



FLORIDA STATE UNIVERSITY
IS AN INSTITUTIONAL MEMBER OF THE
COUNCIL ON UNDERGRADUATE RESEARCH
Learning Through Research

Application for the Campus-wide Award for Undergraduate Research Accomplishments (AURA)



Florida State University
June 2015

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Committed to Campus-wide Excellence in Undergraduate Research



Pictured (from top, l-r)
FSU President John Thrasher, Provost Sally McRorie, VP for Research Gary Ostrander, Dean of Undergraduate Studies Karen Laughlin, CRE Director Joe O'Shea, CARE Director Tadarayl Starke, Student Body President Jean Tabares, Student Council on Undergraduate Research and Creativity Director Amy Nicotra, and Presidential & Global Scholar Inam Sakinah. Along with countless other invested stakeholders, our leadership team is dedicated to investing the time, energy, and resources needed to sustain a nationally recognized program of undergraduate research.

Florida State University Application Summary

The best research universities fully engage all students in the research, innovation, and scholarship of the institution, and Florida State University (FSU) is a national leader in this effort. With undergraduate research as a central pillar, FSU provides an ecosystem that maximizes students' educational growth, accelerating their development as scholars and civic leaders.

FSU has embedded undergraduate research throughout the university, providing curricular and co-curricular programming that is accessible to students regardless of background or socioeconomic status. From designing a general education curriculum that emphasizes students' applied scholarly practice, to fostering early engagement in research and integration with other high-impact practices, FSU has built an innovative scaffolding that supports students as they move along the trajectory toward independent scholarship and action. As a result, about 24% of undergraduates currently conduct out-of-class-research, with many more participating within the classroom; within four years, overall engagement will reach 100% with the implementation of current curricular initiatives. Coordinated primarily through FSU's Center for Undergraduate Research and Academic Engagement (CRE) and engaging many campus and community partners, FSU provides unique opportunities for engaging in undergraduate research, preparing students to succeed at FSU and beyond.



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∞ SECTION ONE: FSU'S UNDERGRADUATE RESEARCH EFFORTS ∞

Overview

FSU is a public research university with 41,000 students (32,500 undergraduates) classified as an institution with “very high research activity.”¹ During 2013-14, the university managed a combined federal, state, and private research awards budget in excess of \$230 million.² In 2013, FSU was officially designated a preeminent university by the State of Florida.³

FSU has created an ecosystem that intentionally embeds research throughout college learning, regardless of major, including often overlooked disciplines like business, creative arts, and humanities. Our approach is guided by an innovative scaffolding that emphasizes early engagement and inclusion within the curriculum. Designed to ensure 100% participation in undergraduate research, this foundation is complemented by other opportunities that assist students in crafting their own paths to independent scholarship and creative activity as well as broader community and international engagement.

Within this ecosystem, FSU's Center for Undergraduate Research and Academic Engagement (CRE) is the central office charged with integrating undergraduates into the research culture and activity of the university, providing both curricular and co-curricular programming that is accessible to students of all backgrounds.

Drawing upon CUR's Characteristics of Excellence in Undergraduate Research (COEUR), FSU has selected five focus areas for this application: a supportive campus mission and culture, multi-level administrative support, prioritization of scholarly dissemination, embedding research within the curriculum, and a commitment to comprehensive assessment. These comments highlight only a few of the significant steps FSU has taken in promoting all of the 12 COEUR areas.



FSU President John Thrasher visits Dr. Elizabeth Hammock's neuroscience lab to meet her undergraduate research assistants and learn more about their cutting-edge research on the neurobiological mechanisms of mammal behavior.



Campus Mission and Culture (COEUR 1)

Undergraduate research is integral to FSU's core mission and receives strong support throughout the university community, including from a strong scholarly faculty. FSU's nearly 2,000 full-time, tenure-track faculty have received over 300 national and international awards and fellowships, including induction into prestigious scholarly academies.⁴ Faculty are expected to include undergraduates in their research, an expectation that is highlighted during new faculty orientation and included in annual reports of faculty effort. Faculty across campus demonstrate their tireless support for mentoring undergraduates through the entire research process by incorporating research projects within their classes, supervising research assistants, mentoring students through the extended thesis-writing process, including students as co-authors on publications and conference presentations, and supporting students' postgraduate goals. To help faculty achieve these goals, CRE provides professional development to strengthen research mentorship and awards that recognize and celebrate faculty participation. CRE also manages a database of faculty research projects seeking students as part of their research team.

All fourteen colleges that offer bachelor's degrees at FSU engage undergraduates in research and creative activity. This broad disciplinary participation provides access and encouragement regardless of major, helping to dispel the myth that research only happens in labs. Extensive in-person, digital, and social media promotion helps all students understand the ample opportunities available for engagement. Essential to recruiting the most highly motivated students from around the country, this promotion begins before students are admitted. Undergraduate research opportunities are also featured by FSU's tour guides, are highlighted to all students during orientation, and are promoted as part of first-year learning communities.

Find the CRE on....

TWEETS	FOLLOWING	FOLLOWERS	FAVORITES
213	597	320	83

Tweets Tweets & replies Photos & videos

FSU CRE retweeted
Florida State Univ. @floridastate · Jun 4
Thinking about taking a gap year before college? @FSU_CRE's Joe O'Shea has advice to make it count -> [ti.me/1ctbVuP](https://t.me/1ctbVuP)

FSU CRE @FSU_CRE · May 22
If you applied for UROP, we expect to send out decisions by the end of June! If you're a transfer student, you can apply until July 11



FSU and CRE use multiple social media platforms to promote campus undergraduate research news and events to students, faculty, alumni, and community partners.

Guiding FSU's efforts is an equality framework that promotes access to undergraduate research for *all* students while also maximizing the academic and personal development of *each* student, regardless of background or socioeconomic status. FSU's focus on access emphasizes several related approaches: outreach, peer mentorship and community building, advising, success coaching, financial support, celebration of accomplishments, and intersections with other high impact practices. Robust campus partnerships with both academic and student affairs units have been forged to promote participation in undergraduate research. These include Orientation, Residence Life, Greek Life, Student Government, the Career Center, International Programs, the Center for Leadership and Social Change, the Center for Global Engagement and many other partners. Special encouragement is given to students typically underrepresented within high-impact practices. From the nationally recognized Center for Academic Retention and Enhancement, which supports first-generation, low-income students; to the Garnet and Gold Scholar Society, a program run through the Career Center that includes research as one of its five engagement areas; to Women in Math, Science, and Engineering, a Living-Learning Community for females majoring in STEM disciplines, countless engagement and support services help students access research experiences.

Within CRE, the Undergraduate Research Opportunity Program (UROP) encourages hundreds of first- and second-year students, especially those from underrepresented groups, to begin their engagement with research as underclassmen; in 2014, the program was expanded to include transfer students, with a special emphasis on veterans. CRE also administers the NSF-funded Louis Stokes Alliance for Minority Participation that pairs graduate students with underrepresented undergraduate mentees to encourage completion of STEM PhD programs.

Research is also integrated into other high impact practices. The Global Scholars Program helps undergraduates (with a special emphasis on low-income, first-generation students) secure and fund internships of at least two months with non-profit community organizations in developing countries, culminating in a research-based capstone project. Research also provides a foundation for launching entrepreneurial ventures. Students participating in Launch FSU—our social enterprise accelerator—bolster their research skills while launching their own startups.



Global Scholars like Ryan Lewis (above left) in Kyotera, Uganda and Lee Ann Steers and Katrina Crankshaw (above right) in Assam, India have benefitted from CRE's efforts to promote research-based international service learning.



CRE's Social Entrepreneur In-Residence Chris Markl leads a Launch FSU seminar.

Administrative Support (COEUR 2)

As a major research university, FSU has the administrative infrastructure to support a robust undergraduate research enterprise, including financial and/or logistical support. The Office of the Vice President for Research (OVPR) supports all aspects of Florida State University's \$200 million research enterprise, including its research centers, programs and institutes. He oversees a staff of 80 and a \$29 million operating budget. The Office of Proposal Development assists faculty who include undergraduates in external grant applications, and the OVPR also administers internal faculty research grants, review boards to ensure that both faculty and student research is being conducted ethically; and state-of-the-art computer, laboratory, and creative facilities. The FSU Libraries are also uniquely involved in this enterprise, offering dozens of workshops designed for undergraduate researchers, classes taught by subject librarians in discipline-specific research methods and database use, and extensive assistance in helping undergraduates prepare sophisticated oral and poster presentations. FSU's availability of startup funding for faculty is also commensurate with a university with very high research activity. New faculty are also eligible to receive a First Year Assistant Professor Award of up to \$20,000, with encouragement provided to include undergraduates in their research.

