NATIONAL SCIENCE FOUNDATION
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March 21, 2006

TO: Office of Information and Regulatory Affairs
Office of Management and Budget
Docket Library

FROM: Suzanne H. Plimpton
Reports Clearance Officer
National Science Foundation

SUBJECT: Submission for OMB Review: 3145-0019, "Survey of Earned Doctorates" (SED)"

Attached for review and approval is the electronic submission of the following collection:

- 3145-0019, "2006 Survey of Earned Doctorates (SED)"

The *Federal Register* notice requesting comments has been published. If you have any questions, please feel free to call me at 703-292-7556.

Attachments

PAPERWORK REDUCTION ACT SUBMISSION

Please read the instructions before completing this form. For additional forms or assistance in completing this form, contact your agency's Paperwork Clearance Officer. Send two copies of this form, the collection instrument to be reviewed, the Supporting Statement, and any additional documentation to: Office of Information and Regulatory Affairs, Office of Management and Budget, Docket Library, Room 10102, 725 17th Street NW, Washington, DC 20503.

1. Agency/Subagency originating request National Science Foundation

2. OMB control Number
a. 3 1 4 5 - 0 0 1 9 b. [ ] NONE

3. Type of information collection *(check one)*
- a. [ ] New collection
- b. [ ] Revision of a currently approved collection
- c. [X] Extension of a currently approved collection
- d. [ ] Reinstatement, without change, of a previously approved collection for which approval has expired
- e. [ ] Reinstatement, with change, of a previously approved collection for which approval has expired
- f. [ ] Existing collection in use without an OMB control number

For b-f, note item A2 of Support Statement instructions

4. Type of review requested *(check one)*
- a. [X]Regular
- b. [ ] Emergency – Approval requested by:
- c. [ ] Delegated

5. Small Entities
Will this information collection have a significant economic impact on a Substantial number of small entities? [ ] Yes [X] No

6. Requested Expiration data
- a. [X] Three years from approval date
- b. [ ] Other - Specify:

7. Title (10-15 words maximum)

Survey of Earned Doctorates

8. Agency form number(s) *(if applicable)*:

9. Keywords Education, Colleges and Universities, Science and Technology

10. Abstract The Survey of Earned Doctorates (SED) is an annual census survey of all (approximately 43,000) individuals receiving research doctoral degrees from U.S. institutions. The results of the survey are widely used to assess trends in Ph.D. production and plans for employment. This information is vital for educational and labor force planners within the Federal Government and in academia and elsewhere.

11. Affected public *(mark primary with "P" and all others that apply with "X")*
- a. [P] Individuals or households
- b. [X] Business or other for-profit
- c. [X] Not-for-profit institutions
- d. [ ] Farms
- e. [X] Federal Government
- f. [X] State, local or Tribal Gov't.

12. Obligation to respond *(Mark primary with "P" and all others that apply with "X")*
- a. [P] Voluntary
- b. [ ] Required to obtain or retain benefits
- c. [ ] Mandatory

13. Annual reporting and recordkeeping hour burden

a. Number of respondents	42,787
b. Total annual responses	39,364
1. Percentage of these responses collected electronically	33%
c. Total annual hours requested	2,580
d. Current OMB inventory	1,467
e. Difference (+/-)	+1,113
f. Explanation of difference	
1. Program change	
2. Adjustment	+1,113

14. Annual reporting and recordkeeping cost burden *(in thousands of dollars)*

a. Total annualized capital/startup costs	N/A
b. Total annual costs (O&M)	
c. Total annualized cost requested	
d. Current OMB inventory	
e. Difference (+/-)	
f. Explanation of difference	
1. Program change	
2. Adjustment	

15. Purpose of information collection *(Mark primary with "P" and all others that apply with "X")*
- a. [ ] Application for benefits
- b. [X] Program evaluation
- c. [P]General purpose statistics
- d. [ ] Audit
- e. [X] Program planning or management
- f. [X] Research
- g. [ ] Regulatory or compliance

