



OFFICE  
*of* **RESEARCH** *and*  
**GRADUATE STUDIES**  
**UtahStateUniversity**

# Annual Report

to the Faculty Senate for fiscal year 2014

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### Executive Summary

The annual report to the Faculty Senate covers the major activities of the Office of Research and Graduate Studies (RGS), the USU Research Council and the USU Graduate Council from July 1, 2013 through June 30, 2014.

This report reflects a remarkable year of change, a very successful year in grantsmanship and an extraordinary year of legislative support for graduate training at USU. We have finished FY14 with a record level of university funding, totaling over \$220 million in sponsored awards. This funding represents a major increase—over 40%—in federal competitive awards from last year, as well as an eight-fold expansion of funding for graduate tuition on grants. These improvements widely impact our colleges.

Our success in new research funding is augmented by new state legislative funds designed to support the expansion of graduate education, with a particular focus on PhD programs. This fall, we implemented a new research assistantship program that provides a 1:1 funding match for 21 Master of Science assistantships (2 years) and 15 PhD assistantships (4 years). Also, brand new this fall, we are announcing two new widely available waivers of nonresident tuition for graduate students applying to USU from out of state.

This report includes those successes, as well as a summary of all RGS: the School of Graduate Studies, Sponsored Programs, Research and Proposal Development, Environmental Health and Safety, Institutional Review Board, Laboratory Animal Research Center, Research Computing, and Research Integrity and Compliance.



Additionally, RGS is responsible for the management of the USU Research Council and the USU Graduate Council.

## Mission of the Office of Research and Graduate Studies

It is the mission of USU's Office of Research and Graduate Studies to facilitate research and graduate education among faculty and students by:

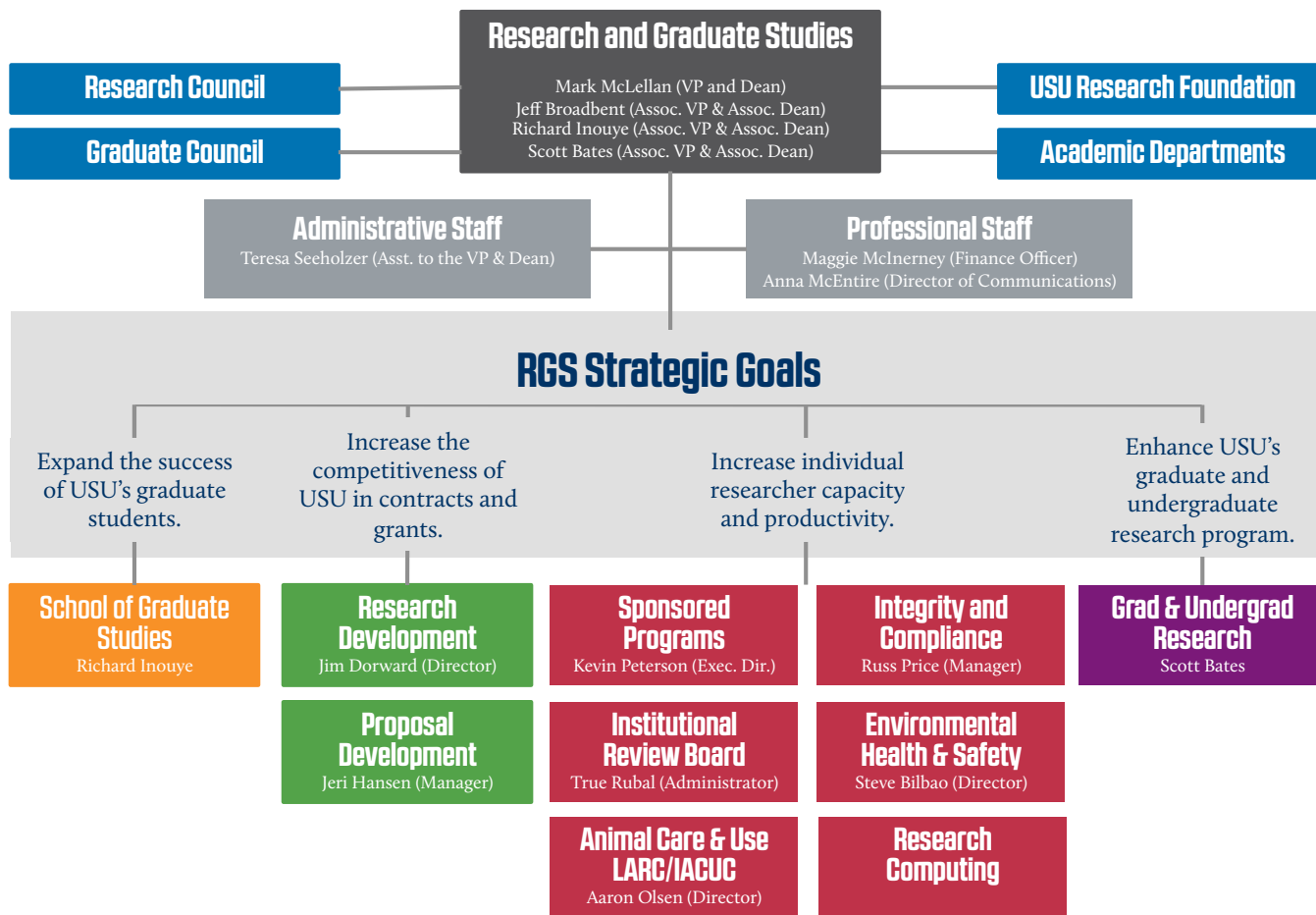
Producing internal funding opportunities and external funding guidance.

- Providing efficient research support services.
- Developing individual researcher capacity.

- Facilitating graduate student recruitment, admissions, support and degree completion.
- Supporting graduate and undergraduate research.

## Goals of the Office of Research and Graduate Studies

- Expand the success of Utah State University's graduate students.
- Increase the competitiveness of Utah State University in contracts and grants.
- Increase individual researcher capacity and productivity.
- Enhance graduate and undergraduate research programs.



## RGS Office Staff Changes

In FY14, the following staff changes occurred in the Office of Research and Graduate Studies:

**Maggie McInerney** was promoted from business officer to RGS finance officer, replacing Lorraine Walker (retired).

**Craig Kelley** replaced Maggie McInerney as RGS business officer.

**Lisa DeSoi** replaced Kent Udy (retired) as LARC

supervisor.

**Ryan Olsen** replaced the vacated staff assistant position of Derri Dee Leonard (retired), and

Rita Teutonico, director of Research Development, left USU for another position at Florida International University and was replaced by **Jim Dorward** from the Emma Eccles College of Education and Human Services.

The remainder of this report will address the ways in which RGS worked to further the strategic goals of the office during 2014.

## Strategic Goal: Expand the success of Utah State University's graduate students.

### Graduate Student Funding

The table below shows fellowship and scholarship support provided by RGS to graduate students in FY14.

**Subsidized Graduate Insurance** – Management of the Subsidized Graduate Student Health Insurance program, created 6 years ago to provide affordable insurance coverage to graduate students, has now moved from the School of Graduate Studies to Student Services. Qualifying students pay 20% of the insurance premium, with the balance of the premium being paid by the hiring department or scholarship sponsor. In response to student inquiries, students will now be able to opt out of this insurance if they can document that they have a health insurance policy with a deductible of no more than \$3,000.

**Tuition Pool** – 2013-14 was the second year in which the tuition pool was allocated to colleges based on graduate head count and the number of 0.5 FTE assistantships in each college. The

allocation was recalculated for FY15 and FY16 using data for fall 2012 and fall 2013.

**New Graduate Tuition Waivers** – With the close of FY14, RGS had completed the negotiations to implement two new widely available waivers of nonresident tuition for graduate students applying at Utah State University from out of state.

**Research Nonresident Tuition Waiver** – The tuition pool was reduced by \$1.5 million as part of an agreement to create a new waiver of nonresident tuition for any PhD or MS-Plan A student who is supported by a 0.5 FTE assistantship for the entire semester. These waivers are not limited in number, encouraging growth in the number of 0.5 FTE assistantships and enhancing the ability of graduate programs to recruit high quality international and out-of-state students.

**Nonresident Tuition Waiver for Excellence**– This waiver, which goes into effect fall 2014, applies to incoming graduate students and is for

## FY14 Graduate Student Support

Program	Amount
Presidential Doctoral Research Fellows (PDRF)	\$293,000
Seely-Hinckley Scholarships (Endowment)	\$52,701
Martin Luther King Scholarship (Endowment)	\$30,000
Dissertation Fellowship	\$67,500
Patel Scholarship (Endowment)	\$10,000
<b>Total RGS Support</b>	<b>\$453,201</b>

one year. It waives the nonresident portion of tuition for any incoming student who has an admission GPA and national test scores that are greater than the average for the college they are entering. These waivers will not be limited in number.

**Tuition on Grants** – Beginning in 2012, faculty submitting external grants that include graduate student support were directed to include graduate tuition costs unless prohibited by the project sponsor or unless the project budget was too small to justify tuition. To better track tuition and fee monies paid by external sponsors, RGS and the Financial Aid Office also collaborated on the creation of a new form for graduate tuition awards from sponsored research ([www.usu.edu/finaid/forms/pdf/GradSponsoredTuitionForm.pdf](http://www.usu.edu/finaid/forms/pdf/GradSponsoredTuitionForm.pdf)). USU records show external grants and contracts paid a total of \$408,000 in graduate tuition in FY14 – an eight-fold increase, and we anticipate this figure will continue to grow in future years. This trend is important, because tuition paid from external grants and contracts helps relieve the demand the modest pool of state graduate tuition dollars.

## New State Funding for Support of Graduate Education at USU

**RGS Assistantships** – Launched in 2014, this program is designed to increase the research capacity of USU faculty by leveraging other funds to expand graduate training of doctoral and MS-Plan A students. RGS assistantships will be used to support and/or foster new research program initiatives, especially large multidisciplinary and multi-college collaborations. However, college, department, center, program, and faculty initiatives are also considered. We received a total of 33 applications requesting support for 24 PhD and 31 master's students, with a total budget request of \$1.5 million. Thanks to the large number of strong, collaborative applications that were received, RGS was able to support a total of 15 PhD and 21 master's students.

**X-STEM Assistantships** – Also launched in 2014, this program recognizes the power of

merging creative non-STEM students with STEM training and is designed to create partnerships across colleges for unique training. Six new assistantships will be filled this fall, two each in the Arts-STEM field, in the Humanities-STEM field and in the Business-STEM field. Each requires at least one member of the student's committee to be in a STEM field and for the student plan of work to have specific intent of cross training in the STEM and non-STEM fields.

**Dissertation Enhancement Awards** – Also launched in 2014, this program funds proposals written by PhD students to add an additional component to an existing core of research that comprises the student's dissertation. This program, which was modeled after a successful NSF program, made 10 awards in 2014, and will be continued in 2015.

**New Additional PDRFs** – The Presidential Doctoral Research Fellows program is designed to support exceptional graduate research and mentoring through recruitment, retention, and training of world-class doctoral students. The new state funding provided six additional PDRF fellowships, one for each of the colleges with a Ph.D. program.

**Enhanced Travel Award Funding** – As a part of the new state funding, RGS will also fund graduate student groups that are traveling to attend conferences and programs with an express purpose to help promote USU graduate programs.

## Faculty Forum on Graduate Education

On November 11, 2013, the Office of Research and Graduate Studies hosted its first faculty forum on graduate education. The goal of the forum was to create a dialog between RGS and faculty. All faculty in departments with graduate programs were invited to attend. The forum was well attended and will be repeated annually.

The Dean of the Graduate School presented on recent changes to programs in graduate education at USU, including an expanded model for funding



*This year's new state funding provided six additional PDRF fellowships. Additional information on the PDRF program can be found on page*

graduate student education.

There were also comments and concerns raised by faculty, including:

- Degrees not covered by nonresident tuition waivers
- Over-focus on STEM degrees and disciplines
- Tuition dollars for graduate education not being sufficient
- Low salaries for some graduate assistantships
- Need for access to more funding for assistantships

In each case, efforts were made (many were successful) to address these concerns. Those solutions are outlined in other portions of this report.

## Grantsmanship Program for Graduate Students

Grant Writing Seminars tailored specifically to the needs of graduate students were offered twice in FY14. The seminars, held in fall and spring, attracted 142 graduate students and post docs. Grant Writers' Seminars & Workshops ([www.grantcentral.com](http://www.grantcentral.com)) presented both seminars. The RGS Office covered all seminar expenses for participants (including lunch and breaks).

## Graduate Student Recruitment

Major efforts were made to advance and improve graduate recruitment during 2012-2013.

Jeff Broadbent, RGS associate vice president and dean, attended the Iraqi Higher Committee for Educational Development (HCED) graduate



*RGS organizes USU's graduate student commencement ceremony, which was held on May 2 in the Dee Glen Smith Spectrum.*

fair in Baghdad. HCED scholars are in the top 10% (scientific studies) or 15% (humanities) of their class, and are awarded funding for one year of intensive English study plus two (MS) or five (PhD) years of full academic and living support. All HCED students require conditional admission to USU graduate programs, so RGS worked with interested graduate programs to establish this process prior to the trip. The recruiting fair produced approximately 150 applications to USU from fully funded HCED scholars, and 12 of these students (5 PhD, 7 MS) are now on campus or are expected to arrive for fall 2014.

Some of the one-time funds received from the Utah State Legislature for FY14 were directed into a campus-wide effort to enhance graduate student recruitment through department websites. A content-based approach was established that begins with a thorough analysis of the existing website by RGS web content experts and extends to program-specific content development and recommendations. Faculty profile pages

are especially important for graduate student recruitment, so considerable time is typically spent working with departments and faculty on these sites. Thus far, 16 departments have signed on for our web enhancement service; we expect to eventually reach all departments.

