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July 6, 2016

MEMORANDUM

TO: State Board of Regents

FROM: David L. Buhler

SUBJECT: USHE – Report on Research and Development Funds Required by Senate Bill 156

Issue

During the 2016 General Session the Utah State Legislature passed Senate Bill 156, *State Facilities Amendments*, which required the Board of Regents to examine the use of research grant reimbursed overhead funds to help offset the cost of facility operations. The attached report fulfills the legislative requirement. The report recommends that the Legislature continue to support the policy adopted in the late 1980s which allows research universities to reinvest reimbursed overhead funds into new research activities, as well as, facilities. We anticipate presenting this report to the Legislative Infrastructure and General Government Appropriations Subcommittee in October.

Background

Senate Bill 156 (2016) contained the following language:

The State Board of Regents shall: before November 16, 2016, conduct a study to identify the best method to determine the amount or percentage of money received from research and development activities that should be spent on operation and maintenance costs; consult with stakeholders to make the identification described; and on or before November 16, 2016, present a written report of the study and the method identified to the Infrastructure and General Government Appropriations Subcommittee.

The attached report examines research and development activities at Utah's two research universities (the University of Utah and Utah State University); identifies how those institutions collect and use reimbursed overhead funds from research grants; reviews the legislative policy governing reimbursed overhead; and discusses the economic impact of academic research in Utah.

Prior to 1985, the Legislature directly appropriated reimbursed overhead (indirect facility and administrative costs of research grants). Research programs did not have an established funding mechanism. In 1987, the Utah System of Higher Education recommended that the Legislature allow institutions to re-invest reimbursed overhead funds in research programs thereby tying research success to the ability to generate grant revenue. The success of this policy is evident in the six-fold increase in research grant revenue over the last twenty-seven years.

















A legislative audit in 2015 recommended that the Legislature re-examine its reimbursed overhead policy and directed the Board of Regents to review and update their policy (R535) on reimbursed overhead as appropriate. Recommendations for the Board's response to the audit were heard in the September 2015 Regent meeting and an updated Regent policy R535 was presented and approved in the January 2016 Regent meeting. Senate Bill 156 was the Legislature's response to the audit and asks the Board to recommend a course of action for funding operation and maintenance costs with research revenue.

Based on the exponential growth in research grant awards, the substantial contribution research funds make to the Utah economy, and the significant use of reimbursed overhead for facility-related expenses; we recommend that the Legislature continue the current policy and allow institutions to reinvest reimbursed overhead to research activities including facilities support without a specific amount or percentage for funding operation and maintenance from these funds.

Commissioner's Recommendation

This is an information item; no action is required.

David L. Buhler Commissioner of Higher Education

DLB/KLH/RPA Attachment

Utah System of Higher Education

Research and Development Activities and Facility and Administration Costs At Utah's Research Universities: University of Utah and Utah State University



A Report to the Infrastructure and General Government Appropriations Subcommittee

September 1, 2016

Table of Contents

| Executive Summary2 |
|---|
| Senate Bill 156 Study |
| Research and Development Activities |
| Cost Reimbursement |
| Legislative Policy for Reimbursed Overhead |
| Economic Impact of Academic Research |
| Uses of Reimbursed Overhead Funds9 |
| Legislative Audit Response10 |
| Recommendation11 |
| Appendix A: Research University Research and Development Expenditures 201412 |
| Appendix B: University of Utah Research and Development Expenditures 201413 |
| Appendix C: Utah State University Research and Development Expenditures 201414 |
| Appendix D: University of Utah—Facilities and Administration (F&A) Negotiated Rates15 |
| Appendix E: Utah State University—Facilities and Administration (F&A) Negotiated Rates 16 |
| Appendix F: Utah Code Title 53B Chapter 7 Section 104, Retention of Reimbursed Overhead. 17 |
| Appendix G: History of Sponsored Research Expenditures for Utah Research Institutions 18 |
| Appendix H: State Board of Regent Policy R535, Reimbursed Overhead |
| Appendix I: State Board of Regent Form S-5: Reimbursed Overhead |
| Appendix J: Five Year History of University of Utah Reimbursed Overhead Expenses |
| Appendix K: Five Year History of Utah State University Reimbursed Overhead Expenses24 |

Prepared by The Office of the Commissioner of Higher Education 60 South 400 West Salt Lake City, UT 84101

Executive Summary

Thirty years ago, the Legislature exercised foresight by granting the state's colleges and universities the authority to retain reimbursements for overhead costs and to reinvest them into expanding existing research programs and pioneering new research. This policy has enabled Utah's research universities to become nationally and globally renowned for innovations in engineering, agriculture, medicine, chemistry, biotechnology, business, education and physics.

Utah's research institutions negotiate reimbursement rates for overhead costs with the federal government. While these reimbursements are calculated based on administrative and facility cost components, not all grants reimburse for overhead and some (including off-campus research grants) do not provide any reimbursement for facilities-related costs. While Utah's research universities expended approximately \$650 million of research funds in FY 2014, those institutions received approximately \$110 million of reimbursed overhead funds. The institutions dedicate approximately 20 percent of annual reimbursed overhead to facilities-related support.

The Legislature's policy has created incalculable worth for the state of Utah as growth in research expenditures directly benefits Utah's economy. Economic impact analysis estimates that over 85 percent of university research expenditures are spent in Utah, most of which are salary-related earnings for Utah residents. Research expenditures at Utah's two research institutions have grown by almost six hundred percent in the last 27 years to \$650 million. This translates to more than half a billion dollars spent each year directly in Utah supporting more than 4,700 University jobs and more than 7,300 jobs in other industries. These expenditures directly generate tens of millions of dollars annually in tax revenue for state and local governments.

Advances at the University of Utah and Utah State University enhance Utah's reputation around the world and attract the brightest scholars—among them a Nobel Laureate. Utah's students now have access to unprecedented learning opportunities and Utah is home to new, developing industries that drive the state's economy. Over the decades, the Legislature has maintained its commitment to the universities' research successes and we recommend the Legislature continue its policy of institutional reinvestment of reimbursed overhead funds.

Senate Bill 156 Study

During the 2016 General Session the Utah State Legislature passed Senate Bill 156, *State Facilities Amendments* which contained the following language:

The State Board of Regents shall: before November 16, 2016, conduct a study to identify the best method to determine the amount or percentage of money received from research and development activities that should be spent on operation and maintenance costs; consult with stakeholders to make the identification described; and on or before November 16, 2016, present a written report of the study and the method identified to the Infrastructure and General Government Appropriations Subcommittee.

This report fulfills the requirement for the State Board of Regents to provide a written report to the Infrastructure and General Government Appropriations Subcommittee.

Research and Development Activities

Utah has two research universities: the University of Utah and Utah State University. While often associated with science and technology, the designation of "research university" comes from the awarding of doctorate degrees and the research conducted not only in the sciences, but also in humanities, the social sciences, business, and other fields. In 2015 the University of Utah awarded 384 doctorate degrees and Utah State University awarded 102¹. Of those 486 doctorate degrees a little more than half were awarded in STEM (Science, Technology, Engineering, and Math) related fields².

Research is shaped both by high quality faculty who compete and apply for outside research funding as well as by the quality of the graduate students. Graduate students provide staffing for laboratories and other research areas and work hand in hand with the faculty to make significant contributions to research programs. Graduate student involvement with quality faculty in cutting edge research is a vital component of graduate degree programs and the prominence of research institutions. Success in attracting high-quality graduate students depends on the availability of quality research opportunities, competitive graduate student stipends, and tuition support, among other factors.

