

**Update: EPSCoR Responses to Findings and Recommendations
of the
Committee of Visitors Report
of
August 24, 2009**

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SUBJECT: Update: EPSCoR Responses to the FY 2009 Committee of Visitors Report

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The OIA Committee of Visitors (COV) met August 11-12, 2009, at the National Science Foundation to review the EPSCoR program for the period FY 2005 – FY 2008. This review focused on:

- Integrity and efficiency of the program's processes and management practices, including quality and effectiveness of merit review processes, selection of reviewers, resulting portfolio of awards, and management of the program;
- Results of OIA EPSCoR investments in pursuit of the Foundation's strategic outcome goals of discovery, learning, and research infrastructure; and
- Other aspects of the program structure and management, including EPSCoR responsiveness to recommendations from previous COVs and other external evaluations.

The report prepared by the COV reflects careful examination and insightful evaluation of the program. Dr. Willie Pearson, Jr., served as Chair of the COV and led its detailed analysis of 108 of the 1,483 actions taken during the period of review, including 96 awards and 12 declinations. This sample included essentially all of the Research

Infrastructure Improvement (RII) actions, all of the Outreach and Workshop actions, and a representative set of Co-Funding actions.

The Committee of Visitors found no program areas in need of improvement or gaps within program areas. However, the Committee provided five specific recommendations for improving Program performance. EPSCoR's initial responses to the findings are attached. This document provides an update on progress towards implementation of the action plan developed in response to those recommendations.

COV: Tracking and Analyzing Longitudinal Outcome Data

“EPSCoR management is encouraged to continue to work with jurisdictions to track and analyze outcome data related to the success and retention of scientists, postdocs and students supported with EPSCoR funding, including those supported by grants that have been closed for some time.”

In FY 2009, EPSCoR introduced mandatory, standardized data capture and reporting for RII Track-1 awards. Utilizing templates developed jointly with the EPSCoR community, RII Track-1 awardees provide, as an additional component of annual and final reports, qualitative and quantitative data reflecting highlights of notable accomplishments in research and education in science and engineering; publications, patents, and extramural funding; collaborations; faculty hires and departures; engagement of postdoctorals, graduate students, and undergraduates; diversity of participants and institutions; external engagement; and cost sharing and cost contributions. Dialogue has continued with the EPSCoR community on the usefulness of the data made available via the templates and how that information is being used to demonstrate success factors for students supported by EPSCoR. Most recently, the templates have been modified to capture data on new investigators as called for in the America COMPETES Reauthorization Act of 2010.

EPSCoR recruited a Program Analyst in 2011 to support the data capture and analysis needs of the Office and to develop a means to capture longitudinal data reflecting outcomes of the EPSCoR program from its inception. This information is being provided to the Science and Technology Policy Institute (STPI) team that was contracted in FY 2011 to conduct an in-depth, life-of-program evaluation of the NSF EPSCoR Program.

COV: Systematic Documentation of Post-Panel Input to Merit Review Process

“The COV recommends that EPSCoR use a systematic method or approach to document the assessment of PI responses to reviewer concerns, particularly in cases where the review panel does not strongly support funding a proposal but EPSCoR management decides to fund.”

To mitigate the need for post-panel clarification, EPSCoR began, in FY 2008, to include more explicit language detailing expectations for each program element called for in RII solicitations. Similarly, more explicit language was incorporated into RII solicitations in guidance to PIs and in descriptions of program-specific review criteria. In addition, the Program staff have adopted a systematic approach to documenting the assessment of PI responses, including the engagement of domain representatives from other Directorates and Offices across the Foundation. These actions have further strengthened the quality of the merit review process.

These actions have reduced the number of items that require post-panel clarification. Each new solicitation further refines the areas that warrant post-panel clarification and “lessons learned” are discussed with the EPSCoR community.

