
- Increased invention disclosures to 62 from 54 in FY2006.
- Filed 29 patents – 11 of which were new technology
- Helped to create new "spin-out" companies:
 - S2 – creating three-dimensional images for e-commerce and other applications
 - Dynamic Screening Solutions – providing cost-effective and user-friendly interfaces for multi-agency computer input
 - RAD – developing techniques to identify and localize radioactive material

C) UTAH SCIENCE TECHNOLOGY AND RESEARCH INITIATIVE (USTAR)

USTAR is designed to increase the flow of university-driven economic development. This will benefit not only the University, but the entire state of Utah through the accelerated growth of new businesses and industries in Utah, which will create high-paying jobs and increase tax revenue.

Research focus areas are recommended by Utah State and approved by the USTAR Governing Authority as those areas most likely to create a large return on investment. At USU, three programs have been identified and funded: The Sustainable Energy Research Center (SERC), the Center for Active Sensing & Imaging (CASI), and the Center for Advanced Nutrition (CAN), with others currently in planning stages.

USTAR funding is to be used (a) to hire new faculty who are entrepreneurial and commercially-oriented to operate synergistically with existing expertise at USU; (b) to build state-of-the art facilities to house the research; (c) provide outreach to USTAR constituents. USTAR accomplishments for FY2007 include:

- 1) Current USTAR hires are:
 - David York – Center for Advanced Nutrition
 - David Ward - Center for Advanced Nutrition
 - Michael Lefevre - Center for Advanced Nutrition
 - Allen Howard – Center for Active Sensing & Imaging
 - Sridhar Viamajala – Sustainable Energy Research Center
 - Jeff Muhs - Sustainable Energy Research Center
- 2) Programming for the new USTAR building at USU was completed in December 2007, and interviews for contractor and design teams will take place in early 2008.
- 3) Creating outreach, not only from entrepreneurs to university researchers, but also from researchers to the entrepreneurs by fostering as much university-driven economic development as possible.

3. RESEARCH COUNCIL MEMBERSHIP AND FUNCTIONS

The Research Council provides advice and recommendations to the Vice President for Research. Additionally, members of the Council provide direct and important channels of communication between researchers and those who make decisions affecting research at USU. Members of the Research Council are college deans or their representatives, and selected center/lab directors as specified by the University code of policies and procedures. Appendix G is a current membership list of the University Research Council. This group meets about once a month to discuss and make recommendations on research issues.

The following is a summary of major issues addressed by USU's Research Council in FY2007:

Grant Administration and Management System (GAMS) Update

GAMS software was purchased in 2005 with the expectation that it would improve the process of submitting proposals, managing awards, streamline processes between departments, and assist USU departments in the processing of grants. In the summer of 2007, however, the Sponsored Programs Office and the V.P. Research determined that GAMS would not enhance the proposal submission process as promised without significant work around by the university. The software

was NIH agency specific, and would not effectively or efficiently meet USU's broader requirements. The implementation process was suspended.

The Research Office contracted with the Research Foundation to revise Contract Administration and Management Software (CAMS) for proposal tracking.

International Program Development Update

USU's global emphasis increased in recent years, specifically with regards to biotech projects and a diversification in both research and education. This focus includes water resources (irrigation), arid land agriculture, and natural resource management in Iran, Bolivia, Africa, and the Dominican Republic. USU partnered with the government of the Dominican Republic to offer a master's program in public policy, government employee training, and instructional technology. Growth of these globalization opportunities will result in future partnerships worldwide.

Grant Development Workshops

David Paul, Director of Sponsored Programs, provided the Research Council with a summary of faculty workshops scheduled for 2007/2008. These workshops have focused on grant writing specific to NIH, USDA and other agencies and will include topics such as funding mechanisms, training on required forms, and agency-specific expertise. Other workshops focus on SPINS training, and grant workshops tailored to fit the needs of a given department and/or college unit.

TCO, Patents & USTAR Update

Ned Weinshenker was introduced to Research Council. He gave an overview of the TCO team, current projects and patents in process and activities in process with the USTAR initiative.

Banner Concerns

Many participants of Research Council expressed concern relative to the "decentralization" steps that have been implemented as a result of Banner. As an example, departments are required to print out their own monthly reports (a very time consuming process), which has resulted in extensive resource problems within units. In some cases, the challenges and barriers with Banner have increased, and the Council agreed that implementation of more changes in Banner should be slowed down until current issues are resolved.

High Performance Computing (HPC) Faculty Interface

Thomas Hauser, Director of the HPC, distributed an overview of HPC related proposals submitted to external funding agencies along with a summary of planned projects for the upcoming year. Dr. Hauser noted that HPC was a valuable research tool not only for research in engineering, but also research in the sciences.

ASUSU Academic Opportunity Fund (AOF)

Representatives from ASUSU (Michelle Lundberg and Brittany Webb) presented historical information to Research Council about AOF's funding support to students. They shared their concern regarding the depletion of ASU's FY2007 funds at a faster pace than previous years. They wanted each college to be aware of this limitation should additional student support be requested.

Graduate Student Health Insurance

Concern was raised at Research Council that USU is at a disadvantage when recruiting graduate students because many of our peer institutions offer their graduate students subsidized health insurance. Dean Byron Burnham was asked to research the pros and cons of implementing a similar program at USU. He was asked to gather data regarding costs associated with implementing this benefit and report back to the Research and Dean's Councils. He was asked to involve Controllers' Office in the process to ensure that the program would be correctly implemented at USU.

Data collection took place between October 2006 and March 2007. Throughout these months, Dean Burnham kept Research Council informed of his findings and presented a comparison of student insurance programs implemented at USU's peer institutions.

At the April 26th meeting, Dean Burnham distributed an information packet for the Research Council's review and consideration. The Council was also provided with the following summary:

- USU supports approximately 900 graduate assistants from various funding sources.
- Data included a chart showing how many assistants fall into the three main funding types: 1) State appropriations, 2) Research, and 3) Self-Funded, according to the "Fund Title" category, i.e. State E&G, State Line Item Appropriations, Overhead, Contracts & Grants, Federal Appropriations, Service Enterprises, Unrestricted, Restricted and General Accounts.
- Of the total, 52% of USU graduate assistants are supported by funds external to the university, with 48% supported by internal university funds.

The projected financial impact to each college was detailed along with a separate chart showing the number of assistantships, scholarships, and fellowships by fund code. Dean Burnham noted other issues needing further review include: 1) how to pay for fellowships, 2) implementation time frame, 3) eligibility requirement, 4) funding model considerations and sustainability of this benefit in subsequent years.

Status of FY2007 Congressional Requests

David Lee submitted USU's congressional requests on March 8th, 2007. In April, David traveled to USU to meet with every P.I. who had a congressional funding request in FY06. Research Council was updated on the status of USU's congressional requests for FY2007 as Congress

continued to sort out new directions, priorities, and relations within the administration. Uncertainties exist with the Continuing Resolution (CR) outlined by Congress, and Dr. Miller relayed that the CR will likely continue to the end of FY2007.

Based on the CR, the Research Office continues to monitor projects in order to maximize and capture funds that were designated for projects at the agency budget level from FY06-FY07. In some cases this has not been possible as Congress put funds into formula funding allocations that impact the overall budget amount and likewise dramatically impacted USU.

