

**CORE QUESTIONS and REPORT TEMPLATE**  
**for**  
**FY 2006 NSF COMMITTEE OF VISITOR (COV) REVIEWS**

**Guidance to NSF Staff:** This document includes the FY 2006 set of Core Questions and the COV Report Template for use by NSF staff when preparing and conducting COVs during FY 2006. 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 [www.inside.nsf.gov/od/oia/cov](http://www.inside.nsf.gov/od/oia/cov).

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 results 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 sub-activities 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 sub-activities 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 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. 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. For past COV reports, please see <http://www.nsf.gov/od/oia/activities/cov/covs.jsp>.*

**FY 2006 REPORT TEMPLATE FOR  
NSF COMMITTEES OF VISITORS (COVs)**

<b>Date of COV: May 22-23, 2006</b>
<b>Program/Cluster/Section: Research on Gender in Science and Engineering</b>
<b>Division: Human Resource Development</b>
<b>Directorate: Education and Human Resources Directorate</b>
<b>Number of actions reviewed: Awards: 16 Declinations: 9 Other:</b>
<b>Total number of actions within Program/Cluster/Division during period under review: Awards: 56 Declinations: 177 Other:</b>
<b>Manner in which reviewed actions were selected: Awards ending in 1, 4, and 7 up to 6 per year Declines ending in 1, 4, and 7 up to 3 per year</b>

**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.

**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.

<b>QUALITY AND EFFECTIVENESS OF MERIT REVIEW PROCEDURES</b>	<b>YES, NO, DATA NOT AVAILABLE, or NOT APPLICABLE<sup>1</sup></b>
1. Is the review mechanism appropriate? (panels, ad hoc reviews, site visits) Comments:	Yes

<sup>1</sup> If "Not Applicable" please explain why in the "Comments" section.

<p>The review process was appropriate. The panel noted that changes were made to reduce the by-mail reviews. Beginning with FY 2004, 97% of the proposals were reviewed by in-person panels.</p>	
<p>2. Is the review process efficient and effective? Comments:</p> <p>The process was efficient and effective. The Program Officer provided useful guidance to reviewers, and this facilitated the quality of the reviews.</p>	Yes
<p>3. 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: None</p>	Yes
<p>4. Do the panel summaries provide sufficient information for the principal investigator(s) to understand the basis for the panel recommendation? Comments: None</p>	Yes
<p>5. Is the documentation for recommendations complete, and does the program officer provide sufficient information and justification for her/his recommendation? Comments:</p> <p>The Program Officer provided concise explanations and sufficient information for her recommendations. Her analysis showed that extra efforts were made to ensure that projects were funded/co-funded by the most appropriate NSF programs.</p>	Yes
<p>6. Is the time-to-decision appropriate? Comments:</p> <p>The time-to-decision, ranging from 4.07 months for FY 2005 to 4.82 months for FY 2003, was appropriate. On average, less than 2% of the proposals (3 of 224) took longer than 12 months.</p>	Yes

7. Additional comments on the quality and effectiveness of the program's use of merit review procedures:

The Program Director facilitated the quality and effectiveness of the merit review process in an excellent manner. The panel activities were well organized and the documentation for the panel was meticulously prepared.

**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 <sup>2</sup>
1. Have the individual reviews (either mail or panel) addressed both merit review criteria? Comments: None	Yes
2. Have the panel summaries addressed both merit review criteria? Comments: None	Yes
3. Have the <i>review analyses</i> (Form 7s) addressed both merit review criteria? Comments: None	Yes
4. Additional comments with respect to implementation of NSF's merit review criteria:  The template provided to the panelists listed both these criteria as required components for review summaries. This was most helpful in ensuring that reviewers followed the NSF's merit review criteria.	

<sup>2</sup> In "Not Applicable" please explain why in the "Comments" section.

