

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

## **ANNUAL REPORT**

**JULY 1, 2003 TO JUNE 30, 2004**

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### **INTRODUCTION**

The goal of the Vice President for Research Office (VPR) is to continue building quality research by creating an environment in which faculty and student researchers can achieve their full potential. Quality research is fostered partly through improving campus research infrastructure to serve researchers, but more importantly through building multidisciplinary research programs and partnerships, both on and off campus, thereby enhancing the university's capacity for excellence in research.

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 author/inventors, the university, and society.

Core campus constituencies of the VPR are faculty, students, and unit administrators. Because deans, center directors, and department heads are most concerned with their respective units, the VPR must take a broader, campus wide perspective.

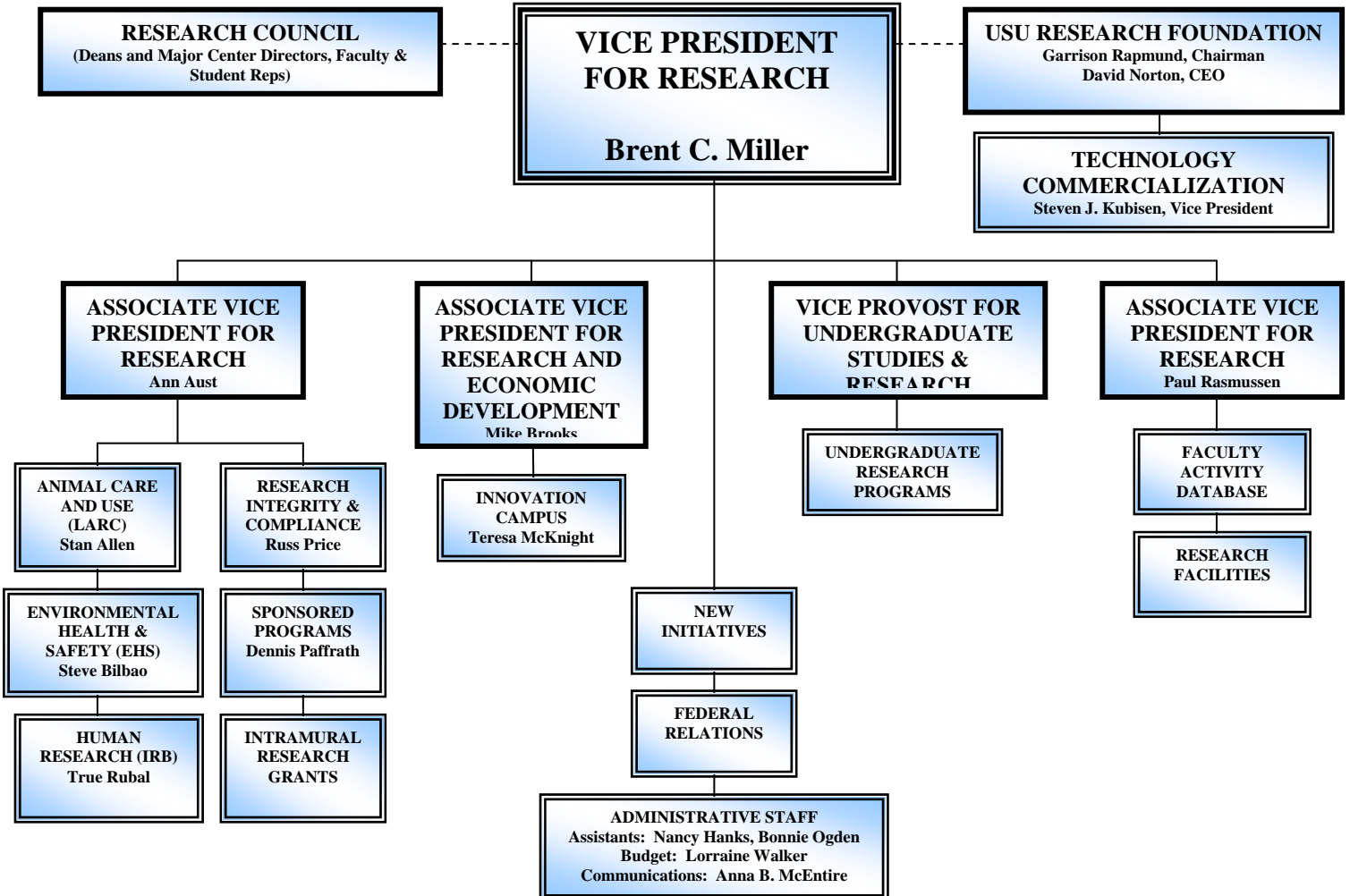
To advance university research, the VPR must be engaged with external constituencies, including local and state elected officials, as well as federal and industry funding partners. The VPR also needs to be actively engaged in professional networks and with societies that have as their mission the advancement of research. The VPR chairs the University Research Council, that consists of deans and major center directors, and which includes student and faculty representatives.

## ANNUAL REPORT

This annual report to the Faculty Senate covers the major activities of the VPR and the Research Council from July 1, 2002 through June 30, 2003. It is a summary of all units for which the VPR has responsibility. This report is organized in four parts:

1. Overview of VPR 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) Office of Technology Commercialization
2. Research Council Membership and Functions
3. Use of Facilities and Administration (F&A) Funds at USU, FY2002-2003
4. Current and Future 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 following diagram. The USU Research Foundation 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 office of Technology Commercialization 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 SPO at Utah State University supports researchers as they propose, submit and administer externally sponsored research projects on and off campus. The role of this office puts SPO in contact with virtually every college, department, research center, and administrative unit at USU. The goals of efficiency, accountability and responsiveness are central to the administration of sponsored research. SPO personnel assist researchers with access to various agencies, necessary forms and detailed information to initiate proposals and coordinate the award of a contract or grant with the Principal Investigator (PI) and USU Controller's Office. SPO provides both paper forms in their Old Main office and electronic forms on the USU SPO Web pages. The interdependent nature of contracting demands accountability between PI, College Dean, Department Head, Research Center Director, Controller's Office and VPR. SPO personnel review the proposal and award content to safeguard researchers and university units in their contractual obligations. The office supports walk-in access and the Web site provides forms, agreement templates, sample wording, links to funding sources and sponsor forms, and contact information. Promptness is essential. The office interacts directly with sponsors to facilitate and negotiate on behalf of researchers and USU.

SPO representatives present training to individual researchers and departments. SPO also fosters research at the university by assisting researchers with the successful completion of forms, interpretation of contract and proposal terms and conditions, tracking pending proposals, notification of receipt of award, obtaining financial accounts and attending to the contractual details of agreements with sponsors. They also attend contractual meetings and negotiations with PIs. Coordination with accounting personnel in the Controller's office is essential. SPO research administration flows through the Vice President for Research with whom they plan, report, and respond to research administration needs and requirements.

This past year staffing in SPO increased its staff by adding one sponsored programs administrator. During the past year, the SPO has reorganized its office to designate one individual to one college. The reorganization of staff allows faculty and staff to recognize their assigned SPO staff member and familiarity of research is increased. The SPO is still working towards a team approach to contract administration in coordination with the Controllers Office. This team effort will aid P.I.'s in the administration and accounting of awards. Each team includes a sponsored programs administrator and a sponsored programs accountant. This cooperative effort enhances the coordination of pre and post award function at USU.

SPO upgraded its web site to enhance proposal development. The office is developing written sponsored programs policies and procedures to post on its website that will clarify USU processes and assist faculty and staff in the submission of proposals. SPO is also upgrading its web site to include more user friendly services for faculty and staff.

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 FY1999 through FY2003. Appendix B compares awards by month and type of award for FY2002 and FY2003. Appendix C provides a summary of Sponsored Program Awards by Awarding Agency FY1999 through FY2003 and Appendix D provides a summary of Sponsored Program Awards by Research Center FY1999 through FY2003. State appropriations and students scholarships have been removed from all reports of awards.

## **2) Environmental Health and Safety Office (EH&S)**

The EH&S Office is a service organization that 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 the university 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 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, require written programs, documented training, permits, and numerous reports of differing types that the EH&S Office completes for the university.

Responsibilities of the EHS program cross many traditional aspects of the campus community. Major accomplishments for FY2003 included:

- Transported, managed and disposed of approximately 96,902 lbs. of hazardous waste and approximately 3,810 lbs. of radiation waste. Recycled 37,512 lbs. of hazardous materials.
- Provided safety training to approximately 878 faculty, staff and students in 26 courses.
- Implemented the radioactive liquid waste volume reduction plan, resulting in cost savings by reducing the amount of waste (880 lbs) shipped off-site for disposal.
- Continuing implementation of GIS Emergency Information Program in cooperation with Logan City Fire Department.

