Section B

Introduction

B.1. Respondent Universe and Sampling Methods

In keeping with the original 1995 request and subsequent 1998, 2001, and 2005 OMB renewed approvals, the EHR Generic Clearance's (OMB 3145-0136) goal is a portfolio of individual collections used to count and describe the universe of NSF-funded or -partnered education and training projects. The statistical method employed in all eleven task collections is that of a census of NSF funded projects. Some projects have only one respondent type, typically a Principal Investigator, others have several types of respondents

Data collection for the tasks involves all awardees in the programs involved. The chart below shows the total universe and sample size for each of the tasks.

Chart 7. Respondent Universe and Sample Size of EHR Generic Clearance Surveys

Attachment	Collection Title	Universe of Respondents	Sample Size
A	Centers for Research Excellence in Science and Technology Monitoring System (CREST)	27	27
B	Survey Form for the Division of Undergraduate Education Scholarships in Science, Technology, Engineering, and Mathematics (S-STEM)	12,400	12,400
C	Division of Undergraduate Education Project Information Resource System (DUE-PIRS)	1,800	1,800
D	Graduate Teaching Fellows in K-12 Education Distance Monitoring System (GK-12)	2,280	2,280
E	Distance Monitoring System for the Division of Graduate Education Integrative Graduate Education and Research Traineeship Program (IGERT)	2,136	2,136
F	Louis Stokes Alliances for Minority Participation (LSAMP) Distance Monitoring	415	415

Attachment	Collection Title	Universe of Respondents	Sample Size
G	Program Monitoring System for the Robert Noyce Scholarship Program (Noyce)	75	75
H	Self-Evaluation Indicator System (SEIS) Historical Black Colleges and Universities Undergraduate Program (HBCU-UP) for Awardees	112	112
I	Program Monitoring System for the Science, Technology, Engineering, and Mathematics Talent Expansion Program (STEP)	177	177
J	NASA Educators Survey	25,000	25,000
	Total	**44,422**	**44,422**

B.2. Information Collection Procedures/Limitations of the Study

The data collections in this generic clearance use either Web- or e-mail-based surveys. Each respondent will provide answers once a year, with the exception of respondents to the S-STEM survey (attachment B), who enter data each semester/quarter, for an average of three times a year.

NSF understands the limitations of the EHR Generic Clearance, particularly in terms of using the data to determine program effectiveness. Data collected under this generic are for monitoring purposes; evaluation studies are cleared under separate OMB requests. OMB 3145-0136 data are not a part of the hierarchy of evaluation study designs described in the ACC report, but they may serve as preliminary foundation work for later, independent program evaluations. EHR Generic data are not used to determine the ultimate effectiveness of STEM educational interventions, but they are a key element in NSF's efforts to mange its program portfolio, to report on agency activities and goals, and to lay the groundwork for future evaluations.

B.2.1. Statistical Methodology for Stratification and Sample Selection

Each of the ten tasks for which clearance is requested is a census, in which the sample size is the universe. Details on the size of the universe in each collection are included in individual clearances.

B.2.2. Estimation Procedure

Not applicable.

B.2.3. Degree of Accuracy Needed for the Purpose Described in the Justification

Not applicable.

B.2.4. Unusual Problems Requiring Specialized Sampling Procedures

Not applicable.

B.2.5. Use of Periodic (Less Frequent Than Annual) Data Collection Cycles

Not applicable.

B.3. Methods for Maximizing the Response Rate and Addressing Issues of Nonresponse

All task collections in this generic clearance are a part of the reporting required of awardees, so a high response rate is expected. The table below shows the expected response rates for each of the individual tasks.