Universities receive research funding from many sources including the federal government, state and local governments, private businesses, and nonprofit organizations. The federal government is by far the largest contributor to research funding at both Utah research universities. Since the 1940s the federal government has partnered with research institutions to invest significant resources into the development of new knowledge and innovation. Congress recognizes that research funds are best spent at national universities in a competitive award process and

¹ Utah System of Higher Education (USHE). 2016. "Five Year History of Degrees and Awards." In 2016 Data Book, Tab B, p. 5.

² USHE. 2016. <u>Doctorate Degrees Public Institutions in Utah</u>." In 2016 Data Book, Tab B, p. 18.

appropriates funds to various federal agencies that distribute grants independently. More than 600 institutions compete for over \$67 billion of research grants including almost \$40 billion from the federal government³. In this highly competitive environment Universities must submit strong proposals that demonstrate the strength of both faculty members and the institutions they represent. This requires substantial support at the institutional level in terms of administration, research development, technology, facilities support, and numerous other support categories.

Federal grants make up close to 60 percent of the University of Utah research and development expenditures followed by about 27 percent of institutional funds. At Utah State University, federal funds make up 70 percent of research and development expenditures followed by 18 percent from state and local governments. Dollar amounts and additional sources of Utah's research university research and development expenditures may be found in Appendix A. Figure 1 below shows the allocation of research and development expenditures by source for fiscal year 2014 for both the University of Utah and Utah State University.



Figure 1

In fiscal year 2014 research and development expenditures at the University of Utah were approximately \$486 million and \$165 million at Utah State University⁴. Life sciences at the University of Utah account for two thirds of all research dollars. Medical sciences (a subfield of life sciences) is the single largest field of research at the University of Utah accounting for nearly 37 percent of research dollars followed by biological and other life sciences at 29 percent. The

³ National Center for Science and Engineering Statistics. 2014. "Higher Education R&D Expenditures, by Source of Funds." In *Higher Ed. Research and Development Survey*. Accessed at: <u>https://ncsesdata.nsf.gov/herd/2014/html/HERD2014_DST_02.html</u>

⁴ See Appendices A, B, and C.

Department of Health and Human Services provided approximately 67 percent of the federal research grant expenditures at the University of Utah in 2014⁵.

Utah State University, on the other hand focuses research on agricultural science and engineering. Approximately 41 percent of research funds at Utah State University go to aeronautical/astronautical engineering and 27 percent go to agricultural sciences. In 2014 the Department of Defense provided approximately 46 percent of the federal research funds for Utah State University⁶. Additional detail on fields of research expenditures at each of these institutions may be found in Appendices B and C.

Cost Reimbursement

Grant funding typically includes two types of cost reimbursement: direct and indirect. Direct costs pay for resources directly attributable to a specific research project such as researcher salaries, travel, and equipment. Indirect costs cannot be easily identified with a particular research project, but are real costs incurred for common or joint objectives. Indirect costs include facility-related costs and administrative costs and are sometimes referred to as "F&A" (Facilities and Administration). While direct costs may be charged against grant receipts, indirect costs are typically negotiated with the federal government.

Each research university negotiates with a cognizant federal agency that oversees the administration of sponsored agreements and projects. The negotiations are formalized in a F&A Rate Agreement for a fixed period of time. For example, recently the University of Utah negotiated with the federal Department of Health and Human Services and Utah State University negotiated with the Office of Naval Research.

Negotiated rate agreements typically have three main F&A areas: Sponsored Research, Sponsored Instruction and Training, and Other Sponsored Activities. Sponsored Research consists of all research and development activities sponsored by federal agencies and includes such activities as applied research, operation of research facilities, research training, and data collection or evaluation. Sponsored Instruction and Training involves instructing university students, staff, or faculty; instructing elementary school teachers or students; instructing the general public; and may also include curriculum development. Other Sponsored Activities involve programs other than instruction and organized research that are financed by federal agencies, state agencies, non-profits, and private sponsorships. Examples include travel grants, support for conferences and seminars, public events, and support for library collections.

The federal government requires that indirect F&A costs be identified and grouped according to cost categories which are broken into two components: facilities and administrative costs.

⁵ National Science Foundation. 2014. "Federally Funded R&D Expenditures, by Federal Agency" in *Higher Education R&D Survey*. Accessed at: <u>https://ncsesdata.nsf.gov/profiles/site?method=report&fice=3675&id=h3</u>.

⁶ National Science Foundation. 2014. "Federally Funded R&D Expenditures, by Federal Agency" in *Higher Education R&D Survey*. Accessed at: <u>https://ncsesdata.nsf.gov/profiles/site?method=report&fice=3677&id=h3</u>.

Allowable facilities costs include an allowance for deprecation of buildings and equipment, operation and maintenance expenses, library costs, and interest on debt. While the federal government does not pay directly for the cost of facilities, it does reimburse institutions for the depreciation expense of facilities used for research programs using a straight-line method of depreciation. Operation and maintenance costs include the upkeep of an institution's physical plant and land including utility costs, janitorial, property repairs, and grounds upkeep. Library expenses include salaries and benefits of library personnel, operating expenses, and the cost of books and library materials. Interest on debt associated with buildings and equipment is also an allowable cost for F&A calculations.

Administrative costs include general administration and general expenses, departmental administration, sponsored project administration, and student administration and services. General administration expenses relate to the executive management and administration of the institution including costs associated with the president's office, accounting, purchasing, human resources, budget and planning, central services, and information technology. Departmental administration includes salary costs associated with deans' offices and other support services in academic departments and divisions. Sponsored project administration includes the administrative costs of institutional research offices that help administer research programs. Student administration and services include only the costs directly associated with graduate students working on research projects. Traditional student administration like admissions, registration, counseling, and placement do not usually relate to sponsored research and are typically not allocable to research.

The most recent F&A rate agreements for the University of Utah and Utah State University are attached in Appendices D and E. These tables provide the F&A rates by category and type that have most recently been negotiated with the cognizant federal agency.

Legislative Policy for Reimbursed Overhead

Traditionally, Utah policy refers to the indirect F&A cost payments collected from federal grants (as well as other grant programs) as "reimbursed overhead." Prior to 1985, research programs, including related graduate programs, did not have an established funding mechanism to sustain operations or encourage growth. A majority of reimbursed overhead funds were appropriated by the Legislature as "dedicated credits" funding sources within state-appropriated Education and General budgets. Research program costs were addressed within existing budgets at the expense of other needed support, including the needs of the undergraduate degree programs.

To address this issue the Utah System of Higher Education proposed redirecting the use of reimbursed overhead (F&A receipts) to become the funding support for academic based research. This proposal tied funding for research efforts to success in receipt of contract and grant funding—if research contract and grant funding increased, funding to support that increased activity would increase; if contract and grant activity decreased, research support funding would decrease.

The Legislature responded positively to the proposal and enacted legislative intent in 1985 requiring that budget documents for 1986-87 and thereafter allow research institutions to retain 100% of the reimbursed overhead for support of research and related programs. In 1989 a bill amended statute to stipulate that reimbursed overhead revenues would no longer be considered a dedicated credit (see Appendix F). Over the next several years (fiscal years 1987 to 1991), the Legislature replaced the dedicated credit funding from reimbursed overhead in institutional budgets with tax funds. The Board of Regents subsequently adopted a policy (R535, *Reimbursed Overhead*) to provide guidance to the institutions regarding approved uses of the funds.

