

MOCK PANEL REVIEW



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OVERVIEW

- Introduction to the Review Process
- Intellectual Merit Review Criteria
- Broader Impacts Review Criteria
- Solicitation Specific Review Criteria
- Review Ratings & Recommendations



INTRODUCTION TO THE REVIEW PROCESS

VALUE OF PARTICIPATING IN THE REVIEW PROCESS

- Contributes to your growth as a researcher
- Provides an opportunity to view and learn from a diverse set of proposals
- Participation in discussions with other panelists provides new perspectives
- Guides you on what you need to address in your own proposal

ACTIVITY:

1. Go to the link on the chat.
2. Enter your rating for the CAREER proposal you reviewed.
3. Add a short justification.

NSF PRINCIPLES

All NSF projects should be of the highest quality and have the potential to advance, if not transform, the frontiers of knowledge.

NSF projects, in the aggregate, should contribute more broadly to achieving societal goals.

Meaningful assessment and evaluation of NSF funded projects should be based on appropriate metrics, keeping in mind the likely correlation between the effect of broader impacts and the resources provided to implement projects.

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.

ASEE NSF Virtual Mock Grant Review Panel Module 1: Introduction

Link to video:

<https://youtu.be/EJRWHagZ0pc>

REVIEWERS

- Program officer is typically a generalist wrt to some proposals
- Lead reviewer will be a technical expert in the field.
 - Provides overview
 - Leads discussion on strengths and concerns of IM and BI
- Other reviewers assigned to a proposal may be not have deep expertise in the area of the proposal.
 - Scribe captures major points
 - Summary review requires approval from all reviewers
- Each panelist may be assigned 6-8 proposals and will lead a couple of proposals—it will vary depending on the program.

OBSERVATIONS OF THE SAMPLE CAREER PROPOSAL

- Well organized with appropriate headings
- Title centers the reader on what the proposal aims to accomplish:
Identifying and Eliminating Exploitable Software Bugs—check RFP requirements

First page

- Motivate the research—why it's important and why people should care
- Summary vs. Project description
- Project description states the research goals on the first page
- Highlight important points with italics or boldface.

**QUESTIONS AND
COMMENTS?**



INTELLECTUAL MERIT REVIEW CRITERIA



ASEE NSF Virtual Mock Grant Review Panel Module 2: Intellectual Merit

Link to video:

<https://youtu.be/g1rDbXhMTIU>

INTELLECTUAL MERIT CRITERIA



What is the potential for the proposed activity to advance knowledge and understanding within its own field or across different fields?

Extent to which the work is transformative
Ability to radically change our understanding or lead to a new paradigm
How work bridges the gap between prior work and future work



To what extent do the proposed activities suggest and explore creative, original, or potentially transformative concepts?



Is the plan for carrying out the proposed activities well-reasoned, well-organized, and based on a sound rationale? Does the plan incorporate a mechanism to assess success?



How well qualified is the individual, team, or organization to conduct the proposed activities?



Are there adequate resources available to the PI (either at the home organization or through collaborations) to carry out the proposed activities?

OBSERVATIONS (SAMPLE PROPOSAL)

- Intellectual Merit must be specified in the Summary.
- Criterion 1 and 2 are addressed in Section 1 and specifically in Section 1.1 Technical Contributions.
- Criterion 3 is outlined in Section 3.
- Criterion 4 is addressed in Section 2—PI's Prior Research Accomplishments.
- Criterion 5 is not explicitly addressed.

**QUESTIONS AND
COMMENTS?**

BROADER IMPACTS REVIEW CRITERIA

BROADER IMPACTS OVERVIEW

Potential to benefit society and contribute to the achievement of specific, desired societal outcomes.

May be accomplished through:

Research

Activities that are directly related to specific research projects, or

Activities that are supported by, but are complementary to, the project. T

Project activities, which may be based on previously established and/or innovative methods and approaches, must be well justified.

Assessment of activities may be done at a higher, more aggregated, level than the individual project.



EXAMPLE OUTCOMES

- Full participation of women, persons with disabilities, and underrepresented minorities in 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
- Enhanced infrastructure for research and education.



ASEE NSF Virtual Mock Grant Review Panel Module 3: Broader Impacts

Link to video:

<https://youtu.be/sJfT13cB1yM>

BROADER IMPACTS CRITERIA

What is the potential for the proposed activity to benefit society and contribute to the achievement of specific, desired societal outcomes?

To what extent do the proposed activities suggest and explore creative, original, or potentially transformative concepts?

Is the plan for carrying out the proposed activities well-reasoned, well-organized, and based on a sound rationale? Does the plan incorporate a mechanism to assess success?

How well qualified is the individual, team, or organization to conduct the proposed activities?

Are there adequate resources available to the PI to carry out the proposed activities?

OBSERVATIONS AND COMMENTS (SAMPLE PROPOSAL)



Project description must have a heading: **Broader Impacts**. Summary must include Broader Impacts.



CAREER proposals require an *Integrated Research and Education Plan*.



Criterion 1 is addressed in Sections 6 and 8. Criterion 2 is addressed in Section 3.

