Writing Doctoral Dissertation Proposals for Social, Behavioral, and Economic Sciences (SBE)

Eric Potsdam
Program Officer, Linguistics, NSF
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Overview

• The National Science Foundation
• Writing and Submitting a Proposal
• The Review Process
NSF Is an Independent Agency of the Executive Branch of the U.S. Government
NSF Is Divided into Directorates

President

National Science Board
Director
Deputy Director

Staff Offices

Biological Sciences
Computer and Information Science Engineering
Education And Human Resources
Engineering
Geosciences

Mathematical and Physical Sciences
Social, Behavioral, and Economic Sciences
Budget, Finance, and Award Management
Information and Resource Management

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Mathematical and Physical Sciences
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Information and Resource Management
Directorates Are Divided into Divisions and Divisions Are Divided into Programs

- Social, Behavioral, and Economic Sciences (SBE)
  - Behavioral and Cognitive Sciences (BCS)
    - Archaeology
    - Cognitive Neuroscience
    - Cultural Anthropology
    - Developmental & Learning Sciences
    - Documenting Endangered Languages
    - Geography & Spatial Sciences
    - Linguistics
    - Physical Anthropology
    - Social Psychology
    - Perception, Action, & Cognition
  - Social and Economic Sciences (SES)
    - Decision, Risk, & Management Sciences
    - Economics
    - Innovation & Organizational Sciences
    - Law & Social Sciences
    - Methodology, Measurement, & Statistics
    - Political Science
    - Science of Science & Innovation Policy
    - Science, Technology, & Society
    - Sociology
  - Science Resources Statistics
The NSF Vision

Advancing discovery, innovation, and education beyond the frontiers of current knowledge, and empowering future generations in science and engineering.
NSF is a Science Management Agency

- 50,000 competitive proposals a year
- 250,000 proposal reviews a year
- 10,000 new awards annually
- $7 billion in annual funding
Doctoral Dissertation Research Improvement Grants

- DDRIGs are intended to improve the quality of dissertation research
- DDRIG proposals are judged on the basis of scientific merit
- DDRIG funds are to be used for items not normally available through the student's university
Where to Get Information About Applying for DDRIGs

• SBE DDRIG website
  http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=13453

• SBE DDRIG Solicitation (NSF 06-605)

• NSF Grant Proposal Guide (GPG)

• Individual Program websites
  http://www.nsf.gov/sbe/ddrig_contacts.jsp
SBE Doctoral Dissertation Contact List

**Archeology:**

John Yellen, Program Director; Archeology Program, Directorate for Social, Behavioral & Economic Sciences, Division of Behavioral and Cognitive Sciences, 995 N, telephone: (703) 292-8759, fax: (703) 292-9068, email: iyellen@nsf.gov

**Cultural Anthropology:**

Deborah Winslow, Program Director; Cultural Anthropology Program, Directorate for Social, Behavioral & Economic Sciences, Division of Behavioral and Cognitive Sciences, 995 N, telephone: (703) 292-7315, fax: (703) 292-9068, email: dwinslow@nsf.gov

Susan Penfield, Program Director; Cultural Anthropology Program, Directorate for Social, Behavioral & Economic Sciences, Division of Behavioral and Cognitive Sciences, 995 N, telephone: (703) 292-4535, fax: (703) 292-9068, email: spenfield@nsf.gov

**Decision Risk and Management Science (DRMS):**

Jon Leland, Program Director; Decision, Risk, & Management Science Program, Directorate for Social, Behavioral & Economic Sciences, Division of Social and Economic Sciences, 995 N, telephone: (703) 292-7263, fax: (703) 292-9068, email: jleland@nsf.gov

Jacqueline Meszaros, Program Director; Decision, Risk, & Management Science Program, Directorate for Social, Behavioral & Economic Sciences, Division of Social and Economic Sciences, 995 N, telephone: (703) 292-7261, fax: (703) 292-9068, email: jmeszaros@nsf.gov

Robert E. O’Connor, Program Director; Decision, Risk, & Management Science Program, Directorate for Social, Behavioral & Economic Sciences, Division of Social and Economic Sciences, 995 N, telephone: (703) 292-7263, fax: (703) 292-9068, email: roconnor@nsf.gov

**Economics:**

Nancy A. Lutz, Program Director/Cluster Coordinator; Economics Program, Directorate for Social, Behavioral & Economic Sciences, Division of Social and Economic Sciences, 995 N, telephone: (703) 292-7260, fax: (703) 292-9068, email: nlutz@nsf.gov
Getting Started

- Start with a good idea!
- Allow yourself plenty of time
- Develop your idea first
- Find the right NSF program(s) for your research
- Submit your proposal in NSF’s FastLane

https://www.fastlane.nsf.gov/index.jsp
Developing Your Idea

• **Ask the key questions**
  What is your research question/hypothesis?  
  How do you intend to answer it?  
  Why is the work important?