RGS supported a recruitment visit to New Mexico by a faculty member and graduate student in Biological Engineering. The trip had several positive outcomes, particularly with faculty and students at New Mexico State University, and brought four outstanding NMSU students to Logan for a summer research experience. These types of activities can be very effective in building graduate recruitment partnerships, and RGS is interested in providing similar opportunities to other programs.

RGS also awarded graduate student recruitment grants to 16 departments and hosted another graduate student panel on recruitment during Research Week.



## Strategic Goal: Increase the competitiveness of the university in contracts and grants.

### Infrastructure Development

*Core Facilities* – The framework for Utah State University core facilities that was developed and approved by the Research Council in FY13 was used to guide creation of a new microscopy core facility. The microscopy core is housed in SER 005, which was extensively remodeled to meet the needs of high-end microscopes and to allow for sample preparation.

RGS established a 12-member faculty advisory board to the core, and selected Dr. John Shervais as the first core director. The director and the faculty advisory council set operational policy for the core. In order to drive usage costs to a

minimum, maintenance costs are off-loaded to RGS. Assistance and training on core instruments, which currently include new scanning electron and laser dissection microscopes, is provided by a full-time and highly experienced operator, Dr. Fen-Ann Shen. Access to this facility is available to all USU faculty, staff and student researchers at a nominal cost currently projected to be \$300 per person per year for unlimited access and use. RGS will provide a small support fund to help graduate students who are not on funded research projects but are interested in being trained to use a particular scope. The faculty advisory board will be instrumental in helping seek further equipment grants to add new capabilities to the core.



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*This University Microscopy Core is the first university-wide instrument laboratory created offering full-time operator support, coverage of maintenance agreements centrally, central business services support and lead by a faculty director, with the guidance of a faculty advisory council.*

*DocuSign* – RGS implemented DocuSign as an electronic signature workflow associated with Sponsored Programs, new faculty startup agreements and graduate school forms. A total of 3,814 documents were processed for electronic signatures in FY14, 53% of which originated in the School of Graduate Studies. Sponsored Programs was also a major user of DocuSign, accounting for 45% of the documents created within RGS.

## Partnerships

*EPSCoR* – With the departure from USU of Dr. Todd Crowl, the leadership for this program has now been transferred to Dr. Michele Baker. iUTAH (“innovative Urban Transitions and Arid-region Hydro-sustainability”) is an investment from the National Science Foundation’s EPSCoR program and Utah’s institutions of higher education to establish a statewide network of researchers and educators to address Utah’s water resource sustainability. There are nearly 200 participants across the state.

In the past year (year two of the five-year project), iUTAH built an environmental observatory that provides real-time data on water and weather in three watersheds. iUTAH also conducted a survey of water use in over 3,000 households across the Wasatch Front. This data infrastructure will fuel research activities of 20 PhD students (9 at USU), 3 post docs, and their faculty advisors.

iUTAH researchers received 16 new grants or contracts in year two, bringing the total to 25 awards, and nearly \$2 million in research/training funds to our institutions of higher education. The project’s summer research experience for undergraduates (iFellows) paired 13 undergraduates from 6 Utah higher education institutions with mentors at USU, the University of Utah, and BYU. iFellows gained valuable skills in research, science communication, and professional development during 10 weeks of research and mentorship. One-third of the students plan to continue their research through the academic year.

*Oak Ridge Associated Universities (ORAU)* – USU’s partnership with ORAU provides excellent opportunities for faculty and students to apply for funding for collaborative projects with national laboratories, federal agencies, and other ORAU member institutions.

From October 1, 2012 to September 30, 2013, USU received six awards through ORAU, two for postdoctoral fellows, two for graduate students, and two for undergraduate students, totaling \$242,400. In May 2014, Nicholas Roberts in the Department of Mechanical and Aerospace Engineering was awarded the prestigious Ralph E. Powe Junior Faculty Enhancement Award. This award is intended to enrich the research and professional growth of young faculty and result in new funding opportunities.

RGS will continue encouraging faculty and students to apply for ORAU funding assistance, including applying to programs that fund travel grants to national labs or for collaboration at other member institutions, conference grants, high-performance computing grants, and grants for doctoral students to attend the annual Nobel Laureates meeting in Germany.

## Responsible Conduct of Research (RCR) Training

Ethical and responsible conduct of research is critical to maintaining public trust in the academy, and education in research integrity is now considered a best practice in the professional development of future scientists and engineers. USU’s Research Scholars Certification Program is designed to provide research-oriented students and postdoctoral fellows with interactive training that satisfies the increasing requirements of the federal government for RCR. To make the training as accessible as possible, the Research Scholars events held throughout the year are also available for review online. Most requirements can now be completed by reviewing the recorded events and taking related quizzes, though in-person participation is highly encouraged.

## TEDxUSU 2013 Speakers

Name	Department	Talk
Norman Augustine	External	Survival of the American Dream
Angelo Merendino	External	Photo>1000 Words
Bruce Bugbee	Plants, Soils and Climate	Turning Water Into Food
Mike Christiansen	Music	Listen to the Technology
John Dehlin	Psychology	The Ally Within
Joanna Endter-Wada	Environment and Society	Water Needs and Wants
Nancy Hills	Theatre Arts	Make Do and Mend
David Rosenberg	Civil and Environmental Engineering	Near Optimal to Survive and Thrive

## Communications

*TEDxUSU* - The theme of USU's second TEDxUSU event was "Survive." After receiving a full license from the TED organization, the event was relocated to the USU Performance Hall to accommodate a larger audience.

This year, speakers were selected from written nominations, and the RGS communications team worked extensively with the chosen speakers on their talks, to provide training and assistance that would extend their skill sets far beyond the TED event.

Tickets for TEDxUSU 2013 were claimed within 3 hours, and the wait list was long enough to fill the Performance Hall again. As of August 2013, the TEDxUSU 2013 talks had received more than 143,000 views on YouTube, with more than 220,000 views from both the 2012 and 2013 events.

*Sunrise Sessions* – Now in its eighth year, Sunrise Sessions bring USU research presentations to our Salt Lake constituents on a quarterly basis. The program continues to be supported by Regence BlueCross Blue Shield.



In FY14, five speakers presented on their research:

- **Robert Gillies**, Utah Climate Center  
“Utah’s Climate Symphony”
- **Cathy Hartman and Edwin Stafford**,  
Department of Management  
“Sustainable Entrepreneurship: Collecting  
the Dots”
- **Shawn Fisher**, Department of Theatre Arts  
“Through the Eyes of the Audience: A  
Theatre Artist’s Measure of Success”
- **Susannah French**, Department of Biology  
“Town and Country Reptiles: How Animals  
Respond to a Changing Environment”

*Research Week 2014* – This year, RGS celebrated USU’s tenth Research Week. Held April 7-11, Research Week featured 23 workshops, receptions, symposia and lectures over the five days. The events included long-standing ones, such as Student Showcase and the D. Wynne Thorne lecture, and recently added ones, like the Faculty Author Exhibition, New Faculty Luncheon, and Research Awards Gala. More recently, we’ve added three new or revised events:

- **Ignite** – Eight students prepared five-minute “lightning talks” that were engaging,

witty, creative and haunting, and they eloquently showed how and why they have developed passion for their research. More than 150 people attended this event, which began with an interactive “build” competition.

- **D. Wynne Thorne Breakfast** – This year, we invited all deans and past D. Wynne Thorne Career Research Awardees to join our current Presidential Doctoral Research Fellows for breakfast. The conversations that stemmed from these interactions proved valuable for everyone in attendance.
- **Student Awards Ceremony** – The undergraduate and graduate research awards ceremonies were combined this year into a type of “closing ceremony” for Research Week. At our final Research Week event, we honored graduate researchers, graduate teachers, undergraduate researchers, and undergraduate research faculty mentors of the year from all of the colleges.

This year, we also partnered with the Merrill-Cazier Library for our events, holding nearly all of them in the classrooms, atriums and lobbies of the library, which provided a single, central location for most of our Research Week events.



*Graduate Student Researchers of the Year were honored at the Student Research Awards Ceremony, the closing event of Research Week 2014.*

## Strategic Goal: Increase individual researcher capacity and productivity.

### Funding

*Seed Grants* – RGS offers three different seed grant programs that have unique missions/goals and expected outcomes.

**Grant-writing Experience through Mentorship (GEM)** program provides funding to enhance the professional development of new investigators through one-on-one research and grant-writing interaction with successful research mentors. The purpose of this program is to build USU's research capability and increase extramural funding for scholarly activities by enhancing the proposal development skills of newly hired USU researchers.

The **Research Catalyst (RC)** program provides funding to help applicants develop new initiatives or directions in their discipline that will lead to new externally funded grants. The purpose of this program is to build USU's research capability and increase external funding for scholarly activities from government agencies and private sources.

The **Seed Program to Advance Research Collaborations (SPARC)** program provides funding to catalyze development of interdisciplinary research teams and projects that involve scholarly research in more than one department, research center, college, or institution. Successful SPARC proposals will require mutual effort by faculty and researchers from multiple disciplines, and provide outcomes that will enhance USU faculty success in securing new, large-scale, interdisciplinary externally funded grants.

GEM, RC, and SPARC awardees are required to develop and submit at least one proposal to an external funding agency within three months of project completion. Because proposal submission deadlines vary widely among different agencies,

funding for RGS seed grant programs is offered twice yearly, with start dates of January 1 or July 1. In 2013-14, a total of 50 seed grant applications were submitted; 42 RC, 2 GEM, and 5 SPARC proposals. The overall quality of applications was high, and 30 projects (28 RC and 2 SPARC) were awarded funding. RGS is pleased to note that several of these projects were multidisciplinary or involved partnerships between junior faculty and more senior colleagues. These types of interactions have great potential to enhance faculty success in securing extramural support, and we encourage this type of participation by faculty in future seed grant cycles.

*Annual Equipment Matching Fund* – RGS offered another round of internal capital equipment grants. To stimulate greater participation in the program, the match requirement was lowered from the 75% threshold used last year to only 50% (1:1). Applications could be submitted by individual USU researchers, teams of researchers, or by departments or colleges. Thirty-three applications with requests totaling more than \$825,000 were received. RGS staff and college associate deans for research performed merit review of those applications. Based on the high number of competitive applications that were received, the budget for the program was extended from \$250,000 to more than \$300,000. RGS plans to offer this opportunity again next year.

*The Funding Finder database* (<https://fundingfinder.usu.edu/>) grew substantially in FY14 in number of listed funding opportunities and number of subscribers to the weekly Funding Finder Newsletter: Approximately 1,000 active funding opportunities were listed for 388 newsletter subscribers (332 faculty, 40 staff, 16 graduate students). In FY14, the application was developed so that login is no longer required if accessing the database from an on-campus computer or via VPN

and access from an off-campus computer without use of the VPN will require a USU A-number and password.

## Training

Faculty research training workshops were held throughout FY14 and covered a variety of topics, outlined in the table below.

*Grantsmanship Program for Faculty* – For the third year, a grant writing seminar tailored specifically to faculty and focused on “writing to the review process” was offered once in FY14. Sixty-one faculty and research support staff attended this year’s workshop. Grant Writers’ Seminars & Workshops ([www.grantcentral.com](http://www.grantcentral.com)) presented the seminar. The RGS Office covered all seminar expenses for participants (including lunch and breaks).

*The Proposal Writing Institute* completed training its sixth cohort in FY14. Eleven faculty members, ranging from first-year Associate Professors to tenured full Professors, were selected via a competitive application process to participate in this four-week, intensive proposal writing training opportunity.

*Faculty Visit to Funding Agencies in D.C.* – RGS took 10 faculty members to Washington, D.C. in February 2014 to meet with program officers and staff at five federal agencies (USDA, NIH, NSF, DOE, NEA). Faculty who participated in this trip were nominated by department heads and selected because their developing research programs were likely to benefit if they gained a better understanding of who to contact and how to focus proposals for particular funding opportunities in those agencies. Staff at the Association of Public Land-grant Universities (APLU) gave an overview of federal funding for research, after which faculty met with program officers and staff at agencies appropriate to their own research. Feedback from the faculty indicates that they viewed the trip as being extremely helpful, and we are planning to repeat this opportunity in FY15.

## Compliance Assistance

*Research Data Management, Storage, and Archiving* – The DMPTool (<https://dmptool.org/>) was implemented during FY14, along with the organization of a centralized research data storage and archiving process. The DMPTool aids researchers in writing strong data management plans for proposal submissions, thereby satisfying

## FY14 RGS Faculty Workshops

Workshop	Date
New Faculty Research Orientation	August 20, 2013
Mentoring Workshop	August 20, 2013
Research Resources (Research/proposal development, sponsored programs)	October 1, 2013
Research Mentors Panel	January 21, 2014
Arts and Humanities Grant-Writing Seminar	February 10, 2014
NSF REU Sites Best Practices	February 14, 2014
Research Resources 2 (Human/animal subjects, environmental health and safety)	March 18, 2014
New Faculty Research Luncheon (speed networking with RGS staff)	April 7, 2014
Qualtrics and Survey Research Methods	April 8, 2014



*The New Faculty Research Luncheon provided "speed networking" opportunities for faculty members to ask questions of RGS staff.*

the data management requirement of many external funders. USU partnered as a contributing institution in the DMPTool, developed by the University of California system, UC San Diego Libraries, DataONE, and other organizations such as the Smithsonian Institution. DMPTool users can:

- Create ready-to-use, requirement-compliant data management plans for specific funding agencies (NSF, NIH, DoE, NEH, IMLS, IES, USGS).
- Get step-by-step instructions and guidance for writing data management plans, including information about resources and services available at USU.
- View sample data management plans provided by other DMPTool users.