During the time period from fiscal year 1987 until 2014 the total research expenditures at Utah's two research institutions have multiplied close to six times from \$109 million to \$651 million⁷. As a comparison, during that same time period the CPI has merely doubled (from a fiscal year average of 111.2 to 235.0)⁸. While all of the increase in research grants cannot alone be attributed to the 1987 funding decision, the policy change has clearly been an important factor contributing to this extraordinary growth. Allowing research institutions to reinvest in researchers, graduate students, and new research proposals has facilitated research growth and, as will be explored in the next section, fueled growth in the Utah economy and tax base. Appendix G contains the expenditure history of research and development expenditures at Utah institutions from 1987 to 2014. Figure 2 below depicts the increase of Utah research and development expenditures over time compared to growth in the consumer price index.



⁷ National Science Foundation. 2014, 2005, and 1996. "Total R&D Expenditures, by Field" in *Higher Education R&D Survey*. Accessed at: <u>https://ncsesdata.nsf.gov/profiles/site?method=report&fice=3677&id=h1</u>.

⁸ US Bureau of Labor Statistics. 2015 "Consumer Price Index for all Urban Consumers, US City Average, All Items, Not Seasonally Adjusted (1982-84=100)." Accessed at: data.bls.gov.

Figure 2

Economic Impact of Academic Research

With the growth in research and development expenditures comes growth in the Utah economy. Each year Utah's research universities inject hundreds of millions of dollars into the state economy as a result of their research activities. This spending contributes to the state's economic base in several ways— supporting and creating jobs, increasing earnings for Utah residents, and providing tax revenue for state and local units of government.

The University of Utah (UofU) and Utah State University (USU) independently conducted economic impact analyses of sponsored research in 2009⁹ and 2013¹⁰ respectively. The approaches and results of the two studies were largely consistent and identified the following economic impacts:

- 86 percent of all sponsored research expenditures at the UofU were made in the state of Utah, directly impacting the economy.
- Every \$1 million of UofU research spending supports 20 jobs in the Utah economy: 8 direct University FTE and 12 full-time and part-time jobs in other industry sectors.
- Every \$1 million of UofU research spending translates into \$849,490 in earnings for Utah residents with their associated contribution to income taxes.
- Every dollar spent on UofU research generates approximately 8.6 cents of state and local taxes.
- Every dollar spent on USU research generates an additional \$0.81 in economic output.
- Every USU full-time job funded by research supports an additional 1.79 jobs.
- Every dollar spent on USU research generates approximately 10.4 cents of state and local taxes.

Assuming the economic impact of sponsored research in 2014 is similar to the estimates made in the two studies discussed above, the \$651 million of sponsored research at Utah's two research institutions in 2014 would translate into approximately \$560 million spent directly in the Utah economy and support over 4,700 University FTE and more than 7,300 jobs in other industries. The 2014 research expenditures would also have been expected to generate approximately \$60 million of state and local tax revenue.

While these reports assess the direct and indirect effects of university research spending in the Utah economy, they do not capture the full economic contribution of sponsored research. The reports do not include the commercialization potential of research at both Universities and the spin-off companies and industries created in Utah as a result of research discovery and

⁹ Bureau of Economic and Business Research. 2009. "The Economic Impact of Sponsored Research at the University of Utah." Utah Economic and Business Review Volume 69 (2).

¹⁰ Office of Research and Graduate Studies. 2013. "The Economic Impact of Utah State University Sponsored Programs on the Utah Economy."

innovation. Likewise, the reports do not capture the intangible benefits associated with the investment in education and human capital that sponsored research makes; attracting a highercaliber workforce to Utah as well as outside firms desiring to relocate to Utah to capitalize on these assets. The indirect impact of research university spending is significant.

Uses of Reimbursed Overhead Funds

Unlike direct cost reimbursements, federal indirect cost reimbursements (F&A receipts) are not required to be spent in the particular categories for which they were received. Appendices J and K summarize the uses of federal reimbursed overhead funds at the two research universities over the past five years. This summary information is reported to the State Board of Regents on an annual basis and shared with the Legislature through the Office of the Legislative Fiscal Analyst as required by Board policy.

A significant amount of reimbursed overhead funds are used for facilities support. Categories of facilities support include operation and maintenance (O&M), bond payments, leases and rent, and research lab set-up. Between 20 to 25 percent of total reimbursed overhead funds are spent on facilities related support at both Utah State University and the University of Utah.

Another significant use of reimbursed overhead funds is for reinvestment in new research funding, which includes such efforts as recruiting key research faculty and seeding funds to university researchers. Utah's research universities attract global leaders in research fields as a result of collaborative environments and the ability to outfit these researchers with the tools and facilities needed for cutting-edge research. Reimbursed overhead funds provide the resources to improve facilities and procure needed research equipment. In addition, reimbursed overhead is also used to provide university researchers the funding necessary to acquire initial datasets and more fully develop research ideas so that the researchers are in a better position to apply for and win research grants. Similar to priming a pump with an initial bottle of water, reinvesting reimbursed overhead as seed money to researchers produces an increased flow of grant funds to the universities. The University of Utah spends between 35 to 40 percent of their federal reimbursement to develop and fund additional research and Utah State University spends approximately 25 percent

Other areas of reimbursed overhead expenditure include graduate tuition awards and programmatic support. As noted previously, graduate students are an integral part of research at doctoral universities and play as important a role in prestige and research accomplishments as faculty and physical facilities. High caliber students are attracted by tuition support and funding considerations. Using reimbursed overhead to support graduate students furthers the missions of the research institutions and attracts students who not only produce quality research, but become successful future donors to the universities. The University of Utah invests between 10 to 15 percent of reimbursed overhead funds into graduate tuition and Utah State University has invested up to 5 percent in recent years. An example of the caliber of graduate students funded from research grants and reimbursed overhead is Dolly (Holt) Casper who during her doctoral

work at the University of Utah in bioengineering developed a device to hold tendons and ligaments together¹¹. She founded a startup company NovaBio Technology to further develop the device and recently won a \$150,000 grand prize at an international life science and healthcare entrepreneurship competition¹². Reimbursed overhead funds attract and retain graduate students like Dolly to Utah's research universities.

Finally, reimbursed overhead funds are used for programmatic and general research support including library acquisitions and information technology. High-speed data connections and data infrastructure are increasingly important tools for research. Approximately 8 to 9 percent of the University of Utah's reimbursed overhead funds is spent on super computing, management systems, and infrastructure. Utah State also spends approximately 6 percent of reimbursed overhead on central IT functions, high-performance computing and other information technology. In an effort to further economize resources and avoid duplication of costly IT resources, Utah State University is currently in discussions to support high-performance capacity at the University of Utah who will invest in creating a broader infrastructure to benefit both institutions.

Legislative Audit Response

In the *Follow-up Audit of Higher Education Management Practices for Operation and Maintenance Funding* (June 2015) the Office of the Legislative Auditor General recommended the Legislature re-examine the 1987 legislative policy that allows research universities to spend reimbursed overhead funds. The auditor also recommended that the Board of Regents review and revise its policies on reimbursed overhead funding.

The Office of the Commissioner of Higher Education believes that continuing the current legislative policy will allow Utah's research universities to continue to advance research and cover indirect costs. The growth in research activities that has occurred over the last four decades is attributable to this policy; which has subsequently had direct, positive effects on the Utah economy. The Office therefore recommends against any changes to the legislative policy.

