



NATIONAL SCIENCE FOUNDATION
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ARLINGTON, VIRGINIA 22230

NSF 16-090

Dear Colleague Letter: Seeking Community Input on Advanced Cyberinfrastructure

May 23, 2016

Dear Colleague:

Advanced cyberinfrastructure is a critical and increasingly important element of the science and engineering research enterprise. The National Science Foundation (NSF) has a distinguished record of pioneering and supporting robust leading-edge cyberinfrastructure essential to advancement and transformation in science and engineering.

NSF's Advanced Cyberinfrastructure (ACI) Division supports and coordinates the development, acquisition, and provision of state-of-the-art cyberinfrastructure resources, tools, and services essential to the advancement and transformation of science and engineering. In alignment with all NSF directorates, ACI also supports forward-looking research and education to expand the future capabilities of the research cyberinfrastructure and takes a broad view that includes development of community software suites and tools, exploration of data science and management for pursuing new scientific and engineering frontiers, and other research-driven capabilities. By fostering a vibrant ecosystem of technologies and the development of a skilled, multidisciplinary workforce of developers, researchers, staff and users, ACI serves the growing community of scientists and engineers across all disciplines, whose work relies on access to advanced computational power, robust community software tools and data, secure high-speed networking, and expertise in computational and data sciences.

Prior to 2013, ACI operated as the Office of Cyberinfrastructure (OCI) within NSF's Office of the Director. In 2013, NSF realigned several functions, including positioning OCI within the Directorate for Computer and Information Science and Engineering (CISE), but did not change the mission of the enterprise.

NSF is conducting a review of ACI's position within NSF, now that there exist several years of experience operating in this new configuration; this review is meant to be forward-looking and data-driven. Input from the science and engineering research community is an important component of this review process. To inform any comments, we provide relevant data on proposals, awards, and budgets for the period spanning fiscal years (FY) 2011-2015, which covers OCI as well as ACI operations:

<https://www.nsf.gov/od/aci-review-data.jsp>.

NSF is particularly interested in community input on the following questions¹:

1. Based on the data and trends available at the above link, your interactions with ACI Division, and in the context of NSF's overall mission, please indicate the extent to which ACI's current role within NSF supports and anticipates the cyberinfrastructure needed by science and engineering research communities.
2. Based on the data and trends available at the above link, and your interactions with ACI Division, what additional improvements can you suggest to further ACI's role and contribution to research

cyberinfrastructure in support of NSF's mission?

3. Are there particular positive or negative trends that, in your opinion, arise directly from the realignment of the Office of Cyberinfrastructure within CISE?

Comments from the interested community should be submitted by 6/30/2016. Participation is voluntary and comments received are intended for NSF internal use only. Comments received will not be posted publicly and the names of commenters will be protected from public disclosure to the extent permitted by law. Succinct responses are most useful to the review group, but there are no formal restrictions on the form or length of comments.

Please send comments to:

NSF Advanced Cyberinfrastructure Review Input
aci-review@nsf.gov

Sincerely,

Fleming Crim
Assistant Director for Mathematical and Physical Sciences

Pramod Khargonekar
Assistant Director for Engineering

National Science Foundation

¹ The valid OMB control number for this collection is 3145-0215. The time required to complete this information collection is estimated to be approximately 60 minutes per response.