##### CORE QUESTIONS and REPORT TEMPLATE

##### for

##### FY 2019 NSF COMMITTEE OF VISITOR (COV) REVIEWS

**Guidance to NSF Staff:** This document includes the FY 2019 set of Core Questions and the COV Report Template for use by NSF staff when preparing and conducting COVs during FY 2019. Specific guidance for NSF staff describing the COV review process is described in the “COV Reviews” section of NSF’s Administrative Policies and Procedures which can be obtained at <https://inside.nsf.gov/tools/toolsdocuments/Inside%20NSF%20Documents/COV%20Policy%20and%20Procedures%20070915.pdf> [[1]](#footnote-1).

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. COV reviews provide NSF with external expert judgments in two areas: (1) assessments of the quality and integrity of program operations; and (2) program-level technical and managerial matters pertaining to proposal decisions.

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 add questions relevant to the activities under review. Copies of the report template and the charge to the COV should be provided to OIA prior to forwarding to the COV. In order to provide COV members adequate time to read and consider the COV materials, including proposal jackets, COV members should be given access to the materials in the eJacket COV module approximately four weeks before the scheduled face-to-face meeting of the COV members. Before providing access to jackets, the Conflict of Interest and Confidentiality briefing for COV members should be conducted by webinar, during which, NSF staff should also summarize the scope of the program(s) under review and answer COV questions about the template.

Suggested sources of information for COVs to consider are provided for each item. As indicated, a resource for NSF staff preparing data for COVs is the Enterprise Information System (EIS) –Web COV module, which can be accessed by NSF staff only at http://budg-eis-01/eisportal/default.aspx. In addition, NSF staff preparing for the COV should consider other sources of information, as appropriate for the programs under review.

For programs using section IV (addressing portfolio balance), the program should provide the COV with a statement of the program’s portfolio goals and ask specific questions about the program under review. Some suggestions regarding portfolio dimensions are given on the template. These suggestions will not be appropriate for all programs.

**Guidance to the COV:** The COV report should provide a balanced assessment of NSF’s performance in the integrity and efficiency of the ***processes*** related to proposal review. Discussions leading to answers 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.*** The reports generated by COVs are made available to the public.

*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/*](http://www.nsf.gov/od/oia/activities/cov/)*.*

**FY 2019 REPORT TEMPLATE FOR**

##### NSF COMMITTEES OF VISITORS (COVs)

The table below should be completed by program staff.

|  |
| --- |
| Date of COV: |
| **Program/Cluster/Section:** |
| **Division:** |
| **Directorate:** |
| **Number of actions reviewed:**  **Awards:**  **Declinations:**  **Other:** |
| **Total number of actions within Program/Cluster/Division during period under review:**  **Awards:**  **Declinations:**  **Other:** |
| **Manner in which reviewed actions were selected:** |

**COV Membership**

|  |  |  |
| --- | --- | --- |
|  | Name | Affiliation |
| **COV Chair or**  **Co-Chairs:** |  |  |
| **COV Members:** |  |  |

**MERIT REVIEW CRITERIA**

An understanding of NSF’s merit review criteria is important in order to answer some of the questions on the template. Reproduced below is the information provided to proposers in the Grant Proposal Guide about the merit review criteria and the principles associated with them. Also included is a description of some examples of broader impacts, provided by the National Science Board

**1. Merit Review Principles**

These principles are to be given due diligence by PIs and organizations when preparing proposals and managing projects, by reviewers when reading and evaluating proposals, and by NSF program staff when determining whether or not to recommend proposals for funding and while overseeing awards. Given that NSF is the primary federal agency charged with nurturing and supporting excellence in basic research and education, the following three principles apply:

* All NSF projects should be of the highest quality and have the potential to advance, if not transform, the frontiers of knowledge.
* NSF projects, in the aggregate, should contribute more broadly to achieving societal goals. These broader impacts may be accomplished through the research itself, through activities that are directly related to specific research projects, or through activities that are supported by, but are complementary to, the project. The project activities may be based on previously established and/or innovative methods and approaches, but in either case must be well justified.
* Meaningful assessment and evaluation of NSF funded projects should be based on appropriate metrics, keeping in mind the likely correlation between the effect of broader impacts and the resources provided to implement projects. If the size of the activity is limited, evaluation of that activity in isolation is not likely to be meaningful. Thus, assessing the effectiveness of these activities may best be done at a higher, more aggregated, level than the individual project.

With respect to the third principle, even if assessment of Broader Impacts outcomes for particular projects is done at an aggregated level, PIs are expected to be accountable for carrying out the activities described in the funded project. Thus, individual projects should include clearly stated goals, specific descriptions of the activities that the PI intends to do, and a plan in place to document the outputs of those activities. These three merit review principles provide the basis for the merit review criteria, as well as a context within which the users of the criteria can better understand their intent.