In accordance with the auditors' recommendation, the Board of Regents updated policy R535, *Reimbursed Overhead*, in the January 2016 meeting. The revision improves the transparency and accountability of institutional expenditure of reimbursed overhead funds and clarifies appropriate uses for reimbursed overhead funds including significant operation and maintenance needs. The policy continues to preserve the institutional flexibility that has proven vital to the success of research programs. A copy of this policy may be found in Appendix H.

¹¹ Lassonde Entrepreneur Institute. University of Utah. "U Student Wins Techtitans Contest with Tendon Repair Device." 2011. <u>http://lassonde.utah.edu/u-student-wins-techtitans-contest-with-tendon-repair-device/</u>.

¹² Lassonde Entrepreneur Institute. University of Utah. "U Alum Wins \$150k to Develop Ligament Repair Device." 2015. <u>http://lassonde.utah.edu/u-alum-wins-150k-to-develop-ligament-repair-device/</u>.

In conjunction with the updated policy, the Office of the Commissioner has also created an updated, universal reporting format for the institutions for reimbursed overhead expenditures. This updated format will further improve the detail, accuracy, and transparency of the forms that have previously been submitted to the Legislature. The updated form provides more detail on reimbursements and subsequent expenditures among the institutions and will be more easily auditable. These forms are annually submitted to the Legislature as part of the budget process. A copy of the new reporting form may be found in Appendix I.

Recommendation

We recommend that the Legislature continue the policy implemented in the late 1980s to allow institutions the ability to reinvest reimbursed overhead to research activities, including facilities support, without a specific amount or percentage for funding operation and maintenance from these funds.

Acknowledging facilities as important components of research programs, both research institutions dedicate a substantial percentage of reimbursed overhead to facilities support (including operation and maintenance). Both Universities support the legislative focus on facility maintenance and long-term investment in facilities. Facilities support through reimbursed overhead sustains the operation of rented research facilities and contributes to operation and maintenance for owned facilities. While allocating additional reimbursed overhead funding for operation and maintenance may provide the appearance of a short-term benefit to the State, we believe it will be economically detrimental and ill-advised for the State's economic future.

Maintaining the desired quantity and quality of academic research programs and their economic spin-offs requires continual investment. Federal research funds have decreased approximately ten percent over the last few years (especially in defense research).¹³ Given federal budget pressures on discretionary spending, it seems likely that federal research funds will continue to decline; which will increase competition among research universities. Without continued reinvestment and institutional flexibility, Utah's research universities will likely not be able to contribute as substantially to the economy or the tax base as they have over the last several decades.

The benefits to Utah's economy as a result of the Legislature's foresight to invest in Utah's future during a challenging economic period in the 1980s are clear and compelling. We ask the current Legislature to continue this practice for future generations.

¹³ American Association for the Advancement of Science. 2015. "Trends in Federal Research and Development, 1976-2016." Accessed at: <u>http://www.aaas.org/sites/default/files/DefNon 1.jpg</u>.

Appendix A: Research University Research and Development Expenditures 2014

| | University of Utah | Utah State University | Total |
|----------------------------|-----------------------|--------------------------|---------------|
| Federal government | \$288,514,000 | \$114,959,000 | \$403,473,000 |
| State and local government | \$5,206,000 | \$30,294,000 | \$35,500,000 |
| Institution funds | \$129,960,000 | \$9,660,000 | \$139,620,000 |
| Business | \$37,697,000 | \$4,997,000 | \$42,694,000 |
| Nonprofit organizations | \$24,340,000 | \$561,000 | \$24,901,000 |
| All other sources | \$423,000 | \$4,421,000 | \$4,844,000 |
| All R&D expenditures | \$486,140,000 | \$164,892,000 | \$651,032,000 |

| | University of Utah | Utah State University | Total |
|----------------------------|-----------------------|--------------------------|-------|
| Federal government | 59% | 70% | 62% |
| State and local government | 1% | 18% | 5% |
| Institution funds | 27% | 6% | 21% |
| Business | 8% | 3% | 7% |
| Nonprofit organizations | 5% | 0% | 4% |
| All other sources | 0% | 3% | 1% |
| All R&D expenditures | 100% | 100% | 100% |

Source: National Science Foundation. 2014. "Total R&D Expenditures, by Source of Funds and R&D Field" *in Higher Education R&D Survey*. Accessed at: <u>https://ncsesdata.nsf.gov/profiles/site?method=report&fice=3677&id=h2</u> and <u>https://ncsesdata.nsf.gov/profiles/site?method=report&fice=3675&id=h2</u>.

Appendix B: University of Utah Research and Development Expenditures 2014

| Field | All R&D expenditures | Federal government | State and local gov. | Institution funds | Business | Nonprofit organizatio n | All other sources |
|--------------------------|-------------------------|-----------------------|----------------------|----------------------|--------------|-------------------------------|-------------------|
| Computer sciences | \$31,500,000 | \$22,882,000 | \$44,000 | \$6,779,000 | \$1,419,000 | \$376,000 | \$0 |
| Environmental sciences | \$12,302,000 | \$8,305,000 | \$432,000 | \$2,456,000 | \$729,000 | \$380,000 | \$0 |
| Life sciences | | | | | | | |
| Biological sciences | \$56,591,000 | \$44,909,000 | \$81,000 | \$9,007,000 | \$0 | \$2,594,000 | \$0 |
| Medical sciences | \$179,223,000 | \$119,016,000 | \$682,000 | \$28,785,000 | \$16,030,000 | \$14,710,000 | \$0 |
| Other life sciences | \$85,810,000 | \$34,820,000 | \$134,000 | \$40,477,000 | \$7,453,000 | \$2,926,000 | \$0 |
| Mathematical sciences | \$5,816,000 | \$3,824,000 | \$756,000 | \$798,000 | \$0 | \$438,000 | \$0 |
| Physical sciences | \$18,783,000 | \$13,580,000 | \$21,000 | \$4,443,000 | \$31,000 | \$708,000 | \$0 |
| Psychology | \$3,588,000 | \$2,294,000 | \$479,000 | \$481,000 | \$0 | \$334,000 | \$0 |
| Social sciences | \$7,672,000 | \$5,178,000 | \$1,017,000 | \$1,269,000 | \$140,000 | \$68,000 | \$0 |
| Total Science | \$401,285,000 | \$254,808,000 | \$3,646,000 | \$94,495,000 | \$25,802,000 | \$22,534,000 | \$0 |
| D 4. I | ¢7 272 000 | ¢ 4 085 000 | ¢1.000 | ¢2 102 000 | ¢95,000 | ¢100.000 | ¢0 |
| Bioengineering/biomed. | \$7,273,000 | \$4,985,000 | \$1,000 | \$2,102,000 | \$85,000 | \$100,000 | \$0 \$0 |
| Chemical engineering | \$7,986,000 | \$4,595,000 | \$59,000 | \$2,366,000 | \$786,000 | \$180,000 | \$0 |
| Civil engineering | \$19,756,000 | \$5,775,000 | \$279,000 | \$3,605,000 | \$9,766,000 | \$331,000 | \$0 |
| Electrical engineering | \$5,801,000 | \$4,091,000 | \$24,000 | \$1,279,000 | \$236,000 | \$108,000 | \$63,000 |
| Mechanical engineering | \$4,549,000 | \$3,039,000 | \$0 | \$1,053,000 | \$397,000 | \$60,000 | \$0 |
| Metallurgical/materials | \$7,778,000 | \$6,133,000 | \$55,000 | \$726,000 | \$587,000 | \$264,000 | \$13,000 |
| Other Engineering | \$21,589,000 | \$699,000 | \$0 | \$20,838,000 | \$38,000 | \$14,000 | \$0 |
| Total Engineering | \$74,732,000 | \$29,317,000 | \$418,000 | \$31,969,000 | \$11,895,000 | \$1,057,000 | \$76,000 |
| Business and mgt. | \$1,312,000 | \$608,000 | \$382,000 | \$281,000 | \$0 | \$41,000 | \$0 |
| Communication | \$1,703,000 | \$216,000 | \$195,000 | \$1,187,000 | \$0 | \$105,000 | \$0 |
| Education | \$3,132,000 | \$1,723,000 | \$380,000 | \$942,000 | \$0 | \$87,000 | \$0 |
| Humanities | \$2,649,000 | \$1,409,000 | \$33,000 | \$793,000 | \$0 | \$414,000 | \$0 |
| Law | \$1,211,000 | \$433,000 | \$102,000 | \$227,000 | \$0 | \$102,000 | \$347,000 |
| Visual and perform, arts | \$116.000 | \$0 | \$50,000 | \$66.000 | \$0 | \$0 | \$0 |
| Total Non-Science & | <i></i> | φ0 | <i></i> | \$00,000 | | | |
| Eng. | \$10,123,000 | \$4,389,000 | \$1,142,000 | \$3,496,000 | \$0 | \$749,000 | \$347,000 |
| Total R&D Expenditures | \$486,140,000 | \$288,514,000 | \$5,206,000 | \$129,960,000 | \$37,697,000 | \$24,340,000 | \$423,000 |

