

GRANT WRITING

July 21, 2008



Why Write a Grant?

Research:

Grant dollars provides the researchers an opportunity to cover the costs of your research

- Data collection, Investigator time, Research support

Support Dept. and University:

Provides funds and projects for student training

Recruit students to university

Generate a research climate and community

Indirect Costs – Offset the costs to the university of conducting research

It takes a village

Getting a grant out the door takes more than one person and is about more than just someone writing a grant

- Administrative help
- Budgeting
- Research support
- Research team
- Cost-shares
- Letters of Support
- Human Subjects
- Routing form



FUNDING SOURCES

- FOUNDATIONS
 - William T. Grant Foundation, Child Development Foundation, Templeton Foundation, National Campaign Prevent Teen and Unplanned Pregnancies
- PROFESSIONAL ORGANIZATIONS
 - ASA, PAA, NCFR
- NATIONAL SCIENCE FOUNDATION
- NATIONAL INSTITUTES OF HEALTH
 - NICHD, NIMH, NIA

TYPES OF SUPPORT

- TRAINING AND DEVELOPMENT
 - Graduate Student
 - Postdoctoral Fellow
- RESEARCH SUPPORT

Mechanisms NSF

- www.nsf.gov
- Sociology: Two Deadlines per Year
- Dissertation Improvement Grants
 - \$7500
 - The Dynamics of Eviction in the Inner-City Housing Market**
 - Gender Roles and Ethnicity in Transnational Migration**
- Investigator Initiated
 - A Longitudinal Study of the Impact of Social Networks and the Internet on Relationship Formation**

Mechanisms NIH

- **JUNIOR INVESTIGATORS**

- **F31: Predoctoral Fellowships:**

- **Minorities, Disabilities**

- **F32: Postdoctoral Fellowships**

- Family Resources, Public Policy, and Child Maltreatment**

- **KO1: Mentored Population Research Scientist Development Award**

- Early Work Experiences and the transition to Adulthood**

Mechanisms NIH

- R01 Research Project Grant
- R03 Small Research Grant
- R21 Exploratory/Developmental Research Grant

AGENCIES: NICHD, NIA

R01

- Five year
- \$250,000 per year cap
- 25 pages

- Examples:

Well-being of South African children: Household, community and policy influences

Development and Maintenance of Low-Income Newlywed Marriages

Adolescent Peer Social Network Dynamics and Problem Behavior
Resources and Opportunities for Neighborhood Attainment



R03

- Limited funding/short period of time
- Not renewable
- 10 pages, 2 years, \$50,000/yr
- Examples:
 - Pilot/Feasibility study
 - Secondary analysis of existing data
 - Small self-contained projects
 - Developmental new method or technology

[Stability and Change of Amish Populations in the 21st Century](#)

[Peer Groups and Employment Outcomes of Young Adults](#)

[The Second Demographic Transition in Japan](#)



R21

- Two year grants
- Cap \$200,000/ year
- 15 pages
- New Exploratory and developmental
- Examples
 - Feasibility Study
 - Unique/innovative use of existing method to explore new scientific area
 - High risk/ high payoff

Exploring the Import of Health-Related Residential Mobility to Local Area Studies

Sexual Aggression and HIV Risk in Young Heterosexual Men



Special Funding Initiatives

- RFA: Request for Applications
 - Funds are set aside
- PA: Program Announcement
- Examples:
 - Infrastructure Program
 - Mind-Body Interactions and Health

NOT NECESSARY TO HAVE A PA or RFA



COMPONENTS of a GRANT

- Cover Page/Title Page
- Abstract: NIH contribution to public health
- Table of Contents
- Budget
- Budget Justification
- Research Environment
- Biographical Sketches
- **Research Plan**
- References
- Human Subjects
- Routing Form

Do Your Homework!

- Identify relevant program staff
- Get advice from program staff about research plan and funding mechanisms
- Review the website for:
 - Research recently funded
 - Current RFAs and PAs
 - Information for applicants
- NIH tool:
<http://crisp.cit.nih.gov/>



GRANT WRITING

- GOOD IDEA!!
 - Good grant writing cannot disguise a bad idea
 - Poor grant writing can kill a good idea

GOOD RESEARCH IDEAS

- SIGNIFICANT RESEARCH QUESTION
- INNOVATIVE:
 - Bring something new to the table
- FOCUSED
- FEASIBLE

GOOD GRANT WRITING

- CLEAR WRITING
- ORGANIZED
- COMPONENTS:
 - Theory
 - Hypotheses
 - Data
 - Research and analysis plans

FOLLOW DIRECTIONS!



BASIC TEXT FORMAT

- **Font:** Use an Arial, Helvetica, Palatino Linotype, or Georgia typeface, a black font color, and a font size of 11 points or larger. (A Symbol font may be used to insert Greek letters or special characters; the font size requirement still applies.) Type density, including characters and spaces, must be no more than 15 characters per inch. Type may be no more than six lines per inch.
- **Page Margins:** Use *standard paper size (8 1/2" x 11)*. Use at least one-half inch margins (top, bottom, left, and right) for all pages.
- **Page Formatting:** Use only a standard, single-column format for the text. *Do not include any information in a header or footer of the attachments.* A header will be system-generated.

