CORE QUESTIONS and REPORT TEMPLATE
for
FY 2015 NSF COMMITTEE OF VISITOR (COV) REVIEWS

Guidance to NSF Staff: This document includes the FY 2015 set of Core Questions and the COV Report Template for use by NSF staff when preparing and conducting COVs during FY 2015. 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/aboutnsf/hownsfworks/rolesresponsibilities/Pages/Committee-of-Visitors.aspx [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. Committees 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 (2) 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 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.

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/.

[1] The COV Reviews section has three parts: (1) Policy, (2) Procedures, and (3) Roles & Responsibilities.

FY 2015 REPORT TEMPLATE FOR NSF COMMITTEES OF VISITORS (COVs)

The table below should be completed by program staff.

Date of COV: March 30 and 31, 2015

Programs Included:

- Informal Science Education (ISE)/Advancing Informal STEM Learning (AISL)
- Discovery Research K-12 (DRK-12)
- Innovative Technology Experiences for Students and Teachers (ITEST)
- Promoting Research and Innovation in Methodologies for Evaluation (PRIME)
- Mathematics and Science Partnership (MSP)/STEM-C Partnerships
- Research on Education and Learning (REAL)
  - Research and Evaluation on Education in Science and Engineering (REESE)
  - Research on Gender in Science and Engineering (GSE)
  - Research on Disabilities Education (RDE)

Division: Division of Research on Learning in Formal and Informal Settings (DRL)

Directorate: Directorate for Education and Human Resources (EHR)

Number of actions reviewed: 703 (661 competitive actions)

Awards: 124

Declinations: 539

Other: 40

Total number of actions within Program/Cluster/Division during period under review: 6,677 (6,290 competitive)

Awards: 1,122

Declinations: 5,240

Other: 315

Manner in which reviewed actions were selected:

To create a sample of jackets, all actions ending in a three were selected for the sample. These included new awards as well as PI transfers and supplements.

COV Membership

	Name	Affiliation
COV Chair or Co-Chairs:	Dr. Gregory Camilli Dr. Margaret Honey	Rutgers University New York Hall of Science
COV Members:	Dr. Len Annetta Dr. Marilyn Carlson Dr. Douglas Clements Dr. Sandra Crespo Dr. Francis Eberle Dr. Jack Fletcher Dr. Preeti Gupta Dr. Marie Hoepfl Dr. Ramon Lopez Dr. Judit Moschkovich Dr. Ross Nehm Dr. Becky Wai-Ling Packard Dr. Terri Pigott Dr. Nichole Pinkard Dr. Leona Schauble Ms. Marsha Semmel Dr. Nancy Songer	George Mason University Arizona State University University of Denver Michigan State University National Association of State Boards of Education University of Houston American Museum of Natural History Appalachian State University University of Texas Arlington University of California Santa Cruz Stony Brook University Mt. Holyoke College Loyola University, Chicago DePaul University Vanderbilt University Noyce Leadership Institute Drexel University

EXECUTIVE SUMMARY OF THE COV REPORT

In this COV process, the committee was given a unique opportunity to think about the effectiveness of work in the Division of Research on Learning in Formal and Informal Settings (DRL) as a whole, not just in relation to specific programs and particular issues. As a result, the Division was the core focus of our deliberations and recommendations were based on themes evident in a number specific issues or concerns – particularly those that suggested a pattern or trend. The three highest priority recommendations that accumulated through this process of review are discussed below.

1. **Division Strategy**
   The COV recommends following guidance put forth in EHR's strategic plan to "provide a sound framework for developing more coordinated programs of knowledge generation (encompassing projects across research types, including foundational, design and development, impact, scaling, and evaluation research) and achieving a balanced portfolio that supports an array of projects sufficient to fill gaps, generate knowledge, and drive innovative design." (*EHR Strategic Re-envisioning for the Education and Human Resources Directorate, 2014*)

   To realize this, DRL should create a strategic document to address the following questions:
   - What is the core focus of the Division?
   - How does the Division's focus relate to the broader EHR vision?
   - How does the Division conceptualize the complementary role of different research strategies?

