ASSOCIATION OF RESEARCH LIBRARIES

February 10, 2025

National Science Foundation
2415 Eisenhower Avenue
Alexandria, VA 22314

Re: Comment Request: NSF Proposal and Award Policies and Procedures Guide

On behalf of the members of the Association of Research Libraries (ARL), thank you for the opportunity to provide comments on the draft update to the National Science Foundation (NSF) "Proposal and Award Policies and Procedures Guide" (PAPPG). ARL is a membership organization representing the largest research libraries in the United States and Canada, which are committed to the advancement of open scholarship in order to accelerate innovation, enhance national competitiveness, and provide a better return on taxpayer investment. Our members provide expert consultation around research data management and sharing, as well as local infrastructure to support these efforts.

We appreciate NSF's commitment to making the results of funded research widely available without embargo and leveraging persistent identifiers to support scientific integrity, as expressed in the "NSF Public Access Plan 2.0" and reflected in the draft update to the NSF PAPPG. We submit the following comments in response to NSF's comment request.

Concerning NSF's question about whether the proposed collection of information is necessary, ARL recommends the following:

> NSF can reduce the burden of completing the required Data Management and Sharing Plan (DMSP) by excluding the Publications section. The draft update notes that this is intended as "an umbrella section covering the general way in which publications will be made available." However, the requirement to make publications available as an Author Accepted Manuscript deposited in the NSF Public Access Repository is clearly stated in PAPPG Chapter XI.D.2. It is unclear what new information the Publications section of the DMSP would yield.
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> In the data curation field, DMSPs generally do not include information about publications, focusing instead on scientific research data and other research products needed to contextualize the data. Aligning the structure of NSF's DMSP with commonly accepted practice stands to minimize confusion, simplify compliance, and allow researchers to leverage existing templates, tools, and resources developed for similar requirements.

Concerning NSF's question about ways to enhance the quality, utility, and clarity of the information collected, ARL recommends the following:

> NSF can enhance the value of DMSPs by ensuring that they are machine-actionable, enabling information exchange across systems and stakeholders.[1] The "NSF Public Access Plan 2.0" included a commitment to explore instituting or allowing the use of machine-actionable DMSPs to assist in agency compliance checking. Ongoing research by ARL and the California Digital Library has found further benefits to adopting machine-actionable DMSPs, including tighter integration with research security controls, improved readiness for the integration of research data into AI models, and the reduction of duplicative reporting.[2]
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> As the webform for submission of DMSPs is implemented in Research.gov, ARL recommends that its developers prioritize machine actionability of the tool's outputs. Specifically, the tool should pull in persistent identifiers supplied elsewhere in the proposal process and offer the option of downloading the completed plan as a standalone file that can be ingested elsewhere. Going forward, NSF could also allow applicants to create and submit DMSPs using trusted third-party tools, which are developing next-generation functionality such as versioning and which would facilitate collaborative authoring and integration with institutional workflows.[3]

We look forward to continued engagement with NSF during the implementation of the revised Public Access Policy. Please feel free to contact me or my colleague Marcel LaFlamme, Director, Research Policy and Scholarship, marcel@arl.org, with any questions about these comments.

Sincerely,

Andrew K. Pace, Executive Director
Association of Research Libraries

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[1] Chodacki, John, Cynthia Hudson-Vitale, Natalie Meyers, Jennifer Muilenburg, Maria Praetzellis, et al. "Implementing Effective Data Practices: Stakeholder Recommendations for Collaborative Research Support." Washington, DC: Association of Research Libraries, 2020.
[2] "Machine Actionable Plans (MAP) Pilot: Building a Scalable Data Management Infrastructure for Strategic Institutional Coordination." Washington, DC: Association of Research Libraries, 2023.
[3] Miksa, Tomasz, John Chodacki, Marek Suchánek, Maria Praetzellis, Elli Papodopoulo, et al. "Salzburg Manifesto on Machine-Actionable Data Management Plans." 2024.