

1. MRX is interested in identifying opportunities to improve NSF's current Merit Review criteria, policy, and processes. Importantly, this includes documenting and understanding any areas of misunderstanding, gaps, or lack of clarity regarding (a) the three Merit Review Principles which are the foundations of the merit review process, (b) the two statutory Merit Review Criteria which are used to evaluate all proposals to NSF, and (c) the five Merit Review Elements NSF uses to assess each criterion; for instance: Are the Principles, Criteria, and Elements clear? Could they be improved upon? The MRX welcomes feedback on any or all of these, and particularly on the Broader Impacts Criterion. Chapter 3 of NSF's Proposal & Award Policies and Procedures Guide (PAPPG) defines terms in this Information Request. See <https://new.nsf.gov/policies/pappg/24-1/ch-3-proposal-processing-review#a-merit-review-principles-and-criteria-af2>.
 - a. APA is the nation's largest scientific and professional nonprofit organization representing the discipline and profession of psychology, as well as more than 157,000 members and affiliates who are clinicians, researchers, educators, consultants, and students in psychological science. APA's mission is to promote the advancement, communication, and application of psychological science and knowledge to benefit society and improve lives. Among the organization's aims are to elevate the public's understanding of, regard for, and use of psychology and to prepare the discipline and profession of psychology for the future. Funding provided by the National Science Foundation is essential to the fulfillment of APA's goals.

Above all else, APA believes that it is foundationally important that the NSF refrain from taking steps that would move the merit review system away from the scientific merit-based assessment criteria currently used. The current NSF merit review system has a tradition of identifying research that will enhance the knowledge base of a broad range of scientific fields and encourages interdisciplinary exploration. Any changes to the criteria, policies, or processes for review and award must first retain the current focus on advancing science and innovation.

Psychology plays a vital role in the context of the National Science Foundation's (NSF) current Merit Review criteria, policy, and processes. The NSF's Merit Review criteria focus on two main aspects: intellectual merit and broader impacts. Psychological research excels in both areas, making it a key discipline for NSF funding.

Psychological research contributes significantly to our understanding of human behavior, cognition, and emotion, which are foundational to many scientific disciplines. This research often introduces innovative theories, methodologies, and applications that push the boundaries of what we know about the human mind and behavior. By funding psychological research, the NSF supports scientific rigor and the development of new insights that can be applied across various fields, including neuroscience, education, health sciences, and artificial intelligence.

Consideration should also be given to the potential of the research to benefit society and contribute to specific, desired societal outcomes. Psychological research addresses critical societal challenges such as mental health, education, and social issues like prejudice and violence. By informing public policy and improving practices in

healthcare, education, and organizational management, psychological research has a direct and positive impact on society. It also promotes diversity, equity, and inclusion by identifying barriers to participation and developing strategies to overcome them. These broader impacts align with the NSF's mission to promote the progress of science and advance national health, prosperity, and welfare.

2. NSF strives to conduct a fair, competitive, transparent Merit Review process for the selection of projects. To accomplish this, NSF relies on a process that considers both the technical aspects of a proposed project and its potential to contribute more broadly to advancing NSF's mission using the statutory Intellectual Merit and Broader Impacts Merit Review Criteria. MRX invites suggestions on the implementation of the Merit Review Criteria. We especially invite feedback that would (a) clarify how the Merit Review Criteria can be used in preparing and reviewing proposals, (b) ensure proposals, reviews, and funding decisions demonstrate full consideration of both criteria while maintaining openness to the full spectrum of potential activities under each, and (c) better recognize and support potentially transformative and high-risk/high-reward activities.
 - a. Interdisciplinary benefit represents an important function and goal of NSF's work. To further facilitate these cross-cutting benefits, it would be helpful to include a question aimed at documenting the interdisciplinary efforts and expected benefits present in a proposal. Psychological research supports the NSF's commitment to interdisciplinary collaboration and innovation. By integrating psychological insights with other scientific disciplines, researchers can develop comprehensive solutions to complex problems. This interdisciplinary approach is highly valued in NSF's review process, as it fosters creativity and innovation.

Furthermore, psychological research helps build the capacity of researchers and institutions to conduct high-quality research. By funding interdisciplinary psychological studies, the NSF ensures that researchers have the resources and support needed to pursue groundbreaking work. This strengthens the overall research ecosystem and promotes sustained scientific progress.

Psychology is a crucial component of NSF's Merit Review criteria, policy, and processes. It advances scientific knowledge, addresses societal challenges, promotes innovation, and supports the NSF's mission. By funding psychological research and placing more intentionality around interdisciplinary research, the NSF ensures that its insights contribute to the broader scientific enterprise and have a meaningful impact on society.