16. Frequency of recordkeeping or reporting *(check all that apply)*
- a. [ ] Recordkeeping
- b. [ ] Third party disclosure
- c. [X] Reporting

1. [ ] On occasion 2. [ ] Weekly 3. [ ] Monthly
4. [ ] Quarterly 5. [ ] Semi-annually 6. [X] Annually
7. [ ] Biennially 8. [ ] Other (describe)

17. Statistical methods

Does this information collection employ statistical methods?
[X] Yes
[ ] No

18. Agency contact *(person who can best answer questions regarding the content of this submission)*

Name: Susan Hill
Phone No: 703-292-7790

19. Certification for Paperwork Reduction Act Submissions

On behalf of this federal agency, I certify that the collection of information encompassed by this request complies with 5 CFR 1320.9.

NOTE: The text of 5 CFR 1320.9, and the related provisions of 5 CFR 1320.8 (b)(3), appear at the end of the instructions. *The certification is to be made with reference to those regulatory provisions as set forth in the instructions.*

The following is a summary of topics, regarding the proposed collection of information, that the certification covers:

(a) It is necessary for the proper performance of agency functions;

(b) It avoids unnecessary duplication;

(c) It reduces burden on small entities;

(d) It uses plain, coherent, and unambiguous terminology that is understandable to respondents;

(e) Its implementation will be consistent and compatible with current reporting and recordkeeping practices;

(f) It indicates the retention periods for recordkeeping requirements;

(g) It informs respondents of the information called for under 5 CFR 1320.8 (b)(3):

- (i) Why the information is being collected;
- (ii) Use of information;
- (iii) Burden estimate;
- (iv) Nature of response (voluntary, required for a benefit, or mandatory);
- (vi) Need to display currently valid OMB control number;

(h) It was developed by an office that has planned and allocated resources for the efficient and effective management and use of information to be collected (see note in Item 19 of the instructions);

(i) It uses effective and efficient statistical survey methodology; and

(j) It make appropriate use of information technology.

If you are unable to certify compliance with any of these provisions, identify the item below and explain the reason in Item 18 of the Support Statement

Signature of Senior Official or designee	Date
Suzanne H. Plimpton, Reports Clearance Officer, NSF	

OMB-83-I SUPPORTING STATEMENT

FOR THE 2007-2009

SURVEY OF EARNED DOCTORATES

February 2006

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LIST OF ATTACHMENTS

SECTION A: JUSTIFICATION

This request is for OMB clearance for three years for the Survey of Earned Doctorates Awarded in the United States (SED). This request is for an extension of a currently approved data collection. The SED has completed an extensive process of validation of existing items, advice/testing of new items, with extensive testing and research on the proposed addition of a salary question (described in section B.4). The goals for the SED revisions are: to reduce respondent burden, to continue to improve both quality and efficiency, to reduce costs, and to improve processes resulting in rapid release of these important data. The 2007 SED reflects the changes suggested from this review process. The changes being requested here from the preceding version are itemized in section B.4. Information about the reasons for these changes is also noted in section B.4. The revised 2007 questionnaire and current 2004-6 questionnaire are presented as Attachment 1. Selected reports that support the requested changes are listed in Attachment 2 and are available upon request from Susan Hill (sthill@nsf.gov).

A.1. Necessity for Information Collection

The Survey of Earned Doctorates is sponsored by the National Science Foundation in cooperation with the National Institutes of Health (NIH), the U.S. Department of Education (USED), the National Endowment for the Humanities (NEH), the U.S. Department of Agriculture (USDA), and the National Aeronautics and Space Administration (NASA). Each sponsoring agency obtains special tabulations from the survey each year for their unique need, and also receives uniform data tabulations/reports that are provided to all sponsors. The representatives of each of the sponsoring agencies and the list of persons who have been consulted and/or have reviewed the SED 2007-2009 questionnaire are listed in Attachment 3. The National Science Foundation has monitoring responsibility for the project, which is currently conducted under contract by the National Opinion Research Center (NORC), affiliated with the University of Chicago. A new procurement is going out later this year that will cover the SED operations from 2007-12.