### **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 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 research activities. Regulations require that an IRB have at least one scientist, one nonscientist, and one member not affiliated with the institution; terms are three years and can be renewed.

USU board members are: Gretchen Gimpel – Department of Psychology; Thorana Nelson – Department of Family, Consumer, and Human Development; Richard Albiston – Prisoner Advocate; Layne Coppock – Department of Environment and Society; Julie Gast, Department of Health, Physical Education and Recreation; Reed Geertsen – Department of Sociology, Social Work and Anthropology; James Hayton – Department of Management and Human Resources; Thomas Higbee – Department of Special Education and Rehabilitation; Stuart Howell – Community Representative; Mark Huffman – Internal Medicine; Ron Munger – Department of Nutrition and Food Sciences; Noreen Schvaneveldt – Department of Nutrition and Food Science, and True Rubal – 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 VP for Research web page at [www.usu.edu/vpr/policies/irb](http://www.usu.edu/vpr/policies/irb).

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 1998-2004.

#### **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 registered animal research center.

The permanent salaried LARC staff consists of the following: A part-time director (S. Allen, USU faculty member) who is a Utah licensed and USDA accredited veterinarian and is an affiliate of the American Association of Laboratory Animal Practitioners; 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 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) secretary (Coombs) have shared assignment with the Institutional Animal Care and Use Committee (IACUC).

Major accomplishments for FY-2004 (7-1-03 through 6-30-04):

- Completion of a 1150 square foot addition to the LARC which includes four BSL-2 animal rooms, a BSL-2 Lab and a large storage area. Increase in overall workload of the LARC as indicated by a 36% increase in per diem income. This increase included service to several new researchers from the ADVS and Psychology Departments. Completion of a remodel to accommodate the Animal Behavior Teaching Lab in the Art Barn. Reaccreditation of the LARC by AAALAC International for another three years.

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

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

The Utah State University 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.

The IC recently reached a threshold where future growth and development was limited by lack of land to expand. With a vision of dynamic future growth, it became apparent that additional land was needed. In partnership with the College of Agriculture, and the Ag Experiment Station, the IC purchased 512 acres in Cache Junction, which was exchanged for some of the agriculturally

used property between 600 East to 1200 East and 1400 North to 1650 North. Certain parcels were not included in the Ag/IC land exchange because of historical data and continued research. As a result of this partnership, an additional 120 acres were acquired for the future growth and development of the IC.

To successfully develop the IC and fulfill the vision for future development over the next 30 to 40 years, Sasaki and Associates, an urban planning and design firm based in Boston, has been working with the IC Administration to develop a master plan. The master plan will be used to guide future development of the campus. One of the objectives in developing the master plan is to give attention to ways of conserving energy, resources, and implementing state-of-the-art measures for landscaping and architectural design.

The IC worked in partnership with the USU Research Foundation and the USU Administration in issuing a bond for the construction of three buildings; SDL Calibration and Optical Research Lab, the USU Research Foundation Administration building and the USU Research Foundation Biomolecular Facility, totaling approximately 100,000 square feet of office and lab space.

The IC has been actively involved in attracting new companies. For example, the IC partnered with the State of Utah to locate one of nine smart sites. Information Connections/Information Alliance, a marketing research firm that employs approximately 275 employees. This model has provided a network for the State of Utah Smart Sites program.

Programs to improve tenant relationships have been implemented (i.e. improved data and telephone services, participation in a corporate wellness program and acknowledgement as a campus business partner with I.D. cards for various discounts and participation in programs at Utah State University). A daily shuttle service between the USU main campus and the USU IC has been added. The establishment of an energy efficiency partnership program with Utah Power and Light was implemented. The IC has been working on a marketing strategy and promotional materials, which has resulted in the development of a new logo, website, and a promotional DVD.

Innovation Campus was named as a recipient of the EDA Excellence in Economic Development Award 2004. The award is offered in seven categories, and Innovation Campus has been selected for the Rural Economic Development Award, which is given based on how effectively the nominees utilize innovative, market-based strategies to improve rural economic development results.

## **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 partners.

In addition to their traditional role of patenting and licensing USU/USU Research Foundation technologies, TCO strives to extract the fair market value of intellectual property by using the best business practices for the benefit of the inventor, the University, the Research Foundation

and the community. By effectively commercializing technology, we provide additional revenue to the University, its departments, faculty, and staff. We create potential for local job creation through forming new businesses. Each member of our staff combines business experience with a strong science and technology understanding. We are TCO – serving the interest of technologists, companies, and the organization.

- Increased License revenue to \$500,000
- Executed seven licenses
- Invention Disclosures to 45
- Filed 17 patents – Nine of which were new technology
- Received three patent
  - Whey Protein Crisp
  - 3D Texel Camera
  - Apomictic Seed Production

## **2. RESEARCH COUNCIL MEMBERSHIP AND FUNCTIONS**

The Research Council provides advice and recommendation 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 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 FY2003-2004 included:

- |                |   |
|----------------|---|
| September 2003 | Facilities and Administration (F&A) definitions regarding "on-campus" and "off-campus" were discussed. If a project uses staff on-campus to support a project, then the on-campus rate applies because there are actual costs associated with doing the project. Banner implementation was discussed. USU Research Policy was reviewed with the intent of creating a more complete research policy. Centers Subcommittee provided a summary of proposed official research centers. The VPR will sponsor a NSF Grant writing workshop. |
| October 2003   | Approved summary of university recognized research centers. The Instructional Technology Systems (ITS) Compact Plan was discussed. Purpose and allocation of New Faculty Research Grant (NFRG) and CURI funds was discussed. Council agreed that CURI funds were to assist faculty in developing externally funded research projects.   |



- November 2003 Deans recommended stories for inclusion in *Research Matters*, the marketing brochure for USU research. The Faculty Activity Database was discussed. Additional discussion regarding NFRG and CURI funding distribution methods were held. Governor's Medal for Science and Technology award discussed and deadline announced.
- January 2004 Discussed potential for USU faculty to rent space in USURF's Bio Molecular Building located on Innovation Campus. Allocation of CURI funds was reviewed. A proposal to include patents, inventions and intellectual property activity as part of faculty promotion and tenure was discussed.
- February 2004 Summary of USU faculty who are national fellows in their respective professional societies was reviewed. The Research Council, in cooperation with the Provost, will strengthen USU's national presence. USU's Sigma XI chapter was reactivated. Revised Research Policy will be presented to the Executive Committee. Congressional funding requests will be reviewed and ranked by the Deans before submittal to Lee & Smith. Utah Legislature's Higher Ed. Appropriations Proposal included suggestion that \$4.5 million of USU's F&A fund fuel and power debt. USU's *Form S-5* F&A report to the state is confusing to the legislative fiscal analyst because it reports actual expenditures rather than budgeted allocations so it appears that USU retains a large amount of unallocated F&A funds. This is not the case.
- March 2004 Discussed USU Libraries and online access of frequently used journals. VPR marketing plan included brochures *Research Matters* (published in April), *Research Profile* (November), *Research News* (sent electronically to faculty bi-monthly), as well as VPR website and bulletin board in Old Main.
- June 2004 Sponsored Program management after Banner implementation was discussed. Discussion regarding potential of sharing major research equipment was discussed. A summary of equipment with value greater than \$50,000 will be completed. VPR and SPO will conduct departmental visits. Discussed search for new Associate V.P. for Research and Director of Innovation Campus.

During the past year, 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 research clusters and initiatives.
2. Develop Office of Technology Commercialization into a strong service unit for inventors and a revenue generating enterprise for USU.
3. Shift Research Park toward Innovation Campus emphasizing partnerships.
4. Increase indirect cost recovery.
5. Create credible reports of research related activities

### **3. USE OF FACILITIES AND ADMINISTRATION FUNDS AT USU, FY2002-2003**

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 Controllers Office that summarizes the amount of F&A generated in FY2002-03 by department; 30% returned to the cost center; and allocations of 70% held centrally in the VPR.

The graph in Appendix I compares F&A revenues generated by, and allocations from all VPR sources to USU colleges.

### **4. CURRENT AND FUTURE RESEARCH ISSUES AT USU**

Listed below are selected 2002-2003 initiatives undertaken in the Vice President for Research Office.