3. MRX is interested in the experiences and perspectives of those who have considered submitting and/or submitted proposals in the past. We invite you to share your insights and describe any opportunities you believe would improve implementation of the Merit Review criteria, policy, and processes based on your experience as a proposer or investigator. This includes any experiences that may have encouraged or dissuaded you from submitting proposals to NSF. We are especially interested in learning (a) how NSF guidance (e.g., as provided in the NSF PAPPG, program solicitations, or other funding opportunity announcements), may have played a part in your decision(s) whether to submit proposals, and (b) how NSF might best support investigators interested in submitting a proposal to NSF.
 - a. N/A

4. MRX is interested in the experiences and perspectives of those who have reviewed proposals submitted to NSF. We invite you to share your insights and describe any opportunities you believe would improve implementation of the Merit Review criteria, policy, or processes based on your experience reviewing NSF proposals.
 - a. N/A
5. MRX is interested in exploring how NSF could better support awardees in demonstrating and documenting outcomes of their awards in advancing knowledge (Intellectual Merit) and benefiting society, and contributing to the achievement of desired broader or societal outcomes (Broader Impacts). We invite you to share your insights on how NSF might better support awardees in demonstrating and documenting outcomes of their awards without unnecessarily increasing awardees' administrative burden of reporting.
 - a. N/A
6. MRX welcomes any other comments on or suggestions for improving NSF's current Merit Review criteria, policy, and processes. It also welcomes information about aspects of Merit Review criteria, policy, and processes that are currently working well.
 - a. Some additional considerations from the perspective of psychology might include:
 - i. Enhancing Broader Impacts:
 1. Focus on Mental Health: Given the rising concerns about mental health, NSF can do more to prioritize research that addresses mental health issues, particularly those affecting vulnerable populations such as children, adolescents, and marginalized communities.
 2. Educational Outreach: NSF should consider ways to encourage proposals that include components for educational outreach and public engagement, ensuring that research findings are disseminated widely and effectively to benefit society. Current award reporting structures fail to incentivize broad distribution of findings and the creation of publicly accessible resources.
 - ii. Promoting Diversity, Equity, and Inclusion
 1. Inclusive Research Practices: NSF should consider the impacts of proposals on how they will promote diversity, equity, and inclusion within their research teams and study populations. This ensures that research benefits a broad and diverse segment of society.
 2. Support for Underrepresented Groups: Providing additional support and resources for researchers from underrepresented groups, including those in psychology, can help to further diversify the field and bring new perspectives to scientific inquiry. APA works to increase scientific understanding of how psychology pertains to race, ethnicity, and culture and enhance the delivery of culturally and linguistically appropriate psychological services to racial and ethnic minority communities. As an association with a longstanding history of devoting attention to and advancing diversity, equity, inclusion, and accessibility (DEIA) related issues, APA strongly believes these factors are critical to advancing behavioral and psychological research supported by NSF. APA strongly believes that DEIA efforts will enhance NSF's effort to support a

scientific workforce better reflecting the diverse backgrounds and experiences of the U.S. population. Scientific talent is undoubtedly well represented across all groups, but unfortunately, the opportunity to participate is not.

APA is committed to ensuring that all researchers have an equal opportunity for NSF funding and recognizes that the advancement of science and research depends on the inclusion of a diverse representation of researchers in the merit review process. We recognize that there are disparities in rates of funding for minority researchers. Prior to and during the merit review process, APA supports building relationships between program officers and grant applicants, increasing outreach to potential NSF grantees from underrepresented groups, and cultural awareness training for program officers and review panelists.

iii. Strengthening Ethical Considerations

1. Ethical Research Practices: Psychology places a strong emphasis on ethical research practices, particularly when working with human subjects. NSF should consider ways to enhance its review criteria to ensure that all funded research adheres to the highest ethical standards, protecting participants' rights and well-being.

iv. Enhancing Review Processes

1. Training for Reviewers: Providing specialized training for reviewers on the unique aspects of research, particularly unfamiliar methods and theories used in psychology, can improve the quality and consistency of the review process. This ensures that proposals are evaluated fairly and accurately.
2. Feedback Mechanisms: Implementing robust feedback mechanisms for applicants can help researchers improve their proposals and increase their chances of future funding. Constructive feedback is particularly valuable for early-career researchers.

v. Supporting Long-Term Research

1. Longitudinal Studies: Psychology often involves long-term studies to understand developmental and behavioral changes over time. NSF can do more to prioritize funding for longitudinal research, which provides valuable insights that short-term studies cannot capture.