

# **OFFICE OF THE VICE PRESIDENT FOR RESEARCH**

## **ANNUAL REPORT**

**JULY 1, 2005 TO JUNE 30, 2006**

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### **INTRODUCTION**

University research is fostered through improving campus research infrastructure to support researchers, 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 VPR to provide an environment that facilitates and stimulates university related 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 student scholars.
- 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 VPR 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 most concerned with their respective units, the VPR must take a broader, campus-wide perspective.

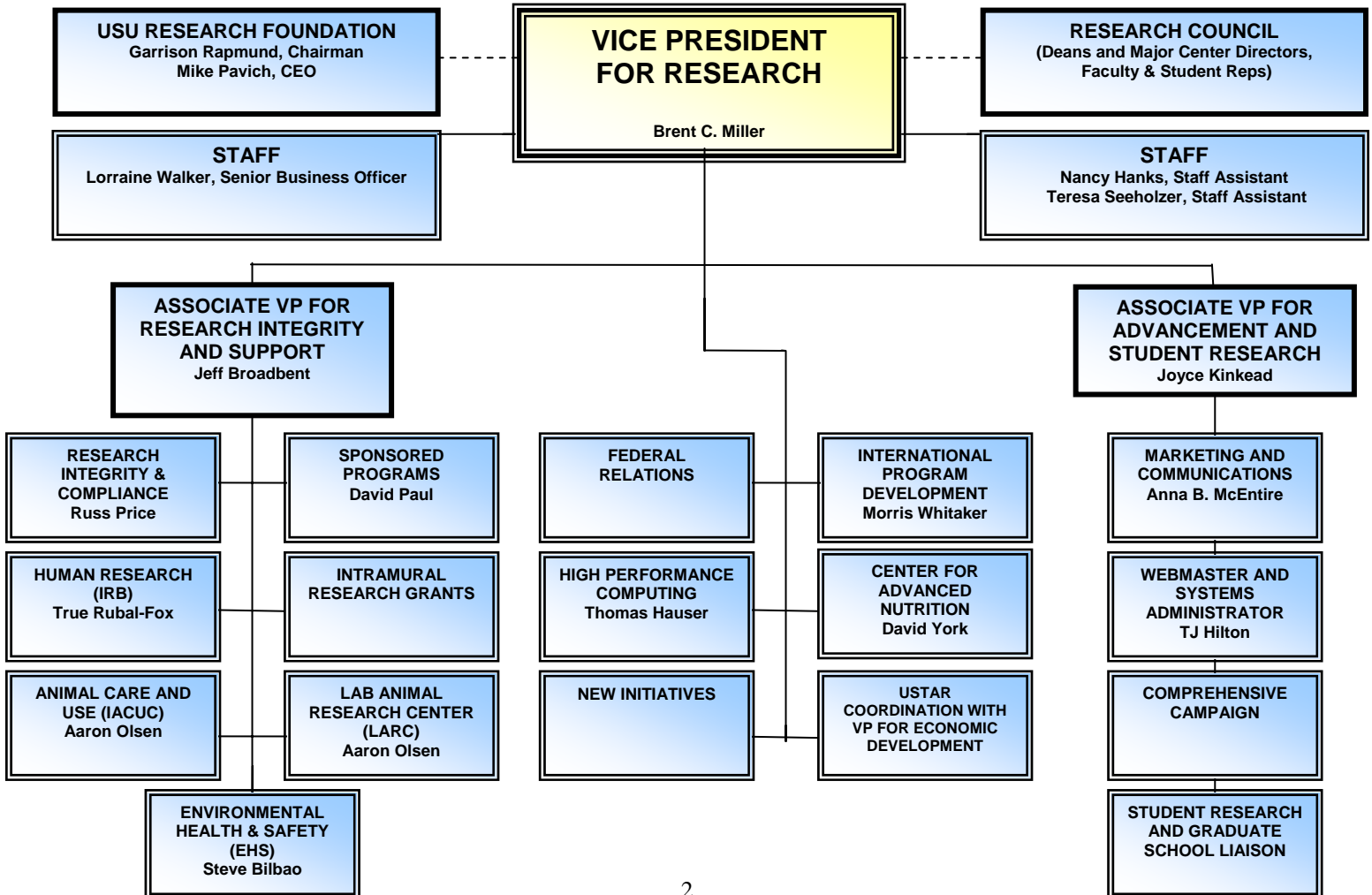
To advance university research, the VPR must be engaged with external constituencies, including local and state elected officials, as well as federal and industry funding sponsors. The VPR also needs to be actively engaged in professional networks and with societies that have as their mission the advancement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

## ANNUAL REPORT

This annual report to the Faculty Senate covers the major activities of the VPR and the Research Council from July 1, 2005 through June 30, 2006. It is a summary of all units for which the VPR has responsibility. This report is organized in four parts:

1. Overview of the VPR Office and Related Units
  - A. Service Units
    - 1) Sponsored Programs Office
    - 2) Environmental Health and Safety Office
    - 3) Institutional Review Board
    - 4) Laboratory Animal Research Center
  - B. Strategic Units
    - 1) Innovation Campus
    - 2) Technology Commercialization Office
    - 3) Center for High Performance Computing
2. Research Council Membership and Functions
3. Use of Facilities and Administration (F&A) Funds at USU, FY2005-2006
4. Selected Research Issues at USU

### Utah State University Vice President for Research Organization



## **1. OVERVIEW OF VPR AND RELATED UNITS**

The VPR is responsible for the units shown in the previous diagram. 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. The Technology Commercialization Office and the Innovation Campus are strategic or mission-oriented units. The others are research service units.

### **1. A. SERVICE UNITS**

#### **1) Sponsored Programs Office (SPO)**

The USU Sponsored Programs Office (SPO) is responsible to support and protect 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. Furthermore, the interdependent nature of contracting requires accountability between all these units 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 to also 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 required 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 also works closely with the Controller's Office to develop and offer a certification program for research administrators.

SPO fosters research at the university by helping researchers to develop and submit proposals that have the highest likelihood for success. SPO provides the following services: grant editing, budget development, interpreting contractual terms and conditions, completing required forms, tracking pending proposals, notifying researchers upon award, working closely with the Controller's Office to assure accounts are set up properly, and negotiating with sponsors to protect the researcher and university.

A single point of contact approach allows researchers to easily identify who their assigned SPO administrator is. Further, this approach allows each SPO administrator to become more familiar with sponsor specific regulations as well as to familiarize themselves with researchers and their unique needs. SPO has also developed an excellent working relationship with the Controller's Office so a team approach for pre- and post-award functions can be taken to further support research efforts.

