



National Science Foundation Social, Behavioral, and Economic (SBE) Sciences Directorate

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Overview of NSF and Intro to SBE

Directorates at NSF

- Office of the Director
- ◆ Office of Diversity & Inclusion (ODI)
- ◆ Office of General Counsel (OGC)
- ◆ Office of International & Integrative Activities (OIIA)
- ◆ Office of Legislative & Public Affairs (OLPA)
- ◆ Office of Budget, Finance and Award Management

- Biological Sciences (BIO)
- Computer and Information Science & Engineering (CISE)
- Education and Human Resources (EHR)
- Engineering (ENG)
- Geosciences (GEO)
- Mathematical and Physical Sciences (MPS)
- Social, Behavioral, and Economic Sciences (SBE)

SBE's Mission



- To promote the understanding of people and their lives by supporting research that reveals basic facets of human behavior
- To encourage research that addresses important societal questions and problems

Basic Science

Three Divisions within SBE

- Behavioral & Cognitive Sciences (BCS)
- Social & Economic Sciences (SES)
- National Center for Science & Engineering Statistics (NCSES)

Behavioral and Cognitive Sciences (BCS)



- 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)



- Decision Risk and Management Sciences
- Economics
- Law and Social Sciences
- Methodology, Measurement, and Statistics
- Political Science
- Science of Organizations
- Science, Technology, and Society
- Secure and Trustworthy Cyberspace
- Sociology

SBE-Wide Programs and Solicitations

- Science of Learning
- Science of Science and Innovation Policy
- Interdisciplinary Behavioral and Social Sciences (IBSS)
- Resource Implementation for Data Intensive Research in SBE (RIDIR)
- Science of Broadening Participation

Some Relevant Cross-Directorate Initiatives

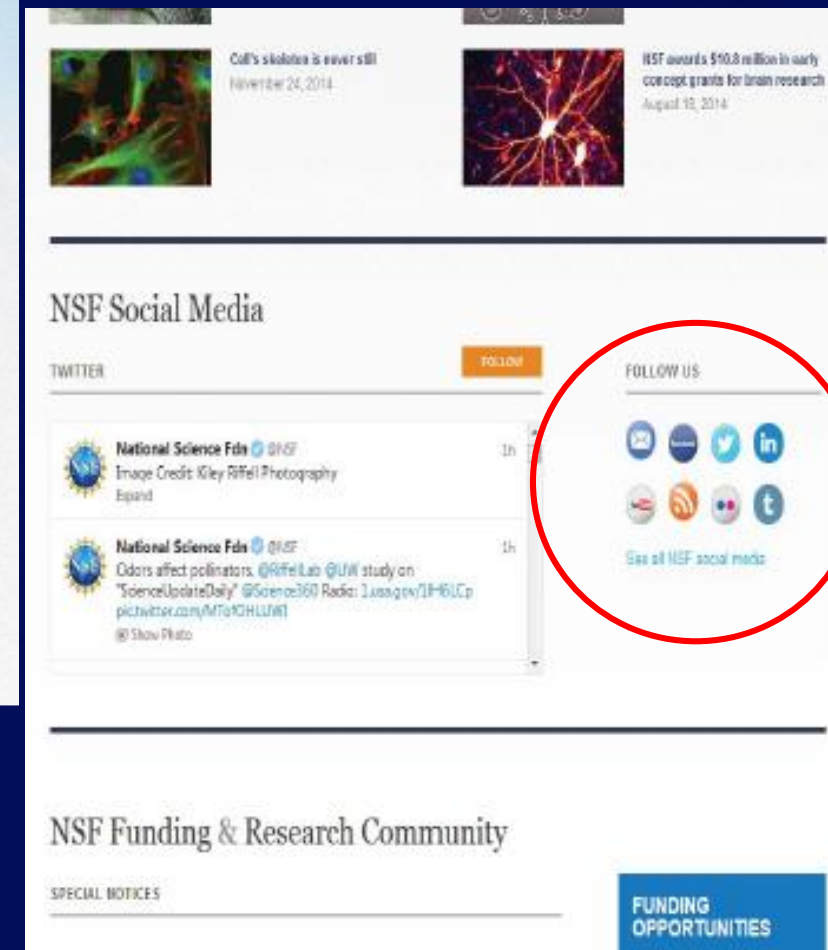
- Integrative Strategies for Understanding Neural and Cognitive Systems
- Cyberlearning and Future Learning Technologies
- Innovations at the Nexus of Food, Water, and Energy
- Dynamics of Coupled Natural and Human Systems
- INCLUDES
- ADVANCE
- HBCU-UP