1) Improve Reporting of USU Research Activity at USU. The VPR, in cooperation with the Controllers Office, have developed reports that reflect total research expenditures at USU utilizing NSF definitions. This will 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. The pie chart in Appendix K summarizes total research expenditures for scientific and engineering research expenditures and nonscientific and engineering research expenditures for FY2003. FY2002 was the first year that nonscientific and engineering research expenditures data were reported separately.

2) Strengthen the Bio molecular Systems Research Cluster. Additional one time (\$120,000) and ongoing funding (\$300,000) was obtained through the compact planning process of campus wide Selective Investment. These funds are being administered through the Center for Integrated Bio Systems in the Biotechnology facility.

3) Increase Research Activities for Undergraduate Students. The VPR provides support for undergraduate research grants through Undergraduate Research and Creative Opportunities (URCO) with a similar program under development for minority students. The VPR supports Posters on the Hill for undergraduate students to present research at the State Capital (26

students) and Washington, D.C. (11 students). The VPR also provided support for undergraduate students (20) to participate at the National Conference for Undergraduate Research.

4) Build the Sponsored Programs Office (SPO) to Upgrade Services. Positive changes in the SPO were described in Section I of this report, including the addition of new contract administrators funded through a compact planning initiative.

5) Distribution and Use of Facilities and Administration (F&A) Funds. A subcommittee of the Research Council, chaired by Scott Hinton, completed its study of F&A recovery and distribution and made the following recommendations to the Research Council:

- Limit F&A waivers
- Develop metric to calculate maximum F&A that USU can receive
- Reaffirm percent of F&A returned to colleges/centers (30%)
- Reaffirm current 50/50 cost share for new faculty start-ups
- Limit university cost share to that required by funding agency
- Return F&A program support proportional to amount of F&A generated (except 20% allocated for creative activities)
- Shift cost of research facilities to direct costs where possible
- Provide monthly summary report of sponsored grants/contracts awards by department
- Develop a data set that maps F&A earnings to each principal investigator's home department and college to more accurately allocate program support
- Enhance USU policies and procedures for the establishment of centers and institutes

6) Improve Federal Relations Process. The VPR has strengthened USU's presence in Washington, D.C. by meeting frequently with elected officials and agency representatives in the Washington, D.C. area. Additionally, 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 our chances of obtaining congressionally directed funding and increasing their amounts.

7) Improve Marketing of USU Research. A marketing specialist has been added to better tell USU's research story. A VPR Dashboard was also developed to compare research performance indicators. (Appendix L) The VPR office is working to create an impact statement of USU research, showing that research is a good investment for its various constituents, including the university community, Cache Valley, and Utah. An annual report for the general public has been prepared documents the benefits of research, both economic and academic.

8) Selected Other Research Issues of Concern. Human Capital is a critical problem. Other states are bonded and attract and retain faculty using better incentives. Develop Financial Funding plans to build and fund facilities. Develop better infrastructure for Information Technology High Speed Computing capacity including grids and alternative paths into the valley. More money is needed to fund graduate students. When grants and soft monies end abruptly, students need a safety net to finish research. Security. Separate more research from teaching areas. 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>1999-00</b>	<b>2000-01</b>	<b>2001-02</b>	<b>2002-03</b>	<b>2003-04</b>
Agriculture	26,422,729	34,914,108	29,550,795	31,975,714	33,815,417
Business	1,089,813	592,957	1,548,946	460,787	1,773,316
Education	16,770,441	18,454,329	17,049,144	23,069,479	25,047,073
Engineering	57,649,644	62,138,968	46,574,786	58,024,532	70,912,859
Family Life	6,117,590	5,954,646	5,699,388	-----	-----
HASS	846,020	482,943	518,329	303,768	703,482
Natural Res.	7,411,299	10,340,870	11,045,630	8,297,174	8,024,624
Science	7,811,723	9,605,426	11,011,637	9,083,475	14,855,670
Other	20,298,524	26,352,552	4,580,296	6,135,901	8,107,176
Jointly Admin. Programs <sup>2</sup>	(3,614,917)	(4,010,391)	(4,274,292)	(880,088)	(882,436)
<b>TOTAL</b>	<b>140,802,866</b>	<b>\$125,226,928</b>	<b>\$123,304,657<sup>3</sup></b>	<b>\$136,470,739</b>	<b>\$162,357,181</b>

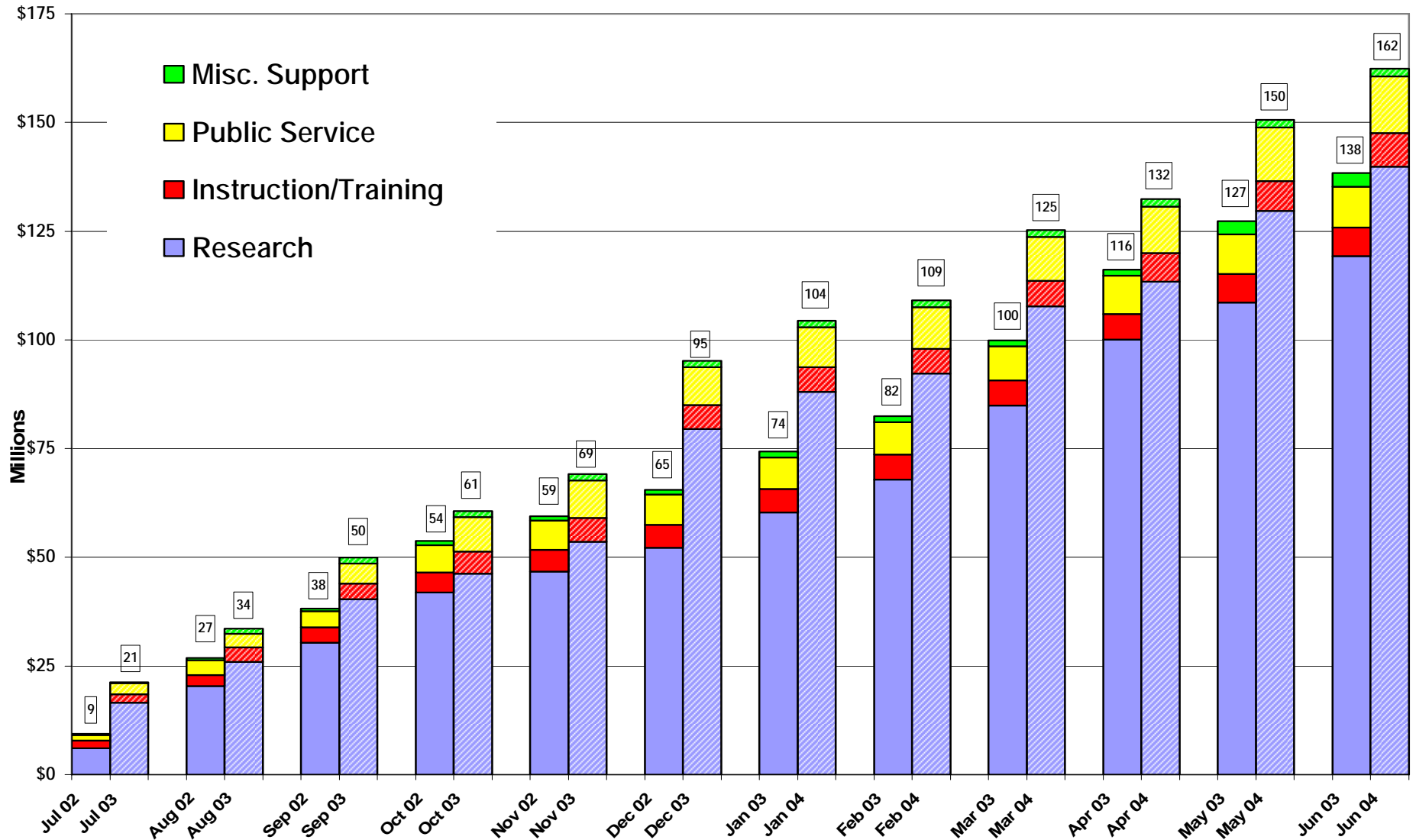
<sup>1</sup> College awards include centers most closely aligned with that college. (See Appendix D for Center totals.)

<sup>2</sup> Award totals for jointly administered programs are reflected in the totals 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.

<sup>3</sup> College of Family Life was disbanded in FY2002. College award figures reflect faculty award information shifted to different colleges.