SPO has revised its website to enhance proposal development and provide more user-friendly interfaces making information more accessible and easier to locate. SPO is also implementing an electronic proposal development and grants management system (GAMS) that will interface directly with Grants.gov and provide the electronic approval and routing system that is now required. SPO policies and procedures are posted to the web and additional policies and procedures continue to be developed.

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 FY2002 through FY2006. Appendix B compares awards by month and type of award for FY2005 and FY2006. Appendix C provides a summary of Sponsored Program Awards by Awarding Agency FY2002 through FY2006, and Appendix D provides a summary of Sponsored Program Awards by Research Center FY2002 through FY2006.

Note that awards in the Colleges of Agriculture, Engineering, and Science 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 the Space Dynamics Laboratory.

## **2) 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 FY2006 EH&S accomplished the following:

- Transported, managed and disposed of approximately 72,959 lbs. of hazardous waste and approximately 1,700 lbs. of radiation waste. Recycled 65,072 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 747 lbs. Six nuclear gauges were returned to the manufacturer for disposal.
- Provided safety training to approximately 1,124 faculty, staff and students in 36 courses.
- Provided Logan City Fire Department pre-incident plans for all campus buildings. Worked to gather Geographical Information System (GIS) emergency response data for all academic units (97% complete) and for non-academic units (10% complete).
- Provided biohazard safety support for construction of enhanced BSL-3 laboratory.

### **3) 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 accordance with the Code of Federal Regulations. USU has a Federal Wide Assurance with the National Institutes of Health 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 experience 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; Kim Corbin-Lewis - COMDDE; Melanie Domenech-Rodriguez - Department of Psychology; Joanna Endter-Wada - Environment and Society; Chris Fawson - Department of Economics; Julie Gast - Department of Health, Physical Education and Recreation; Reed Geertsen - Department of Sociology, Social Work and Anthropology; Stacey Hills - Department of Business Administration; Stuart Howell - Community Representative; Ron Munger - Department of Nutrition and Food Sciences; Russ Price - Compliance Assistance; Dr. Ed Redd - Deputy Director of the Bear River Health Services; Noreen Schvaneveldt - Department of Nutrition and Food Sciences; Tim Slocum - Department of Special Education and Rehabilitation; David Wiley - Department of Instructional Technology, and True Rubal-Fox - Administrator.

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 the 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.

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 established by the board and congruent with federal guidelines have been instituted 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 on the VPR Web site at <http://www.usu.edu/research/irb/procedures.cfm>.

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 2002-2006.

#### **4) 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 salaried 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 (C. Coombs), 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 full-time supervisor (Udy) and secretary (Coombs) have shared assignments with the Institutional Animal Care and Use Committee (IACUC).

Major accomplishments for FY 2006:

- The USDA inspector cited no non-compliance items during the annual facility inspection.
- Services provided by the LARC increased 20%.
- All available animal space is occupied.
- Capital equipment upgrade continued.
- Remodeling began to upgrade facilities for additional work in the antiviral program.

### **1.B. STRATEGIC UNITS**

#### **1) Utah State University Innovation Campus**

The Innovation Campus (IC) is committed to developing an effective working environment for state-of-the-art technology enterprises, research institutes, and laboratories. Its "campus style"

business environment facilitates collaboration and alliances among tenants, faculty, students, business, industry, and government to foster technology clusters that build long-term economic benefits for the University, Cache Valley, and the State of Utah.

In 2006, the IC provided an opportunity for open dialog between tenants and IC management by launching a new program for CEO's of companies located at the Innovation Campus. The CEO Roundtable provides an environment for networking and an opportunity to discuss challenges facing companies in a global world. Additional programs implemented to improve tenant relationships included: improved data and telephone services, provided opportunity to participate in a corporate wellness program and provided tenant employees with I.D. cards that could be used for discounts and opportunity to participate in selected programs at Utah State University, negotiated with Logan City transit system to provide service between the USU main campus and the IC every 30 minutes and implemented an energy efficiency partnership program with Utah Power and Light.

IC received a \$2.5 M grant from the U.S. Department of Commerce to build roads and infrastructure for the Grand Avenue. The Grand Avenue is highlighted in the IC master plan as the "central heart" of the IC, connecting the existing 38 acres to the land obtained directly to the east, expanding the IC to over 150 acres contiguous with Utah State University's main campus. A groundbreaking ceremony was held June, 2005 and a ribbon cutting to open Grand Avenue was held November 20, 2005.

## **2) Technology Commercialization Office (TCO)**

The TCO complements the research activities of USU and promotes university outreach by developing and commercializing technologies for public use and benefit, potentially providing additional income to the University and its inventors.

In addition to its traditional role of patenting and licensing USU/USU Research Foundation technologies, TCO strives to extract the fair market value of intellectual property by using best business practices for the benefit of the inventor, the university, the Research Foundation and the community. By effectively commercializing technology, TCO provides additional revenue to the University, its departments, faculty, and staff. TCO creates potential for local job creation through forming new businesses. All members of TCO's staff combine business experience with a strong science and technology understanding to better serve the interest of technologists, companies, and the organization. In FY2006 TCO accomplished the following:

- Increased License revenue to \$500,000
- Executed nine licenses
- Increased Invention Disclosures to 54
- Helped spin out 4 new companies
  - Alaero Design, Inc – Warren Phillips (2004 Technology)
  - Plasma Containment Company, LLC – Farrell Edwards (1993 Technology)
  - Matrix Manufacturing – Mark Baugh, Reed Neilsen, Jerry Goodwin (1992 Technology)
  - VistaTech Inc – Dave Kadlec (non USU faculty) (2005 Technology)

- Filed 27 patents – Thirteen of which were new technology
- Received eight patents:
  - Digital Spread Spectrum Methods and Apparatus for Testing Aircraft Wiring – Jacob Gunther, Deekshit Dosibhatla, Cynthia Furse
  - Laser-Based Metal Deposition of Implant Structures – Brent Stucker and Daniel Justin
  - Echo Cancellation Filter – Jacob Gunther
  - Apparatus and Method for Reducing Induced Drag on Aircraft and Other Vehicles – Warren Philips
  - Echo Cancellation Filter – CIP – Jacob Gunther
  - Method for Imaging Coding by Rate-Distortion Adaptive Zero-Tree-Based Residual Vector Quantization and System for Effecting – Scott Budge and Qun Gu
  - Thiophosphonate Inhibitors of Phosphatase Enzymes and Metallaphosphatases – Alvan Hengge and Krzysztof Swierczek
  - Frequency Domain Reflectometry System for Baselineing and Mapping of Wires and Cables – Cynthia Furse and Kenneth Blemel

## **2. 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.

Major issues addressed by the Research Council in FY2006 included:

- September 2005
- Sponsored Programs office presented information on Grant Writing Workshops to be offered at Utah State. The workshop purpose is to develop a university-wide research grant writing process to assist faculty with proposal structure, writing tips, and specifics of grant writing.
  - President Albrecht, Ann Aust, and Ray Devito visited Dugway September 12 to tour the facility, and President signed an MOU for collaborative work between USU and Dugway.
  - Gary Harter, a cluster director from the Governor’s Office of Economic Development (GOED), invited Utah State to a meeting held September 20 regarding Homeland Security and Defense Interests. Ray Devito represents USU on the Technical Steering Committee.



