

CORE QUESTIONS and REPORT TEMPLATE
for
FY 2004 NSF COMMITTEE OF VISITOR (COV) REVIEWS

Guidance to NSF Staff: This document includes the FY 2004 set of Core Questions and the COV Report Template for use by NSF staff when preparing and conducting COVs during FY 2004. Specific guidance for NSF staff describing the COV review process is described in Subchapter 300-Committee of Visitors Reviews (NSF Manual 1, Section VIII) that can be obtained at <http://www.inside.nsf.gov/od/gpra/>.

NSF relies on the judgment of external experts to maintain high standards of program management, to provide advice for continuous improvement of NSF performance, and to ensure openness to the research and education community served by the Foundation. Committee of Visitor (COV) reviews provide NSF with external expert judgments in two areas: (1) assessments of the quality and integrity of program operations and program-level technical and managerial matters pertaining to proposal decisions; and (2) comments on how the outputs and outcomes generated by awardees have contributed to the attainment of NSF's mission and strategic outcome goals.

Many of the Core Questions are derived from NSF performance goals and apply to the portfolio of activities represented in the program(s) under review. The program(s) under review may include several subactivities as well as NSF-wide activities. The directorate or division may instruct the COV to provide answers addressing a cluster or group of programs – a portfolio of activities integrated as a whole – or to provide answers specific to the subactivities of the program, with the latter requiring more time but providing more detailed information.

The Division or Directorate may choose to add questions relevant to the activities under review. NSF staff should work with the COV members in advance of the meeting to provide them with the report template, organized background materials, and to identify questions/goals that apply to the program(s) under review.

Guidance to the COV: The COV report should provide a balanced assessment of NSF's performance in two primary areas: (A) the integrity and efficiency of the **processes** related to proposal review; and (B) the quality of the **results** of NSF's investments in the form of outputs and outcomes that appear over time. The COV also explores the relationships between award decisions and program/NSF-wide goals in order to determine the likelihood that the portfolio will lead to the desired results in the future. Discussions leading to answers for Part A of the Core Questions will require study of confidential material such as declined proposals and reviewer comments. *COV reports should not contain confidential material or specific information about declined proposals.* Discussions leading to answers for Part B of the Core Questions will involve study of non-confidential material such as results of NSF-funded projects. It is important to recognize that the reports generated by COVs are used in assessing agency progress in order to meet government-wide performance reporting requirements, and are made available to the public. Since material from COV reports is used in NSF performance reports, the COV report may be subject to an audit.

We encourage COV members to provide comments to NSF on how to improve in all areas, as well as suggestions for the COV process, format, and questions.

**FY 2004 REPORT TEMPLATE FOR
NSF COMMITTEES OF VISITORS (COVs)**

Date of COV May 20-21, 2004
Program/Cluster: Tribal Colleges and Universities Program
Division: Human Relations Development
Directorate: Education and Human Resources
Number of actions reviewed by COV^[1]: Awards: 10 Declinations: 7 Other: 0
Total number of actions within Program/Cluster/Division during period being reviewed by COV^[2]: 86 Awards: 54 Declinations: 30 Other: 2
Manner in which reviewed actions were selected:

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

Briefly discuss and provide comments for *each* relevant aspect of the program's review process and management. Comments should be based on a review of proposal actions (awards, declinations, and withdrawals) that were *completed within the past three fiscal years*. Provide comments for *each* program being reviewed and for those questions that are relevant to the program under review. Quantitative information may be required for some questions. Constructive comments noting areas in need of improvement are encouraged. Please do not take time to answer questions if they do not apply to the program.

A.1 Questions about the quality and effectiveness of the program's use of merit review procedures. Provide comments in the space below the question. Discuss areas of concern in the space provided.

QUALITY AND EFFECTIVENESS OF MERIT REVIEW PROCEDURES	YES, NO, DATA NOT AVAILABLE, or NOT APPLICABLE
<p>Is the review mechanism appropriate? (panels, ad hoc reviews, site visits) Comments:</p> <p>All original awards were reviewed by the panels. Supplementary awards were appropriately awarded by the NSF program officers.</p>	Yes
<p>Is the review process efficient and effective? Comments:</p>	Yes
<p>Are reviews consistent with priorities and criteria stated in the program's solicitations, announcements, and guidelines? Comments:</p>	Yes

