EPSCoR Office Response to Findings and Recommendations of the Committee of Visitors Report of August 16, 2005

To: Dr. Donald E. Thompson, Acting Assistant Director
Education and Human Resources (EHR) Directorate

From: Dr. Sherry O. Farwell, Head
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Subject: EPSCoR Response to the 2005 Committee of Visitors (COV) Report

Date: September 2, 2005

The EHR Committee of Visitors (COV) met July 26-27, 2005 at the National Science Foundation to review the EPSCoR Program for the period of FY 2000-2004 on the following topics:

- The integrity and efficiency of the processes used to solicit, review, recommend and document proposal actions and monitor active projects;
- The outputs and outcomes of NSF investments in the EPSCoR Program;
- The Office's plans for future programmatic directions and corresponding outcomes, and;
- Any other issues and/or topics relevant to the review of the NSF EPSCoR Program.

The report prepared by the COV reflects the combined professional insight and personal diligence of its members, and the effective leadership by the COV's Chair, Dr. Chris Busch. The fact that during a full two-day schedule the COV reviewed 96 program jackets, prepared a quality draft report, and presented an oral summary of this report is further testimony to their overall preparation, organization, and dedication.

The EPSCoR Office is gratified that the COV finds the integrity and efficiency of the EPSCoR Program processes and management along with the outputs and outcomes of the NSF EPSCoR Program investments to be satisfactory for the 5-year period of its review. The Office is particularly encouraged that the COV "applauds the new directions and innovations for the EPSCoR Program initiated by the current EPSCoR Office Head and his team." Comments on the ten major recommendations in the COV report are given below:

- **<u>EPSCoR Staff Scientific/Technical Credentials And Skills</u> ["An initiative to improve EPSCoR staff scientific/technical credentials and skills is necessary to meet emerging Program needs."]:** We agree with the report in that the demands upon the EPSCoR Office and its personnel will continue to grow based on 1) the increasing quality, quantity and range of supported science and 2) the magnitude and complexity of proposals, awards, and projects. To address these demands, the EPSCoR Office for the past year has implemented a matrix management strategy that

uses the integrated skill set of the five program directors as they collectively evaluate proposals and manage awards. Nevertheless, the Office also recognizes that current and future programmatic directions in support of high caliber projects in frontier S&E research, innovation, and education will make it even more necessary for Office Program Staff to have excellent scientific/technical credentials and research-based experience. As either replacement and/or new positions become available in the Office, hiring talented people with such credentials and experience will be an important objective. Further, the Office will seek to ensure that there will always be a technically credentialed Senior Program Director/Advisor on the Office staff.

- **<u>EPSCoR Advisory Committee</u> ["The EPSCoR Program should have a dedicated Advisory Committee (constituted as a subcommittee of the EHR Advisory Committee) to resolve challenging issues such as: graduation/progression of jurisdictions, launching new initiatives (e.g., Strength Based Research Collaboratives (SBRCs)), resource allocations, program evaluation and internal NSF organizational issues."]: The** Office concurs with the COV recommendation that formation of a dedicated Advisory Committee, constituted as a subcommittee of the EHR Advisory Committee, would indeed give valuable input for the major issues and opportunities that challenge the NSF EPSCoR Program. The composition of this relatively small, 6-7 member Committee will be crucial towards meeting EPSCoR's need for external advice on a variety of topics. For this reason the Office submits that, along with an EHR Advisory Committee member, the committee's composition should contain members representing academic research, academic administration, business, jurisdictional government and the EPSCoR community. The Committee would function as an excellent sounding board for issues such as graduation/progression, eligibility, new initiatives, program and project evaluation, effective partnerships, communication strategies, portfolio balance, and overall program planning.

- **<u>Competitiveness Building</u> ["The COV recommends the initiation of programs for "competitiveness" building, and strongly endorses the SBRC concept presented to the COV by the EPSCoR Head, Sherry Farwell."]:** The EPSCoR Office appreciates the COV members' statements regarding their enthusiastic support for the planned Strength-Based Research Collaborative (SBRC) Program. We envision SBRC as a key part of the EPSCoR Office's targeted effort to build capability and competitiveness as a natural complement to the capacity-building RII Program. It is the intention of the EPSCoR Office to launch the SBRC Program in FY 2006, followed by funding of the initial SBRCs in FY 2007. In this regard, the Office will use its outreach activities to encourage further focusing of EPSCoR activities in the jurisdictions and to encourage a more meaningful role for the Jurisdictional EPSCoR Committees as the SBRC concept evolves.

- **<u>Review of RII-Type Proposals</u> ["The review of large RII-type proposals should be more rigorous. The review process should include site visits and include a sufficient number of reviewers with adequate qualifications in the specific scientific areas proposed for research."]:** The EPSCoR Program Office agrees that the review of large RII-type proposals should be more rigorous. To this end, the Office will use a combination of ad hoc mail reviews and panel reviews. For example, each

RII proposal will be sent to five external ad hoc reviewers that have specific expertise in the research theme and related research focus areas described in the particular proposal. These ad hoc reviewers will be asked to pay special attention to the scientific portions of the proposals and their written reviews will be made available to the panel when it convenes at NSF. Each member of the panel will also be asked to provide written reviews prior to the actual panel meeting. Sufficient panel members will be utilized to ensure that each proposal obtains four independent reviews by panelists. Consequently, each RII proposal will receive from three to five ad hoc reviews plus four reviews by panel members, in addition to the final panel summary. The ad hoc external reviews will help inform subsequent panel deliberations that must judge scientific merit, broader impact and EPSCoR priorities to arrive at the ultimate consensus noted in the panel's summary for each proposal. In the opinion of the EPSCoR Office, the use of site visits and reverse site visits is more beneficial as a project management tool and we intend to use them for this purpose during the middle year of current and future RII awards.

