

External Support for Undergraduate Research

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First the bad news: External funding to support undergraduate research is scarce. The good news: Quality undergraduate research in psychology can be done on very small or even *illusory* budgets (Collins, 2002). More good news: Takooshian, Velayo, and Prohaska (2002) found over 11,000 instances of institutions providing money for their own undergraduates to use to do research. Generally the amount of this support was small, but there is no reason to ignore it. It can include money for research supplies, duplicating costs for questionnaires, food for animals, payments for human participants, money to go to conferences to present the work, and sometimes even stipends. At institutions that do not have such funding available, it simply might be the case that no one has asked or made the case for it. Psychology is well ahead of the curve in involving undergraduates in real research. Institutions with development offices that are accustomed to fund-raising might find donors interested and willing to give money for this specific purpose. Donors often like opportunities to support undergraduates directly, and research support is a really excellent opportunity a development office could offer donors. A number of the internal sources that Takooshian, et al. identified carried donors' names on them.

The even better news: External support, although scarce, does exist for all components of the undergraduate research experience. One of the largest sources of support is Psi Chi, the National Honor Society in Psychology. At present, Psi Chi offers over \$250,000 per year in a variety of programs supporting its members and their research. However, this support is limited to members, who join Psi Chi through chapters at their institutions. For institutions that do not have a Psi Chi chapter, information on establishing one can be found at www.psichi.org.

Full Academic Year Support

The *Research in Undergraduate Institutions* (RUI) program, under the National Science Foundation (NSF), funds both individual and collaborative research projects undertaken by faculty at predominantly undergraduate institutions. The goal is not specifically to support undergraduate student

research, but to support research at undergraduate institutions. Often undergraduate institutions might not already have a research culture or the type of curriculum and laboratories that train undergraduates to do quality research. In such cases, an additional NSF program might be of assistance. The *Course, Curriculum, and Laboratory Improvement* (CCLI) program focuses on improving the research skills of undergraduate students by focusing on educational and facilities improvements. Information on these and other NSF programs can be found at www.nsf.gov/funding/browse_all_funding.jsp.

For federally designated minority serving institutions (e.g., HBCU's - Historically Black Colleges and Universities; Hispanic Serving Institutions, Tribal Colleges), several institutional grant programs will support undergraduate researchers during the academic year, such as the *Minority Access to Research Careers* program (MARC) under the National Institutes of Health (NIH) and the *McNair* program under the Department of Education. For eligible institutions, local grants offices should have information on the availability of these and other federal programs.

Summer Research Programs

Most summer research programs fund undergraduates to spend an intensive 8-10 week period over the summer concentrating on research, either at their home institutions or away at research-intensive institutions. Perhaps the most well known and extensive of these is the *Research Experiences for Undergraduates* Program (REU) of the National Science Foundation (NSF). This program extends to all of the sciences, not just psychology. Each year approximately 20-25 institutions are selected to participate. These institutions accept applications directly from undergraduates who want to spend the summer doing research with the institution's faculty. Selected undergraduates, usually approximately 10-12 per school, receive stipends from NSF to cover their expenses (food, housing, travel), and may also receive additional funds from the host institutions. Information on applying to serve as a REU host site: www.nsf.gov/funding/browse_all_funding.jsp.

To find current sites for student placements, go to www.nsf.gov/home/crssprgm/reu/reu_search.cfm. Psychology sites are listed in two areas: Social, Behavioral and Economic Research, and Biological Sciences.

The Council on Undergraduate Research (CUR), with funding from the American Psychological Foundation (APF) of the American Psychological Association (APA) offers a summer research fellowship. The fellowship includes a student stipend plus funds that may be used for travel, faculty honorarium, and equipment expenses. The application is completed by the faculty mentor, who must be a member of CUR. The application can be found at www.cur.org/apffellowship.html.

Psi Chi offers 14 *Psi Chi Summer Research Grants* of \$5000 each: \$3500 for a student stipend and \$1500 to the sponsoring faculty member. One of the goals of this program is to support undergraduates from non research-intensive institutions who wish to spend the summer working at a research intensive institution. However, going to a different institution is not a requirement; undergraduates can receive one of these grants to conduct research at their home institution. The deadline for applications is March 30. More information can be found on the website: www.psichi.org/awards/completelist_awards.asp.