RGS partnered with USU Library and Central IT to develop an institutional research data storage and archiving process. Research data files up to 2GB in size can be centrally stored in the USU Digital Commons repository (at no cost), or for files over 2GB in size, in the campus IT storage system (with an associated storage cost). All metadata records will be available in Digital Commons and public access to data will be provided by a weblink with downloads at no additional cost. Researchers

can contact the library to set up a consultation meeting with a research librarian to discuss hosting research data at USU.

**RFAST** – USU has been working with experts from units across campus to provide training that will help faculty with the ins and outs of research-related financial regulations. USU's efforts to build systems that streamline and simplify that work have helped, but we identified a need for our faculty to become part of the solution by understanding more about what federal regulations require – and especially what USU has developed to meet those requirements. The training program is known as RFAST, Research Financial and Administrative Series Training, and it is designed, first, to provide basic information in initial training, and then to serve as an ongoing resource for faculty and staff. The modules follow a sponsored project from inception to closeout and include "Best Practices in Proposal Preparation," "Understanding the Award Process," "Key Research Compliance Issues" and "Management of Project Resources." In addition to this Canvas-based online training, RGS will also provide a live session for new faculty and others who are interested in an in-depth overview of USU's systems. RFAST is now under review by department heads and will be rolled out for faculty use shortly.

## Strategic Goal: Enhance USU's graduate and undergraduate research programs.

### Undergraduate Research

FY14 was a productive year for Undergraduate Research.

*Research on Capitol Hill* – Utah Research on Capitol Hill, co-hosted by the University of Utah, was held on January 30. Twenty-five posters were presented by 33 students.

*UCUR* – The Utah Conference on Undergraduate Research was hosted at Brigham Young University on February 28. A total of 39 Utah State University students participated.

*NCUR* – RGS supported 22 students in attending the National Conference on Undergraduate Research in April. NCUR was hosted by the University of Kentucky in 2014.

*Student Showcase* – There were two poster sessions held in the Merrill-Cazier Library south atrium during Research Week. One hundred students presented posters that were judged by content experts. Twenty-five students gave oral presentations that were evaluated by faculty judges. Winners for posters and oral presentations are included in the table to the right.

*Undergraduate Research and Creative Opportunity Grants* – In FY14, there were three rounds of URCO and summer SURCO funding. In fall 2013, there were 41 URCO proposals; 30 were funded, for a total of \$14,039. In spring 2014, there were 30 URCO proposals; 25 were funded, for a total of \$14,820. Proposals for SURCO were due in spring 2014 as well; there were 47 proposals, and 38 were funded for a total of \$43,483. The budget for URCO and SURCO was increased by \$30,000 (from F&A) to support the expanded summer program.



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*BrookeLynne Sanders presents her research, "Recreating Fashion: A Dress in 1530," in an oral presentation at Student Showcase.*



## Student Showcase 2014 Honorees

Name	Award	Abstract Title
Valerie Jenkins	Winner	Meeting the needs of Refugees in Utah through Interior Design
Grant Holyoak	Winner	The Utah Immigrant Experience: Social Services and Setbacks
Courtney Milner	Honorable Mention	Examining the Feasibility of an EEG Brain-Computer Interface Device in Assessing Mindfulness in Meditation-naïve Rural Adults: A Pilot Study
Chad Christensen	Winner	Spider Silk
Emily Frampton	Honorable Mention	Cloning and Expression for the Future Characterization of the Air2 Protein
Reagan Wytsalucy	Winner	Reconnaissance Sampling for Siting Potential Orchards on Reservation Lands In the Four Corners
John Ellis	Honorable Mention	GASPACS Structure: Designing to Survive
Gregory Erickson	Honorable Mention	Processes of Electron Beam Lithography using a Scanning Electron Microscope
Andrea Olson	Winner	Synthetic Spider Silk Adhesives
Isaac Robertson	Honorable Mention	Identifying the stage-flow relationship and seasonal fluctuations in flow of the Lower Bear River
Taylor Eggertsen	Honorable Mention	Studies on the single HLA-G nucleotide deletion in African American women with preeclampsia
Madison Pope	Winner	Art For Air
Briana Bowen	Honorable Mention	Truman, Kennedy, and Reagan: the impact of assassination attempts on the culture of the U.S. Secret Service
John Maynes	Winner	Protecting the Assets of Public Schoolchildren
Molly Van Engelenhoven	Winner	Plant-Soil Feedback of Native and Exotic Species in the Inter-Mountain West
Tim Beach	Honorable Mention	Sediment Loads in the Minnesota River Increase the Rate of Channel Migration
Michael Berry	Winner	The Effect of Radiogenic Heat on Mountain Building
Micah Fry	Winner	Passive Attitude Control for nano-satellites

## Graduate Research

*The Presidential Doctoral Research Fellows program* is administered by the Office of Research and Graduate Studies and is designed to support exceptional graduate research and mentoring through recruitment, retention, and training of world-class doctoral students. Each awarded fellowship constitutes a commitment of resources and responsibilities from awarding (RGS, college/department) and receiving (PDRF) parties. The PDRF program entered its third year of operation in FY14.

Before the FY14 recruiting season, there were 17 active PDRFs. In the FY14, 17 additional fellowships were sought. Fellowships are allocated to college based on proportion of Ph.D. enrollment. Fellowship slots are awarded to departments or individual faculty members by each dean. In FY14, one “at-large” slot was allocated by RGS. Slots were allocated to:

- **College of Agriculture and Applied Sciences**  
Plants, Soils and Climate  
Agricultural Systems and Technology  
Education  
Nutrition, Dietetics and Food Sciences
- **College of Science**  
Chemistry and Biochemistry  
Mathematics and Statistics (2)  
Geology (2)
- **College of Engineering**  
Mechanical and Aerospace Engineering  
Electrical and Computer Engineering (2)
- **Emma Eccles Jones College of Education and Human Services**  
Psychology  
Teacher Education and Leadership  
Instructional Technology and Learning  
Sciences  
Health, Physical Education and Recreation
- **S.J. and Jessie E. Quinney College of Natural Resources**  
Wildland Resources

- **College of Humanities and Social Sciences**  
Sociology, Social Work and Anthropology

*The Graduate Research Symposium* was held on Thursday, April 10 and included a poster session, multiple oral presentation sessions, and two workshops.

The workshops were panel discussions related to post-degree employment for graduate students. The first panel focused on those seeking an academic position, and five faculty members (Melanie Domenech-Rodriguez (psychology), Keith Grant-Davie (English), Nancy Huntly (biology), Jason Quinn (mechanical and aerospace engineering, and Alan Savitzky (biology) presented on the topic of seeking and landing an academic position. The other panel included industry leaders, who presented on industry job seeking for graduate students. Both workshops were filled to capacity.

There were two poster sessions held in the Merrill-Cazier Library south atrium, with 59 total posters from every college (except the Huntsman School of Business). Content experts judged the posters during the sessions. Graduate students also presented 76 oral presentations at the symposium. A faculty judge, and the public speaking fellows program (housed in Languages, Philosophy, and Communication Studies Department), evaluated and judged the oral presentations. Student winners are listed on the table to the right.

*Graduate Student Travel* – In FY14, a total of \$50,950 was allocated to graduate students to support travel to professional conferences to present research. Eligibility requirements, funding, and application processes are available online: <http://rgs.usu.edu/studentresearch/html/graduate-research-opportunities/rgs-graduate-student-travel-award>. A breakdown of allocation by college and department are included in a table on the following page.

## Student Showcase 2014 Honorees

Name	Award	Abstract Title
Katarina Marchant	Winner	America Through a P.O. Box
Samantha Latham	Honorable Mention	Science Writing and the Writing Center: Tutorial Models
Gisela Martiz	Winner	Cell Phones as Language Learning Tools among Dominican Students: An Exploratory Case Study
HyeKyoung Lee	Honorable Mention	Revisiting the Professional Identities of Transnational Foreign Language Teachers in the United States
Lacy Taylor	Winner	The MTR4 ratchet helix functions in concert with the arch domain to regulate helicase activity
Bergen Lindauer	Honorable Mention	Generalization of motor learning between distinct functional upper extremity tasks in older adults
Shannon Babb	Winner	Reclamation of Abandoned Oil and Gas Well Pads in Arid Environments
Nathan Hoffer	Winner	System Identification of a Small Low-Cost UAV
Richard Decker	Honorable Mention	Kidding Around: Making Spider Goats
Lori Lee	Winner	A Structural Analysis of Personal Outdoor Recreation Narratives: A Study on Risk Evaluation and Alleviation
Jolynne Berrett	Honorable Mention	STEM writing: Applying lessons learned from a genre analysis of Fermilab documents
Diana Azevedo	Winner	Incised Stones from Utah's West Desert
Shannon Harris	Honorable Mention	The Effects of Didactic Instruction on the Rate of Pre-service Teachers' Low- and High-Level Questions with Students with Disabilities
Nicholas Wan	Honorable Mention	Neural Correlates of Syntax Comprehension in Children with Speech-Language Inhibition
Yalemi Morales	Winner	Exploring the effects of oxidation onPRMT1 activity
Qian Zhang	Honorable Mention	On Water Synthesis of Bioactive
Pawel Urzagaste	Winner	Landscape irrigation: Performance evaluation of climate-based controllers
Tamar Caceres	Honorable Mention	Remodeling an exclusive type III Protein Arginine Methyltransferase
Jeffrey Moody	Winner	Global Evaluation of Microalgae Productivity Coupled with Scalability Assessment
Katerine Napan	Honorable Mention	Influence of heavy metals from flue gas integration with algal production on biodiesel production

## FY14 Graduate Student Travel Awards

<b>College of Agriculture and Applied Sciences</b>	<b>\$4,600</b>
Animal, Dairy and Veterinary Sciences	\$700
Applied Economics	\$800
Agricultural Systems, Technology and Education	\$300
Landscape Architecture and Environmental Planning	\$300
LAEP/Civil and Environmental Engineering	\$300
Nutrition, Dietetics and Food Sciences	\$1,300
Plants, Soils and Climate	\$900
<b>Caine College of the Arts</b>	<b>\$300</b>
Art and Design	\$300
<b>College of Humanities and Social Sciences</b>	<b>\$7,100</b>
English	\$3,300
History	\$1,200
Political Science	\$1,200
Sociology, Social Work and Anthropology	\$1,400
<b>Emma Eccles Jones College of Education and Human Services</b>	<b>\$14,450</b>
Communicative Disorders and Deaf Education	\$3,900
Family, Consumer and Human Development	\$1,950
Health, Physical Education and Recreation	\$1,200
Instructional Technology and Learning Sciences	\$800
Psychology	\$2,700
Special Education and Rehabilitation	\$1,200
Teacher Education and Leadership	\$2,700
<b>College of Engineering</b>	<b>\$11,200</b>
Biological Engineering	\$900
Civil and Environmental Engineering	\$3,800
Computer Science	\$1,400
Electrical and Computer Engineering	\$900
Engineering Education	\$1,800
Mechanical and Aerospace Engineering	\$2,400

<b>S.J. and Jessie E. Quinney College of Natural Resources</b>	<b>\$7,400</b>
Environment and Society	\$1,500
Watershed Sciences	\$2,700
Wildland Resources	\$3,200
<b>College of Science</b>	<b>\$5,900</b>
Biology	\$2,100
Chemistry and Biochemistry	\$600
Geology	\$1,200
Math and Statistics	\$1,000
Physics	\$1,000
<b>TOTAL</b>	<b>\$50,950</b>

Based on department feedback in FY14, we have changed the allocation model for FY15. Rather than allocating funds by “semester,” which selected against conferences that occurred late in every semester, we now allocate by month ( $\$50k/12 = \$4,166/\text{month}$ ). The award, as always, is open to all graduate students.

# Appendix 1:

## Overview of RGS Strategies and Supporting Activities

At the end of FY14, the RGS executive team evaluated and revised our strategic plan. After modifying our vision, mission statement, and values, we updated our strategic goals and took inventory of all RGS initiatives.

The following charts outline the major strategies of Research and Graduate Studies and catalogs all activities utilized over the past four years to accomplish those strategies.

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### Vision

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Utah State University will grow national and worldwide prominence for its culture of research excellence that extends throughout the life cycle of USU students and faculty.

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### Mission

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Utah State University will grow national and worldwide prominence for its culture of research excellence that extends throughout the life cycle of USU students and faculty.

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### Values

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#### *Individual capacity development*

Faculty and graduate students should continue to grow their understanding of how to best propose, conduct and report research.

#### *Integrity and safety*

All scholarship should be conducted with top consideration toward exceeding regulatory and moral standards.

#### *Student engagement*

Students can have better balanced lives and educational experiences when they engage in research opportunities.

#### *Interdisciplinary integration*

Research should not live within silos; all scholars can benefit from interdisciplinary relationships.

#### *Application*

Research and scholarship should embrace the land-grant mission of providing meaningful impact for the state, nation and world.

#### *Innovation*

All activities should undergo evaluation for areas of improvement in effectiveness and efficiency.

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# Goal: Grow and strengthen USU's research portfolio.