Situated in the Division of Undergraduate Studies (UGS), CRE provides centralized undergraduate research administration. Sustained by recurring, state-supported dollars since its formation in 2008, CRE staffing has grown from a part-time faculty director to a major university-wide center with four full-time staff, two shared full-time staff, and three graduate student assistants. CRE staff are now supplemented by colleagues who have significant undergraduate research administration assignments, including in the College of Medicine, Engineering, and Career Center. Undergraduate research-related expenses now total nearly \$1 million annually, including over \$160,000 in student research and travel funding (see Appendix A for selected CRE programming). Additionally, over the past decade, UGS has received over \$1.2 million from private donors who have supported undergraduate research through endowed or annual gifts.

In 2014, FSU's commitment to undergraduate research was cemented by the opening of the Honors, Scholars, and Fellows House (HSF). HSF unites CRE, Honors Program, Office of National Fellowships, and Graduate Student Fellowship offices within one building in the heart of campus. Funded by the President and private donations, the LEED-certified building has technology-enhanced program spaces and study areas that accommodate select workshops and classes. The close proximity of these various offices encourages cross-program engagement and HSF staff have created monthly "Mix and Mingle" events that bring graduate and undergraduate researchers together to discuss their research and academic careers. The Great Hall on the top floor of HSF provides a research-sharing space for activities such as the monthly "Research Remix," an interdisciplinary research-sharing event for undergraduate researchers. Finally, student visual art projects will be featured throughout the building.



Student Profile in Excellence – Meet David Miller

David benefitted from FSU's scaffolding approach. Entering as a research assistant in our early engagement program (UROP), he later won an FSU summer research grant to research bioethics at the [Yale Summer Institute for Bioethics](#) and the [Hastings Center](#). David was recently selected as a [Frost Scholar](#) to study medical anthropology at Oxford University.

CRE is advised by a diverse, provost-appointed, twelve member Faculty Advisory Board. The board is instrumental in shaping campus-wide undergraduate research activity, including selection of research award recipients and recruiting faculty for research programs. CRE is also assisted by the Student Council for Undergraduate Research and Creativity (SCURC), an official FSU Student Government Bureau, which provides a student voice to improve the undergraduate research experience. In addition, SCURC funds student research conference travel, organizes peer-ambassadors to promote research, and coordinates publication of *The Owl*, FSU's undergraduate research journal.

CRE staff participate in broad professional development and scholarly opportunities by attending conferences, conducting research, and serving professional organizations. CRE staff, along with other faculty partners, have authored multiple publications and presentations for academic and popular-press audiences. Appendix B lists scholarly contributions made by CRE current staff in 2014-15.

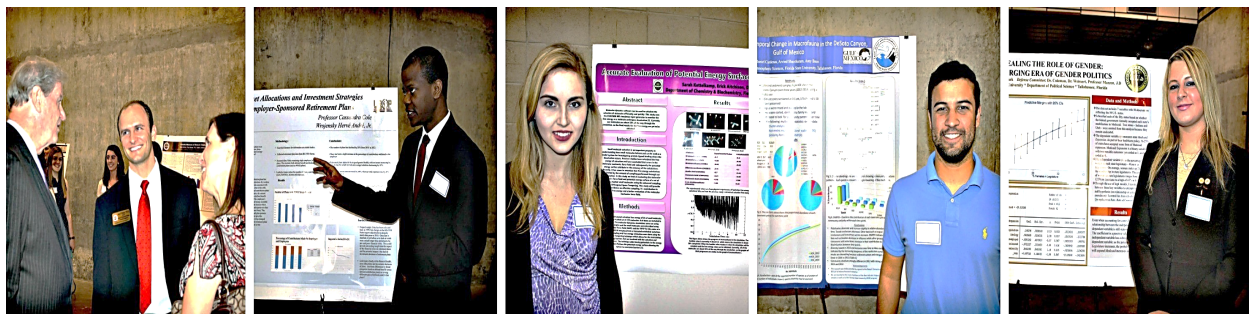


FSU is an institutional member of CUR. CRE Director Joe O’Shea serves as an elected Councilor for the CUR Undergraduate Research Program Directors division. Dr. O’Shea also serves on the CUR assessment taskforce and as a reviewer for *CUR Quarterly*, Posters on the Hill, and URPD division conferences. He is also extending the discussion of undergraduate research to other high impact areas, including through his service as President of the Board of the American Gap Association.

Dissemination (COEUR 7)

Dissemination is a foundational component of FSU’s undergraduate research enterprise. FSU encourages students to present research throughout their careers, with a scaffolding approach that gradually builds their presentational skills, from classroom or lab presentations to off-campus professional conferences and publications later in their careers. Between CRE, faculty mentors, campus libraries, writing centers, and the Career Center, FSU provides resources for all phases of research sharing, from writing abstracts, to creating poster and oral presentations, to individual or co-authorship of peer reviewed publications, to including research dissemination on one’s resume. FSU recently launched [GEOSSET](#), a professional-quality recording studio, providing students the opportunity to record their research presentations for digital distribution. An institutional easel repository, assembled to encourage research dissemination at various classes and events, was utilized for over 50 events in the first two years.

While many departments host their own research symposia or creative showcases, CRE leads efforts to promote dissemination of undergraduate research on campus through a series of broadly based annual events. Beginning in fall, summer research grant awardees present oral, poster, and creative presentations at the President’s Showcase of Undergraduate Research Excellence. A Fall Research Day also allows fall graduates to share their research. Our largest annual event is the spring Undergraduate Research Symposium (pictured below). Although held for 15 years, it has grown exponentially in the last four, from around 50 students to over 300 presenters (representing over 80 academic departments) and 1,000 attendees, with a special creative arts presentation session. Uniting various research sharing events, CRE launched FSU’s inaugural [Student Research and Innovation Week](#) in 2015. Bringing together [DIGITECH](#) (digital and technology research), Sharktank and Startup Weekend (research-guided enterprise), and the WIMSE Showcase (female STEM student research), along with the Undergraduate Research Symposium and other events, the Week celebrated undergraduate research, creativity, and innovation occurring throughout campus.



Undergraduate students presenting their original research at the 2015 Undergraduate Research Symposium held in FSU’s Tucker Civic Center.



FSU students selected to present at the 10th annual ACC Meeting of the Minds at North Carolina State University, in Raleigh, NC.

FSU also supports students to attend student conferences, such as the Florida Undergraduate Research Conference, NCUR, [ACC Meeting of the Minds](#), [FGLSAMP Expo](#), as well as national and international professional conferences. FSU assists students in finding dissemination venues including through an institutional membership to the [Student Opportunity Center](#). FSU provides over \$50,000 annually for conference travel, as well as free poster printing and practice presentation sessions. DigiNole Commons, sponsored by the FSU Libraries, also disseminates honors thesis research through a virtual repository. Finally, *The Owl* undergraduate research journal is distributed widely throughout campus and to prospective students.



Student Profile in Excellence – Meet Cole Friedes

Cole began his research career as an underclassman in UROP, then interned with FSU Global Scholars in Ghana, won an FSU Public Service Research Fellowship and a summer undergraduate research grant, served as a UROP peer leader and completed the FSU Garnet and Gold Scholars program. Having already presented his various research projects at four events, Cole will present the results of his 2015 summer project, "Cocaine Induces Rapid and Widespread Reorganization of Chromatin," at the President's Showcase of Undergraduate Research Symposium. Cole is completing his Honors Thesis and has already submitted his results for publication.



Curriculum (COEUR 9)

FSU embeds research into the curriculum across the university to 1) provide a structured curricular approach to undergraduate research skills development and 2) ensure that students across the higher education spectrum can benefit from engagement in undergraduate research. The following three examples illustrate the university's commitment to supporting faculty integration of teaching and research and to providing students with training in transferable skills that can be applied to mentored research.

After years of planning, FSU recently launched its "[Liberal Studies for the 21st Century](#)," a new curriculum spanning the entire undergraduate experience that requires engagement in undergraduate research. Following our broader scaffolding approach, all students now engage in at least two "Scholarship-in-Practice" (SIP) courses. SIPs explore the process of creative and scholarly work, culminating in the creation and dissemination of a research or creative project. These courses provide students with direct experience of what it means to be, for example, a biologist, sociologist, or visual artist, while engaging with a wide variety of approaches to disciplinary problems. Examples of Scholarship-in-Practice courses include "Empowering Health Consumers in the eHealth Era," "Interpreting Native America," and "The Lean Machine: The 21st Century Entrepreneur."