Vision for Growing Research at USU

Brent Miller introduced a goal to Research Council to increase the volume and competitiveness of USU research by 10-25%. Strategies included the following: 1) improving grant proposal development, 2) enhancing faculty seed grants and implementing new seed grants, 3) increasing support for student research, 4) increasing support for post doc and research faculty hires.

Jeff Broadbent introduced two new seed grant programs for review and consideration: 1) Seed Program to Advance Research Collaboration (SPARC), and Grant-Writing Experience through Mentorship. He noted that the intent of these programs is to increase sponsored research awards and to increase awards from funding agencies that allow USU to more fully recover its indirect costs. He noted that the purpose of SPARC will be to provide funding of up to \$35,000 to catalyze development of large interdisciplinary research teams and projects that involve scholarly activities in more than one department, college, or institution. GEM will provide funding of up to \$5,000 to enhance the professional development of junior faculty through one-on-one research and grant-writing interaction with successful senior faculty. The overall goal is to help junior faculty through the process of preparing a grant proposal as well as growing research at USU. Implementation is targeted before July 1, 2008.

Strategies for Growing Research

A committee, chaired by Associated V.P. for Research Jeff Broadbent, was formed in March 2007 to recommend initiatives that the Research Office could implement and grow sponsored research by 10-25%. The Committee's mission was: "Identify the best practices for USU to achieve 10-25% growth in research." Representation from all colleges, SDL/USURF, and Center for Person with Disabilities (CPD) was requested. The committee included:

Jeff Broadbent, VPR Office
Lisa Berreau, Science
Kelli Cargile-Cook, HASS
Steve Hansen, SDL/USURF
Yong Seog Kim, Business
Brandon Muramatso, Education
Jim MacMahon, Natural Resources/Ecology Center
Mac McKee, Utah Water Research Lab/Engineering
Russ Price, USU Research Integrity & Compliance
Cynthia Rowland, CPD

Lorraine Walker, Research Office Senior Business Officer
Bart Weimer, Ag/ICIB

Presentation by SDL/USURF on Proposal Development Process

Yvonne Polak and Audrey Tablon (members of SDL's proposal development team) presented an overview of SDL/USURF's proposal and grant writing process to Research Council. The goal is to integrate some of these same concepts on campus to grow research.

Accreditation Activities

A site visit from the Association for the Assessment and Accreditation of Laboratory Animal Care (AAALAC) took place on March 12th. A recap of this visit was relayed at Research Council by Aaron Olsen. The visit went extremely well with a few minor recommendations noted. USU was notified in June 2007 that its AAALAC accreditation was continued.

Application for accreditation by the association for the Accreditation of Human Research Protection Programs (AAHRPP) is also underway. A self-assessment team was created to strengthen USU's institutional capabilities. A policy has been written to implement procedures and the application will be formally submitted to AAHRPP early in 2008. A site visit will then be scheduled sometime this fall.

Guest Research Council Presentations in FY2007

The following faculty presented a summary of their research to the Research Council:

- October: Assessing the Biological Integrity of the Nation's Streams and Rivers (Charles Hawkins, Watershed Sciences)
- November: Biofuels Research at USU (Lance Seefeldt, Chemistry & Biochemistry)
- January: Cache Valley 2030 ~ The Future Explored (Richard Toth, Environment & Society)
- February: The Lost Boys of Sudan (Michael Sweeney, Journalism & Communications)
- March: Underground Wireless Sensor Network Communication (Nathan Jack, Undergrad Student/USTAR)
- April: Institute for Dam Safety Risk Management (David Bowles, UWRL)

Time & Effort Reporting (Policy Review)

A draft of a proposed Time & Effort policy was presented to Research Council in April. The general consensus is the policy is necessary to comply with OMB Circular A21; however, further clarification and additional revisions could be made to improve the policy's effectiveness at USU. Research Council approved the draft, but noted the importance of refining the document further with additional revisions.

4. USE OF FACILITIES AND ADMINISTRATION FUNDS AT USU, FY2006-2007

Facilities and Administrative (F&A) costs are the shared indirect or overhead costs of doing research. The federal government audits actual F&A costs and establishes a rate that the university seeks to recover from sponsors. Recovered F&A funds are used to pay actual indirect costs of research and to stimulate and expand research opportunities.

Appendix H is a report compiled by the Controller's Office that summarizes the amount of F&A generated in FY2006-07 by department; 30% returned to the cost center; and allocations of the 70% held centrally in the VPR.

5. SELECTED RESEARCH ISSUES AT USU

In addition to those items discussed in Research Council, listed below are selected initiatives that the VPR continues to refine in FY2006-2007:

- **National Center for Hearing Assessment and Management (NCHAM)**

The VPR continued a third and final year of funding to NCHAM that enabled recruitment of two senior scientists to come to USU. Hiring these faculty significantly expanded NCHAM's capability to secure extramurally-funded research related to identification of, and services for, children with permanent hearing loss.

- **Research Activities for Undergraduate Students**

Support was provided to 45 undergraduates through the Undergraduate Research and Creative Opportunities Grant Program in FY2007. The URCO Program is one of the oldest in the nation and has funded 500 undergraduates since its inception in 1975. In its 7th annual outing, the Research on Capitol Hill event, designed to illuminate the effect of a research university on undergraduate education, featured 42 Utah State students and a similar number from the University of Utah. In the first-ever Utah Conference on Undergraduate Research (UCUR) co-chaired by Utah State and the University of Utah and hosted on the latter's campus, almost 300 students from practically every institution of higher education in the state participated in presenting their research, scholarship, and creative activity. Twelve USU students were accepted to present at the National Conference on Undergraduate Research (NCUR) held in San Francisco in April, 2007.

The Undergraduate Research Program was honored in late April with the Robins Achievement of the Year Award. Associate Vice President Kinkead, who oversees the program, had a chapter published in the Council on Undergraduate Research's new volume, *Developing & Sustaining a Research-Supportive Curriculum*. She also presented with her UCUR colleagues at NCUR Faculty-Administrative session and the AAC&U special conference on Undergraduate Research. In January, 2007, she was an invited speaker to AAC&U's national conference and spoke on Undergraduate Research in the Arts and Humanities. The signature program of undergraduate research, the University Undergraduate Research Fellows, chose its fourth cohort in March at Scholars Day.

- **Federal Relations Process**

The VPR has developed a systematic process of coordinating congressional requests. Requests are presented by the deans and prioritized by the President and Provost in an effort to increase USU's chances of obtaining congressionally-directed funding and increasing the amount received. Additionally, the VPR has strengthened USU's presence in Washington, D.C. by meeting frequently with elected officials and federal agency representatives.

- **Communications About USU Research**

The importance and impact of USU research is being emphasized, showing that research solves problems, supports students, and fuels the economy. The Research Office distributes two main publications each year: "Research Matters" (Volume 5) features researchers from each college and "tells the story" of the benefits of research to the community, state, and world; and a research calendar (Volume 2) helps generate top-of mind awareness about USU research among key constituents. Other publications were created that support undergraduate research, USTAR, and other research-related programs. The Research Office also sponsored several events in 2007, including a pre-basketball game reception for community contacts, an orientation session for new faculty members, and USU Research Week. A VPR Dashboard, managed by the VPR marketing team, also presents research performance indicators (Appendix I).