Source: National Science Foundation. 2014. "Total R&D Expenditures, by Source of Funds and R&D Field" *in Higher Education R&D Survey*. Accessed at: <u>https://ncsesdata.nsf.gov/profiles/site?method=report&fice=3675&id=h2</u>.

Appendix C: Utah State University Research and Development Expenditures 2014

| Field | All R&D expenditures | Federal government | State and local gov. | Institution funds | Business | Nonprofit org. | All other sources |
|----------------------------|-------------------------|-----------------------|-------------------------|----------------------|-------------|-------------------|----------------------|
| Computer sciences | \$1,743,000 | \$943,000 | \$387,000 | \$95,000 | \$213,000 | \$0 | \$105,000 |
| Environmental sciences | \$2,608,000 | \$2,385,000 | \$186,000 | \$26,000 | \$11,000 | \$0 | \$0 |
| Life sciences | | | | | | | |
| Agricultural sciences | \$44,620,000 | \$21,284,000 | \$16,140,000 | \$4,004,000 | \$914,000 | \$261,000 | \$2,017,000 |
| Biological sciences | \$8,705,000 | \$2,796,000 | \$3,859,000 | \$772,000 | \$638,000 | \$23,000 | \$617,000 |
| Medical sciences | \$747,000 | \$629,000 | \$68,000 | \$34,000 | \$0 | \$11,000 | \$5,000 |
| Mathematical sciences | \$334,000 | \$232,000 | \$67,000 | \$35,000 | \$0 | \$0 | \$0 |
| Physical sciences | \$3,994,000 | \$2,549,000 | \$1,075,000 | \$205,000 | \$2,000 | \$14,000 | \$149,000 |
| Psychology | \$12,700,000 | \$9,812,000 | \$549,000 | \$1,711,000 | \$0 | \$126,000 | \$502,000 |
| Social sciences | \$1,101,000 | \$528,000 | \$356,000 | \$143,000 | \$16,000 | \$1,000 | \$57,000 |
| Other sciences | \$207,000 | \$177,000 | \$30,000 | \$0 | \$0 | \$0 | \$0 |
| Total Science | \$76,759,000 | \$41,335,000 | \$22,717,000 | \$7,025,000 | \$1,794,000 | \$436,000 | \$3,452,000 |
| Aeronautical/astronaut. | \$67,310,000 | \$64,999,000 | \$61,000 | \$996,000 | \$1,176,000 | \$0 | \$78,000 |
| Bioengineering/biomed. | \$2,489,000 | \$422,000 | \$1,612,000 | \$249,000 | \$8,000 | \$0 | \$198,000 |
| Civil engineering | \$10,940,000 | \$3,578,000 | \$4,698,000 | \$496,000 | \$1,595,000 | \$125,000 | \$448,000 |
| Electrical engineering | \$2,878,000 | \$1,615,000 | \$746,000 | \$224,000 | \$277,000 | \$0 | \$16,000 |
| Mechanical engineering | \$2,361,000 | \$1,760,000 | \$283,000 | \$157,000 | \$147,000 | \$0 | \$14,000 |
| Other engineering | \$464,000 | \$366,000 | \$6,000 | \$19,000 | \$0 | \$0 | \$73,000 |
| Total Engineering | \$86,442,000 | \$72,740,000 | \$7,406,000 | \$2,141,000 | \$3,203,000 | \$125,000 | \$827,000 |
| Business and management | \$46,000 | \$17,000 | \$1,000 | \$2,000 | \$0 | \$0 | \$26,000 |
| Education | \$1,617,000 | \$867,000 | \$164,000 | \$486,000 | \$0 | \$0 | \$100,000 |
| Humanities | \$9,000 | \$0 | \$0 | \$5,000 | \$0 | \$0 | \$4,000 |
| Visual and performing arts | \$15,000 | \$0 | \$6,000 | \$0 | \$0 | \$0 | \$9,000 |
| Other non-science or eng. | \$4,000 | \$0 | \$0 | \$1,000 | \$0 | \$0 | \$3,000 |
| Total Non-Science & Eng. | \$1,691,000 | \$884,000 | \$171,000 | \$494,000 | \$0 | \$0 | \$142,000 |
| Total R&D Expenditures | \$164,892,000 | \$114,959,000 | \$30,294,000 | \$9,660,000 | \$4,997,000 | \$561,000 | \$4,421,000 |

Source: National Science Foundation. 2014. "Total R&D Expenditures, by Source of Funds and R&D Field" *in Higher Education R&D Survey*. Accessed at: <u>https://ncsesdata.nsf.gov/profiles/site?method=report&fice=3677&id=h2</u>.

| | Orga | <u>nized</u> | | | Other S | ponsored |
|---|-------------|--------------|--------|-------------|---------|----------|
| | <u>Rese</u> | arch | Instru | Instruction | | earch |
| | On | Off | On | Off | On | Off |
| Rate Component July 2016 to June 2017 | Campus | Campus | Campus | Campus | Campus | Campus |
| Administration | | | | | | |
| General Administration | 4.30% | 4.30% | 3.30% | 3.30% | 4.30% | 4.30% |
| Departmental Administration | 16.40% | 16.40% | 14.10% | 14.10% | 16.20% | 16.20% |
| Sponsored Project Administration | 5.30% | 5.30% | 3.90% | 3.90% | 5.50% | 5.50% |
| Student Services Administration | 0.00% | 0.00% | 4.70% | 4.70% | 0.00% | 0.00% |
| Total Administration Rate Components | 26.00% | 26.00% | 26.00% | 26.00% | 26.00% | 26.00% |
| Facilities Rate Components | | | | | | |
| Building Depreciation | 6.00% | 0.00% | 3.80% | 0.00% | 1.70% | 0.00% |
| Equipment Depreciation | 3.00% | 0.00% | 1.20% | 0.00% | 0.40% | 0.00% |
| Operation and Maintenance | 12.00% | 0.00% | 8.80% | 0.00% | 3.80% | 0.00% |
| Interest | 2.50% | 0.00% | 1.00% | 0.00% | 0.30% | 0.00% |
| Library | 1.20% | 0.00% | 6.70% | 0.00% | 4.30% | 0.00% |
| Utility Cost Adjustment | 0.30% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Total Facilities Rate Components | 25.00% | 0.00% | 21.50% | 0.00% | 10.50% | 0.00% |
| Total University of Utah F&A Rate | 51.00% | 26.00% | 47.50% | 26.00% | 36.50% | 26.00% |

