

# NSF Standard Grant Proposal Outline

This outline addresses key development components of a standard NSF proposal; however, it does not address all elements required to complete the application or budget. Be sure to refer to the program solicitation applicable to your proposal and the application instructions in the [NSF Proposal and Award Policies and Procedures Guide](#) (PAPPG).

## Formatting Instructions

- Use one of the following typefaces: Arial, Courier New, or Palatino Linotype at a font size of 10 points or larger; Times New Roman at a font size of 11 points or larger; or Computer Modern family of fonts at a font size of 11 points or larger.
  - Other fonts and a font size of less than 10 points may be used only for mathematical formulas or equations, figures, table or diagram captions, and when using a Symbol font to insert Greek letters or special characters.
- Margins must be at least one inch in all directions.
- Line spacing must not exceed six lines of text per vertical inch.
- Individually paginate each document of the proposal.

## Application Materials

- [Project Summary](#)
- [Project Description](#)
  - [Broader Impacts](#)
  - [Results from Prior NSF Support](#)
- [References Cited](#)
- [Biographical Sketch](#)
- [Budget and Budget Justification](#)
- [Current and Pending Support](#)
- [Facilities, Equipment, and Other Resources](#)
- [Special Information and Supplementary Documentation](#)
  - [Data Management Plan](#)
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## Project Summary

### Required; limited to 1 page

The Project Summary should be informative to other persons working in the same or related fields and, insofar as possible, understandable to a broad audience within the scientific domain. 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 within its own field or across different fields, including the qualifications of the team to conduct the project and the extent to which the proposed activities suggest and explore creative, original, or potentially transformative concepts.
- **Broader Impacts:** Describe the potential of the proposed activity to benefit society and contribute to the achievement of specific, desired societal outcomes.

\*The Project Summary may ONLY be uploaded as a Supplementary Document if use of special characters is necessary. Such Project Summaries must be formatted with separate headings for Overview, Intellectual Merit and Broader Impacts.

For additional guidance including an example Project Summary, see: <https://granttrainingcenter.com/blog/important-part-nsf-proposal-summary-page/>

## Project Description

### Required; limited to 15 pages unless otherwise specified in the program solicitation

From the PAPPG (NSF 22-1):

*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, expected significance, and 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.*

*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.*

Additionally:

- Do not include URLs, which are prohibited because: (1) the information could circumvent page limitations; (2) the reviewers are under no obligation to view the sites; and (3) the sites could be altered or deleted between the time of submission and the time of review.
- For all proposals, the Project Description must contain, as a separate section within the narrative, a section labeled "Broader Impacts" (see below).
- If any PI or co-PI identified on the proposal has received prior NSF support—including an award with an end date in the past five years or any current funding (including any no cost extensions)—the Project Description must contain, as a separate section within the narrative, a section labeled "Results from Prior NSF Support" (see below).
- For proposals that 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.
- For proposals that include funding to an International Branch Campus of a U.S. institution of higher education or to a foreign organization (including through use of a subaward or consultant arrangement), provide a justification for why the project activities cannot be performed at the U.S. campus.
- For proposals submitted or due on or after June 1, 2020, the NSF has removed the requirement for the Project Description to contain, as a separate section within the narrative, a section labeled "Intellectual Merit."

## Broader Impacts

From the PAPPG (NSF 22-1):

*This section should provide a discussion of the broader impacts of the proposed activities. 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 U.S.; use of science and technology to inform public policy; and enhanced infrastructure for research and education. These examples of societally relevant outcomes should not be considered either comprehensive or prescriptive. Proposers may include appropriate outcomes not covered by these examples.*

[Dear Colleague Letter: A Broader Impacts Framework for Proposals Submitted to NSF's Social, Behavioral, and Economic \(SBE\) Sciences Directorate](#) (March 2021)

## Syracuse Resources

- Resources to help you develop your Broader Impacts, including information on relevant campus offices and programs at Syracuse University, are located here (link to come; contact Jill Ferguson, [jsfergus@maxwell.syr.edu](mailto:jsfergus@maxwell.syr.edu)).

## Results from Prior NSF Support

### If applicable; limited to 5 pages

The purpose of this section is to assist reviewers in assessing the quality of prior work conducted with prior or current NSF funding. If any PI or co-PI identified on the proposal has received prior NSF support—including an award with an end date in the past five years or any current funding (including any 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 means salary support, as well as any other funding awarded by NSF, including research, Graduate Research Fellowship, Major Research Instrumentation, conference, equipment, travel, and center awards, etc. 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 separately described under two distinct headings: Intellectual Merit and Broader Impacts;
- 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. Results may be summarized in fewer than five pages, which would give the balance of the 15 pages for the Project Description.

## References Cited

**Required; no page limit**

While there is no page limit for the references, this section must contain bibliographic citations only and cannot include parenthetical information outside of the 15-page Project Description.

- Each 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. Include a URL, if readily available.

## Biographical Sketch

**Required; limited to 3 pages each**

Provide a biographical sketch for each person identified as senior personnel. An NSF-approved biographical sketch format must be used. Instructions and templates for creating an NSF-approved biographical sketch can be found [here](#).

