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TO: National Science Foundation

DATE: September 26, 2016

RE: Feedback on NSF's Strategic Plan

Submitted online at https://www.nsf.gov/od/oia/strategicplan/feedback.jsp

To Whom It May Concern,

On behalf of the Association of College and Research Libraries (ACRL), I am writing to comment and provide feedback on the National Science Foundation's Vision, Strategic Goals, Strategic Objectives and Agency Priority Goals (APG) outlined in *Investing in Science, Engineering, and Education for the Nation's Future: NSF Strategic Plan for 2014 – 2018*.

The Association of College & Research Libraries is the higher education association for librarians. Representing more than 10,000 academic and research librarians and interested individuals, ACRL (a division of the American Library Association) develops programs, products and services to help academic and research librarians learn, innovate, and lead within the academic community. As reflected in our previous support for governmental policies and legislation that facilitate open access and open education, including the Office of Science and Technology Policy (OSTP) mandate (mentioned in the NSF strategic plan) and the Fair Access to Science & Technology Research Act and Federal Research Public Access Act bills, ACRL is fundamentally committed to the open exchange of information to empower individuals and facilitate scientific discovery. Too often, the data and articles resulting from research remains locked behind paywalls or siloed in proprietary computer systems. In order to unleash the power of this information and truly accelerate discovery, we need to ensure that research outputs are made immediately available to the global public, and that people are fully empowered to use it in new and innovative ways.

ACRL appreciates the NSF Vision of a "Nation that creates and exploits new concepts in science and engineering and provides global leadership in research and education." Librarians strive to promote intellectual inquiry and critical analysis, and to facilitate new knowledge creation from the community. The 2015 Agency Priority Goal (APG) 1, to "increase public access to NSF-funded peer-reviewed publications," is certainly a welcome initial step in democratizing access to information and facilitating new knowledge creation. APG 2 ("improve the nation's capacity in data science by investing in the development of human capital and infrastructure") aligns well with the work of academic librarians and the support that they provide to researchers as they begin to manage their data more effectively.

To that end, we would like to offer recommendations for actions that can be taken immediately to allow for research data and articles to be freely shared:

- 1. Accelerate scientific discovery by encouraging the use of the shortest possible or no embargo period for access to NSF-funded publications;
- 2. Improve the discoverability, utility and value of NSF-funded articles by depositing them in the PubMed Central repository, which currently houses more than four million articles from the NIH and six other Federal agencies in a standardized, machine-readable XML format;
- 3. "Public access" is not "open access" ensure that NSF articles meet OSTP requirements for enabling productive reuses including computational analysis, and text and data mining by requiring the use of a standard open license;
- 4. The OSTP memorandum of February, 2013 speaks equally to public access to scientific publications and to scientific data in digital formats. NSF should improve the Agency's accountability and transparency by requiring that data underlying NSF articles needed to validate/reproduce the articles' conclusions be made publicly available upon publication;
- 5. Incentivize NSF researchers to freely and quickly share articles and their underlying data through funding reviews and promotion processes; and
- 6. Further improve NSF's accountability and transparency by establishing a publicly accessible mechanism to track policy compliance results, including reporting on the number of articles produced from NSF-funded research, and how many are publicly accessible.

I want to emphasize that building on NSF's existing Agency Priority Goals and meeting these recommendations will not only stimulate and speed innovation in science and engineering, it can also enhance the excellence of NSF as a federal science agency and serve as an example to other research funders. The potential economic and societal benefits gained by accelerating the research and discovery process through free, immediate access to NSF-funded publications and data are enormous. An NSF policy that meets the above-mentioned recommendations can inspire similar requirements at other agencies and foundations that will benefit the public good.

On behalf of the Association of College and Research Libraries, I urge you to seriously consider these recommendations so that the NSF can have its greatest impact. If you have any questions about these recommendations, please do not hesitate to reach out to me at mdavis@ala.org or 312-280-3248.

Sincerely,

Mary Ellen K. Davis

ACRL Executive Director