Section B

B.1. Respondent Universe and Sampling Methods

The EHR program monitoring clearance's goal is a portfolio of individual collections used to count and describe the universe of NSF-funded or NSF-partnered education and training projects. The statistical method employed in all seven collections is that of a census of NSF-funded projects. Some projects have only one respondent type, typically a PI; others have several types of respondents. Data collection involves all awardees in the respective programs. Exhibit 10 shows the total universe (respondent population) and sample size (equal to the population, as there is no sampling) for each of the collections.

Exhibit 10: Respondent universe and sample size of EHR program monitoring clearance collections

Attachment	Collection Title	Universe of Respondents	Sample Size
A1	Centers of Research Excellence in Science and Technology (CREST) and Historically Black Colleges and Universities Research Infrastructure for Science and Engineering (HBCU-RISE) Monitoring System	42	42
B1	Integrative Graduate Education and Research Traineeship Program (IGERT) Monitoring System	513	513
C1	Louis Stokes Alliances for Minority Participation (LSAMP) Monitoring System	625	625
D1	Louis Stokes Alliances for Minority Participation Bridge to the Doctorate (LSAMP-BD) Monitoring System	56	56
E1	Robert Noyce Teacher Scholarship Program (Noyce) Monitoring System	550	550
F1	Scholarships in Science, Technology, Engineering, and Mathematics (S-STEM) Monitoring System	700	700
G1	Science, Technology, Engineering, and Mathematics Talent Expansion Program (STEP) Monitoring System	25	25

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

The data collections in this clearance use Web-based instruments. Each respondent will provide answers once a year, with the exception of respondents to the IGERT data collection (attachments B1 and B2), who submit both an annual and final report in their final year, and respondents to the S-STEM data collection (attachments F1 and F2), who enter data each semester/quarter, for an average of two times a year.

EHR understands the limitations of the program monitoring data collected under this clearance, particularly in terms of using the data to determine program effectiveness. Data collected under this clearance are for monitoring purposes; evaluation studies are

cleared under separate OMB requests. However, OMB 3145-0226 data are explicitly identified as a source of data for independent program evaluations. EHR program monitoring clearance data are not used to determine the ultimate effectiveness of STEM educational interventions, but they are a key element in EHR's efforts to manage its program portfolios, report on agency activities and goals, and lay the groundwork for future evaluations.

B.2.1. Statistical Methodology for Stratification and Sample Selection

Each of the seven collections 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 the burden estimate and in Section B.1. above.

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 collections in this clearance are a part of the reporting required of awardees, so a high response rate is expected. Exhibit 11 shows the expected response rates for each of the individual collections.

Exhibit 11: Response rates for EHR program monitoring clearance collections

Attachments	Collection Title	Response Rate
A1-A2	Centers of Research Excellence in Science and Technology (CREST) and Historically Black Colleges and Universities Research Infrastructure for Science and Engineering (HBCU-RISE) Monitoring System	100%
B1-B2	Integrative Graduate Education and Research Traineeship Program (IGERT) Monitoring System	100%

Attachments	Collection Title	Response Rate
C1-C2	Louis Stokes Alliances for Minority Participation (LSAMP) Monitoring System	100%
D1-D2	Louis Stokes Alliances for Minority Participation Bridge to the Doctorate (LSAMP-BD) Monitoring System	90%
E1-E5	Robert Noyce Teacher Scholarship Program (Noyce) Monitoring System	100%
F1-F2	Scholarships in Science, Technology, Engineering, and Mathematics (S-STEM) Monitoring System	90%
G1-G3	Science, Technology, Engineering, and Mathematics Talent Expansion Program (STEP) Monitoring System	100%

PIs are responsible for ensuring that other individuals involved in the project submit all necessary data, and in many cases have access to status information via the Web-based systems indicating whether individual respondents in their projects have completed their data entry. In addition, EHR staff also have access to online monitoring sections of all 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.

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 program monitoring clearance include feedback from PIs, both as data are collected and during meetings and conferences; review by NSF staff; and testing performed by the system developers. 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 program monitoring clearance:
- Frances Carter-Johnson, Division of Human Resource Development, NSF, (703) 292-8640
- Connie Della-Piana, Division of Undergraduate Education, NSF (703) 292-5309
- R. Corby Hovis, Division of Undergraduate Education, NSF, (703) 292-4625
- Martha James, Division of Human Resource Development, NSF, (703) 292-7772
- Julie Johnson, Division of Research on Learning in Formal and Informal Settings, NSF, (703) 292-8624
- Sarah-Kay McDonald, EHR Office of the Assistant Director, NSF, (703) 292-4648
- Alexandra Medina-Borja, Division of Undergraduate Education, NSF, (703) 292-7557

- Suzanne Plimpton, Office of the General Counsel, NSF, (703) 292-7556
- Laura Regassa, Division of Graduate Education, NSF, (703) 292-2343
- Sandra Richardson, Division of Undergraduate Education, NSF, (703) 292-2657
- Victor Santiago, Division of Human Resource Development, NSF, (703) 292-4673
- Robin Wright, Division of Undergraduate Education, NSF, (703) 292-8637
- Lee Zia, Division of Undergraduate Education, NSF, (703) 292-5140

Exhibit 12 shows the individuals involved in each collection.

Exhibit 12: Contact information for individuals responsible for collections

Attachments	Collection Title	NSF Agency Unit	Contractor or Grantee
A1-A2	Centers of Research Excellence in Science and Technology (CREST) and Historically Black Colleges and Universities Research Infrastructure for Science and Engineering (HBCU-RISE) Monitoring System	Victor Santiago, (703) 292-4673	Kevin Greenburg, ICF, (301) 572-0599
B1-B2	Integrative Graduate Education and Research Traineeship Program (IGERT) Monitoring System	Laura Regassa, (703) 292-2343	Kevin Greenburg, ICF, (301) 572-0599
C1-C2	Louis Stokes Alliances for Minority Participation (LSAMP) Monitoring System	A. James Hicks, (703) 292-4668	Kevin Greenburg, ICF, (301) 572-0599
D1-D2	Louis Stokes Alliances for Minority Participation Bridge to the Doctorate (LSAMP-BD) Monitoring System	A. James Hicks, (703) 292-4668	Kevin Greenburg, ICF, (301) 572-0599
E1-E5	Robert Noyce Teacher Scholarship Program (Noyce) Monitoring System	Sandra Richardson, (703) 292-2657	Kevin Greenburg, ICF, (301) 572-0599
F1-F2	Scholarships in Science, Technology, Engineering, and Mathematics (S-STEM) Monitoring System	Alexandra Medina-Borja, (703) 292-7557	Kevin Greenburg, ICF, (301) 572-0599
G1-G3	Science, Technology, Engineering, and Mathematics Talent Expansion Program (STEP) Monitoring System	Connie Della-Piana, (703) 292 5309	Kevin Greenburg, ICF, (301) 572-0599