



**National Science Foundation
4201 Wilson Boulevard
Arlington, Virginia 22230**

NSF 12-083

Dear Colleague Letter: Office of Cyberinfrastructure (OCI) - Experimental Program to Stimulate Competitive Research (EPSCoR)

May 10, 2012

The National Science Foundation (NSF) Experimental Program to Stimulate Competitive Research (EPSCoR) and Office of Cyberinfrastructure (OCI) wish to draw your attention to programs available at NSF, which could help advance the state of cyberinfrastructure (CI) within your EPSCoR jurisdiction. Below you will find links to program descriptions and examples of how they might be leveraged to the advantage of EPSCoR jurisdictions.

Current solicitations offered by OCI, or having OCI participation, of particular interest to EPSCoR jurisdictions are listed below. At this time, OCI is planning to offer these programs again in FY 2013, pending availability of funding.

[Building Community and Capacity for Data-Intensive Research in the Social, Behavioral, and Economic Sciences and in Education and Human Resources \(BCC-SBE/EHR\)](#)

[\(NSF 12-538\)](#) Full Proposal Deadline Date: May 22, 2012

This solicitation encourages proposals for generating, aggregating, indexing, and curating data sets in the Social, Behavioral, and Economic Sciences (SBE). Investigators should think creatively about data and consider new data collections, repurposed existing data, and new approaches to data as appropriate for the research questions of interest. The size and scale of a proposal should be determined by the readiness of the research community: Some may be just forming, while others may be ready to expand membership or to build prototypes. This announcement encourages proposals from communities at all of these different levels of preparedness. For information about SBE fields to which proposals might be relevant, investigators should consult the SBE research division home pages ([Behavioral and Cognitive Sciences - BCS](#); [Social and Economic Sciences - SES](#)).

[Campus Cyberinfrastructure - Network Infrastructure and Engineering Program \(CC-NIE\)](#)

[\(NSF 12-541\)](#) Full Proposal Deadline Date: May 30, 2012

This solicitation invites proposals to improve campus cyberinfrastructure and address "last mile" connectivity issues. The connections are expected to be with regional hubs. The CC-NIE program invests in improvements and re-engineering at the campus level to leverage dynamic network services to support a range of scientific data transfers and movement. The program also supports Network Integration activities tied to achieving higher levels of performance, reliability and predictability for science applications and distributed research projects.

[Integrative Graduate Education and Research Traineeship Program-CIF21 Track \(IGERT-CIF21\)](#)

[\(NSF 12-555\)](#) Letter of Intent Deadline Date: June 4, 2012

The IGERT-CIF21 program is an opportunity that allows multi-institutional collaboration among students and faculty, and may involve a partnership between EPSCoR and non-EPSCoR jurisdictions. The program is intended to establish new models for graduate education and training for collaborative research that transcends traditional disciplinary boundaries.

Within the Cyberinfrastructure Framework for 21st Century Science and Engineering (CIF21) and IGERT, NSF recognizes the need to educate and support a next generation of researchers able to address fundamental challenges in 1) core techniques and technologies for advancing big data science and

engineering; 2) analyzing and dealing with challenging computational and data enabled science and engineering (CDS&E) problems, and 3) researching, providing, and using the cyberinfrastructure that makes cutting-edge CDS&E research possible in any and all disciplines.

Through this amendment to the IGERT solicitation [NSF 11-533](#), a new IGERT-CIF21 track has been created as a mechanism to address the training and education needs in CDS&E and cyberinfrastructure research. The CIF21 activity is part of the NSF-wide IGERT activity, as described in http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=12759.

[Core Techniques and Technologies for Advancing Big Data Science & Engineering \(BIGDATA\)](#)

([NSF 12-499](#)) Full Proposal Deadline Dates: June 13, 2012 and July 11, 2012

In general, 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 so as 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; increase understanding of human and social processes and interactions; and promote economic growth and improved health and quality of life. The phrase "big data" in this solicitation refers to large, diverse, complex, longitudinal, and/or distributed data sets generated from instruments, sensors, Internet transactions, email, video, click streams, and/or all other digital sources available today and in the future. The measure of the challenging data sets varies from Terabytes to Exabytes, depending on the field of inquiry.

[Data Infrastructure Building Blocks \(DIBBS\)](#)

([NSF 12-557](#)) Full Proposal Deadline Dates: July 26, 2012 and August 30, 2012

The DIBBS program offers the opportunity for proposals to develop consensus and capabilities for aggregating regional data sets collected in the EPSCoR community (e.g. environmental study data) into the broader national cyberinfrastructure. In general, the DIBBS solicitation aims to a) develop community consensus around the conceptualization of what building blocks are needed for a particular community, b) develop interoperability capabilities between disparate datasets, and c) implement interoperable solutions to house, distribute, index, catalog, and archive datasets of use to the research community.

The full list of active OCI-related funding opportunities is available at:
http://www.nsf.gov/funding/pgm_list.jsp?org=OCI&ord=date

Signed

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