   This document should be designed to communicate to a broad range of stakeholders.

2. **Ability to Manage Toward Continuous Improvement**
   Support the continuous improvement of the Division's work through the development of a unified information management system that allows for the analysis of the portfolio and the review process in light of strategic goals (e.g., logic model).

   - At submission of a proposal PIs and co-PIs should be responsible for submitting information that enables the Division and individual programs to readily describe the portfolio and to determine key characteristics of all submitted proposals (e.g., PI/co-PI field and specialty, past history of NSF awards, year since Ph.D., primary and sub-award institutions, target, audiences, area of focus, topic of STEM, grade levels, etc.)
   - All NSF reviewers should be responsible for submitting information that enables the Division to analyze the reviewer population with regard to qualifications and expertise, including past history of NSF awards, field of specialty, years in field, home institution and primary role, and geographic and basic demographic data.
   - Create a relational capacity for these two databases in which reviewer information and portfolio information can be linked and analyzed.

3. **Clarifying the Division's Core Intent/Interpretation of Broader Impacts – Given the Focus on Research**
   To ensure that the broader impact of the Division's portfolio is responsive to its overall strategic direction, the COV recommends that a specific DRL Broader Impact statement is developed. The COV recognized the comprehensiveness of NSF's merit review criteria, but thought it was important to further distinguish and clarify how a stronger research agenda within DRL informs Broader Impacts with respect to learning and learning environments, broadening participation, and workforce development based on the strategic plan.

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(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 Division'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: The review methods were generally appropriate. Despite the variance across panels, the overall panel review process worked well. The COV recognizes this variance is an important ongoing issue in the review process. There were differences in how certain reviews were carried out, and the committee noted in some instances that site visits or ad hoc reviews were not documented in the jackets provided to the COV members. This was a particular concern for supplements of larger amounts. The COV is interested in the ways NSF (and specifically the Program Officer (PO) guiding the review panels) can continue to encourage review panels to consistently report substantive, meaningful review comments on the merit review criteria – Intellectual Merit and Broader Impacts – and to specifically cite evidence provided in the proposals (e.g., previous publications or products especially those resulting from previous awards). **Data Source: EIS/Type of Review Module**	Yes
2. Are both merit review criteria addressed a) In individual reviews? b) In panel summaries?	Yes

c) In Program Officer review analyses? Comments: Both merit review criteria were routinely addressed across all three types of documents. However, some individual reviews, panel summaries, and PO review analyses were more discerning than others with regard to a project's relative strengths and weaknesses in light of each review criterion. The COV noted considerable variation in PO review analyses, particularly for declined proposals. The COV encourages DRL POs to continue to provide substantive comments, when possible, to declined Principal Investigators (PIs). One cannot overstate the importance of feedback as a learning opportunity, especially to new PIs. **Data Source: Jackets**	
3. Do the individual reviewers giving written reviews provide substantive comments to explain their assessment of the proposals? Comments: Although there was a broad spectrum of detail in reviewer comments, the majority of individual reviews provided substantive comments. In a few cases, the reviewers' comments were too terse or did not provide comments that matched their overall ratings. Overall, however, the quality of individual reviews provided substantive detail for both awarded and declined proposals. **Data Source: Jackets**	Yes
4. Do the panel summaries provide the rationale for the panel consensus (or reasons consensus was not reached)? Comments: Generally, panel summaries effectively captured issues from individual reviews. In instances where individual reviews were brief or did not match their overall ratings, the panel summary often captured, to a greater extent, the nature and tone of the panel discussion. The COV noted that it was very helpful when panel summaries delineated the questions and concerns of the panelists because this provided a framework for any further agency review or potential negotiations. Similarly, the review analyses provided a more in-depth record of the discussion and ratings. **Data Source: Jackets**	Yes