Strategies	Before 2012	2012-13	2013-14	2014-15
<b>Increase proposal quality.</b>	Central and embedded proposal development specialists			
	Proposal Writing Institute			
	Grant-writing workshops		(special arts/humanities workshop)	
	Manage limited submission process		(augmented)	
	New Faculty Research Orientation			
			Funding Finder email newsletter	
			IGERT workshop	
			iUtah efforts	
			New Faculty Research Training Series	
			Faculty trip to visit DC agencies	
		Arts/Humanities WS		
		DMP Tool		
<b>Communicate research successes.</b>	Research Week (Ignite)		(Student awards ceremony)	
	Research awards gala and videos			
	Faculty research recognition awards			
	Sunrise Sessions			
	Ascend email newsletter			
	RGS social media			
			TEDxUSU conference	
			Fall PI forum	
		Faculty recruitment		
<b>Strategically fund research initiatives.</b>	30% F&A automatically returned to generating units			
	Startup funds for new faculty			
	Seed grants program			
			Annual Equipment matching fund	
<b>Increase research infrastructure.</b>	Herbarium support			
	NMR support			
	High performance computing capacity.		(capacity augmented)	
			Increase HPC capacity	
			Qualtrics support and training	
		Microscopy core facility		
<b>Provide efficient research support services.</b>	Human/animal research subjects protection			
	Proposal submission, awarding and closeout		(SPO restructure)	
	Campus health and safety			
	Research integrity and compliance			
			AAHRPP re-accreditation	
			Researcher Dashboard	
			Protis protocol system	
			Select agent accreditation	
			SP-01 routing through DocuSign	
			Conflict of interest policy update for DHHS projects	
			RSA training for certification in sponsored programs administration	
			Time & effort policy update	
			AAALAC re-accreditation	
			Basecamp coordination	
			RFAST training	
		SPO restructure		
		New grant system		
		Grant lifecycle		
		EHS Assist improvements		

# Goal: Foster success of USU's graduate students.

Strategies	Before 2012	2012-13	2013-14	2014-15
<b>Increase student financial support.</b>	Tuition awards, fellowships, scholarships		Research NR waiver	Excellence NR waiver
	Manage subsidized insurance			
	Tuition award pool (decentralized, two-year cycle, backstop with F&A)		Require tuition be included on grant proposals	
	One-time state funding: PDRF expansion, dissertation enhancement, PhD conversion			Recurring state funding: X-STEM, RGS assistantships
<b>Enhance recruitment efforts.</b>	Recruitment grants		(augmented)	
	Grad school mass emails			(augmented)
	PDRF program, profiles, posters			
	Western Regional Grad Programs (n=13)		(added 3 programs)	
	Recruiting fairs			
	Recruitment online toolkit, workshop, panels		Increase in recruitment grant funding	
	Graduate recruitment workshop and panels		Web enhancement	
			PDRF recruiting	
			Iraq recruiting trip	
			PDRF recruiting	
			CRM software	
<b>Improve departmental programs.</b>	Program reviews (Self studies, 5-year plans)		(mid-term reviews)	
			Restructuring programs and degrees; conversion of MS/C to professional degrees	
			Graduate faculty process: department review	
<b>Provide value-added opportunities.</b>	Thesis and dissertation workshops			
	Graduate Research Symposium		(symposium training)	
	Responsible conduct of research training		(mandatory for doctoral)	
	Social media			
	Grant-writing workshops each semester		Travel funding moved to RGS	
	Ignite speaking event		Graduate Student Training Series (GrTS)	
			Graduate student awards moved to RGS	
<b>Provide efficient graduate support services.</b>	Application processing			
	New student orientation			
	Graduate catalog			(RGS ownership)
	Commencement			
	Graduate program coordinator meetings			
			Graduate faculty forum	
			Enrollment management study	
			DocuSign	
			Data summaries: college/dept demographics	
		Graduate catalog		
		CRM software		



## Goal: Enhance USU's undergraduate research program.

Strategies	Before 2012	2012-13	2013-14	2014-15
<b>Encourage greater participation in undergraduate research.</b>	Undergraduate Research Advisory Board			
	Day on the Quad promotion			
	Social media			
	List serve		(migration to MailChimp)	
			Fall undergraduate research orientation	Spring undergraduate research orientation
<b>Encourage recruitment of high achieving students.</b>	Undergraduate Research Fellows program communication			
	Coordination with Honors			
			Scholars' Experience recruiting event	
			Overhaul URF application process	
<b>Provide funding opportunities for undergraduate research projects.</b>	URCO grants			
	Undergraduate Research Fellow program			
	Travel Funding (UCUR, NCUR, POTH, ROCH)			
			SURCO program for summer research	
				Changes to URCO program
<b>Recognize undergraduate research successes.</b>	Undergraduate Research			
	Research on Capitol Hill			
	UR transcript designation			
	Undergraduate research awards			
			Research Fellow activities	
			Faculty mentor reception	
<b>Train students in research best practices.</b>	Student Showcase			
	Utah Conference on Undergraduate Research		(hosted 2013)	
	National events: NCUR/POTH			
	"Perfect Year of UR" brochure			
	URF guidebook		(UR guidebook)	
			Student Showcase training	
			Ignite speaking event	

## Appendix 2: Research and the Research Council

UTAH STATE UNIVERSITY SPONSORED PROGRAM AWARDS, FY2010-FY2014						
	FY2010 Actual	FY2011 Actual	FY2012 Actual	FY2013 Actual	FY2014 ESTIMATE	Change Over LY
<b>Agriculture</b>	20,776,004	18,629,285	21,310,465	12,796,968	19,026,344	48.68%
<b>Arts</b>		39,500	177,435	15,200	31,700	108.55%
<b>Business</b>	204,848	574,401	-	-	259,118	
<b>USU Eastern Campus</b>	-	-	-	2,660,336	2,952,436	10.98%
<b>Education</b>	28,405,723	40,210,629	27,660,152	24,027,748	27,187,813	13.15%
<b>Engineering</b>	15,194,085	7,881,429	12,531,895	15,325,971	11,242,253	-26.65%
<b>HaSS</b>	1,043,672	333,168	2,044,239	1,376,804	839,613	-39.02%
<b>Natural Resources</b>	9,984,017	9,931,834	8,666,404	13,443,810	9,855,978	-26.69%
<b>Science</b>	9,968,484	13,077,405	10,033,608	6,536,977	14,920,377	128.25%
<b>Other<sup>1</sup></b>	7,133,973	23,623,193	14,739,881	12,981,459	13,311,105	2.54%
<b>Campus Subtotal</b>	<b>92,710,806</b>	<b>114,300,844</b>	<b>97,164,079</b>	<b>89,165,273</b>	<b>99,626,736</b>	<b>11.73%</b>
<b>USURF</b>	62,134,540	60,520,260	70,543,805	56,228,730	76,808,461	36.60%
<b>AWS</b>	-	-	-	-	488,684	
<b>Financial Aid, Pell Grants</b>	31,946,867	38,214,960	39,525,494	39,963,223	39,486,655	-1.19%
<b>USU Subtotal</b>	<b>\$ 186,792,213</b>	<b>\$ 213,036,064</b>	<b>\$ 207,233,378</b>	<b>\$ 185,357,226</b>	<b>\$ 216,410,536</b>	<b>16.75%</b>
<b>UAES<sup>2</sup></b>	-	-	-		2,856,771	
<b>EXT<sup>2</sup></b>	-	-	-		899,386	
<b>USU Grand Total</b>	<b>\$ 186,792,213</b>	<b>\$ 213,036,064</b>	<b>\$ 207,233,378</b>	<b>\$ 185,357,226</b>	<b>\$ 220,166,693</b>	<b>18.78%</b>

1. "Other" is a catchall category, with the Provost's Office, Extension, and Student Services accounting for 90+ percent of these revenues.

2. These are federal allocations from formula funds (e.g., Hatch, and Smith/Lever) received by the Agricultural Experiment Station and Extension.

## F&A Summary

The following is a summary by category for F&A spending from the annual pool of F&A generated by expenditures on grants. For FY14, RGS allocated \$9.75 million (preliminary data) F&A as indicated in the table below, shown in comparison with FY13 and FY15 (projected).

## Time & Effort Policy Update

In April 2014 USU completed the modification of the Time & Effort Policy, a process that began with the identification in 2008 of weaknesses in its effort reporting and certification practices. Expectations regarding accounting for employees' time when they are working on sponsored grants and contracts are established on a federal level through circulars published by the Office of Management and Budget (OMB). USU's payroll distribution system acts as the primary repository for information about wages, and, for personnel who work on grants and contracts, that system is supplemented through USU's time & effort policies and procedures. USU's Internal Audit Services

identified weaknesses in our effort reporting and certification. At that time, USU was directed by the Board of Trustees to correct internal control systems to comply with OMB standards. Actions were taken to expand and strengthen USU practices, but a follow-up audit in 2012 identified some areas that were still problematic. As a response to these persistent weaknesses, USU instituted a new version of Policy 582, "Time & Effort Reporting." The policy now recognizes those instances when USU employees expend efforts that are not part of their role expectations, and are not considered part of their institutional base salaries. This is an example of a flexibility allowed under federal guidelines, but not incorporated into previous policy.

In addition to the policy changes that have been made, associated procedures have also been introduced by RGS to provide direction to faculty and staff as they use USU's improved reporting systems to provide appropriate accounting of their mission-related efforts.

Text of the full policy can be found in Appendix 2.

## FY14 F&A Allocation

Allocations from Central Pool	FY13	FY14 (Prelim)	FY15 (Proj.)
Support for commercialization (O&M and operations)	20.0%	27.93%	32.14%
New faculty start up support	19.0%	25.72%	14.76%
Research support services and programs	7.9%	7.14%	14.44%
Support for central administrative functions and services	10.8%	10.17%	12.08%
Core/central research laboratories and services	7.8%	10.15%	10.64%
Faculty seed grant funding	4.8%	6.77%	7.70%
Support for graduate and undergraduate education and training	10.6%	4.92%	6.37%
Dean's program support	4.2%	4.03%	4.70%
Contractually fixed in-college program support	3.5%	3.68%	1.18%
Flexible in-college one-time program support	2.5%	3.28%	1.22%
Carry forward	8.7%	-3.80%	-5.22%
<b>TOTAL</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

## Appendix 2: Time and Effort Reporting Policy

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**Number 582**

**Subject: Time and Effort Reporting**

**Date of Original: April 20, 2007**

**Effective Date of Last Revision: April 30, 2014**

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### OVERVIEW

The Time and Effort Report is a means of confirming that both the effort paid for by the sponsor and the effort expended in support of a project, including cost sharing, has been performed as agreed with the sponsor. At USU the Time and Effort Report is used as the means to certify employee effort in accordance with the U.S. Office of Management & Budget (OMB) Circular A-21, "Principles for Determining Costs Applicable to Grants, Contracts, and Other Agreements with Educational Institutions." OMB Circular A-21 Section J10b(2)(b) requires each university to maintain a system of charging salaries in a reasonable allocation to each federal grant. In lieu of time sheet reporting, OMB Circular A-21 provides for both the Plan-Confirmation and After-The-Fact Activity Record methods for effort certification (see 582.1(a) & (b)).

OMB Circular A-81, which will replace Circulars A-21, A-110 and A-133 as of December 26, 2014, also contains both administrative and cost principles and will require verification that allocations of effort be supported by organizational documentation (OMB Circular A-81 Section 200.430(i), pending).

The requirement for documentation that certifies appropriate allocation of costs on all sponsored programs and other activities applies to all exempt (non-hourly) and non-exempt (hourly) employees who work on externally funded awards, and such documentation should be completed with great care. Failure to comply with OMB Circular A-21 (Circular A-81, pending) effort reporting requirements can result in serious penalties for the University and/or the individual certifying effort. These penalties may include disallowance of costs, debarment from further funding, and in cases involving fraud, criminal charges may be brought against

an individual. Salary expenditures are at high-risk for audit because of their potential for fraud and abuse by grantees.

Annual Time and Effort Reports are distributed for both the Plan-Confirmation and After-the-Fact Activity Records payroll distribution methods. USU employees should recognize that payroll distributions and Time and Effort Reports are not the same thing. Payroll distributions allocate an individual's salary; whereas, the Time and Effort Report allocates an individual's effort. Salary distribution and effort may not be the same month by month, but by the end of the fiscal year (the certification period) they shall be in alignment within 5 percent or less.

Certification of annual Time and Effort Reports is not required of employees for extra service or incidental work. However, information regarding extra service compensation shall be separately identified and documented within the University's financial systems in accordance with Utah State University (USU) Policy #376, Extra Service Compensation and OMB Circular A-21, Section J10a ( OMB Circular A-81, Section 200.430(h)(ii), pending).

## 582.1 Definitions

### 1.1 Payroll Distribution Methods

USU utilizes the following payroll distribution methods to compensate employees. These methods are not specifically prescribed by federal regulations, and may be adjusted from time to time to meet USU's need for accurate accounting of personnel services.

- (a) *Plan-Confirmation*: Each USU department prepares and reviews an Annual Budget Plan for their salaried employees, which is submitted through the Banner Salary Planner module to the USU Budget and Planning Office for processing. The Plan Confirmation method must be adjusted whenever effort commitments change enough to require a change in salary distribution.
- (b) *After-the-Fact Activity Records*: Some departments have chosen to use a monthly process based on the current month's activity. At the end of each month an allocation sheet is prepared and entered into the payroll system.
- (c) *Daily Timecard Method* – For each hourly employee, semi-monthly time cards are completed and are electronically approved for payment each pay period.
- (d) *Faculty and Staff Overload (Extra Service Compensation)* – Overload, also referred to as extra-service compensation, is compensation to employees from the University for incidental work performed outside their primary roles. Overload pay includes compensation for incidental work allowable under OMB Circular A-21, J10a and for teaching during periods outside the employee's academic appointment term in accordance with J.10.d.(2). b. (OMB Circular A-81, Section 200.430 (h)(3), et seq).

The primary work assignment is the basis upon which the University sets its expectations of an employee's duties and allocation of effort. USU utilizes the following methods to establish the primary work assignment:

- (a) *For Faculty*: The primary work assignment is derived from the Role Statement and/or Role Assignment, as defined USU Policy 405.6.1, Tenured and Term Appointments: Evaluation, Promotion and Retention.
- (b) *For Non-Faculty Exempt Employees*: The primary work assignment is derived from the Office of Human Resources official position description for that employee, which documents the responsibilities, functions, and requirements of each job. Expectations for the allocation of effort are also reflected in USU's annual Budget Process/Salary Planner process.

### **1.3 Full Workload**

Full Workload for an employee shall be that workload for which an employee is compensated by the University, exclusive of compensation for incidental work. For exempt employees, it shall be that workload specified in the primary work assignment for a given period.