In addition to the new curriculum, FSU employs a low-cost, creative model to further integrate research into the curriculum. CRE's Academic Engagement and Innovation Grants (AEIG) support faculty who incorporate research into new or existing undergraduate courses. AEIGs provide a \$1,000 stipend to graduate student mentors who assist with course-based undergraduate research projects. AEIGs also support purchase of research materials to cover any necessary costs associated with the undergraduate research projects. AEIGs assisted faculty in 19 departments and directly impacted 2,601 students in the 2014-2015 academic year. See Appendix C for examples of SIP and AEIG-funded courses.

Finally, FSU's Quality Enhancement Plan (QEP) for regional accreditation, [Think FSU: Improving Critical Thinking in the Disciplines](#), allocates additional resources to help faculty improve pedagogy and strengthen the development of writing and communication skills in the upper-division curriculum, often by including undergraduate research in their courses.

Assessment (COEUR 11)

Assessment undergirds FSU's undergraduate research enterprise. All faculty and students participating in undergraduate research programming participate in pre- and post-program evaluations, including quantitative and qualitative measures, designed to assess learning, perceived impacts, and program evaluation. Assessment is regularly disseminated to campus leadership, drives continuous improvement, and assists with budget allocation and soliciting private support.

While FSU participates in several national evaluations, including the Cooperative Institutional Research Program Freshman Survey and the National Survey of Student Engagement (NSSE), we also administer a mandatory graduating senior survey that records engagement in



undergraduate research activity. In addition, FSU now captures data on student-faculty co-authorship through our annual faculty reporting portal, and early reports identify dozens of co-authored publications and presentations each year. Finally, in 2013, FSU, with guidance from our Department of Educational Psychology, developed and administered a novel, replicated undergraduate research-focused instrument, the Undergraduate Research Involvement Survey. In its first administration ($n = 7,469$ undergraduate students) FSU captured a representative overview of undergraduates' involvement in research, including validated comparison groups.⁵ See Appendix D for selected results of the Undergraduate Research Involvement Survey and 2014 NSSE. Together, these assessments allow FSU to triangulate data from multiple sources to illustrate impacts and patterns of involvement in undergraduate research.

Assessment is also embedded throughout FSU's curriculum, but special assessment occurs within FSU's AEIG grant-funded courses, QEP, and new SIP courses. QEP courses are evaluated with rubrics based on the AAC&U [VALUE](#) rubrics and SIP courses must enable students to meet three competencies, demonstrating the ability to: 1) select, critically evaluate, and apply relevant areas of scholarship to produce an original analysis, project, creative work, performance, or other scholarly work that reflects a body of knowledge relevant to the course; 2) articulate the process of producing a work, from initial plan, to critique, revision, and completion; and 3) critique existing applications of scholarship in order to learn from past success and failures.

FSU is excited to share its assessment practices and results at national and regional conferences and with undergraduate research colleagues, including helping other institutions implement our campus-wide survey and adding to CUR's assessment efforts.



Student Profile in Excellence – Meet Daniel Ruiz

**Major: Creative Writing |
Minors: Psychology, Spanish**

Born in Puerto Rico, Daniel is an accomplished poet and editor, UROP peer leader, and winner of both the Literati Poetry Award and the URCAA summer research award. The URCAA provided support to travel to Argentina and Uruguay to study Latin-American poetry. Daniel completed an Honors in the Major poetry thesis and is in the process of publishing a book of poems. He will soon be traveling to Chile for a year on a creative Fulbright grant.

∞SECTION TWO: EXEMPLARY INSTITUTIONAL PROGRAM ∞



Student Profile in Excellence--Meet Inam Sakinah

"Being involved in research through UROOP has allowed me to join a wonderful group of fellow students who are dedicated to engaging with important questions. As a first-year student I did not expect to have the opportunity or the necessary skills to collaborate with accomplished faculty. However, the support I've received has empowered me to distinguish myself by pursuing my passion."

Inam just finished her freshman year and is already a UROOP alum, Global and Presidential Scholar, and member of the SCURC Board of Directors.

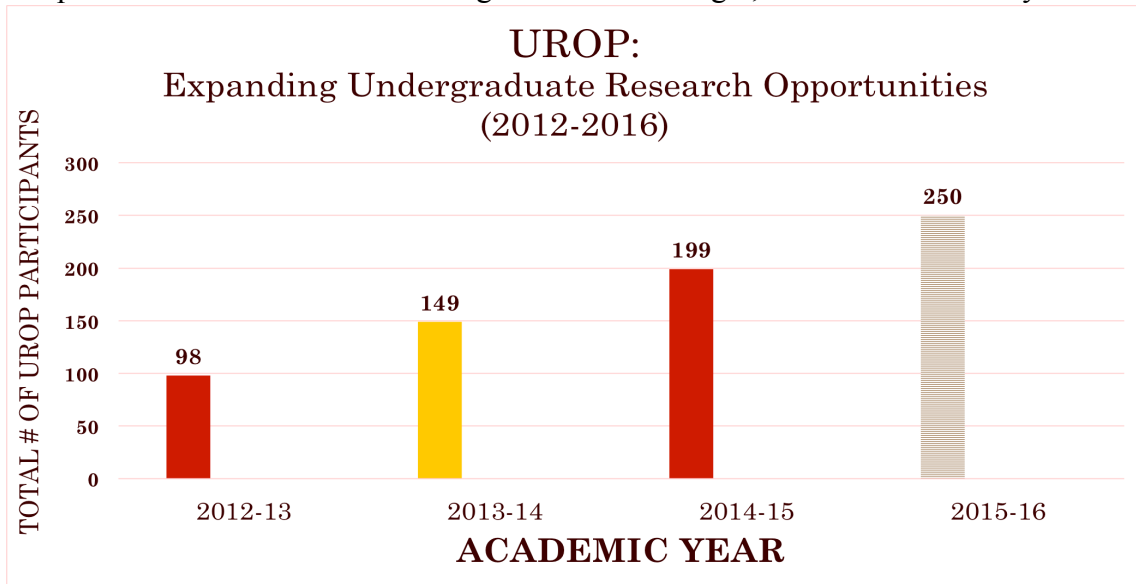
Florida State University is committed to providing an educational experience that prepares students to be thoughtful citizens, innovators, and problem solvers. Underpinning this is an educational framework that promotes early engagement in research and prioritizes access and participation for all students. FSU's commitment to early engagement in research is exemplified by our Undergraduate Research Opportunity Program (UROOP).

UROOP launched in 2012-13 and provides first- and second-year students, as well as new transfer and military veteran students, the opportunity to join a community of hundreds of other students to gain hands-on experience and research skills, explore academic and career interests, and learn to think in creative and innovative ways. This three-part program lasts one academic year: a) students partner with faculty to work as research assistants, typically between 5 to 10 hours per week; b) students enroll in a one-credit, bi-weekly UROOP Colloquium, taught by an upperclassman who has already engaged significantly in research; and c) students present their research contribution as a poster presentation at the Undergraduate Research Symposium during spring semester. In this way, students are exposed to and guided through all steps in the research process, from initial contact with a supervising professor to disseminating their research at the end of the year.

UROOP continues to grow at a swift rate, increasing by over 100% from its inception. Beginning with 98 students in the first cohort, 2014-15 saw around 200 students and next year's program will have over 250 participants. In 2014-15 we launched the first pilot transfer student section;



the pilot was such a success that CRE plans to expand transfer student participation by 100% next year. In Fall 2016, all new Honors students (250) will be required to complete UROP, and we anticipate that UROP will continue to grow until reaching 1,000 students annually.



UROP Colloquia are taught by closely supervised third and fourth-year students who are selected through a rigorous application and interview process in the fall of the year before they begin teaching. During the spring semester, they enroll in a UROP Leader Training Seminar (one-credit course with tuition paid by the provost), which covers various elements from designing a syllabus to pedagogical techniques that help students prepare to teach their own UROP sections. The following year, the trained Leaders teach or co-teach (with another UROP Leader) a discipline-themed UROP section (i.e. STEM, social sciences, humanities, or creative arts), typically ranging from 10 to 19 students per section. In 2014-15, there were 24 UROP leaders who led 14 colloquia sections; 33 new UROP Leaders-in-training were enrolled in the 2015 Spring Training Class, taught by Dr. O’Shea along with several returning UROP Leaders who served as teaching assistants. Qualitative program evaluation conducted on the UROP Leaders Training Course in spring 2015 revealed that most students who become UROP Leaders began as students in UROP and found the experience to be so valuable that they wanted to contribute to similar development in future participants of the program. Serving as a UROP Leader fosters special teaching skills, like classroom management and syllabus development, and students deem it a very valuable professional development experience to highlight on their resumes or CVs. Since most UROP Leaders have plans to attend graduate school, many also note that it is a good opportunity to “try out” what it would be like to teach classes as a graduate assistant or even to become a professor later in their careers.