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: The content of individual jackets varied. In general, the jackets included appropriate documentation for the award/decline decision. The review analyses were particularly helpful in explaining the award/decline decision. The COV observed several cases in which the funding decision varied from the panel consensus, and the COV would encourage that greater justification be documented in the records. The COV appreciated the flexibility granted to POs when conducting an additional review of proposals and their panel summaries. In an effort to increase transparency, the COV suggests that POs be asked to justify their decisions with respect to smaller awards that do not undergo the full panel review process (i.e., EAGER awards and large supplemental awards) and for awards where panelists raised significant concerns about elements of a proposal that necessitated substantive negotiations leading up to the award. **Data Source: Jackets**	Yes – usually
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: The COV encourages the Division to consider continuous improvement of the clarity, transparency, and documentation on the specific protocols or procedures NSF staff use to make funding decisions following the panel review period, especially with respect to funding decisions that exhibit some variance with panel and PO summaries. This should include the role of DRL's strategic vision, documentation of NSF communications with PIs, guidelines for PO communications to PIs, reviews by other POs, and notes from the "likelies" meetings. **Data Source: Jackets**	Yes – usually

7. Additional comments on the quality and effectiveness of the Division's use of merit review process: As noted above, the panel review process included a wide range of variation in the quality and focus of the reviews. This can result in apparent inconsistency because seemingly similar proposals received different reviews/ratings and different award/decline decisions. Continuing to provide reviewers with detailed and concrete guidance on how to conduct high quality reviews should remain a high priority. The COV suggests that negotiations, particularly those that result in changes to the budget or to the design of various aspects of the project, be better documented within the eJacket so that there is a transparent record of changes from the original proposal. The COV thinks that this process of documentation is beneficial, particularly when the documentation reflects and provides substantive commentary delineating a project's strengths and weaknesses in relation to the Division's top level priorities.	

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 Division make use of reviewers having appropriate expertise and/or qualifications? Comments: Overall, the Division made appropriate reviewer selections – ensuring diversity of reviewer expertise, institution type, and geographic area. The COV encourages the Division to balance participation among reviewers with research and methodological expertise and reviewers with complementary disciplinary expertise. More information could be collected about reviewers that could be useful to the Division going forward. To this end, the COV suggests that additional data be collected regarding reviewers' expertise to increase transparency and to ensure proposals are reviewed by the appropriate experts. If reviewers are merely characterized as STEM experts rather than ascertaining specific expertise and experience, then an opportunity for management toward continuous improvement is lost. The COV strongly encourages the Division to work with others at NSF as well as other groups to resolve reviewer data collection problems with the goal of making it easier to collect data as well as increasing response rates. The COV suggests that the Division focus on the key, common data points that are most important and focus on increasing the data integrity of these points. These data can be useful in ensuring that there is a broad array of expertise among reviewers in terms of fields, past history with NSF, professional affiliation, etc. DRL should review the practices of other directorates and consult the appropriate experts prior to designing a data collection procedure. It may be necessary to further clarify the criteria NSF uses when selecting non-academic reviewers for panels. Additionally, the COV discussed the potential benefits of specific processes for evaluating the reviewers – for example, noting which reviewers provided more substantive and comprehensive reviews. This is a common practice for major research journals. There were a large number of reviewers (24% Division-wide) with unknown institution types. The COV believes this to be important data that informs the rigor of the review process and that can be used to ensure diverse participation.	Yes – usually