<sup>4</sup> Figures adjusted to exclude scholarships, fellowships, and state appropriations for research.

## Utah State University Sponsored Program Awards FY 2003, FY 2004



APPENDIX C

**BY FEDERAL SPONSORING AGENCY (IN DOLLARS)**

	<b>FY99-00</b>	<b>FY00-01</b>	<b>FY01-02</b>	<b>FY02-03</b>	<b>FY03-04</b>
Department of Agriculture	6,620,467	8,681,220	13,230,864	8,921,597	11,501,852
Department of Defense	25,543,310	35,479,396	24,668,809	40,633,208	56,454,422
Department of Education	6,784,208	7,217,261	7,203,705	5,712,791	6,083,005
Department of Health and Human Services	7,959,660	8,410,599	12,160,887	11,086,906	13,327,011
Department of the Interior	2,051,827	3,046,466	2,313,308	3,248,809	2,949,134
Department of State	-	1,513,350	118,000	-	98,267
Environmental Protection Agency	150,000	1,620,279	182,465	1,060,190	294,821
National Aeronautics & Space Administration	5,622,590	8,621,203	17,182,036	22,249,464	24,749,979
National Science Foundation	3,505,830	3,472,475	5,505,032	4,513,242	4,510,344
State Agencies & Others <sup>1</sup>	<u>46,664,897</u>	<u>47,082,606</u>	<u>40,003,751</u>	<u>40,949,497</u>	<u>42,388,347</u>
<b>TOTAL<sup>2</sup></b>	<u><u>\$104,902,789</u></u>	<u><u>\$125,144,855</u></u>	<u><u>\$122,568,857<sup>2</sup></u></u>	<u><u>\$138,230,923</u></u>	<u><u>162,357,182</u></u>

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

<sup>2</sup>Figures adjusted to exclude scholarships, fellowships, and state appropriations for research.

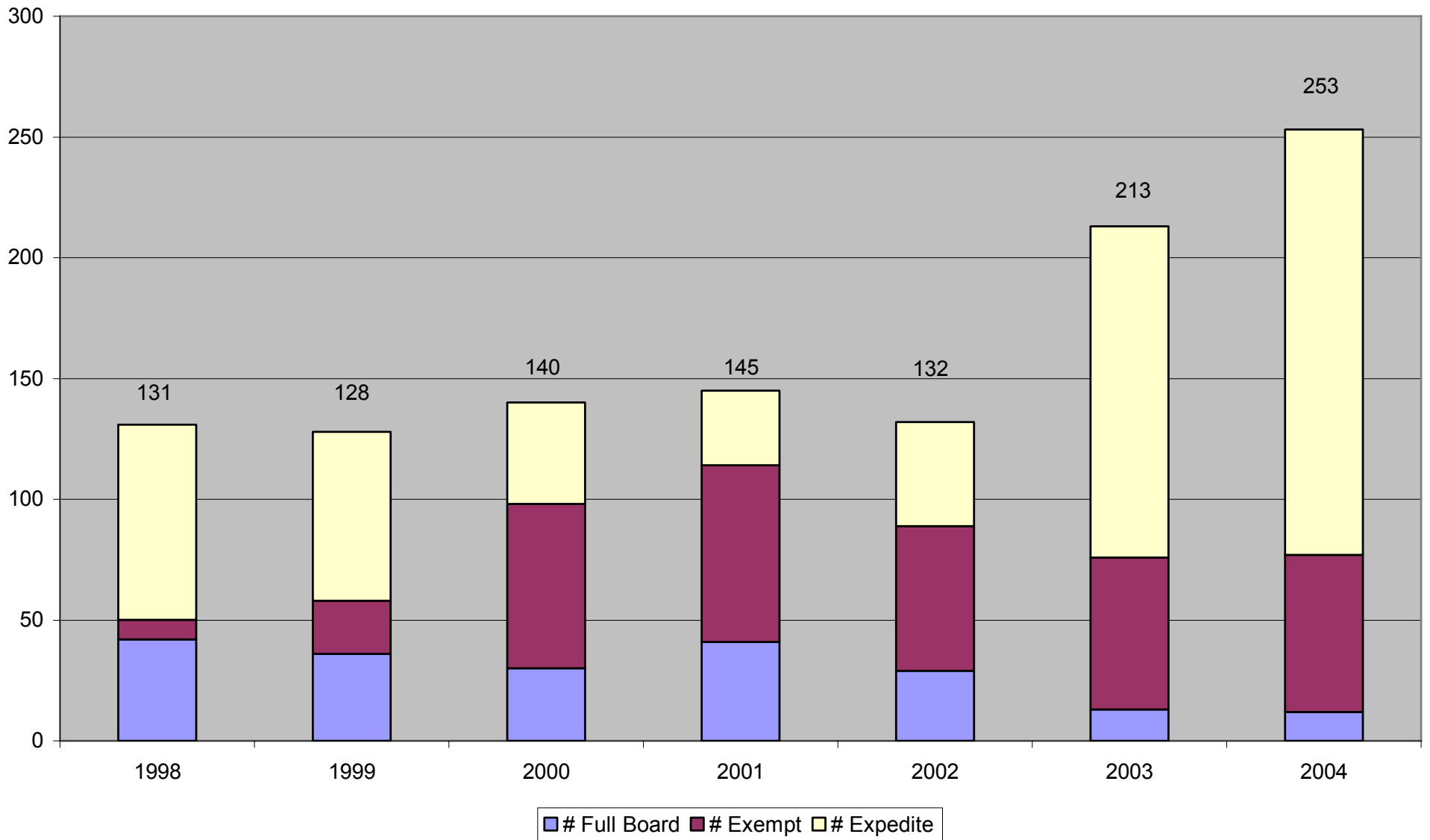
## APPENDIX D

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

<b>RESEARCH CENTER</b>	<b>FY 99-00</b>	<b>FY 00-01</b>	<b>FY 01-02</b>	<b>FY 02-03</b>	<b>FY 03-04</b>
Ag. Experiment Station	\$11,384,886	\$12,890,156	\$14,075,399	\$8,706,601	\$10,891,952
Biotech. Center	\$222,821	\$86,719	\$68,247	\$12,879	\$0
CASS	\$1,399,997	\$1,475,352	\$1,877,538	\$1,810,200	\$1,709,473
CPD	\$8,343,046	\$10,027,928	\$9,227,716	\$8,391,484	\$11,791,164
Center for Space Eng. (Beginning FY2002, USURF reassigned reporting centers)	\$235,466	\$115,644	\$330,631	\$127,500	\$689,420
Cooperative Extension	\$4,817,625	\$4,683,379	\$4,776,956	\$5,364,247	\$5,771,652
Ecology	\$1,872,362	\$2,997,761	\$2,850,886	\$2,994,710	\$2,609,198
Eng. Experiment Station	\$4,569,571	\$12,797,261	\$1,403,020	\$430,762	\$3,263,631
International Programs	\$364,475	\$0	\$0	\$0	\$0
School of the Future	\$0	\$0	\$21,811	\$57,600	\$0
Provost	\$0	\$0	\$0	\$447,000	\$76,826
Univ. Research & Training	\$24,765,302	\$26,657,551	\$29,756,469	\$34,081,231	\$35,211,732
USU Research Foundation	\$41,062,140	\$49,526,018	\$54,139,885	\$70,322,046	\$86,951,616
Remote Sensing	\$978,141	\$1,671,608	\$482,214	\$1,276,434	\$1,007,343
Utah Water Research Lab.	\$4,886,957	\$2,215,478	\$3,558,085	\$4,208,229	\$2,353,568
<b>Total USU</b>	<b>\$104,902,789</b>	<b>\$125,144,855</b>	<b>\$122,568,857</b>	<b>\$138,230,923</b>	<b>\$159,974,007</b>

