

June 20, 2006

**IRB Form #2**  
**APPLICATION FOR EXPEDITED REVIEW**

**Project Title:** An Assessment of Research-Doctorate Programs

**PIN:** BHEW-Q-03-02-A

**Anticipated Date of Submission of Proposals to Sponsors:** Proposals have been sent and were funded by the Andrew W. Mellon Foundation, the Alfred P. Sloan Foundation, the National Institutes of Health, and the National Science Foundation. A proposal is pending at the Department of Energy, and a proposal will be sent to the United States Department of Agriculture in July 2006.

**Other IRBs** that will review this protocol, if any: Some universities may also wish to review the questionnaires and have them approved by their IRB Office

**Detailed Research Protocol** (may be provided in an attached file):

**Study Summary**

This study will assess the quality and characteristics of research-doctorate programs in 62 fields at educational institutions in the United States. The study will consist of:

1. The collection of quantitative data through questionnaires administered to institutions, programs, faculty, and admitted to candidacy students (in selected fields)
2. The collection of additional program data on publications, citations, and dissertation keywords from national data sources
3. The design and construction of program ratings using the collected data.

During the first stage of the study a study committee and data panel reviewed and finalized the study methodology concerning the field taxonomy for the programs, the questionnaires and data definitions. The next stage will be devoted to data collection at the institutions. This will begin with an institutional questionnaire to identify programs and will be followed by a program questionnaire that gathers information about the programs and the names of faculty participating in the programs. The faculty will then be surveyed concerning their activities, and students in selective fields will be asked for information related to their studies and career development. In the final stage the data will be analyzed and an on-line database will be developed and made available to the public at the end of 2007. A survey research organization,

Mathematica Policy Research (MPR), has been contracted to develop and administer the four questionnaires on the Internet and to develop the on-line database. The posting of the questionnaires on the Internet will occur during the summer and fall of 2006.

### Data Collection Procedures

Data will be collected from about 300 institutions, 4,500 program, 90,000 faculty and 20,000 students, and the following procedures will be employed:

- Each participating institution will identify an Institutional Coordinator (IC) who will be responsible for the collection of data at that institution.
- The first questionnaire to be distributed is the Institutional Questionnaire and it will be completed by the IC. This questionnaire collects data on institutional characteristics and asks for the names of the programs that will be assessed.
- Using the list of programs collected on the Institutional Questionnaire, logins and passwords for access to a Program Questionnaires for each program will then be sent to the IC. The IC, Institutional Research Office or a member of the program will complete this questionnaire. The questionnaire will ask for information on a range of program characteristics, student and faculty demographics, and a list of the faculty with Email addresses that participate in the doctoral program.
- All faculty members that participate in the program will then be sent a login and password and asked to complete a Faculty Questionnaire. This questionnaire will ask for demographic data, education and employment history, and scholarly activities.
- In addition to having the data from the Faculty Questionnaire incorporated into the database at the end of the study, some of the data will be used to assist NRC staff in matching faculty names against national databases with information on publications and citations, research grants, and awards and honors.
- The fourth questionnaire to students who have been admitted to candidacy will be administered for five fields in the study taxonomy. The fields are Physics, Chemical Engineering, Neurosciences, English and Economics. The names and Email addresses of students in these fields will be requested from the IC. The questionnaire will also be administrated over the Internet and the students will be given logins and passwords to access the questionnaire.

Each survey is a census of the population and no sampling will be employed.

### Questionnaire Content

The Program Questionnaire, Faculty Questionnaire and the Students Admitted to Candidacy Questionnaire are to be reviewed by the IRB Committee at the NRC. These questionnaires are attached to this form.

The Program Questionnaire is included in this submission to IRB, since it is collecting the names of faculty members and students that received their doctorate in a recent time period. Demographic data on gender and race/ethnicity of the faculty and students will not be collected on an individual basis and other information about the students will be aggregated or averaged and would not be personally identifiable.

The Faculty Questionnaire only asks for objective information about faculty members involvement in the different programs in the taxonomy. This includes their prior employment and educational background, their scholarly productivity, their demographic information, and the names of their students that received doctorates in the past five years. The following confidentiality statement appears at the beginning of the questionnaire:

The survey will be conducted by Mathematica Policy Research (MPR), an organization experienced in the conduct of confidential surveys. The survey will be conducted using secure web-based survey technology and all information that could be used to identify a respondent or link responses to individual respondents for any survey question will be maintained in storage that is secure. ALL INFORMATION YOU PROVIDE WILL BE TREATED AS CONFIDENTIAL.