UROP changed my life. If I had never gotten into the program, I might not have realized how passionate I am about research, and I probably would not be on the path to become a professor right now. Teaching the colloquium was just as rewarding for me as being a participant in UROP. It gave me the opportunity to be a role model and mentor to a group of younger students, and watching them start their journey in undergraduate research the same way that I did, and knowing that I helped them on that journey, has been the most amazing experience of my undergraduate career. —UROP Leader



Guided by the mentorship of the UROP Leader, the UROP Colloquia fulfill an important social goal of bringing together students with similar interests and academic or professional goals while uniting them under a newly forming identity as “researcher” or “scholar.” UROP forms another system of support for these students as they engage with one another over the course of the year. Students then finish UROP with the skills, confidence, and strong academic network of faculty and peers to find further research assistantships or eventually to begin their own independent scholarship.

UROP opened so many doors for me. I've seen it firsthand as a student and then as a leader. The best part of UROP is the community. Sometimes, [students] can feel isolated, especially at such a large university. UROP provided a community that nurtured and encouraged my achievements, as well as a great group of friends that I will have for the rest of my life! —Two-time UROP Leader

UROP is designed with an intentional focus on accessibility for a wide range of students, including from various departments and majors (with a special emphasis to promote the program to non-STEM students), honors and non-honors, and those from various backgrounds. The program strives to encourage students with varying personal dispositions or professional awareness to engage with research. Traditional methods of student engagement in research, for example, often reward tenacious extroverts, students who feel comfortable knocking on a professor’s door or sending an unsolicited email to ask to work on a professor's research project. But not all students, especially those who are typically underrepresented in research, successfully navigate such a process. UROP is designed to make this process less intimidating for students. In their UROP Colloquia, students receive a link to a database of projects that faculty and advanced graduate students have proposed; all students then learn methods for contacting professors, tips for crafting research-appropriate resumes, interviewing techniques, and even tips on dress and professional presentation.

Accessibility within UROP is facilitated through intentional recruitment efforts that rely on strong campus partnerships. In 2014-15, for instance, we were able to extend UROP involvement opportunities for transfer students (19) and veterans (3), as outlined above, as well as historically underrepresented populations, including 71 minority students (34.60%), 44 first-generation college students (21.46%), and 11 Center for Academic Retention & Enhancement (first generation, low-income) program participants (5.37%). Additionally, CRE expanded outreach efforts to integrate research opportunities for departments that previous assessment had demonstrated to be “under-involved” in early engagement research experiences, including the creative and performing arts, business, engineering, and information technology, and various humanities sub-disciplines, among others. UROP is now highlighted during preview sessions for potential students and is used as a recruitment tool for select highly achieving students, and digital and printed information is included with admissions materials for all incoming first-year students.

In another effort to make participation in UROP accessible for all students, we were able to secure Federal Work Study funding for research assistantship hours. We found that for many of our lowest income students, volunteering as a research assistant was not feasible because they spent many of their non-school hours working off-campus jobs; even modest FWS funding

reduces some of this financial burden of participation. FSU is also working to secure private support to expand the number of supported students in UROP.



Staff Profiles in Excellence—Meet CARE Director Tadarrayl Starke

"UROP has made a significant impact for CARE. Our first-generation students have an opportunity to develop greater connections with faculty, helping them to better engage with the campus community. Students who have participated have shown significant increases in academic engagement and success, as well as moved on to leadership roles on campus.

Before UROP was developed, CARE students rarely engaged in research or scholarly activities outside of classwork. This was primarily because our socioeconomically disadvantaged students frequently had jobs and other obligations preventing them from participating in research. With the creation of UROP and the opportunity for our students to get paid for scholarly work, students have displayed a real thirst for learning beyond the textbook. They now seek how to continue researching once their UROP experience is complete."

Our campus partnership with the Student Veterans Center assists us in promoting undergraduate research opportunities to veteran students. CRE works closely with the Veterans Center to promote UROP, helping recruit students and faculty mentors, further aiding FSU's stated goal to become America's "Most Veteran Friendly Institution."



Student Profile in Excellence—Meet Daniel Hubbard

After completing his service as a U.S. Army medic, Daniel enrolled at Florida State University and soon became involved in the Undergraduate Research Opportunity Program (UROP), a choice that would eventually help him win a Truman scholarship. Inspired





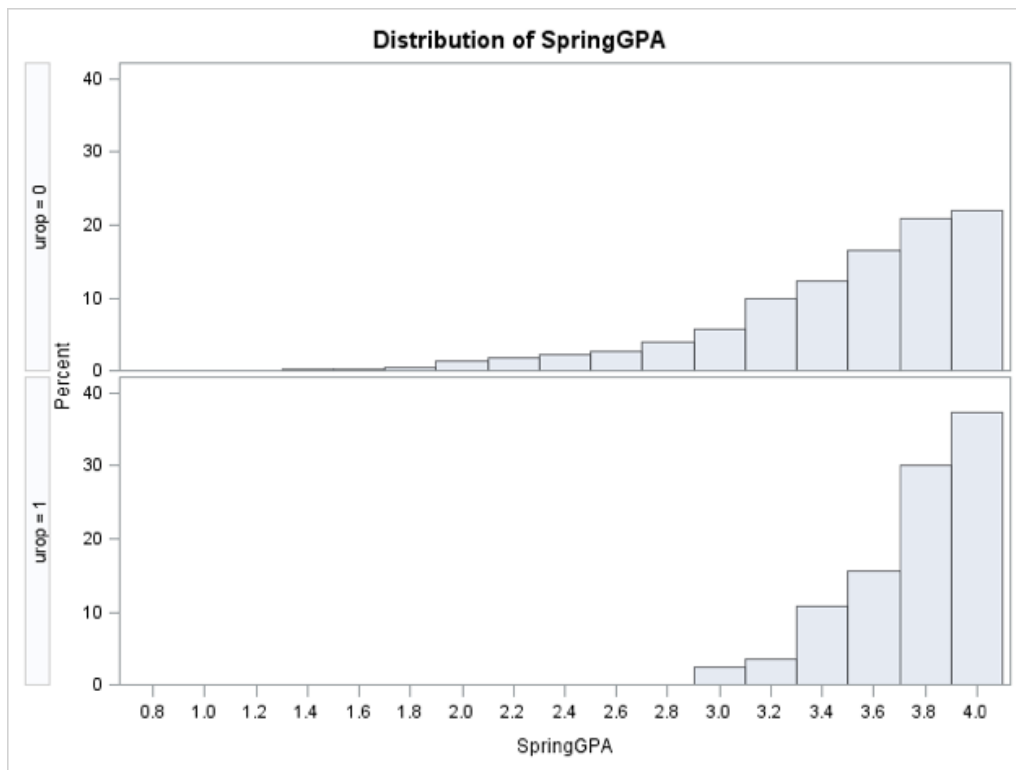
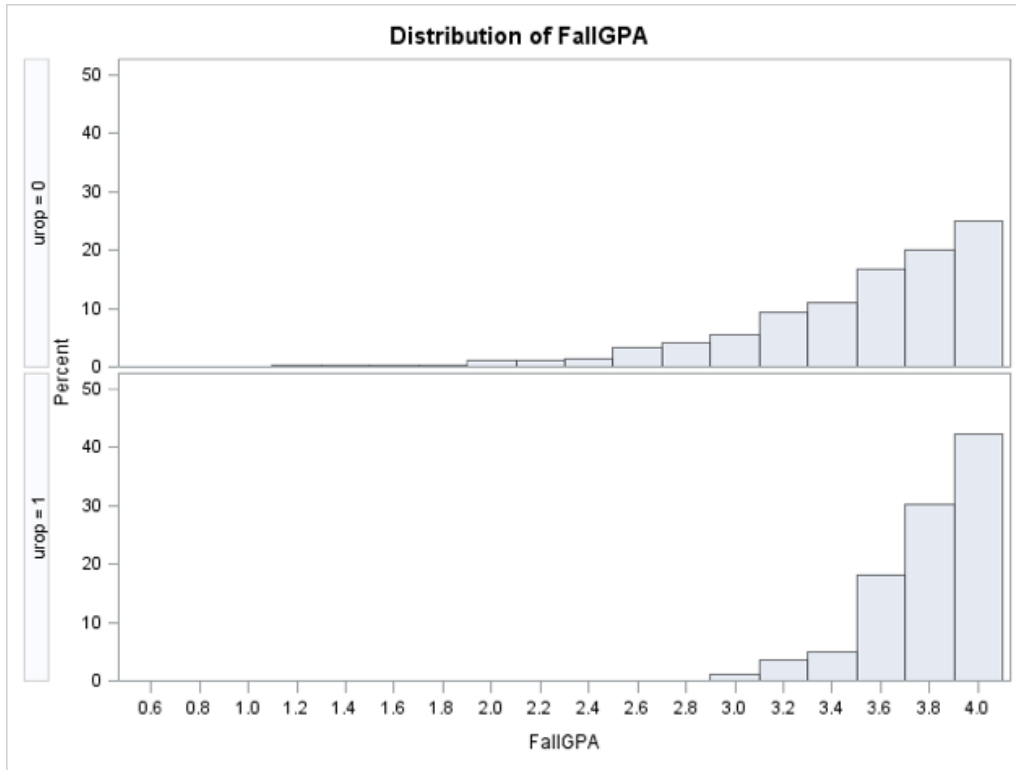
to research mental health issues in the military, UROP set in motion opportunities for Daniel to become involved with a nationally recognized scholar in suicide and further his research as a summer research award winner. Daniel was named a Truman Scholar, one of only 58 in the nation, and the only selected from Florida.