USTAR developments brought many visitors to receive tour/presentations at USU regarding faculty expertise in regard to economic development and the USTAR Initiative. State legislators toured USU in early August as well as specific individuals in both state government and Utah business leaders. In the last legislative session, USU was allocated \$1.6 million to recruit USTAR researchers. A task force helped identify candidates in the microbial area.

October 2005

High Performance Computing (HPC) received a \$545,000 earmark from USDA which will be added to \$200,000 from an NSF project of Tom Hauser, as well as \$200,000 from the VPR office. USDA monies will be used to pay for software and hardware infrastructure.

A grant writing workshop for faculty was held on October 25<sup>th</sup>.

USTAR continued to move forward. In the Executive Appropriations meeting held October 18, both universities accounted for the money allocated last year. Up-to-date information on USTAR can be reviewed <http://ustar.usu.edu>.

December 2005

President Albrecht presented to Higher Ed Appropriations November 10 about USTAR. A state authority was considered to control the expenditure of USTAR funds. Performance and evaluation criteria will be worked out with future hires as well as how performance will be judged.

The Congressional Funding scorecard for FY2006 was reviewed. The President and Deans compiled a list of requests that will be submitted for FY2007.

January 2006

New VPR website launched. Helpful areas of the VPR website include Research Council minutes and agendas, links to the VPR units (ex. Sponsored Programs, IRB, LARC, etc), VPR grants (including CURI, NFRG, and congressional funding), VPR news and research opportunities.

Undergraduate Research Day was held at the Capitol. Sixty-seven students represented Utah State and booklets describing their research were distributed to the Research Council. It was noted that the number of students participating in the event has increased and they effectively communicate the importance of undergraduate research.

A meeting with Al Mansell resulted in a substitute bill for USTAR Senate Bill 75. One challenge in the existing bill is that it requires a match from the University of Utah for \$30 M and from Utah State University for \$10 M before construction of facilities. Senate Bill 75 also creates an

“authority board” of 8 members, to oversee how USTAR money will be allocated. Widespread support is evident in the Legislature, and the USTAR bill should pass.

February 2006

Research Council approved the *F&A Waiver Policy and Procedure* along with the *Cost Sharing/Matching Policy and Procedure*.

Revision to the University’s Conflict of Interest form was discussed. The new form better reflects the University's Conflict of Interest Policy.

The FY2005-2006 Facilities and Administration Budget Allocations were presented. The March 2003 F&A Subcommittee Status Report was also reviewed.

New Faculty Research Grant eligibility and process was reviewed. Research Council members approved the NFRG RFP for only tenure track assistant professors.

The College of Education and Human Services (CEHS) requested \$15,000/year in on-going support to manage and maintain the Office for Methodological Consulting Services because of the high volume of externally funded research dollars. The Council was asked for their input and thoughts about the request. The feedback was for colleges to continue to support their own services of this kind.

May 2006

Preparation continued for a USU GIS Emergency Plan. This includes GIS mapping for USU campus to city emergency response teams with building details such as room numbers, description of room and use, and hazardous materials. Also included is specific detail as to liquid or solid form of chemicals, as well as the actual location in each room where these chemicals are stored. A packet was distributed to each dean or college representative outlining the percentage of completion for their physical area. Brady Hansen, Assistant Fire Chief from Logan City, was also in attendance and offered suggestions and input.

Overview of the Grant Administration and Management System (GAMS) was presented. This fully-integrated grant and contract management software system has three modules comprised of pre-award/proposal, post-award/accounting, and advanced reporting. The federal government has mandated that all proposals to federal sponsors be submitted electronically by 2007. The post-award accounting module will provide helpful drill-down and effort reporting. Proposal submission will be easier because faculty will upload their information and it will automatically populate the forms with PI’s information, salary and benefits, F&A rates, current and pending support, and autobiographical sketch. GAMS will also store program specifics. GAMS will make it easier to track compliance issues

(IRB, IACUC, etc.) as well as provide a place for keyword searches for potential collaborators. GAMS also will help USU effectively track grants more efficiently.

Research Week was held during the first week of April 2006.

International Research - There have been several meetings to discuss the need to improve international research program development at USU. Students benefit academically by working on international research projects. Recommendations will be proposed to the provost to build our strength in international research.

The VPR and Research Council also identified specific operational priorities that have served to focus and guide efforts in the VPR office. These strategic priorities highlight areas of concerted attention:

1. Strengthen and develop major interdisciplinary research clusters and initiatives.
2. Increase indirect cost recovery.
3. Create credible reports of research related activities.
4. Develop Technology Commercialization Office into a strong service unit for inventors and a revenue generating enterprise for USU.
5. Shift Innovation Campus culture toward a community environment, emphasizing partnerships.

### **3. USE OF FACILITIES AND ADMINISTRATION FUNDS AT USU, FY2005-2006**

Facilities and Administrative (F&A) costs are the shared indirect or overhead costs of 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 FY2005-06 by department; 30% returned to the cost center; and allocations of the 70% held centrally in the VPR.

### **4. SELECTED RESEARCH ISSUES AT USU**

Listed below are selected 2005-2006 initiatives undertaken in the Vice President for Research Office.

1) Utah Science, Technology and Research (USTAR) Initiative - Senate Bill 192 was passed by the 2005 State legislature. The bill provided funding to Utah State University (\$1.6 million for

FY2006) and to the University of Utah to build research capacity for economic development. The monies were used to recruit and fund the startup of two new USU tenured faculty members. Dr. David York (Biology Department) is the Director of the Center for Advanced Nutrition. Dr. Krishna Shenai (Electrical Engineering Department) will focus his research efforts on high speed, low power, microprocessors.

S.B. 75 was passed in the 2006 legislature, providing USTAR with \$15 million in ongoing funding for research teams at Utah State and the University of Utah. The USTAR legislation budget includes \$6 million of on-going funding to support the research focus areas identified by USU, and approved by the USTAR Governing Authority. USU faculty and administration are working to identify these areas and propose initiatives to the Governing Authority.

2) The Center for High Performance Computing (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. The HPC will enhance research and education at all levels at USU.

