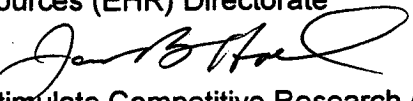
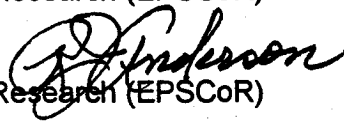


TO: Dr. Judith S. Sunley, Interim Assistant Director
Education and Human Resources (EHR) Directorate

VIA: Mr. James B. Hoehn, Head 
Experimental Program to Stimulate Competitive Research (EPSCoR)

FROM: Dr. Richard J. Anderson, Senior Science Advisor 
Experimental Program to Stimulate Competitive Research (EPSCoR)

SUBJECT: EPSCoR Response to Committee of Visitors (COV) Report

DATE: July 10, 2000

The EHR Committee of Visitors (COV) is highly commended for their accurate and informative review of the Foundation's EPSCoR initiative. The COV members have produced a report that contains many useful and insightful recommendations for the program. The EPSCoR staff want to especially cite Dr. Lynette Padmore, Chair of the COV, for her exceptional leadership in directing the review process

Integrity and Efficiency of the Program's Processes and Management.

The COV examined proposal actions completed within the 1997-99 period with respect to the integrity and efficiency of the program's processes and management. The EPSCoR staff are in general agreement with the COV's analysis of program's performance in each of the following areas: (1) Effectiveness of the program's use of merit review procedures; (2) The program's use of the new NSF Merit Review Criteria; (3) Reviewer selection; and (4) Resulting balance in award portfolio. There are a few issues that require either (1) clarification or (2) future action on the part of the EPSCoR staff. These are described below.

The COV expressed concern that the negotiation process for the EPSCoR Cooperative Agreements created a significant delay in the processing of EPSCoR Infrastructure Improvement awards (Sec. A.1.c). The staff agree that a "streamlined" award process is necessary to insure timeliness. In this regard, the following action has been taken. All new Infrastructure Improvement awards shall be made as "grants" rather than "cooperative agreements" thereby reducing the need for extensive negotiation among the several parties generally involved in these large complex projects.

Two specific COV comments regarding EPSCoR's award portfolio (Sec.A.4) appear to have resulted from the EPSCoR staff's use of a representative "sample" of programmatic data rather than the complete data base. The EPSCoR staff recognize that a COV operates under a time constraint that make it extremely difficult to conduct a full and detailed examination of the voluminous EPSCoR data base and accepts responsibility for not making clear to the COV the full extent of the available information. These issues are clarified below.

First, the COV observation (Sec. A.4.e) was based on the fact that data were not "readily available" for co-funding of CAREER proposals in FY 1998 and 1999. A full search of

the EPSCoR co-funding database does, however, address the COV's concern. For example, detailed examination of the data base indicates that co-funded CAREER awards totaled 26 awards at \$2,624,280 in FY 1997; 14 awards at \$1,723,749 in FY 1998, and 15 awards at \$2,134,858 in FY 1999. In addition, EPSCoR also co-funded two IGERT awards in each of FY 1998 and FY 1999 and 2 G-K12 awards in FY 1999.

The COV's second observation (Sec. A.4.f) that sufficient "evidence was not available to have the COV determine whether underrepresented groups (e.g., minorities, women, and persons with disabilities) are gaining greater access to research and education opportunities." This statement is correct since the EPSCoR staff did not provide that COV with all of the information available within the program's complete database. However, the staff wishes to point out that the program's major S&T development activity -- infrastructure improvements, such as vBNS connections, impacts all researchers on a campus irrespective of ethnicity or gender. The other major EPSCoR funding activity, co-funding of proposals submitted to the Foundation's regular grant programs by members of underrepresented groups, depends primarily upon the submission, merit review, and award standards of the various Foundation-wide programs to which these proposals were submitted. The EPSCoR office can and does encourage and influence the selection of underrepresented groups in those proposals proposed by the regular grant programs for EPSCoR co-funding (see EPSCoR program solicitation). Data is available within the EPSCoR co-funding data base that indicate the level of Foundation-wide participation by members of underrepresented groups, but because EPSCoR can not control the submission or award processes within the NSF's regular grant programs such data are used only to establish "funding priorities" among those projects out forward for co-funding by the regular grant programs. The EPSCoR staff will initiate steps to address COV recommendations and to make programmatic databases more readily accessible and responsive to comprehensive examination.

Results: Outputs and Outcomes of NSF Investments

In addition to the study of program management, the COV also examined the outputs and outcomes of NSF investments. These represented direct and indirect accomplishments of projects supported by EPSCoR, which are currently active or were closed out during the period FY 1997-99. The COV addressed the NSF Outcome Goals as stated in the Foundation's GPRA Strategic Plan and reached a consensus regarding the degree to which past EPSCoR research investments have measured up to the GPRA Annual Performance Goals. The COV deemed EPSCoR's performance to be fully successful with respect to the following GPRA outcomes: (1) discoveries at and across the frontier of science and engineering and (2) connections between discoveries and their use in service to society. The COV also identified areas of collaboration/partnership where EPSCoR had made contributions to two additional GPRA outcomes even though they were not specific program priorities (e.g., a diverse, globally-oriented workforce of scientists and engineers and improved achievement in mathematics and science skills needed by all Americans). With respect to results related to specific areas of NSF emphasis, the COV cited the EPSCoR co-funding and outreach initiatives as forming the basis for insuring that NSF investments will result in strong future performance. The EPSCoR staff are in agreement with the COV analysis of EPSCoR's successful past performance and their identification of EPSCoR's co-funding and outreach initiatives as important factors in meeting GPRA goals.

Emerging Issues and Recommendations

The COV addressed several programmatic issues in its summary statement, including the organization and conduct of future COV reviews of the EPSCoR program. The COV members recommended that (1) the evaluation template should focus more on outcomes and less on process; (2) background materials should be organized according to the evaluation template; and (3) summary data associated with each evaluation review criterion should be provided. Based on this year's experience, the EPSCoR staff agree with the COV's recommendations. Finally, the COV members indicated their concern that the format and some of the criteria of the Foundation's current COV report template were not relevant for the unique structure of EPSCoR.

The COV discussed the need for a variety of measures to document EPSCoR's progress toward its stated performance outcome and suggested some additional measures that might be appropriate. The EPSCoR staff agree that many different indicators exist to measure increased R&D competitiveness. However, the "time lag" inherent in data collection and analysis coupled with the dynamic nature of the national R&D enterprise makes effective formative program evaluation difficult.

Perhaps the most interesting issues raised by the COV that dealt with program policies and procedures. Among the issues raised by the COV, the following two questions have long been on the minds of the EPSCoR staff and the national R&D community.

- (1) "What criteria should apply for a state to gain EPSCoR designation?" and
- (2) "At what point has sufficient progress been made to warrant a state's leaving the EPSCoR program?"

The COV members also posed a fundamental organizational issue to the Foundation's management: "*What is the best location for EPSCoR as a program, which can have impact across the foundation?*" These questions may be appropriate discussion items for the EHR Advisory Committee.

The COV's final recommendations dealt with EPSCoR's organization and operation in light of its 20-year history. Most of these centered on establishing a set of criteria to determine when a state's academic R&D enterprise should be considered mature and hence eligible for "*graduation*" from EPSCoR. The COV members did not feel that it was appropriate for them to recommend a particular "*graduation*" process. They did, however, suggest several possible options that could form the basis for a future course of action. Over the past two years, the EPSCoR staff have discussed many of these same issues with the EHR Assistant Director.