• **Make sure the work is original and exciting**
  Conduct a thorough literature search  
  Talk with others in the field

• **Have an execution plan**
  Obtain preliminary data  
  Make sure the work is feasible  
  Determine your needs (facilities and resources)
Finding the Right Program

• SBE Doctoral Dissertation Contact List
  http://www.nsf.gov/sbe/ddrig_contacts.jsp

• Read the program descriptions or solicitations

• Contact the program officers if you are unsure of the suitability of your idea to a specific program
Submitting Your Proposal in NSF’s FastLane

- Cover sheet
- **Project Summary** (one page)
- Table of Contents
- **Project Description** (10-15 pages depending upon program)
- References cited
- Biographical Sketch(es)
- **Budget**
  - Budget Justification
  - Current & Pending Support
  - Facilities, Equipment, & Other Resources
  - Special Information & Supplementary Documentation
Principal Investigator (PI)/Co-Principal Investigator (Co-PI) Management

Proposal Functions

- Letters of Intent
- Proposal Preparation
- Proposal Status
- Revise Submitted Proposal Budget
- Proposal File Update

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## Form Preparation

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### Supplementary Documents

- Mentoring Plan
- Other Supplementary Docs

### Single Copy Documents

- PI/Co-PI Information
- Deviation Authorization (if applicable)
- List of Suggested Reviewers (optional)
- Additional Single Copy Documents

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Cover Sheet Components Form

The NSF Cover Sheet within FastLane has been divided into 4 sections:

- Awardee/Performing/Research Organization
- Program Announcement / Solicitation Number Selection
- NSF Unit Consideration
- Remainder of Cover Sheet

To complete a section, click on the Go button, and click on OK to save the data.

Awardee/Performing/Research Organization Selection

Awardee Organization  Performing/Research Organization

University of Florida  University of Florida

Address  Gainesville, FL 326112002  Gainesville, FL 326112002
Inst. Code  0015354000  0015354000
DUNS #  969663814

Go

Program Announcement / Solicitation / Program Description No., or In response to Grant Proposal Guide (GPG).

No Program Announcement has been selected yet.
* You must select one or the GPG prior to filling out the rest of the Cover Sheet

NSF Unit Consideration

No NSF Units have been selected yet.
* You must select one prior to filling out the rest of the Cover Sheet

Go

*Remainder of the Cover Sheet

NSF 06-605
Unit Selection Lists

Select the organizational unit you wish to consider your proposal from either the Division selection box (if you want to review the NSF Divisions and associated Programs) or the Program selection box (if you know the Program you wish to select).

Note: Some program announcements will be associated with multiple Divisions and Programs. In these cases, a logical step-by-step selection process is provided.

1. **Divisions**
   - Select a Division within NSF 06-605
   - Directorate: SBE-Directorate for Social, Behavioral & Economic Sciences
     - BCS-Division of Behavioral and Cognitive Sciences
     - SES-Division of Social and Economic Sciences
     - SRS-Division of Science Resources & Statistics

2. Select Division
   - Show the programs in this division

3. **Programs**
   - Select a Program within NSF 06-605
     - ARCHAEOLOGY
     - CULTURAL ANTHROPOLOGY
     - DECISION RISK & MANAGEMENT SCI ECONOMICS
     - GEOGRAPHY AND SPATIAL SCIENCES
     - LAW AND SOCIAL SCIENCES
     - LINGUISTICS
     - METHOD, MEASURE & STATS
     - Methodology, Measurement, and Statistics

4. Repeat as desired

If you have selected more than one unit, make sure that the most suited is listed first. This top unit must be related to the program announcement. Highlight your primary choice and click the "Move to Top" button.

Current List of Selected NSF Units:
No NSF units have been selected yet.

Move to Top  Remove

Go Back
Selecting the Program(s)

- You may select more than one NSF Unit to review your proposal ("co-review"). Do not submit two proposals.

- Co-review gives your proposal two chances to be liked.

- The final decision regarding co-review rests with the Program Officers in the relevant units.
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**Awardee/Performing/Research Organization Selection**

Awardee Organization

University of Florida

Performing/Research Organization

University of Florida

Address

Gainesville, FL 326112002

Inst. Code

0015354000

DUNS #

969663814

**Program Announcement / Solicitation / Program Description No., or In response to Grant Proposal Guide (GPG).**

No Program Announcement has been selected yet.

*You must select one or the GPG prior to filling out the rest of the Cover Sheet

**NSF Unit Consideration**

No NSF Units have been selected yet.

*You must select one prior to filling out the rest of the Cover Sheet

**Remainder of the Cover Sheet**
Remainder of the Cover Sheet

- **Title**
  “Doctoral Dissertation Research: …”

- **Duration**
  Some programs have restrictions on duration (i.e. 12 months)

- **(Co-)PI**
  Your advisor is the Principal Investigator, you are the co-PI
  (Note: there are no citizenship requirements)

- **Human Subjects Information**
  Fill in if necessary
  Anticipate the time needed to get IRB approval
### Form Preparation

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#### Supplementary Documents

- GO Mentoring Plan
- GO Other Supplementary Docs

#### Single Copy Documents

- GO PI/Co-PI Information
- GO Deviation Authorization (if applicable)
- GO List of Suggested Reviewers (optional)
- GO Additional Single Copy Documents

- GO Add/Delete Non Co-PI Senior Personnel
- GO Change PI
- GO Link Collaborative Proposals
Project Summary

The Project Summary is a one page document that summarizes the research project in an accessible way.

