National Science Foundation
4201 Wilson Boulevard
Arlington, Virginia 22230

NSF 12-070

Frequently Asked Questions: Solicitation NSF 12-499, Core Techniques and Technologies for Advancing Big Data Science and Engineering (BIGDATA)

1. **Is my proposal a good fit for the Big Data solicitation?**

   The BIGDATA solicitation aims to advance the **core scientific and technological means** of managing, analyzing, visualizing, and extracting useful information from large, diverse, distributed and heterogeneous data sets needed to: accelerate the progress of scientific discovery and innovation; lead to new fields of inquiry that would not otherwise be possible; encourage the development of new data analytic tools and algorithms; facilitate scalable, accessible, and sustainable data infrastructure; increase understanding of human and social processes and interactions; and promote economic growth and improved health and quality of life. The focus is on core scientific and technological advances (e.g., in computing and information sciences, mathematics and statistics). Proposals that focus primarily on application of existing methods (e.g., machine learning algorithms, statistical analysis) to data sets in a specific science domain or on implementation of tools based on existing techniques are not appropriate for this solicitation.

2. **Should every proposal submitted in response to the BIG DATA solicitation address an application of interest to NIH?**

   No.

3. **Should I submit a "mid scale" or a "small" proposal?**

   A project with one or two investigators and up to three years of effort is likely to be appropriate

as a "small proposal" whereas a proposal with three or more investigators and up to five years of effort is likely to be appropriate as a "mid scale" proposal. However, the type of proposal should be chosen based on the scope and the size of the effort needed.

4. **How do I submit a proposal to this program?**

Please carefully read and follow the instructions provided in (i) the solicitation itself (http://www.nsf.gov/pubs/2012/nsf12499/nsf12499.htm) and (ii) the NSF Proposal and Award Policies and Procedures Guide, Part I: Grant Proposal Guide (GPG) available at (http://www.nsf.gov/publications/pub_summ.jsp?ods_key=gpg) If you need additional help preparing and submitting your proposal, we recommend that you contact your institution's Sponsored Projects Office.

5. **Do I need to use Grants.gov or Fastlane to apply?**

You may use either Grants.gov or Fastlane.

6. **Is my project likely to get funded?**

If your proposal fulfills the criteria in FAQ # 1 above, then you are encouraged to apply to the program for funding. The proposal will be reviewed using the NSF merit review criteria by panelists or reviewers with expertise in the topics covered in your proposal. Program officers cannot provide proposers with further advice regarding the likelihood that a specific proposal would receive funding.

7. **Can I obtain a postdoctoral fellowship through the BIGDATA program?**

A BIGDATA research proposal may request funding for a postdoctoral fellow as part of the project. However, the program does not accept applications for individual postdoctoral traineeships.

8. **Can employees of Federal Agencies or Federally Funded Research and Development Centers submit proposals in response to this solicitation?**

NSF does not normally support research or education activities by scientists, engineers or educators employed by Federal agencies or Federally Funded Research and Development Centers (FFRDCs). A scientist, engineer or educator who has a joint appointment with a university and a Federal agency (such as a Veterans Administration Hospital, or with a university and a FFRDC) may submit proposals through the university and may receive support if he/she is a bona fide faculty member of the university, although part of his/her salary may be provided by the Federal agency (See http://www.nsf.gov/pubs/policydocs/pappguide/nsf11001/gpg_1.jsp). Furthermore, scientists, engineers, or educators employed by FFRDCs can be sub-awardees on a project led by an entity, e.g., a university, that is eligible to apply for grants from NSF. Such a sub-award typically does not provide funds for salary, but can provide funds for travel to work with their collaborators on the project or for students to work on the project as interns in FFRDC labs.

9. **Can for-profit entities apply for funding through this solicitation?**

US commercial organizations, especially small businesses with strong capabilities in scientific or engineering research or education can submit proposals in response to this solicitation. NSF is interested in supporting projects that couple industrial research resources and perspectives with those of universities; therefore, it especially welcomes proposals for cooperative projects involving both universities and the private commercial sector (http://www.nsf.gov/pubs/policydocs/pappguide/nsf11001/gpg_1.jsp).

10. **What are the "intellectual property" implications for a for-profit entity that submits a proposal in response to this solicitation?**

    Plans for data management and sharing of the products of research is a required element of the proposal: The data management plan should describe how the proposal will conform to NSF policy on the dissemination and sharing of research results (See http://www.nsf.gov/pubs/policydocs/pappguide/nsf11001/gpg_2.jsp#dmp). Proposers should note that the NSF data sharing policy requires investigators to share data gathered under an NSF grant with other researchers "within a reasonable time" after the data are generated. The policy also recognizes that investigators and their employers have a legitimate interest in protecting rights to inventions that are developed under an NSF grant. Details about NSFs Intellectual Property policy can be found at http://www.nsf.gov/pubs/policydocs/pappguide/nsf11001/aag_6.jsp#VID. The degree to which the proposed data management plan demonstrates the intellectual merit and broader impacts will be considered by the review panel as part of the standard NSF review criteria (http://www.nsf.gov/pubs/policydocs/pappguide/nsf11001/gpg_3.jsp).

11. **Can a foreign organization submit a proposal?**

    NSF rarely provides support to foreign organizations. NSF will consider proposals for cooperative projects involving US and foreign organizations, provided support is requested only for the US portion of the collaborative effort. NIH does not accept proposals from foreign organizations but does allow subcontracts to foreign organizations, so long as there is a demonstrated need.

12. **How do I know if my request for funding is relevant to NIH?**

    Applicants are encouraged to view the NIH-specific announcement (http://grants.nih.gov/grants/guide/notice-files/NOT-GM-12-109.html), which indicates the Institutes and Centers (ICs) that have signed on to this Initiative. Only applications for funding that fall within the regular missions of those ICs will be considered. Applicants are encouraged to visit the IC web sites and contact program staff with specific questions about their portfolios. All reviews will be conducted at NSF and applications for funding at NIH will then be considered in the September and January cycles of Councils.

13. **Are duplicate submissions allowed?**

    No. Proposals submitted in response to this solicitation may not duplicate or be substantially similar to other proposals concurrently under consideration by NSF, NIH, or other agencies' programs or study sections.

14. **Will there be future BIGDATA solicitations?**

    This solicitation is one component in a long-term strategy to address national big data challenges, which include advances in core techniques and technologies; big data infrastructure projects in various science, biomedical research, health and engineering communities; education and workforce development; and a comprehensive integrative program to support collaborations of multi-disciplinary teams and communities to make advances in the complex grand challenge science, biomedical research, and engineering problems posed by an increasingly computation - and data-intensive world.