### **1.4 Institutional Base Salary**

Institutional Base Salary (IBS) shall be the salary paid by the institution for the performance of the full workload by a given employee. It may be based on appointments of differing lengths, such as the academic year, eleven months or twelve months. IBS shall be calculated in accordance with Budget Office Guidelines, "Salary Definitions." The IBS may change based on significant, non-temporary changes in the Primary Work Assignment or because of salary increases approved by the University.

### **1.5 Institutional Base Salary Earning Rate**

The Institutional Base Salary Earning Rate shall be calculated based on the compensation level at which an employee is paid for his/her appointment term, divided by the number of months of that term. An employee shall not earn compensation from USU sources in excess of the base salary rate in any given month, except as allowed under USU Policy 376, Extra Service Compensation or through a specially approved administration one-time payment.

### **1.6 Institutional Payout Rate**

The Institutional Base Salary Earning Rate may differ from the amount of compensation actually paid to an employee during a given month, because salary for an appointment of less than 12 months is distributed across 12 months in the payroll system. For details concerning distribution of pay over a period different from the appointment term, contact the Controller's Office.

### **1.7 Incidental Work**

Incidental work is that work which is accomplished by an individual in excess of his/her full workload. Incidental work that is carried out within the institution and paid for as extra-service compensation must be documented in the University's financial management systems, although it shall not be reported or certified in the University's Time and Effort reporting system. Incidental work that is carried out within the institution but is provided without compensation shall be reported to the immediate supervisor in order to avoid conflicts of interest, including conflicts of commitment. Incidental work performed outside the university is neither reported in the time & effort or payroll systems, nor documented in the University's financial management systems; however, documentation of consulting leave is required as set forth in USU Policy #377, Consulting Services.

### **1.8 Extra Service**

Extra Service shall be as defined in USU Policy 376, Extra Service Compensation. In general, extra service within the institution is limited to incidental work not associated with duties as set forth in the primary work assignment.

### **582.2 Policy**

Except as allowed under this policy, faculty and staff salaries charged to externally sponsored programs shall reasonably reflect the activity for which the employee is being compensated. At USU, the intent is to keep these charges within 5% of the direct effort provided to the project. Individuals certifying effort as required in this policy shall include effort on externally funded projects only to the degree it reflects charges that are allowable by the sponsor and allocable to the projects. For federally funded projects, specific regulations concerning allowability and allocability are contained in OMB Circular A-21 (A-81, Section 403-405, pending). In addition to guidance in appropriate OMB Circulars, agency guidance must also be followed, such as the NSF Grant Proposal Guide's two-month limit on additional salaries beyond the academic term. All individuals verifying and certifying effort for University employees shall be knowledgeable of sponsor allowability and allocability criteria. Guidance and training on allowability and allocability of charges are available through the Division of Sponsored Programs, and the Sponsored Program Accounting Office (SPA).

### **582.3 Certification Period**

USU requires effort certification from employees annually based on the University's fiscal year (July 1 through June 30). Certification shall be completed within 90 days after the end of the fiscal year being reported.

#### **582.4 Type of Appointment**

The type of appointment reflects the base period during which an individual's Base Salary Rate is calculated. However all employees, regardless of appointment type, certify time and effort based on USU's fiscal year.

USU allows exempt employees with appointments of less than 12 months to receive compensation from USU at their Base Salary Rate for periods up to a total of 12 months per fiscal year to conduct research, teaching, or other sponsored activities that are consistent with federal and USU policy and that do not conflict with the faculty member's Primary Work Assignment.

Non-appointment salary payments shall be made through the university's payroll distribution system at an Institutional Payout Rate that reflect the individual's Institutional Base Salary Rate. This salary is tracked using a unique account code, and, if applicable based on the individual's receipt of external funding during that fiscal year, shall be subject to effort reporting and certification.

#### **582.6 Allowability of Payment for External Incidental Work**

This policy shall not limit an employee's opportunity to receive compensation for incidental work such as consulting, that is disclosed to the employee's supervisor, and is approved in accordance with appropriate University policies including USU Policy 376 (Extra-service Compensation) and USU Policy 377 (Consulting).

#### **582.7 Cost Sharing**

Cost Sharing is a portion of total project or program costs related to a sponsored agreement that is contributed by someone other than the sponsor. Effort for committed cost sharing, whether mandatory or voluntary, is a part of the total effort rendered on sponsored projects.

Different types of Cost Sharing are:

- (a) Mandatory Committed Cost Sharing is a contribution to a sponsored project or program required by the sponsor as a condition of obtaining the award. Such contributions are binding commitments and must be accounted for and tracked in a consistent manner in accordance with the Division of Sponsored Programs Internal Procedures & Policies (<http://www.usu.edu/research/programs/costshare.cfm>).



- (b) Voluntary Committed Cost Sharing is any quantified contribution reflected in the proposal narrative, budget, and/or budget justification not required by the sponsor. These are also binding commitments and must be accounted for and tracked in a consistent manner. It is USU's policy not to provide voluntary committed cost sharing on sponsored projects.

On occasions where no PI salary is provided by a project sponsor, the PI shall seek approval for USU Voluntary Committed Cost Share of University's paid salary to meet the effort requirements outlined in OMB Circular A-21 (A-81, pending) as outlined in RGS Procedure 582-PR. These commitments shall be accounted for and tracked in any resulting award in accordance with this policy.

- (c) Voluntary Uncommitted Cost Sharing is a contribution to a sponsored project or program offered by the Principal Investigator not included in the proposal narrative, budget, and/or budget justification and not required by the sponsor as a condition of obtaining the award. This type of cost sharing is not separately budgeted or documented under this policy.

## Appendix 2: Graduate Council

The Graduate Council advises the Vice President and Dean for Research and Graduate Studies, providing a forum for considering major graduate program and student issues, as well as approving changes in programs. Listed below are the Graduate Council members who served in 2013-2014.

Representative	College
Dennis Hassan	Caine College of the Arts
Paul Johnson	College of Agriculture and Applied Sciences
Frank Caliendo	Jon M. Huntsman School of Business
Scott DeBerard	Emma Eccles Jones College of Education and Human Services
David Geller	College of Engineering
Michelle Baker	College of Science
Richard Krannich	College of Humanities and Social Sciences
Eugene Schupp	S.J. and Jessie E. Quinney College of Natural Resources
Sheri Haderlie/Charles Waugh	Faculty Senate
John Elsweiler	Library
Mark McLellan	School of Graduate Studies
Scott Bates	School of Graduate Studies
Jeff Broadbent	School of Graduate Studies
Richard Inouye	School of Graduate Studies
Steve Beck	School of Graduate Studies
Derek Hastings	USUSA Graduate Senator

## Major Graduate Council Actions Affecting Programs

*R401 Psychology PhD Credit Reduction.* The proposal to reduce the required credits for the doctoral degree from 90 to 70 (and for the MS degree from 60 to 51) was unanimously approved by the Council (9/10/13).

*R401 Toxicology MS & PhD Program Discontinuation.* The Council voted unanimously to approve the proposal to discontinue the interdepartmental Toxicology program (9/10/13).

*R401 New ADVS Toxicology MS & PhD.* The Council voted electronically and approved this proposal to house the Toxicology program solely within the ADVS department (9/17/13).

*R401 Department of Physics Discontinue Plan C MS.* The proposal to discontinue the Plan C option for the master's degree in Physics was unanimously approved (10/9/13).

*R401 Department of Special Education and Rehabilitation New Specialization in Audiology.* The proposal to add a specialization in Audiology for the doctorate in Disability Disciplines was unanimously approved (11/13/13).

*R401 Department of Physics PhD Credit Reduction (MS to PhD Route).* The proposal to reduce the

required credits for the doctoral degree (MS degree already earned) from 60 to 42 was unanimously approved (11/13/13).

*R401 Department of English Drop MS Plan C; Add New Professional Degree.* The proposal to drop the Plan C option (technical writing) in the MS degree and the creation of a new professional degree in its place, the Master of Technical Communication, was unanimously approved (1/15/14).

*R401 Department of Mathematics and Statistics Drop Plan C in Mathematics & in Statistics.* The proposal to drop the MS Plan C option in Mathematics and also the MS Plan C option in Statistics was unanimously approved (1/15/14).

*R401 Department of Mathematics and Statistics PhD Credit Reduction.* The proposal to reduce the credits required for the doctorate from 90 to 72 (BS to PhD route) and from 60 to 45 (MS to PhD route) was unanimously approved (1/15/14).

*R401 MBA Specializations Restructuring/Renaming.* The MBA program proposed to make name changes to three of its current seven specializations. This request was viewed as a program restructure, not just a name change. These changes pertain only to the on-campus program and will not be offered to the professional (off-campus) program. The Council approved unanimously (3/26/14).

## Appendix 3: Graduate Student Demographic Data

*Graduate Student Enrollment* – Fall enrollment of degree-seeking graduate students was slightly lower in 2013, the second consecutive year with a small decrease. These decreases were the result of declining enrollment in master’s programs; however, there has been an increase in the number of doctoral students in each of the last four years. The decline in enrollment in master’s programs has been greater in professional master’s programs than in M.A., M.F.A., and M.S. programs.

*Graduate Student Diversity* – The proportion of students who belong to underrepresented groups is greater for graduate students than for undergraduates; however those students comprise less than 9% of the graduate student population. Nearly 11% of degree-seeking graduate students are international students, with the most international students coming from China (84) and India (79). The proportion of international students varies among colleges, with nearly half of the graduate students in the College of Engineering coming from outside the U.S.

*New Graduate Student Applications* – The number of applications to the Graduate School in 2013-14 was 12% higher than in the previous two years (Appendix 1). Doctoral applications increased in part because of a successful recruiting trip to Iraq where Jeff Broadbent met with students who have been awarded full funding for graduate programs by the Iraqi Higher Committee for Educational Development (HCED).

The largest increases in application numbers were seen in the College of Engineering (Computer Science, 62%; Electrical and Computer Engineering, 72%; Mechanical and Aerospace Engineering, 43%) and in the College of Humanities and Social Sciences (Sociology, Social Work and Anthropology, 297%, driven largely by a three-year admission cycle).

*Degrees Awarded* – The total number of graduate degrees awarded in 2013-14 dropped to 996 (preliminary estimate), compared to 1,004 in 2012-13 and 1,089 in 2011-12. This change was the result of a decrease in doctoral degrees (88), which was only partially offset by a small increase in master’s degrees.

### Demographic Data

The following pages present demographic data for degree-seeking graduate students. Data presented in these summaries are from two sources. Enrollment and Degrees Awarded data are from the following AAA data files maintained on their Tableau server:

- **Enrollment:** fall day 15 enrollment data, 2005 – 2013.
- **Graduation:** data for degrees awarded by USU, 2005 – 2012.
- **Contract New:** faculty numbers used for student:faculty

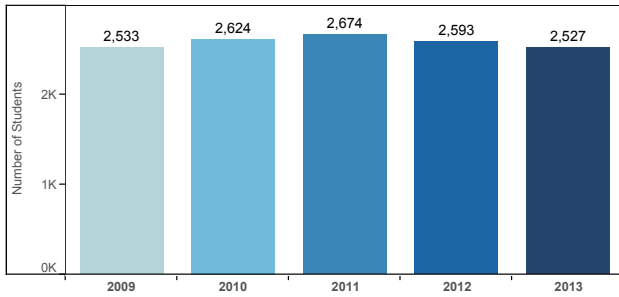
**Application** data are from a file maintained by the Graduate School. Application data are updated daily (work days), and are summarized by application year (July through June).

Most of the summaries that follow present data for a five-year period to illustrate temporal trends.

1. Fall enrollment, by degree type.
2. Fall enrollment, by degree type and gender.
3. Ethnicity, by degree type.
4. Citizenship, by college.
5. Geographic distribution of student origin.
6. Number of students per faculty member, by college and department.
7. Applications, by college.
8. Degrees awarded, by degree type.

## Enrollment: All Degree-Seeking Graduate Students (Fall, Day 15)

### All Degree-Seeking

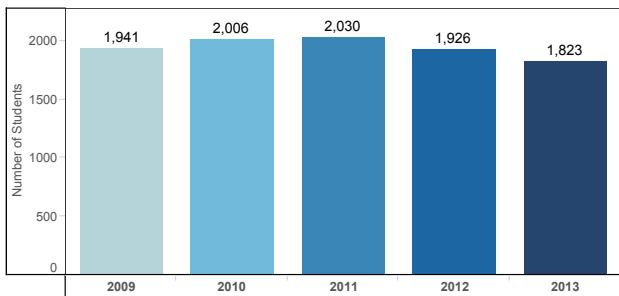


Enrollment data are for fall day 15, the official enrollment numbers reported by AAA.

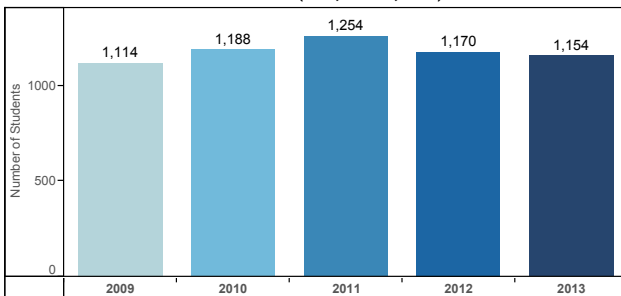
The decline in graduate enrollment after 2011 has been due to a decrease in the number of Master's students. The number of MA, MFA, and MS students declined after 2011, however the number of professional Master's students has declined since 2009, with a particularly large decrease in 2013.

In contrast to the number of Master's students, the number of Doctoral students increased in each of the last four years. Doctoral students have constituted an increasing percentage of graduate students over the past 5 years, increasing from 34% in 2009 to 40% in 2013. The percentage of students who are in PhD programs increased over that same period, from 30% to 34%.