**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 <sup>3</sup>
<p>1. Did the program make use of an adequate number of reviewers?  Comments: None</p>	Yes
<p>2. Did the program make use of reviewers having appropriate expertise and/or qualifications?  Comments:    The reviewers represented appropriate expertise in an appropriate variety of relevant disciplinary areas.</p>	Yes
<p>3. Did the program make appropriate use of reviewers to reflect balance among characteristics such as geography, type of institution, and under-represented groups?<sup>4</sup>  Comments:    Given the limited number of reviewers each year, the reviewers represented an appropriate mix by geography, institutional type, and under-represented groups. However, the panel recommends that continued effort be made in recruiting reviewers from under-represented groups and states.</p>	Yes
<p>4. Did the program recognize and resolve conflicts of interest when appropriate?  Comments: None</p>	Yes

<sup>3</sup> If “Not Applicable” please explain why in the “Comments” section.

<sup>4</sup> Please note that less than 35 percent of reviewers report their demographics last fiscal year, so the data may be limited.

5. Additional comments on reviewer selection: None



**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"><b>RESULTING PORTFOLIO OF AWARDS</b></p>	<p align="center"><b>APPROPRIATE, NOT APPROPRIATE<sup>5</sup>, OR DATA NOT AVAILABLE</b></p>
<p>1. Overall quality of the research and/or education projects supported by the program. Comments:</p> <p>Based on the reviews and comments, the panel found evidence of quality in the research and education projects. The new Extension Service program has funded two projects so far, for more money and longer timeframes than other program elements. It will be important to monitor these projects for effectiveness and alignment with GSE program needs. GSE should consider a reverse site visit at mid-term for these Extension Service projects.</p>	<p>Yes</p>
<p>2. Are awards appropriate in size and duration for the scope of the projects? Comments:</p> <p>Award size and duration seemed to be appropriate. The review and negotiation processes probably contributed to this. The average duration for projects, across all GSE programs, was increasing while the median award amounts have decreased, which is probably indicative of the types of proposals funded.</p>	<p>Yes</p>
<p>3. Does the program portfolio have an appropriate balance of:</p> <ul style="list-style-type: none"> <li>• Innovative/high-risk projects?<sup>6</sup></li> </ul> <p>Comments:</p> <p>Since the balance has shifted to many more research grants and away from the demonstration grants, the “high risk” and innovative projects are now generally found in the research awards in the GSE portfolio.</p>	<p>Yes</p>

<sup>5</sup> If “Not Appropriate” please explain why in the “Comments” section.

<sup>6</sup> For examples and concepts of high risk and innovation, please see Appendix III, p. 66 of the Report of the Advisory Committee for GPRA Performance Assessment, available at <[www.nsf.gov/about/performance/acgpa/reports.jsp](http://www.nsf.gov/about/performance/acgpa/reports.jsp)>.

<p>This approach should continue. Many of the awarded research projects are innovative and seek to solve new problems in this field. The panel suggests that GSE continue to fund cutting edge research projects.</p>	
<p>4. Does the program portfolio have an appropriate balance of:</p> <ul style="list-style-type: none"> <li>• Multidisciplinary projects?</li> </ul> <p>Comments:</p> <p>The question is more relevant to the old demonstration projects and is not relevant to the currently funded projects. The funded research projects tended to focus on one discipline, but across the GSE portfolio there was representation by many disciplines. GSE should think about the value of multi-disciplinary projects in meeting its goals. Given the shift in focus, perhaps a new definition of inter-disciplinary projects is necessary.</p>	<p>Yes</p>
<p>5. Does the program portfolio have an appropriate balance of:</p> <ul style="list-style-type: none"> <li>• Funding for centers, groups and awards to individuals?</li> </ul> <p>Comments:</p> <p>Because of the RFP request for more collaboration, more groups of people were included in the projects that were funded in 2005. We commend collaborative proposals.</p>	<p>Yes</p>
<p>6. Does the program portfolio have an appropriate balance of:</p> <ul style="list-style-type: none"> <li>• Awards to new investigators?</li> </ul> <p>Comments:</p> <p>Of the sample of awards reviewed by the panel, 75% of the awards were made to experienced investigators and 25% were new investigators. This was 10% lower in new Principal Investigators than in the 2003 COV report. GSE should strive to bring in new Principal Investigators in order to “prime the pump” and replenish an aging cohort of gender equity leaders.</p>	<p>Yes</p>
<p>7. Does the program portfolio have an appropriate balance of:</p> <ul style="list-style-type: none"> <li>• Geographical distribution of Principal Investigators?</li> </ul> <p>Comments:</p> <p>There were 26 different states funded from 2003-2005, 9 in 2003, 12 states in 2004, and 15 in 2005. As expected two of the most populated</p>	<p>Yes</p>