Stay in the Loop



- Dear Colleague Letters
- Special Competitions and Investment Areas
- NSF.gov → NSF Social Media

NSF.gov



Kinds of proposals (mechanisms)



- Standard research grants
- Research at Undergraduate Institutions (RUI) awards
- 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 Networks (RCNs)

Faculty Early Career Development Program (CAREER)

- ▶ Pre-tenure but tenure-track (or equivalent) faculty
- ▶ Integration of research and education
- ▶ Single investigator proposal -no Co-PIs
- ▶ Minimum \$400,000 over 5 years*
- ▶ Maximum of three submissions (one per year)
- ▶ Deadline: mid- to late July

Anatomy of a Proposal

Proposal Components

- Cover Page
- Project Summary (1 page)
- Table of Contents (auto-generated)
- Project Description (15 pages)
- References Cited
- Biographical Sketches (for all senior personnel)
- Budget
- Current and Pending Support
- Facilities, Equipment, and Other Resources
- Post-doctoral mentoring plan (if applicable)
- Data management plan
- Supplementary Documentation (if applicable -no letters of support)



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Cover Sheet

COVER SHEET FOR PROPOSAL TO THE NATIONAL SCIENCE FOUNDATION					
PROGRAM ANNOUNCEMENT/SOLICITATION NO. CLOSING DATE (Set in response to a program announcement described in order NSF 14-1)				FOR NSF USE ONLY	
NSF 14-1				NSF PROPOSAL NUMBER	
FOR CONSIDERATION BY NSF ORGANIZATION UNIT(S) (Indicate the most specific unit known, i.e. program, division, etc.)				1509402	
PHY - ASTROPHYSICS & COSMOLOGY THEOR					
DATE RECEIVED	NUMBER OF COPIES	DIVISION ASSIGNED	FUND CODE	DUNS# (Data Universal Numbering System)	FILE LOCATION
11/03/2014	1	03010000 PHY	1288	084184116521	11/03/2014 10:25pm
EMPLOYER IDENTIFICATION NUMBER (EIN) OR TAXPAYER IDENTIFICATION NUMBER (TIN)		SHOW PREVIOUS AWARD NO. IF THIS IS <input type="checkbox"/> A RENEWAL <input type="checkbox"/> AN ACCOMPLISHMENT-BASED RENEWAL		IS THIS PROPOSAL BEING SUBMITTED TO ANOTHER FEDERAL AGENCY? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> IF YES, LIST AGENCY(IES)	
NAME OF ORGANIZATION TO WHICH AWARD SHOULD BE MADE NSF			ADDRESS OF AWARDING ORGANIZATION, INCLUDING 9-DIGIT ZIP CODE Arlington, VA 222060000 US		
AWARDEE ORGANIZATION CODE (if known) 4102852000					
NAME OF PRIMARY PLACE OF PERFORM			ADDRESS OF PRIMARY PLACE OF PERFORM, INCLUDING 9-DIGIT ZIP CODE		
IS A AWARDING ORGANIZATION (Check All That Apply) (See GPG 11.D For Definitions) <input type="checkbox"/> SMALL BUSINESS <input type="checkbox"/> MINORITY BUSINESS <input type="checkbox"/> IF THIS IS A PRELIMINARY PROPOSAL, THEN CHECK HERE <input type="checkbox"/> FOR-PROFIT ORGANIZATION <input type="checkbox"/> WOMAN-OWNED BUSINESS					
TITLE OF PROPOSED PROJECT International Conference Cosmical Magnetic Fields					
REQUESTED AMOUNT \$ 30,000	PROPOSED DURATION (H 43 MONTHS) 0 months	REQUESTED STARTING DATE	SHOW RELATED PRELIMINARY PROPOSAL NO. IF APPLICABLE		
THIS PROPOSAL INCLUDES ANY OF THE ITEMS LISTED BELOW <input type="checkbox"/> BEGINNING INVESTIGATOR (GPG 11.C.2) <input type="checkbox"/> DISCLOSURE OF LOBBYING ACTIVITIES (GPG 11.C.1.b) <input type="checkbox"/> PROPRIETARY & PRIVILEGED INFORMATION (GPG 11.D.1.a) <input type="checkbox"/> HISTORIC PLACES (GPG 11.C.3) <input type="checkbox"/> VERTEBRATE ANIMALS (GPG 11.D.6) (ACUC App. Date _____) PHS Animal Welfare Assurance Number _____ 50 FUNDING MECHANISM Conference, Symposium, Workshop					
<input type="checkbox"/> HUMAN SUBJECTS (GPG 11.D.7) Human Subjects Assurance Number _____ Exemption Submission _____ at IRB App. Date _____ <input type="checkbox"/> INTERNATIONAL ACTIVITIES - COUNTRY/COUNTRIES INVOLVED (GPG 11.C.2.d) <input type="checkbox"/> COLLABORATIVE STATUS Not a collaborative proposal					
PI/D DEPARTMENT Physics		PI/D POSTAL ADDRESS 4201 WILSON BLVD ARLINGTON, VA 222060000 United States			
PI/D FAX NUMBER					
NAMES (TYPED)	High Degree	Yr. of Degree	Telephone Number	Email Address	
PI/D NAME Terry Demo	DSc	1999	703-292-9000	td@nsf.gov	
CO-PI/D					
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Project Summary (1 page)