- **Reporting of Research Activity at USU**

The VPR, in cooperation with the Controller's Office, has developed reports that reflect total research expenditures at USU utilizing NSF definitions. These data facilitate comparison of USU and peer institutions. Appendix J is a graph that illustrates research expenditures from federal and nonfederal sponsors for the past five years, and the associated table summarizes total research expenditures for scientific and engineering (S&E) research expenditures and nonscientific and engineering (non S&E) research expenditures for FY2007. FY2004 was the first year that non S&E research expenditures data were reported separately

- **Selected Other Research Issues of Concern**

The following have been noted as other research issues of concern: (1) Human Capital is a critical problem. (2) Some states are bonded to attract and retain faculty using better financial incentives. (3) Utah needs to develop better financial funding plans to build and fund facilities, including computing, imaging, and bioinformatics capacity. (4) Security plans need to be based on a systematic review of all buildings on campus, what is housed, and what security needs would be.

APPENDIX A
SPONSORED PROGRAM CONTRACT/GRANT AWARDS
BY COLLEGE¹

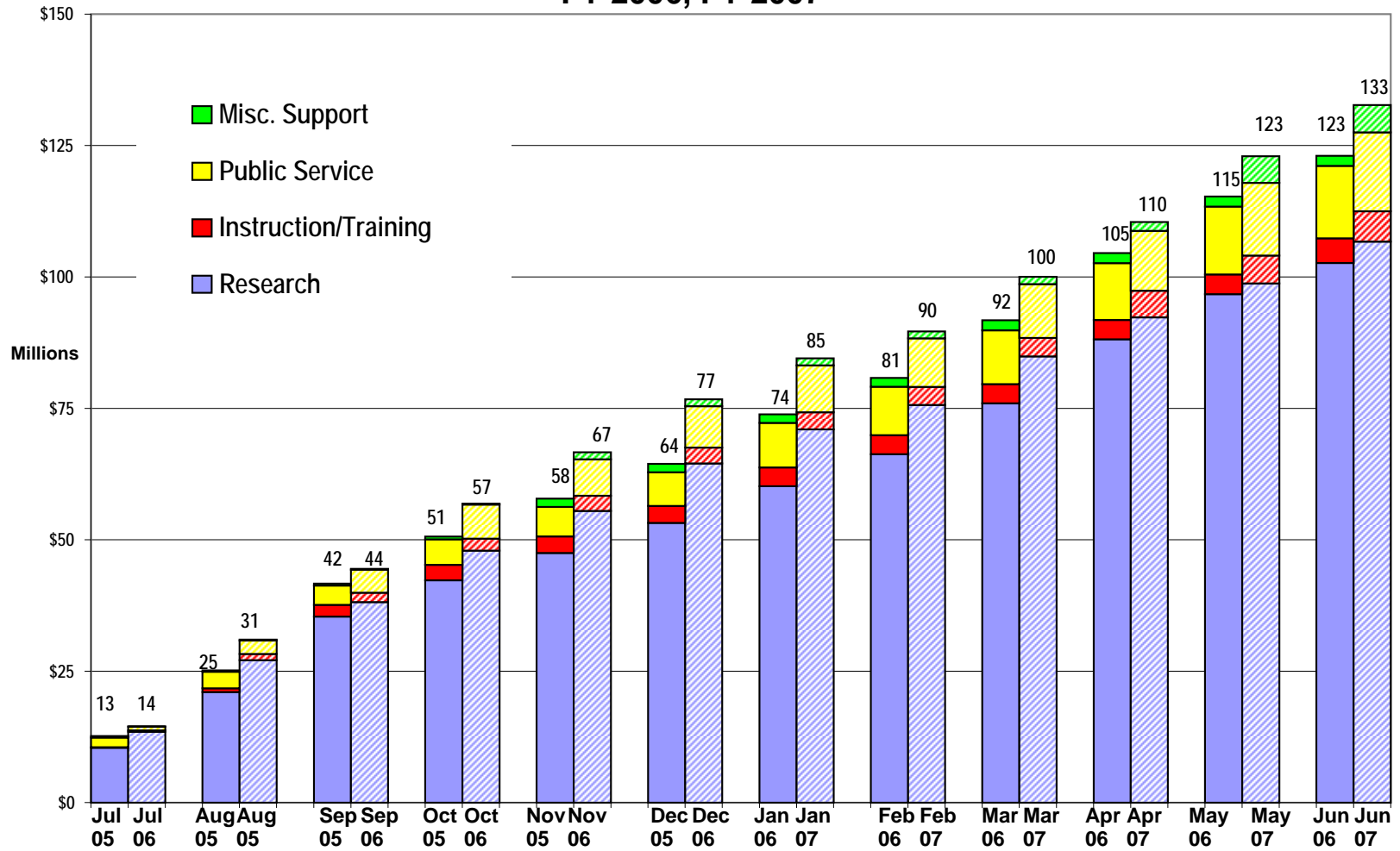
	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007
Agriculture	33,048,308	33,940,899	13,650,668	16,979,327	12,022,213
Business	460,787	1,773,316	1,985,155	2,373,466	1,334,038
Education	23,069,480	25,047,073	25,789,744	20,722,283	22,730,535
Engineering	58,024,532	70,912,859	9,911,299	10,223,439	13,258,408
HASS	303,769	703,482	925,631	1,456,615	1,088,437
Natural Res.	8,297,175	8,024,624	9,786,361	9,684,998	10,482,217
Science	9,083,475	14,855,670	10,038,023	8,123,447	7,890,437
USURF ²	-----	-----	43,566,429	49,353,930	54,000,033
Other	6,135,902	8,107,176	7,222,649	5,525,978	10,279,740
Jointly Admin. Programs ³	<u>-880,088</u>	<u>-882,436</u>	<u>-660,217</u>	<u>-1,391,647</u>	<u>-395,158</u>
TOTAL	<u>\$138,423,428</u>	<u>\$162,482,663</u>	<u>\$122,215,742</u>	<u>\$123,051,836</u>	<u>132,690,900</u>
Financial Aid-Pell Grants, etc.	19,013,394	21,527,791	22,402,674	24,374,592	19,474,007
Adjusted Total	<u>157,436,822</u>	<u>184,010,454</u>	<u>144,618,416</u>	<u>147,426,428</u>	<u>152,164,907</u>

¹ College awards include centers most closely aligned with that college (See Appendix D for Center totals).

² USURF/SDL awards were first removed from college totals and shown separately in FY2005.

³ Awards for jointly administered programs are reflected in the total of both colleges involved with these programs. The amount in the jointly administered programs category is an accounting function designed to eliminate double counting of awards.