Appendix D: University of Utah—Facilities and Administration (F&A) Negotiated Rates

Source: University of Utah. 2016. "College and Universities cost rate agreement with the Department of Health and Human Services." Accessed at: <u>http://fbs.admin.utah.edu/download/gca/FARateAgreement2016.pdf</u>.

| | <u>Orga</u> | <u>nized</u> | T | 4: | Other Sp | onsored |
|---------------------------------------|-----------------|---|--------|--------|----------|---------|
| | On <u>Kes</u> e | $\frac{\text{Research}}{\text{On}} \qquad \qquad \frac{\text{Instruction}}{\text{Off}}$ | | On Off | | |
| Rate Component July 2015 to June 2016 | Campus | Campus | Campus | Campus | Campus | Campus |
| Administration Rate Components | | | | | | |
| General Administration | 4.02% | 4.02% | 4.02% | 4.02% | 4.02% | 4.02% |
| Departmental Administration | 9.60% | 9.60% | 7.72% | 7.72% | 7.21% | 7.21% |
| Departmental Admin. Allowance | 3.60% | 3.60% | 3.60% | 3.60% | 3.60% | 3.60% |
| Sponsored Project Administration | 1.61% | 1.61% | 0.08% | 0.08% | 1.71% | 1.71% |
| Student Services Administration | 0.00% | 0.00% | 11.05% | 11.05% | 0.00% | 0.00% |
| Administrative Cap Adjustment | 0.00% | 0.00% | -0.46% | -0.46% | 0.00% | 0.00% |
| Total Administration Rate Components | 18.83% | 18.83% | 26.00% | 26.00% | 16.54% | 16.54% |
| Facilities Rate Components | | | | | | |
| Building Depreciation | 7.57% | 0.00% | 7.52% | 0.00% | 1.43% | 0.00% |
| Equipment Depreciation | 3.48% | 0.00% | 1.40% | 0.00% | 0.30% | 0.00% |
| Improvements Depreciation | 0.00% | 0.00% | 0.56% | 0.00% | 0.00% | 0.00% |
| Operation and Maintenance | 11.12% | 0.00% | 7.85% | 0.00% | 2.76% | 0.00% |
| Interest | 1.70% | 0.00% | 11.03% | 0.00% | 0.24% | 0.00% |
| Library | 0.40% | 0.00% | 0.00% | 0.00% | 0.36% | 0.00% |
| Adjustments/Rounding | 0.02% | -3.53% | 0.00% | 0.00% | -0.41% | 0.02% |
| Total Facilities Rate Components | 24.28% | -3.53% | 28.36% | 0.00% | 4.68% | 0.02% |
| Total Utah State University F&A Rate | 43.11% | 15.30% | 54.36% | 26.00% | 21.22% | 16.56% |

Appendix E: Utah State University—Facilities and Administration (F&A) Negotiated Rates

Source: Utah State University. 2015. "Facilities and Administrative rate Negotiation Agreement with the Department of the Navy." Accessed at: <u>https://controllers.usu.edu/files/uploads/FY15_FY16FixedFARateAgmt.pdf.</u>

| Title 53B | State System of Higher Education |
|-------------|--|
| Chapter 7 | Finance |
| Part 1 | Budgets and Funding |
| Section 104 | Retention of net reimbursed overhead revenues. |

53B-7-104. Retention of net reimbursed overhead revenues.

- (1) For fiscal year 1990-91 and for each succeeding year, all budget documents for the system of higher education shall reflect retention by the institutions within the system of their net reimbursed overhead revenues for support of research and related programs under policies established by the State Board of Regents. These overhead revenues may not be considered a dedicated credit.
- (2) The board, in conjunction with institutions within the system, shall provide the Legislature, through the Office of Legislative Fiscal Analyst, with a complete accounting of the net reimbursed overhead revenues on an annual basis. This accounting shall include actual expenditures for the prior fiscal year, budgeted expenditures for the current fiscal year, and planned expenditures for the following fiscal year.

Amended by Chapter 277, 1989 General Session

Source: Utah State Legislature. 2016. *Utah State Code*. Accessed at: <u>http://le.utah.gov/xcode/Title53B/Chapter7/53B-7-</u> S104.html?v=C53B-7-S104_1800010118000101.

| Fiscal Year | University of Utah | Utah State University | Utah Research Institutions | Research % Increase from 1987 | CPI- All Urban | CPI % Increase from 1987 |
|-------------|-----------------------|--------------------------|----------------------------------|--|----------------------|-----------------------------------|
| 1987 | \$68,194,000 | \$41,343,000 | \$109,537,000 | 100.0% | 111.23 | 100.0% |
| 1988 | \$75,789,000 | \$59,273,000 | \$135,062,000 | 123.3% | 115.84 | 104.1% |
| 1989 | \$83,340,000 | \$69,944,000 | \$153,284,000 | 139.9% | 121.19 | 109.0% |
| 1990 | \$89,018,000 | \$86,450,000 | \$175,468,000 | 160.2% | 126.98 | 114.2% |
| 1991 | \$94,621,000 | \$94,167,000 | \$188,788,000 | 172.4% | 133.92 | 120.4% |
| 1992 | \$108,486,000 | \$89,776,000 | \$198,262,000 | 181.0% | 138.21 | 124.3% |
| 1993 | \$105,263,000 | \$75,835,000 | \$181,098,000 | 165.3% | 142.53 | 128.1% |
| 1994 | \$103,771,000 | \$79,085,000 | \$182,856,000 | 166.9% | 146.22 | 131.5% |
| 1995 | \$105,642,000 | \$82,468,000 | \$188,110,000 | 171.7% | 150.41 | 135.2% |
| 1996 | \$114,423,000 | \$81,709,000 | \$196,132,000 | 179.1% | 154.50 | 138.9% |
| 1997 | \$135,911,000 | \$91,292,000 | \$227,203,000 | 207.4% | 158.91 | 142.9% |
| 1998 | \$142,956,000 | \$94,228,000 | \$237,184,000 | 216.5% | 161.74 | 145.4% |
| 1999 | \$153,843,000 | \$95,364,000 | \$249,207,000 | 227.5% | 164.54 | 147.9% |
| 2000 | \$187,661,000 | \$103,161,000 | \$290,822,000 | 265.5% | 169.29 | 152.2% |
| 2001 | \$197,597,000 | \$121,359,000 | \$318,956,000 | 291.2% | 175.09 | 157.4% |
| 2002 | \$216,707,000 | \$121,621,000 | \$338,328,000 | 308.9% | 178.19 | 160.2% |
| 2003 | \$223,739,000 | \$138,862,000 | \$362,601,000 | 331.0% | 182.11 | 163.7% |
| 2004 | \$237,159,000 | \$153,616,000 | \$390,775,000 | 356.8% | 186.09 | 167.3% |
| 2005 | \$246,132,000 | \$134,223,000 | \$380,355,000 | 347.2% | 191.69 | 172.3% |
| 2006 | \$249,719,000 | \$142,935,000 | \$392,654,000 | 358.5% | 198.99 | 178.9% |
| 2007 | \$248,864,000 | \$142,784,000 | \$391,648,000 | 357.5% | 204.14 | 183.5% |
| 2008 | \$254,632,000 | \$148,257,000 | \$402,889,000 | 367.8% | 211.70 | 190.3% |
| 2009 | \$334,002,000 | \$145,240,000 | \$479,242,000 | 437.5% | 214.66 | 193.0% |
| 2010 | \$379,200,000 | \$149,169,000 | \$528,369,000 | 482.4% | 216.74 | 194.8% |
| 2011 | \$414,316,000 | \$174,167,000 | \$588,483,000 | 537.2% | 221.09 | 198.8% |
| 2012 | \$430,056,000 | \$157,355,000 | \$587,411,000 | 536.3% | 227.56 | 204.6% |
| 2013 | \$494,058,000 | \$158,352,000 | \$652,410,000 | 595.6% | 231.35 | 208.0% |
| 2014 | \$486,140,000 | \$164,892,000 | \$651,032,000 | 594.3% | 234.97 | 211.2% |