3) National Center for Hearing Assessment and Management (NCHAM). Continued a second year of funding to NCHAM that enabled recruitment of two senior scientists to come to USU. Adding these faculty significantly expanded NCHAM's capability to secure extramurally-funded research related to identification of, and services for, children with permanent hearing loss.

4) Research Activities for Undergraduate Students. Support was provided for 34 undergraduates through Undergraduate Research and Creative Opportunities in FY2006. The VPR also supported Undergraduate Research Day at the State Capitol for 27 undergraduate students to present their research. Five undergraduate students also were supported to participate at the National Conference for Undergraduate Research in Lexington, Kentucky.

5) 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.

6) Communications About USU Research. Marketing specialist Anna McEntire was hired in 2003 to better tell USU's research story. A VPR Dashboard was developed to present research performance indicators. (Appendix J) The importance and impact of USU research is being emphasized, showing that research is a good investment for many purposes. "Research Matters," an annual report for the general public, has been prepared to document the benefits of research, both economic and academic.

7) 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 I is a graph that illustrates research expenditures from federal and nonfederal sponsors for the past five years. The pie chart in Appendix J summarizes total research expenditures for scientific and engineering research expenditures and nonscientific and engineering research expenditures for FY2005. FY2004 was the first year that nonscientific and engineering research expenditures data were reported separately (These appendices will be added to this annual report when the data becomes available, early in the calendar year 2007).

8) Selected Other Research Issues of Concern. The following issues have been noted as 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) More funding is needed to support graduate students. (5) When grants and soft monies end abruptly, students need a safety net to finish their programs. (6) 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 COLLEGE<sup>1</sup>

	<b>2001-2002</b>	<b>2002-2003</b>	<b>2003-2004</b>	<b>2004-2005</b>	<b>2005-2006</b>
Agriculture	29,499,350	33,048,308	33,940,899	13,650,668	16,979,327
Business	1,894,131	460,787	1,773,316	1,985,155	2,373,466
Education	20,162,620	23,069,480	25,047,073	25,789,744	20,722,283
Engineering	46,775,208	58,024,532	70,912,859	9,911,299	10,223,439
Family Life <sup>2</sup>	0	-----	-----	-----	-----
HASS	518,329	303,769	703,482	925,631	1,456,615
Natural Res.	10,980,726	8,297,175	8,024,624	9,786,361	9,684,998
Science	10,977,131	9,083,475	14,855,670	10,038,023	8,123,447
USURF <sup>3</sup>	-----	-----	-----	43,566,429	49,353,930
Other	3,564,961	6,135,902	8,107,176	7,222,649	5,525,978
Jointly Admin. Programs <sup>4</sup>	<u>-1,648,635</u>	<u>-880,088</u>	<u>-882,436</u>	<u>-660,217</u>	<u>-1,391,647</u>
<b>TOTAL</b>	<b><u>\$122,723,821</u></b>	<b><u>\$138,423,428</u></b>	<b><u>\$162,482,663</u></b>	<b><u>\$122,215,742</u></b>	<b><u>\$123,051,836</u></b>
Financial Aid-Pell Grants, etc.	20,420,068	19,013,394	21,527,791	22,402,674	24,374,592
<b>Adjusted Total</b>	<b><u>143,143,889</u></b>	<b><u>157,436,822</u></b>	<b><u>184,010,454</u></b>	<b><u>144,618,416</u></b>	<b><u>147,426,428</u></b>

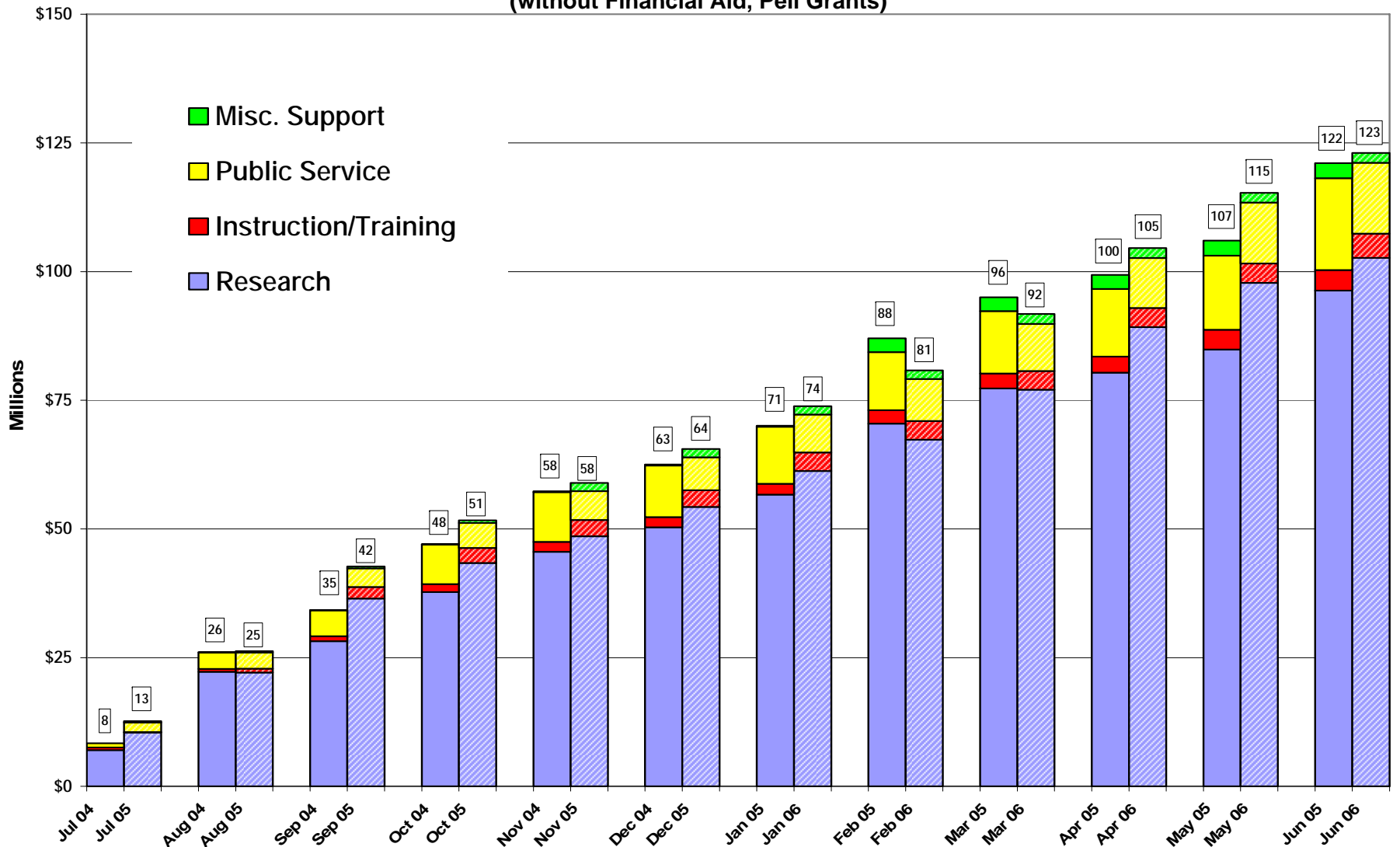
<sup>1</sup> College awards include centers most closely aligned with that college (See Appendix D for Center totals).

