NSF EVALUATION CAPABILITY

Overview

Evaluation must be central to NSF's decision-making and the agency must have capacity to operate from a basis of evidence in policy decisions. In FY 2014 NSF will expand and coordinate program evaluation, and collection and management of NSF programmatic data through an expansion of NSF's Evaluation Capability.

At NSF, evaluation activities have traditionally been initiated and managed locally, within the directorate of the program being evaluated, with little centralized coordination. Although the distributed approach allows for the input of local program knowledge, there are significant advantages to building evaluation capacity centrally in order to promote rigor, integrate evaluation into performance measurement, and ensure that the results of evaluations are consistently used to inform decisions. Centralized coordination of evaluation activities also provides the opportunity to oversee theme evaluations that encompass multiple programs and consolidate data collection activities. This is particularly important for agency-wide programs involving multiple directorates, or programs with similar goals that are dispersed across the organization.

NSF is implementing a multi-stage approach to enhancing this capability: establishing mechanisms for Foundation-wide leadership and coordination in program evaluation; providing expert support and resources for data collection, integration and management; and improving directorate/office evaluation capacity. The Evaluation Capability, established within the Office of International and Integrative Activities (OIIA) in FY 2011, will be strengthened and augmented, with a national search for a leader underway in FY 2013 and additional staff to be added in FY 2014. Expert centralized support and adequate resources for data collection, study and survey design, and management will be put in place. These actions will allow NSF to more consistently evaluate the impacts of its investments, to make more data-driven decisions, and to establish a culture of evidence-based planning and policy-making.

NSF's evaluation efforts will be comprehensive yet flexible enough to capture the impact and return on investment in three main areas.

- ***Investments in fundamental science and engineering*** in general and specific areas, is critical. The largest proportion of NSF funding goes to support basic research across all science and engineering disciplines and their interdisciplinary connections, including basic research about STEM education.
- ***Investments in people,*** directly through human capital programs such as the National Graduate Research Fellowship Program, CAREER, Career-Life Balance, Research Experiences for Undergraduates (REU), and programs in EHR's Human Resource Development Division (HRD), and indirectly by supporting research done by students, post-docs, and faculty.
- ***Strategic investments*** that combine the outcomes of investments in research and people and often address areas of national priority such as sustainability, innovation, and advanced manufacturing. It is important to have a data and evaluation strategy that is flexible enough to accommodate complex activities.

Goals

The Evaluation Capability will provide expanded leadership, expertise, and resources to:

- Encourage a culture of evidence-based planning and policy making that routinely articulates program goals, milestones and metrics.
- Enable consistent evaluation of the impact of NSF investments with a high degree of rigor and independence.
- Develop and implement a coordinated framework for evaluating NSF-wide investments that is consistent with agency strategic and performance plans.

- Coordinate and consolidate data collection activities and storage to make data more useful for guiding decision making and evaluation.
- Use the results of evaluation to inform decisions.

Investment Framework

Evaluation Capability Funding
(Dollars in Millions)

Activity	FY 2012 Actual	FY 2012 Enacted/ Annualized FY 2013 CR	FY 2014 Request
Data Collection, Study Design, and Management	-	-	5.50
Total	**-**	**-**	**$5.50**

Totals may not add due to rounding.

FY 2014 Request

NSF's approach will be to first expand expert centralized support and adequate resources to facilitate in-house developmental activities such as logic-modeling, feasibility studies, portfolio analysis, and gap analysis. Staff will also manage evaluations that are conducted by contractors. The new Evaluation Capability leadership will recommend and establish policies and best practices that will promote rigor, transparency, and independence. In FY 2014 evaluations for two to three major NSF activities that cross organizational boundaries will be initiated. The programs chosen will either be major NSF-wide programs or strategic investments. These initial evaluations are intended to supply models of how an NSF-wide approach that facilitates comparisons across programs can provide valuable information to guide decision-making. The specific evaluations or data collections to begin in FY 2014 will be based on both needs for decision making and what can be learned about how we evaluate the three types of science investments made by NSF (fundamental science, people, and strategic). The Evaluation Capability staff will collaborate with the performance improvement staff in the Budget Division on the strategic monitoring of key Foundation-wide programs, with the evaluation of strategic investments being an important component. Preparing for the consolidation of data collection and storage with the continuation of pilots that are currently under way will also provide an NSF-wide paradigm. The Evaluation Capability staff will be responsible for assessing the pilots for bringing data in-house, recommending a course for the future, and establishing a business plan for any changes that are recommended.