How to Prepare an NSF Summary Page

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When to Prepare the NSF Summary Page

• Create a ‘working draft’ summary page before you write your Project Description
  – This will help you focus on what your objectives might be, some of the intellectual merits of your project, and start you thinking about broader implications.
  – As you write your Project Description, update your Summary Page.
  – When you complete your Project Description, complete work on your Summary Page.

• It is not an outline, per se; however, it will help guide your writing for the Project Description.
New NSF Proposal and Award Policies and Procedures Guide (PAPPG)

- These instructions are to be used for proposals submitted January 14, 2013 and after.
- Post award guidelines also began on January 14, 2013.
Chapter II.C.2.b, Project Summary, has been revised to omit language regarding the inclusion of separate headings to address the two merit review criteria. In lieu of this approach, FastLane has been modified to display three separate text boxes in which proposers must provide an Overview and address the “Intellectual Merit” and “Broader Impacts” of the proposed activity. Because FastLane will enable the criteria to be separately addressed (still within one page), proposers will no longer need to include separate headings. Proposals that do not separately address the overview and both merit review criteria within the one-page Project Summary will be not be accepted or will be returned without review.

This change is extremely important

• It means that the NSF absolutely, positively is requiring the proposers to pay close attention to Intellectual Merit and Broader Impacts sections of their NSF Summary pages.
Project Summary

• Each proposal must contain a summary of the proposed project not more than one page in length. New rules specifically state no more than 4,600 characters (with spaces).

• The Project Summary consists of
  – An overview,
  – A statement on the intellectual merit of the proposed activity, and
  – A statement on the broader impacts of the proposed activity.
Guidelines for the NSF Summary Page (based on FastLane instructions and PAPPG)

Project Summary

• The **overview** includes:
  
  • A description of the activity that would result if the proposal were funded and
  
  • A statement of objectives and methods to be employed.
Guidelines for the NSF Summary Page
(based on FastLane instructions and PAPPG)

Project Summary

• The statement on *intellectual merit* should describe the potential of the proposed activity to advance knowledge.

• The statement on *broader impacts* should describe:
  • The potential of the proposed activity to benefit society and
  • Contribute to the achievement of specific, desired societal outcomes.
Guidelines for the NSF Summary Page
(based on FastLane instructions and PAPPG)

Project Summary

• 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.
Guidelines for the NSF Summary Page
(based on FastLane instructions and PAPPG)

Project Summary

• It should not be an abstract of the proposal.

• Proposals that do not contain the Project Summary, including an overview and separate statements on intellectual merit and broader impacts, will not be accepted or will be returned without review.
What should I enter in each of the three boxes?

- **Overview**
  - Insert a self-contained description of the activity that would result if the proposal were funded.
  - Include a statement of objectives and methods to be employed.
Guidelines for the NSF Summary Page
(based on FastLane instructions and PAPPG)

What should I enter in each of the three boxes?

• **Intellectual Merit**
  
  – Describe the potential of the proposed activity to meet the Intellectual Merit criterion.
  
  – The Intellectual Merit criterion encompasses the potential to advance knowledge (GPG, III-2, NSF 13-1)
What should I enter in each of the three boxes?

- **Broader Impacts**
  - Describe the potential of the proposed activity to meet the Broader Impacts criterion.
  - The Broader Impacts criterion encompasses the potential to benefit society and contribute to the achievement of specific, desired societal outcomes (GPG, III-2, NSF 13-1)
The following elements should be considered in the review for both criteria:

1. What is the potential for the proposed activity to:
   a. Advance knowledge and understanding within its own field or across different fields (Intellectual Merit); and
   b. Benefit society or advance desired societal outcomes (Broader Impacts)?

2. To what extent do the proposed activities suggest and explore creative, original, or potentially transformative concepts?
The following elements should be considered in the review for both criteria:

3. Is the plan for carrying out the proposed activities well-reasoned, well-organized, and based on a sound rationale?
4. Does the plan incorporate a mechanism to assess success?
5. How well qualified is the individual, team, or organization to conduct the proposed activities?
6. Are there adequate resources available to the PI (either at the home organization or through collaborations) to carry out the proposed activities?
NSF projects, in the aggregate, should contribute more broadly to achieving societal goals.

These "Broader Impacts" may be accomplished through

- The research itself,
- Through activities that are directly related to specific research projects, or
- Through activities that are supported by, but are complementary to, the project.

The project activities may be based on previously established and/or innovative methods and approaches, but in either case must be well justified.
Guidelines for the NSF Summary Page (based on FastLane instructions and PAPPG)

• Even if assessment of Broader Impacts outcomes for particular projects is done at an aggregated level, PIs are expected to be accountable for carrying out the activities described in the funded project.

• Thus, individual projects should include:
  – Clearly stated goals,
  – Specific descriptions of the activities that the PI intends to do, and
  – A plan in place to document the outputs of those activities.
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 United States; and
- Enhanced infrastructure for research and education.
Guidelines for the NSF Summary Page (based on FastLane instructions and PAPPG)

Information must be entered into all three text boxes, or the proposal will not be accepted.

- The character limit is 4,600 characters, including spaces, in total for all three text boxes.
- The proposer may determine how many characters to use in each box, but the sum of characters across the three text boxes must not exceed 4,600.
If you use ‘special characters’ in your Project Summary:

• Special characters include mathematical symbols or Greek letters.

• If these are required in your Project Summary, then you upload your Project Summary as a Supplementary Document.

• The Project Summary may **ONLY** be uploaded as a Supplementary Document if you use special characters.
Your Turn

Develop your Objectives section

• NSF likes succinct, clear opening statements on what your objectives are.

• NSF asks that you avoid the use of ‘develop’ – they fund basic research projects

• Even though NSF is looking for transformative or innovative projects, DO NOT use those words to describe your work – let your description be clear enough that the reviewers use those words to describe your work!
Develop your Intellectual Merit section

- How is your work going to advance knowledge in your field?
- Are you addressing gaps in the knowledge base? Do you have evidence of that gap?
Your Turn

Develop your Broader Impacts section

• If you achieve the goals of your research, how do you envision that impacting society?

• Do you have personal goals, like making sure K-12 students are inspired to STEM careers? How would you incorporate that goal into your research?
Your Turn

Make sure to check that you meet the 4,600 character count (including spaces) criteria

• If you are overlength, reduce the character count
• If you need help in cutting, call me over.
Your Turn

You have 30 minutes to work on your Project Summary

• You can work by yourself or brainstorm with another member of your team
• After that, the teams will read and critique the Project Summaries
Review and Critique

• Email your summary to each of your team members, or pass your summary around to your team members.
• Once you have all evaluated all the summaries, share your evaluations and discuss improvements.
Conclusion

- Lessons learned?
- Insights?
- Questions?

We don’t want this to happen to you!