<sup>2</sup> College of Family Life was disbanded in FY2002. College award figures reflect faculty award information shifted to different colleges.

<sup>3</sup> USURF/SDL awards were first removed from college totals and shown separately in FY2005.

<sup>4</sup> 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.

## Utah State University Sponsored Program Awards FY 2005, FY 2006 (without Financial Aid, Pell Grants)



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

	<b>FY01-02</b>	<b>FY02-03</b>	<b>FY03-04</b>	<b>FY04-05</b>	<b>FY05-06</b>
Department of Agriculture	13,230,864	8,921,597	11,501,852	14,844,728	12,933,403
Department of Defense	24,668,809	40,633,208	56,454,422	6,229,055	20,718,470
Department of Education	7,203,705	5,712,791	6,083,005	6,415,175	4,495,930
Department of Health and Human Services	12,160,887	11,086,906	13,327,011	9,568,985	10,997,713
Department of the Interior	2,313,308	3,248,809	2,949,134	3,754,104	5,096,481
Department of State	118,000	-	98,267		-
Environmental Protection Agency	182,465	1,060,190	294,821	643,766	911,386
National Aeronautics & Space Administration	17,182,036	22,249,464	24,749,979	24,977,824	23,596,496
National Science Foundation	5,505,032	4,513,242	4,510,344	8,761,253	9,331,392
State Agencies & Others <sup>1</sup>	60,578,783	60,010,615	64,041,619	69,423,527	59,345,157
<b>TOTAL</b>	<b><u>\$143,143,889</u></b>	<b><u>\$157,436,822</u></b>	<b><u>\$184,010,454</u></b>	<b><u>\$144,618,417</u></b>	<b><u>\$147,426,428</u></b>