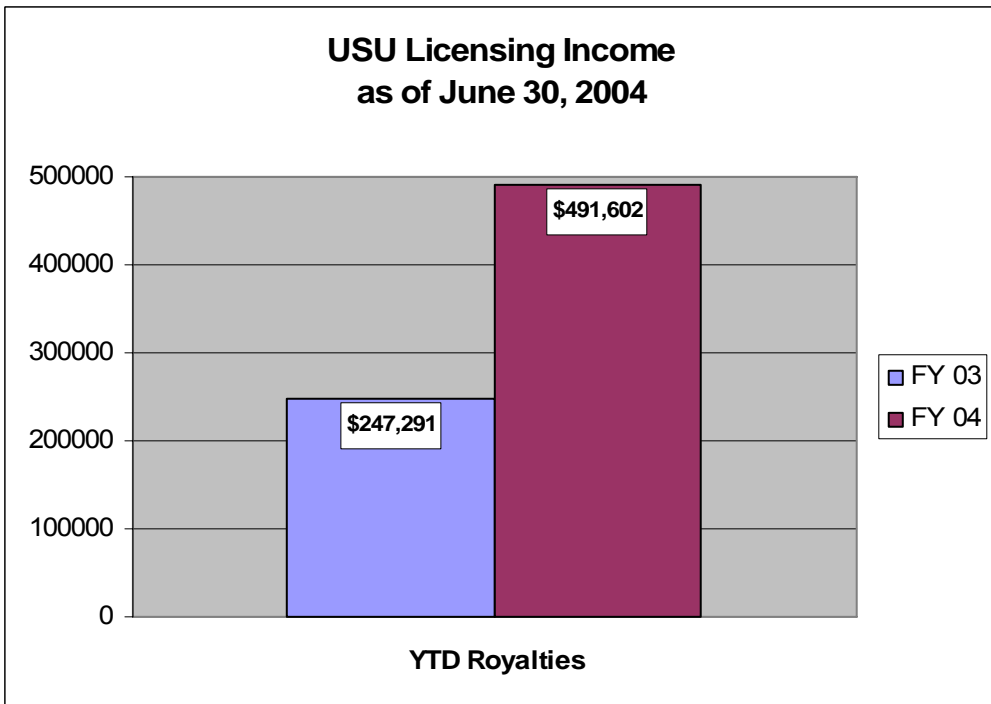
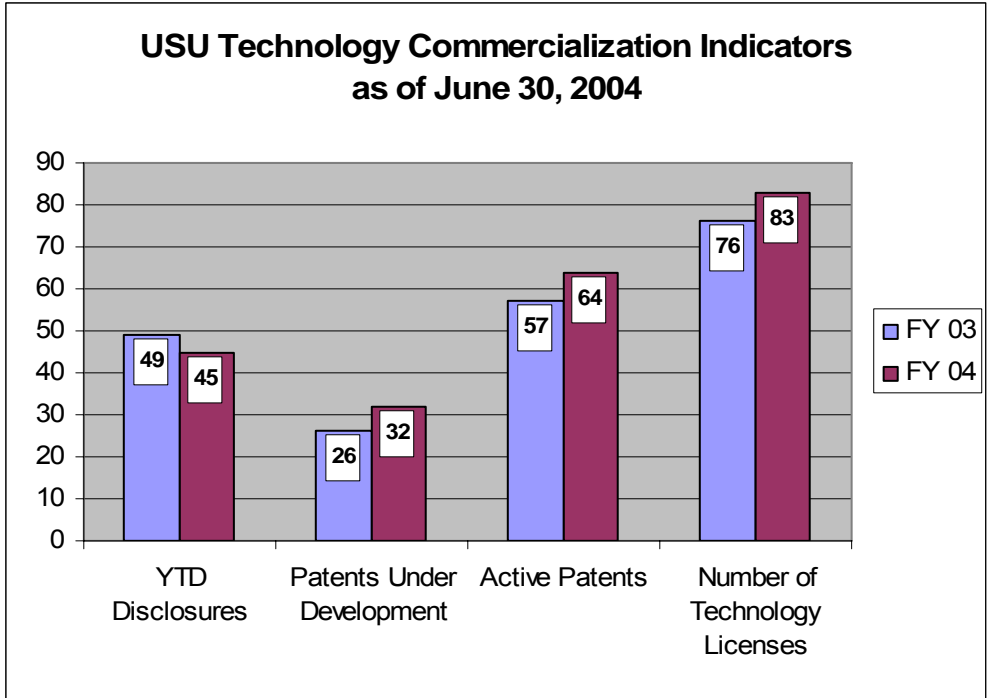
APPENDIX E

**Institutional Review Board (IRB)  
Research Projects Approved by Category and Total**





APPENDIX F



## APPENDIX G

### UNIVERSITY RESEARCH COUNCIL Membership (2004-2005)

Brent C. Miller	Vice President for Research, Chairman	1180	1450
Stan Albrecht	Executive Vice President and Provost	1167	1435
Ann Aust	Associate Vice President for Research	1199	1450
Caryn Beck-Dudley	College of Business	2376	3555
Frank E. Busby	College of Natural Resources	2445	5200
Martyn Caldwell	Ecology Center	2555	5205
Noelle Cockett	College of Agriculture	2215	4800
Don Fiesinger	College of Science	2478	4400
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	Vice Provost for Undergraduate Studies & Research	1706	1435
Larry Smith, Interim	School of Graduate Studies	1191	0900
Mac McKee	Utah Water Research Laboratory	3188	8200
David G. Norton	USU Research Foundation	4568	9710
H. Paul Rasmussen	Agricultural Experiment Station	2207	4810
Sarah Rule	Center for Persons with Disabilities	6800	1987
Carol Strong	College of Education	1469	2800
Bart Weimer	Biotechnology Center	3356	8700
Gary Merkley	Faculty Senate	1139	4105

#### Students

Heidi Evan	Academic Vice President	2912	0105
Darin Humphreys	Science Senator	2912	0105
A. J. Rounds	Graduate Studies Vice President	2912	0105

## APPENDIX H

**Utah State University**  
**Analysis of Facilities and Administrative Costs Generated and Allocated**  
**July 1, 2003 through June 30, 2004**

15-Oct-04

<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 Agriculture					
Dean's Office - Agriculture	\$516,259.97	\$154,877.99	\$40,096.00	\$194,973.99	37.77%
Agriculture - Economics	20,420.15	6,126.04	7,741.00	13,867.04	67.91%
Agricultural Experiment Station	121,050.72	36,315.22		36,315.22	30.00%
Agricultural Systems Technology and Education	328.31	98.49		98.49	30.00%
Animal, Dairy and Veterinary Sciences	705,913.50	211,774.05	111,822.00	323,596.05	45.84%
Biotechnology			25,000.00	25,000.00	N/A
Nutrition and Food Science	249,774.31	74,932.30	94,633.00	169,565.30	67.89%
Plants, Soils and Biometeorology	207,927.63	62,378.29	112,596.00	174,974.29	84.15%
Total College of Agriculture	<u>1,821,674.59</u>	<u>546,502.38</u>	<u>391,888.00</u>	<u>938,390.38</u>	<u>51.51%</u>
College of Business					
Dean's Office - Business			18,775.00	18,775.00	N/A
Accounting			3,000.00	3,000.00	N/A
Business Administration			19,780.00	19,780.00	N/A
Business Information Systems	10,502.56	3,150.77	41,788.60	44,939.37	427.89%
Economics	(1,098.23)	-329.47		(329.47)	30.00%
Management and Human Resources	92,479.43	27,743.83	84,731.00	112,474.83	121.62%
Total College of Business	<u>101,883.76</u>	<u>30,565.13</u>	<u>168,074.60</u>	<u>198,639.73</u>	<u>194.97%</u>
College of Education					
Dean's Office - Education	410.72	123.22	93,843.00	93,966.22	22878.41%
Center for Persons with Disabilities	1,448,463.01	434,538.91	57,807.00	492,345.91	33.99%
Communicative Disorders	292,132.67	87,639.80	76,529.00	164,168.80	56.20%
Elementary Education			13,500.00	13,500.00	N/A
Family Consumer and Human Development	327,070.79	98,121.23	137,591.00	235,712.23	72.07%
Instructional Technology	130,934.65	39,280.40	51,621.00	90,901.40	69.43%
Interior Design			6,222.00	6,222.00	N/A
Psychology	403,812.16	121,143.65	39,553.00	160,696.65	39.79%
Secondary Education	35.11	10.53	30,750.00	30,760.53	87611.88%
Special Education and Rehabilitation	40,896.11	12,268.83	13,500.00	25,768.83	63.01%
Total College of Education	<u>2,643,755.22</u>	<u>793,126.57</u>	<u>520,916.00</u>	<u>1,314,042.57</u>	<u>49.70%</u>
College of Engineering					
Dean's Office - Engineering	14,200.54	4,260.16	74,955.00	79,215.16	557.83%
Biological and Irrigation Engineering	217,154.49	65,146.34	296,562.00	361,708.34	166.57%
Civil and Environmental Engineering	119,442.61	35,832.79	385,875.00	421,707.79	353.06%
Electrical and Computer Engineering	129,749.13	38,924.74	130,100.00	169,024.74	130.27%
Engineering Experiment Station	127,886.92	38,366.08		38,366.08	30.00%
Mechanical and Aerospace Engineering	87,085.15	26,125.54	340,970.00	367,095.54	421.54%
Utah Water Research Laboratory	670,336.45	201,100.94		201,100.94	30.00%
Total College of Engineering	<u>1,365,855.29</u>	<u>409,756.59</u>	<u>1,228,462.00</u>	<u>1,638,218.59</u>	<u>119.94%</u>
College of Humanities, Arts and Social Sciences					
Art			27,311.00	27,311.00	N/A
Dean's Office - Humanities, Arts and Social Sciences	3,756.65	1,126.99	64,266.00	65,392.99	1740.73%
English	88.30	26.49	14,032.00	14,058.49	15921.28%
History			20,211.00	20,211.00	N/A
Landscape Architecture and Environmental Planning	3,565.19	1,069.56		1,069.56	30.00%
Languages and Philosophy			13,103.00	13,103.00	N/A
Political Science			70,000.00	70,000.00	N/A
Sociology, Social Work and Anthropology	24,508.07	7,352.42	60,234.00	67,586.42	275.77%
Total College of Humanities, Arts and Social Sciences	<u>31,918.21</u>	<u>9,575.46</u>	<u>269,157.00</u>	<u>278,732.46</u>	<u>873.27%</u>
College of Natural Resources					
Dean's Office - Natural Resources			\$38,659.00	\$38,659.00	N/A
Aquatic, Watershed and Earth Resources	\$387,445.22	\$116,233.57	46,276.00	162,509.57	41.94%
Ecology Center	1,236.13	370.84	20,000.00	20,370.84	1647.95%
Environment and Society	68,979.03	20,693.71	33,125.00	53,818.71	78.02%
Forest, Range and Wildlife Sciences	534,063.47	160,219.04	101,931.00	262,150.04	49.09%
Total College of Natural Resources	<u>991,723.85</u>	<u>297,517.16</u>	<u>239,991.00</u>	<u>537,508.16</u>	<u>54.20%</u>

