National Science Foundation
Funding Opportunities and
Grant-writing Tips for
Social, Behavioral, and Economic Scientists

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Social, Behavioral, & Economic Sciences Directorate

Mississippi State University, February 6, 2017
• 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 billion
Social, Behavioral and Economic Sciences Directorate

• 1 of 7 NSF Directorates
• Annual budget of approximately $254 million
• Funds more than 50% of federally funded basic research in SBE fields in academic institutions
• Most of the funds go to peer-reviewed grants to individuals and small groups
• Also provides funding to major surveys; collect data on the science and engineering enterprise
Social and Economic Sciences Division

- Sociology
- Political Science
- Economics
- Law and Social Sciences (LSS)
- Science of Organizations (SoO)
- Decision, Risk, and Management Science (DRMS)
- Methodology, Measurement, and Statistics (MMS)
- Science, Technology, and Society (STS)
Behavioral and Cognitive Sciences Division

- Archaeology
- Cultural Anthropology
- Social Psychology
- Geography and Spatial Sciences (GSS)
- Linguistics
- Cognitive Neuroscience
- Developmental and Learning Sciences (DLS)
- Documenting Endangered Languages
- Biological Anthropology
- Perception, Action, and Cognition (PAC)
Check program dates

• Sociology Regular panel submissions
  – August 15
  – January 15

• Sociology DDRIG (Doctoral Dissertation Research Improvement Grants)
  – October 15
  – February 18 (invited R&R from fall submissions)
Homework assignment

NSF Award Search: Simple Search.

Awards Simple Search

Overview of Award Search Features

Search award for: [Search]

Use double quotes for exact search. For example "water vapor".

Active Awards  Expired Awards
Simple Search Results

Search award for: food insecurity

You Searched For:
food insecurity
Active Awards true

Refine by

State:
Alabama(13)
Alaska(2)
Arkansas(1)
Arizona(52)
California(240)
Show More ...

Country:
Ron (US)(4)
US(1838)

NSF Organization:
Office Of The Director (33)
Direct For Mathematical & Physical Sciences(139)
Direct For Social, Behavioral & Economic Sciences(123)
Direct For Computer & Info Sci & Eng(154)
Directorate For Geosciences(34)
Directorate For Engineering(133)
Directorate For Biological Sciences(64)
Directorate For Education & Human Resources(58)

Amount Awarded:
Less than or equal $50,000(162)
Between $50,001 - $100,000 (125)
Between $100,001 - $500,000(998)
Between $500,001 - $1,000,000(377)
More than $1,000,000(120)

Award Instrument:
Standard Grant(1254)
Continuing Grant(520)
Cooperative Agreement(25)
Fellowship(43)

Collaborative research: Food insecurity and mental health in global perspective: Social and nutritional pathways
Award Number: 1559705; Principal Investigator: Leoley Weever; Co-Principal Investigator: Organization: University of Alabama Tuscaloosa; NSF Organization: BCS; Start Date: 05/15/2016; Award Amount: $109,970.00; Relevance: 47.64;

FUS: Coping with Food and Water Insecurity: Vulnerability and Resilience of Small Farmers to Environmental Hazards
Award Number: 1539795; Principal Investigator: Christopher Bacon; Co-Principal Investigator: William Sundstrom, Edwin Maune, Iris Stewart-Frey; Organization: Santa Clara University; NSF Organization: BCS; Start Date: 09/01/2015; Award Amount: $72,555.00; Relevance: 47.64;

Doctoral Dissertation Research: Understandings of Food Insecurity and Urban Space in Kansas City
Award Number: 1656950; Principal Investigator: Anw Kinkingoler; Co-Principal Investigator: Chiaya Kovali; Organization: University of Kentucky Research Foundation; NSF Organization: BCS; Start Date: 01/01/2017; Award Amount: $18,107.00; Relevance: 47.63;

Collaborative research: Food insecurity and mental health in global perspective: Social and nutritional pathways
Award Number: 1560458; Principal Investigator: Craig Hadley; Co-Principal Investigator: Organization: Emory University; NSF Organization: BCS; Start Date: 05/15/2016; Award Amount: $91,528.00; Relevance: 47.63;

IBSS: Participatory-Ensemble Modeling to Study the Multiscale Social and Behavioral Dynamics of Food Security
Award Number: 1416730; Principal Investigator: Aris Lignos- Ziliakus; Co-Principal Investigator: Sandra Mccourt-Pyatt, Louise Rivers, Jing Du; Organization: Michigan State University; NSF Organization: SMA; Start Date: 08/01/2014; Award Amount: $999,793.00; Relevance: 46.25;

