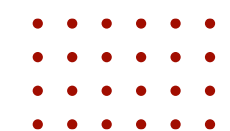




Core Principles of NSF Merit Review



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UNITED TRIBES
TECHNICAL COLLEGE

NSF – the “Gold Standard” of Merit Review

All NSF projects should (1) have the potential to advance the frontiers of knowledge, (2) contribute more broadly to societal goals, and (3) include a meaningful assessment strategy.

NSF Proposals are Reviewed Based on two Review Criteria:

1. Intellectual Merit

– the project’s potential to advance knowledge & understanding in a field.

2. Broader Impacts

- the project’s potential to have meaningful societal benefits

When evaluating IM & BI, reviewers address the following elements

- 1. What is the potential for the proposed activity to advance knowledge and understanding within its own field or across different fields (Intellectual Merit) and benefit society (Broader Impacts)?**
- 2. To what extent do the proposed activities suggest and explore creative, original, or potentially transformative concepts?**
- 3. Is the plan for carrying out the proposed activities well-reasoned, well-organized, and based on a sound rationale? Is there a mechanism to assess success?**
- 4. How well qualified is the individual, team, or institution to conduct the proposed activities?**
- 5. Are there adequate resources available to the PI (at the home institution or through collaborations) to carry out the proposed activities?**

Intellectual Merit – strengths/weaknesses

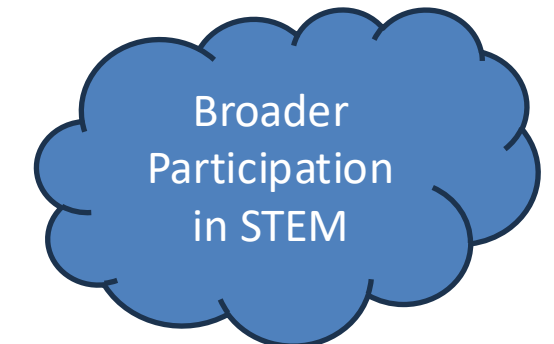
1. Is the need for the project clear and established in the proposal?
2. Are project activities selected rationally? Are they evidence-based?
3. Is the plan detailed and based on a sound rationale?
4. Do the individuals have the experience needed to be successful?
5. Do they have the necessary resources/facilities, and support required to be successful?
6. Is there an evaluation plan to assess project success?



Broader Impacts – strengths/weaknesses

NSF is not prescriptive, but some societal outcomes might include:

- STEM education at any level
- Public engagement and general scientific literacy
- Improving the well-being of individuals in society
- STEM workforce development
- Partnerships with industry
- National security
- Economic development
- STEM infrastructure
- Participation of the full spectrum of the community



Peer Review

Reviewers are asked to give their full consideration for both review criteria.

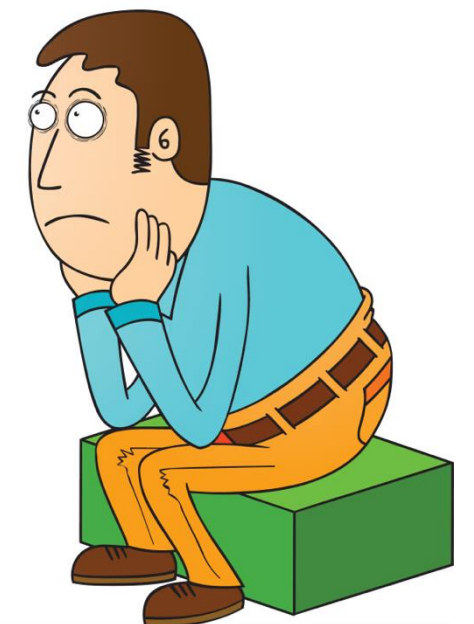
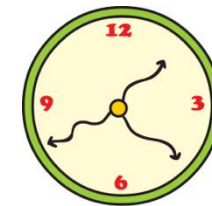
Reviewers evaluate what the proposer wants to do, why they want to do it, how they plan to do it, how will they know if they succeed, and what benefits could accrue, if successful.

Some solicitations have a section titled Additional Solicitation Specific Review Criteria that lists additional specifics. TCUP does not!

NSF does not use a points system – individual reviewers rate the proposal as Excellent, Very Good, Good, Fair, or Poor. Panels rate them as Highly Meritorious, Meritorious, or Not Meritorious (for funding). POs make recommendations to the Division Directors, and DGA makes awards.