Appendix G: History of Sponsored Research Expenditures for Utah Research Institutions

R535-1. Purpose: To provide policy guidelines for institutional budgeting, accounting and reporting of reimbursed overhead revenues and expenditures.

R535-2. References

2.1. Utah Code §53B-7-104 (Retention of Net Reimbursed Overhead Revenues)

R535-3. Definitions

3.1 Reimbursed Overhead Revenue: Reimbursed overhead revenue is recovery from contracts or grants designated to reimburse the institution for associated overhead expenses.

R535-4. Policy

4.1. Not a Dedicated Credit: Reimbursed overhead is not considered a dedicated credit.

4.2. Retained for Support of Research and Related Programs: Institutions shall retain all research related reimbursed overhead recovery for the support of research and related programs.

4.2.1 Suitable uses of reimbursed overhead funds in support of research include but are not limited to:

- Costs of recruiting and retaining key researchers
- Significant operations and maintenance costs that support research programs
- Graduate student support
- Funding for the development of new research initiatives
- Direct support of specific research programs
- General research support of entities critical to the research program
- Facilities, student, academic, and institutional support
- Cooperative extension programs as a means of extending research results to Utah citizens

4.3. Annual Report to the Board: Each institution shall submit an annual report to the Board of Regents as part of the annual budget cycle in a format provided by the Office of the Commissioner. The report shall include an accounting of all reimbursed overhead recovery received during the previous fiscal year. The institution shall report a detailed accounting of how it distributed the funds, specifically identifying the separate uses of reimbursed overhead funds for direct and indirect research support and other related programs. The institutions shall report actual reimbursements and expenditures for the prior fiscal year, and budgeted reimbursements and expenditures for the following fiscal year.

4.4. Reporting to the Legislature: The Office of the Commissioner shall provide the report outlined in Section 4.3 to the Legislature through the Office of the Legislative Fiscal Analyst.

4.5. Accounting Standards: In accounting for reimbursed overhead, each institution shall comply with financial accounting and reporting standards as outlined in the "NACUBO Accounting Manual for Higher Education."

Source: Utah State Board of Regents. 2016. Policy 535, Reimbursed Overhead. Accessed at: http://higheredutah.org/policies/.

Appendix I: State Board of Regent Form S-5: Reimbursed Overhead

Purpose of the Form: Utah code 53B-1-104 and Regents Policy R535 require an annual, detailed accounting of reimbursed overhead revenue and expenditure of those revenues. Mere summaries of these revenues and expenditures do not comply with this requirement. To make compliance easier, the Office of the Commissioner created this report format, which if filled out completely and in detail, will ensure institutions meet the policy's requirements. Importantly, when filling out this report, institutions should show that the reimbursed overhead revenue they received from research contracts and grants was expended in support of their research programs.

| | Actual | Budget |
|---|----------------|-------------|
| | 2015-16 | 2016-17 |
| A Constant | | |
| A. Carrytor ward | | |
| B. Receipts | | |
| 1. Research Contracts and Grants | | |
| 2 Related Programs Contracts and Grants (Instruction and Public | c Service) | |
| Subtotal - Receipts | \$0 | \$0 |
| • | | - |
| TOTAL FUNDS AVAILABLE | \$0 | \$0 |
| | | |
| I. USES OF FUNDS | | |
| A. Research Programs - Direct and Indirect Costs | | |
| 1. Development of New Research Funding | \$0 | \$ 0 |
| 2 Retention/Support of Key Researchers | \$0 | \$0 |
| 3. Graduate Student Support | \$0 | \$0 |
| 4. General Research Support | \$0 | \$0 |
| 5. Programmatic Support | \$0 | \$0 |
| 6. Facilities Related Funding | \$0 | \$0 |
| 7. Other Research Support | \$0 | \$0 |
| TOTAL RESEARCH PROGRAMS - DIRECT AND INDIRECT COST | rs \$ 0 | \$0 |
| B. Related Programs Costs | | |
| I. Instructional Support | \$0 | \$0 |
| 2 Academic Support | \$0 | \$0 |
| 3. Student Services Support | \$0 | \$0 |
| 4. Institutional Support | \$0 | \$0 |
| 5. Public Service | \$0 | \$0 |
| 6. Physical Plant Operation and Maintenance | \$0 | \$0 |
| TOTAL RELATED PROGRAMS COSTS | \$0 | \$0 |
| TOTAL USES OF FUNDS | \$0 | \$0 |
| IL CARRYFORWARD BALANCE | \$0 | \$0 |

| | | | Actual 2015-16 | Budget 2016-17 |
|-------------------|--------------------------|--|-------------------|-------------------|
| II. USES OF FUNDS | 6 | | | |
| A. Res 1. | search l Devek | Programs - Direct and Indirect Costs opment of New Research Funding | | |
| | a. | | | |
| | D. | Subtotal - Development of New Research Funding | \$0 | \$0 |
| • 2 | Roton | tion/Support of Key Researchers | | •- |
| ۲ | a. | | | |
| | b. | | | |
| | | Subtotal - Retention/Support of Key Researchers | \$0 | \$0 |
| 3 . | Gradu | ate Student Support | | |
| | a. h | Graduate Student Tuition Awards Graduate Student Stingards | | |
| | D. C. | | | |
| | | Subtotal - Graduate Student Support | \$0 | \$0 |
| ₹4. | Gener | al Research Support | | |
| | a. | | | |
| | b. | | A 2 | |
| _ | | Subtotal - General Research Support | \$0 | \$0 |
| 5. | Progra | ammalic Support | | |
| | a. h | | | |
| | | Subtotal - Programatic Support | \$0 | \$0 |
| 6. | Faciliti | ies Related Fundino | | |
| | a. | Research Equipment Replacement | | |
| | | i. | | |
| | | I. Subtotal - Research Equipment Replacement | \$0 | \$0 |
| | | | ↓ | 40 |
| | D. | Research Lab Setups for New Faculty | | |
| | | L | | |
| | | Subtotal - Research Lab Setups for New Faculty | \$0 | \$0 |
| | C. | Research Lab Remodeling | | |
| | | i. | | |
| | | I. Subtatal - Research Lab Remodeling | \$0 | <u>\$0</u> |
| | | | | 40 |
| | ۵. | O & M TOF RESEarCT FACILIES | | |
| | | · L | | |
| | | Subtotal - O&M for Research Facilities | \$0 | \$0 |
| | е. | Other Capital Facilities Support | | |
| | | i. Research Facilities Planning and Consulting | | |
| | | Leases / Renis Bonded Debt Service | | |
| | | iv. | | |
| | | Subtotal - Other Capital Facilities Support | \$0 | \$0 |
| | f. | Library Acquisitions | | |
| | | i. | | |
| | | I. Subtotal - Library Acquisitions | \$0 | \$0 |
| | Total | | ¢0 | ¢0 |
| F - | | aunues incluieu runung | \$U | φU |
| ~7. | Uther a | Kesearch Support (please specify) | | |
| | b. | | | |
| | | Subtotal - Other Research Support | \$0 | \$0 |
| TOTAL RE | SFARCI | H PROGRAMS COSTS | •n | ¢0 |
| | | | | |