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

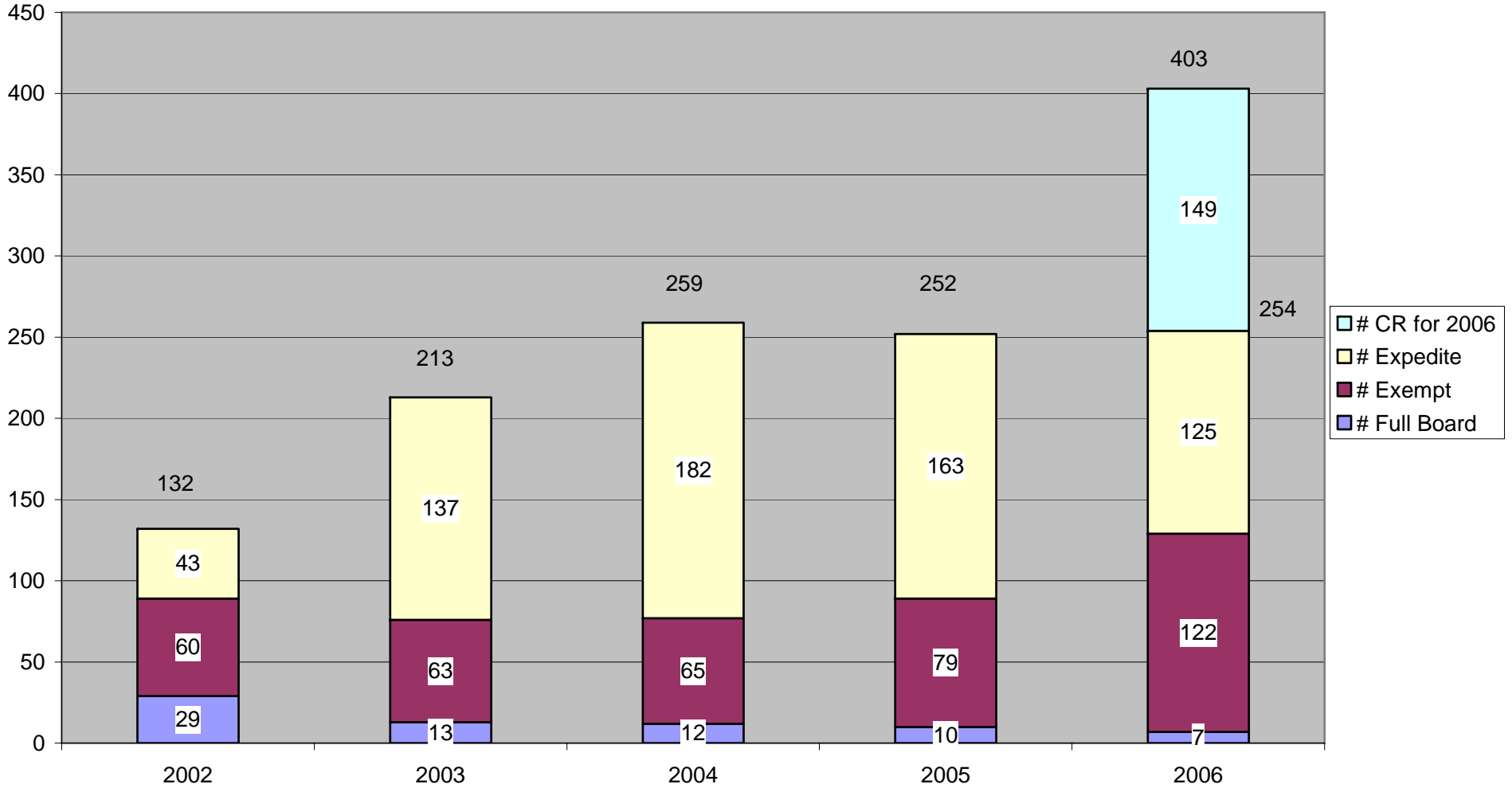


APPENDIX D

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

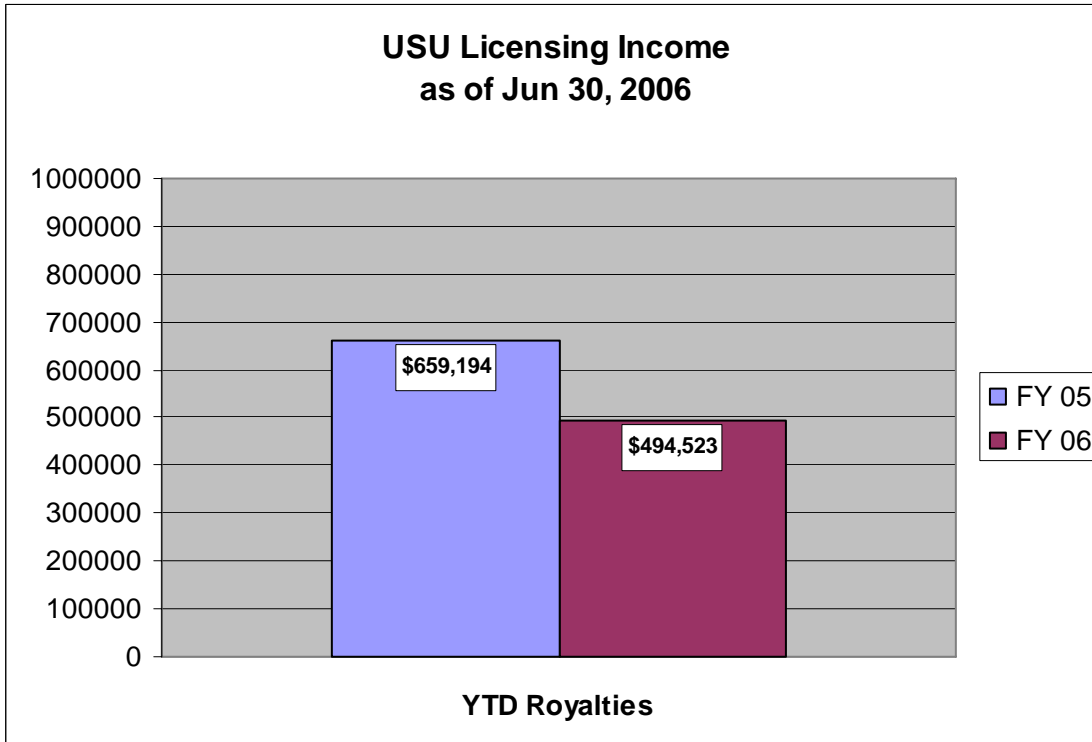
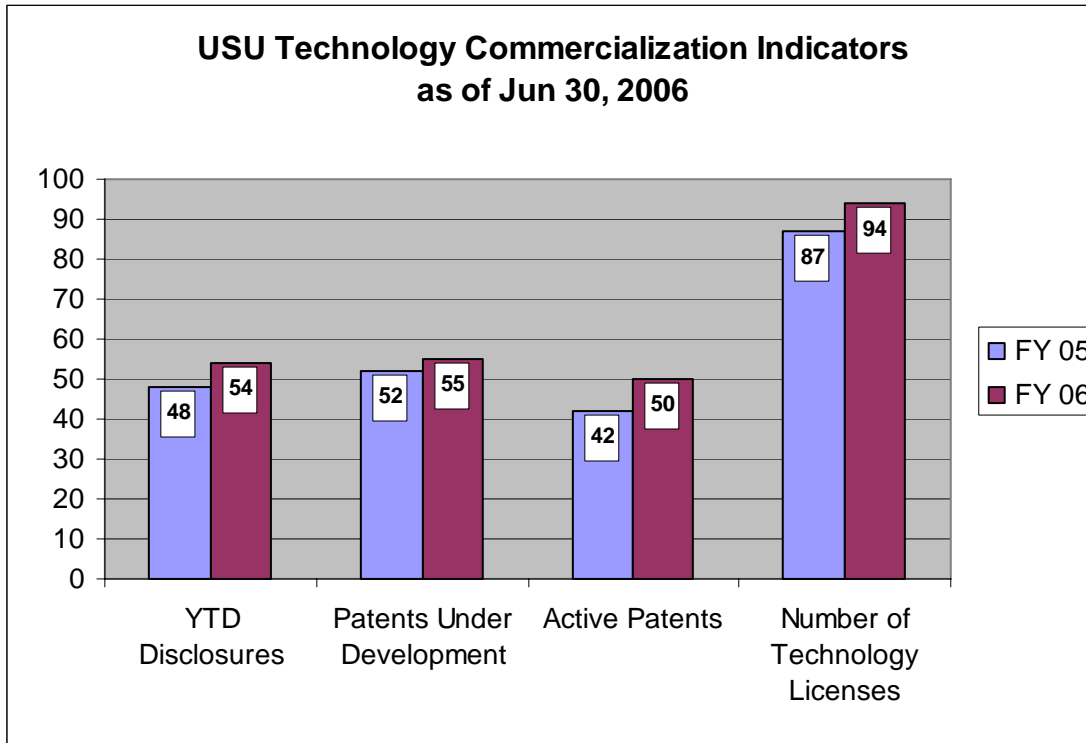
<b>RESEARCH CENTER</b>	<b>FY 01-02</b>	<b>FY 02-03</b>	<b>FY 03-04</b>	<b>FY04-05</b>	<b>FY05-06</b>
Ag. Experiment Station	\$14,075,399	\$8,706,601	\$10,891,952	\$11,605,967	\$13,881,355
Center for Integrated BioSystems	\$68,247	\$12,879	\$0	\$0	\$0
CASS	\$1,877,538	\$1,810,200	\$1,709,473	\$1,647,479	\$537,175
CPD	\$9,227,716	\$8,391,484	\$11,791,164	\$11,873,218	\$6,071,622
Center for Space Eng. (Beginning FY2002, USURF reassigned reporting centers)	\$330,631	\$127,500	\$689,420	\$0	\$0
Cooperative Extension	\$4,776,956	\$5,364,247	\$5,771,652	\$4,339,414	\$3,242,340
Ecology	\$2,850,886	\$2,994,710	\$2,609,198	\$2,424,505	\$3,250,987
Eng. Experiment Station	\$1,403,020	\$430,762	\$3,263,631	\$274,991	\$558,532
Financial Aid-Pell Grants, etc.	\$20,420,068	\$19,013,394	\$21,527,791	\$22,402,675	\$24,374,592
International Programs	\$0	\$0	\$0	\$0	\$0
School of the Future	\$21,811	\$57,600	\$0	\$0	\$0
Provost	\$0	\$447,000	\$76,826	\$24,699	\$0
Univ. Research & Training	\$29,911,433	\$34,273,736	\$35,337,214	\$44,267,770	\$44,506,542
USURF/SDL	\$54,139,885	\$70,322,046	\$86,951,616	\$43,566,429	\$49,353,930
Remote Sensing	\$482,214	\$1,276,434	\$1,007,343	\$0	\$0
Utah Water Research Lab.	\$3,558,085	\$4,208,229	\$2,353,174	\$2,191,270	\$1,649,352
<b>Total USU</b>	<b><u>\$143,143,889</u></b>	<b><u>\$157,436,822</u></b>	<b><u>\$184,010,454</u></b>	<b><u>\$144,618,417</u></b>	<b><u>\$147,426,427</u></b>

APPENDIX E  
**Institutional Review Board (IRB)**  
**New Research Projects Approved by Category and Total**  
**2002-2006**  
**(Continuing Review for 2006 only)**



\*Increase in Exempt research is due to increased awareness of IRB in addition to research methods classes.