UROP eased my integration into Florida State University's research community by facilitating conversations with prominent faculty members, encouraging collaboration with peers, and ensuring the success of my pursuits in undergraduate research. As a veteran, a transfer student, and a UROP member, I strongly believe this program has a genuine mission to enrich the education of participating students. –Daniel Hubbard (pictured above), former Army medic, community-college transfer student, UROP member, and 2015 Truman Scholar

Another new direction for UROP is an expansion into the local community. In 2014-15, several UROP projects were created in partnership with local start-up companies, including HWind Scientific, through which UROP students helped improve hurricane models for businesses and government agencies, and Domi Ventures, which had UROP students evaluate startup incubation models. After the success of this initial year, CRE is striving towards creating further research collaborations with local businesses and community partners.

Virtually all dimensions of UROP are assessed, from training, to colloquia, to the faculty-mentee relationship. CRE conducts pre- and post-survey assessment of UROP participants before beginning and after concluding the program. Faculty mentor surveys assessing their mentees are administered at the end of fall and spring semesters; mid-term evaluations are useful to ensure the mentor/mentee relationship is working smoothly while there is still time to address any possible issue. UROP Leaders-in-Training are assessed at the end of their training course, and CRE staff also observe all UROP Leaders during their first semester of teaching to provide feedback and constructive criticism. Finally, UROP Leaders design their own survey evaluations that they administer at the close of the spring semester.

This assessment portfolio is supplemented by a matched cohort evaluation approach. Using a matched cohort controlled for high school and college performance and standardized test scores, our Institutional Research Office was able to identify that in all cases UROP students had higher GPAs than non-UROP students. While not demonstrating causation and not controlling for student motivation, this does suggest possible positive impacts of UROP participation. This trend was especially pronounced when comparing students with a cumulative fall GPA of 3.0-3.5; the average change in term GPA for these students from fall to spring was a reduction of .0497 for non-UROP students and a gain of .1370 for UROP students. All but two UROP students have been retained at FSU.



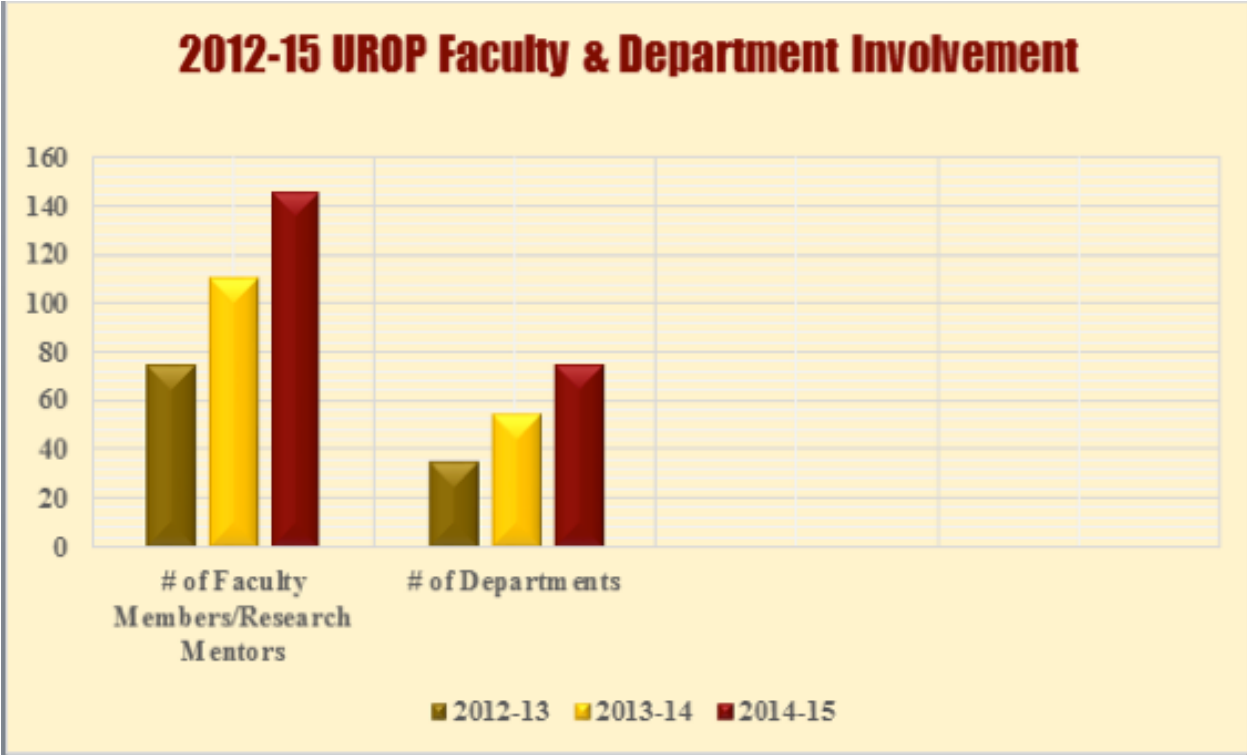


UROP student surveys report that UROP helped them cultivate their skills as researchers, bolster critical thinking, clarify educational/professional goals, connect to the institution and community, gain confidence, and develop several other capacities. See Appendix E for selected results from UROP student surveys.



"This is a really impressive program....It is a win for these top students and an incredible opportunity for faculty as well. Having access to bright and highly motivated first and second year students is a windfall for me." —**Elizabeth A.D. Hammock, PhD, Assistant Professor, Department of Psychology**

Faculty and select advanced PhD students serve as the foundation for the UROP program, and without their sustained, active engagement and generous donation of energy and time, the program would not be possible. During the 2014-15 academic year, nearly 140 faculty and a dozen PhD students from across 80 departments provided direct research mentorship to our UROP students. Faculty partnerships from a broad range of departments have allowed CRE to expand early engagement in research to areas of the university with historically low participation rates, such as business, education, and the creative disciplines.



Although faculty are not directly compensated for their mentorship, they can apply for Materials Grants of up to \$500 per UROP student (\$1,000 maximum) to help offset the cost of incorporating the student into their research. Moreover, CRE offers one annual \$2,000 Undergraduate Research Mentor Award to a faculty UROP mentor nominated by a student mentee. The award is presented at the Faculty Awards Dinner, another tool to help promote involvement with undergraduate research to the wider campus. This year's award was presented to Associate Professor of History, Charles Upchurch:



Research Interests: Modern Britain, British Empire, Gender and Sexuality, and the Atlantic World

“Undergraduate research is the future of the humanities at the university level... For my undergraduate research assistants, such as those within the UROP program, my assumption is that they are considering careers in research, and so I design tasks that allow them to see the multiple steps a project goes through, from initial idea to published work.”


Charles Upchurch

Positive impacts from participation extend beyond the initial program year. UROP serves as a foundational experience that students leverage to expand their on-campus academic journeys as upperclassmen and, later, as post-graduates. Many UROP students become UROP Leaders (35 of the 37 2015-2016 UROP Leaders are UROP alumni), but they also become highly engaged in other high impact practices around campus. Numerous UROP students have been selected into the Global Scholars program, and their UROP research experiences provide valuable skills to draw upon when crafting their capstone projects.



This summer Brendan, a UROP alum and current Global Scholar, is interning with a non-profit school offering free education to underserved youth in a rural Indian village; at the same time, he is utilizing the research skills developed through his participation in UROP to conduct research on the benefits and challenges of international service

learning to address educational inequality issues within this community, with a special focus on the problems with “voluntourism.” See article [FSU students seeing the world through service](#).



