

**Staff Response to the  
Committee of Visitors (COV) Report**

**Innovative Technological Experiences for Students and Teachers  
(ITEST) Program**

**COV Meeting of September 18 & 19, 2008**

**PART A. INTEGRITY AND EFFICIENCY OF THE PROGRAM'S PROCESSES  
AND MANAGEMENT**

**A 1.1 COV Recommendation:**

- The COV recommends that the Program provide the minimum and maximum number of reviewers used per proposal used during a given ITEST competition rather than a range for the average review and score.
- COV recommends the use of a SITE VISIT template. The template could help ensure a common assessment and could include benchmarking of progress to milestones related to project management, financial adherence, and external oversight. Also, Program Officers should consider utilizing an ad hoc site visit team.
- COV recommends that the NSF re-instate optional preliminary proposals for first time applicants.

*Response:*

ITEST proposals require a minimum of three reviews, based on NSF merit review policy. Program Officers (POs) request at least four reviews to provide a margin of safety in the event of a conflict of interest or other contingency. In some instances, panelists elect to complete reviews for proposals that are not assigned, or the PO requests additional reviews based on the need for specialized expertise for particular proposals. In the future, this data will be provided to the COV.

A Site Visit template has been developed for DRL for the use of each program officer as site visits are made for ITEST and other DRL programs.

NSF has been seeking to increase efficiency of the review process, such as by dropping preliminary proposal panels. In the case of ITEST, POs provided additional support by conducting webinars and conference calls that reached approximately 300 individuals. A list of FAQs with responses was also utilized to address the most frequently asked questions. Also, Principal Investigators (PIs) are encouraged to contact POs with their ideas at preliminary stages. We are examining the program impact of eliminating the preliminary proposal requirement.

**A 1.2 COV Recommendation:**

The COV recommends that program officers, in their instructions to reviewers, emphasize the importance of including comments on the appropriateness and adequacy of (1) the proposed evaluation plan for determining the impact/ effectiveness of the proposed project and (2) the proposed dissemination strategies for informing various audiences of their results/lessons learned.

Response:

To address this issue, DRL is now requiring the inclusion of evaluators on all review panels.

**A 1.3 COV Recommendation:**

Program Officers should continue to stress to the reviewers the importance of making sure their ratings match their comments.

Response:

The program will continue to emphasize the importance of making sure that reviewer ratings match their comments. This point is stressed during pre-panel webinars, at the overall Panel Orientation meeting, and in the individual panel meeting with the reviewers. Occasionally, reviewers change their initial ratings during the panel discussion and fail to modify the review fully to reflect that change. POs are encouraged to read all reviews carefully prior to the close of the panel to address such situations.

**A 1.5 COV Recommendation:**

Make sure that any revision requests clearly document the rationale for the revised budgets.

Response:

POs will be reminded of the need to ensure that PIs submit the rationale along with the revised budgets and then provide adequate documentation in Review Analyses.

**A 1.8 COV Recommendation:**

The COV believe it necessary to re-emphasize the importance of the ITEST program officers reviewing with the panelists the concepts of Intellectual Merit and Broader Impacts and what the concepts encompass. This would help ensure reviews of high quality and would further enhance the effectiveness of feedback to the proposed PIs.

Response:

We will continue to reinforce the need for POs to review with the panelists the Intellectual Merit and Broader Impacts criteria to ensure that each proposal receives the highest quality reviews. The application of NSF merit review criteria is addressed in four forms for ITEST proposals: pre-panel webinars, the reviewer handbook, the panel orientation, and reminders during the panel [meeting](#) itself.

**A 2.2 COV Recommendation:**

COV strongly urges the ITEST program officers to address the following issues to ensure a better balance of reviewers with respect to institutional type and participation of members of groups underrepresented in STEM:

- Include more reviewers from community colleges and minority-serving institutions. (Minority caucuses within professional and scientific societies and the American Association for Community Colleges may be good sources for identifying such reviewers.)
- Make a special effort to include more reviewers with disabilities.
- Include more teachers from the K-12 level.