Endangered species as food: Interdisciplinary approaches to stemming biodiversity loss and food insecurity
Award Number: 1557834; Principal Investigator: Corin Borgen; Co-Principal Investigator: Organization: Harvard University; NSF Organization: SMA; Start Date: 06/01/2015; Award Amount: $194,028.00; Relevance: 45.55;

EASM-3: Physics-Based Predictive Modeling for Integrated Agricultural and Urban Applications
Award Number: 1419593; Principal Investigator: Alex Mahav; Co-Principal Investigator: E. Turner, Mohamed Moustaoui, Matei Georgescu, Elisabeth Mack, Carole Gebritus; Organization: Arizona State University; NSF Organization: DMS; Start Date: 09/01/2014; Award Amount: $1,161,222.00; Relevance: 44.86;

Exploring the links between biodiversity foods, nutritional quality, and food security
Award Number: 1604902; Principal Investigator: Jessica Rohman; Co-Principal Investigator: Tony Goldberg, Sagan Friant, Jerry Jacka; Organization: GNY Hunter College; NSF Organization: SMA; Start Date: 09/01/2016; Award Amount: $624,646.00; Relevance: 44.17;

The Impact of Value Chains Approaches on Gender and Food Security
Award Number: 1539831; Principal Investigator: Rachel Schuman; Co-Principal Investigator: Thomas Basset, William Moseley, Heidi Engenbach, William Moom; Organization: University of Minnesota-Twin Cities; NSF Organization: BCS; Start Date: 09/01/2015; Award Amount: $479,808.00; Relevance: 44.16;

BREAD PHERO: High-Throughput Phenotyping with Smart Phones. #phenApps
Award Number: 1543508; Principal Investigator: Jesse Poland; Co-Principal Investigator: Mitchell Ieislen, Michael Gore, Bruce Gooch; Organization: Kansas State University; NSF Organization: IOS; Start Date: 08/01/2016; Award Amount: $542,368.00; Relevance: 43.8;

Doctoral Dissertation Research: Tertiorizing Rural Land Disputes
Award Number: 1523810; Principal Investigator: James Ferguson; Co-Principal Investigator: Nisrin Abdelshahim; Organization: Stanford University; NSF Organization: BCS; Start Date: 05/15/2016; Award Amount: $17,420.00; Relevance: 43.77;

Cultural Accommodation and Change in The North Carolina Piedmont
Award Number: 1450533; Principal Investigator: Dale Hutchinson; Co-Principal Investigator: Benjamin Aruckle, Brett Rigs, Clara Scary, R P Stephen Davis; Organization: University of North Carolina at Chapel Hill; NSF Organization: BCS; Start Date: 09/01/2015; Award Amount: $238,131.00; Relevance: 43.43;

RCN-SEE: The Global Research Network on Women and Sustainability: Mentoring underrepresented women and women from developing countries in research on environmental sustainability

Where to start with writing a proposal?

• A basic idea
  • Research questions/ hypotheses
  • Literature
  • Methodology
• Check to see what awards have been previously funded (www.nsf.gov/awardsearch/)
• Decide which program
In crafting your proposal, work towards a focused, clear research design.

Theoretical approach and current status of research on the topic.

Pose research questions and/or define hypotheses to be tested.

Select methods to answer questions or test hypotheses.

Data collection and analysis

Specifically address how the proposed data analysis will answer questions or test hypotheses.

Make the case for intellectual merit (innovation and contribution to current science) and broader impacts (benefit to society)
Be sure to pay attention to ...

• Data Management Plan (DMP)
  • All proposals must describe plans for data management and sharing
  • Fastlane will not allow submission of a proposal missing a plan.

• Postdoctoral Mentoring Plan
  • If request money for a postdoc, must have plan as supplementary doc (1 page)

• IRB (Human Subjects) Clearance
  • No award involving human subject can be made without IRB approval or exemption.
  • This approval is not needed at the time of proposal application, but PIs are urged to have their approval pending.
Proposal Tips

• Give yourself plenty of time
  – Do not expect to be successful by “throwing something together at the last minute”
  – Proposal writing is a craft

• Focus on theoretical foundations and prospective theoretical contributions of the project.

• Build in a strong case for societal benefits.

• Make sure the budget is well justified.