APPENDIX F



## APPENDIX G

### UNIVERSITY RESEARCH COUNCIL Membership (2005-2006)

		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
Don Fiesinger	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
Gary Merkley	Faculty Senate	1139	4105
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
 <u>Students</u>			
Michelle Lundberg	Academic Senate Vice President	1726	0105
Maure Smith	Graduate Studies Vice President	1736	0105
Brittany Webb	Science Senator	7441	0105

# APPENDIX H

2-Nov-06

**Utah State University**  
**Analysis of Facilities and Administrative Costs Recovered and Allocated**  
**July 1, 2005 through June 30, 2006**

<b>College or Other Unit</b>	<b>Recovered</b>	<b>Budget Allocations From 30% Return</b>	<b>Budget Allocations From 70% Centrally Held</b>	<b>Total Budget Allocations</b>	<b>Allocation as a % of Generated</b>
<b>College of Agriculture</b>					
Dean's Office - Agriculture			\$ 68,915.00	\$ 68,915.00	N/A
Agriculture - Economics	\$ 71,670.80	\$ 21,501.24	40,968.00	62,469.24	87.16%
Agricultural Experiment Station	13,742.70	4,122.81	25,000.00	29,122.81	211.91%
Animal, Dairy and Veterinary Sciences	1,190,033.80	357,010.14	67,500.00	424,510.14	35.67%
Center of Epidemiologic Studies	494,187.31	148,256.19		148,256.19	30.00%
Center for Integrated Biosystems			22,000.00	22,000.00	N/A
Nutrition and Food Science	59,555.74	17,866.72	143,194.00	161,060.72	270.44%
Plants, Soils and Biometeorology	81,988.52	24,596.56	211,771.00	236,367.56	288.29%
Total College of Agriculture	<u>1,911,178.87</u>	<u>573,353.66</u>	<u>579,348.00</u>	<u>1,152,701.66</u>	<u>60.31%</u>
<b>College of Business</b>					
Dean's Office - Business			43,218.00	43,218.00	N/A
Accounting			12,471.00	12,471.00	N/A
Business Administration	60,091.39	18,027.42	12,033.00	30,060.42	50.02%
Business Information Systems			65,229.00	65,229.00	N/A
Economics	(200.68)	(60.20)		(60.20)	30.00%
Management and Human Resources	127,816.24	38,344.87	23,784.00	62,128.87	48.61%
Total College of Business	<u>187,706.95</u>	<u>56,312.09</u>	<u>156,735.00</u>	<u>213,047.09</u>	<u>113.50%</u>
<b>College of Education</b>					
Dean's Office - Education			100,015.00	100,015.00	N/A
Center for Persons with Disabilities	1,203,721.51	361,116.45	81,140.00	442,256.45	36.74%
Communicative Disorders	60,078.49	18,023.55	69,100.00	87,123.55	145.02%
Elementary Education	47,273.77	14,182.13	39,394.00	53,576.13	113.33%
Family Consumer and Human Development	138,276.98	41,483.09	33,736.00	75,219.09	54.40%
Health, Physical Education and Recreation Department			11,294.00	11,294.00	N/A
Instructional Technology	244,083.26	73,224.98	34,741.00	107,965.98	44.23%
Psychology	657,655.82	197,296.75	112,670.00	309,966.75	47.13%
School of the Future	28.00	8.40		8.40	30.00%
Secondary Education	43,023.09	12,906.93	19,953.00	32,859.93	76.38%
Special Education and Rehabilitation			15,082.00	15,082.00	N/A
Total College of Education	<u>2,394,140.92</u>	<u>718,242.28</u>	<u>517,125.00</u>	<u>1,235,367.28</u>	<u>51.60%</u>
<b>College of Engineering</b>					
Dean's Office - Engineering	189,207.03	56,762.11	51,671.00	108,433.11	57.31%
Biological and Irrigation Engineering	58,869.87	17,660.96	34,736.00	52,396.96	89.00%
Civil and Environmental Engineering	224,401.43	67,320.43	72,420.00	139,740.43	62.27%
Electrical and Computer Engineering	172,436.22	51,730.87	158,368.00	210,098.87	121.84%
Engineering and Technology Education	23,278.83	6,983.65	24,725.00	31,708.65	136.21%
Mechanical and Aerospace Engineering	240,811.52	72,243.46	42,500.00	114,743.46	47.65%
Utah Water Research Laboratory	509,767.07	152,930.12		152,930.12	30.00%
Total College of Engineering	<u>1,418,771.97</u>	<u>425,631.60</u>	<u>384,420.00</u>	<u>810,051.60</u>	<u>57.10%</u>
<b>College of Humanities, Arts and Social Sciences</b>					
Dean's Office - Humanities, Arts and Social Sciences	2,523.50	757.05	120,901.00	121,658.05	4821.00%
Art			9,156.00	9,156.00	N/A
English			26,684.00	26,684.00	N/A
History			16,842.00	16,842.00	N/A
Intensive English			2,500.00	2,500.00	N/A
Landscape Architecture and Environmental Planning	811.12	243.34	38,095.00	38,338.34	4726.59%
Languages and Philosophy			10,120.00	10,120.00	N/A
Music			4,500.00	4,500.00	N/A
Political Science	4,219.95	1,265.99	70,000.00	71,265.99	1688.79%
Sociology, Social Work and Anthropology	29,998.09	8,999.43	27,555.00	36,554.43	121.86%
Total College of Humanities, Arts and Social Sciences	<u>37,552.66</u>	<u>11,265.81</u>	<u>326,353.00</u>	<u>337,618.81</u>	<u>899.05%</u>

**Utah State University**  
**Analysis of Facilities and Administrative Costs Generated and Allocated**  
**July 1, 2005 through June 30, 2006**