The COV appreciated the development and use of the Proposal Panel (Reviewer) Composition Form – DRL's resource for explaining the rationale for panel composition. Some additional clarification of elements on this form would be helpful to further clarify DRL's rationale. **Data Source: Jackets**	
2. Did the Division recognize and resolve conflicts of interest when appropriate? Comments: Yes, the COV saw examples where conflicts of interest were appropriately recognized and resolved by panels and NSF. **Data Source: Jackets**	Yes
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 Division and its programs. Comments: Overall, the COV noted a good amount of continuity among Division POs and significant effort by Division staff to compile data to describe programs and their outcomes. The COV concluded that the Division took great care to responsibly manage the programs under review. The proposal dwell time was reasonable and the NSF standard was met. The COV also noted some overarching concerns related to the COV's Ability to Manage Toward Continuous Improvement Recommendation, which may impact the Division and its programs: • The absence of data collection mechanisms for both reviewer and PI information. • The variety of different data monitoring systems across the Division's programs. • A clear documentation of Division protocols for award/decline decisions during the POs' post-panel proposal reviews. The COV suggests that additional information on the revised strategic plans and management plans as well as the driving components behind programmatic restructuring be articulated clearly by the Division for new DRL programs. This type of documentation would also help to capture key "lessons learned" and important data from sunset programs that will provide insight for the new program models. This information will also be helpful for any future Division-wide COVs to understand specific intentions and initiatives by Division management. The COV appreciates the development and incorporation of DRL centers and resource networks and encourages the Division to consider the usefulness of supporting a single resource network for all DRL programs to create Division cohesion, serve as a resource for finding similar projects, assist with project data collection, attract new applicants addressing DRL goals, broaden the reach of DRL projects, disseminate findings, and enhance interdisciplinary connections among PIs.
2. Responsiveness of the Division to emerging research and education opportunities. Comments: The Division was responsive to emerging research and education opportunities. The Division's solicitations provided evidence of responsiveness to cutting-edge issues. The COV thought the Division demonstrated an appropriate balance between research and education opportunities, and DRL was extremely responsive to emerging research. The COV thinks it may be worthwhile to expand the types of reviewers on panels (particularly with attention to institution type) in an effort to ensure reviewers from numerous fields and focus areas

are able to speak to a wide variety of emerging research and education opportunities.

For example, 6% of reviewers were from non-profits in a program in which 18% of applicants were from non-profits. Increasing non-profit reviewers could demonstrate a strategy for improving the range of awardees in informal learning contexts, particularly since Broader Impacts and broadening participation are Division-wide goals.

The COV encourages NSF to collect data on reviewers' institution type and perhaps make this a required category to collect from reviewers.

Additionally, the COV encourages NSF to expand the categories for institutional type in order to provide more specific information. For example, the non-profit category may be too broad to provide relevant data.

The COV noted the complexity of understanding core purposes across the Division's programs. Some proposals appeared to respond to many different areas within a solicitation, which may have impeded a truly innovative or promising concept. Yet other DRL solicitations may be overly prescriptive, potentially causing PIs to become risk-averse and refrain from proposing truly innovative proposals. A coherent approach is needed for communicating how to navigate these obstacles, both in terms of solicitations and standards for Intellectual Merit and Broader Impacts.

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

Comments:

The program balanced its reactive (agency and administration-led) and proactive (listening to the COVs and the field) goals in sound and responsible ways.

4. Responsiveness of Division's programs to previous COV comments and recommendations.

Comments:

In general, the COV felt NSF was responsive to the majority of previous COV comments and recommendations and attempted to address the concerns identified.

Previous COVs recommended continuing to improve the process for preparing panelists to address the merit review criteria. Although NSF provided webinars for reviewers, this COV observed that some reviewers continue to struggle with addressing the merit review criteria.

The Division has made initiatives to collect longitudinal data via external program evaluations. This COV believes the data collected for these evaluations will be important in both understanding and disseminating program and Division outcomes and successes as well as in providing information that can lead to refinements of future program solicitations.

Previous COVs raised concern about geographic diversity in some program portfolios. This COV encourages the Division to continue to reflect on proven methods, approaches, and strategies for increasing proposals and awards from Minority-Serving Institutions, Historically Black Colleges and Universities, and Hispanic-Serving Institutions; and to look for ways to broaden the geographic distribution of awards through initiatives like EPSCoR.