Text attachments should be generated using word processing software and then converted to PDF using PDF generating software.

Research Plan

- Be sure your research is consistent with the institute's **mission**. For example, the Demographic Branch of the NICHD has a stated mission. It helps to reference their mission in the application.
<http://www.nichd.nih.gov/cpr/dbs/dbs.htm>
- The Research Plan should include sufficient information needed for evaluation of the project, independent of any other document. Be specific and informative, and avoid redundancies. Organize Items of the Research Plan to answer these questions:
 - What do you intend to do?
 - Why is the work important?
 - What has already been done?
 - How are you going to do the work?

Research Plan

a. Specific Aims

List the broad, long-term objectives and what the specific research proposed in this application is intended to accomplish, e.g., to test a stated hypothesis, create a novel design, or solve a specific problem.

You need to "sell" your idea so be sure to state the benefits of your project. How will this project contribute to our understanding of family life, UFO's, or the cheese industry. **One page is recommended.**

b. Background and Significance

Briefly sketch the background leading to the present application, critically evaluate existing knowledge, and specifically identify the gaps that the project is intended to fill.

State concisely the importance and health relevance of the research described in this application by relating the specific aims to the broad, long-term objectives.



c. Preliminary Studies/Progress Report

Use this section to provide an account of the research team's preliminary studies pertinent to the application information that will also help to establish the experience and competence of the investigator to pursue the proposed project.

Review committees generally view preliminary data/studies as an essential part of a research grant application. Preliminary data often aid the reviewers in assessing the likelihood of the success of the proposed project.

d. Research Design and Methods

Describe the research design and the procedures to be used to accomplish the specific aims of the project. Include how the data will be collected, analyzed, and interpreted as well as the data sharing plan as appropriate. Describe any new methodology and its advantage over existing methodologies.

Discuss the potential difficulties and limitations of the proposed procedures and alternative approaches to achieve the aims.

As part of this section, provide a tentative sequence or timetable for the project.

Human Subjects Research

- Most of your projects will require some type of human subjects section. Secondary data in the public domain requires a statement and address the instructions in the sections entitled "[Women and Minority Inclusion in Clinical Research](#)" and the "[Inclusion of Children](#)." Although no specific page limitation applies to this section of the application, be succinct. If you are excluding some group state why this is acceptable.
- **Primary data collection** requires more specific information such as potential risk to respondents and protections to respondents.
- **Special Populations**
Investigators who conduct research involving fetuses, pregnant women, human in vitro fertilization, prisoners, or children must follow the provisions of the regulations

Reviewers = audience

- **1. Significance.** Does this study address an important problem? If the aims of the application are achieved, how will scientific knowledge be advanced? What will be the effect of these studies on the concepts or methods that drive this field?
- **2. Approach.** Are the conceptual framework, design (including composition of study population), methods, and analyses adequately developed, well-integrated, and appropriate to the aims of the project? Does the applicant acknowledge potential problem areas and consider alternative tactics?
- **3. Innovation.** Does the project employ novel concepts, approaches or methods? Are the aims original and innovative? Does the project challenge existing paradigms or develop new methodologies or technologies?
- **4. Investigator.** Is the investigator appropriately trained and well suited to carry out this work? Is the work proposed appropriate to the experience level of the principal investigator and other researchers (if any)?
- **5. Environment.** Does the scientific environment in which the work will be done contribute to the probability of success? Is there evidence of institutional support?



Reviewers = audience

The reviewer has to prepare an overall evaluation statement. Here are the instructions for preparing this part. It usually includes the key strengths and weaknesses of the application.

OVERALL EVALUATION: In one paragraph, briefly summarize the most important points of the Critique, addressing the strengths and weaknesses of the application in terms of the five review criteria. Recommend a score reflecting the overall impact of the project on the field, weighting the review criteria, as you feel appropriate for each application. An application does not need to be strong in all categories to be judged likely to have a major scientific impact and, thus, deserve a high merit rating. For example, an investigator may propose to carry out important work that by its nature is not innovative, but is essential to move a field forward.

Reviewers = audience

Identify your contribution to the field. You must be able to state succinctly and clearly what your application is offering.

Make it easy for the reviewer to understand how you are filling a huge void in the literature. Sometimes it helps to be direct and enumerate. For example, "This work contributes to our understanding of nonresident fathers in three key ways."

Keep in mind the **reviewers' perspectives**. It doesn't hurt to check out the web listing with the list of reviewers for your study section. You might want to be aware of their disciplinary approaches and research areas.

SELL YOUR IDEA

- REMEMBER YOUR AUDIENCE
 - Reviewers' perspective
- BE PERSUASIVE
 - Explain WHY this is an important topic

TIPS

- Speak to program officer
- Share your work
- Create a strong research team
- Seek help from experienced colleagues
- Leave plenty of time – it always takes longer than you think!