Psi Chi also has teamed up with the Association for Psychological Science (APS) to offer six *Psi Chi-APS Summer Research Grants* to allow students to conduct summer research with members of APS. The amount of each award is the same as the *Psi Chi Summer Research Grants* described earlier. More information can be found at the website: www.psichi.org/awards/completelist_awards.asp.

Support for Direct Costs of Research

Two external sources accept undergraduate applications for funds to support the direct costs of their research projects. Psi Chi offers a *SuperLab Research Grant* that provides SuperLab software and a response pad. Psi Chi also offers *Undergraduate Research Grants* of up to \$1500 each. At least 30 Undergraduate Research Grants can be awarded each year. These funds can be used for such costs as equipment (although requests for general permanent items such as computers, printers, etc., are rarely funded), supplies, laboratory animals, and travel to research sites. A nice feature of these grants is that there are two deadlines, November 1 and February 1, so that undergraduates can actually get the money while they are still doing the research, rather than waiting to be reimbursed afterwards. Student applicants must be members of Psi Chi. Information

and applications can be found at this website: www.psichi.org/awards/completelist_awards.asp.

Sigma Xi, The Scientific Research Society, also offers a *Grants-in-Aid of Research* Program. Grants of up to \$1000 can be awarded (up to \$2500 for vision related research). Deadlines are October 15 and March 15 of each year, so here too undergraduates can get the money while they are conducting the research. Membership in Sigma Xi is not required. However, 75% of the funding is restricted to student members or projects on which a faculty member is the advisor. More information is at www.sigmaxi.org/programs/giar/index.shtml.

For Psi Chi faculty advisors, there are *Faculty Advisor Research Grants*. As many as 12 grants of up to \$2000 each can be funded each year. These grants can be used for direct costs, as well as to pay undergraduate research assistants. The deadline is June 1 and information can be found at www.psichi.org/awards/completelist_awards.asp.

Awards for Completed Projects

Psi Chi offers a number of awards for completed undergraduate research projects. Every undergraduate member who, as first author, submits research for presentation at the Psi Chi sessions at regional or national meetings is eligible for one of these awards. The number of *Regional Research Awards* varies by region, depending, in part, on the number of submissions. There also are up to eight undergraduate *National Research Awards* given for submissions to be presented at the American Psychological Association (APA) and Association for Psychological Science (APS) conferences (4 awards at each conference). Both the regional and national research awards consist of a certificate and a check for \$300. There also are Psi Chi awards for completed research projects and papers. The *Erlbaum Award in Cognitive Science* of \$500 can be awarded each year for the best empirical research in cognitive science. Three *Guilford Undergraduate Research Awards* of \$1000, \$650, and \$350 can be awarded each year for the best undergraduate papers. Three *Allyn & Bacon Psychology Awards* of \$1000, \$650, and \$350 can be awarded each year for the best undergraduate empirical papers.

Closing Note

Please notice the phrasing of the last sentences in the preceding paragraph: “can be awarded each year.” In too many years there are simply not enough submissions for all of the Psi Chi awards to be awarded. In fact, in most years Psi Chi does not

spend the full amounts budgeted for many of its programs. So, for faculty who think “Psi Chi gets so many applications my students don’t have a chance,” please change that mind-set and encourage undergraduates with excellent research ideas or completed projects to submit. Even if the competition for some grants is strong, students with excellent projects should still be urged to apply. Nothing is quite as effective in convincing an organization that a grant program is valuable and deserves more funding than large numbers of fundable proposals.

If funding is not critically needed for a project, achieving an external funding award raises student self-esteem, contributes to an institution’s prestige

(which media relations and development offices tend to love), and allows local resources to be stretched farther. Although external funding for undergraduate research may be scarce, there is no reason good research should go undone for lack of funding.

References

- Collins, L. H. (2002) Real research on illusory budgets, *Eye on Psi Chi*, 6, 26-27, 36.
- Takooshian, H., Velayo, R. S., & Prohaska, V. (2002) Funding undergraduate research, *Eye on Psi Chi*, 6, 34-35.