In this way, UROP prepares students to continue along the research trajectory, moving from assisting with a professor’s project to developing and executing independent projects. In their UROP Colloquia, students are tasked with crafting a Summer Research Grant proposal, and many of CRE’s Summer Research Grants are awarded to UROP participants or alumni. Eventually, many UROP alumni culminate their undergraduate research experiences by completing rigorous Honors in the Major theses; the number of students who are currently undertaking an honors thesis is at a record high of nearly 400 students, most of whom are UROP alumni. Finally, numerous UROP alumni have co-authored research in esteemed peer-reviewed publications and have been accepted into top graduate and professional programs around the world.

Overall, UROP has helped improve the academic caliber of the institution. The quality of FSU’s admitted class continues to improve (with each year’s average test scores and GPAs setting new records), and FSU is now attracting a greater number of the highest-achieving students from around the country. UROP is now incorporated into the university tours for prospective students and their families, and UROP alumni profiles are featured each month on the main institutional website. Many of these students attest that UROP was among their primary reasons for choosing FSU and the program plays a key role in making undergraduate research visible to prospective as well as current students.

In closing, this application illustrates that FSU is a national leader in undergraduate research. Providing a robust research ecosystem woven throughout the undergraduate experience, FSU enables students to maximize their educational growth. We hope you agree, and thank you for your consideration of our application.





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⁴Think FSU: Improving Critical Thinking in the Disciplines (2014). *A Quality Enhancement Plan*. Prepared for the Commission on Colleges of the Southern Association of Colleges and Schools main campus onsite visit, March 25-27, 2014. Retrieved from http://sacs.fsu.edu/documents/FSU_QEP.pdf

⁵Analyses and report completed by Brandon J. O. Nzekwe. Educational Research Coordinator for The National High Magnetic Field Laboratory's Center for Integrating Research and Learning and funded in part by the National Science Foundation Division of Materials Research, DMR 0654118 and by the National Science Foundation DRK-12 (formerly Teacher Professional Continuum Program) Award #ESI-0553769.

APPENDICES | SUPPLEMENTARY MATERIALS

Appendix A Select CRE Support for Summer Undergraduate Research

Table 1. Selected CRE summer support for undergraduate research and creative activity. (All are annual amounts unless otherwise indicated.)

Summer Support for Undergraduate Research	University funded	Endowed/Privatey Funded	Total # Awards	Total \$ Amounts
Undergraduate Research and Creative Activity Awards (URCAA)	9 @\$4,000	3 @\$4,000	12	48,000
Mentored Research and Creative Endeavors Awards (MRCE)	15 @\$1,000	6 @\$1,000	21	21,000
Public Service Research Fellowships (PSRF)	CRE	Atlantic Coast Conference (ACC) and FSU	5	14,000
Social Work Undergraduate Research & Creative Activity Awards (SWURCAA)	CRE	The College of Social Work	1	4,000
ACC Collaborative Summer Research Award	CRE	Atlantic Coast Conference (ACC)	1	5,000
Presidential Scholars Summer Funding	CRE	Private donor	25	About 6,000 each (150,000 total)
Global Scholars	CRE	Supports travel, living, and research expenses for low income students	About 17	50,000

Table 2. CRE conference travel support to promote undergraduate research and dissemination.

Travel Support Grants	Funding partners	Objective	\$ Amounts
Arts and Sciences Conference Travel and Research Expense Grants	College of Arts & Sciences Division of Undergraduate Studies	Conference travel, registration fees, and research-related materials	25,000
Meeting of the Minds Research Conference Travel Awards	Atlantic Coast Conference (ACC), plus in-kind donations from the university	All conference costs (including travel, food, and accommodations)	3,500
SCURC Student Conference Travel Grant	Student Council of Undergraduate Research and Creativity (SCURC) and Student Government Association (SGA)	Covers travel, conference expenses	500 max per student



Appendix B

Recent Selected CRE Staff Scholarly Contributions

Books

O'Shea, J. (2013) *Gap Year: How Delaying College Changes People in Ways the World Needs*. Baltimore, MD: Johns Hopkins University Press.

Book Chapters

O'Shea, J. and Young, L. (2014) Supporting Equality of Education through Inquiry-Based Learning, in Patrick Blessinger, John M. Carfora (ed.) *Inquiry-based Learning for Faculty and Institutional Development: A Conceptual and Practical Resource for Educators (Innovations in Higher Education Teaching and Learning, Volume 1)*. Bradford, UK: Emerald Group Publishing, 439-459.

Young, Latika L. (Pending 2015 publication) How one awkward, chubby, bespectacled white boy from New Jersey got all of YouTube dorky dancing and why we should thank him for it. In Jennifer Atkins, Sally Sommer, and Tricia Young (Eds.), *Dance in American culture*. Gainesville: University Press of Florida.

Articles

Losh, S., Nzekwe, B., O'Shea, J., and Miller, D. (2015) *Constructing a Research Identity: How Background Characteristics and Research Experience Influence Undergraduates*, Submitted.

Oppenheim, W., O'Shea, J., and Sclar, S. (2015) Interactive Technology for More Critical 'Service-Learning'?: Possibilities for Mentorship and Collaboration within an Online Platform for International Volunteering, *Journal of Interactive Technology and Pedagogy*, Issue 7, Spring 2015.

Other/Popular Press Publications & Interviews

O'Shea, J. (2015) Here's How to Make a Gap Year Before College Count, Article in TIME, Published 5/29/2015.

Interview with Bloomberg EDU Podcast, The Case for Taking a Gap Year Before College, Published/Aired February 12, 2015 at: <http://bloomberg.edu/podcasts/bloomberg-edu>

Interview with Credit Union National Association Magazine, Bridging the Gap Year, Published September 1, 2014.

Interview with Harvard Political Review, Mind the Gap: An Analysis of Gap Years, Published August 12, 2014 at: <http://harvardpolitics.com/harvard/gap-year/>

Interview with International Educator Magazine, Socially Conscious, Published March 1, 2015 at: http://www.nafsa.org/Find_Resources/Publications/Periodicals/International_Educator/International_Educator_March_April_2015/

Interview with Organic Connections Magazine, A "Gap Year" Rounds Out Education, Published November 2014.

Interview with Take Part Magazine, Why Taking a 'Gap Year' Should Be a New College Admissions Requirement, Published June 24, 2014 at: <http://www.takepart.com/article/2014/06/24/why-taking-gap-year-can-benefit-students>



Interview with The Calgary Journal, Gap-year experiences strengthen university students, Published April, 19, 2015 at: <http://calgaryjournal.ca/index.php/living/2790-gap-year-experiences-strengthens-university-students>

Selected Academic & Professional Presentations

Coven, C. (2014) Creative Solutions to Integrating Creative Projects. Poster presented at the annual Florida Statewide Symposium for Engagement in Undergraduate Research, Orlando, FL.

Young, L. (2014) Innovative Approaches to Increase Participation in Undergraduate Research. Oral presentation at the annual Florida Statewide Symposium for Engagement in Undergraduate Research, Orlando, FL.

O'Shea, J. (2015) Facilitating International Experiences in Social Entrepreneurship Education, Panel Presentation at AshokaU International Conference, February 2015, Washington, D.C.

O'Shea, J. and Markl, C. (2014) Supporting Students as Social Entrepreneurs and Innovators, Poster Presentation at Reinvention Center National Conference, November 2014, Washington, D.C.

O'Shea, J. and Young, L. (2014) Reimagining International Education: Critical Service Learning Programs, Poster Presentation at Reinvention Center National Conference, November 2014, Washington, D.C.

O'Shea, J. (2015) Assessment of Undergraduate Research, Panel Presentation at the Council on Undergraduate Research National Conference, June 2015, Norman, Oklahoma.

O'Shea, J. (2015) Making your life easier: Tech tools for program management and automation, Council on Undergraduate Research National Conference, June 2015, Norman, Oklahoma.

O'Shea, J., Usher, B., Datta, S., Schneider, E., and Lyon, J. (2015) Starting off in Social Media: Applications for Undergraduate Research Offices, Poster at the Council on Undergraduate Research National Conference, June 2015, Norman, Oklahoma.

O'Shea, J., Young, L., and Spears, J. (2015) New Frontiers for Undergraduate Research: Intersections in Academic Engagement, Presentation at the Council on Undergraduate Research National Conference, June 2015, Norman, Oklahoma.

Wawrzynski, K., O'Shea, J., and Schneider, K. (2015) Campus-wide Undergraduate Research Initiatives: Managing Programs at Large Institutions, Presentation at the Council on Undergraduate Research National Conference, June 2015, Norman, Oklahoma.



Appendix C

Examples of SIP and AEIG-funded Courses

Two examples: 1) Over 200 students in Introduction to Psychology, under the mentorship of graduate student mentors, filled out survey instruments and used the data from the entire class to run tests on personality traits and behavior and present the results during an in-class poster session. This activity replaced a multiple-choice exam previously used in the course.