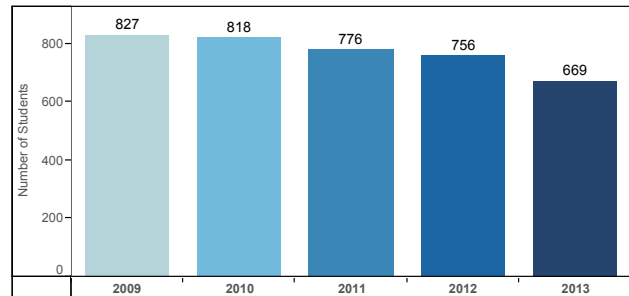
### All Master's Students



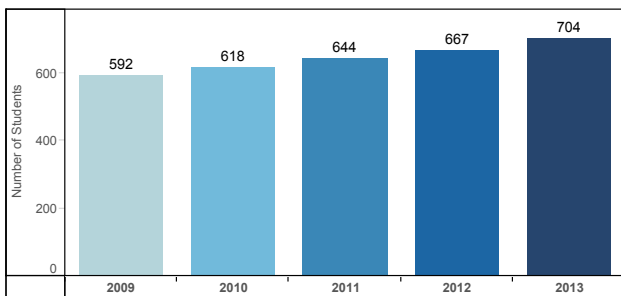
### Research Master's Students (MA, MFA, MS)



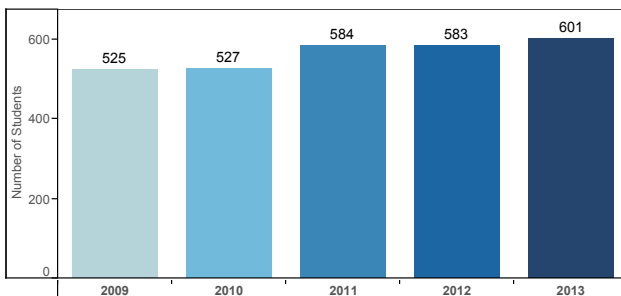
### Professional Master's Students



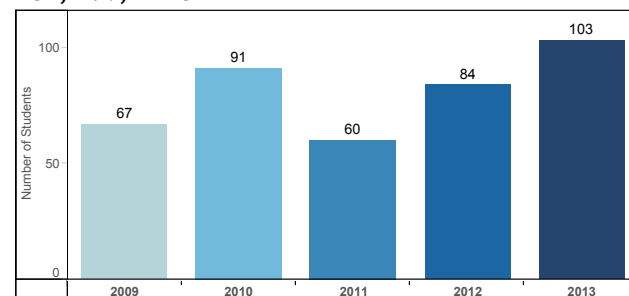
### All Doctoral Students



### PhD Students



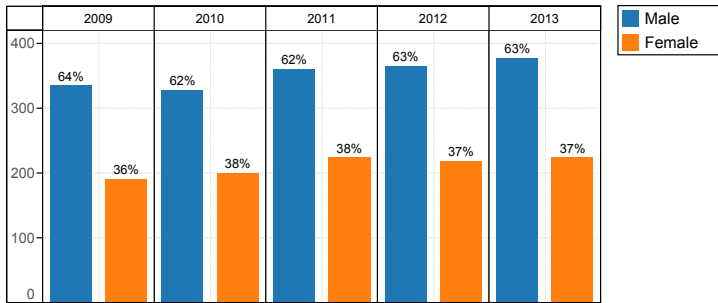
### AUD, DVM, EdD Students



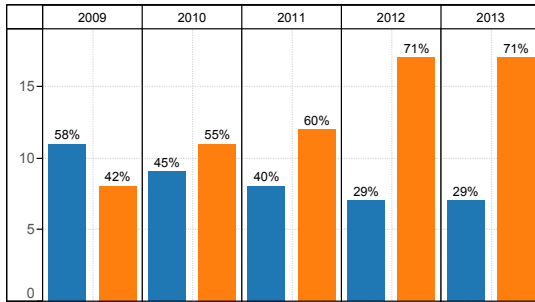
[Data are from AAA Enrollment data file.]

## Enrollment and Gender - Degree Type

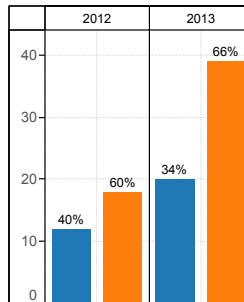
**PhD Students**



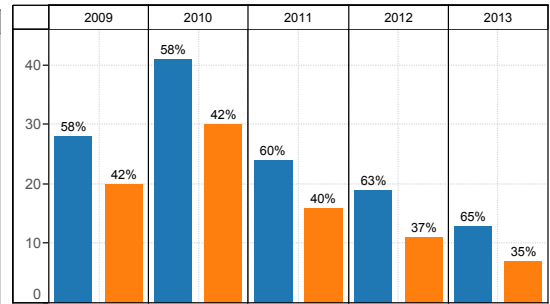
**AUD Students**



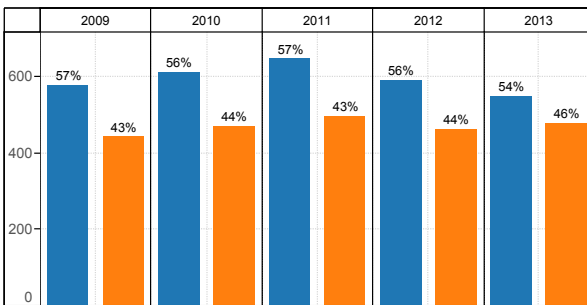
**DVM Students**



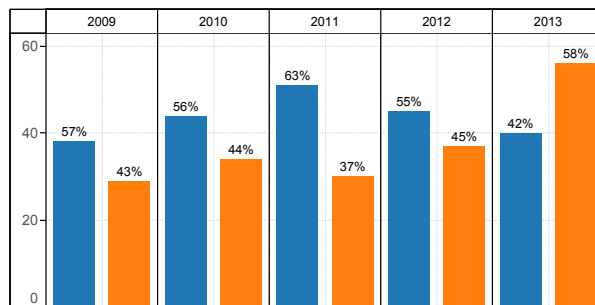
**Edd Students**



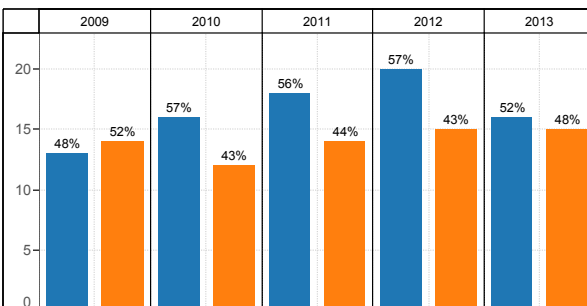
**MS Students**



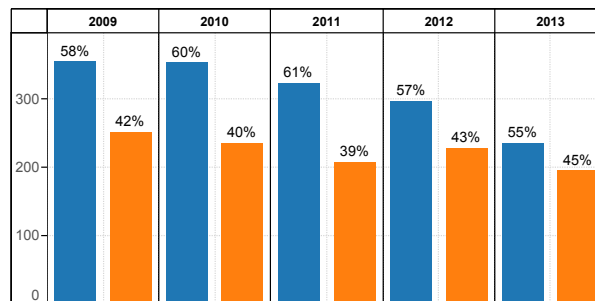
**MA Students**



**MFA Students**



**Professional Master's Students**

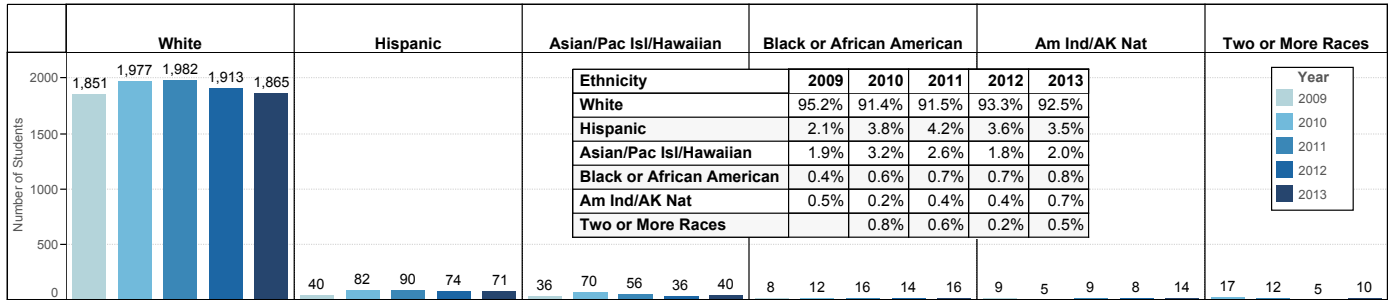


The majority of PhD students are male. A majority of students in the DVM and AUD programs are female, however enrollments in those programs much lower than in the PhD program.

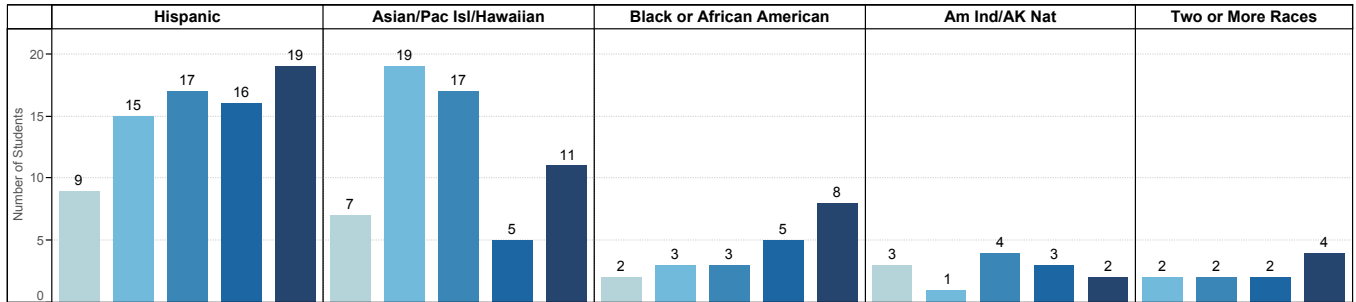
The proportion of students in Master's programs has generally increased over the past four years. In 2013 the number of female students exceeded the number of male students in MA programs for the first time, and the number of female students nearly equaled the number of male students in MFA programs.

## Ethnicity of Degree-Seeking Graduate Students: 2009 - 2013

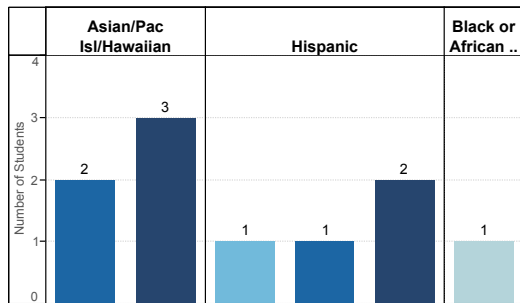
### All Degree-Seeking



### PhD Students



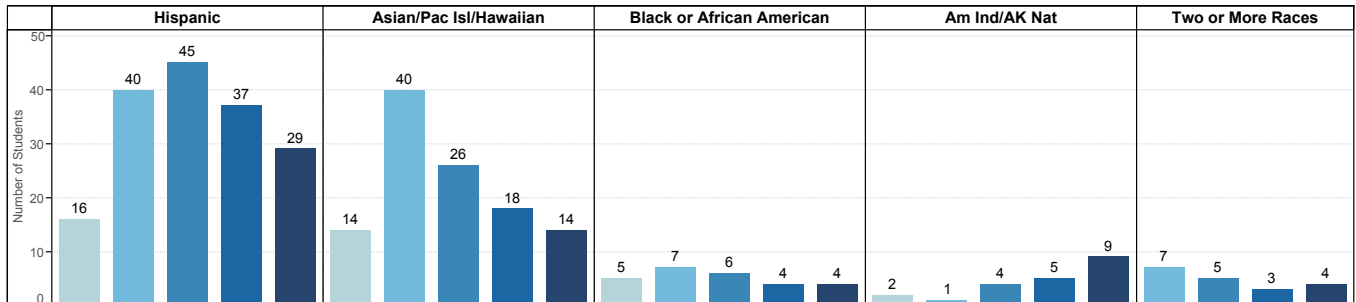
### AUD, DVM, EdD Students



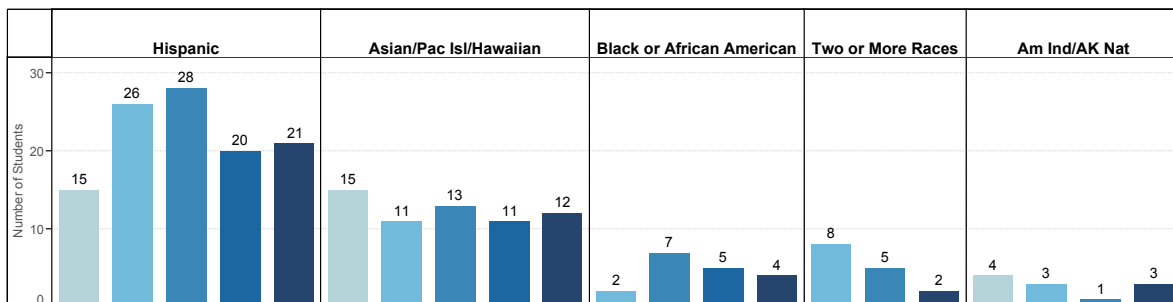
The proportion of degree-seeking domestic graduate students who self-identified as Hispanic, Asian/Pacific Islander/Hawaiian, Black or African American, or American Indian/Native Alaskan is smaller than the representation of the same groups in the state of Utah and in the United States as a whole.

Numbers above each bar indicate the number of students.