• Target the right program; ask for co-reviews.
Peer Review

• Share with colleagues and get feedback
• Remove jargon and highly technical language
• A well written proposal demonstrates the quality of work you do
• The proposal is your presentation of self
• Intellectual Merit
  – (Potential to advance knowledge)

• Broader Impact
  – (Potential to benefit society and contribute to specific, desired societal outcomes)

• Data Management Plan
  – (sharing data, coding schemes, analysis strategies; archiving to assure replication of findings)
Proposal Processing

- **NSF Proposal Generating Document**
- **Proposal Processing Unit**
  - NSF Program Officer
    - Minimum of 3 Reviews Required
      - Ad hoc
        - *Panel
          - *Co-reviews with other panels
    - Returned as Inappropriate/Withdrawn
    - Program Officer Analysis & Recommendation
    - Division Director Concur
    - Decline
    - Award via DGA
    - Organization

- Proposal received by NSF
  - Proposal Preparation Time
    - 4-5 months
  - Review of Proposal
  - P.O. Recommend
  - Div. Dir. Concur
    - 30 days
  - DGA Review & Processing of Award
  - Award
Homework Assignment

• Become familiar with NSF’s submission rules and review criteria
  – [link](https://www.nsf.gov/pubs/policydocs/pappg17_1/index.jsp)
  – (NEW in Jan 2017!!)
Consider opportunities to involve students

• Doctoral Dissertation Improvement Grants (DDRIGs)

• Research Experiences for Undergraduates (REU)
  - REU Supplements: Awards added onto senior awards to sponsor undergraduate student research
  - REU Sites: training programs, often in the summer months, for teaching research methods to undergrads
CAREER Solicitation (NSF 11-690)

- Available in all NSF programs
- Untenured faculty (or comparable)
- Single scholar award
- $400,000, 5-years minimum award
- Three CAREER proposals lifetime limit
- Mid to late July deadline (varies by discipline and year)
- High Prestige/High Expectations
- Presidential Early Career Awards for Scientists and Engineers (PECASE)
Early-concept Grants for Exploratory Research (EAGER)

- Exploratory work on untested, potentially transformative ideas
- High-risk, high-potential payoff
- $300,000 maximum; 2 years
- Eight page description
- Internal review required; external optional
- Contact program officer first
- “Your eagerness to get NSF funding is not a good reason to request an EAGER award.”
- “Many programs prefer you to submit proposals that undergo merit evaluation by peers before you argue that your ideas are so innovative and unorthodox that they can’t be evaluated fairly through normal evaluation processes.”
Grants for Rapid Response Research (RAPID)

• Research when data are ephemeral
• $200,000 maximum; 1 year
• 5 page project description
• Internal review required; external optional
• Available in all programs
• Contact program officer first
• “Wanting the money rapidly is not a good reason to request a RAPID award.”

For proposals wishing to capture and analyze ephemeral data, urgency with regard to availability of, or access to data, facilities or specialized equipment, including quick-response research on natural or anthropogenic disasters and similar unanticipated events
The goal of this Smart & Connected Communities (S&CC) solicitation is to support strongly interdisciplinary, integrative research and research capacity-building activities that will improve understanding of smart and connected communities and lead to discoveries that enable sustainable change to enhance community functioning.
INFEWS is to catalyze well-integrated *interdisciplinary* and convergent research to transform scientific understanding of the FEW nexus.

- Significantly advance our understanding of the food-energy-water system through quantitative, predictive and computational modeling, including support for relevant cyberinfrastructure;
- Develop real-time, cyber-enabled interfaces that improve understanding of the behavior of FEW systems and increase decision support capability;
- Enable research that will lead to innovative solutions to critical FEW systems problems; and
- Grow the scientific workforce capable of studying and managing the FEW system, through education and other professional development opportunities.
Research Advanced by Interdisciplinary Science and Engineering Proposal (RAISE)

RAISE is a type of proposal that may be used to support bold, interdisciplinary projects whose:

- Scientific advances lie in great part outside the scope of a single program or discipline, such that substantial funding support from more than one program or discipline is necessary.
- Lines of research promise transformational advances.
- Prospective discoveries reside at the interfaces of disciplinary boundaries that may not be recognized through traditional review or co-review.
As part of NSF’s Cyberinfrastructure Framework for 21st Century Science and Engineering (CIF21) activity, the Directorate for Social, Behavioral and Economic Sciences (SBE) seeks to develop user-friendly large-scale next-generation data resources and relevant analytic techniques to advance fundamental research in SBE areas of study.
Looking Ahead: Ten Big Ideas

Navigating the New Arctic
Harnessing Data for 21st Century Science and Engineering
Work at the Human-Technology Frontier: Shaping the Future
Understanding the Rules of Life: Predicting Phenotype
The Quantum Leap: Leading the Next Quantum Revolution
Windows on the Universe: The Era of Multi-messenger Astrophysics

Growing Convergent Research at NSF
NSF-Includes: Enhancing Science and Engineering through Diversity
Mid-scale Research Infrastructure
NSF 2050: Seeding Innovation
Division of Social and Economic Sciences (SES)

• Supports research to develop and advance scientific knowledge focusing on economic, legal, political and social systems, organizations, and institutions

• Supports research on the intellectual and social contexts that govern the development and use of science and technology

Current Division Director: Daniel Sui
The Sociology program supports theoretically-grounded research on systematic patterns of social relationships that examine the causes and consequences of human behavior, social structure and social change. Studies range from micro to macro levels of interaction.