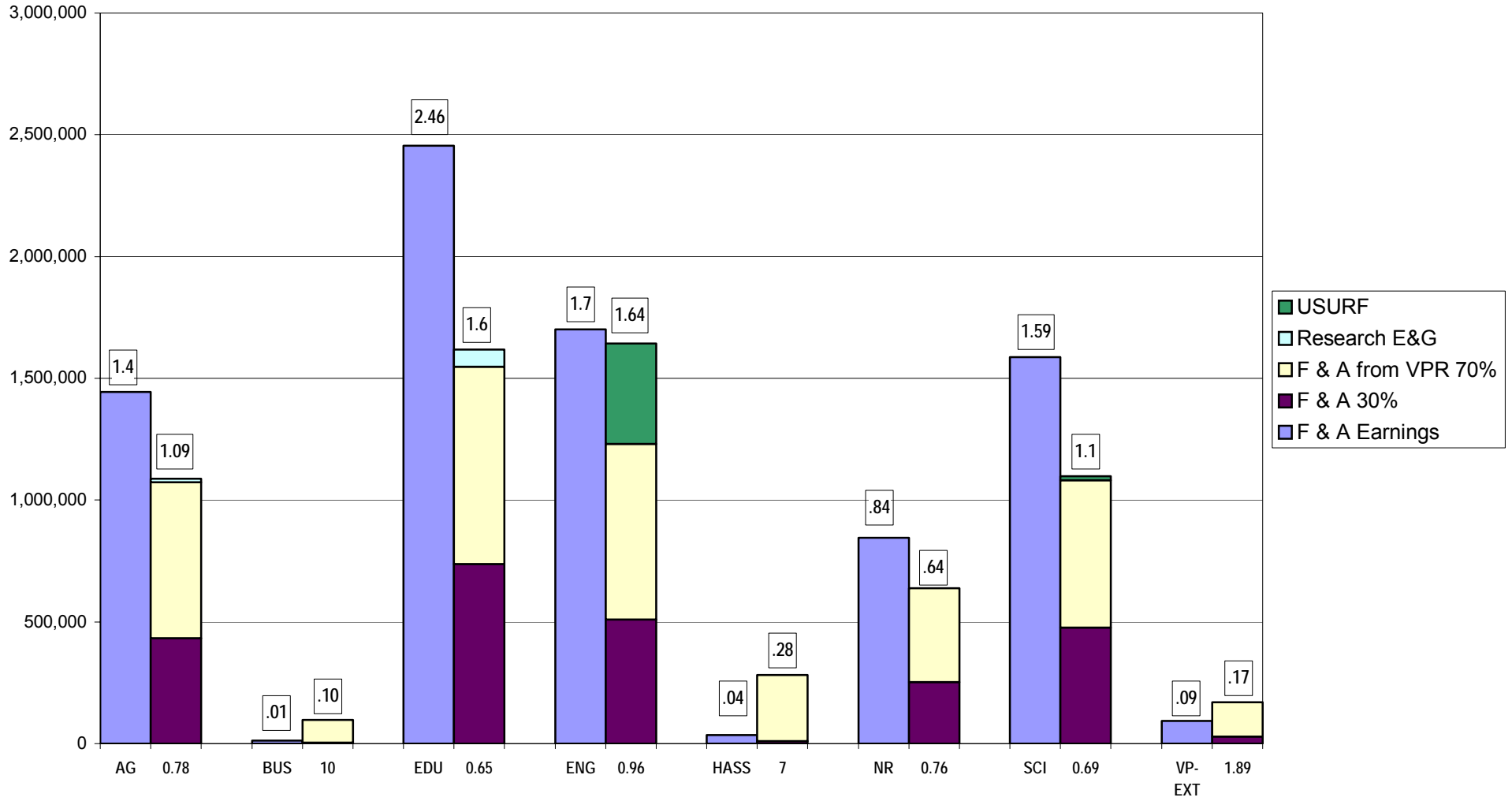
<u>College or Other Unit</u>	<u>Generated</u>	<u>Budget Allocations From 30% Return</u>	<u>Budget Allocations From 70% Centrally Held</u>	<u>Total Budget Allocations</u>	<u>Budget as a % of Generated</u>
College of Science					
Biology	404,502.61	121,350.78	243,204.00	364,554.78	90.12%
Center for Atmospheric and Space Sciences	387,388.61	116,216.58	2,403.00	118,619.58	30.62%
Chemistry and Biochemistry	516,983.31	155,094.99	88,547.00	243,641.99	47.13%
Computer Science	94,183.72	28,255.12	182,962.00	211,217.12	224.26%
Dean's Office - Science			70,687.00	70,687.00	N/A
Geology	27,749.48	8,324.84		8,324.84	30.00%
Mathematics and Statistics	59,710.96	17,913.29	21,877.00	39,790.29	66.64%
Physics	188,216.56	56,464.97	43,602.00	100,066.97	53.17%
Total College of Science	1,678,735.25	503,620.57	653,282.00	1,156,902.57	68.92%
Vice President - University Extension					
Cooperative Extension	12,053.44	3,616.03	62,400.00	66,016.03	547.69%
Extension Agriculture and Natural Resources	1,654.46	496.34		496.34	30.00%
Extension Family Life	1,737.75	521.32		521.32	30.00%
Extension Field Staff	60,047.59	18,014.28		18,014.28	30.00%
Extension Youth Programs	1,635.14	490.54		490.54	30.00%
Continuing Education	1,868.29	560.49		560.49	30.00%
Credit Programs	4,986.67	1,496.00		1,496.00	30.00%
Uintah Basin Center	5,365.30	1,609.59		1,609.59	30.00%
Total Vice President - University Extension	89,348.64	26,804.59	62,400.00	89,204.59	99.84%
Learning Resources Program					
Library Services			10,122.00	10,122.00	N/A
Total Learning Resources Program	0.00	0.00	10,122.00	10,122.00	N/A
International Programs	28,736.66	8,621.00	40,000.00	48,621.00	169.20%
Information Technology	569.70	170.91	0.00	170.91	30.00%
Vice President - Student Administration and Services					
Academic Support Services	17,747.15	5,324.15		5,324.15	30.00%
Student Service Administration	75.00	22.50		22.50	30.00%
Student Involvement & Leadership Center	2,155.06	646.52		646.52	30.00%
Student Activities	4,963.19	1,488.96		1,488.96	30.00%
Student Wellness Center	123.08	36.92		36.92	30.00%
Undergraduate Scholarships and Recruitment			190,000.00	190,000.00	N/A
Total Vice President - Student Administration and Services	25,063.48	7,519.05	190,000.00	197,519.05	788.08%
Utah State University Foundation					
Space Dynamics Laboratory	12,084,230.00	12,084,230.00	44,343.30	12,128,573.30	100.37%
Technical Support Services	0.00	0.00		0.00	N/A
Total Utah State University Foundation	12,084,230.00	12,084,230.00	44,343.30	12,128,573.30	100.37%
School of Graduate Studies	9,286.55	2,785.97	272,000.00	274,785.97	2958.97%
Total School of Graduate Studies	9,286.55	2,785.97	272,000.00	274,785.97	2958.97%
<b>Total Colleges and Non-Academic Units</b>	<b>\$20,872,781.20</b>	<b>\$14,720,795.38</b>	<b>\$4,090,635.90</b>	<b>\$18,811,431.28</b>	<b>90.12%</b>