**2. Merit Review Criteria**

All NSF proposals are evaluated through use of two National Science Board approved merit review criteria. In some instances, however, NSF will employ additional criteria as required to highlight the specific objectives of certain programs and activities.

The two merit review criteria are listed below. Both criteria are to be given full consideration during the review and decision-making processes; each criterion is necessary but neither, by itself, is sufficient. Therefore, proposers must fully address both criteria. ([PAPPG Chapter II.C.2.d.(i)](http://www.nsf.gov/pubs/policydocs/pappg18_1/pappg_2.jsp#IIC2di) contains additional information for use by proposers in development of the Project Description section of the proposal.) Reviewers are strongly encouraged to review the criteria, including [PAPPG Chapter II.C.2.d.(i)](http://www.nsf.gov/pubs/policydocs/pappg18_1/pappg_2.jsp#IIC2di), prior to the review of a proposal.

When evaluating NSF proposals, reviewers will be asked to consider what the proposers want to do, why they want to do it, how they plan to do it, how they will know if they succeed, and what benefits could accrue if the project is successful. These issues apply both to the technical aspects of the proposal and the way in which the project may make broader contributions. To that end, reviewers will be asked to evaluate all proposals against two criteria:

* **Intellectual Merit**: The Intellectual Merit criterion encompasses the potential to advance knowledge; and

* **Broader Impacts**: The Broader Impacts criterion encompasses the potential to benefit society and contribute to the achievement of specific, desired societal outcomes.

The following elements should be considered in the review for both criteria:

1. What is the potential for the proposed activity to:
   1. Advance knowledge and understanding within its own field or across different fields (Intellectual Merit); and
   2. Benefit society or advance desired societal outcomes (Broader Impacts)?
2. To what extent do the proposed activities suggest and explore creative, original, or potentially transformative concepts?
3. Is the plan for carrying out the proposed activities well-reasoned, well-organized, and based on a sound rationale? Does the plan incorporate a mechanism to assess success?
4. How well qualified is the individual, team, or organization to conduct the proposed activities?
5. Are there adequate resources available to the PI (either at the home organization or through collaborations) to carry out the proposed activities?

**3. Examples of Broader Impacts**

The National Science Board described some examples of broader impacts of research, beyond the intrinsic importance of advancing knowledge.[[2]](#footnote-2) “These outcomes include (but are not limited to) increased participation of women, persons with disabilities, and underrepresented minorities in science, technology, engineering, and mathematics (STEM); improved STEM education at all levels; increased public scientific literacy and public engagement with science and technology; improved well-being of individuals in society; development of a globally competitive STEM workforce; increased partnerships between academia, industry, and others; increased national security; increased economic competitiveness of the United States; and enhanced infrastructure for research and education. These examples of societally relevant outcomes should not be considered either comprehensive or prescriptive. Investigators may include appropriate outcomes not covered by these examples.”

**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, returns without review, and withdrawals) that were *completed within the past four fiscal years*. Provide comments for *each* program being reviewed and for those questions that are relevant to the program(s) under review. Quantitative information may be required for some questions. Constructive comments noting areas in need of improvement are encouraged.

I. Questions about the quality and effectiveness of the program’s use of merit review process. Please answer the following questions about the effectiveness of the merit review process and provide comments or concerns in the space below the question.

|  |  |
| --- | --- |
| **QUALITY AND EFFECTIVENESS OF MERIT REVIEW PROCESS** | **YES, NO,**  **DATA NOT AVAILABLE, or**  **NOT APPLICABLE** |
| 1. Are the review methods (for example, panel, ad hoc, site visits) appropriate?  Comments:  **Data Source: EIS/Type of Review Module, Program Data slide 8 and 14** |  |
| 1. Are both merit review criteria addressed 2. In individual reviews? 3. In panel summaries? 4. In Program Officer review analyses?   Comments:  **Data Source: Jackets** |  |

|  |  |
| --- | --- |
| 3. Do the individual reviewers giving written reviews provide substantive comments to explain their assessment of the proposals?  Comments:  **Data Source: Jackets** |  |
| 4. Do the panel summaries provide the rationale for the panel consensus (or reasons consensus was not reached)?  Comments:  **Data Source: Jackets** |  |
| 5. Does the documentation in the jacket provide the rationale for the award/decline decision?  [Note: Documentation in the jacket usually includes a context statement, individual reviews, panel summary (if applicable), site visit reports (if applicable), program officer review analysis, and staff diary notes.]  Comments:  **Data Source: Jackets** |  |

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| 6. Does the documentation to the PI provide the rationale for the award/decline decision?  [Note: Documentation to PI usually includes context statement, individual reviews, panel summary (if applicable), site visit reports (if applicable), and, if not otherwise provided in the panel summary, an explanation from the program officer (written in the PO Comments field or emailed with a copy in the jacket, or telephoned with a diary note in the jacket) of the basis for a declination.]  Comments:  **Data Source: Jackets** |  |
| 7. Additional comments on the quality and effectiveness of the program’s use of merit review process: |  |