<p>The COV was impressed with the alignment of the proposals and the TCUP RFP.</p>	
<p>Do the individual reviews (either mail or panel) provide sufficient information for the principal investigator(s) to understand the basis for the reviewer's recommendation? Comments: Many of the reviews were lengthy and detailed.</p>	<p>Yes</p>
<p>Do the panel summaries provide sufficient information for the principal investigator(s) to understand the basis for the panel recommendation? Comments: The 2001 and 2002 summaries were appropriate but the 2003 summaries were not included in the jacket.</p>	<p>Yes</p>
<p>Is the documentation for recommendations complete, and does the program officer provide sufficient information and justification for her/his recommendation? Comments: The COV found inconsistencies in the Review Analysis that summarized the panel's recommendations of a proposal which was declined. These inconsistencies could cause a problem if a proposed project requested a review of the decision.</p>	<p>No</p>
<p>Is the time to decision appropriate? Comments: In both 2001 and 2002, 100% the time to decision was excellent (100% in less than 6 months) In 2003 this decreased to 94%. The COV commends the NSF for this quick response.</p>	<p>Yes</p>
<p>Discuss issues identified by the COV concerning the quality and effectiveness of the program's use of merit review procedures: Overall the quality and effectiveness of the review process was excellent The COV found instances of clerical errors in either panel reviews or in the form 7. It is suggested that proof reading and the electronic reviews may address the kinds of errors in the future.</p>	

A.2 Questions concerning the implementation of the NSF Merit Review Criteria (intellectual merit and broader impacts) by reviewers and program officers. Provide comments in the space below the question. Discuss issues or concerns in the space provided.

IMPLEMENTATION OF NSF MERIT REVIEW CRITERIA	YES, NO, DATA NOT AVAILABLE, or NOT APPLICABLE
<p>Have the individual reviews (either mail or panel) addressed whether the proposal contributes to both merit review criteria? Comments:</p> <p>Every review had specific discussion on both merit review criteria.</p>	<p>Yes</p>
<p>Have the panel summary reviews addressed whether the proposal contributes to both merit review criteria? Comments:</p> <p>While the individual reviews addressed both merit review criteria, the COV found many panel summaries that addressed strengths and weaknesses without being specific about the review criteria. The criteria were embedded in the listing of the strengths and weaknesses.</p>	<p>Yes</p>
<p>Have the <i>review analyses</i> (Form 7s) addressed whether the proposal contributes to both merit review criteria? Comments:</p> <p>The review analyses appeared to address strengths and weaknesses without explicitly referring to the merit review criteria. The criteria were embedded in the listing of the strengths and weaknesses.</p>	<p>Yes</p>
<p>Discuss any issues or concerns the COV has identified with respect to NSF's merit review system.</p> <p>The COV had concerns about inconsistencies in explicitly addressing the merit review criteria but realize that these inconsistencies may be addressed now that the reviews and panel summaries are all completed electronically on a template.</p> <p>Another indication of the review process working was apparent in one of the projects which was declined in 2001 and funded in 2002 after addressing the concerns of the panel.</p>	

A.3 Questions concerning the selection of reviewers. Provide comments in the space below the question. Discuss areas of concern in the space provided.

SELECTION OF REVIEWERS	YES , NO, DATA NOT AVAILABLE, or NOT APPLICABLE
<p>Did the program make use of an adequate number of reviewers for a balanced review? Comments: Each panel had a sufficient number of reviewers.</p>	Yes
<p>Did the program make use of reviewers having appropriate expertise and/or qualifications? Comments: The COV noted that there was a deficiency in reviewers with mathematics expertise. In addition, there was a concern as to whether attention was paid to having panelist with experiences in technology.</p>	Yes
<p>Did the program make appropriate use of reviewers to reflect balance among characteristics such as geography, type of institution, and underrepresented groups? Comments: While there was an appropriate balance of reviewers from different regions and institutions, it was difficult to discern if panelists represented underrepresented groups. This could only be done by the personal knowledge that the COV had about some of the panelists.</p>	Unknown
<p>Did the program recognize and resolve conflicts of interest when appropriate? Comments: There were no conflicts of interest indicated in the jackets.</p>	Not applicable
<p>Discuss any concerns identified that are relevant to selection of reviewers.</p> <p>There needs to be a concerted effort to include individuals on the panels who have expertise in mathematics and technology. Experts in science were not lacking.</p> <p>Having panelists information related to region, institutions, and underrepresented groups would aid COVs in addressing this question accurately.</p>	



A.4 Questions concerning the resulting portfolio of awards under review. Provide comments in the space below the question. Discuss areas of concern in the space provided.

