Funding Opportunities in SBE

Social, Behavioral, and Economic Sciences Directorate
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PRESENTED BY

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National Science Foundation
NSF IN A NUTSHELL

- Independent federal agency created by Congress in 1950 "to promote the progress of science; to advance the national health, prosperity, and welfare; to secure the national defense..."
- Annual budget of about $7.0 billion
- Currently about 11,000 new awards per year, with an average duration of three years
NSF SBE OVERVIEW
$272 MILLION ANNUAL BUDGET (FY 2015 ENACTED)

Directorate for Social, Behavioral & Economic Sciences
Dr. Fay Lomax Cook, Assistant Director
Dr. Kellina Craig-Henderson, Deputy Assistant Director

SBE Office of Multidisciplinary Activities

Division of Behavioral and Cognitive Sciences
Division of Social and Economic Sciences
National Center for Science and Engineering Statistics
SBE’S MISSION

- Promote the understanding of people and their lives by supporting research that:
  - Reveals basic facets of human behavior and
  - Helps provide answers to important societal questions and problems
- Work with other disciplines to ensure that basic research and solutions to problems build upon the best multidisciplinary science
- Provide mission-critical statistical information about science and engineering in the U.S. and the world
SBE FUNDING BREAKDOWN

- Peer-reviewed grants to individuals and small groups
  - Approximately 5,000 proposals and 1,000 awards in a typical year

- Including research grants, doctoral dissertation research improvement grants, research experiences for undergraduates, workshops and supplements

- Major surveys to collect data on the science and engineering enterprise
  - Through the National Center for Science and Engineering Statistics and grants to the research community
BEHAVIORAL AND COGNITIVE SCIENCES (BCS)

Supports research to develop and advance scientific knowledge on:

- Human cognition
- Language
- Social behavior
- Culture
- Interactions between human societies and the physical environment
BEHAVIORAL AND COGNITIVE SCIENCES

Programs:

- Archaeology and Archaeometry
- Biological Anthropology
- Cultural Anthropology
- Cognitive Neuroscience
- Developmental and Learning Sciences
- Documenting Endangered Languages
- Geography and Spatial Sciences
- Linguistics
- Perception, Action, & Cognition
- Social Psychology
SOCIAL AND ECONOMIC SCIENCES (SES)

SEEKS TO ENHANCE OUR UNDERSTANDING OF HUMAN, SOCIAL AND ORGANIZATIONAL BEHAVIOR BY SUPPORTING DISCIPLINARY AND INTERDISCIPLINARY RESEARCH THAT ADVANCES KNOWLEDGE IN THE SOCIAL AND ECONOMIC SCIENCES, AND BY BUILDING SOCIAL SCIENCE INFRASTRUCTURE

Disciplinary programs:
- Economics
- Political Science
- Sociology

Interdisciplinary programs:
- Decision, Risk, and Management Sciences
- Science of Organizations
- Methodology, Measurement, and Statistics
- Science, Technology, and Society
- Law and Social Sciences
NCSES is a federal statistical agency within the SBE Directorate.

NCSES provides data users with objective, high-quality statistical information on U.S. and international science, engineering, technology, and R&D, and fosters research that improves the measurement and understanding of the science and engineering enterprise.

Five surveys collect data from or about universities and students:

- Higher Education Research and Development Survey
- Survey of Science & Engineering Research Facilities
- Survey of Earned Doctorates
- Survey of Federal Science and Engineering Support to Universities, Colleges and Nonprofit Institutions
- Survey of Graduate Students and Post doctorates in Science and Engineering
NCSES DATA OF INTEREST

- Detailed Statistical Tables or eTables by survey:
  

  - Institution level ranking tables for measures such as R&D expenditures, research space, number of S&E graduate students, S&E doctorates awarded.


  - Selected data for individual institutions on doctorates, graduate students, research funding and expenditures from four NCSES surveys.


  - Online table generator for NCSES data. Can choose data from several NCSES surveys by selected institutions and years to create custom tables.
    - For more information contact Ronda Britt, rbritt@nsf.gov.
American National Election Survey (ANES) -
Time-series surveys of voting, public opinion, and political participation (1948-2012)

General Social Survey (GSS) -
Time series surveys that monitor changes in social characteristics and attitudes in the United States (1972-2014)

International Social Survey Programme (ISSP) -
53 nation survey collaboration covering social science research topics

Panel Study of Income Dynamics (PSID) -
Longest running longitudinal household survey in the world on socio-economics and health over time and across generations (1968 – 2013)
Integrated Public Use Microdata Series, International (IPUMS-I) -
Collects and distributes census data from around the world - currently 614 million person records from 277 censuses in 82 countries.

Luxembourg Income Data Center (LIS) -
Harmonizes datasets with income, wealth, employment, and demographic data from a large number of countries.

