

SBE Office of Multidisciplinary Activities
SBE Directorate Response to the 2011 COV Report

Foreword

A Committee of Visitors (COV) convened on December 15-16, 2011 at the National Science Foundation to review the three programs in the SBE Office of Multidisciplinary Activities (SMA): Science of Science and Innovation Policy (SciSIP); the Research Experiences for Undergraduates (REU) Sites; and, the SBE Minority Postdoctoral Research Fellowship (MPRF) program. This was, in essence, SMA's inaugural COV as previous SBE COVs took place before SMA was formally created. The Office of Multidisciplinary Activities is extremely grateful for the input provided by the Committee of Visitors, and especially for the leadership of Dr. Fred Gault in chairing this process. The COV report was received on December 20, 2011.

The COV was comprised of eight members of the external community and one member of the Social, Behavioral and Economic Sciences Advisory Committee, who served as the COV Chair. The COV met in plenary and in program-focused sessions at different times of the meeting. Also attending were the current SMA Program Officers who joined the COV for selected portions of the meeting. SBE Assistant Director Myron Gutmann and SBE Deputy Assistant Director Joanne Tornow addressed the COV to brief the members on selected issues including the Government Performance and Results Act, the Directorate and Divisional structure, and conflicts of interest.

Introduction

The Committee of Visitors (COV) for the SBE Office of Multidisciplinary Activities (SMA) met to review and provide its expert judgment on SMA's programmatic portfolio, focusing on two areas: 1) Assessment of the quality and integrity of SMA's 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.

Summary of COV findings in Process and Management

Regarding the quality, effectiveness and management of SMA's merit review process, the COV responded positively to all but one of the COV questions. With respect to the quality and effectiveness of SMA's use of merit review procedures, the COV found that: both merit review criteria were addressed, panel summaries generally provided the rationale for panel consensus, and the documentation in the jacket provided the rationale for the award/decline decision. The COV commended "the diversity of academic disciplines and strength of panelists in all three programs" and "the program officers on their efforts to seek reviewers and to broaden the pool while working under tight time constraints". However, the COV expressed concern with the adequacy of the substantive comments provided by individual reviewers.

COV Process and Management Recommendations and Management Response

The COV made a number of recommendations in the merit review area:

- “more information be provided, especially to applicants with declined proposals” *We are grateful to the COV in providing this evaluation and are working to improve the amount of feedback provided to proposers.*
- “reviewers be given training...on grading of proposals” *The issue of consistency in reviewers’ use of the proposal rating scale is a topic of ongoing discussion within NSF and SBE is involved in these discussions.*
- “NSF examine other models” of merit review such as those at DARPA and NIH. *Other models of merit review are being considered by an NSF-wide Working Group on the Merit Review Process. In improving its merit review processes, SBE will take into consideration the recommendations put forward in the Working Group’s reports and those of the COV.*

With respect to the management of SMA’s programs, the COV found that: the programs were “performing well with limited resources”, and have been responsive to emerging opportunities. The COV commended “efforts to find panelists”, “outreach activities”, “the impact of the SciSIP program”, and the “use of social media, across all programs, for communicating with the community”, but expressed concern “about the vulnerability of the programs” to disruptions during changes in leadership. The COV recommended that:

- “management of the SBE Directorate review the place of multidisciplinary programs in the Directorate and provide them with a core mission, institutional visibility, and support.” *SBE is taking this recommendation under advisement and exploring alternatives to provide greater support for SMA activities.*
- “consideration be given to having two submissions a year rather than one” *An NSF-wide Working Group on the Merit Review Process is exploring the impact of the number of submissions per year on workload, proposal pressure, and review quality. SBE will be informed by these findings and by the recommendations of the COV in considering changes to submission timing.*
- The COV expressed concern about the limitations imposed on programs for broadening participation including the Minority Postdoctoral Research Fellowship and the REU Sites program. It noted that postdoctoral applications cannot be restricted to members of minorities and that REU Site “participants are not required to report ethnicity.” *SBE notes that reporting restrictions are dictated by privacy and policy issues, which are not unique to these programs. Nonetheless, SBE and NSF are committed to increasing diversity and continue to address this goal through outreach efforts focused on effective avenues to increase the participation of underrepresented groups.*

Summary of COV Findings in the Portfolio of Awards

Concerning the portfolio of awards made by the three programs included in SMA, the COV noted several strengths. The COV noted SciSIP’s impact and strengths in supporting database creation, meaningful policy evaluation, and efforts to build a community among a diverse set of academics in policy-oriented research. MPRF and REU were noted for “geographical and institutional diversity” and MPRF was noted for supporting “persons with

disabilities”.

COV Portfolio of Awards Recommendations and Management Response

The COV made a number of recommendations for balancing demographic and disciplinary diversity of the Portfolio of Awards for each program:

- All three programs should strive for more demographic diversity in PIs with males and Hispanic Latinos underrepresented in MPRF. *SMA is working to strengthen its outreach activities to these groups.*
- In SciSIP, political science, sociology, anthropology and history are underrepresented. In MPRF, political science and economics are underrepresented and psychology is over-represented. In the REU Sites program, social science topics are over-represented. *SBE appreciates and shares the COV's interest in developing diverse award portfolios. We would note that, in the context of the number of Ph.D.'s granted in SBE fields, the prevalence of psychology in the MPRF portfolio is not unexpected. We would also note that for some fields, taking a postdoctoral research position is unusual, and so these fields will be under-represented in the MPRF portfolio, potentially exaggerating the prevalence of psychology postdoctoral fellows. Within this context, SBE continues to expand outreach activities across the full range of SBE sciences, to ensure as diverse a portfolio as possible in all of these programs.*
- “international co-operation with developed and developing countries [should] be strengthened”. *SBE is continuing to expand its activities in these areas.*

Summary of COV Comments on Other Topics

The COV provided recommendations on two additional topics:

- Promote collaboration across different types of colleges and universities. *SBE is taking this recommendation under advisement and considering outreach efforts to expand these activities.*
- “consider making use of foreign reviewers for the MPRF”. *SBE is considering mechanisms to allow increased involvement of non-U.S. reviewers for this program.*

The COV expressed concern about the difficulty of reviewing SMA as a whole when it consists of multiple distinct programs and made additional specific recommendations.

- The jacket sampling process and self-study tables combined results across programs and the report template requires a summary assessment in a single report. The COV would prefer that this information be presented separated by program with each assessed separately. *SBE is taking this recommendation under advisement and considering evaluating MPRF and REU Sites as part of the relevant programs' portfolios.*

- Inadequate information is available for evaluating reviewers' appropriateness. *SBE is taking this recommendation under advisement and considering rewording this question.*
- Additional information about codes indicating minority or handicapped codes, international awards, and diversity in the number of application reviewers would be beneficial. *SBE is taking this recommendation under advisement and will provide additional information for future COVs.*
- "The timing of the COV should not coincide with critical points in the academic term." *SBE will strive to improve COV scheduling.*

Conclusion

In summary, in addition to areas where SMA was praised for its activities, there were essentially three areas of major concern and opportunity for future development:

- The merit review process is working well, but could be strengthened to provide more information and better balance the workload.
- Each of the three programs could better balance demographic and disciplinary representation in its portfolio of awards.
- Programs and program officers are performing well with very limited resources.

All three of these areas will receive major attention in the coming years. This was an insightful COV report that provided a validation for many of the ideas and approaches being explored by NSF and, at the same time, highlighted many of the challenges remaining. NSF management is indebted to the members of the COV for their comprehensive and substantive inputs and recommendations.