

Section B

Introduction

B.1. Respondent Universe and Sampling Methods

This data collection will include the universe of IGERT programs studied. Sub-task 1 will include the entire universe of IGERT projects funded between 1998 and 2003 (124 projects), and all IGERT program participants who received a master's or Ph.D in or before the 2005-06 academic year, as well as a sample of IGERT program degree noncompleters. Sub-task 1 will also include a sample of non-IGERT Ph.D. recipients from departments at other universities that compete with the departments in the IGERT program for doctoral students. We believe we will be able to locate 90% of the target respondents, of whom we expect a response rate of 85% for IGERT graduates and a response rate of 75% for the comparison non-IGERT graduates. The expected response rates are based on response rates from the previous IGERT evaluation. The population of comparison non-IGERT graduates will be over sampled slightly relative to IGERT Ph.D. recipients to control for their anticipated lower response rate. The following chart provides estimates of the sizes of the various universes that will be sampled.

Population	Universe Size	Sample Size
IGERT graduates	800*	800*
Comparison non-IGERT Ph.D. graduates	Unknown	750
IGERT degree noncompleters	250	50
Assumptions: *Estimate - Populations of IGERT graduates are estimated based on participants reported in the annual surveys collected under the EHR Generic Clearance OMB 3145-0136.		

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

Internet-based surveys and telephone interviews will be used to collect data from graduates and degree noncompleters of NSF-funded graduate programs to determine the program's influence on the careers of participants. Any conclusions drawn from this may be biased, as there is no way to control who is participating in these programs. It is possible that both the character of the program and the outcomes for graduates and degree noncompleters are more the result of their inherent tendency to seek multidisciplinary interactions than they are the effect of NSF funding.

Sub-task 1 of this study will collect data from graduates of the IGERT program and a comparison group of non-IGERT Ph.D recipients, as well as a sample of IGERT degree noncompleters. Evaluating the early career outcomes of multidisciplinary graduate programs is uncharted territory. Projects range tremendously in the disciplines involved

within and across projects. To provide additional context for this study, where appropriate, the survey will draw items from other nationally representative surveys, e.g. Survey of Earned Doctorates, Physical Science PhD Careers Project, PhDs— Ten Years Later, etc., to allow for additional comparisons.

B.2.1. Statistical Methodology for Stratification and Sample Selection

A sample of non-IGERT individuals will be constructed using the same methodology as used in the previous IGERT evaluation. IGERT departments in an IGERT program will be selected and matched with a competitor department at another university. Comparison Ph.D. completers will be oversampled slightly relative to the IGERT Ph.D graduate sample to account for a smaller anticipated response rate. A random sample of IGERT degree noncompleters will be drawn from the universe of all IGERT degree noncompleters.

B.2.2. Estimation Procedure

The purpose of this proposed activity is to collect data from graduates of the IGERT program and compare their outcomes with Ph.D recipients who did not participate in the IGERT program in an effort to measure the impact of the IGERT program. Data from graduates of the IGERT program will be collected in sub-task 1 of this research study to measure the impacts of the IGERT program on their subsequent careers and compared with the impacts-of non-IGERT graduate education on the careers of the comparison group. Analysis will begin with a descriptive analysis of the survey data and move on to multi-variable analysis as appropriate.

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

In an effort to increase overall response rate, follow-up with respondents will be multi-modal. Respondents will initially be sent an email containing a link to an Internet survey. The emails will contain an individualized link for each respondent that they can click on and that will take them directly to the survey. Respondents to Internet surveys will have the option of pausing survey completion and returning at a later time to finish. Telephone and email follow-up will be used for non-respondents.

We will use random sampling techniques to draw the interview sample of IGERT degree noncompleters. We will replace each nonrespondent with a new randomly selected respondent until a sample of 50 respondents is achieved.

B.4. Tests of Procedures or Methods

Results of the survey of graduates developed for the IGERT Initial Impacts study informed the development of the survey instrument and interview protocol. The survey instrument and interview protocol developed for this data collection will be pilot-tested in Fall 2007.

B.5. Names and Telephone Numbers of Individuals Consulted

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