APPENDIX B
**Utah State University Sponsored Program Awards
 FY 2006, FY 2007**



**APPENDIX C
RESEARCH AWARDS
BY FEDERAL SPONSORING AGENCY (IN DOLLARS)**

	FY02-03	FY03-04	FY04-05	FY05-06	FY06-07
Department of Agriculture	8,921,597	11,501,852	14,844,728	12,933,403	11,291,025
Department of Defense	40,633,208	56,454,422	6,229,055	20,718,470	23,854,478
Department of Education	23,173,945	16,776,033	17,795,729	16,683,226	14,080,060
Department of Health and Human Services	11,086,906	13,327,011	9,568,985	10,997,713	10,488,329
Department of the Interior	3,248,809	2,949,134	3,754,104	5,096,481	3,596,782
Department of State	-	98,267	-	-	188,281
Environmental Protection Agency	1,060,190	294,821	643,766	911,386	116,509
National Aeronautics & Space Administration	22,249,464	24,749,979	24,977,824	23,596,496	21,987,757
National Science Foundation	4,513,242	4,510,344	8,761,253	9,331,392	6,099,684
State Agencies & Others ¹	42,549,461	53,348,591	58,042,973	47,157,861	60,461,975
TOTAL	<u>\$157,436,822</u>	<u>\$184,010,454</u>	<u>\$144,618,417</u>	<u>\$147,426,428</u>	<u>152,164,907</u>

¹This number is a composite of international banks, state agencies, other federal agencies, local agencies, private industry, and others.