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

RESULTING PORTFOLIO OF AWARDS	APPROPRIATE, NOT APPROPRIATE, OR DATA NOT AVAILABLE
1. Does the Division's portfolio have an appropriate balance of awards across disciplines and sub-disciplines of the activity? Comments: Based on the summary reports provided by the Division, the portfolio was diverse. However, the COV notes that more comprehensive data on project disciplines and focus areas is necessary in order to address the balance of DRL awards across disciplines and sub-disciplines (e.g., science education, technology education, engineering education, or math education). The COV requests that the Division provide a list of funded projects by discipline and sub-discipline whenever possible as it is a more useful indicator than counts of proposals and types of institutions. Based on available information, there were some gaps in content areas. The COV suggests that the Division pay particular attention to broadening the portfolio of awards, specifically in the areas of engineering, technology, math, chemistry, physics, and teacher professional development as well as projects that bridge the informal and formal sectors. The Next Generation Science Standards have a substantial emphasis on engineering, and there seemed to be very few proposals funded in that area. **Data Source: EIS/Committee of Visitors Module. From the Report View drop-down, select the Funding Rate module to see counts of proposals and awards for programs. The Proposal Count by Type Report View will also provide a summary of proposals by program.**	Mostly appropriate
2. Are awards appropriate in size and duration for the scope of the projects? Comments: Overall, the COV agreed with the award size and duration of DRL awards. The COV suggests that NSF consider increasing the award duration of a small number of research awards to five years as this will support longitudinal research and allow projects additional time to understand and collect data on the impact of the project (e.g., for a multi-grade research *and development* project). If this suggestion is adopted, the COV suggests that NSF consider implementing a mid-point evaluation in which the last two years of planned	Mostly appropriate

funding are contingent upon demonstrated progress. **Data Source: EIS/Committee of Visitors Module. From the Report View drop-down, select Average Award Size and Duration.**	
3. Does the Division's portfolio include awards for projects that are innovative or potentially transformative? Comments: Based on the sample of jackets reviewed by this COV, the Division's portfolio included projects that were cutting-edge and high risk. There was evidence of innovation and potential transformation. **Data Source: Jackets**	Appropriate
4. Does the Division's portfolio include inter- and multi-disciplinary projects? Comments: Yes, several projects in the COV sample of jackets were designated as inter- and multi-disciplinary in terms of STEM content areas (e.g., geospatial and math, reading and science, hydroponics). The COV thinks these projects are promising and encourages the Division to continue pursuing inter- and multi-disciplinary projects. Additionally, the COV reiterates the need for balance between broad inter-disciplinarity and deep expertise in specific disciplines. **Data Source: If co-funding is a desired proxy for measuring inter- and multi-disciplinary projects, the Co-Funding from Contributing Orgs and Co-Funding Contributed to Recipient Orgs reports can be obtained using the EIS/Committee of Visitors Module. They are available as selections on the Report View drop-down.**	Appropriate
5. Does the program portfolio have an appropriate geographical distribution of Principal Investigators? Comments: There was appropriate geographic distribution of PIs and no evidence of geographical bias in the portfolio of awards. However, the COV encourages NSF to collect more comprehensive data by state to better understand how projects impact target populations; address the needs of underserved populations; and provide a more specific breakdown of projects focused on urban, rural, and EPSCoR locations. **Data Source: EIS/Committee of Visitors Module. Select Proposals by**	Appropriate

State from the Report View drop-down.	
6. Does the Division's portfolio have an appropriate balance of awards to different types of institutions? Comments: Yes, the Division included a balance of awards across different institution types. The COV encourages the Division to continue to find creative ways to support partnerships with organizations that have less well-developed research infrastructures, but may nonetheless offer significant connections to underserved populations. **Data Source: EIS/Committee of Visitors Module. 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.**	Appropriate
7. Does the Division's portfolio have an appropriate balance of awards to new investigators? NOTE: A new investigator is an investigator who has not been a PI on a previously funded NSF grant. Comments: Based on the data available to the COV, awards to new PIs seemed to be approximately half that of seasoned PIs. There appeared to be a tendency in which seasoned proposers had an advantage in the review process. This tendency may arise, in part, from better proposals that in turn arise from more experience and better research support (e.g., more resources for proposal development). NSF should continue its efforts to encourage and support potential new PIs by providing information and/or opportunities to better understand the review process. One strategy could be to include new professionals as scribes during the panel review process. An additional strategy might be to use resource centers to actively help in the development and support of new PIs and/or to assist PIs who have been declined. However, it was unclear whether co-PIs were tracked and measured and whether that information figured into the data reviewed by the COV. Division staff should clarify what they think are appropriate targets for new PIs, and why. Currently, there is not an effective way for the COV to determine whether the number of new PIs is appropriate. The Division could consider conducting an analysis of the PIs/Co-PIs to examine the range of "success rates" for PIs. The COV also encourages the Division to continue providing new PIs with substantive feedback that clarifies why a proposal is declined. It is important to cultivate new researchers and to support their potential contributions to the field.	Limited data