### MS, MA, MFA Students

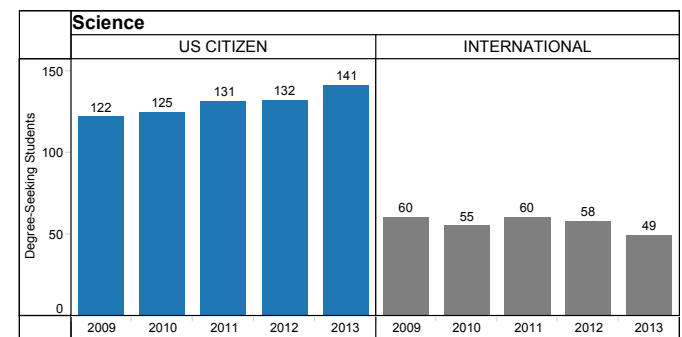
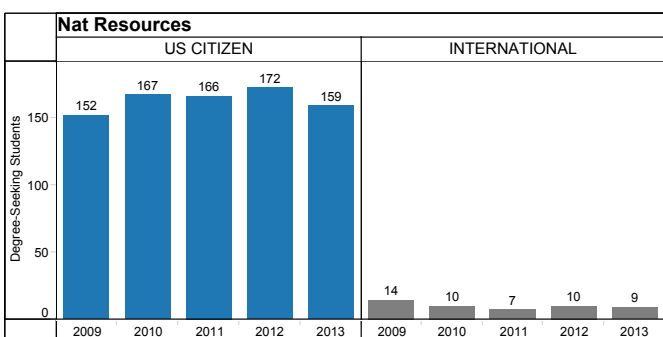
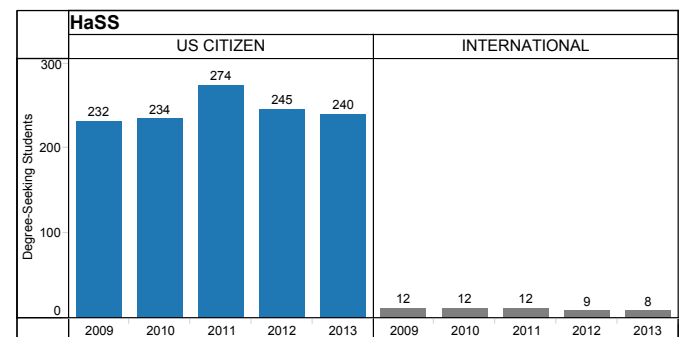
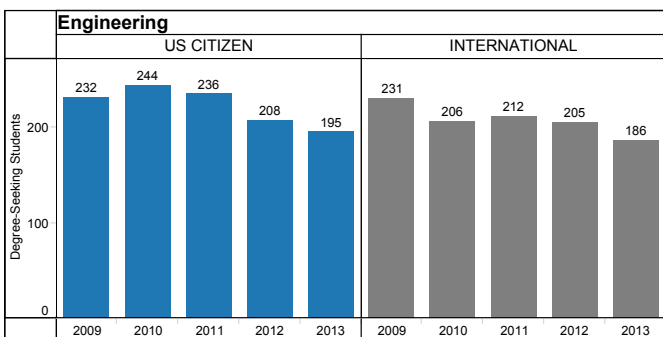
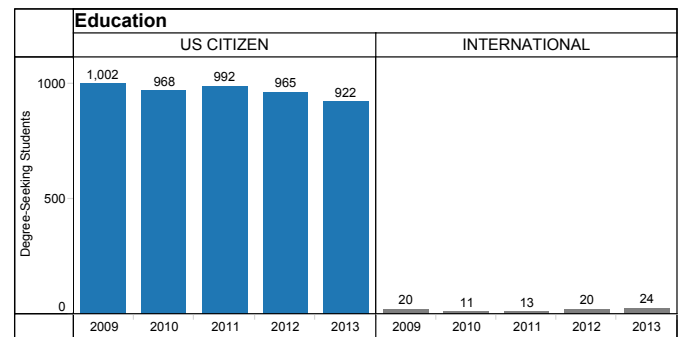
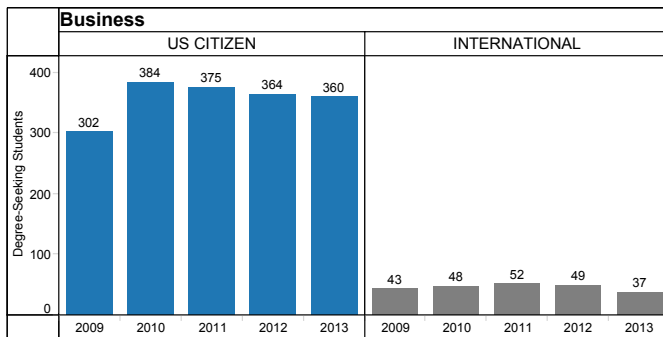
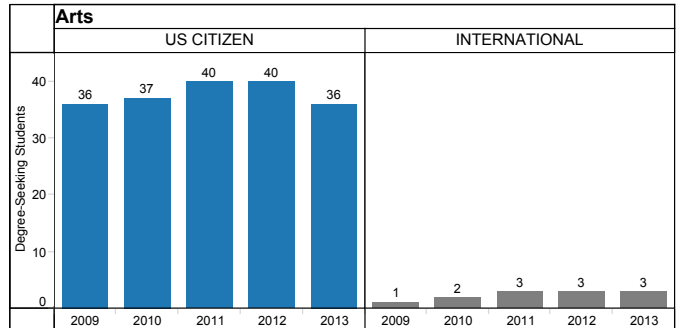
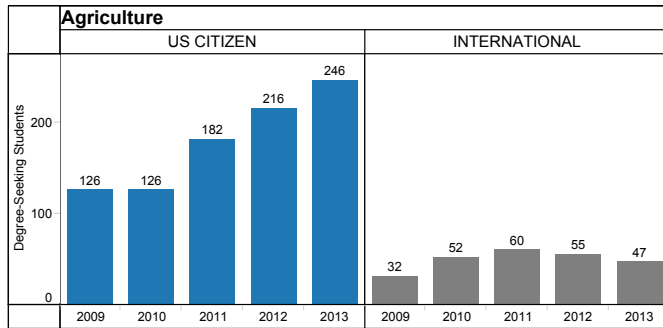
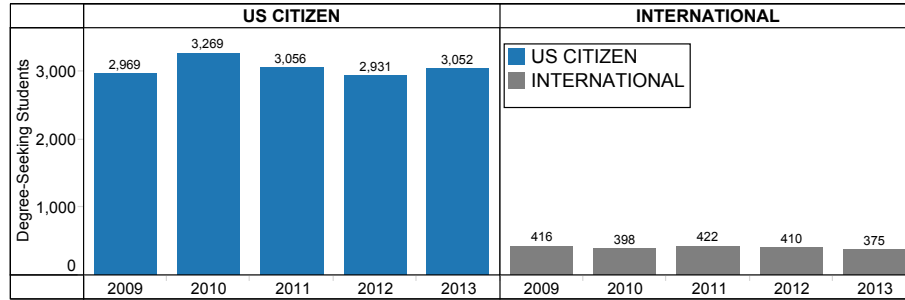


### Professional Master's Students



# Enrollment: Citizenship

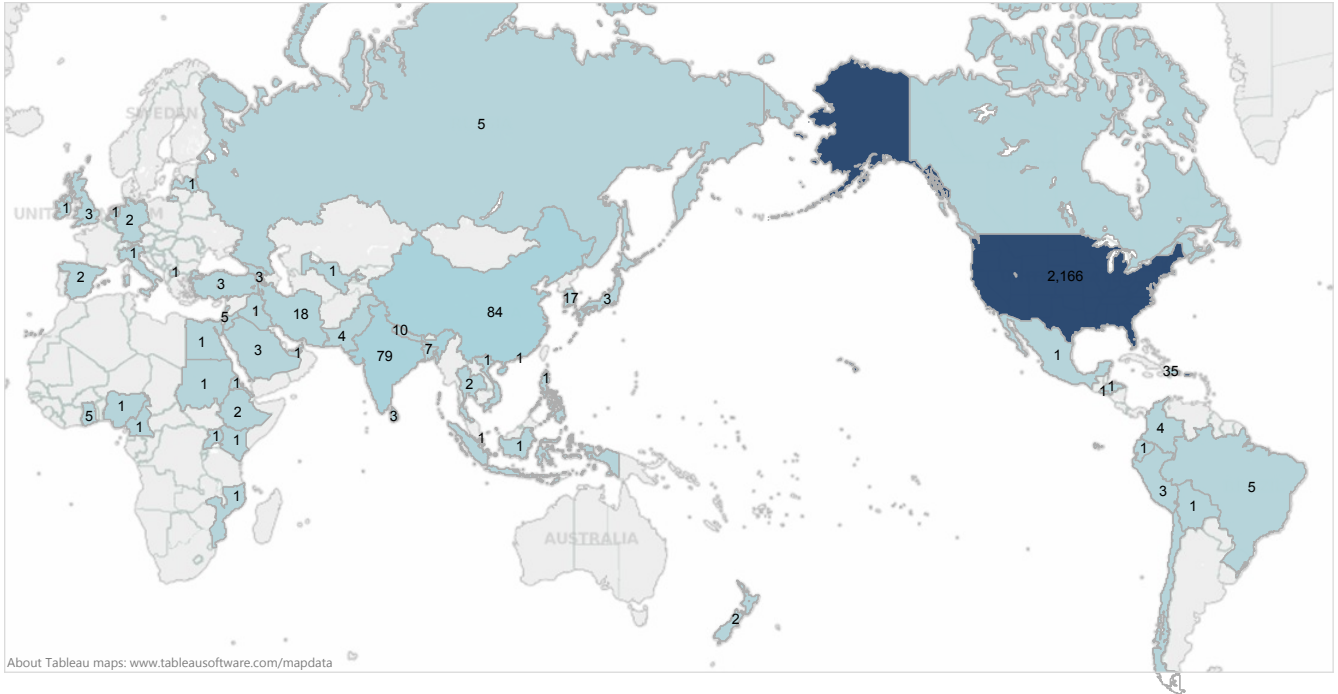
## All Degree-Seeking Graduate Students





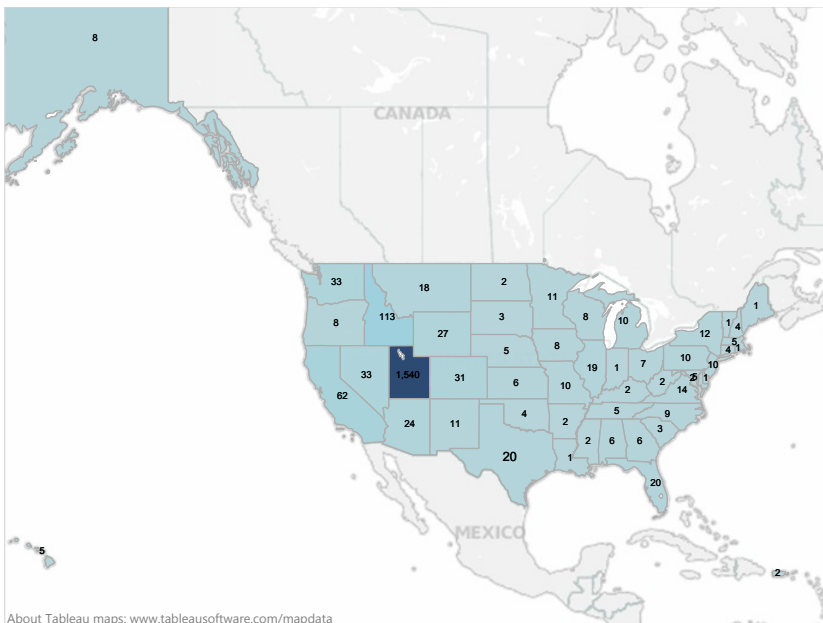
# Enrollment: All Degree-Seeking Graduate Students, Fall 2013

## Country



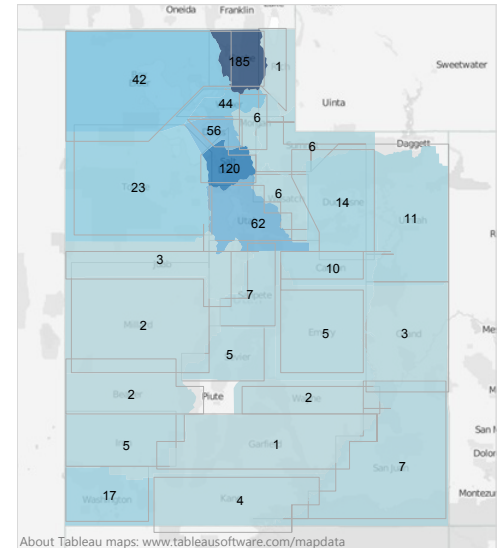
About Tableau maps: [www.tableausoftware.com/mapdata](http://www.tableausoftware.com/mapdata)

## US States



About Tableau maps: [www.tableausoftware.com/mapdata](http://www.tableausoftware.com/mapdata)

