Standard NSF Proposal Outline

Note: This outline addresses key development components of a standard NSF application; however, it does not address all elements required to complete the application or budget. Complete instructions are available in the [Proposal & Award Policies & Procedures Guide](#) and specific program announcements or program solicitations.

Proposal Format

The PAPPG (Part 2 Chapter 2.B) provides detailed instructions regarding the font, pagination, spacing and page formatting of proposals. PIs are STRONGLY encouraged by OSP to review these guidelines as failure to comply with the guidelines may be grounds for NSF to return the proposal without review.

Sections of the Proposal

a. Cover Sheet
b. Project Summary
c. Table of Contents
d. Project Description
e. References Cited
f. Biographical Sketch(es)
g. Budget and Budget Justification
h. Current and Pending Support
i. Facilities, Equipment and Other Resources
j. Special Information and Supplementary Documentation
   • Data Management Plan
   • Postdoctoral Mentoring Plan (if applicable)
k. Single Copy Documents
   • Collaborators & Other Affiliations Information

Proposal Contents

A. Cover Sheet

The coversheet information will be created through the Fastlane entry process.

B. Project Summary (limited to 1 page)

The *Project Summary* should be written in the third person, informative to other persons working in the same or related fields, and, insofar as possible, understandable to a scientifically or technically literate lay reader. It should not be an abstract of the proposal.

The summary must include three separate sections, each of which is input into a text box in Fastlane:

- **Overview:** Describe the activity that would result if the proposal were funded and state the objectives and methods to be employed.
- **Intellectual Merit:** Describe the potential of the proposed activity to advance knowledge.
- **Broader Impacts:** Describe the potential of the proposed activity to benefit society and contribute to the achievement of specific, desired societal outcomes.

C. Table of Contents

A Table of Contents is automatically generated for the proposal by Fastlane and cannot be modified by the user.

D. Project Description (limited to 15 pages)

The *Project Description* should provide a clear statement of the work to be undertaken and must include the objectives for the period of the proposed work and expected significance; the relationship of this work to the present state of knowledge in the field, as well as to work in progress by the PI under other support. **URLs must not be used**. Visual materials, including charts, graphs, maps, photographs and other pictorial presentations are included in the 15-page limitation. Should this project involve collaboration with other institutions/organizations, describe the roles to be played by the other entities, specify the managerial arrangements, and explain the advantages of the multi-organizational effort.

The Project Description should outline the general plan of work, including the broad design of activities to be undertaken, and, where appropriate, provide a clear description of experimental methods and procedures. Proposers should address what they want to do, why they want to do it, how they plan to do it, how they will know if they succeed, and what benefits could accrue if the project is successful. The project activities may be based on previously established and/or innovative methods and approaches, but in either case must be well justified. These issues apply to both the technical aspects of the proposal and the way in which the project may make broader contributions.

Intellectual Merit

The *Project Description* must contain, as a separate section within the narrative, a section labeled "Intellectual Merit".

Broader Impacts

The *Project Description* must contain, as a separate section within the narrative, a section labeled "Broader Impacts".

Broader impacts may be accomplished through the research itself, through the activities that are directly related to specific research projects, or through activities that are supported by, but are complementary to the project. NSF values the advancement of scientific knowledge and activities that contribute to the achievement of societally relevant outcomes. Such outcomes include, but are not limited to: full participation of women, persons with disabilities, and underrepresented minorities in science, technology,

engineering, and mathematics (STEM); improved STEM education and educator development at any level; increased public scientific literacy and public engagement with science and technology; improved well-being of individuals in society; development of a diverse, globally competitive STEM workforce; increased partnerships between academia, industry, and others; improved national security; increased economic competitiveness of the US; and enhanced infrastructure for research and education.

Results from Prior NSF Support (limited to five pages)

The purpose of this section is to assist reviewers in assessing the quality of prior work conducted with current or prior NSF funding. If any PI or co-PI identified on the proposal has received NSF support with an award <u>end date</u> in the past five years (including any current funding and no cost extensions), information on the award is required for each PI and co-PI, regardless of whether the support was directly related to the proposal or not. In cases where the PI or any co-PI has received more than one award (excluding amendments to existing awards), they need only report on the one award that is most closely related to the proposal. Support includes not just salary support, but any funding awarded by NSF,NSF awards such as standard or continuing grants, Graduate Research Fellowship, Major Research Instrumentation, conference, equipment, travel, and center awards, etc., are subject to this requirement. The following information must be provided:

- The NSF award number, amount, and period of support;
- The title of the project;
- A summary of the results of the completed work, including accomplishments, supported by the award. The results must be described under two distinct headings: Intellectual Merit and Broader Impact;
- A listing of the publications resulting from the NSF award (a complete bibliographic citation for each publication must be provided either in this section or in the References Cited section of the proposal); if none, state "No publications were produced under this award";
- Evidence of research products and their availability, including, but not limited to: data, publications, samples, physical collections, software, and models, as described in any Data Management Plan; and
- If the proposal is for renewed support, a description of the relation of the completed work to the proposed work.
  If the project was recently awarded and therefore no new results exist, describe the major goals and broader impacts of the project. Note that the proposal may contain up to five pages to describe the results. Results may be summarized in fewer than five pages, which would give the balance of the 15 pages for the Project Description.

