Increasing Opportunities for Social Science Funding at NSF

Many social scientists have long felt that NSF treated social science research like the proverbial “red-headed stepchild at the family reunion,” compared to the better funded physical, life, mathematical, and computer sciences and engineering, but things are changing. As NSF has waded into increasingly complex issues like sustainability, climate change, cybersecurity, renewable energy, and STEM education, it has become clear that the social sciences not only have a lot to contribute, but they are often central to some of the thorniest challenges related to these topics. For that reason, in addition to research funded by NSF’s Directorate of Social, Behavioral and Economic Sciences (SBE), NSF has announced a number of funding opportunities where they explicitly encourage the participation of social scientists as part of an interdisciplinary team.

This development poses challenges and opportunities for researchers who are interested in pursuing this funding. One significant challenge is assembling a research team with the appropriate expertise. Engineers, physical/life/computer scientists, and social scientists often don’t even know how to find each other. Social scientists usually have entirely different professional networks from engineers and physical/life/computer scientists, and team leaders, who are engineers or physical/life/computer scientists, often don’t know what type of social science expertise they need for a particular project. On the other hand, if you figure out how to do this right, you have the opportunity to win significant new funding and to make important advances in a research topic by bringing unique perspectives and a new team dynamic to the problem. If the team works well together, the project can grow into an entirely new and exciting direction for your research.

Interdisciplinary Social Science Funding Opportunities at NSF

Below is a list of recent solicitations and Dear Colleague Letters from NSF that encourage collaborations with social scientists. Some of these are jointly supported with SBE.

- **Dear Colleague Letter: SaTC EAGERs Enabling New Collaborations Between Computer and Social Scientists (NSF 14-016):** NSF announces its intention to accept additional EAGER proposals that encourage novel interdisciplinary research resulting from new collaborations between one or more Computer and Information Science and Engineering (CISE) researchers and one or more Social, Behavioral and Economic Science (SBE) researchers. (Research teams with a history of collaborating together should instead submit directly to the SaTC solicitation.)

- The various programs under the Cross-cutting Science and Engineering for Sustainability (SEES) initiative often encourage participation by social scientists since social factors are generally an important component of issues related to sustainability. For example, the Coastal SEES program funds research to “increase understanding of reciprocal feedbacks
between humans and the natural environment; how people and organizations interpret, assess, and act upon scientific and other evidence; and how they weigh these interpretations against other interests to influence governance and decision-making.”

- **Dear Colleague Letter: Research on Privacy in Today's Networked World (NSF 14-021):** “The directorates for Social, Behavioral, and Economic Sciences (SBE) and Computer and Information Science and Engineering (CISE) invite investigators to submit proposals that address the need to develop new and deeper understandings of privacy in today’s networked world. Our interest spans both disciplinary and interdisciplinary research in an array of SBE sciences.”

- **Dear Colleague Letter: Stimulating Integrative Research in Computational Cognition (NSF 14-019):** “Encourages active dialogue across the cognitive and computational communities, facilitating bidirectional cross-fertilization of ideas, and nurturing emerging areas of transdisciplinary research.” (This is more focused on cognitive sciences, but could have a social science component.)

- **Cultivating Cultures for Ethical STEM (CCE STEM):** Funds research projects that identify factors that are efficacious in the formation of ethical STEM researchers in all the fields of science and engineering that NSF supports.

- **Research Coordination Networks (RCN):** Not only can the research networks formed as part of this project include social scientists, but the process of forming the network and developing collaborations can be strongly enhanced by including an expert in communication, team science, or other fields that contribute expertise and new models for developing collaborations across disciplines. (Our Nov. 2013 issue includes an entire article on RCNs.)

- **Critical Techniques and Technologies for Advancing Big Data Science & Engineering (BIGDATA):** One of the aims of this initiative is to “Advance understanding of natural, human and social processes and interactions” impacted by Big Data.

- **Smart and Connected Health (CISE):** The purpose of this program is to develop next generation health care solutions and encourage existing and new research communities to focus on breakthrough ideas in a variety of areas of value to health, such as sensor technology, networking, information and machine learning technology, decision support systems, modeling of behavioral and cognitive processes, as well as system and process modeling.

- **ADVANCE Institutional Transformation:** This program funds universities to change their institutions in order to increase the participation and advancement of women in academic science (including social and behavioral science) and engineering careers. The institutional transformation strategy must be based on a strong social science foundation, and a 5-page social science research plan is required. These programs usually include a social science research team.

- **Alliances for Graduate Education and the Professoriate (AGEP) Transformation:** This program aims to increase the diversity of the STEM professoriate and, similar to the ADVANCE, must be based on sound social science and/or education theory. A social science and/or education research plan is required.
Research Development & Grant Writing News

- **Building Community and Capacity for Data-Intensive Research in the Social, Behavioral, and Economic Sciences and in Education and Human Resources (BCC-SBE/EHR):** This cross-cutting program is part of NSF’s Cyberinfrastructure Framework for 21st Century Science and Engineering (CIF21) activity. It seeks “to enable research communities to develop visions, teams, and capabilities dedicated to creating new, large-scale, next-generation data resources and relevant analytic techniques to advance fundamental research for the SBE and EHR areas of research.”

- **Interdisciplinary Behavioral and Social Science Research (IBSS):** A new Dear Colleague Letter outlines a range of options for pursuing support for interdisciplinary research that bridges the social, behavioral, and economic (SBE) sciences.

**Funding within SES**

Funding for the Social and Behavioral Sciences Directorate has increased to $272M for FY 2014 compared to $247M in FY2011. As of FY2011, SBE funded approximately 58% of federally funded basic research in SBE fields in academic institutions. Within SBE, the Social and Economic Sciences (SES) division (FY2014 budget of $102M) manages the following core programs:

- Decision, Risk and Management Sciences (DRMS)
- Economics
- Interdisciplinary Research Across the SBE Sciences (IBSS)
- Law & Social Sciences (LSS)
- Methodology, Measurement, and Statistics (MMS)
- Political Science
- Science of Organizations
- Science, Technology, and Society (STS)
- Sociology

**Things to Keep in Mind When Teaming**

If you plan to assemble a team that includes researchers from widely disparate fields such as computer science and sociology, remember that it will take your team members some time just to learn each others’ language. Give your team plenty of time to meet in person and discuss their ideas and research. This will not only allow you all to get on the same page regarding your proposed project, it will also allow time for the real synergy to happen as you start to gain new insights and look at your old problems in a new way.

For researchers from engineering or the physical/life/computer sciences who are looking for social scientist collaborators, remember that, just as not all computer scientists have the same expertise, social scientists have widely varying interests and research areas. Just because you happen to know a social scientist who works in the next building, that does not mean that they will be appropriate members of your team. Think about what kind of expertise you need to tackle a specific topic, read the social science literature in that area, and talk to colleagues in the social sciences to find the appropriate collaborator for your project.
And finally, as with all research teams, remember that everyone in the team should benefit from the research being done on the project. As the social scientist team member, you should not simply be servicing the project; the social science component should be exciting and contribute to your field and your research interests. In other words, the project should result in publications in your field that will build your CV as well as publications in other members’ fields.

Other Resources
Presentation by SBE Program Director F. Chowdhury