Chart 8. Response Rates of EHR Generic Clearance Surveys

Attachment	Collection title	Response Rate
A	Centers for Research Excellence in Science and Technology Monitoring System (CREST)	100%
B	Survey Form for the Division of Undergraduate Education Scholarships in Science, Technology, Engineering, and Mathematics (S-STEM)	90%
C	Division of Undergraduate Education Project Information Resource System (DUE-PIRS)	50% all respondents/ 100% new awards
D	Graduate Teaching Fellows in K-12 Education Distance Monitoring System (GK-12)	100% PIs and fellows/ 60% teachers
E	Distance Monitoring System for the Division of Graduate Education Integrative Graduate Education and Research Traineeship Program (IGERT)	100%
F	Louis Stokes Alliances for Minority Participation (LSAMP) Distance Monitoring	100%

Attachment	Collection title	Response Rate
G	Program Monitoring System for the Robert Noyce Scholarship Program (Noyce)	100%
H	Self-Evaluation Indicator System (SEIS) Historical Black Colleges and Universities Undergraduate Program (HBCU-UP) for Awardees	100%
I	Program Monitoring System for the Science, Technology, Engineering, and Mathematics Talent Expansion Program (STEP)	100%
J	NASA Educators Survey	50%

Principal investigators are responsible for ensuring that other individuals involved in the project submit all necessary data, and in many cases have access to status information on the Web-based systems indicating whether or not individual respondents in their projects have completed their data entry. In addition, EHR staff also have access to on-line monitoring sections of many of the Web-based systems and can check the status of reporting. A series of e-mail messages and phone calls are also used to follow-up with respondents and ensure that all necessary data are collected. See individual task collections for examples of the follow-up e-mail messages that are sent and more specific information on how response rates are supported.

B.4. Tests of Procedures or Methods

All of the collections for which clearance is being requested are currently in operation and have been tested both before initial implementation and throughout the data collection. The LSAMP monitoring system, for example, has been operational since 1995. Input on this system is continually received from users and their suggestions are implemented as the system is upgraded. Other test methods used by the various collections in the EHR Generic include feedback from PIs both as data are collected and during meetings and conferences, review by NSF staff, and testing performed by the system developer. Many systems are based on data collection methods currently used by other NSF groups, and many of the items and response categories follow formats that are already in place.

B.5. Names and Telephone Numbers of Individuals Consulted

The following individuals were consulted on the EHR Generic Clearance:

William Neufeld (703-292-5148), Division of Research on Learning in Formal and Informal Settings, National Science Foundation, 703-292-5150

The following table shows the individuals involved in each task:

Chart 9. Contact Information for Individuals Responsible for Tasks

Attachment	Collection Title	NSF Agency Unit	Contractor or Grantee
A	Centers for Research Excellence in Science and Technology Monitoring System (CREST)	Victor Santiago, (703) 292-4673	Lea Mesner, Macro International Inc., (301) 657-3077
B	Survey Form for the Division of Undergraduate Education Scholarships in Science, Technology, Engineering, and Mathematics (S-STEM)	Duncan McBride, 703-292-4630	--
C	Division of Undergraduate Education Project Information Resource System (DUE-PIRS)	Lea Zia, (703) 292-5140	--
D	Graduate Teaching Fellows in K-12 Education Distance Monitoring System (GK-12)	Carol Stoel, (703) 292-8630	Lea Mesner, Macro International Inc., (301) 657-3077
E	Distance Monitoring System for the Division of Graduate Education Integrative Graduate Education and Research Traineeship Program (IGERT)	Carol Van Hartesveldt, (703) 292-8696	Lea Mesner, Macro International Inc., (301) 657-3077
F	Louis Stokes Alliances for Minority Participation (LSAMP) Distance Monitoring	A. James Hicks, (703) 292-4668	Lea Mesner, Macro International Inc., (301) 657-3077
G	Program Monitoring System for the Robert Noyce Scholarship Program (Noyce)	Joan Prival, (703) 292-4635 and Deh-I Hsiung, (703) 292-5153	Lea Mesner, Macro International Inc., (301) 657-3077
H	Self-Evaluation Indicator System (SEIS) Historical Black Colleges and Universities Undergraduate Program (HBCU-UP) for Awardees	Victor Santiago (703) 292-4673 and Jessie DeAro (703) 292-5350	Jason J. Kim and Linda M. Crasco, Systemic Research, Inc. (781) 278-0300

Attachment	Collection Title	NSF Agency Unit	Contractor or Grantee
I	Program Monitoring System for the Science, Technology, Engineering, and Mathematics Talent Expansion Program (STEP)	Susan H. Hixson, (703) 292-4623	Lea Mesner, Macro International Inc., (301) 657-3077
J	NASA Educators Survey	Mary Sladek, NASA, (202) 358-0861	--