- **<u>Co-Funding</u> ["The NSF EPSCoR Program Office should document more thoroughly the process and basis for award and decline co-funding decisions."]:** The EPSCoR Program Office agrees that the documentation for co-funding decisions, both positive and negative, should be more thorough. To ensure that this is the case, a Senior Program Director has been designated as co-funding coordinator for FY 2005. The duties of the position include discussing decisions with the Program Directors to make sure that a "level playing field" is in place and that EPSCoR priorities are being considered in the decision process; acting as quality control for jacket documentation; coordinating and documenting the allocation of co-funding monies as a backup to the AO; making sure that documentation for "no fund" decisions is maintained and; keeping records that will help the EPSCoR Office determine outputs and outcomes for the co-funding activity.

- **<u>Program Planning and Implementation</u> ["The NSF EPSCoR Program Office planning and plan implementation processes should be more rigorous and consistent for both competitive programs and office operations."]:** Since July 2004, the Office has inaugurated a professional approach for office management/operation and a more systematic procedure for program planning/implementation. The list of eight objectives developed for future office management and planning includes professionalism, work quality, honesty, integrity, flexibility, innovation, excellence, balance, partnerships, and teamwork as defining principles for the EPSCoR Office, its staff, and its programs. During FY 2005, the Office also started a strategic planning exercise that resulted in new mission, goal and objective statements; new guidelines for co-funding and outreach; new language for the RII solicitation; novel ideas for the design of program initiatives, such as the SBRC concept, around the theme of an EPSCoR Trajectory Toward Sustainable Science-based Success (i.e., EPSCoR TS^3); initial efforts to design more effective evaluation and communication processes, etc. These activities are driven by the need for the EPSCoR Office to display superb leadership through its actions, programs, and visions. The establishment and use of the previously noted EPSCoR Advisory Committee are deemed critical in the Office's desire for an EPSCoR culture that will be characterized both now and in the future by excellence, innovation, pride, and

success. In FY 2006, the EPSCoR Office plans to introduce the SBRC as a complementary program to the successful RII program and to reissue written guidelines for EPSCoR co-funding and outreach. In each case, we will continue to communicate our plans with the relevant internal and external audiences, and to listen to their input on these and other topics.

- **<u>Evaluation and Measurement</u> ["The COV recommends that the NSF in general and the NSF EPSCoR Program Office specifically increase their capacity to evaluate and measure outputs and outcomes. To initiate this function will require the EPSCoR Office to seek guidance from professionals skilled in the design and implementation of program/project evaluation."]:** The Office agrees strongly with the COV recommendation that EPSCoR enhance its capacity to evaluate outputs and outcomes and to use the metric-related data for Office planning and programmatic implementation and assessment. Whereas a foundational workshop on evaluation was held as part of the two-day EPSCoR Project Directors meeting at NSF in May 2005, during FY 2006 we intend to hold regional workshops to discuss different evaluation designs and corresponding data collection/analysis systems. To aid the Office in this overall evaluation design, development, and implementation area, we intend to issue a contract to a professional external evaluator. This evaluator will work closely with the leadership in the NSF EPSCoR Office and the new EPSCoR Evaluation Task Group. This latter Task Group will be composed of representatives from the EPSCoR jurisdictions and the NSF EPSCoR Office. In addition, we will assign one of the Office's Program Directors to oversee the evolution and use of this evaluation and measurement effort.

- **<u>Reviewer Ethnicity</u> ["NSF should encourage and facilitate the reporting and collection of reviewer ethnicity data."]:** As part of the NSF responsibility and commitment to increase diversity in all its activities, the EPSCoR Office will attempt to capture the gender and ethnicity of reviewers and PIs using procedures that comply with NSF policy. The Office will use these data to gauge and guide further progress in this important area. Broadening participation is one of the Office's objectives and such diversity data will be collected to establish baselines and measure progress.

- **<u>Focused Activities and Engaged EPSCoR Jurisdictions</u> [" EPSCoR jurisdictions should be encouraged and incentivized to develop more focused activities, and to engage their EPSCoR Committees more meaningfully."]:** The current leadership of the NSF EPSCoR Office subscribes to two fundamental concepts: 1) All EPSCoR activities must be driven by the quest for excellence because it is the required precursor to competitiveness and, 2) Unchanneled diversification does not normally contribute to the attainment of excellence. Therefore, greater programmatic focus has been a major part of the EPSCoR Office's strategy since July 2004. For example, one of the Office's new objectives is "to catalyze key research themes and related activities within EPSCoR jurisdictions …"; the revised RII solicitation (NSF 05-589) contains new narrative that encourages jurisdictional respondents to propose infrastructure improvements and activities around a central research theme with tightly focused research areas; and the anticipated SBRC activity will complement this more focused RII program by seeking S&E projects based on one theme with regional relevance and national importance. One of the products expected from this new level

of targeting is a renewed role for the jurisdictions' EPSCoR committees. Evidence that these critical committees have been actively engaged in the selection of the research theme and its integration with focused innovation and educational processes will be required in future RII/SBRC proposals.

- **<u>Planning Grants</u> ["The value and necessity of continuing the awarding of planning grants for new jurisdictional entrants should be reassessed."]:** We will follow the COV recommendation to reassess the value and necessity of planning grant opportunities for potential new jurisdictional entrants. Whereas EPSCoR is one of several NSF programs that employ planning grants, we still think there is value in a reassessment that concentrates on their general purpose, specific objectives, eligibility and award guidelines, and relation to other EPSCoR portfolio investments. The EPSCoR Office will perform this reassessment during the first quarter of FY-06 and our judgment on this specific type of EPSCoR planning grant will be reflected in the next RII/SBRC solicitation.