Federal Statistical Research Data Center (RDC) -
Access to restricted-use microdata from a variety of statistical agencies, US Census Bureau Headquarters University of MD, College Park.
ON THE HORIZON...

- SBE outreach to Minority Serving Institutions
- Women and Minorities in STEM Booster Act of 2016 (2017-2021) (pending approval)
- Broadening participation in HBCUs NSF 17-027
  - Contacts: hhapke@nsf.gov, kgyimahb@nsf.gov
FUNDING OPPORTUNITIES
PROPOSAL MECHANICS

- Standard research grants
- CAREER awards
- High risk awards (EAGER, RAPID)
- Doctoral Dissertation Research Improvement grants*
- Training programs
  - Graduate Research Fellowships
  - Post-doctoral Fellowships
  - Research Experiences for Undergraduates
- Workshops
- Major Research Instrumentation (MRI) Awards
- Research Coordination Nks (RCNs)
ACCESS TO NSF FUNDING

- Submit a proposal to a standing program or submit a proposal to a special competition.
- Merit Review by advisory panel or ad hoc reviewers or combination of the two.

**NSF Review Criteria**

- Intellectual merit – “highest quality” and have the potential to advance, if not transform, the frontiers of knowledge.
- Broader impacts... should contribute more broadly to achieving societal goals.
INFORMATION ABOUT FUNDING

- Regular Program Announcements: Usually have target dates
- Special Program Initiatives: May come once in a while
- Dear Colleague Letters (DCLs)
  - NSF 16-143 (Foundation-wide, congressional mandate)
  - NSF 17-027 (already referred to)
- Funding information available at NSF website
  - https://www.nsf.gov/funding/aboutfunding.jsp
WHAT TO CONSULT AND WHO TO CONTACT

Documents to read before you prepare a proposal:

- The solicitation or program announcement for the specific competition (and maybe an FAQ sheet).
- The NSF Proposal and Award Policies and Procedures Guide (PAPPG; NSF 16-001), which usually is updated annually.
- If there are disagreements between PAPPG and the solicitation, the solicitation takes precedence.

If you have questions or need help, contact:

- The relevant program officer(s) if you have questions re: appropriateness of a proposal or interpretation of proposal-preparation guidelines and rules. (E-mail usually is better for initial contact, and it's best to make contact well before the proposal-submission deadline.)
- The FastLane user-support desk if you have technical or procedural questions or problems. (Call 800-673-6188 between 7 AM and 9 PM ETM-F.)
MANAGING AWARDS SUCCESSFULLY

- Documents to read after you have received an award
  - The award letter from NSF (and all references cited in it).
  - The NSF Proposal and Award Policies and Procedures Guide.
  - Note that these documents give awardees considerable responsibility subject to some limitations.

- If you have questions or need help, contact:
  - The managing NSF program officer (who will be named in the award letter, with updates visible on research.gov).
  - The NSF grants officer (also named in the award letter or accessible via http://www.nsf.gov/bfa/dga/docs/liaison.pdf).

- Become aware of critical issues and processes for managing awards
  - Examples include reporting requirements for PIs, no-cost extension procedures, pre-award spending, transferring an award to a different organization, managing subawards, redirecting funds across budget lines.
OPPORTUNITIES FOR PRIMARILY UNDERGRAD INSTITUTIONS (PUI)

- What’s a PUI?
- Funded in SBE through regular programs, standard merit review process.
- Research in Undergraduate Institutions Awards (RUI): work on your campus.
- Research Opportunity Awards (ROA): working with an NSF-funded PI at the campus of a research university.
- Solicitation 14-579 has details about special info to include in proposal.
Opportunities for Future SBE Scientists

- Graduate Research Fellowship Program (GRFP).
- Research Assistantships funded by NSF research awards.
- Doctoral Dissertation Research Improvement Grants (DDRIG).
- NSF-funded mentoring programs in SBE fields
  - Political Science: Ralph Bunche Summer Institute
  - Economics: AEA Summer Training Program
RESEARCH EXPERIENCES FOR UNDERGRADUATES (REU)

- Regular NSF proposals can put undergraduate students in the budget, or ask for REU (Research Experiences for Undergraduates) Supplements. Contact the Program Director for your existing grant or for the grant that you are planning to submit, to find out how that program handles REU Supplements.

- REU Sites are standalone projects; every NSF directorate has an annual REU Site competition. See NSF REU program page at http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5517&from=fund. Deadline 4th Wednesday in August, annually.

- More specific details on the SBE REU Sites program can be found here: https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=503644

- All REU Site proposals are reviewed in multi-disciplinary panels. There is one competition for the entire SBE Directorate.
The SPRF program has two separate tracks

**Applicants must choose one**

1. **Broadening Participation, SPRF-BP**
   - To promote diversity in the scientific workforce
   - Previously called the SBE Minority Postdoctoral Research Fellowship

2. **Interdisciplinary Research in Behavioral and Social Sciences, SPRF-IBSS**
   - To promote research in emerging interdisciplinary fields

SPRF Program Page for details, link to full solicitation, and FAQs:
http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=504810
FUTURE DIRECTIONS IN SBE SCIENCE
Future research will be:

- Interdisciplinary
- Data intensive
- Collaborative
Future research will be: 1) interdisciplinary, 2) data intensive, and 3) collaborative.