Reviewers noted: established relationship with industry—research, data sets, and effective practices; plan needs more elaboration; needed more metrics to determine the impact;



Note: budgets reviewed to determine if funds are appropriately allotted to support plans

QUESTIONS AND COMMENTS



SOLICITATION SPECIFIC CRITERIA



ASEE NSF Virtual Mock Grant Review Panel Module 4: Solicitation Specific Review Criteria

Link to video:

<https://youtu.be/1Cc6clXeYvc>

SOLICITATION SPECIFIC CRITERIA

Institutional Data Narrative: Describes and contextualizes the institution's need for the proposed project and potential to build research capacity and partnerships.

- **Collaborative Partnerships:** Across MSI departments/units, across MSIs, and/or between one or more MSIs and other research-intensive organizations.
- **MSI Student Research Involvement:** MSI undergraduate and/or graduate students, depending on the thread selected, involved in fundamental contributions to disciplines.
- **Interdisciplinary Efforts:** Active participation of an interdisciplinary group and the extent to which the group is integrated, has a common focus, and the quality of the plan for management and collaboration.

QUESTIONS AND COMMENTS



REVIEW RATINGS AND RECOMMENDATIONS



ASEE NSF Virtual Mock Grant Review Panel Module 5: Rating

Link to video:

<https://youtu.be/OEd0GI13YA4>

COMMON REASONS FOR RATINGS

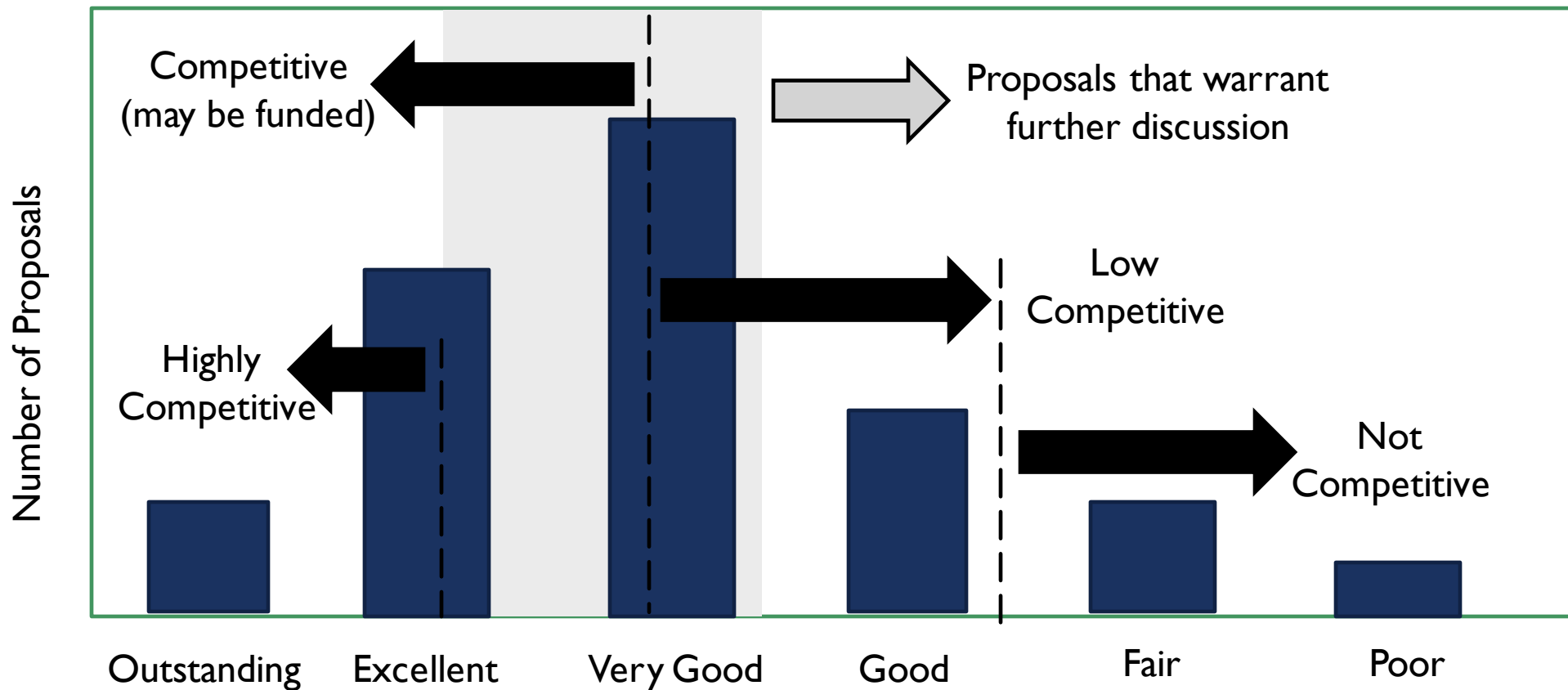
Reasons for High Ratings

- Clear and well documented approach to an important problem.
- Great plan that involves undergraduate and graduate students
- Ambitious plan with proven methods that demonstrate potential through preliminary work accepted in a competitive journal.

Reasons for Low Ratings

- Hypothesis or tests lack of focus
- Unclear about Co-I contributions
- Incomplete information on methods or approach
- Work does not address a topic of broad current interest.
- Scope of work out of proportion to the budget and amount of time needed to do the work.

HOW FUNDING CHOICES ARE MADE



QUESTIONS AND COMMENTS

CLOSING REMARKS