## 3145-0226, 2016 ICR

## Section B

### Introduction

### 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 11 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 for the collections involves all awardees in the programs involved. The table below shows the total universe and sample size for each of the collections.

**Table 5. Respondent Universe and Sample Size of EHR Program Monitoring Clearance Collections**

| **Attachment** | **Collection Title** | **Universe of Respondents** | **Sample Size** |
| --- | --- | --- | --- |
| **A1** | Advancing Informal STEM Learning (AISL) Monitoring System | 155 | 155 |
| **B1** | 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 | 40 | 40 |
| **C1** | Graduate STEM Fellows in K-12 Education (GK-12) Monitoring System | 1,267 | 1,267 |
| **D1** | Integrative Graduate Education and Research Traineeship Program (IGERT) Monitoring System | 3,307 | 3,307 |
| **E1** | Louis Stokes Alliances for Minority Participation (LSAMP) Monitoring System | 563 | 563 |
| **F1** | Louis Stokes Alliances for Minority Participation Bridge to the Doctorate (LSAMP-BD) Monitoring System | 55 | 55 |
| **G1** | Robert Noyce Teacher Scholarship Program (Noyce) Monitoring System | 422 | 422 |
| **H1** | Research in Disabilities Education (RDE) Monitoring System | 12 | 12 |
| **I1** | Scholarships in Science, Technology, Engineering, and Mathematics (S-STEM) Monitoring System | 500 | 500 |
| **J1** | Science, Technology, Engineering, and Mathematics Talent Expansion Program (STEP) Monitoring System | 277 | 277 |
| **K1** | Transforming Undergraduate Education in Science, Technology, Engineering, and Mathematics (TUES) Monitoring System | 686 | 686 |

### 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 S-STEM data collection (attachments I1 and I2), who enter data each semester/quarter, for an average of two times a year.

EHR understands the limitations of the Program Monitoring 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 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 11 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. The table below shows the expected response rates for each of the individual collections.

**Table 6. Response Rates for EHR Program Monitoring Clearance Collections**

| **Attachments** | **Collection Title** | **Response Rate** |
| --- | --- | --- |
| **A1-A4** | Advancing Informal STEM Learning (AISL) Monitoring System | 100% |
| **B1-B2** | 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% |
| **C1-C4** | Graduate STEM Fellows in K-12 Education (GK-12) Monitoring System | 100% awardees and NSF-funded fellows;  85-95% lead/NSF-supported teachers |
| **D1-D3** | Integrative Graduate Education and Research Traineeship Program (IGERT) Monitoring System | 100% |
| **E1-E2** | Louis Stokes Alliances for Minority Participation (LSAMP) Monitoring System | 100% |
| **F1-F2** | Louis Stokes Alliances for Minority Participation Bridge to the Doctorate (LSAMP-BD) Monitoring System | 90% |
| **G1-G3** | Robert Noyce Teacher Scholarship Program (Noyce) Monitoring System | 100% |
| **H1-H2** | Research in Disabilities Education (RDE) Monitoring System | 100% |
| **I1-I2** | Scholarships in Science, Technology, Engineering, and Mathematics (S-STEM) Monitoring System | 90% |
| **J1-J3** | Science, Technology, Engineering, and Mathematics Talent Expansion Program (STEP) Monitoring System | 100% |
| **K1-K4** | Transforming Undergraduate Education in Science, Technology, Engineering, and Mathematics (TUES) 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 or not individual respondents in their projects have completed their data entry. In addition, EHR staff also have access to online monitoring sections of most 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:

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

The following table shows the individuals involved in each collection:

**Table 7. Contact Information for Individuals Responsible for Collections**

| **Attachments** | **Collection Title** | **NSF Agency Unit** | **Contractor or Grantee** |
| --- | --- | --- | --- |
| **A1-A4** | Advancing Informal STEM Learning (AISL) Monitoring System | Ellen McCallie, (703) 292-5115 | Gary Silverstein, Westat, (301) 251-2244 |
| **B1-B2** | 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 International, (301) 407-6726 |
| **C1-C4** | Graduate STEM Fellows in K-12 Education (GK-12) Monitoring System | Richard Tankersley, (703) 292-5199 | Kevin Greenburg, ICF International, (301) 407-6726 |
| **D1-D3** | Integrative Graduate Education and Research Traineeship Program (IGERT) Monitoring System | Richard Tankersley, (703) 292-5199 | Kevin Greenburg, ICF International, (301) 407-6726 |
| **E1-E2** | Louis Stokes Alliances for Minority Participation (LSAMP) Monitoring System | A. James Hicks, (703) 292-4668 | Kevin Greenburg, ICF International, (301) 407-6726 |
| **F1-F2** | Louis Stokes Alliances for Minority Participation Bridge to the Doctorate (LSAMP-BD) Monitoring System | A. James Hicks, (703) 292-4668 | Kevin Greenburg, ICF International, (301) 407-6726 |
| **G1-G3** | Robert Noyce Teacher Scholarship Program (Noyce) Monitoring System | Kathleen Bergin, (703) 292-5171 | Kevin Greenburg, ICF International, (301) 407-6726 |
| **H1-H2** | Research in Disabilities Education (RDE) Monitoring System | Mark Leddy, (703) 292-4655 | Kevin Greenburg, ICF International, (301) 407-6726 |
| **I1-I2** | Scholarships in Science, Technology, Engineering, and Mathematics (S-STEM) Monitoring System | Connie Della-Piana, (703) 292-5309 | Kevin Greenburg, ICF International, (301) 407-6726 |
| **J1-J3** | Science, Technology, Engineering, and Mathematics Talent Expansion Program (STEP) Monitoring System | Nicole Bennett, (703) 292-5128 | Kevin Greenburg, ICF International, (301) 407-6726 |
| **K1-K4** | Transforming Undergraduate Education in Science, Technology, Engineering, and Mathematics (TUES) Monitoring System | Myles Boylan, (703) 292-4617 | Kevin Greenburg, ICF International, (301) 407-6726 |