- Overview
- Statement of Intellectual Merit
- Statement of Broader Impacts

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Project Description (15 pages)

- What's the question?
- Why it's important to answer it
- How you plan to answer it
- What implications it will have
- Must include a statement of broader impacts and a section addressing result from prior NSF support

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Biosketches

- For all senior personnel
- 2 pages max.
- Professional Preparation
- Appointments (starting with current)
- Publications (10 max: 5 most relevant, 5 other significant papers)
- Synergistic activities (training, outreach, professional service)
- Collaborators and Other Affiliations

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Budget

Size:

- Reasonable for project
- Aligned with typical award size for the program
- Well-justified and not padded
- Consistent with program/solicitation guidelines

Eligible Costs:

- Personnel (PI, Co-PI, Consultants, Research Staff, Students)
- Equipment
- Travel
- Participant recruitment/compensation
- Supplies and services as needed

Indirect costs are included in overall budget
-rate is negotiated between Govt and your institution

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Post-doctoral mentoring plan

- 1 page max. description of how Post-Doc will be mentored
- Research training
- Networking and career counseling
- Training in grant writing, publications and presentations
- Support for development of teaching and mentoring skills
- Training in responsible conduct of research

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Data Management Plans

- ▶ What kinds of data, software and other materials will your research generate?
- ▶ How will you manage it? (e.g. metadata standards, standards for format, content, migration, etc.)
- ▶ How will you give others access to your data, preserving confidentiality, security, intellectual property & other rights/requirements?
- ▶ How will you archive data and preserve access?