College of Natural Resources					
Dean's Office - Natural Resources			\$ 37,518.00	\$ 37,518.00	N/A
Aquatic, Watershed and Earth Resources	\$360,852.26	\$ 108,255.68	300,493.00	408,748.68	113.27%
Ecology Center	27,891.55	8,367.47		8,367.47	30.00%
Environment and Society	88,722.89	26,616.87	53,482.00	80,098.87	90.28%
Forest, Range and Wildlife Sciences	784,989.96	235,496.99	97,381.00	332,877.99	42.41%
Total College of Natural Resources	<u>1,262,456.66</u>	<u>378,737.01</u>	<u>488,874.00</u>	<u>867,611.01</u>	<u>68.72%</u>
College of Science					
Dean's Office - Science			63,508.00	63,508.00	N/A
Biology	408,622.94	122,586.88	103,711.00	226,297.88	55.38%
Center for Atmospheric and Space Sciences	522,732.81	156,819.84		156,819.84	30.00%
Chemistry and Biochemistry	324,397.91	97,319.37	77,888.00	175,207.37	54.01%
Computer Science	139,508.69	41,852.61	66,540.00	108,392.61	77.70%
Geology	115,254.50	34,576.35	21,515.00	56,091.35	48.67%
Mathematics and Statistics	107,816.18	32,344.85	11,960.00	44,304.85	41.09%
Physics	159,799.66	47,939.90	49,809.00	97,748.90	61.17%
Total College of Science	<u>1,778,132.69</u>	<u>533,439.80</u>	<u>394,931.00</u>	<u>928,370.80</u>	<u>52.21%</u>
Vice President - University Extension					
Cooperative Extension	19,209.02	5,762.71	69,873.00	75,635.71	393.75%
Continuing Education	18,028.32	5,408.50		5,408.50	30.00%
Extension Agriculture and Natural Resources	2,048.76	614.63		614.63	30.00%
Extension Family Life	62.89	18.87		18.87	30.00%
Extension Field Staff	30,736.75	9,221.02		9,221.02	30.00%
Extension Youth Programs	4,559.09	1,367.73		1,367.73	30.00%
Extension Community Development	122.34	36.70		36.70	30.00%
Uintah Basin Center	(63.27)	(18.98)		(18.98)	30.00%
Total Vice President - University Extension	<u>74,703.90</u>	<u>22,411.18</u>	<u>69,873.00</u>	<u>92,284.18</u>	<u>123.53%</u>
International Programs					
	-	-	40,000.00	40,000.00	N/A
Vice President - Student Administration and Services					
Student Involvement and Leadership Center	29,124.15	8,737.25		8,737.25	30.00%
Student Service Administration	22,507.61	6,752.28		6,752.28	30.00%
Student Wellness Center	14,863.51	4,459.05		4,459.05	30.00%
Undergraduate Scholarships and Recruitment			100,000.00	100,000.00	N/A
Total Vice President - Student Administration and Services	<u>37,371.12</u>	<u>11,211.33</u>	<u>100,000.00</u>	<u>111,211.33</u>	<u>297.59%</u>
Vice President - Information Technology					
FACT Center	4,435.21	1,330.56		1,330.56	30.00%
Information Technology	915.26	274.58		274.58	30.00%
Technical Support	5,733.07	1,719.92		1,719.92	30.00%
Total Vice President - University Extension	<u>11,083.54</u>	<u>3,325.06</u>	<u>-</u>	<u>3,325.06</u>	<u>30.00%</u>
Utah State University Research Foundation					
Space Dynamics Laboratory	12,145,867.00	12,145,867.00	116,271.00	12,262,138.00	100.96%
Total Utah State University Research Foundation	<u>12,145,867.00</u>	<u>12,145,867.00</u>	<u>116,271.00</u>	<u>12,262,138.00</u>	<u>100.96%</u>
School of Graduate Studies					
Total School of Graduate Studies	<u>4,177.76</u>	<u>1,253.33</u>	<u>272,000.00</u>	<u>273,253.33</u>	<u>6540.67%</u>
	<u>4,177.76</u>	<u>1,253.33</u>	<u>272,000.00</u>	<u>273,253.33</u>	<u>6540.67%</u>
<b>Total Colleges and Non-Academic Units</b>	<b><u>21,263,144.04</u></b>	<b><u>14,881,050.15</u></b>	<b><u>3,445,930.00</u></b>	<b><u>18,326,980.15</u></b>	<b><u>86.19%</u></b>

**Support of Infrastructure**

Vice President - Research					
Center for High Performance Computing	\$ 19,976.10	\$ 5,992.83		\$ 5,992.83	30.00%
Disallowance Account			\$ 50,000.00	\$ 50,000.00	N/A
FBA Prof SVCS			55,000.00	55,000.00	N/A
Internet II			15,000.00	15,000.00	N/A
LARX Renovation			250,000.00	250,000.00	N/A
Office of Technology Management and Commercialization			685,809.00	685,809.00	N/A
Pending Contract Match			155,621.00	155,621.00	N/A
Undergraduate Research			25,000.00	25,000.00	N/A
Washington Based Support			191,400.00	191,400.00	N/A
Total Vice President - Research	<u>19,976.10</u>	<u>5,992.83</u>	<u>1,427,830.00</u>	<u>1,433,822.83</u>	<u>7177.69%</u>
Vice President - Business and Finance					
Accounting and Financial Reporting			155,470.00	155,470.00	N/A
Controller's Office			58,948.00	58,948.00	N/A
Facilities and Administrative Cost Study			247,000.00	247,000.00	N/A
Federal Single Audit			27,920.00	27,920.00	N/A
Human Resources	(233.48)	(70.04)		(70.04)	30.00%
Internal Audits				-	N/A
Purchasing			23,368.00	23,368.00	N/A
Total Vice President - Business and Finance	<u>(233.48)</u>	<u>(70.04)</u>	<u>512,706.00</u>	<u>512,635.96</u>	<u>-219563.11%</u>
<b>Total Support of Infrastructure (% is computed on total Facilities and Administrative costs generated from all units)</b>					
	<u><b>19,742.62</b></u>	<u><b>5,922.79</b></u>	<u><b>1,940,536.00</b></u>	<u><b>1,946,458.79</b></u>	<u><b>9859.17%</b></u>
Provost's Office					
Total Provost's Office	-	-	280,700.00	280,700.00	N/A
Vice President - Research					
Biotechnology Bond			792,474.00	792,474.00	N/A
Total Vice President - Research			792,474.00	792,474.00	N/A
<b>Total</b>	<u><u><b>\$ 21,282,886.66</b></u></u>	<u><u><b>\$ 14,886,972.94</b></u></u>	<u><u><b>\$ 6,459,640.00</b></u></u>	<u><u><b>\$ 21,346,612.94</b></u></u>	<u><u><b>100.30%</b></u></u>