The COV recommends that the Program staff consider having the Learning Resource Center or some other organization conduct outreach activities designed specifically to reach community colleges and minority-serving institutions to ensure that faculty at these institutions are fully aware of the ITEST Program and the various options for support within the Program.

The Program should consider utilizing an online tool (e.g., a webinar) for assisting faculty in developing a better understanding of the characteristics and strengths of competitive ITEST proposals. The intent is to provide faculty with the knowledge they need to prepare proposals that are competitive, based on the merit of the ideas involved and on their ability to carry out the proposed project.

Response:

The program will increase its efforts to recruit more reviewers from HBCUs, other MSIs, and community colleges as panel members for proposal review and as potential new PIs. This will require more structured activities in addition to the outreach by individual program officers. The services of the Learning Resource Center will be considered in this effort. Web conferencing will continue to be used as a cost-effective mean to reach additional EPSCoR states, HBCUs, MSIs, and community colleges. Examples of webinars and presentations used to support ITEST outreach in FY 2008 included: HBCU-UP Program webinar (1/30/08) and presentations at the QEM MSP workshop for HBCUs (2/15/08) and the HRD PI meeting (6/18/08). More K-12 teachers were included as reviewers when the ITEST program funded the category of Comprehensive projects, which specifically involved teacher programs.

To expand the number of potential PIs, the program will work with HRD, EPSCoR, ATE, and others in the recruitment of additional reviewers from minorities and community colleges and those with disabilities. Consideration will also be given to providing technical assistance for individuals and institutions that may not have internal resources to produce competitive proposals. Over time, comments from POs and reviewers on how to strengthen program design, as well as dissemination of best practices, should also result in increased diversity of successful PIs.

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**A 2.4 COV Recommendation:**

The COV recommends that the program staff continue to monitor selection of reviewers and include more descriptive information on reviewer identification, particularly in the area of institutional affiliation (e.g., MSI, HBCU, race and ethnicity data, or type of organization). When available, this information should be included in reports to serve as an indicator of the program's progress in selecting a diverse group of reviewers.

Response:

Program staff will continue to monitor closely the selection of reviewers to ensure individual and institutional diversity. Because submission of reviewer data on race and gender is voluntary, this data is incomplete and unlikely to reflect the full extent of the diversity of the ITEST panels. In obtaining approval for panel reviewers from the Division Director, POs will continue to document those aspects of diversity that are readily identifiable, such as type of organization, area of expertise, new or experienced reviewer, and state.

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**A 3.4 COV Recommendation:**

COV recommends that a special longitudinal study be done on a representative sampling (e.g., urban, rural, and suburban) from among projects funded during the first year of ITEST program to seek evidence of impact, five years later.

Response:

The program will consider various ways to conduct longitudinal studies of ITEST impact. For example, the new ITEST solicitation (NSF 09-526) encourages Research Studies in this area. This recommendation will also be taken into account in the planning of the ITEST program evaluation.

**A 3.9 COV Recommendation:**

The COV recommends that a non-ITEST program officer be charged with the responsibility of following up (via a non-recorded telephone call) with the

proposed principal investigators of all declined proposals from minority-serving institutions and from community colleges to ascertain the likelihood that these individuals would re-submit to ITEST and, if not, why they would not do so.

The COV also recommends to NSF in general that a data collection method be constructed (survey or focus group) for use at national PI meetings for institutional and diversity programs to help determine whether community colleges and MSIs feel welcomed and encouraged to submit proposals to programs outside programs that target community colleges and MSIs.

Response

PO Comments will be used to encourage PIs whose proposals have been declined to contact their cognizant POs to seek additional feedback. POs will use that opportunity to encourage submission of revised proposals for the next round of competition when appropriate.

In addition to outreach, POs will be encouraged to use national meetings for diversity programs to obtain further feedback from PIs who have been declined. Larger scale data collection efforts also will be considered.

