OMB Clearance Request
Survey Instrument to be used in the National Evaluation of the Alliances for Graduate Education and the Professoriate Program.

INTRODUCTION

The National Science Foundation (NSF) sponsors the Alliances for Graduate Education and the Professoriate (AGEP) program, a grants initiative designed to increase the number of students receiving doctoral degrees in sciences, technology, engineering and mathematics (STEM) disciplines. The program has a special emphasis on those populations that have historically been underrepresented in the fields. AGEP is also designed to increase the number of people from underrepresented backgrounds who will enter the professoriate in STEM disciplines. Activities supported by AGEP grants include but are not limited to:

- Support for students to attend conferences
- Coordinated student recruitment among partner institutions
- Proactive use of faculty in student recruitment
- Development of systemic mentoring and mentor training
- Faculty and student exchange programs
- Undergraduate research opportunities
- Programmatic preparation for the professoriate; and
- Effective career counseling and career placement programs.

NSF is currently conducting a National Evaluation of AGEP. The evaluation is in part drawing on extant data from the Survey of Earned Doctorates and the Survey of Doctoral Recipients databases. Indeed, researchers conducting the study have been awarded a private use license to analyze restricted use data from the two databases. In order to put data from these two sources into context, the researchers conducting the evaluation request clearance for two related instruments associated with the evaluation. The instrument for which clearance is requested is:

- the paper draft of an on-line, computerized survey instrument for graduate students at AGEP-funded institutions who have been identified by grant administrators as participants in AGEP-sponsored programs. The instrument will gather data about students' experiences with AGEP and about their career plans.

This statement describes the study approach and methodology for collecting and analyzing data. The data-collection instrument is appended. This document, which addresses OMB concerns regarding respondent burden and paperwork control, has been prepared according to guidelines for completing the justification statement to accompany Request for OMB Review Standard Form 83-1.

A. Justification

1. Necessity of Data Collection

The National Evaluation of AGEP study provides information on the diverse populations served, on the services and activities provided, on implementation issues, and on outcomes that will help the National Science Foundation understand how the grant program influences students' pathways to graduate school. In addition, the National Evaluation of AGEP will inform:

- future iterations of the AGEP grants initiative;
- individual campuses' implementation of program services
- individual alliances' implementation of program services

Summary of the Study Approach

The goal of the *National Evaluation of AGEP* study is to collect and analyze information on the context and environment in which AGEP funds are utilized as well as information on program implementation and programmatic outcomes. Because AGEP services and activities differ dramatically across sites (at the level of individual campuses or individual alliances), the instruments are "broad," in an effort to capture the salient aspects of each project as implemented. In the on-line surveys, many items and some sections will be "skipped" by respondents if the items concern potential program or contextual elements not applicable to the AGEP project implemented at that site. An example of such an element might be "undergraduate research opportunities."

Request for OMB Clearance

The study design calls for data to be collected from existing sources and from STEM faculty in AGEP institutions and student beneficiaries of AGEP programs. Clearance is requested from OMB to collect information from:

- graduate students in STEM disciplines taking part in AGEP activities, using the AGEP student survey instrument

2. Purpose and Use of the Information Collected

This evaluation study is designed to help NSF gain an understanding of how the Alliances for Graduate Education and the Professoriate (AGEP) may influence the enrollment, retention and graduation rates of graduate students from underrepresented backgrounds in science, technology, engineering, and mathematics (STEM) disciplines. The study also wants to gauge whether AGEP is influencing Ph.D. students' decisions about entering a career in academia. The research team has been awarded restricted use licenses by NSF's Science Resource Services Division to access data from the Survey of Earned Doctorates (SED) and the Survey of Doctoral Recipients (SDR). These data will help us understand national, alliance, and institution-specific trends in the production of PhDs from underrepresented minority backgrounds in STEM disciplines. We will also be getting information about individual campuses through the Carnegie Classifications scheme. The proposed faculty and

student surveys are designed to help the research team address the following research questions that are related to our analyses:

1. What are the variations among AGEP alliances, institutions, and departments, and what explains these variations?
2. How do socio-historical and contextual factors influence enrollment and completion rates?

The information from this study will contribute to the body of knowledge that will enable universities to focus on those services and activities that are effective in encouraging graduate students to enroll in and complete doctoral programs in STEM disciplines. It will also help determine how the AGEP program influences STEM doctoral candidates' impressions of careers in the professoriate.