The Project Summary must address both the Intellectual Merit and the Broader Impacts of the research.

Write three separate paragraphs with explicit headers:

**Proposed research**. Blah blah blah.

**Intellectual merit**. More blah blah blah.

**Broader Impacts**. Yet more blah blah blah.
Intellectual Merit

• Advancement of knowledge and understanding, within its own field and across fields

• Exploration of creative, original, and potentially transformative concepts

• Well conceived and organized activities

• Proposers who are well-qualified to conduct the project

• Sufficient access to resources
Broader Impacts

• Promotion of teaching, training, and learning
• Participation of underrepresented groups
• Outreach activities to the public and K-12 education
• Enhancement of infrastructure for research and education
• Broad dissemination of results
• Benefits to society

See http://www.nsf.gov/pubs/policydocs/pappguide/nsf10_1/gpg_3.jsp#IIIA for further information on Intellectual Merit and Broader Impacts
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[Go Back]
Project Description

- Page limitations vary by program (10 or 15 pages)

- The Project Description should discuss
  - an interesting research question
  - contextualization of the question in the relevant literature
  - the theoretical framework in which the research is set
  - implementation of the project and methodology
  - a clear analysis plan
  - a work timeline
  - the scientific significance of the work
  - broader impacts
  - your qualifications to do the work
Project Description Tips 1

• Make your project hypothesis-driven

• Be clear
  Write in a simple style

• Be specific
  Give as many details as possible

• Be a little redundant

• Think about the big picture
Project Description Tips 2

• Be gentle in your critiques
  You never know who will read the proposal

• Try to anticipate reasonable questions that evaluators might ask
  Reread your drafts from a reviewer's perspective

• Get feedback from experienced people/sources

• Make sure your proposal is technically correct
  Sweat the small stuff and comply with the NSF guidelines
  Careless writing, spelling, math, graphics, etc. imply careless scholarship
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[1] Supplementary Documents include Mentoring Plan and Other Supplementary Docs.
Budget Tips 1

• Check the budget limitations and restrictions of your program (typically $10K - $20K)

• Ask for what you need for actual conduct of the research (not what you want)

• Include details such as actual prices, don’t guess

• Don’t inflate your budget

• In the Budget Justification, break down your costs and provide clear justifications for each expense
Budget Tips 2

- Example costs
  - data collection and sample survey costs
  - payment to subjects
  - specialized research equipment
  - supplies
  - costs related to field research away from campus such as living expenses and travel
  - travel to archives, specialized collections, and facilities

- No stipends or salaries allowed

- No indirect costs allowed

- No publication costs related to the dissertation

- A research assistant is not allowed, except in special circumstances which should be carefully justified
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Biographical Sketches

- 2 page limit

- Strict NSF format
  http://www.nsf.gov/pubs/policydocs/pappguide/nsf10_1/gpg_2.jsp#IIC2f

- Some programs require a statement of the student’s current academic status and degree progress
Fill these out! The current proposal must be listed as **Pending Support**.
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[¹] If applicable, enter the mentoring plan.
Supplementary Documents

• Check with your program to find out what is allowed, required, or prohibited

• Yes: letters of international collaboration, access to facilities

• No: letters of recommendation, transcripts, appendices, documents related to the Project Description

• Maybe: a statement from the department chair or the advisor certifying the student’s progress towards the degree
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Suggested Reviewers

• You may suggest reviewers to use

• Give their names, e-mails, and a sentence about why they would be appropriate

• Avoid Conflicts of Interest between you/your advisor and the suggested reviewers

http://www.nsf.gov/pubs/policydocs/pappguide/nsf10_1/gpg_2.jsp#Ilex2
Some Resources


Now What?
The Review Process 1

- The NSF Merit Review process

- Your submitted proposal is checked for compliance with the DDRIG solicitation and Grant Proposal Guide restrictions. It can be returned without review if it is not compliant.

- Reviewers are assigned to your proposal

- Reviewers evaluate the proposal with respect to NSF’s two Merit Review Criteria: Intellectual Merit and Broader Impacts
The Review Process 2

• The Program convenes an Advisory Panel which evaluates your proposal and others submitted for the same cycle based on the reviews.

• The Advisory Panel makes a recommendation to the Program Officer regarding the proposal’s competitiveness relative to the other proposals.

• Program Officers decide which proposals they are going to fund given the Panel recommendations, funds available, Program priorities, co-funding arrangements, and other factors.
The Review Process 3

• You should be informed of the result within 4 - 5 months

• Funding rates vary for different programs but are in the range of 15 – 50%
Major Reasons Proposals Are Declined

- Proposals fail to establish a sound theoretical framework and/or are poorly related to relevant literature
- Proposals fail to specify research methods in sufficient detail or have flawed research plans
- Theoretical frameworks are sound and research plans are solid, but they don't match up with each other. The work does not address the research question
Thank you.

Questions?