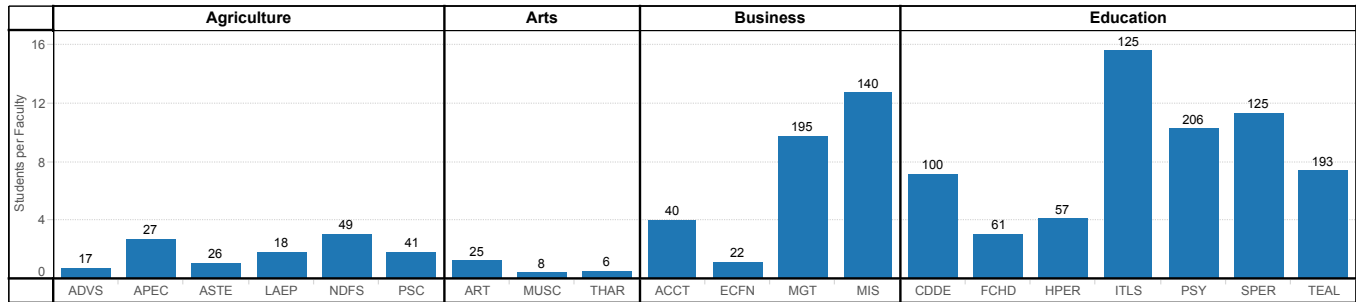
## Utah Counties



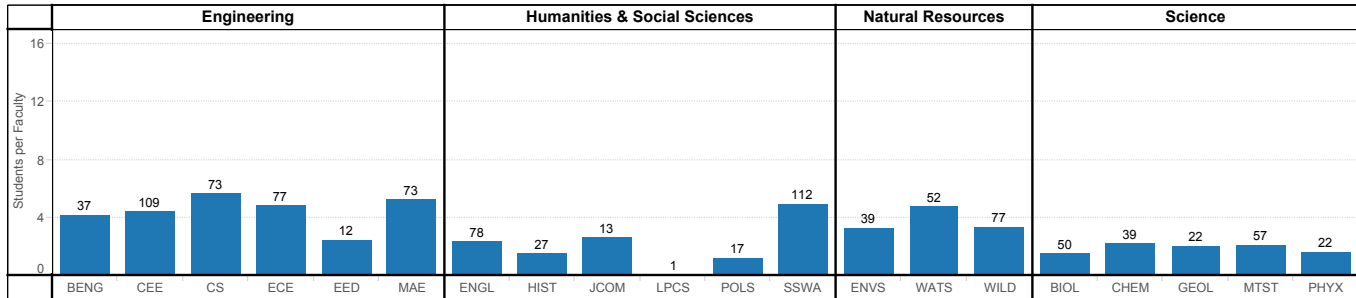
About Tableau maps: [www.tableausoftware.com/mapdata](http://www.tableausoftware.com/mapdata)

## Degree-Seeking Graduate Students per Faculty Member

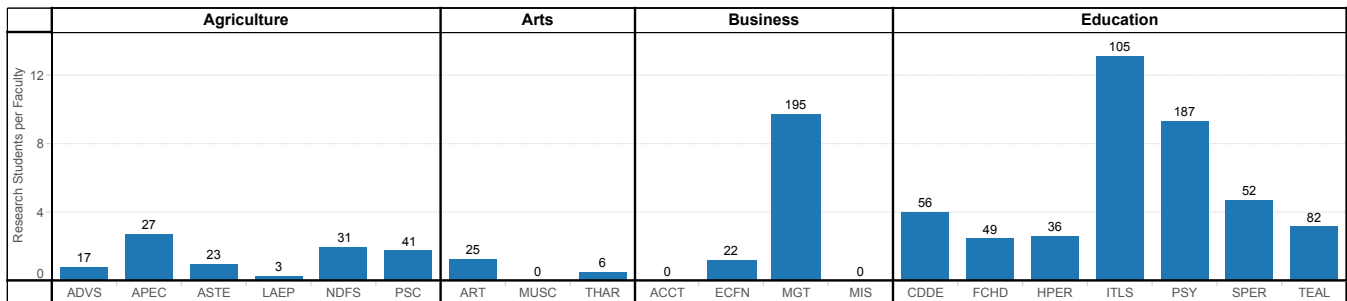
All Degree-Seeking Graduate Students



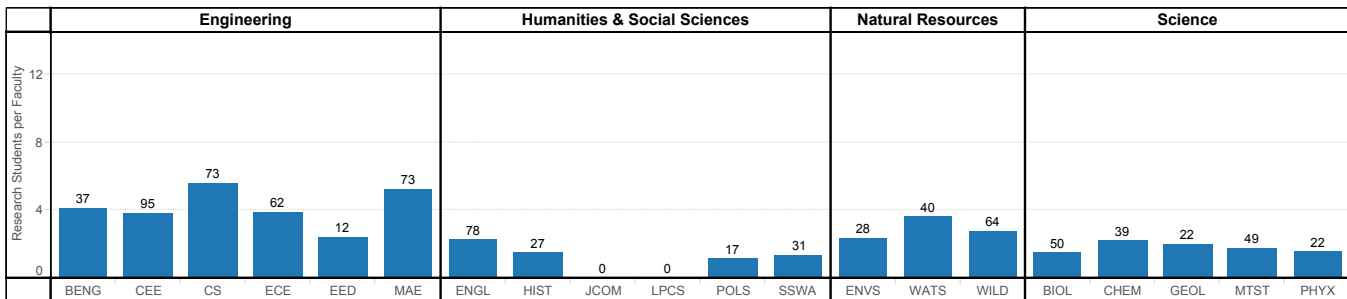
All Degree-Seeking Graduate Students



Research Degrees: EdD, MA, MFA, MS, PhD



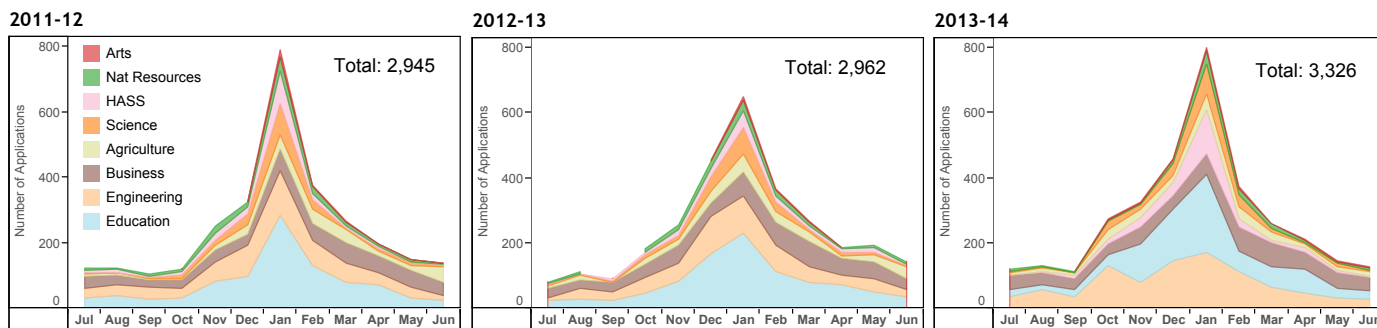
Research Degrees: EdD, MA, MFA, MS, PhD



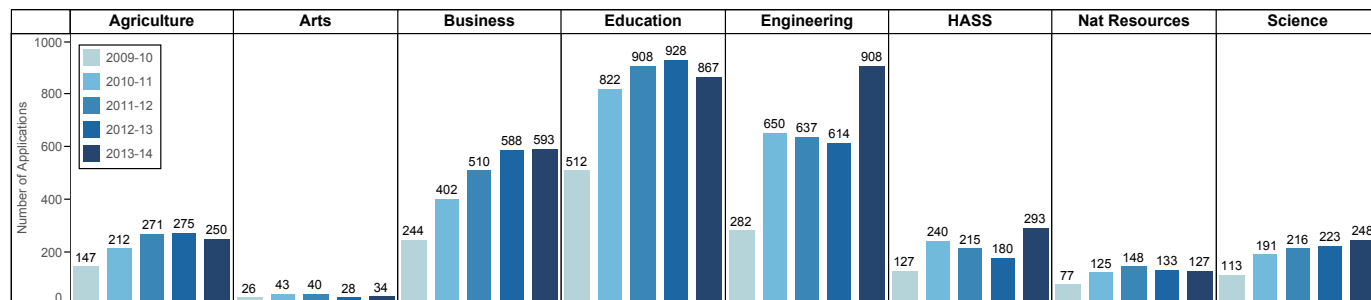
Faculty data are for 2013 [AAA web site]; faculty include all tenure track Assistant Professors, Associate Professors, and Professors (including Research, Extension, and Clinical faculty). Student data are for fall 2013.

Numbers above each bar show the number of graduate students.

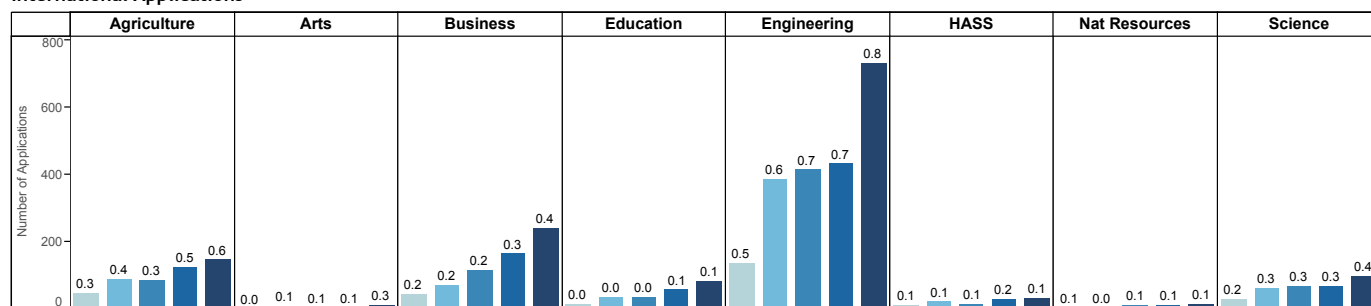
## Applications: Monthly, Annual, By College



### Annual Totals



### International Applications



Data for 2013-14 are through June 16, 2014.

### Notes:

The number of applications received each month varies more than 6-fold during the course of the application year (July - June). We are addressing the resulting problem of workload during the period from November - April by adding another full time processor and assigning processing duties to another staff member during those months.

Application numbers in 2013-14 were up 12% relative to the previous two years.

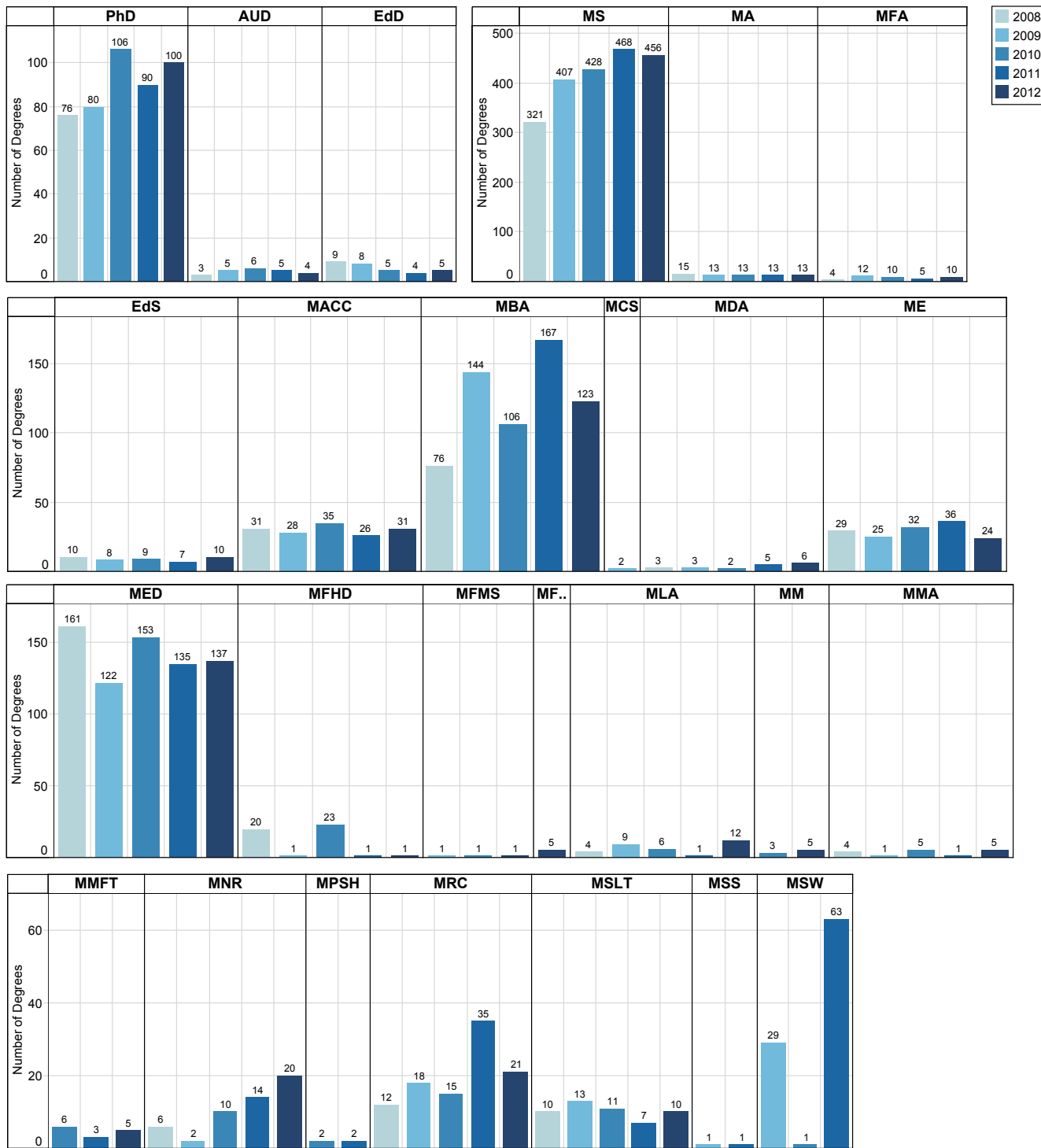
The increase in application numbers in HASS is the result of a >300% increase in applications to Social Work, relative to the previous two years. The part-time MSW program admits students on a three-year cohort basis.

The increase in application numbers in Engineering is the result of increased applications to ECE, CS, MAE, and BENG. At the end of February, ECE, CS, and MAE had each received more applications than they had in previous year.

For Annual Totals, the number above each bar indicates the number of applications received in each application year.

For International Applications, the number above each bar indicates the proportion of applications that were received from international students.

### Degrees Awarded: By Degree Type









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