## Budget and Budget Justification

**Required; justification limited to 5 pages**

- See PAPPG (NSF 22-1) [Chapter II.C.g](#) for NSF's full budget guidelines and instructions, including the "[NSF 2-month rule](#)," which limits salary compensation for senior personnel to no more than two months of their regular salary in any one year across all NSF grants.
- Use of the SU Office of Sponsored Programs (OSP) [Budget Template](#) is required by the campus community to develop and submit budgets consistent with the [University's currently negotiated rates](#). Use of the OSP Budget Template greatly reduces common arithmetic errors often encountered with other budget tools.
- In the Maxwell School, your contact person in OSP for assistance with your budget and other technical documents, and for submitting your application, is Caroline McMullin ([cmcmulli@syr.edu](mailto:cmcmulli@syr.edu)). Depending on your academic department or research center, the departmental administrator or budget manager might also be able to help. If you are not sure who to work with, contact Jill Ferguson ([jferguson@syr.edu](mailto:jferguson@syr.edu)).

### Syracuse Resources

- [OSP Budget Template](#)
- [Budget Justification Template](#)
- [OSP Budget Development Guidance](#) - including how to include personnel costs, domestic and foreign travel costs, subcontractors and consultants, etc.
- [Maxwell Research Policies and Rates](#)

## Current and Pending Support

**Required; no page limit**

Provide current and pending support information for each person identified as senior personnel. An NSF-approved current and pending support format must be used. Instructions and templates for creating an NSF-approved current and pending support form can be found [here](#).

## Facilities, Equipment, and Other Resources

**Required; no page limit**

- Proposers should include an aggregated description of the internal and external resources (both physical and personnel) that the organization and its collaborators will provide to the project, should it be funded. Such information must be provided in this section, in lieu of other parts of the proposal (e.g., Budget Justification, Project Description).
- Proposers should describe only those resources that are directly applicable.
- The description should be narrative in nature and must not include any quantifiable financial information.
- Any substantial collaboration with individuals not included in the budget should be described in the Facilities, Equipment and Other Resources section of the proposal and documented in a letter of collaboration from each collaborator. The letter should follow content and format instructions provided by the NSF (see "Documentation of Collaborative Arrangements" below).

### Syracuse Resources

- Information on the institutional environment, major research centers, core facilities, equipment, and other resources at Syracuse University is located [here](#) (link to come; contact Jill Ferguson, [jferguson@syr.edu](mailto:jferguson@syr.edu)).

## Special Information and Supplementary Documentation

### Data Management Plan

**Required; limited to 2 pages**

From the PAPPG (NSF 22-1):

*This supplementary document should describe how the proposal will conform to NSF policy on the dissemination and sharing of research results (see Chapter XI.D.4), and may include:*

1. *the types of data, samples, physical collections, software, curriculum materials, and other materials to be produced in the course of the project;*
2. *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);*
3. *policies for access and sharing including provisions for appropriate protection of privacy, confidentiality, security, intellectual property, or other rights or requirements;*
4. *policies and provisions for re-use, re-distribution, and the production of derivatives; and*
5. *plans for archiving data, samples, and other research products, and for preservation of access to them.*

Additionally:

- 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.
- 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.

## Syracuse Resources

- [SU Libraries Research Data Services: Data Management Planning](#), including DMPTool
- [Institutional Repository \(SURFACE\)](#)

## Postdoctoral Researcher Mentoring Plan

### If applicable; limited to 1 page

- The mentoring plan must describe the mentoring that will be provided to all postdoctoral researchers supported by the project, regardless of whether they reside at the submitting organization, any subrecipient organization, or at any organization participating in a simultaneously submitted collaborative proposal.
- Examples of mentoring activities include, but are not limited to: career counseling; training in preparation of grant proposals, publications and presentations; guidance on ways to improve teaching and mentoring skills; guidance on how to effectively collaborate with researchers from diverse backgrounds and disciplinary areas; and training in responsible professional practices.

## Documentation of Collaborative Arrangements

- Any substantial collaboration with individuals not included in the budget should be described in the Facilities, Equipment and Other Resources section of the proposal and documented in a letter of collaboration from each collaborator. The letter should follow content and format instructions provided by the NSF (see below).
- While letters of collaboration are permitted, letters of support, which are used to convey a sense of enthusiasm for a project and/or to highlight the qualifications of the PI or co-PI, are not a standard component of an NSF proposal and so should not be submitted unless required by a specific program solicitation. Proposals that contain letters of support not authorized by the program solicitation may be returned without review.

From the PAPPG (NSF 22-1):

*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 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."*

## Other Documents

### If applicable

- See program solicitation.
- Appendices may not be included unless a deviation has been authorized.

## Single-Copy Documents

## Collaborators and Other Affiliations Information

**Required; no page limit**

- Collaborators and Other Affiliations (COA) information must be separately provided for each individual identified as senior project personnel (see NSF PAPPG, [Chapter II.C.1.e](#))
- The COA information must be provided through use of the [COA template](#). The template has been developed to be fillable; however, the content and format requirements must not be altered by the user.
- Save the template **in .xlsx format** and directly upload into FastLane as a Collaborators and Other Affiliations Single Copy Document.