<p align="center">RESULTING PORTFOLIO OF AWARDS</p>	<p align="center">APPROPRIATE, NOT APPROPRIATE, OR DATA NOT AVAILABLE</p>
<p>Overall quality of the research and/or education projects supported by the program. Comments: The review process does a good job of selecting the most meritorious proposals.</p>	<p align="center">Appropriate</p>
<p>Are awards appropriate in size and duration for the scope of the projects? Comments: Planning vs implementation is appropriate as is the mechanism to fund annually after reviews.</p>	<p align="center">Appropriate</p>
<p>Does the program portfolio have an appropriate balance of: · High Risk Proposals? Comments: The COV considered one of the projects reviewed to be high risk. This was a technology focus and was considered high risk due to the high cost of the focus and the capability of having the technical expertise to carry out the project.</p>	<p align="center">Appropriate</p>
<p>Does the program portfolio have an appropriate balance of: · Multidisciplinary Proposals? Comments: Most TCUPs were attempting to use various approaches to enhance SMET education. None focused on just one discipline yet this appeared appropriate.</p>	<p align="center">Appropriate</p>
<p>Does the program portfolio have an appropriate balance of: · Innovative Proposals? Comments: One project of the funded proposals was considered to be innovative. This is the same project that was considered high risk. The COV felt that this was an appropriate percentage.</p>	<p align="center">Appropriate</p>
<p>Does the program portfolio have an appropriate balance of: · Funding for centers, groups and awards to individuals? Comments: The nature of the TCUPs is for colleges and universities only.</p>	<p align="center">Not-applicable</p>
<p>Does the program portfolio have an appropriate balance of: · Awards to new investigators? Comments:</p>	<p align="center">Appropriate</p>

<p>81% of the investigators were considered new with new defined by NSF as if the PI did not have an NSF award in the same or prior year. The COV investigated the PI History Report and determined the majority of the investigators had some prior NSF support.</p>	
<p>Does the program portfolio have an appropriate balance of:</p> <ul style="list-style-type: none"> Geographical distribution of Principal Investigators? <p>Comments:</p> <p>The COV was impressed with the geographical distribution of the awards. Awards were made to Hawaii (6/14), Alaska (4/11), the Southwest the Great Plains and the Great Lakes (20/34).</p>	<p>Appropriate</p>
<p>Does the program portfolio have an appropriate balance of:</p> <ul style="list-style-type: none"> Institutional types? <p>Comments:</p>	<p>Not applicable</p>
<p>Does the program portfolio have an appropriate balance of:</p> <ul style="list-style-type: none"> Projects that integrate research and education? <p>Comments:</p> <p>The projects are consistent with the intent of the program.</p>	<p>Appropriate</p>
<p>Does the program portfolio have an appropriate balance:</p> <ul style="list-style-type: none"> —Across disciplines and subdisciplines of the activity and of emerging opportunities? <p>Comments:</p> <p>The COV notes that life, biological or environmental sciences were underrepresented by the awarded projects.</p>	<p>Appropriate</p>
<p>Does the program portfolio have appropriate participation of underrepresented groups?</p> <p>Comments:</p> <p>Because of the nature of TCUP 100% of the projects are serving a high percentage of the underrepresented groups.</p>	<p>Appropriate</p>
<p>Is the program relevant to national priorities, agency mission, relevant fields and other customer needs? Include citations of relevant external reports.</p> <p>Comments:</p> <p>It appears that the TCUP was designed to fill a void not covered by other NSF programs targeted at minority and minority serving institutions that primarily serve African American and Hispanics.</p>	<p>Appropriate</p>
<p>Discuss any concerns identified that are relevant to the quality of the projects or the balance of the portfolio.</p> <p>The scope of the project is often more ambitious than the length or size of the awards. Three years may not be sufficient to accomplish the goals of some projects. Additional funding and renewal of support should be considered for projects showing good progress.</p>	



A.5 Management of the program under review. Please comment on:

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Management of the program.
Comments:
The merit review procedures were judged to be of high quality and effectiveness. The merit review criteria are being implemented. Selection of reviewer was very good and the result was for the most part found to be appropriate.

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Responsiveness of the program to emerging research and education trends.
Comments:
The program is highly responsive as it is addressing the needs of severely underserved populations.

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Program planning and prioritization process (internal and external) that guided the development of the portfolio under review.
Comments:
In the first three years of the program, 49% of the targeted colleges have been funded.

Discuss any concerns identified that are relevant to the management of the program.
The COV was concerned about the long range plans for TCUP and would like the NSF to consider the type of plan with various phases used in Louis Stokes Alliance for Minority Participation Program that allowed institutions to build on the experiences of funding and student success.

Since the K-12 system is no longer being supported by the RSIs, the NSF may also consider encouraging TCUP institutions to develop programs to address the STEM needs of K-12 students. The TCUP RFP could be expanded to include work with K-12 schools.

PART B. RESULTS : OUTPUTS AND OUTCOMES OF NSF INVESTMENTS

NSF investments produce results that appear over time. The answers to the first three (People, Ideas and Tools) questions in this section are to be based on the COV's study of award results, which are direct and indirect accomplishments of projects supported by the program. These projects may be currently active or closed out during the previous three fiscal years. The COV review may also include consideration of significant impacts and advances that have developed since the previous COV review and are demonstrably linked to NSF investments, regardless of when the investments were made. Incremental progress made on results reported in prior fiscal years may also be considered.