- Interdisciplinary Behavioral and Social Sciences Research (IBSS)
- SBE Postdoctoral Research Fellowships (SPRF; IBSS track)
- Resource Implementations for Data Intensive Research in the Social, Behavioral, and Economic Sciences (RIDIR)
- Science of Learning: Collaborative Networks (SL:CN)
UNDERSTANDING THE BRAIN

- Cross-directorate activity to enable the scientific understanding of the full complexity of the brain in action and in context
- SBE focus is to understand the dynamic relationship between brain structure and activity and human cognition and behavior.
- 2015 solicitation, Integrative Strategies for Understanding Neural and Cognitive Systems
Support development of user-friendly, large-scale, next-generation data resources and analytical techniques through the Resource Implementations for Data Intensive Research in the Social, Behavioral, and Economic Sciences (RIDIR) program

Support innovative SBE big data applications through the BIGDATA program
Support research at the interstices of the social and computer sciences to achieve secure practices through both market mechanisms and behavioral incentives.

Continue to support research on Privacy in Today’s Networked World.

“Cybersecurity is a socio-technical problem — technology alone is not going to solve the problem. ... The social dimension of security is important.”

- CISE AD Jim Kurose, 1/27/2015
INCLUSION ACROSS THE NATION OF COMMUNITIES OF LEARNERS THAT HAVE BEEN UNDERREPRESENTED FOR DIVERSITY IN SCIENCE AND ENGINEERING (NSF INCLUDES)

- Long-term goal: fund new research, models, and partnerships that lead to demonstrable progress in meeting the challenge of broadening participation in science and engineering
- Expand, re-frame, and improve alignment of directorate-based broadening participation efforts for greater impact
- FY 2016 pilots
  - Networks for STEM Excellence
  - Empowering All Youth for STEM
- SBE particular interest: the Science of Broadening Participation (Dear Colleague Letter)
INNOVATIONS AT THE NEXUS OF FOOD, ENERGY, AND WATER SYSTEMS (INFEWS)

- Enhance capacity to explore the interactions among food, energy, and water systems
- Explore the social, political, economic, and cultural dimensions of the food, energy, and water systems

FEW: Coupling Economic Models with Agronomic, Hydrologic, and Bioenergy Models for Sustainable Food, Energy, and Water Systems
Catherine Kling, PI; Iowa State University
(new conference award in 2015)
RISK AND RESILIENCE: CRITICAL RESILIENT INTERDEPENDENT INFRASTRUCTURE SYSTEMS AND PROCESSES (CRISP)

- Understand responses to risks from
  - extreme natural events (hurricanes; earthquakes)
  - people (terrorism; human error)
- Build more resilient infrastructure systems
SOME TIPS/ENCOURAGEMENTS?
ANATOMY OF PROPOSAL REVIEW

- Intellectual Merit
  - Qualifications of PI
  - Creativity & Originality
  - Transformative?
  - Conception & Organization
  - Access to Resources
  - Advances Scientific Knowledge

- Broader Impacts
  - Importance of Topic
  - Mentoring
  - Diversity
  - Infrastructure
  - Dissemination/Publication
  - Societal Benefits
ANATOMY OF NSF GRANT PROPOSAL

- Cover Page
- Project Summary (1 page)
- Table of Contents (auto-generated)
- Project Description (15 pages)
- References cited
- Biographical sketches (for all senior PIs on the project)
- Budget
- Current and Pending Support
- Facilities, Equipment, and other Resources
- Post-doctoral mentoring Plan (if applicable)
- Data Management Plan
- Supplemental Documentation (if applicable—no letters of support)
STRATEGIES TO ENHANCE YOUR CHANCES

➢ Read the program announcement very carefully. Missing important details could cost you an Award.

➢ Talk to a Program Officer. A short one page outline of your ideas can serve as the basis for such a discussion. S/he can tell you whether your ideas fit or does not fit the Program Announcement.

➢ Ask about whether there are other programs or initiatives that may better fit for your ideas.

➢ If a proposal is declined, schedule a follow up chat with a program officer to get a feedback on whether/how to revise.

➢ NEVER GIVE UP! Persistence usually Pays off.
CONSIDERATION IN WRITING YOUR PROPOSAL

- Why is the work important?
- How is the work unique or innovative?
- What approach am I going to use and have I adequately sketched it out? Is it feasible?
- Why will this approach be especially valuable or informative?
- How is the team qualified to do this research?
- What is the contribution of this research to knowledge and how do the results benefit society?
THANK YOU FOR PATIENCE

ANY QUESTIONS?