The information from your responses to this questionnaire will be compiled by Mathematica Policy Research and provided to the National Research Council for their analyses. Some of the personally identifiable information, such as past employment and ZIP Codes, will be used to obtain data on publications, grants and awards and honors from other databases. The National Research Council staff who analyze the data will sign non-disclosure confidentiality agreements to protect the identity of individuals participating in this survey. Any data, including race/ethnicity and gender, that is not currently available to the public will only be used in aggregated form that cannot be used to discern the identity of any survey participant in any report or presentation concerning the survey or in the public use file that will be made available to the public at the conclusion of this study.

Confidentiality will be strictly observed with regard to the reporting of data. While it may be normal to only release these data to the NRC in aggregated form, it is important that the NRC staff have unit record data on the faculty, since it will use the responses to some of the questions to assist in matching faculty with national databases.

The Students Admitted to Candidacy Questionnaire asks for both objective and subjective information, and therefore, confidentiality will be strictly enforced.

As with the other surveys, the data from this questionnaire will be collected by the survey contractor, but only unit record data without identifiers will be provided to the NRC staff and summary data will be included in the public database at the end of the study. The contractor will have the responsibility of determining if the response rate from a program at an institution is so low that an individual could be identified, and those data would not be sent to the NRC. The following confidentiality statement appears at the beginning of the questionnaire:

The survey will be conducted by Mathematica Policy Research (MPR), an organization experienced in the conduct of confidential surveys. The survey will be conducted using secure web-based survey technology and all information that could be used to identify a respondent or link responses to individual respondents for any survey question will be maintained in storage that is secure. **ALL INFORMATION YOU PROVIDE WILL BE TREATED AS CONFIDENTIAL.**

Your name and Email address were provided by your institution only for the purpose of contacting you. The information from this survey will only be available to your institution in an aggregated form that cannot be used to discern the identity of any survey participant. Mathematica Policy Research will use an identifier to determine who has responded to the survey and to contact non responders. Once your survey responses are received, the link between your response information and your identity will be removed. The information from your responses to this questionnaire will be compiled by Mathematica Policy Research and provided to the National Research Council for their analyses. The National Research Council staff who analyze the data will sign non disclosure confidentiality agreements to protect the identity of individuals participating in this survey. Any data, including race/ethnicity and gender, that is not currently available to the public will only be used in aggregated form in any report or presentation concerning the survey or in the public use file that will be made available to the public at the conclusion of this study. In the case of questions with an open-ended response, comments will be reported only in an anonymous form that does not disclose the identity of the respondent. Only these aggregated data that cannot be used to discern the identity of any survey participant will be used in any report or presentation concerning the survey or in the public use file that will be made available to the public at the conclusion of this study.

Students name, institution, and program will only be used for follow-up of non-respondents, and these names will be removed from all data sets at the conclusion of the study.

The data for all four surveys will be collected and stored on a server at MPR. This is a secure server in the computer network that MPR maintains for other surveys that it conducts. Other surveys include ones for the National Science

Foundation (NSF) and the Department of Education (DoE), and the MPR computer system meets the security requirements of those federal agencies. The data will be transferred to the computer system at the NRC and housed on the Athena 2 server for tabulations. This is a secure server and has been approved to store other unit record data from NSF and DoE.

#### Information and Informed Consent

The material at the beginning of the Faculty and the Student Admitted to Candidacy Questionnaires describes the study and individuals are directed to a web site with more information. There is a set of Frequently Asked Questions on the web site and an Email link to ask additional questions. Both questionnaires also contain the following statement of Informed Consent:

Submission of this questionnaire will constitute your informed consent to participate in this study.

#### Risk and Benefit

The probability and magnitude of risk and harm to individuals completing the questionnaires are minimal, since confidentiality of the information on the Students Admitted to Candidacy Questionnaire will be maintained and the Faculty Questionnaire contains information that could be obtained from other sources.

The benefits of this Assessment of Research-Doctorate Programs are partially described at the beginning of the questionnaires and individuals are directed to a web site for more information. The information collected by the questionnaires will probably provide no direct benefit to the individual completing the questionnaire but is likely to yield general information that will benefit the administration of research-doctorate programs and the advancement of knowledge and scholarship.

#### **Category of Research Applicable to the National Academies** [delete those that do not apply]:

(3) Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies that is otherwise not exempt from IRB review.

**Explanation of Reason for Selecting the Indicated Category of Research:** In the Assessment of Research-Doctorate Programs human subjects participate by completing a series of voluntary questionnaires.