| | Actual | Budget |
|---|-------------|---------|
| | 2013-10 | 2010-17 |
| B Related Programs Costs | | |
| 1 Instructional Support | | |
| | | |
| u. | | |
| с. С | | |
| d. | | |
| Subtotal - Instructional Support | \$0 | \$0 |
| 2 Academic Support | | |
| a | | |
| b | | |
| c. | | |
| d | | |
| Subtotal - Academic Support | \$0 | \$0 |
| 3 Student Services Support | | |
| | | |
| a. h | | |
| U. | | |
| u. | | |
| u. Subtotal - Student Services Support | \$0 | \$0 |
| 4 Institutional Summat | | |
| 4. Insuluional Support | | |
| a. | | |
| D. | | |
| u. | | |
| u. Subtotal - Institutional Support | \$0 | \$0 |
| 5 Dublic Service | | |
| | | |
| d. h | | |
| D. | | |
| U. | | |
| u. Sultatal - Public Service | \$0 | \$0 |
| | * ** | 40 |
| 6. Physical Plant Operation and Maintenance | | |
| a. b. | | |
| Subtotal - Physical Plant O&M | \$0 | \$0 |
| TOTAL RELATED PROGRAMS COSTS | \$0 | \$0 |

| | EV 2015 | EV 2014 | EV 2013 | EV 2012 | EV 2011 | τοται |
|--------------------------------------|------------|------------|------------|------------|------------|-------------|
| University of Utah | 11 2013 | 112014 | 112013 | 112012 | 112011 | TOTAL |
| Facilities Related Support | | | | | | |
| Research Equipment Replacement | 1,600,000 | 1,600,000 | 1,600,000 | 1,600,000 | 1,600,000 | 8,000,000 |
| Research Lab Set-ups for New Faculty | 3,325,386 | 4,417,016 | 4,124,870 | 6,334,993 | 7,324,993 | 25,527,258 |
| Capital Facilities | | | | | | 8,620,675 |
| Leases and Rent | 4,730,710 | 4,299,812 | 5,450,512 | 4,822,394 | 4,772,394 | 19,345,112 |
| Debt Service | 3,784,965 | 3,016,078 | 4,222,779 | 3,801,451 | 6,705,919 | 17,746,227 |
| Other | 100,000 | 305,000 | 235,000 | 838,768 | 2,245,000 | 3,623,768 |
| Research Lab Remodeling | | | | 600,000 | 1,000,000 | 1,600,000 |
| O&M for Research Facilities | 1,106,500 | 1,106,500 | | | | 2,213,000 |
| Subtotal Facilities Related Support | 14,652,561 | 14,744,406 | 15,633,161 | 17,997,606 | 23,648,306 | 86,676,040 |
| | 19% | 19% | 19% | 21% | 28% | 21% |
| | | | | | | |
| Development of New Research Funding | 29,742,421 | 30,730,913 | 29,937,849 | 29,843,364 | 23,491,898 | 143,746,445 |
| Retention of Key Researchers | 1,050,000 | 1,050,000 | 1,050,000 | 1,058,705 | 1,047,277 | 5,255,982 |
| Graduate Tuition Awards | 11,714,592 | 11,016,661 | 10,698,166 | 10,004,775 | 9,246,298 | 52,680,492 |
| Programmatic Support | 4,984,586 | 5,966,808 | 7,176,992 | 10,381,418 | 7,097,376 | 35,607,180 |
| General Research Support | 9,553,015 | 7,950,171 | 9,476,316 | 8,831,062 | 13,248,223 | 54,076,977 |
| Library Acquisitions | 879,500 | 879,500 | 879,500 | 879,500 | 950,559 | 4,468,559 |
| Information Technology | 5,018,190 | 6,458,272 | 7,562,851 | 6,381,538 | 5,945,695 | 26,348,356 |
| Total University of Utah | 77,594,865 | 78,796,731 | 82,414,835 | 85,377,968 | 84,675,632 | 408,860,031 |

Appendix J: Five Year History of University of Utah Reimbursed Overhead Expenses

Sources: Utah System of Higher Education. 2011-2015. Form S-5, Reimbursed Overhead.

Utah System of Higher Education. 2016 "Table 5, Reimbursed Overhead Gross Receipts and Uses." 2016 Data Book. Tab G, pg. 5.

| | FY 2015 | FY 2014 | FY 2013 | FY 2012 | FY 2011 | TOTAL |
|--------------------------------------|------------|------------|------------|------------|------------|-------------|
| Utah State University | | | | | | |
| Facilities Related Support | | | | | | |
| Research Equipment Replacement | 1,359,503 | 1,472,413 | 1,514,005 | 2,867,007 | 1,117,604 | 8,330,532 |
| Research Lab Set-ups for New Faculty | 1,735,896 | 2,406,779 | 1,627,630 | 1,354,516 | 1,095,617 | 8,220,438 |
| Capital Facilities | 2,256,309 | 1,791,058 | 2,356,659 | 1,483,655 | 2,360,187 | 10,247,868 |
| Research Lab Remodeling | | 200,000 | | 192,894 | 328,266 | 721,160 |
| O&M for Research Facilities | 1,403,204 | 1,403,203 | | 759,547 | 9,200 | 3,575,154 |
| Subtotal Facilities Related Support | 6,754,912 | 7,273,453 | 5,498,294 | 6,657,619 | 4,910,874 | 31,095,152 |
| | 22% | 24% | 19% | 22% | 18% | 21% |
| | | | | | | |
| Development of New Research Funding | 7,373,954 | 7,662,769 | 7,606,971 | 8,073,813 | 7,602,088 | 38,319,595 |
| Retention of Key Researchers | | | 50,000 | | 129,978 | 179,978 |
| Graduate Tuition Awards | | 1,453,560 | 1,379,037 | 692,864 | | 3,525,461 |
| Programmatic Support | 14,876,503 | 14,487,658 | 13,927,596 | 13,037,376 | 12,362,098 | 68,691,231 |
| Other | 1,674,117 | | | 1,422,462 | 1,940,814 | 5,037,393 |
| Total Utah State University | 30,679,486 | 30,877,440 | 28,461,898 | 29,884,134 | 26,945,852 | 146,848,810 |

Appendix K: Five Year History of Utah State University Reimbursed Overhead Expenses

Sources: Utah System of Higher Education. 2011-2015. Form S-5, Reimbursed Overhead.

Utah System of Higher Education. 2016 "Table 5, Reimbursed Overhead Gross Receipts and Uses." 2016 Data Book. Tab G, pg. 5.