<p>states received multiple grants. The 2003 COV report noted that some states with high minority populations (Alabama, Oklahoma, Mississippi, and South Carolina) did not have grants. Except for South Carolina, this remained true for this report as well.</p>	
<p>8. Does the program portfolio have an appropriate balance of:</p> <ul style="list-style-type: none"> <li>• Institutional types?</li> </ul> <p>Comments:</p> <p>The current RFP is not going to increase the number of applicants from community colleges and other comprehensive institutions (non-PhD granting institutions). If increasing the number of applicants from diverse institutions is important, then there is a need for a program in the GSE portfolio that responds to the strengths, capabilities, and interests of these institutions while ensuring that individuals from these institutions have time to do this work and are rewarded for doing it. Partnering and teaming may be effective ways of working with these institutions. This ties into the idea of building up a new cohort of college students that is going into STEM areas.</p>	<p>Yes</p>
<p>9. Does the program portfolio have an appropriate balance of:</p> <ul style="list-style-type: none"> <li>• Projects that integrate research and education?</li> </ul> <p>Comments:</p> <p>There seems to be a good balance (in terms of funding) with respect to the three areas of funding (research, dissemination, and extension service). By definition, all three areas focus on education—either educating the public on gender equity, or educating practitioners on best practices and on ways gender operates in educational settings.</p>	<p>Yes</p>
<p>10. Does the program portfolio have an appropriate balance:</p> <ul style="list-style-type: none"> <li>• Across disciplines and subdisciplines of the activity, and for emerging opportunities?</li> </ul> <p>Comments:</p> <p>The new research focus has spawned proposals from many different fields (Sociology, Education, Psychology, Engineering, etc.) indicating a good balance across the disciplines as well as for emerging opportunities.</p>	<p>Yes</p>
<p>11. Does the program portfolio have appropriate participation of under-represented groups?</p> <p>Comments:</p>	<p>Yes</p>

<p>Of the Principal Investigators, 81% are women and 13% are ethnic minorities. GSE should continue to strive to fund more projects with ethnic minority Principal Investigators.</p>	
<p>12. Is the program relevant to national priorities, agency mission, relevant fields and other customer needs? Include citations of relevant external reports. Comments:</p> <p>Yes, it is relevant to national priorities to develop a strong, diverse and scientifically and technically competent workforce. The work of GSE responds directly to the mission of NSF to close the gender gaps at many stages of the STEM educational continuum.</p>	<p>Yes</p>
<p>13. Additional comments on the quality of the projects or the balance of the portfolio: Additional comments?</p>	

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

<p>1. Management of the program. Comments:</p> <p>Overall, we were impressed with the management of the program. We liked the annual reports and insights of the Program Officer, since they showed cognizance of the problems that she anticipated, as well as her solutions. They also demonstrated that she has a strong grasp of the details of the entire program.</p>
<p>2. Responsiveness of the program to emerging research and education opportunities. Comments:</p> <p>The portfolio of research projects has grown substantially since the last COV report, and the number of research proposals is substantial. It is important at this point to implement a plan</p>

for evaluating the results of these projects, as well as organizing their results for dissemination. It is important that the results be available for other programs, within NSF (e.g., MSP, etc.).