COV: Reviewer Ratings and Actions on Proposals

“The COV commends the EPSCoR program for using well known, high quality reviewers from both EPSCoR jurisdictions and non-EPSCoR states. Usually, most reviewers are familiar with success rates in the research directorates as well as the type of review scores commonly associated with funding recommendations. Some members of the COV were concerned that reviewers might be somewhat put off upon learning that proposals were funded that had received relatively low review scores from the review panel on which they served. If so, this could serve to dampen the credibility of the EPSCoR program among the non-EPSCoR jurisdictional reviewer community. The COV recommends that EPSCoR management keep these concerns in mind when making a decision to fund a proposal that the original panel did not strongly support.”

To better prepare such individuals to review RII proposals, NSF has the responsibility for ensuring that all reviewers fully understand EPSCoR goals and objectives, and its strategies for building research capacity in EPSCoR jurisdictions through strengthening research infrastructure. In FY 2011, EPSCoR began a comprehensive approach to reviewer preparation that includes a dialogue about the program’s goals and objectives at the time of panelist recruitment, and culminating with a more extensive panel charge. We plan to initiate pre-panel webinars in FY 2012 for the FY 2013 competition. These steps will address issues including RII program breadth and its state-based character, RII merit review in NSF-wide context, and the insidious nature of implicit bias.

COV: Mechanisms to Increase Effective Collaborations

“Collaboration among scientists from EPSCoR and non-EPSCoR jurisdictions can leverage the scientific impact of EPSCoR investments as well as potentially create a better understanding of the quality of science in EPSCoR jurisdictions. . . .The co-funding mechanism appears to be an attractive mechanism to facilitate collaborations among researchers from EPSCoR and non-EPSCoR jurisdictions because it can increase the probability of success of collaborative proposals by leveraging regular NSF program funds with support for the EPSCoR side of the

collaboration. Such use of co-funding already occurs, and the COV recommends that EPSCoR management work to highlight this aspect of co-funding. EPSCoR management may also wish to consider working with the EPSCoR community to develop other mechanisms to foster collaborations among researchers from EPSCoR and non-EPSCoR jurisdictions.”

EPSCoR agrees fully with the Committee’s observations regarding effective collaborations, particularly those that span traditional organizational and geographical boundaries. These collaborations can increase research capacity of jurisdictions, consortia, or regions to enable stronger competitiveness in large scale and cross-cutting competitions. Collaborations can provide effective platforms for discovery-based science and engineering, for broadening participation, for workforce development, for strengthening cyberinfrastructure, for extending and enhancing external engagement, and for developing and sustaining research competitiveness more broadly. The development of mechanisms to foster collaborations among EPSCoR and non-EPSCoR jurisdictions has been discussed within NSF EPSCoR as well as within the EPSCoR community. The FY 2005 COV report endorses this concept but cautions against pitfalls arising from lack of transparency regarding the intent and implications of such initiatives.

Experiences of EPSCoR jurisdictions in RII Track-2 collaborations have shown the benefits of inter-jurisdictional cooperation and have led to broader acceptance of the practice. Broadening the scope of such collaborations among EPSCoR scientists and engineers to include their non-EPSCoR colleagues is a logical next step. How to foster greater collaborations among EPSCoR and non-EPSCoR researchers was one of several topics discussed at the *EPSCoR 2030* Workshop held in January 2012, and the program anticipates recommendations in this area. NSF EPSCoR will carefully consider the recommendations as decisions are made on how to best affect the broader collaboration.

In FY 2011, EPSCoR support of collaborative research projects accounted for ~11% of the annual co-funding budget. While the majority of that investment is in collaborations among EPSCoR jurisdictions, there has been growth in collaborations among EPSCoR and non-EPSCoR jurisdictions. This growth is projected to continue as the complexity of challenges to technological and economic development at jurisdictional, regional, and national levels increases.

COV: Recognizing ‘Transformative’

“The COV feels that it is important to recognize that what is transformative should be determined by particular characteristics of a given jurisdiction, instead of universal criteria.”

EPSCoR agrees with the Committee’s position that ‘transformative’ is a place-based characteristic. That which is transformative in a given setting in a particular jurisdiction

may not be transformative in others. Experience has shown that the largest incremental benefit of the investment in the research infrastructure of a given jurisdiction derives from where the jurisdiction is in its research competitiveness and its preparedness to move forward from that juncture.
