



National Science Foundation Merit Review For a Changing Landscape 2025



Three years in the making, this report proposes updates to NSF’s Merit Review policy to ensure that NSF-funded research advances the progress of science and national priorities. Crucially, as the National Science Board (NSB) stated in [Vision 2030](#), everything NSF funds — from basic research to technology translation to talent development — *must benefit the American people*.

The report recommendations are key for building a [Next Generation NSF](#) that is relevant in its priorities, operations, and structure for today’s science and engineering (S&E) challenges while staying firmly grounded in *supporting the most meritorious research* for tomorrow.

The NSF Statutory Mission

To promote the progress of science; to advance the national health, prosperity, and welfare; to secure the national defense; and for other purposes.

NSF Act of 1950 (P.L. 81-507)

Policy Recommendations

1. Pursue renaming the “Broader Impacts” criterion to “Societal Benefits.”
2. Maintain the two current review criteria, presently named Intellectual Merit and Broader Impacts, refine the definitions of each criterion, and clarify the use of additional review considerations.
3. Emphasize the imperative to both promote the progress of science and engineering and deliver societal benefits from NSF-funded research and education, in accordance with statute.
4. Boost participation and invite expert reviews from a wider range of industry, research institutions, and regions of the country.
5. Revise NSB’s Merit Review policy to clarify the alignment of award portfolios with agency strategy and outcomes.
6. Update Merit Review policies and processes to strengthen transparency and accountability and promote continuous improvement.

The proposed updates to Merit Review aim to expand who participates in reviewing grants by drawing in experts from a wider range of industry, research institutions, and regions of the country. They also emphasize that NSF-funded research is expected to produce societal benefits, including strengthening the nation’s economic competitiveness and contributing to national security. A key goal is to build the award portfolio strategically at the agency level, so NSF can respond more quickly to changing conditions and better align its investments with both current and emerging national priorities. Finally, NSF must continue to fund only the highest quality proposals across all fields of S&E; **there must be no compromise on merit.**



**REVISED
MERIT
REVIEW
POLICY**



Findings — Strengths of Merit Review

- A competitive process that relies on expert review is the best method to award funds.
- The NSB's Merit Review criteria, currently called Intellectual Merit and Broader Impacts, are appropriate and sufficient to identify proposals that advance NSF's mission.
- NSF's program directors are integral to the Merit Review process and should be empowered in decision-making and portfolio construction to the maximum extent possible.

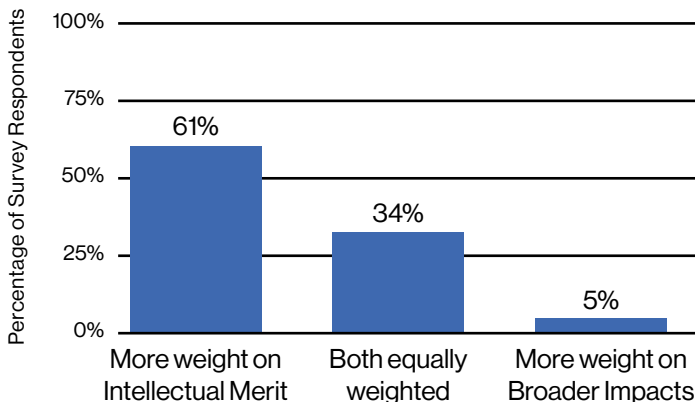


Findings — Opportunities for Improvement

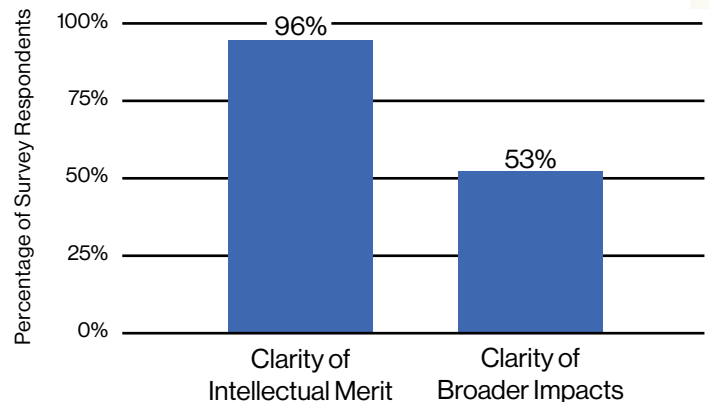
To maintain public trust, clarify the process for all, and demonstrate NSF's value, NSF should:

- In accordance with statute, deliver societal benefits from NSF-funded science and engineering research and education, including enhanced national security and economic competitiveness
- Intentionally and transparently build a portfolio of awards that covers NSF's intellectual and societal mission across all fields of science, technology, engineering, and mathematics research and education, in a manner that gives NSF the ability to adapt rapidly to opportunities in the science and technology ecosystem and be responsive to policymakers, national priorities, the research community, and the public
- Encourage investigators to embrace in their proposals the full range of societal benefits, including those outlined in statute, as well as agency and national strategic goals
- Seek proposals and expert reviewers from a wide range of institution types, geographic areas and communities, economic backgrounds, and employment sectors, as permitted by law
- Use evidence-based practices to continuously improve the Merit Review process.

Challenges persist in interpreting and applying the Broader Impacts (BI) criterion, often resulting in the perception that it is secondary in importance to Intellectual Merit (IM).



Weighing Criteria: 61% of NSF staff survey respondents reported that they place more weight on IM than on BI. Only about one-third of NSF staff report that they weigh the two criteria equally.



Assessing Criteria: NSF staff reported that nearly all (96%) feel it is clear how to assess a proposal's merit for the IM criterion. Little more than half think it is clear how to assess the BI criterion.