Funding expectations

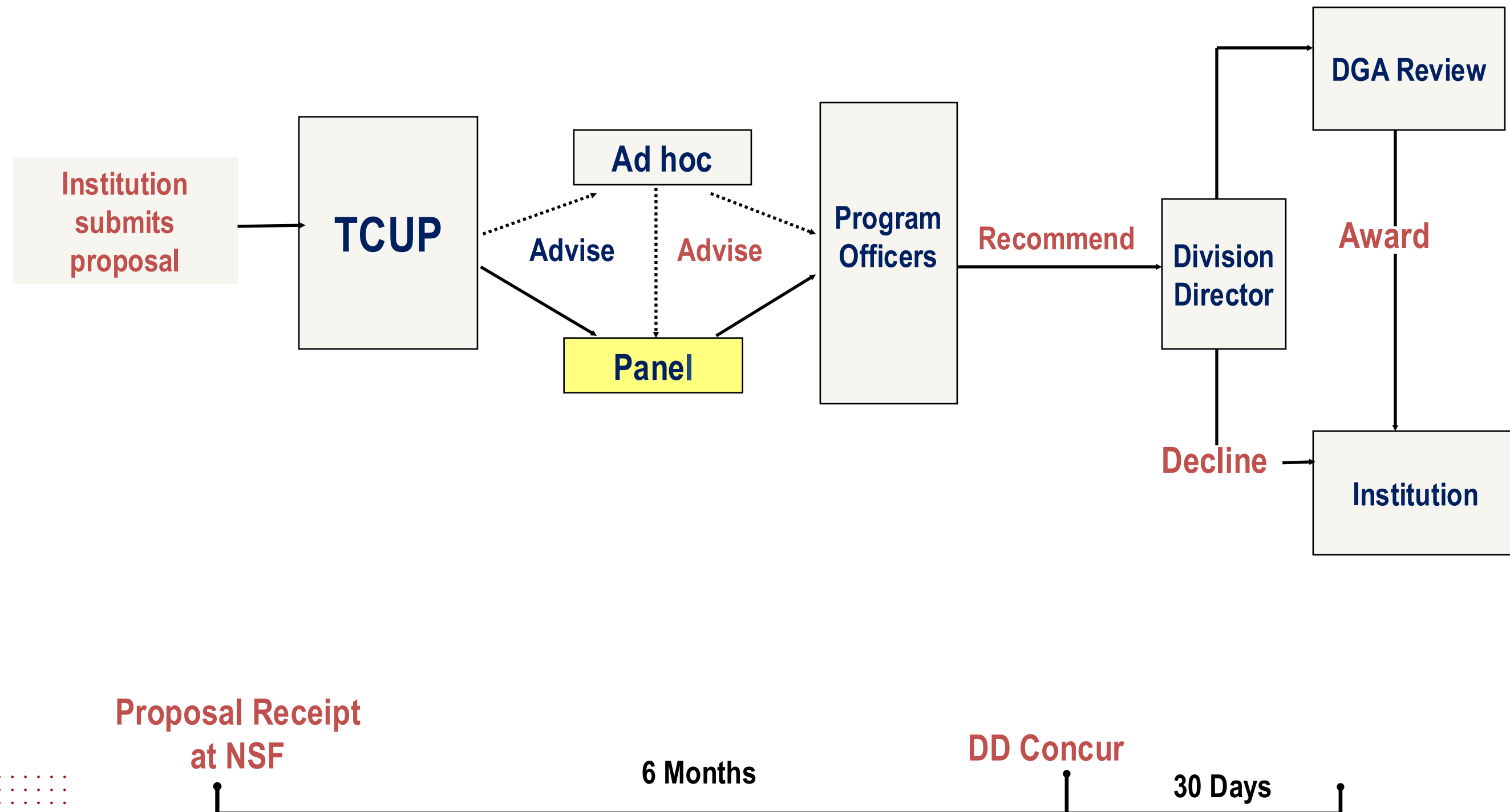
- NSF no longer publishes success rates by program; overall, it is about 20% (highest for any federal agency).
- Most proposals that are not funded did not align with the solicitation in one or more ways.
- Expect at least 6 months review/approval time.
- NSF funding cycle: October 1 is new fiscal year; Very last award leave the POs' hand be early July



Useful knowledge:

- Letters of Support are not allowed for NSF proposals; only letters of collaboration that show commitment. TCUP does not allow any letters.
- Reviewers are usually very familiar with the Proposal and Awards Policies & Procedures Guide (PAPPG): <https://www.nsf.gov/policies/pappg/24-1> (and policy updates)
- If the institution is new to NSF or has not had an award in the past 5 years, they will go through the New Performer Review. See the Prospective New Awardee Guide: <https://www.nsf.gov/policies/document/prospective-new-awardee-guide-june-2020>
- No cost-sharing. NSF does not require or even allow cost sharing, so be careful not to include it.
- Check in with whoever does your institutional SAM registration and your negotiated Indirect Costs Agreements regularly.

NSF's Peer Review Flow



Serving as a Panelist

- Panelists are often selected by topic discipline and/or experience.
- There are great benefits to serving as a panelist!
- <https://www.nsf.gov/funding/merit-review/volunteer>
- Mock-panel Process
 - ✓ Read 2 proposals and prepare your notes in 4 areas.
 - Rate the proposal: **Excellent, Very Good, Good, Fair, Poor**
 - Each reviewer will contribute their comments on the proposal
 - Panel consensus recommendation to the Program Officer: Highly meritorious, meritorious, not meritorious

