Students Are SURE About Research

The National Science Foundation (NSF) established the Broadening Participation Working Group (BPWG) in 2007 to develop plans to increase the participation of underrepresented groups in NSF programs and to broaden the pool of reviewers for NSF proposals. The BPWG created a Framework for Action, which outlines NSF’s mission and the critical nature of broadening participation among diverse individuals, institutions and geographic areas in fulfilling that mission.

In the spring of 2011, Louisiana EPS- CoR responded to NSF’s specific goal of increasing participation among underrepresented groups by establishing the Supervised Undergraduate Research Experiences (SURE) program. This program fosters opportunities for women and other underrepresented minorities in Science, Technology, Engineering and Mathematics (STEM) fields to conduct supervised research with a faculty mentor.

By participating in research, students have the chance to learn more about their chosen field of study—a valuable experience in itself—and can use the experience to help them decide whether or not to pursue further education by attending graduate school. Students who are accepted for the SURE program receive a stipend of up to $4,000 as a research assistant. Projects must be completed within a year. Faculty mentors also receive a supplemental grant of $500 per student for the purchase of research supplies associated with mentoring students and/or travel by students and mentors to meetings or conferences to present research findings.

It’s a great experience being able to do what you love, get paid for it, and earn class credits. And above all, research is never done, and that is what graduate school is for!

Leah Birch, Loyola SURE Student

“We are very excited about the enthusiastic response the SURE program has generated among students and faculty across the State,” said Dr. Michael Khonsari, Louisiana EPSCoR Project Director. “Engaging a broad spectrum of the State’s talent in STEM disciplines is vital for preparing Louisiana’s research, education, and workforce enterprise to compete nationally and globally.”

Since the program’s inception in 2011, 269 applications have been received, of which 74 were competitively awarded to 17 institutions across the state. During the past two years, SURE students have presented their findings at national conferences, traveled internationally, interacted with foreign research students, and contributed to published work. One such student, Susan Frichter, and her mentor, Carla Penz, both from the University of New Orleans, traveled to Costa Rica to obtain film sequences of 81 butterflies. They walked daily through the forest with two other NSF-funded students. “The four of us combined efforts to gather as much information as possible during our stay, and we obtained novel information for butterfly mating behaviors that had never been recorded by previous researchers,” said Dr. Penz, who is a part of the research faculty at UNO. “Graduate students from Germany also joined the discussions and explained their own projects to us.”

While each student’s research experience varied greatly, most of the students agree that the program was invaluable in learning the significance of scientific research in addition to the importance of graduate

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school. Leah Birch, SURE participant at Loyola University, said that SURE “helped prepare me for grad school because I had a lot of independence in the lab.” Now a Ph.D. student at Harvard University in the department of Applied Mathematics, Leah said that the SURE program is a smaller scale version of graduate school. The time management she learned during SURE has helped her in the beginning stages of her research efforts at Harvard. She also learned how to present her research to fellow researchers and evaluators in a quick and concise manner when she attended the Joint Mathematics Meetings in Boston.

The SURE program announced its third competition on January 18. Applications are reviewed according to the quality of the proposed research and the student’s interest in pursuing an advanced degree. Leah’s advice to all students considering applying is that “they should look into it, because it’s a great experience being able to do what you love, get paid for it, and earn class credits. And above all, research is never done, and that is what graduate school is for!”

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Dr. Michael Khonsari, LA EPSCoR Project Director.