Undergraduates presenting research projects in PSY 2012 General Psychology, made possible with the support of AEIG funding.

2) A studio art professor used an AEIG to transform the typical in-studio drawing course into a community-based art project. Students interacted with the community surrounding the “Art Alley,” interviewing local home-insecure adults who frequent the area, to create projects that culminated in a pop-up cartography store/art exhibition, open to FSU and the surrounding community.



Appendix D

Undergraduate Research Involvement Survey Results (Spring 2013)

Undergraduate Research Involvement Among Survey Participants:

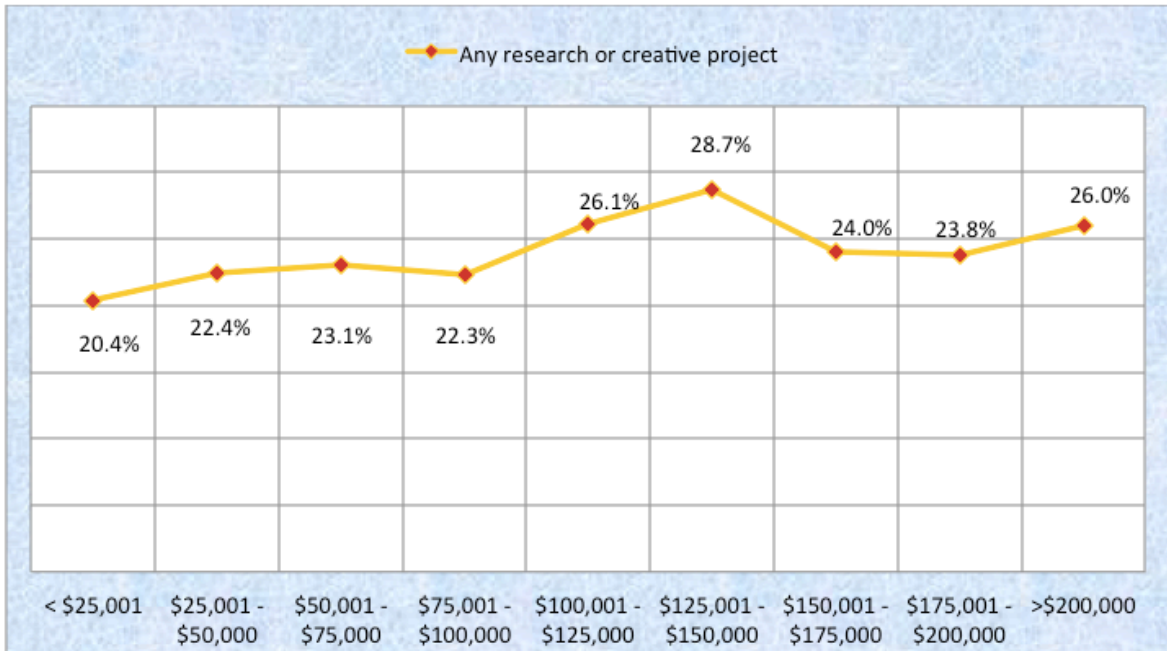
Undergraduate research involvement by gender, race/ethnicity, academic class, college, and field

Categories		n	Involvement in research or creative project %	<i>F</i> -value	<i>p</i> -value
Gender	Women	5,071	23.4%	0.00	0.97
	Men	2,398	23.3		
Race/ Ethnicity	Asian/ Pacific Islander	297	28.8%	2.01	0.07
	White/ Caucasian	5,077	23.8		
	Native American	82	23.2		
	Hispanic/Latino	1,157	22.0		
	Black/African American Other/Unspecified	762 94	20.6 20.4		
Academic Classification	Senior	3,460	33.2%	125.22	<0.001
	Junior	2,069	16.9		
	Sophomore	1,382	13.4		
	Freshman	556	10.5		
FSU Academic College	College of Engineering	284	38.4%	31.62	<0.001
	College of Music	161	37.9		
	College of Arts and Sciences	1,804	35.3		
	College of Communications and Information	403	31.3		
	College of Visual Arts, Theatre, and Dance	213	30.5		
	College of Social Work	87	27.6		
	College of Human Sciences	544	23.7		
	College of Social Science and Public Policy	842	21.4		
	College of Nursing	87	20.7		
	College of Criminology and Criminal Justice	302	18.9		
	College of Education	230	15.2		
	College of Applied Studies	32	12.5		
	College of Motion Picture Arts	16	12.5		
	Undergraduate Studies	1,571	11.7		
College of Business	793	11.3			
Academic Field	Physical Sciences	261	38.7%	22.84	<0.001
	Life Sciences	510	31.8		
	Engineering	370	31.6		
	Arts	443	29.8		
	Social and Behavioral Sciences	2,745	25.2		
	Humanities	641	22.3		
	Allied Health Sciences	515	19.6		
	Computational Sciences	241	16.6		
	Education	293	15.0		
	Undecided/Undeclared Business	150 1,200	13.3 11.3		

Note. One-way ANOVAs



Percentage of survey participants who engaged in research or creative project by family income:



Percentages that are situated below the line are those that are lower than the mean percentage of study participants that have participated in research or creative projects (23.3%); percentages situated above the line are greater than the mean

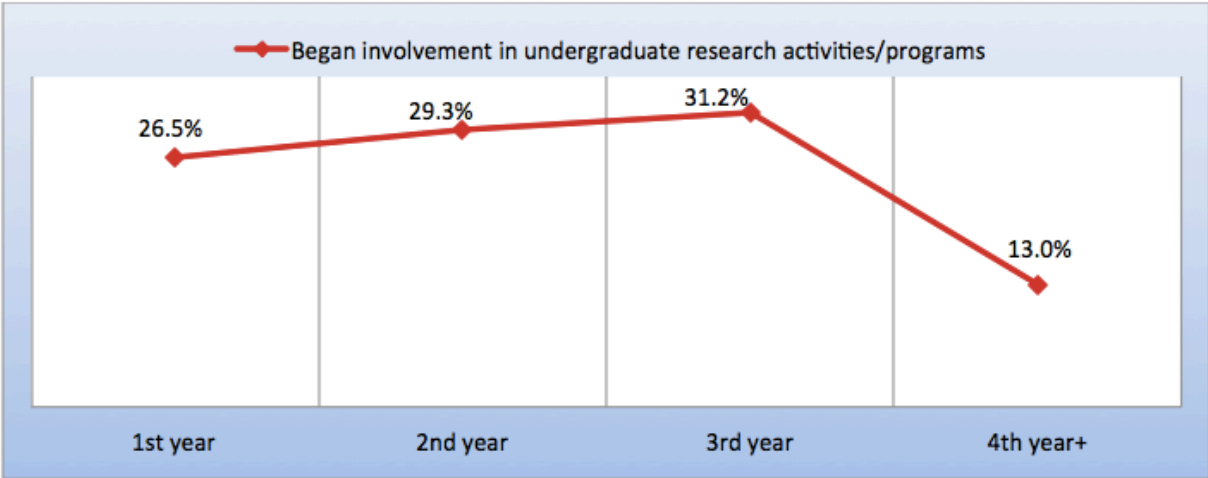
How undergraduate researchers in survey shared their research and/or creative projects (students share in multiple ways):

	Frequency (<i>f</i>)	Percentage (%)
Talked to friends/family members	1162	75.9%
Class/seminar/departmental presentations	665	43.4
Oral/poster presentation at undergraduate symposium	271	17.7
Oral/poster presentation at graduate level symposium	243	15.9
Exhibition/presentation/performance at FSU	222	14.5
Exhibition/presentation/performance not at FSU	100	6.5
Thesis Defense	81	5.3
Non-FSU undergraduate symposium	79	5.2
Other	33	2.2
Non-FSU grad/professional symposium	31	2.0
Published in graduate/professional/scholarly journal	31	2.0
Published in undergraduate research journal	23	1.5
Grad/professional symposium at FSU	13	0.8

Note. *n* = 1,531



Undergraduate year of study that participants began their involvement in research:



Percentage of study participants that began their involvement in research by undergraduate year of study

Research activities of study participants that were involved in research or creative projects (students engaged with multiple activities):

	Frequency (f)	Percentage (%)
Directed Independent/Individual Study (DIS)	595	34.9%
Research/Creative project as part of course	493	28.9
Research Method course	442	25.9
Research Intensive lab/course	283	16.6
Senior Project/Capstone Creative Project/Senior Recital	224	13.1
Research Assistantship	216	12.7
Senior/Honors Thesis	194	11.4
Other (WIMSE REP, psychology studies, etc...)	168	9.9
Community-based research project	123	7.2
Non-FSU research award	104	6.1
Undergraduate Research Opportunities Program (UROP)	80	4.7
FSU-funded research award (e.g., URCAA, MRCE)	66	3.9
Research Experiences for Undergraduates (REU) program	45	2.6

Note. n= 1,704

2014 National Survey of Student Engagement (FSU Senior Engagement in Undergraduate Research)

Item by Item Comparison	Item wording or description	Variable name ^c	Response options	FSU		FSU Mean
				Count	%	
7d	Work with a faculty member on a research project	research	Have not decided	192	14	24%
			Do not plan to do	720	48	
			Plan to do	207	14	
			Done or in progress	360	24	
			Total	1,479	100	

Appendix E

Table 3. Selected Results from UROP End-of-year Student Surveys.