3. Program planning and prioritization process (internal and external) that guided the development of the portfolio.

Comments:

The Program Officer is aware of the breakdown by various programs (Research, Dissemination, Extension Service) and is looking for direction as to how to increase the connection between these initiatives and boost the number of proposals in Dissemination.

4. Additional comments on program management: Since the funded projects have not diminished, the workload may be too much for one person. We suggest NSF consider supporting the program officer with a “rotator” position. This would allow bringing in people with special expertise, for example, a person who could assess the portfolio of research projects and “take stock” of that portfolio to inform GSE of future direction.

## **PART B. RESULTS OF NSF INVESTMENTS**

NSF investments produce results that appear over time. The answers to the first three questions (People, Ideas and Tools) 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.**

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

Comments:

Certainly the goal of GSE is to develop a diverse, competitive workforce and citizenry. We believe the program is making progress. It is particularly important that the program identify

specific barriers and then target effective interventions. However, the program is limited in size and therefore must target its investments wisely. The research has pointed out that there are critical “transition zones” where students are lost from STEM. The panel recommends that GSE focus its efforts on these “transition zones.”

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

Comments:

GSE research generates most of the ideas. However, we feel that to be effective GSE may need to target future efforts in pivotal areas such as policy and organizational culture. These may provide the greatest leverage for methods to change gender representation in STEM disciplines.

**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:

For GSE, the most appropriate tools and infrastructure may be readily accessible information about what works. GSE has done a commendable job in outreach and dissemination. By contracting with organizations such as LOW+ Associates and AAUW to develop *New Formulas* and *Under the Microscope*, GSE has been able to do more than its staffing level enables. Future activities, such as the grant to Wellesley College to develop media/press kits, represent a good strategy.

However, much of the outreach appears to be targeting of educators. The panel suggests that GSE consider whether the greatest leverage point for information dissemination and support would be policy makers, presidents, provosts, trustees, and other senior officials instead.

**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.”<sup>7</sup>**

Comments:

GSE has attempted to shift its focus to find the optimal program mix. This has resulted in some churn the last few years. However, it is important that GSE remain agile, filling in gaps and finding new opportunities to improve gender representation and retention.

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<sup>7</sup> For examples and further detail on the Organizational Excellence Goal, please refer to pp. 19-21 of NSF’s Strategic Plan, FY 2003-2008, at <[http://www.nsf.gov/publications/pub\\_summ.jsp?ods\\_key=nsf04201](http://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf04201)>.

However, for this agility to pay off, it must align with the target audiences. If GSE wants 2-year and 4-year institutions to participate in the programs, then the programs must align with areas where those 2-year and 4-year institutions have the skills, infrastructure and reward system to enable their success. For example, the fit between 2-year and comprehensive 4-year institutions and GSE research or extension service projects is unclear. Now that the demonstration projects have been phased out, there is little to attract these non-research institutions. It is not necessarily NSF's responsibility to design programs for everyone, however, careful thought must be given to the alignment of the audience and the program.



## **PART C. OTHER TOPICS**

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

The geographic distribution of awards is uneven. It is unclear whether the lack of geographic distribution is due to lack of submissions, poor quality submissions or the size of the program. The issues addressed by GSE are very broad and pervasive so NSF should continue to try to improve the geographic distribution of awards.

### **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.**

GSE is now funding projects in research and Extension Service. So that NSF's investments are optimized we encourage GSE to identify a mechanism to ensure that what is learned from one program is linked to activities in the others. For example, new research may add value to extension service projects. Feedback gained from extension projects may lead to important new research questions. Ensuring this exchange of information and insight is particularly important for smaller programs so that the leverage of dollars is maximized.