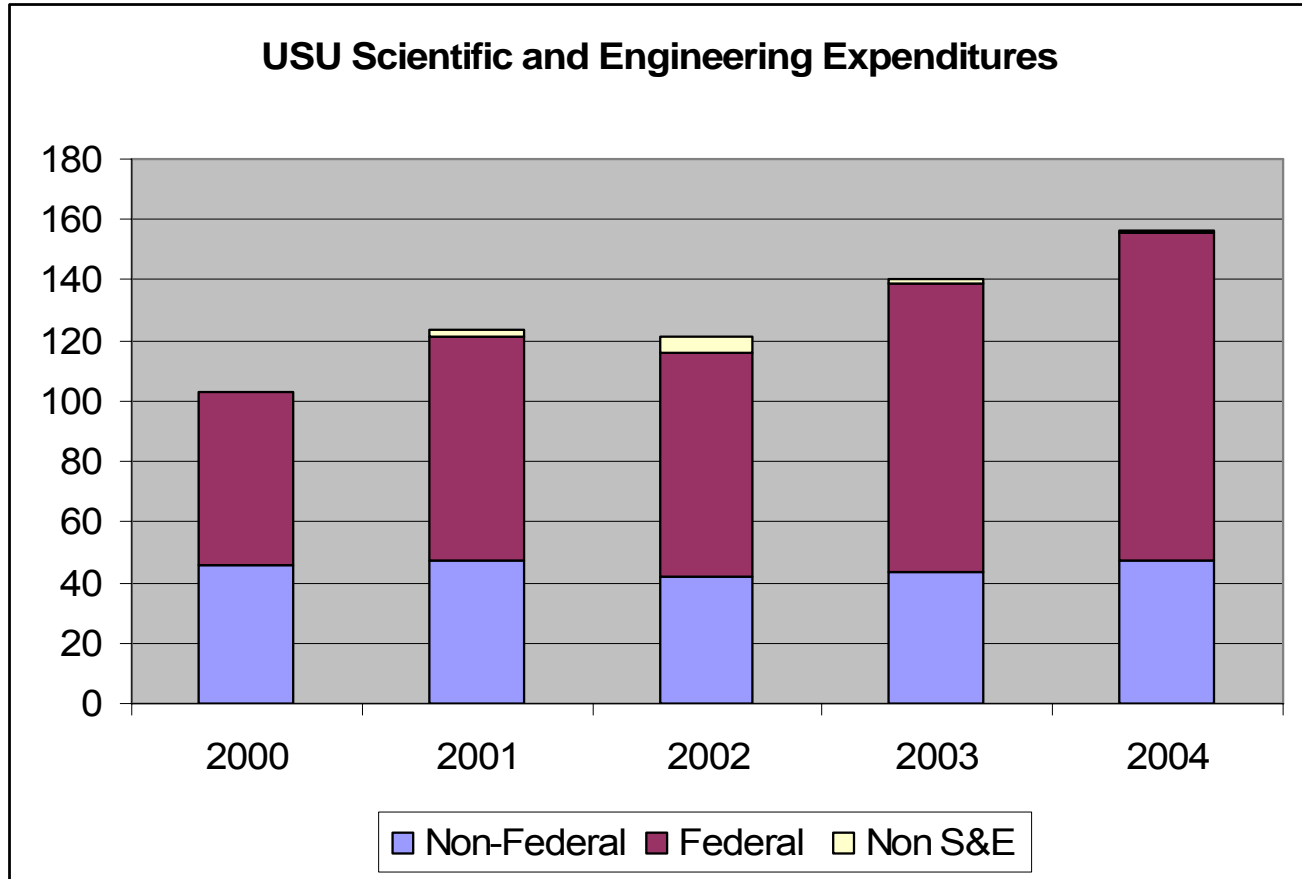
**Support of Infrastructure**

Vice President - Research					
Disallowance Account			\$50,000.00	\$50,000.00	N/A
F&A Review - MAXIMUS			34,000.00	34,000.00	N/A
FBA Prof SVCS			33,000.00	33,000.00	N/A
Internet II			70,000.00	70,000.00	N/A
Sapidyne Legal Settlement			10,000.00	10,000.00	N/A
Office of Technology Management and Commercialization			650,000.00	650,000.00	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	\$0.00	\$0.00	1,063,400.00	1,063,400.00	N/A
Vice President - Administrative Services					
Accounting and Financial Reporting			148,010.00	148,010.00	N/A
Controller's Office			56,120.00	56,120.00	N/A
Facilities and Administrative Cost Study			232,656.00	232,656.00	N/A
Federal Single Audit			27,920.00	27,920.00	N/A
Human Resources	315.00	94.50		94.50	30.00%
Purchasing			22,246.00	22,246.00	N/A
Total Vice President - Administrative Affairs	315.00	94.50	486,952.00	487,046.50	154617.94%
<b>Total Support of Infrastructure (% is computed on total Facilities and Administrative costs generated from all units)</b>	<b>315.00</b>	<b>94.50</b>	<b>1,550,352.00</b>	<b>1,550,446.50</b>	<b>492205.24%</b>
Provost's Office			84,680.00	84,680.00	N/A
Total Provost's Office	0.00	0.00	84,680.00	84,680.00	N/A
Vice President - Research					
Biotechnology/HSRRC Bond			726,625.00	726,625.00	N/A
Total Vice President - Research			726,625.00	726,625.00	N/A
<b>Total</b>	<b>\$20,873,096.20</b>	<b>\$14,720,889.88</b>	<b>\$6,452,292.90</b>	<b>\$21,173,182.78</b>	<b>101.44%</b>

APPENDIX I

**F & A Revenues Generated by, and Allocations to USU Colleges  
FY 2002-2003**





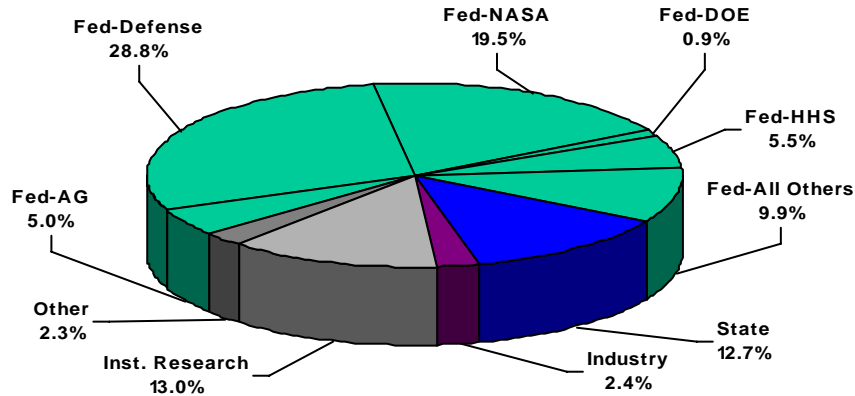
Millions of Dollars

	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>
Non-Federal	45.8	47.1	42.1	43.3	47.3
Federal	57.4	74.3	73.9	95.5	108.3
Total S&E	103.2	121.4	116.0	138.8	155.6
Non S&E		2.0	5.6	1.8	0.6
Total Research Exp.	103.2	123.4	121.6	140.6	156.2