II. Questions concerning the selection of reviewers. Please answer the following questions about the selection of reviewers and provide comments or concerns in the space below the question.

|  |  |
| --- | --- |
| Selection of Reviewers | YES, NO,  DATA NOT AVAILABLE,  or NOT APPLICABLE |
| 1. Did the program make use of reviewers having appropriate expertise and/or qualifications?  Comments:  **Data Source: Jackets** |  |
| 2. Did the program recognize and resolve conflicts of interest when appropriate?  Comments:  **Data Source: Jackets** |  |
| 3. Additional comments on reviewer selection: |  |

III. Questions concerning the management of the program under review. Please comment on the following:

|  |
| --- |
| MANAGEMENT OF THE PROGRAM UNDER REVIEW |
| 1. Management of the program.  Comments: |
| 2. Responsiveness of the program to emerging research and education opportunities.  Comments: |
| 3. Program planning and prioritization process (internal and external) that guided the development of the portfolio.  Comments: |
| 4. Responsiveness of program to previous COV comments and recommendations.  Comments: |

IV. Questions about Portfolio. Please answer the following about the portfolio of awards made by the program under review.

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| --- | --- |
| **RESULTING PORTFOLIO OF AWARDS** | **APPROPRIATE,**  **NOT APPROPRIATE,**  **OR DATA NOT AVAILABLE** |
| 1. Are awards appropriate in size and duration for the scope of the projects?  Comments:  **Data Source: EIS/Committee of Visitors Module. From the Report View drop-down, select Average Award Size and Duration.**  **Program Data slide 6 and 12** |  |
| 2. Please comment on the level of risk in projects supported in the program portfolio and whether awards are innovative or potentially transformative.  Comments:  **Data Source: Jackets** |  |
| 3. Does the program portfolio have an appropriate geographical distribution of Principal Investigators and different types of institutions?  Comments:  **Data Source: EIS/Committee of Visitors Module. Select Proposals by State from the Report View drop-down. Select Proposals by Institution Type from the Report View drop-down. Also, the Obligations by Institution Type will provide information on the funding to institutions by type.**  **Program Data slide 7** |  |

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| --- | --- |
| 4. Does the program portfolio have an appropriate balance of awards to new and early-career investigators?  NOTE: A new investigator is an individual who has not served as the PI or Co-PI on any award from NSF (with the exception of doctoral dissertation awards, graduate or post-doctoral fellowships, research planning grants, or conferences, symposia and workshop grants.) An early-career investigator is defined as someone within seven years of receiving his or her last degree at the time of the award.  Comments:  **Data Source: EIS/Committee of Visitors Module. Select Funding Rate from the Report View drop-down. After this report is run, use the Category Filter button to select New PI for the PI Status filter or New Involvement (PIs & coPIs) = Yes.** |  |
| 5. Does the program portfolio have appropriate participation of underrepresented groups[[3]](#footnote-3)?  Comments:  **Data Source: EIS/Committee of Visitors Module. Select Funding Rate from the Report View drop-down. After this report is run, use the Category Filter button to select Women Involvement = Yes or Minority Involvement = Yes to apply the appropriate filters.**  **Program Data slides 10, 11, 16, & 17** |  |
| 6. Is the program relevant to national priorities, agency mission, relevant fields and other constituent needs? Include citations of relevant external reports.  Comments:  **Data Source: Jackets** |  |

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| --- | --- |
| 7. Are any emerging research areas missing from the program’s portfolio? |  |
| 8. Additional comments on the quality of the projects or the balance of the portfolio: |  |

##### OTHER TOPICS

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

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.

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

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

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

*The Committee of Visitors is part of a Federal advisory committee.  The function of Federal advisory committees is advisory only.  Any opinions, findings, conclusions, or recommendations expressed in this material are those of the Advisory Committee, and do not necessarily reflect the views of the National Science Foundation.*

**SIGNATURE BLOCK:**

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For the [Replace with Name of COV]

[Name of Chair of COV]

Chair

1. This document has three parts: (1) Policy, (2) Procedures, and (3) Roles & Responsibilities. [↑](#footnote-ref-1)
2. [NSB-MR-11-22](https://www.nsf.gov/nsb/meetings/2011/1213/summary_report.pdf) [↑](#footnote-ref-2)
3. 3 NSF does not have the legal authority to require principal investigators or reviewers to provide demographic data. Since provision of such data is voluntary, the demographic data available are incomplete. This may make it difficult to answer this question for small programs. However, experience suggests that even with the limited data available, COVs are able to provide a meaningful response to this question for most programs. [↑](#footnote-ref-3)