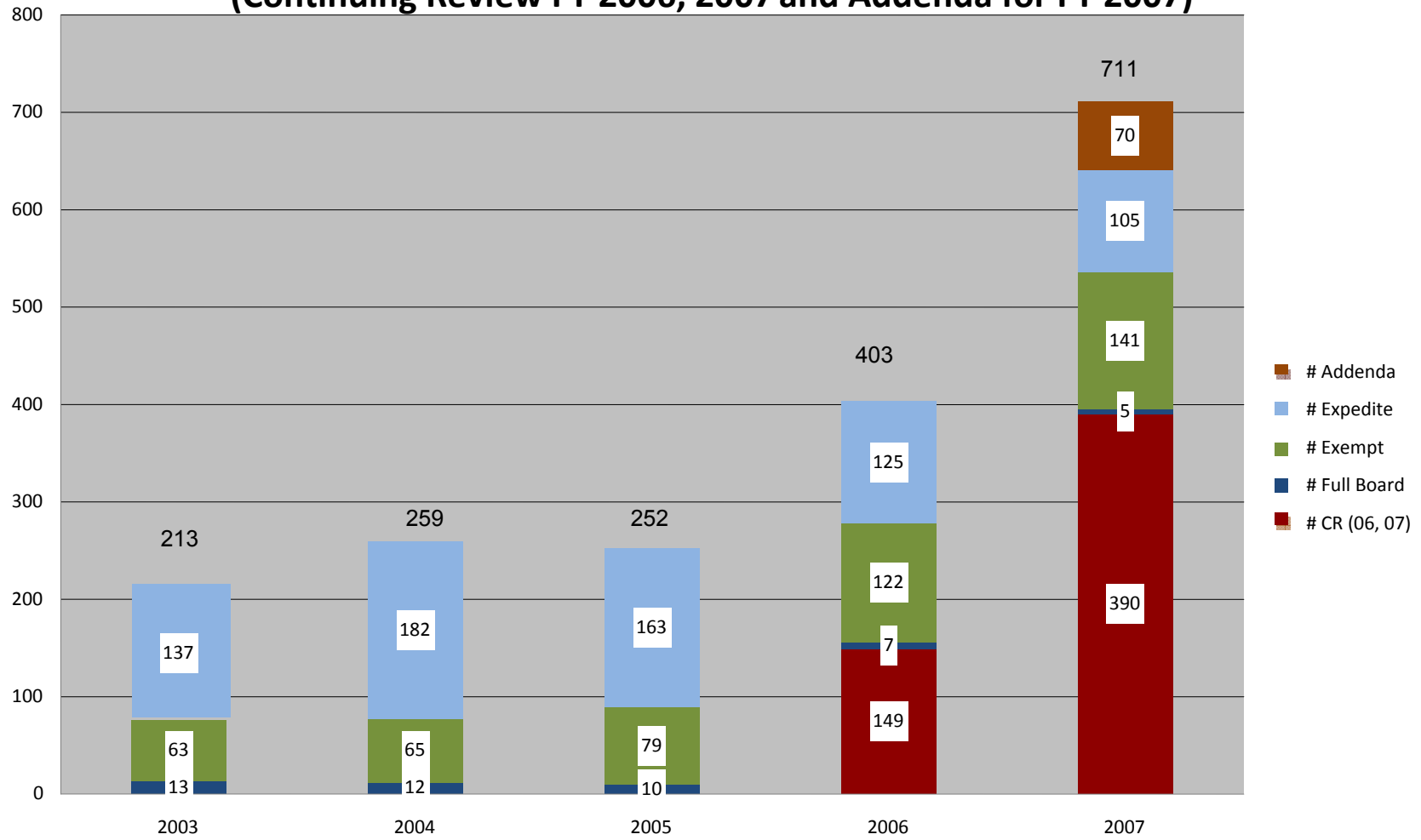
APPENDIX D

**SPONSORED PROGRAMS CONTRACT/GRANT AWARDS
BY RESEARCH CENTER**

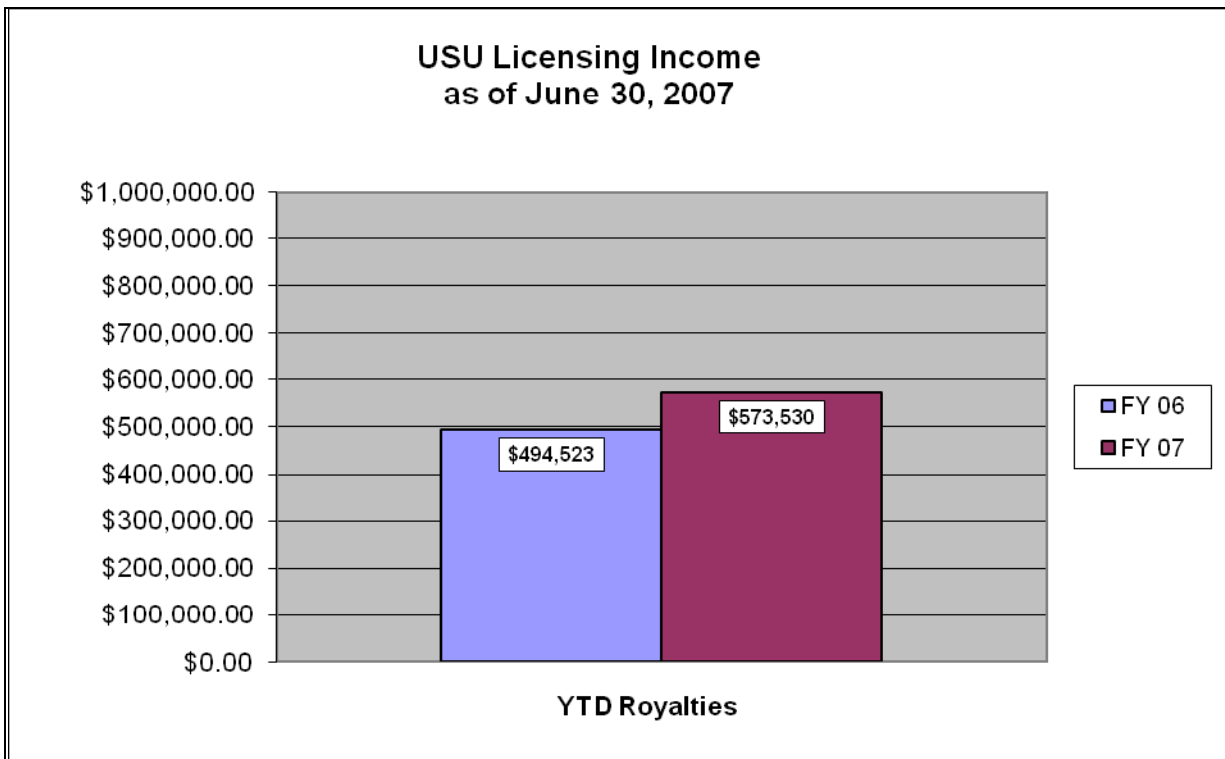
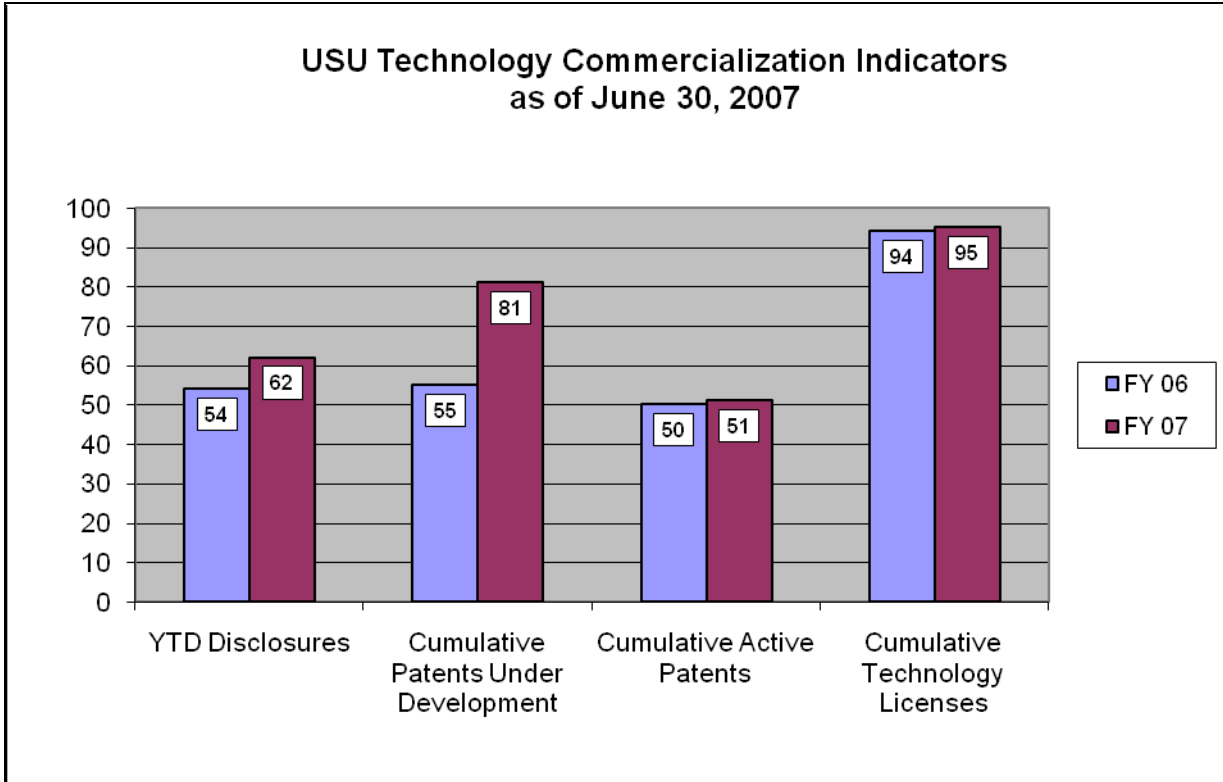
RESEARCH CENTER	FY 02-03	FY 03-04	FY04-05	FY05-06	FY06-07
Ag. Experiment Station	8,706,601	10,891,952	11,605,967	13,881,355	12,933,734
Center for Integrated BioSystems	12,879	0	0	0	0
CASS	1,810,200	1,709,473	1,647,479	537,175	1,226,610
CPD	8,391,484	11,791,164	11,873,218	6,071,622	7,275,949
Center for Space Eng. (Beginning FY2002, USURF reassigned reporting centers)	127,500	689,420	0	0	0
Cooperative Extension	5,364,247	5,771,652	4,339,414	3,242,340	1,761,756
Ecology	2,994,710	2,609,198	2,424,505	3,250,987	2,755,350
Eng. Experiment Station	430,762	3,263,631	274,991	558,532	776,561
Financial Aid-Pell Grants, etc.	19,013,394	21,527,791	22,402,675	24,374,592	19,474,007
High Performance Computing	0	0	0	0	523,700
International Programs	0	0	0	0	0
School of the Future	57,600	0	0	0	0
Provost	447,000	76,826	24,699	0	0
Univ. Research & Training	34,273,736	35,337,214	44,267,770	44,506,542	45,486,402
USTAR	0	0	0	0	177,292
USURF/SDL	70,322,046	86,951,616	43,566,429	49,353,930	54,000,033
Remote Sensing	1,276,434	1,007,343	0	0	0
UT Transportation Center	0	0	0	0	1,801,834
Utah Water Research Lab.	<u>4,208,229</u>	<u>2,353,174</u>	<u>2,191,270</u>	<u>1,649,352</u>	<u>3,971,679</u>
Total USU	<u>\$157,436,822</u>	<u>\$184,010,454</u>	<u>\$144,618,417</u>	<u>\$147,426,427</u>	<u>\$152,164,907</u>

APPENDIX E

**Institutional Review Board (IRB)
New Approved Research Projects by Category and Total
2003 - 2007
(Continuing Review FY 2006, 2007 and Addenda for FY 2007)**



APPENDIX F



APPENDIX G

UNIVERSITY RESEARCH COUNCIL Membership (2007-2008)

		Phone	UMC
Brent C. Miller	Vice President for Research, Chairman	1180	1450
Douglas Anderson	College of Business	1199	1450
Jeff Broadbent	Associate Vice President for Research	2376	3555
Byron Burnham	School of Graduate Studies	1189	0900
Noelle Cockett	College of Agriculture	1167	1435
Ray Coward	Executive Vice President and Provost	1167	1435
Jim Dorward	College of Education & Human Services	1469	2800
Mary Hubbard	College of Science	2478	4400
Nat Frazer	College of Natural Resources	2445	5200
Steve Hansen	Space Dynamics Laboratory	4501	9700
Scott Hinton	College of Engineering	2775	4100
M. K. Jeppesen	Information and Learning Resources	2645	3000
Gary Kiger	College of Humanities, Arts, & Social Sciences	1200	0700
Joyce Kinhead	Associate Vice President for Advancement and Student Research	1706	1435
James MacMahon	Ecology Center	2555	5205
Mac McKee	Utah Water Research Laboratory	3188	8200
Doug Ramsey	Faculty Senate President	3783	5230
H. Paul Rasmussen	Agricultural Experiment Station	2207	4810
Sarah Rule	Center for Persons with Disabilities	6800	1987
Bart Weimer	Center for Integrated Biosystems	3356	8700
Vincent Wickwar	Research Council Faculty Senate Representative	3641	4405
 <u>Students</u>			
Kevin Abernethy	Academic Senate President	1726	0105
Jeri Brunson	Graduate Studies Vice President	1736	0105
Brittany Woytco	Science Senator	7441	0105