Topics include, but are not limited to:
- Stratification, labor markets, mobility, social change
- Organizations, networks, economic and workplace change
- Crime, delinquency, social organization and social control
- Race, ethnicity, social identity/interactions, culture, education
- Family, gender, population, migration, immigration
- Social movements, political processes, globalization and more

The Program supports research that uses the range of social science methodologies — experimental, quantitative, qualitative and the combinations of multiple methods—for original data collection and secondary data analysis.

Program Officers: Kay Meyer, Marie Cornwall
Law and Social Science

• Supports social scientific studies of law and law-like systems of rules, institutions, processes, and behaviors
• Topics can include, but are not limited to
  – research designed to enhance the scientific understanding of the impact of law
  – human behavior and interactions as these relate to law
  – the dynamics of legal decision making
  – the nature, sources, and consequences of variations and changes in legal institutions

Program Officers: Scott Barclay, Mark Hurwitz
Division of Behavioral and Cognitive Sciences

• Supports research to develop and advance scientific knowledge focusing on human cognition, language, evolution, social behavior, and culture
• Supports research on the interactions between human societies and the physical environment
Cultural Anthropology

• Promotes basic scientific research on the causes and consequences of human social and cultural variation
• Supports social scientific research of theoretical importance in all theoretical and empirical subfields
  – Socio-cultural drivers of processes such as deforestation, land cover change, urbanization, and poverty
  – Conflict, cooperation
  – Cultural and social contexts of health and disease

Program Officers: Deborah Winslow, Jeff Mantz
Geography and Spatial Sciences

• Supports research on geographic distributions and interactions of human, physical, and biotic systems on the earth’s surface;

• Encourages investigations into the nature, causes, and consequences of human activity and natural environmental processes across a range of scales;

• Funds international and domestic projects which make contributions toward advancing geographic and spatial scientific theory.

Program Officers:  Tom Baerwald, Antoinette WinklerPrins
QUESTIONS?

Search the website, [www.nsf.gov](http://www.nsf.gov), then feel free to contact a program officer in a program that you feel you are interested in for further information. Email communication is generally preferred.
The following slides are for your reference

- The first set offer greater detail on new SBE efforts
- The second set provides a brief sense of SBE Program and Program Officer names.

Word to the Wise:

- Dates, names, etc. change. Double check on websites.
Economics

• Supports:
  – Both empirical and theoretical economic analysis as well as work on methods for rigorous research on economic behavior
  – Research designed to improve the understanding of the processes and institutions of the U.S. economy and of the world system of which it is a part
  – Almost all subfields of economics including: econometrics, economic history, finance, industrial organization, international economics, labor economics, public finance, macroeconomics, and mathematical economics

Current Program Officers: Nancy Lutz, Seung-Hyun, Kwabena Gyimah-Brempong
Decision, Risk, & Management Sciences

• Supports research that explores fundamental issues in judgment and decision making, risk analysis, management science, and organizational behavior
• Research must be relevant to an operational or applied context, grounded in theory, and based on empirical observation or subject to empirical validation

Current Program Officers: Robert O’Connor, Mary Rigdon
Science of Organizations

• SoO funds research that advances the fundamental understanding of how organizations develop, form and operate.
• Supports research which uses theory combined with empirical validation.
• Looks to expand the concepts, models and methodologies of change in organizations and institutions

Current Program Officer: Quinetta Roberson
Methodology, Measurement, and Statistics

• Seeks proposals that are interdisciplinary in nature, methodologically innovative, and grounded in theory, such as:
  
  – Models and methodology for social and behavioral research
  – Statistical methodology/modeling directed towards the social and behavioral sciences
  – Methodological aspects of procedures for data collection

Current Program Officer: Cheryl Eavey
Political Science

• Supports scientific research that advances knowledge and understanding of citizenship, government, and politics

• Substantive areas include, but are not limited to:
  – American government and politics
  – comparative government and politics
  – international relations
  – political behavior
  – political economy
  – political institutions

• Supports Doctoral Dissertation Research Improvement Grants

Current Program Officers: Brian Humes and Tim
Science, Technology and Society

STS considers proposals that examine questions that arise in the interactions of engineering, science, technology, and society.

There are four components:

- Ethics and Values in Science, Engineering and Technology (EVS)
- History and Philosophy of Science, Engineering and Technology (HPS)
- Social Studies of Science, Engineering and Technology (SSS)
- Studies of Policy, Science, Engineering and Technology (SPS)

The components overlap, but are distinguished by the different scientific and scholarly.

Program Officers: Fred Kronz, Wenda