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.	
8. Does the Division's portfolio include projects that integrate research and education? Comments: Yes, most of the reviewed proposals incorporated both education and research components. The COV encourages NSF (and specifically review panels) to be sensitive to research methodologies that are appropriate for the project. The COV believes that the separation of research and program offerings in education is artificial. Longer-term education projects should incorporate complementary design/analysis or evaluation methodologies through the research cycle. **Data Source: Jackets**	Appropriate
9. Does the program portfolio have appropriate participation of underrepresented groups[2]? Comments: With respect to race and gender, underrepresented groups were well-represented within the Division's portfolio. However, the COV notes that a clearer definition of "underrepresented" may be warranted to better understand which groups and at what level (PIs, participants, etc.) are underrepresented for a given program or Division. The COV also noted the large number (81%) of PIs who did not report race/ethnicity information; therefore, the COV was unable to provide a complete and accurate response to this question. **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.**	Data not available
10 Are the Division's programs as a whole relevant to national priorities, agency mission, relevant fields and other constituent needs? Include citations of relevant external reports. Comments:	Appropriate

[2] 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.

Yes, the Division's programs were relevant to national priorities, agency mission, and relevant fields. Program solicitations included all of the major citations referencing these priorities. **Data Source: Jackets**	
11. Additional comments on the quality of the projects or the balance of the portfolio:	

OTHER TOPICS

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

   The COV discussed how findings from DRL research projects were getting out to the community, and whether results were used as research rationale for future proposals. The COV learned that the new reporting systems track journal publications, but not other forms of dissemination, which could also be important to track.

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

   The COV touched briefly on the need to clarify the distinction between research and evaluation. For example, what role does evaluation have in proposals that are entirely research based? When does it make sense for a proposal to include an evaluation component and do evaluators still demand a standard 10% of the budget?

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

   The Directorate should be commended for its efforts to work closely with other Federal agencies involved in education research, such as the Institute of Education Sciences and the *Eunice Kennedy Shriver* National Institute of Child Health and Human Development. These efforts should continue.

5. Please provide comments about major gaps or significant overlaps among the programs in the Division.

   The changes to some programs in the Division raised some concerns among a group of COV members. There was concern that constant change and reorganization could make it more difficult for the Division to remain responsive to the field. The community is fairly unaware of the scope of many of these changes, such as the dissolution of Research on Education and Learning and the establishment of EHR Core Research (ECR) as a core program across the Directorate. The COV feels the field could benefit from understanding how this specific change will play out in
   a) the proposal preparation and review process,
   b) the process for determining which research proposals will be deemed more appropriate for the ECR program, and
   c) how Broader Impacts and Intellectual Merit may be interpreted differently in ECR than in other programs focused on application and addressing immediate utility for a large number of teachers and students.

   The COV encourages the Division to be particularly mindful of these issues and of its strategic goals when writing future solicitations as well as when providing guidance to panels. Communication out to the field should also be a high priority.

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

   <u>Additional COV recommendations include the following</u>:

- Clarify the characteristics of “innovative” DRL initiatives – the COV notes that innovation may be interpreted differently across DRL programs. Ideas put forth in the COV include:
    - Interdisciplinary focus
    - Cross-sector collaboration
    - Transformative research
    - Novel, higher-risk research that is not simply incremental
- To recognize the significantly stronger impact that five-year grants can contribute in core research areas, consider increasing award duration of a small number of research awards to five years with a mid-point evaluation.
- A core component of the continuous improvement process should involve evidence-informed practices for increasing the number of new PIs.
- Ongoing and effective communication, both internally and externally, to the field as a whole around the Division’s strategic priorities.
- Continue the emphasis on strong, mixed research methodologies.
- Because some projects are more incremental, the balance between innovation and application needs to be thought through.

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

SIGNATURE BLOCK:

Gregory Camilli

Margaret Honey

For the Division of Research on Learning Division-Wide COV