APPENDIX H

18-Dec-07

Utah State University
 Analysis of Facilities and Administrative Costs Generated and Allocated
 July 1, 2006 through June 30, 2007

College or Other Unit	Generated	Budget Allocations From 30% Return	Budget Allocations From 70% Centrally Held	Total Budget Allocations	Budget as a % of Generated
College of Agriculture					
Dean's Office - Agriculture			\$ 84,512.00	\$ 84,512.00	N/A
Agriculture - Economics	\$ 69,867.00	\$ 20,960.00	136,902.00	157,862.00	225.95%
Agricultural Experiment Station	13,852.00	4,156.00		4,156.00	30.00%
Animal, Dairy and Veterinary Sciences	1,111,396.00	333,419.00	25,000.00	358,419.00	32.25%
Center of Epidemiologic Studies	385,811.00	115,743.00		115,743.00	30.00%
Nutrition and Food Science	34,555.00	10,367.00	168,087.00	178,454.00	516.43%
Plants, Soils and Biometeorology	72,149.00	21,645.00	213,237.00	234,882.00	325.55%
Total College of Agriculture	1,687,630.00	506,290.00	627,738.00	1,134,028.00	67.20%
College of Business					
Dean's Office - Business			74,519.00	74,519.00	N/A
Accounting			1,729.00	1,729.00	N/A
Business Administration	56,277.00	16,883.00	38,203.00	55,086.00	97.88%
Business Information Systems			9,040.00	9,040.00	N/A
Economics				-	N/A
Management and Human Resources			16,236.00	16,236.00	N/A
Total College of Business	56,277.00	16,883.00	139,727.00	156,610.00	278.28%
College of Education and Human Services					
Dean's Office - Education and Human Services			100,751.00	100,751.00	N/A
Center for Persons with Disabilities	896,530.00	268,959.00	135,035.00	403,994.00	45.06%
Communicative Disorders	115,789.00	34,737.00	77,029.00	111,766.00	96.53%
Elementary Education	73,869.00	22,161.00	40,646.00	62,807.00	85.02%
Family Consumer and Human Development	172,576.00	51,773.00	42,400.00	94,173.00	54.57%
Health, Physical Education and Recreation Department	1,131.00	339.00	5,850.00	6,189.00	547.21%
Instructional Technology	313,998.00	94,199.00	41,565.00	135,764.00	43.24%
Psychology	704,853.00	211,456.00	89,070.00	300,526.00	42.64%
School of the Future	1,382.00	415.00		415.00	30.03%
Secondary Education			36,931.00	36,931.00	N/A
Special Education and Rehabilitation	48,802.00	14,641.00	5,000.00	19,641.00	40.25%
Total College of Education	2,328,930.00	698,680.00	574,277.00	1,272,957.00	54.66%
College of Engineering					
Dean's Office - Engineering	171,061.00	51,318.00	63,148.00	114,466.00	66.92%
Biological and Irrigation Engineering	115,155.00	34,547.00	165,020.00	199,567.00	173.30%
Civil and Environmental Engineering	267,522.00	80,257.00	22,375.00	102,632.00	38.36%
Electrical and Computer Engineering	211,186.00	63,356.00	85,052.00	148,408.00	70.27%
Engineering and Technology Education	31,898.00	9,569.00	3,500.00	13,069.00	40.97%
Mechanical and Aerospace Engineering	386,109.00	115,833.00	118,166.00	233,999.00	60.60%
Utah Water Research Laboratory	606,311.00	181,893.00		181,893.00	30.00%
Total College of Engineering	1,789,242.00	536,773.00	457,261.00	994,034.00	55.56%
College of Humanities, Arts and Social Sciences					
Dean's Office - Humanities, Arts and Social Sciences	137,461.00	41,238.00	96,218.00	137,456.00	100.00%
Art			13,197.00	13,197.00	N/A
English			25,298.00	25,298.00	N/A
History			7,827.00	7,827.00	N/A
Intensive English			11,492.00	11,492.00	N/A
Interior Design			5,169.00	5,169.00	N/A
Landscape Architecture and Environmental Planning	1,618.00	485.00	7,406.00	7,891.00	487.70%
Languages and Philosophy			26,463.00	26,463.00	N/A
Music			15,751.00	15,751.00	N/A
Political Science	6,974.00	2,092.00	30,765.00	32,857.00	471.14%
Sociology, Social Work and Anthropology	43,172.00	12,952.00	42,100.00	55,052.00	127.52%
Total College of Humanities, Arts and Social Sciences	189,225.00	56,767.00	281,686.00	338,453.00	178.86%

Utah State University
Analysis of Facilities and Administrative Costs Generated and Allocated
July 1, 2006 through June 30, 2007

<u>College or Other Unit</u>	<u>Generated</u>	<u>Budget Allocations From 30% Return</u>	<u>Budget Allocations From 70% Centrally Held</u>	<u>Total Budget Allocations</u>	<u>Budget as a % of Generated</u>
College of Natural Resources					
Dean's Office - Natural Resources	\$ 79.00	\$ 24.00	\$ 104,873.00	\$ 104,897.00	N/A
Aquatic, Watershed and Earth Resources	364,738.00	109,421.00	50,539.00	159,960.00	43.86%
Ecology Center	84,680.00	25,404.00	9,200.00	34,604.00	40.86%
Environment and Society	90,777.00	27,233.00	7,045.00	34,278.00	37.76%
Forest, Range and Wildlife Sciences	448,103.00	134,431.00	48,137.00	182,568.00	40.74%
Total College of Natural Resources	<u>988,377.00</u>	<u>296,513.00</u>	<u>219,794.00</u>	<u>516,307.00</u>	<u>52.24%</u>
College of Science					
Dean's Office - Science			83,672.00	83,672.00	N/A
Biology	413,164.00	123,949.00	32,969.00	156,918.00	37.98%
Center for Atmospheric and Space Sciences	499,396.00	149,819.00	50,000.00	199,819.00	40.01%
Chemistry and Biochemistry	279,240.00	83,772.00	341,407.00	425,179.00	152.26%
Computer Science	147,254.00	44,176.00	166,635.00	210,811.00	143.16%
Geology	88,605.00	26,581.00	103,858.00	130,439.00	147.21%
Mathematics and Statistics	56,032.00	16,810.00	65,189.00	81,999.00	146.34%
Physics	281,299.00	84,390.00	112,513.00	196,903.00	70.00%
Total College of Science	<u>1,764,990.00</u>	<u>529,497.00</u>	<u>956,243.00</u>	<u>1,485,740.00</u>	<u>84.18%</u>
Vice President - University Extension					
Brigham City Campus	15,911.00	4,773.00		4,773.00	30.00%
Cooperative Extension	50.00	15.00		15.00	30.00%
Extension Agriculture and Natural Resources	70,688.00	21,206.00		21,206.00	30.00%
Extension Field Staff	23,431.00	7,029.00		7,029.00	30.00%
Extension Youth Programs	16,404.00	4,921.00		4,921.00	30.00%
Extension Community Development	1,078.00	323.00	50,910.00	51,233.00	4752.60%
Uintah Basin Center	2,826.00	848.00		848.00	30.01%
Total Vice President - University Extension	<u>130,388.00</u>	<u>39,115.00</u>	<u>50,910.00</u>	<u>90,025.00</u>	<u>69.04%</u>
International Programs					
International Programs	-	-	40,000.00	40,000.00	N/A
Total Internatinal Programs	<u>-</u>	<u>-</u>	<u>40,000.00</u>	<u>40,000.00</u>	<u>N/A</u>
Vice President - Student Administration and Services					
Campus Recation	27,476.00	8,243.00		8,243.00	30.00%
Student Support Services	28,666.00	8,600.00		8,600.00	30.00%
Vice President for Student Serivces	9,000.00	2,700.00		2,700.00	30.00%
Undergraduate Scholarships and Recruitment			100,000.00	100,000.00	N/A
Total Vice President - Student Administration and Services	<u>65,142.00</u>	<u>19,543.00</u>	<u>100,000.00</u>	<u>119,543.00</u>	<u>183.51%</u>
Vice President - Information Technology					
Information Technology	9,937.00	2,981.00		2,981.00	30.00%
Total Vice President - University Extension	<u>9,937.00</u>	<u>2,981.00</u>	<u>-</u>	<u>2,981.00</u>	<u>30.00%</u>
Utah State University Research Foundation					
Space Dynamics Laboratory	11,002,424.00	11,002,424.00	135,074.00	11,137,498.00	101.23%
Total Utah State University Research Foundation	<u>11,002,424.00</u>	<u>11,002,424.00</u>	<u>135,074.00</u>	<u>11,137,498.00</u>	<u>101.23%</u>
School of Graduate Studies					
School of Graduate Studies	3,011.00	903.00	272,000.00	272,903.00	9063.53%
Total School of Graduate Studies	<u>3,011.00</u>	<u>903.00</u>	<u>272,000.00</u>	<u>272,903.00</u>	<u>9063.53%</u>
Total Colleges and Non-Academic Units	<u>20,015,573.00</u>	<u>13,706,369.00</u>	<u>3,854,710.00</u>	<u>17,561,079.00</u>	<u>87.74%</u>

