

Comment on the Request for Information Proposed Simplified Review Framework for NIH Research Project Grant Applications

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Prepared with the expertise and guidance of the ASA Scientific and Public Affairs Advisory Committee

The American Statistical Association (ASA) appreciates this opportunity to respond to the comment request from NIH on a proposed revised simplified review framework for research grant applications (Notice No: NOT-OD-23-034). We laud NIH's efforts to make these revisions on their review criteria to emphasize the scientific and technical merit of the proposal and improve transparency of the peer review process. The revised framework will promote equity and minimize potential bias while simplifying the review criteria (from five to three scored categories) and ease administrative load.

Our comments pertain to the following areas in the Proposed Revised Simplified Review Framework mentioned in the NIH request for information:

- 1. Factor 3: Expertise and Resources (rated as "fully capable", "appropriate" or "additional capability/expertise needed" or "additional resources needed")
 - Our first concern is about the structure and interpretation of the scoring category "factor 3". Expertise of investigators and the environment where the research will be conducted are combined in this factor. Of the four choices offered to reviewers, two relate to the expertise of the investigator, and the remaining two relate to the resources available to conduct the research. It is, however, not clear whether a reviewer must choose one or multiple options and how the choices will influence the impact score. For example, will two proposals, one where the team lacks some expertise but has appropriate resources and the other, where the team is fully capable but requires additional resources, be considered equal? It will be informative to know about the relative importance of these two sub-categories listed under factor 3.

Also, while we agree with the idea of leveling out the playing field for investigators who are at different stages of their career and/or type of research environment, a binary (appropriate/not appropriate) choice compared to the previous continuous scale of 1-9 can be less informative from an overall scoring perspective. In other words, we are more likely to see a ceiling effect, rendering this factor less valuable as a scoring criterion. We feel that additional guidance is needed on better interpretation of the choices and whether/how this would influence the final impact score.

2. When using the modified scoring criteria, it would be helpful to provide a standardized method of obtaining the overall Impact Score (1-9) of the proposal from the 3 scoring factors and the additional criteria. Clear guidance should be provided on how to weigh the strengths and weaknesses of the proposal under the revised framework. Discrepancies between the final impact score and the individual scores are quite common and can often convey conflicting information to applicants, especially to junior investigators and/or investigators from smaller or minority institutions.

We hope that the simplified review framework for NIH research project grant applictionss will help develop a review framework that is robust and free of bias. This would help streamline the process for both proposal applicants and reviewers and improve transparency of the scoring mechanism. Thank you again for allowing our organization to comment upon the proposed process.

Founded in 1839, the American Statistical Association (ASA) is the oldest scientific professional association in the United States. With 15,000 members in academia, industry, and government, ASA's membership and expertise is especially diverse.