**A 3.11 COV Recommendation:**

Stronger outreach efforts are needed to improve the number and, apparently, the quality of proposals submitted by faculty at MSIs, given the abysmal success rate of proposals from MSIs during the three-year period under review.

Greater emphasis is needed on the importance of involving minority faculty, including minority women faculty in the proposal review process, so that they get a better understanding of what distinguishes successful ITEST proposals from those that do not get funded.

Response:

The program will further increase its efforts to try to increase the number of diverse PIs through such methods as described in A. 2.2. For example, the program will seek to encourage female faculty members from MSIs to serve as reviewers, helping them become more knowledgeable about the program, the review process, and the types of projects funded.

**A 3.13 COV Recommendation:**

The COV strongly urges an external review of the ITEST Program by a non-ITEST grantee to help understand how well this larger goal is being achieved. The COV recommends that achieving this larger vision becomes a greater priority as the ITEST program makes plans for the future.

Response:

A comprehensive evaluation of the ITEST program to be conducted by an external third party is currently being planned.

**A 4.1 COV Recommendation:**

The COV strongly recommends that one program officer be given primary responsibility for the Program to help ensure continued movement toward achieving the overall vision for ITEST.

Response:

The cross-divisional nature of the ITEST program makes it ideal for a management structure in which the co-leads consist of one PO from each Cluster. This structure encourages a broader perspective and greater participation across the Division.

**Deleted:** The primary responsibility for the ITEST program remains with one person, the DRL Division Director.

**PART B. RESULTS OF NSF INVESTMENTS**

**B.2 COV Recommendation:**

The COV encourages the ITEST Program Officers to identify ways to encourage submission of more projects with outcome goals in Discovery and Research Infrastructure.

Response:

The increased emphasis on Research Studies in the new solicitation will lead to more proposals whose outcome is Discovery. It is less likely that projects will be submitted in the category of Research Infrastructure.

**PART C. OTHER TOPICS**

**C.1 COV Recommendation:**

The COV identified the following as ways to improve the reach of the ITEST Program:

- Greater outreach to community colleges and minority-serving institutions
- Increased diversity among reviewers to include community college and K-12 faculty as well as more members of underrepresented minority groups, including minority women
- Greater attention to reaching states with significant African American and Hispanic populations

Response :

The program agrees with these suggestions and will utilize them and other outreach efforts previously identified to continue to broaden participation in the program.

**C. 2 COV Recommendation:**

An independent review is recommended of the effectiveness of the Learning Resource Center (LRC) as a major communication and dissemination strategy for ITEST. The annual LRC reports provide some insight into the activities being undertaken by the LRC; however, its overall impact is not clear. Therefore, the COV urges an independent evaluation of the effectiveness of the LRC.

Response:

A review of the Learning Resource Center (LRC) will take this consideration into account. The LRC has an external evaluator as part of the Cooperative Agreement and as part of the previous grant for Years 1-5. The LRC has undertaken considerable efforts to ensure that program dissemination occurs as indicated by publications, website, and coordination of conference presentations by projects. These issues will be examined in the external program evaluation.

**C. 3 COV Recommendation:**

The COV urges the Foundation to fund an external evaluation of the ITEST program, now that the Program has been in place for five years. ITEST is at a stage of development that it could benefit from an external evaluation to help determine Program impact and to identify other possible strategies that could lead to greater Program impact.

Response

This need has been discussed prior to the COV and plans are under way for the ITEST program evaluation.

**C. 4 COV Recommendation:**

To avoid the problem of carrying over large numbers of proposals from one fiscal year to the next, the Program should establish a deadline date that is at least six months prior to the end of NSF's fiscal year. Doing so, also could lead to increased access to co-funding from EPSCoR.

Response

The program has advanced the due date nearly two months in the current solicitation. The FY 09 full proposal deadline is now February 20 (compared to April 10 in FY 2008).