Support of Infrastructure

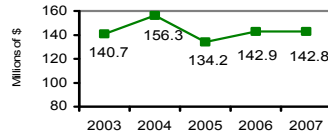
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Vice President - Research					
Center for High Performance Computing	\$8,336.00	\$2,501.00	\$ 396,260.00	\$ 398,761.00	4783.60%
Audit Disallowance			\$ 94,536.00	\$ 94,536.00	N/A
Disallowance Account			\$ 50,000.00	50,000.00	N/A
Building 620 Rent			\$ 189,348.00	\$ 189,348.00	N/A
FBA Prof SVCS			15,000.00	15,000.00	N/A
Internet II			97,138.00	97,138.00	N/A
LARC Renovation			53,550.00	53,550.00	N/A
Office of Technology Management and Commercialization			909,661.00	909,661.00	N/A
Budget Cut			200,000.00	200,000.00	N/A
Special Projects			24,000.00	24,000.00	N/A
Women and Gender Research Institute			13,500.00	13,500.00	N/A
Strategic Ventures and Economic Development	25,236.00	7,571.00	-	7,571.00	30.00%
URCO			10,000.00	10,000.00	N/A
Undergraduate Research			15,000.00	15,000.00	N/A
Washington Based Support			191,400.00	191,400.00	N/A
Total Vice President - Research	<u>33,572.00</u>	<u>10,072.00</u>	<u>2,259,393.00</u>	<u>2,269,465.00</u>	<u>6759.99%</u>
Vice President - Business and Finance					
Accounting and Financial Reporting			160,134.00	160,134.00	N/A
Controller's Office			60,716.00	60,716.00	N/A
Facilities and Administrative Cost Study			254,805.00	254,805.00	N/A
Federal Single Audit			27,920.00	27,920.00	N/A
MAXIMUS Consulting			24,000.00	24,000.00	N/A
Purchasing			24,069.00	24,069.00	N/A
Total Vice President - Business and Finance		<u>-</u>	<u>551,644.00</u>	<u>551,644.00</u>	<u>N/A</u>
Total Support of Infrastructure (% is computed on total Facilities and Administrative costs generated from all units)					
	<u>33,572.00</u>	<u>10,072.00</u>	<u>2,811,037.00</u>	<u>2,821,109.00</u>	<u>8403.16%</u>
Provost's Office					
Total Provost's Office	<u>-</u>	<u>-</u>	<u>43,200.00</u>	<u>43,200.00</u>	<u>N/A</u>
Vice President - Research					
Biotechnology Bond			791,168.00	791,168.00	N/A
Total Vice President - Research			<u>791,168.00</u>	<u>791,168.00</u>	<u>N/A</u>
Total	<u>\$ 20,049,145.00</u>	<u>\$ 13,716,441.00</u>	<u>\$ 7,500,115.00</u>	<u>\$ 21,216,556.00</u>	<u>105.82%</u>

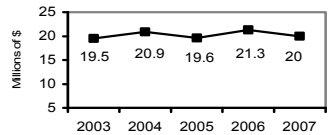
APPENDIX I USU RESEARCH PERFORMANCE DASHBOARD – FY 2007

Research Funding

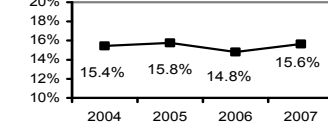
Total Research Expenditures¹ ▲



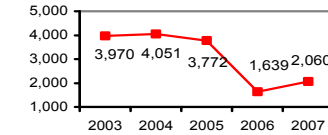
F&A (Indirect Costs) Recovered ●



Effective F&A Rate² ●



USU Non-Student Research-Related Jobs ▼

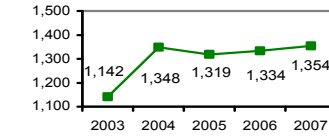


Funded Utah Centers of Excellence ▲

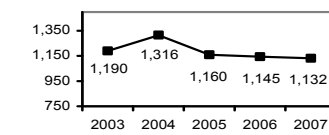


Sponsored Programs

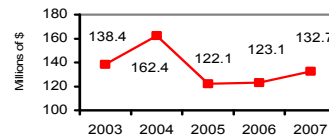
Number of Proposals Submitted³ ▲



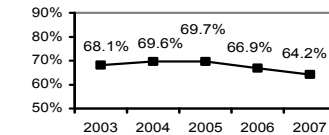
Number of Grants Awarded³ ●



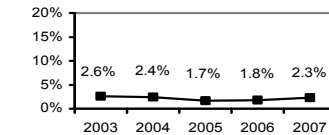
Total Amount of Contracts/Grants Awarded⁴ ▼