APPENDIX K

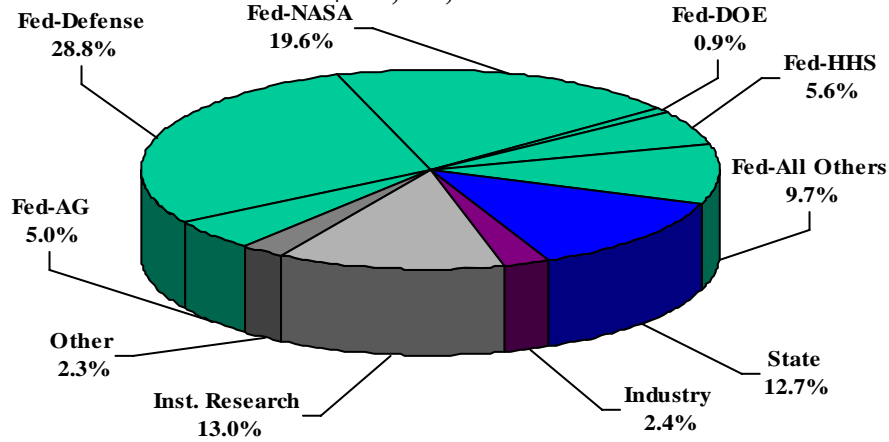
Sources Of Research Expenditures At USU, June 2004 YTD  
Fiscal Year 2004  
\$156,278,448

Total Federal  
69.6%



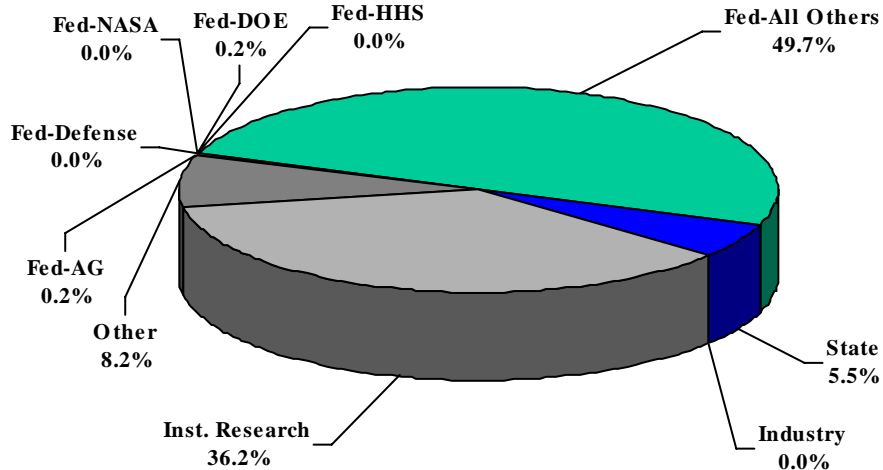
Sources Of Scientific and Engineering Research Expenditures At USU, June 2004 YTD  
Fiscal Year 2004  
\$155,641,675

Total Federal  
69.6%



Sources Of Non-Scientific and Engineering Research Expenditures At USU, June 2004 YTD  
Fiscal Year 2004  
\$636,773

Total Federal  
50.1%

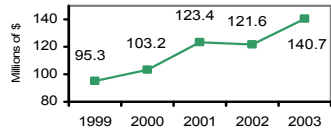




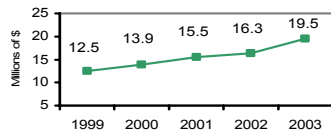
# USU RESEARCH PERFORMANCE DASHBOARD – OCTOBER 2003

## Research Funding

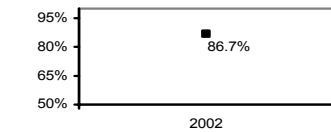
Total Research Expenditures<sup>1</sup> ▲



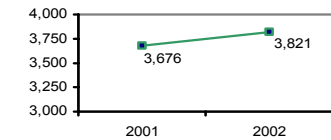
F&A (Indirect Costs) Recovered ▲



Percent Recovered of Sponsor Allowed F&A<sup>2</sup> ●



USU Non-Student Research-Related Jobs ▲

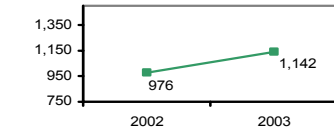


Funded Utah Centers of Excellence ▼

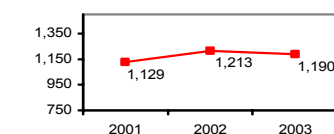


## Sponsored Programs

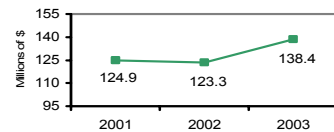
Number of Proposals Submitted<sup>3</sup> ▲



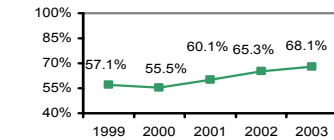
Number of Grants Awarded<sup>3</sup> ▼



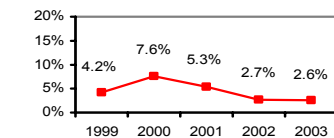
Total Amount of Contracts/Grants Awarded ▲



Federal Funding as a Percent of Total Funding ▲

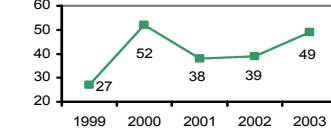


Industry Funding as a Percent of Total Funding ▼

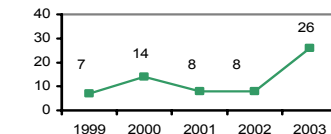


## Tech. Commercialization

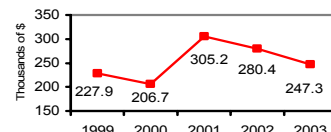
Number of Invention Disclosures ▲



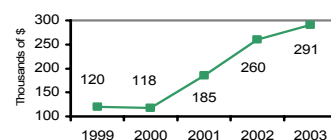
U.S. Patents Under Development ▲



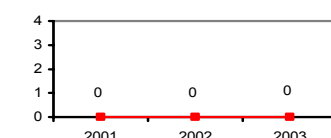
Gross License Income ▼



Incubated Business Income ▲

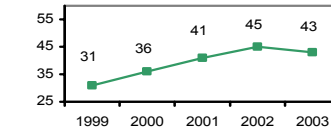


Number of New Start-Up Companies ●

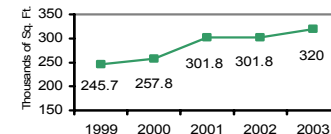


## Innovation Campus

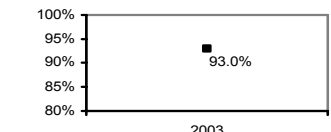
Tenants ▲



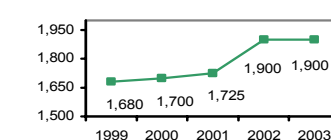
Total Square Feet ▲



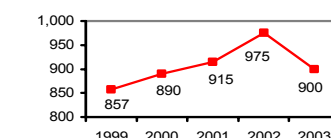
Percent Net Occupancy ●



Employees ▲

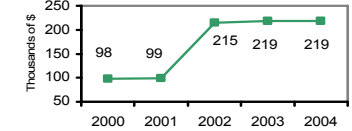


Student Employees ▼

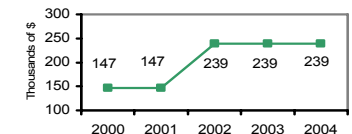


## Student Research

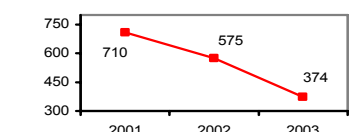
Funding for Undergraduate Research<sup>4</sup> ▲



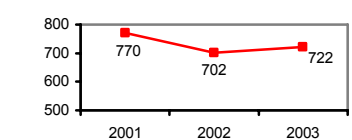
Funding for Graduate Research<sup>5</sup> ▲



Undergraduate Research Employees ▼



Graduate Research Employees ▼



### TREND KEY:

- ▲ higher
- ▼ lower
- no change

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

### FOOTNOTES:

- <sup>1</sup> According to NSF Report
- <sup>2</sup> Sponsor Allowed F&A: Some funding agencies by policy limit the recovery of F&A costs to less than the negotiated rate.
- <sup>3</sup> One proposal can result in multiple awards.

<sup>4</sup> Undergraduate research funding includes: DR USU Presidential Scholarship Program, URCO funding, undergraduate research, and undergraduate scholarships and recruiting.

<sup>5</sup> Graduate research funding includes: fellowships, travel, and graduate student recruitment