Not “one size fits all”

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Supplementary Documentation

- RUI documents
- Letters of commitment from collaborating organizations
- Other information that establishes feasibility
- Note: We generally give you the benefit of the doubt
- NO letters of support

Breaking Down the Review Process

Proposal Processing



- PI writes and uploads proposal documents to Fastlane or Research.gov
- Sponsored Research Office submits proposal on behalf of institution
- Compliance check
- Review of proposal
- Program Director Recommendation
- Division Director Review of Recommendation
- If award, Division of Grants and Agreements vets and issues award notice

When Proposals are Returned **Without Review**



- Not responsive to the GPG or program announcement/solicitation
- Does not meet an announced proposal deadline date and time
- Inappropriate for NSF funding
- Duplicate or substantially similar to a proposal already under consideration or previously submitted and declined

Types of Reviewers

- Ad hoc reviews -Experts on the proposal topic
- Advisory panels -Representing various topic areas in the discipline
- Internal review by NSF Program Directors

*Panels (and reviewers) are Advisory

Official NSF review criteria

Intellectual Merit:

- Importance of topic
- Qualifications
- Creativity & originality
- Transformative?
- Conception & organization
- Access to resources

Broader Impacts:

- Training
- Mentoring
- Diversity
- Infrastructure
- Dissemination/Public awareness
- Societal Benefits

NSF Review structure and content

- Provide a rating: Excellent, Very Good, Good, Fair, Poor
- Description of strengths and weaknesses
- Separate analysis of:
 - Intellectual Merit
 - Broader Impacts
 - Any Solicitation-Specific Criteria
- Summary statement of overall assessment

Co-review



- Submit one proposal for consideration by multiple programs
- Choose programs on cover page, **top choice first**
- Decision to co-review is at the discretion of the program directors
- Reviews from multiple perspectives
- Both fund, neither fund, one funds

Post-review process

If declined:

- Notification will be emailed (usually within 6 months)
- Reviews, panel summary, and context statement will be available on Fastlane
- Read and absorb, then dust yourself off!
- Contact Program Director for feedback on next steps

If awarded:

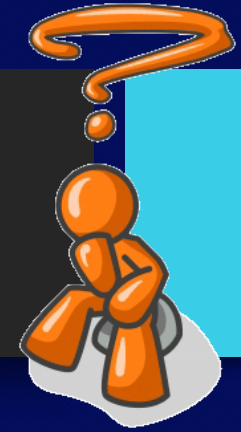
- Program Director will let you know
- Often there are requests for clarification or revision to the protocol or budget
- Provide IRB approval (as applicable)
- Work with PD on public abstract
- Await award notice!

No revision process at NSF, each proposal treated anew

Secrets to Success and Debunking Common Myths



Developing your Proposal Vision



- Why is the work important?
- How is the work unique or innovative?
- Why will this approach be especially valuable or informative?
- How is the team qualified to undertake the work?

Pitfalls to avoid



- Overlooking key aspects of the program announcement and requirements -**READ CAREFULLY**
- Lacking specificity about method and/or predictions
- Underdeveloped analytic plan
- Disconnect between framing/motivation and proposed activity
- Failing to establish feasibility
- Writing exclusively for an expert audience

Talk to a Program Director!



- Get in touch early in the process (and well before the deadline)
- Send an email requesting a phone meeting rather than cold-calling
- Include a one-page summary of the project
- Ask for feedback on how the project fits with program priorities
- Inquire whether there are other programs or initiatives (such as DCLs) that are relevant
- If a proposal is declined, schedule a follow-up chat to get feedback on whether and if so how to revise

Do's and Don'ts



DO:

- Talk to a program director about your project
- Get feedback from colleagues or mentors on drafts
- Suggest reviewers
- Keep in mind that funding rates are up to 20%
- Volunteer to serve as a reviewer

DON'T:

- Self-Handicap
- Try to pull something together too quickly
- Globalize feedback

Common Myths



- Myth #1: Putting a proposal together is a short-term project.
- Myth #2: I need to submit as many proposals as possible to have a chance.
- Myth #3: Small institutions don't get funded.

Mock Panel

Panel Discussion

- Intellectual Merit
 - Strengths
 - Weaknesses
- Broader Impacts
 - Strengths
 - Weaknesses
- Post-doc Mentoring Plan
- Data management plan
- Overall recommendation (categories vary):
 - Highly Competitive, Competitive, Not Competitive



Thank you!!