PROCESS at BGSU

- Handout

HOW TO SUBMIT AN ELECTRONIC GRANT APPLICATION IN GRANTS.GOV

1. Contact SPAR (372-2481) to:

1. Get registered on eRA Commons and Grants.gov
2. Download the NIH Program Announcement and Grant Application package
http://grants.nih.gov/grants/guide/parent_announcements.htm



2. Download PureEdge viewing software: http://www.grants.gov/PEViewer/CSViewer802_grants_exe
The first page of your grant application package will list mandatory and optional documents like this:

Grant Application Package

Opportunity Title: R01 Exploratory/Developmental Research Grant Program
Offering Agency: National Institutes of Health
CFDA Number: [Blank]
CFDA Description: [Blank]
Opportunity Number: R01CFR
Competition ID: 0000043 F0001
Opportunity Open Date: 07/1/2008
Opportunity Close Date: 05/07/2009
Agency Contact: Grants Info
TTY: 301-854-3000
E-mail: GrantsInfo@nih.gov

This electronic grants application is intended to be used to apply for the specific Federal funding opportunity when word form.

If the Federal funding opportunity listed is not the opportunity for which you want to apply, close this application package by clicking on the "Cancel" button at the top of this screen. You will then need to locate the correct Federal funding opportunity, download its application and then apply.

This opportunity is only open to organizations, applicants who are submitting grant applications on behalf of a company, state, local or tribal government, academia, or other type of organization.

Application Filing Name: 0000043 F0001

Mandatory Documents

Mandatory Documents for Submission

CFDA Form	More Form to Submit
Research & Related Project Information	More Form to Submit
Research & Related Project Performance Site List(s)	More Form to Submit
Research & Related Project Budget Form	More Form to Submit
PHS 398 Cover Page Supplement	More Form to Submit
PHS 398 Research Plan	More Form to Submit

Optional Documents

Optional Documents for Submission

PHS 398 Cover Letter File	More Form to Submit
PHS 398 Module Output	More Form to Submit
Research & Related Budget	More Form to Submit
PHS Research Budget Attachment(s) Form	More Form to Submit

Instructions

- Enter a name for the application in the Application Filing Name field.
 - This application can be completed in its entirety online, however, you will need to login to the Grants.gov website during the submission process.
 - You can save your application at any time by clicking the "Save" button at the top of your screen.
 - The "Submit" button will not be functional until the application is complete and saved.
- Open and complete all of the documents listed in the "Mandatory Documents" box. Complete the SF-424 form first.
 - It is recommended that the SF-424 form be the first form completed for the application package. Data entered on the SF-424 will populate data fields in other mandatory and optional forms and the user cannot enter data in these fields.

Don't start filling anything out yet because some documents are optional. SPAR/CFDR will help you sort out what is relevant for your application.



3. Write your proposal text (research plan).

Suggested Section Lengths

		R01	R03	R21
Part 1	Specific Aims	1	1	1
Part 2	Background and Significance	2-3	2	2
Part 3	Preliminary Studies	6-8	2	5
Part 4	Research/Design Methods	No limit but <25	5	7
Total Pages (do not exceed)		25 pgs.	10 pgs.	15 pgs.

SF424 (R&R) application guide: http://grants.nih.gov/grants/funding/424/SF424_RR_Guide_General_Ver2.doc.
Format specifications can be found on pg. I-18.

[R01 description](#)

[R03 description](#)

[R21 description](#)

4. Write the Abstract

- *Part 1* addresses project aims and relevance to NIH mission and is limited to 30 lines of text;
- *Part 2* addresses relevance to Public Health and is limited to 2-3 sentences.

Note: The project title must not exceed 81 characters, including the spaces between words and punctuation.

5. Request Letters of Support.

All letters for significant contributors should be included in one pdf file

6. Prepare Bio-sketches.

CFDR can format these for you. [Sample format.](#)

7. Format and check your references and bibliography.

CFDR can help you with this.

8. Prepare the Human Subjects form.

Contact the Research Compliance Office (372-7716).

There are 3 parts to this section, although some may not apply to your proposal. See proposal guidelines for specific direction.

1. Protection of Human Subjects
2. Inclusion of Women and Minorities
3. Inclusion of Children

9. Write the Cover letter.

Include Application Title, PA title, and referral to a particular Scientific Review Group. (CFDR and SPAR have examples.)

10. Back to SPAR

- SPAR will prepare the budget
- SPAR will prepare the cover sheet (SF424)
- SPAR and CFDR have examples of budget justifications.
- SPAR fills in all extra forms.

11. Convert your text files to pdf format,

and then upload the pdf files to the electronic submission file. CFDR can help you with this.

12. Send the xfd file to SPAR once everything is uploaded.

13. Complete the campus endorsement form and conflict of interest form.

- Forms are on the [SPAR web site.](#)
- CFDR will route these for signature, along with a copy of the grant and budget proposal.

Good Luck!

Let us know how we can help

cfdr@bgsu.edu

CFDR offers resources ... check out the web page and updates for information