The following questions are developed using the NSF outcome goals in the NSF Strategic Plan. The COV should look carefully at and comment on (1) noteworthy achievements of the year based on NSF awards; (2) the ways in which funded projects have collectively affected progress toward NSF's mission and strategic outcomes; and (3) expectations for future performance based on the current set of awards. NSF asks the COV to provide comments on the degree to which past investments in research and education have contributed to NSF's progress towards its annual strategic outcome goals and to its mission:

- To promote the progress of science.
- To advance national health, prosperity, and welfare.
- To secure the national defense.
- And for other purposes.

Excellence in managing NSF underpins all of the agency's activities. For the response to the Outcome Goal for Organizational Excellence, the COV should comment, where appropriate, on NSF providing an agile, innovative organization. Critical indicators in this area include (1) operation of a credible, efficient merit review system; (2) utilizing and sustaining broad access to new and emerging technologies for business application; (3) developing a diverse, capable, motivated staff that operates with efficiency and integrity; and (4) developing and using performance assessment tools and measures to provide an environment of continuous improvement in NSF's intellectual investments as well as its management effectiveness.

B. Please provide comments on the activity as it relates to NSF's Strategic Outcome Goals. Provide examples of outcomes (nuggets) as appropriate. Examples should reference the NSF award number, the Principal Investigator(s) names, and their institutions.

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B.1 OUTCOME GOAL for PEOPLE: Developing "a diverse, competitive and globally engaged workforce of scientists, engineers, technologists and well-prepared citizens."

Comments:

Oglala Lakota College (0123149), PI John Haas

- Hired STEM teaching assistants to offer weekly lab session at three campuses
- Seventeen student participants are receiving TCUP financial support
- Developed a mentoring program for math and science students with mentors who are advanced students

Fort Peck Community College, #0233225, Deborah Wetsit

- Hired a curriculum coordinator to work with faculty on integrating instructional technology in their work. She worked extensively with faculty on creation of faculty portfolios and the establishment of guidelines for web pages, learning objectives and other electronic products at the college.
- Instituted an innovative testing and placement system that has dramatically increased the pass rate of first-year students

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B.2 OUTCOME GOAL for IDEAS: Enabling “discovery across the frontier of science and engineering, connected to learning, innovation, and service to society.”

Comments:

Oglala Lakota College (0123149), PI John Haas developed an integrated math, physics, chemistry course which will be taught by three math-science faculty and will be required for students entering all math and science courses.

Fort Peck Community College, #0233225, Deborah Wetsit provided internet connectivity to one campus and will soon have connections to another campus. “It is unlikely that the college would have internet access without the support of TCUP. Department of Defense funds provided partial funds.

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B.3 OUTCOME GOAL for TOOLS: Providing “broadly accessible, state-of-the-art S&E facilities, tools and other infrastructure that enable discovery, learning and innovation.”

Comments:

Oglala Lakota College , #0123149, PI John Haas developed a GIS lab which is used for teaching and research

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Fort Peck Community College, #0233225, Deborah Wetsit purchased and implemented the use of a wireless mobile computer lab which has been extensively used in workshops, automated math classes, and an environmental science class.

B.4 OUTCOME GOAL for ORGANIZATIONAL EXCELLENCE: Providing “an agile, innovative organization that fulfills its mission through leadership in state-of-the-art business practices.”

Comments:

PART C. OTHER TOPICS

C.1 Please comment on any program areas in need of improvement or gaps (if any) within program areas.

The COV discussed the possible shortcoming of long range planning for TCUP or recognition by the program that long-term support of these initiatives is essential for success.

C.2 Please provide comments as appropriate on the program's performance in meeting program-specific goals and objectives that are not covered by the above questions.

Preliminary findings indicate that the program is meeting its goals.

C.3 Please identify agency-wide issues that should be addressed by NSF to help improve the program's performance.

Addressing the gap left by the discontinuation of the RSI program that feeds TCUP.

C.4 Please provide comments on any other issues the COV feels are relevant.

This is a well conceived initiative which appears to be working well in its first three years. The COV suggests that experienced TCUPs mentor new TCUPs.

C.5 NSF would appreciate your comments on how to improve the COV review process, format and report template.

Develop COV review checklist for PD and staff to use as a guide in assembling materials to be reviewed. This could insure that adequate and correct documents are available upon arrival of the COV members.

SIGNATURE BLOCK:

For the [Replace with Name of COV]
[Name of Chair of COV]
Chair

[\[1\]](#) To be provided by NSF staff.

[\[2\]](#) To be provided by NSF staff.