National policy makers, state higher education authorities, and individual colleges and universities need the information this study will provide to help the United States produce a STEM workforce, to improve the quality of instruction and to inform future efforts in this arena. The information collected with the survey instruments will also provide contextual and comparative data that will enable the researchers to put data from pre-existing databases (e.g. the Survey of Earned Doctorate and the Survey of Doctoral Recipients) into context.

3. Use of Technology in Information Collection

Respondents' need for technology in collecting information to respond to items in the surveys will be minimal. Most items will require respondents' impressions.

4. Efforts to Identify Duplication

This study is making use of extant data, eliminating the need to ask respondents for any relevant information that is available elsewhere. To the best of our knowledge, the information to be collected from the interviews and surveys is not available from any other source and does not duplicate any existing data collection effort.

5. Burden on Small Entities

No special provisions are necessary for small organizations or for small businesses. The size of the program is not relevant to this data collection effort.

6. Consequences of Less Frequent Collection

The items will document implementation issues and resolutions while they are still salient and on-going services and activities subject to change. In combination with baseline data from extant sources, the one data collection will provide the information for trend analyses during the relatively short (three-year) funding period. There will be no need for repeated data collections using the survey instruments.

7. Special Circumstances

No special circumstances apply to this study.

8. Outside Consultations

There is no formal outside advisory board for this project. The proposed data collection was announced in the Federal Register in May 2009. There have been no comments made by the field.

9. Payment to Respondents

No payments are being made to respondents.

10. Assurance of Confidentiality

Project staff will inform respondents both in writing and orally that they will not be identified individually in any analyses or publications. To ensure that any information obtained through the study is not available to anyone other than authorized project staff, a set of standard confidentiality procedures will be followed:

- All employees will agree to an assurance of confidentiality.
- Employees will keep completely confidential the names of respondents, and any information learned incidentally.
- Reasonable caution will be exercised in limiting access to survey data only to persons working on the project who have been instructed in the applicable confidentiality requirements of the project.
- The Principal Investigator will ensure that the data will be protected under the U.S. Privacy Act of 1974.

During the course of the project, only project analysts under the supervision of the Principal Investigator will keep any necessary identifying information and documents. No public use tape is anticipated.

11. Sensitive Questions

Very little of the requested information in the survey instruments is sensitive in the traditional sense. Students will be asked to identify their institution and their field of study and will be asked to report their scores on undergraduate and graduate school admissions tests. Students will also be asked demographic information, and will be asked a few questions about parental levels of education and their families' immigration history. Accordingly, analyses of those items will be presented only in the aggregate (e.g., "Thirty-five percent of the respondent African American students had one parent who was an immigrant," or "Sixty-six percent of the respondents were the first generation in their families to attend college.")

12. Estimates of Hour Burden

The estimated respondent time burden for individuals responding to each of the surveys is expected to be 30 minutes. The surveys will only be administered once and there is no preparation time required of the respondents.

The total burden estimates that follow are based on the numbers of funded alliances and colleges and universities within each Alliance funded as of fall 2008. There are currently 24 AGEP alliances funded in STEM disciplines and there is a total of 104 colleges and universities within these alliances. Data provided by the funded institutions indicate that there are approximately 5,500 student respondents. Based on these numbers, the estimated total annual hour burden to respondents is 2,750 hours.

13. Estimate of Annual Cost Burden to Respondents

There are no start-up costs to respondents related to this data collection or other costs not accounted for in items #12 and #14.

14. Estimate of Annual Cost to the Federal Government

The cost for this study is estimated to be $135,000 for FFY 2010. These costs include:

- development of the two instruments for which clearance is necessary
- manual entry of extant data (when necessary);
- development of two on-line interactive computer surveys;
- monitoring survey response rates and encouraging survey responses
- data cleaning and analyses;
- responses to data-based inquiries; and
- the generation of reports on the findings of the study.

15. Program Changes or Adjustments

This is a new study.

16. Plans for Tabulation and Publication of Results

Data collection on extant data is underway. Preliminary analyses were provided to NSF in March of 2009 and comparative analyses will be provided for review in winter of 2010. Data collection from respondents is also scheduled to begin in winter 2010. By summer 2010 a preliminary report of the round of surveys will be provided to NSF for review. This report will summarize information on the context and environment in which AGEP funds are being utilized as well information on program implementation, and outcomes. The preliminary report will be revised based upon suggestions from NSF.

17. Approval to Not Display OMB Expiration

This approval is not requested.

18. Explanation of Exceptions

No exceptions are requested.