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

- The awareness of specific programs is not optimal, judged by the number and geographic distribution of proposals. This is true of many NSF programs, not just GSE.
- In addition, new PI's ability to write competitive proposals appears to need assistance. There are certain programs/investigators that are consistently funded by NSF. These may be the programs with the greatest experience, with the best success record and with proposals demonstrating the greatest merit. It seems that there is an important role for these individuals and programs in bringing along new PI's. The COV suggests NSF think about engaging these well-established programs in mentoring of new PI's, to bring new talent into the field. This is particularly important for programs such as GSE, where the challenges of gender representation are widespread. GSE has improved the number of new PI's in this last cycle. GSE is to be commended for this. Perhaps a "mentoring" program of experienced PI's with new PIs would further improve this record.
- In a similar vein, NSF should consider when and how to encourage partnerships among institutions. For example, partnerships between large research universities and HBCU's, Hispanic serving institutions, community colleges, etc., may further diversify the pool of PI's, as well as the diversity of proposals.

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

- The COV is concerned that the current staffing for GSE is insufficient. The COV recommends that in addition to the Program Officer, there be an IPA, and staff support. The fact that this is the only HRD program with only a Program Officer not only puts undue pressure on the program officer, but sends a signal that the program isn't equal to others in HRD. In addition, it makes it virtually impossible for the Program Officer to do the kind of outreach that is necessary to ensure the program's

full success and quality. In addition, a new Program Officer probably needs more support than someone who has been in the position for a number of years. There should also be at least one or two staff support positions. At a minimum, we believe the vacant Science Assistant position must be replaced.

- Traditional patterns and assumptions should be continually re-evaluated. For example, the assumption that all women in the sciences are seeking a PhD may not be correct. Society needs women in the sciences at all levels. To break out of traditional assumptions, it will be important for GSE to maintain a strong “customer focus” and feedback loop, listening to women, particularly to under-represented groups (e.g., Latinas). Also, as the nature of faculty work changes, and faculty demand a more family-friendly climate, preferences may shift. NSF must stay in touch with its target audience, and modify the programs based on emerging trends among women.
- The COV notes that a specific focus on gender issues within (or among) ethnic groups is not obvious. The COV believes that gender issues are different among different ethnic groups. For NSF’s focus on gender issues to be representative of today’s population, and to be useful in catalyzing change, ethnic differences should be considered.
- GSE has a history of modifying and refining its programs. This is laudable. The COV believes that GSE should consider concentrating its dollars on critical leverage points.

With limited dollars, what is the most appropriate point for intervention? GSE should look at the problem of gender representation holistically. NSF has done a good job of addressing gender issues at middle school level, for example. However, the graduate level (MS, PhD) is another major “transition zone” where women are lost from STEM disciplines. If there are no women in academic faculty positions or leadership positions in higher education institutions, we will continue to project the image that serious science isn’t for women. Critical transition zones should be a priority focus for NSF and GSE. Transition zones may be broader than just gender issues. For example, what are the issues around faculty life (for males and females) that lead to people disengaging from the profession and the academy?

NSF/GSE must also ask itself what it can do that no one else can. There are now three types of programs: research, dissemination and extension service. Clearly NSF is a premier research organization. The extension service essentially engages in applied research and outreach, which is fundamentally informed by research. It is unclear whether those who seek support from NSF are in the best position to bring about dissemination. The COV discussed whether the dissemination projects are the best use of NSF dollars. One challenge is that the grants are relatively small, and for only two years. That creates significant overhead for any organization that wants to compete for—and keep—a dissemination grant.

We are also cognizant that dissemination is a required part of research projects, albeit of a different kind. It may be more effective for the extension service category

to be modified, allowing for the creation of multi-year “dissemination” grants. The COV feels that simply creating awareness (i.e., dissemination) is not enough. Follow up is required, and repeated exposure. The ultimate goal is to stimulate change. Change requires more than awareness—and it requires time. The COV suggest GSE consider folding the dissemination grants into the extension service category, creating mega-grants (such as the National Academy of Engineering program) and smaller, multi-year grants.

The COV believes that there are at least three critical leverage points for GSE.