#	Question	Strongly Agree		Agree	
5a.	I feel confident doing individual research/creative projects	72	55%	43	33%
5b.	I feel confident seeking guidance from faculty members	77	60%	44	34%
5c.	I feel supported by my department to conduct research	75	58%	38	29%
5e.	I feel it is important to participate in undergraduate research	88	68%	32	25%
5f.	I understand how to get involved with research	90	69%	34	26%
10c.	I plan on serving as a research assistant at FSU at some point after UROP ends	69	54%	26	20%
10d.	I plan on conducting an independent (but faculty mentored) research project at FSU at some point after UROP ends	64	49%	28	22%
10e.	I plan on conducting an Honors in the Major Thesis (senior thesis)	64	49%	24	19%
10g.	My assistantship with my UROP faculty or graduate school mentor was beneficial and has helped me understand the research process	88	68%	30	23%
12.	Have you presented in an on-campus conference/research sharing event outside of the annual Undergraduate Research Symposium?	Yes		No	
		26	20%	105	80%
16.	Will you be an author or included in the acknowledgements on a publication from your UROP research?	39	30%	92	70%
18.	Did your UROP experience contribute to your acceptance to an internship, fellowship, scholarship, other program?	28	22%	101	78%

Note. Response options varied from Likert values (5)-strongly agree to (1)-strongly disagree. Values of (4)-agree to (5)-strongly agree are shown above, average sample size $n = 130$.



Selected UROP Free Response Quotes from End-of-year Survey

“UROP was the best experience I had as an undergraduate student at Florida State. It gave me the chance to apply my skills and knowledge from the classroom in a real world setting. UROP is not just another school activity, it is a chance for students to better the world around them. Employers always notice UROP on my resume and are amazed at some of the things I was able to accomplish as an undergraduate.”

“UROP has had a significant influence on the student/person I have become today. UROP has shaped me into a critical thinker, leader, devoted researcher and highly motivated student. Through UROP, I was given both leadership and research experience. Also, I was able to meet other such high-achieving students, that it was almost like a new support system.”

“Being in UROP has definitely pushed me out of my comfort-zone. Being a part of such an academically-centered community has forced me to confront some preconceptions I had about academia. I think that the biggest change to me personally that UROP encouraged is the idea that research is something that I can do. It doesn't have to be scary or intimidating. You ask a question and then you find a way to answer it.”

“UROP has allowed me to start the research experience from day one at FSU. I could not have gotten accepted into a research lab without the program. I am much more confident about my abilities and have a much broader understanding of how to conduct research and work as a team.”

“UROP has given me the resources and confidence to pursue research opportunities on my own. I am currently working on two vastly different projects, both of which I love, and I wouldn't have been able to do that without UROP.”

Table 4. How did UROP participating faculty and Ph.D. students rate their UROP students?

#	Question	Fall 2013				Fall 2014			
		Greater than Required Level		Exceptional		Greater than Required Level		Exceptional	
7.	Please provide an overall performance rating for your UROP student.	33	38%	41	48%	33	40%	35	43%
8.	Would you recommend UROP to another faculty member?	0 ^a				Yes		No	
						79	99%	1	1%

a. Survey item not added until Fall 2014.

Note. Average cumulative sample size for table, $n = 83$.

“UROP is a great way for students to get involved in real research. All of my students came away with a better understanding of what they wanted to do for a career.” —UROP Faculty Member

Appendix F

Table 5. Selected undergraduate research programs within CRE.

Program Name	Description	Experiential/Application
Undergraduate Research Opportunity Program (UROP)	Required bi-weekly colloquium course, facilitated by a UROP peer leader, to build community and research competencies	Research assistantship. The UROP students work closely with a faculty mentor or Ph.D. student between 5-10 hours weekly, assisting them in a research project over the year
FSU Global Scholars	Global Scholars training course (INR 3931) during the spring semester before departure	Overseas summer internship (minimum of two months), including completion and presentation of a capstone research project
Launch FSU	Weekly small group meetings and educational seminars coordinated by our Social Entrepreneur in-residence, supplemented by faculty and multiple professional meetings for participants, e.g., 1 Million Cups (1MC) Tallahassee	Multiple CRE funded and co-sponsored events such as Demo Day (culminating event of Launch FSU experience), Startup Weekend Tallahassee, and student competitions like FSU Shark Tank
Summer Undergraduate Research and Creative Activity Awards	A CRE led effort that involves a combination of department efforts, CRE programs, and other research opportunities available at FSU	Such awards can support research in multiple contexts, including on-campus, overseas, or at other ACC peer institutions
Student Council for Undergraduate Research and Creativity (SCURC) (Composed of two groups, editorial board for <i>The Owl</i> and URAs)	Undergraduate Research Ambassadors (URA) provide one-on-one mentoring, department presentations, and social events to connect undergraduate researchers	<i>The Owl</i> , FSU's undergraduate research journal, showcases the scholarly pursuits of undergraduate researchers, from any academic discipline
Academic Engagement and Innovation Grants (AEIG)	AEIGs support faculty initiatives to embed undergraduate research within new or existing undergraduate courses	The expectation is that faculty conclude such learning experiences with capstone or other tangible product
Graduate Research Consultant (GRC) Program	The GRC program supports faculty who wish to integrate a research project or assignment into certain honors augmented courses	Similar to AEIGs, there is an expectation of production of scholarly product
Florida-Georgia Louis Stokes Alliance for Minority Participation at FSU in STEM Fields (FGLSAMP)	Provides minority STEM students personalized mentorship by Ph.D. students and encourages involvement in CRE research programs (e.g., UROP and Global Scholars).	Internship, research, and career opportunities promoted by FGLSAMP students and leadership
Florida Information Technology Career Alliance (FITC)	Student ambassadors and peer leaders work with local high schools, state colleges, and universities to attract and retain students in IT fields.	Internship, research, and career opportunities promoted by FITC students and peer leaders.

Appendix G

Selected CRE and FSU Experiential Learning Activities and Collaborations



CRE has built a strong collaborative partnership with Domi Ventures, a local start-up incubator located minutes from our office and campus. Domi is very interested in supporting ideas generated from undergraduate research and facilitates our students through its University Entrepreneurs Division.

When undergraduates conduct research that aligns with existing business products, our community partners listen. HWind Scientific provides real time predictive analysis associated with hurricanes to a broad audience, something particularly relevant in our state. Undergraduate research in meteorology has led to opportunities for many of our students to collaborate with this well-established company.



Through Launch FSU, our social enterprise accelerator, CRE social entrepreneurs participate in valuable research and experiential learning that translates into real outreach efforts, products, and services.



Coordinated efforts led by FSU, carried out by organizations like the College of Business, Jim Moran Institute, Entrepreneurs in Residence, and the FSU Foundation, promote undergraduate research to perpetuate "The Entrepreneurial University."

Appendix H

The Honors, Scholars, and Fellows House (HSF): Home to CRE



The HSF Building, located in the center of FSU's main Tallahassee, FL campus, and adjacent to FSU's main library and Landis Green, two areas of high faculty and student traffic & visibility.



Celebrating 10 years of Excellence
OFFICE OF NATIONAL FELLOWSHIPS
DIVISION OF UNDERGRADUATE STUDIES

The Honors, Scholars, and Fellows House (HSF) is also home to the Office of National Fellowships (ONF). Working collaboratively with CRE, many of our research participants have gone on to win prestigious fellowships through ONF to continue research stemming from UROP and other early engagement activities. Some of our 2014-15 ONF Winners are:

- Sean Freeman: American Meteorological Society | NSF Graduate Fellowship, Design Director and Associate Editor for *The Owl*
- David Miller: Frost Scholar, UROP student and leader, multiple honors distinctions
- Molly Gordon: Goldwater Fellowship, URCAA summer research award recipient
- Daniel Hubbard: Truman Scholar, veteran, and UROP participant
- Daniel Ruiz: UROP Leader, URCAA and Fulbright recipient, one of 10 FSU Fulbright scholars for 2014-15

In 2014-15, a total of 49 competitive national and international fellowships were awarded campus-wide to FSU students.