E. References Cited (no page limit)

This section should contain a list of bibliographic citations relevant to the proposal. While there is no page limit, this section must include bibliographic citations only and must not be used to provide parenthetical information outside of the 15-page Project Description.

Note that:
- Every reference must include the names of all authors (in the same sequence in which they appear in the publication), the article and journal title, book title, volume number, page numbers, and year of publication.
- If the proposer has a website address readily available, that information should be included in the citation. Inclusion of a website address is optional.
- Proposers must be especially careful to follow accepted scholarly practices in providing citations for source materials relied upon when preparing any section of the proposal.

F. Biographical Sketches (limited to 2 pages each)

Please see Biographical Sketch template and Instructions.

G. Budget and Budget Justification (limited to 5 pages)

Please see Budget and Budget Justification Template for instructions.

H. Current and Pending Support (no page limit)

Please click here for instructions and click here for Current and Pending Template.

I. Facilities, Equipment, and Other Resources (no page limit)

Please see Facilities, Equipment, and Other Resources Template for instructions.

J. Special Information and Supplementary Documentation

Postdoctoral Researcher Mentoring Plan (if applicable; limited to 1 page).

Please see Mentoring Plan Template for instructions.

Data Management Plan (limited to 2 pages)

The *Data Management Plan* should describe how the proposal will conform to NSF policy on the dissemination and sharing of research results and may include:

- The types of data, samples, physical collections, software, curriculum materials, and other materials to be produced during the project;
- The standards to be used for data and metadata format and content (where existing standards are absent or deemed inadequate, this should be documented along with any proposed solutions or remedies);
- Policies for access and sharing, including provisions for appropriate protection of privacy, confidentiality, security, intellectual property, or other rights or requirements;
- Policies and provisions for re-use, re-distribution, and the production of derivatives; and
- Plans for archiving data, samples, and other research products, and for preservation of access to them.

Data management requirements and plans specific to the Directorate, Office, Division, Program, or other NSF unit, relevant to a proposal are available at: http://www.nsf.gov/bfa/dias/policy/dmp.jsp. If guidance specific to the program is not available, then the requirements listed above apply.

Simultaneously submitted collaborative proposals and proposals that include subawards are a single unified project and should include only one supplemental combined Data Management Plan, regardless of the number of non-lead collaborative proposals or subawards included. In such collaborative proposals, the data management plan should discuss the relevant data issues in the context of the collaboration.

A valid *Data Management Plan* may include only the statement that no detailed plan is needed, as long as the statement is accompanied by a clear justification. Proposers who feel that the plan cannot fit within the limit of two pages may use part of the 15-page *Project Description* for additional data management information. Proposers are advised that the *Data Management Plan* must not be used to circumvent the 15-page *Project Description* limitation.

Documentation of Collaborative Arrangements through letters of collaboration

- Letters of collaboration should be limited to stating the intent to collaborate and should not contain endorsements or evaluation of the proposed project. The recommended format for letters of collaboration is as follows:

  "If the proposal submitted by Dr. [insert the full name of the Principal Investigator] entitled [insert the proposal title] is selected for funding by NSF, it is my intent to collaborate and/or commit resources as detailed in the Project Description or the Facilities, Equipment and Other Resources section of the proposal."

- While letters of collaboration are permitted, unless required by a specific program solicitation, letters of support should not be submitted as they are not a standard component of an NSF proposal. A letter of support is typically from a key stakeholder such as an organization, collaborator, or Congressional Representative and is used to convey a sense of enthusiasm for the project and/or to highlight the qualifications of the PI or co-PI. A letter of support submitted in response to a program solicitation requirement must be unique to the specific proposal submitted and cannot be altered without the author's explicit prior approval. Proposals that contain letters of support not authorized by the program solicitation may be returned without review.

Other Documents (if applicable)
Refer to Chapter II.C.2.j of NSF Proposal & Award Policies & Procedures Guide and the full program solicitation for information on any other required documents.

K. Single-Copy Documents

Certain categories of information that are submitted in conjunction with a proposal are for "NSF Use Only." As such, the information is not provided to reviewers for use in the review of the proposal.
- Authorization to Deviate from NSF Proposal preparation Requirements (if applicable)

- List of Suggested Reviewers, or Reviewers Not To Include (optional)
- Proprietary or Privileged Information (if applicable)
- Collaborators & Other Affiliations Information: Click here for instructions and Click here for a sample/template. Please note that failure to submit a Collaborators and Other Affiliations Single Copy Document for each PI, co-PI and other senior project personnel may result in a proposal being returned without review.