

## Section B. Collections of Information Employing Statistical Methods

### B1. Survey Respondent Universe

A total of 3,778 PIs received one or more SGER awards between 1990 and 2007. A total of 580 individuals who submitted a proposal for a SGER award between 2002 and 2007 were declined and had not received a SGER award prior to 2002. No sampling will be used in this study. However, individuals who never received a SGER award but submitted a declined SGER proposal between 1990 and 2001 will not be included in the data collection because their names are not available from NSF's databases. A 75% response to each of the two surveys is expected.

#### **Study of SGER Mechanism: Survey Respondent Universe and Estimated Number of Respondents**

<b>Total Years Covered</b>	<b>Total Awardees</b>	<b>Total Non-awardees</b>	<b>Total Awardees &amp; Non-awardees</b>	<b>Est'd Response Rate</b>	<b>Est'd No. of Survey Respondents</b>
18 (1990–2007 for awardees)	3,778	580	4,358	75%	3,269
8 (2002-2007 for non-awardees)					

Note: Counts are non-duplicated.

### B2. Procedures for the Collection of Information/Limitations of the Study

This study will be conducted primarily through Web surveys. The survey respondent pool is the universe of (1) PIs who received one or more SGER awards in the 1990–2007 period (N=3,778), and (2) individuals who submitted proposals in the 2002–2007 period but were declined and had not received any SGER awards prior to 2002 (N=580).

There are two survey instruments: one for the SGER awardees and one for the non-awardees. Each respondent will provide answers once to the relevant survey instrument.

The names and contact information for the respondents were obtained from two NSF databases: (1) the Program Officer Interface System (POIS), and (2) the NSF publicly available award information at <http://www.nsf.gov/awardsearch/>. The information for SGER awardees came from both databases; the information for the non-awardees came from POIS.

Upon approval of the survey instruments, all SGER awardees and declinees will be contacted by e-mail, provided with the URL of the relevant survey questionnaire, and asked to go to that Web site to complete the instrument. If requested, or if an e-mail address is not available for an individual, a hard copy of the questionnaire will be mailed to the individual's home address, if available.

This study is a correlational design, and as such, will not be represented to yield causal conclusions. Determinations of causality require objective pre- and post-measures as well as random assignment to condition (e.g., participation or non-participation in the program of interest). In the real world, these requirements are impractical, at best, and often impossible. Most surveys, including the SGER surveys, rely on respondents' self-reports of outcomes and impacts as the most practical alternative. Even though these surveys do not provide strict evidence of causality, self-reports are widely considered to provide valuable information about outcomes, impacts, areas of strengths and weaknesses, and so on.

#### **B2.1. Statistical methodology for stratification and sample selection**

Not applicable. All members of the awardee survey universe from inception of the SGER mechanism are included in the Survey of SGER Principal Investigators. All non-awardees from the 2002–2007 period who had not received a SGER award prior to 2002 are included in the Survey of Non-Awardees.

It is not possible to survey the non-awardees who never received a SGER award because their names are not available from NSF's databases.

## **B2.2. Estimation procedure**

The profile of SGER respondents will be compared with the universe profile based on award/proposal year and NSF directorate. If there are statistically significant differences in the profiles of respondents, survey responses will be weighted so that the overall respondent profile parallels that of the universe.

## **B2.3. Degree of accuracy needed for the purpose described in the justification**

Not applicable.

## **B2.4. Unusual problems requiring specialized sampling procedures**

Not applicable.

## **B2.5. Use of periodic (less frequent than annual) data collection cycles**

The study is a one-time collection about the SGER awards from 1990 to 2007 and the declined proposals from 2002 to 2007 if the declinee had not received any SGER awards in the 18-year time span from 1990 to 2007.

## **B3. Methods to Maximize Response and Deal with Issues of Nonresponse**

Several study design and timing situations or features are expected to bring about strong response rates:

(1) The SGER surveys will be conducted via the Internet to minimize the effort and time required of respondents to complete the questionnaire. All of the PIs have access to the Internet.

(2) Many of the PIs are regular NSF awardees who are accustomed to providing information about their project participants, activities, and results for GPRA purposes and individual evaluation studies;

(3) The surveying is timed to take place in late winter/early spring when universities and colleges are in session, maximizing the likelihood of reaching the PIs well before the end of the academic year;

(4) Most of the PIs are in academic institutions, and a large percentage are expected to still be at the institution where they were when they received the SGER award. Thus, it is expected that much of the contact information will be accurate. An e-mail to verify the PIs' e-mail addresses and SGER status (awardee vs. declinee) will be sent well in advance of the survey so that invalid e-mail addresses can be replaced with current addresses identified through Web searches and other locating methods.

(5) SRI will send follow-up e-mail reminders to nonrespondents approximately once a week over at least a 6-week period following commencement of the surveys. Reminders will be sent on different days of the week and times of the day.

## **B4. Tests of Procedures or Methods**

Pretesting of each survey instrument will be done with 6 to 9 people. The only appreciable changes expected to be made to the instruments are possible additions of a few response categories based on responses of pretest participants.

## **B5. Names and Telephone Numbers of Individuals Consulted**

Potential questionnaire topics were discussed with the project director in the Office of Integrative Activities and six program officers who have used and are very familiar with the SGER mechanism.

They reviewed the draft questionnaires, and their comments contributed to revisions to the instruments. Those consulted include:

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