Federal Funding as a Percent of Total Funding ●

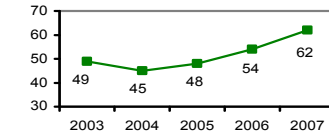


Industry Funding as a Percent of Total Funding ●

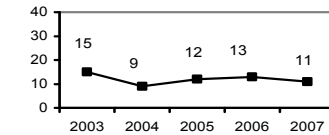


Tech. Commercialization

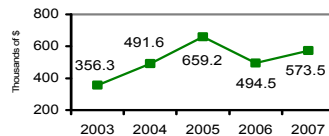
Number of Invention Disclosures ▲



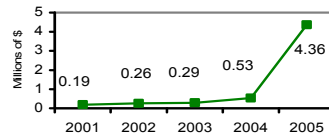
New Patents Filed ●



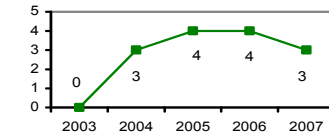
Gross License Income ▲



Startup Business Income ▲

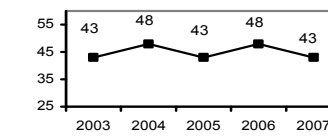


Number of New Start-Up Companies ▲

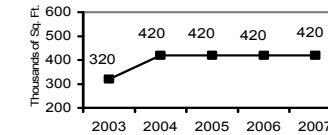


Innovation Campus

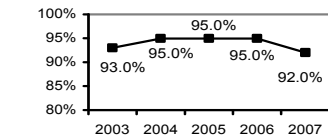
Tenants ●



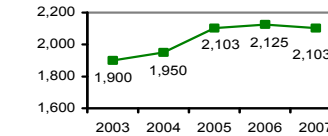
Total Square Feet ●



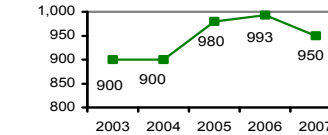
Percent Net Occupancy ●



Employees ▲

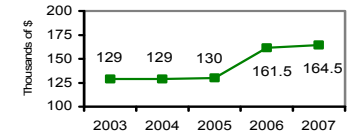


Student Employees ▲

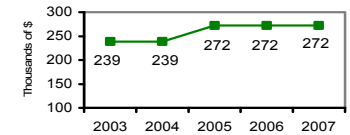


Student Research

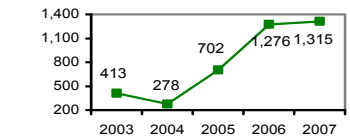
Funding for Undergraduate Research ▲



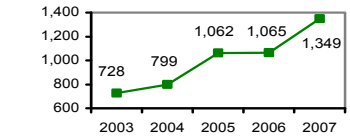
Funding for Graduate Research⁵ ▲



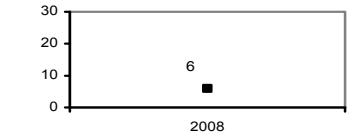
Undergraduate Research Employees Headcount ▲



Graduate Research Employees Headcount ▲



Undergraduate Research Transcript Scholars⁶ ●



TREND KEY:

- ▲ higher
- ▼ lower
- no change

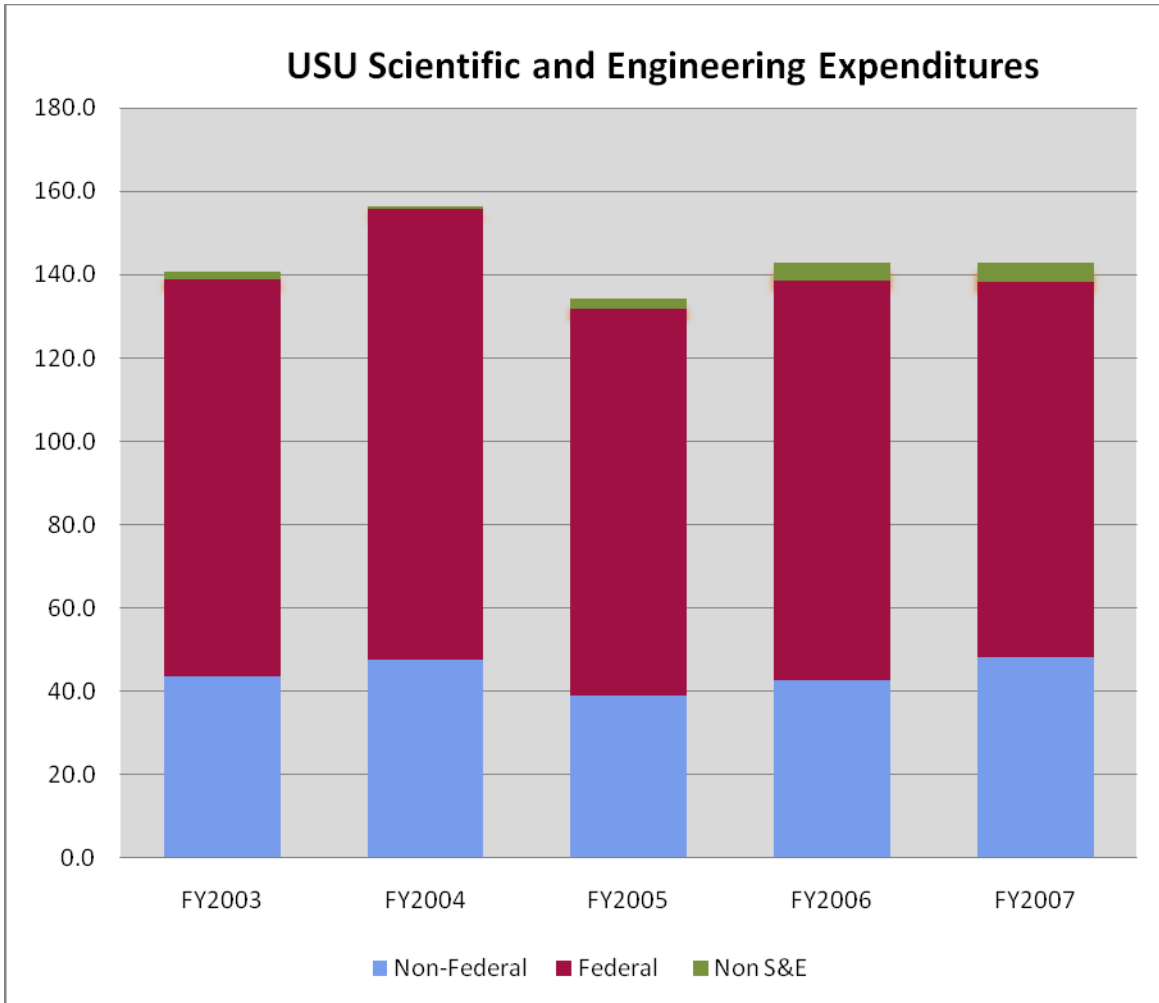
- green = better
- red = worse
- black = neutral

FOOTNOTES:

- ¹ According to NSF Report
- ² Some funding agencies by policy limit the recovery of F&A costs to less than the negotiated rate. Effective F&A is the ratio between modified total direct costs and actual F&A collected.
- ³ One proposal can be awarded in multiple years.

- ⁴ The largest SDL project, RAMOS, was canceled in 2005.
- ⁵ Graduate research funding includes: fellowships, travel, and graduate student recruitment.
- ⁶ 2008 number includes only students who graduated in December 2007.

APPENDIX J



Millions of Dollars

	FY2003	FY2004	FY2005	FY2006	FY2007
Non-Federal	43.3	47.3	38.9	42.4	48.2
Federal	95.5	108.4	92.7	96.2	89.9
Total S&E	138.8	155.7	131.6	138.6	138.1
Non S&E	1.8	0.6	2.6	4.3	4.7
Total Research Exp.	140.6	156.3	134.2	142.9	142.8