- Target the right ages and transition points. Middle school has been a focus. The COV believes that both the transition into college, and from the MS to PhD, are areas that need attention.
  - Target the right people for dissemination. It appears that much of the focus is on “talking to people in the academy.” While this is necessary, it is not sufficient. It will be critical for GSE programs to target senior leaders, e.g., policy makers, presidential associations, trustees and legislators.
  - Policies such as family leave should be a focus, as well. The challenges of gender representation go beyond cognitive differences, and beyond awareness. Policies and organizational issues may present persistent barriers. GSE programs should look at these issues, as well, since they may have very broad impact.
- NSF and GSE should focus not just on bringing more girls and women into science, technology, math and engineering fields, but also on retaining them.
  - The COV suggests that GSE give thought to how to evaluate and promote the program. For GSE, it is not as simple as counting individuals who are touched by a program or the number of articles published. It may be necessary to engage an evaluator in the process. An option may be to consider the conversion of research into actionable items. Once an evaluation strategy is determined, it should be included in program solicitations so that applicants know the metrics that will be applied. The metrics should be applied consistently across awards.
  - At the current level of funding, the COV is concerned that the extension service category will dominate the other programs in a few years. GSE should closely monitor the effectiveness of the extension grants, because there are so few and they account for such a large proportion of the budget.

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

- If you include charts and pie charts in black and white, we’ll need a table or some other tool so reviewers can sort out the shades of grey. In black and white they seem illegible.
- Please number the pages! It is very difficult to find information in a 3-inch binder with no page numbers, especially when working together and trying to refer each other to specific material.

- Test the functionality of the laptops before review begins, such as: internet access, shared folder access on each machine, floppy drives, printer and that the panel knows which is the 'lead' computer.

**SIGNATURE BLOCK:**

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

**MEMORANDUM**

**DATE:** December 31, 2006

**TO:** Bernice Anderson, Senior Program Director for Evaluation  
Directorate for Education and Human Resources

**FROM:** Jolene Kay Jesse, Program Director  
Research on Gender in Science and Engineering Program (EHR/HRD)

**SUBJECT:** COV for Research on Gender in Science and Engineering (GSE)  
COI and Diversity Memo

The Committee of Visitors report for the GSE Program was approved at the EHR Advisory Committee meeting held at NSF on November 1, 2006. The COV consisted of five members selected for their expertise related to the goals of the program. They provided a balance with respect to the type of institutions supported through the program, gender, and representation from underrepresented groups. The following table shows the main features of the COV's diversity.

<b>Category of COV Membership</b>	<b>No. of COV Members in Category</b>
Member of EHR Advisory Committee.....	.....1.....
Institution Type:	
<input type="checkbox"/> University.....	.....2.....
<input type="checkbox"/> Four-year College.....	.....1.....
<input type="checkbox"/> Two-year College.....	.....
<input type="checkbox"/> K-12 School or LEA.....	.....
<input type="checkbox"/> Industry.....	.....
<input type="checkbox"/> Federal Agency.....	.....
<input type="checkbox"/> Non-profit Organization .....	.....1.....
<input type="checkbox"/> Consultant .....	.....1.....
Location	
<input type="checkbox"/> East.....	.....
<input type="checkbox"/> Midwest/North .....	.....1.....
<input type="checkbox"/> West.....	.....3.....
<input type="checkbox"/> South.....	.....1.....
Gender	
<input type="checkbox"/> Female.....	.....4.....
<input type="checkbox"/> Male.....	.....1.....
Race/Ethnicity	
<input type="checkbox"/> White.....	.....3.....
<input type="checkbox"/> Black.....	.....
<input type="checkbox"/> Hispanic.....	.....2.....
<input type="checkbox"/> Asian.....	.....
<input type="checkbox"/> Pacific Islander.....	.....

The COV was briefed on Conflict of Interest issues and each COV member completed a COI form. COV members had no conflicts with any of the proposals or files.