The National Science Foundation Act of 1950 (as amended by Title 42, United States code Section 1862, Attachment A) requires the NSF:

... to provide a central clearinghouse for the collection, interpretation, and analysis of data on scientific and engineering resources and to provide a source of information for policy formulation by other agencies of the Federal Government ....

Statutory authority for collection of information for fields other than science and engineering comes from legislation for the other Federal sponsoring agencies. The following is a list of the applicable legislation:

1.) NIH: Title I of the National Research Act of 1974 (PL 93 348)

2.) Department of Education: Section 406(b) of the General Education Provisions Act, as (20 U.S.C. 122le-1)

3.) NEH: Section 956(k) of the Arts, Humanities, and Museums Amendments of 1990, as enacted in Public Law 10 1 -512

4.) USDA: Title XIV of the Agriculture and Food Act of 1977 (PL 95-113) as amended, and Title V of the Equity in Educational Land-Grant Status Act of 1994 (PL 013-382) as amended, Sec. 354.

5.) NASA: Title 42 of The Public Health and Welfare and Chapter 26 of the National Space Program.

Attachment 4 provides the cited legislation for each sponsoring agency; these agencies are subject to change pending funding.

A.2. Uses of Information

The Survey of Earned Doctorates has been conducted continuously since 1958 and is jointly sponsored by six Federal agencies in order to avoid duplication. It is an accurate, timely source of information on one of our Nation's most precious resources - highly educated individuals. There is little burden on the respondents and the resulting information is used extensively by many Federal agencies for program evaluation, policy formulation, and dissemination of results.

The SED is the only data source that provides comprehensive information on the education and early career commitments of persons who have recently received doctorates. The resulting information is a valuable resource for other government agencies, academic researchers and policymakers, as well.

The results of the Survey of Earned Doctorates (SED) each academic year become part of the Doctorate Records File (DRF), a virtually complete database for over 1.5 million doctorate recipients from 1920 to 2004. The purpose of the SED is to compile data on all recipients of earned research doctorates awarded by U.S. universities.

The six sponsoring agencies have made extensive use of the Survey of Earned Doctorates. Detailed tables, tabulations, and the computer files are available to representatives of the agencies that sponsor the Survey of Earned Doctorates for use in program planning/evaluation, policy development, and dissemination. The heads of the agencies use the data in their reports and speeches, as well as in national forum discussions of educational policy.

Data base services from the SED are available to other organizations and special tabulations are provided at cost. Statistical data from the SED are widely used by other Federal agencies, Congress, state agencies, universities, professional societies, and individuals doing research in science policy, graduate education, economics, and human resource planning.

The uses made of the Survey of Earned Doctorates reflect the fact that it is the most comprehensive, accurate, and timely source of data on doctorate degree awardees in the United States.

Current Uses of the SED at the Federal Level

The use of SED data and reports is widespread among Sponsoring Federal agencies and other Federal organizations. The data are used for policy development, in carrying out program responsibilities of the agencies, and in the administration of agency programs. The data are disseminated extensively throughout the agencies. Some of the more important recent uses, organized by user agency, are listed below. The participating Federal agencies are subject to change, pending funding availability; the current liaisons for each sponsoring agency are listed in Attachment 5.

a. The National Science Foundation

The National Science Foundation has been a sponsor of the SED since 1958. The uses made of the data on science and engineering (S&E) doctorates are many:

- The Survey of Earned Doctorates is used as the universe frame for selecting the sample of doctoral scientists to be included in the NSF's Survey of Doctorate Recipients (SDR), a longitudinal survey of doctorate recipients in science, engineering, and health fields.

- The survey serves as a measure of program effectiveness; the Graduate Fellowship Program uses the information on those who complete the Ph.D. to evaluate the effectiveness of the program and its design requirements. Many programs within the NSF, especially those dealing with women and minorities, use data from the SED for program planning. While these programs focus on U.S. citizens, data on foreign citizens studying here for their Ph.D. are also useful for international comparisons and for quantifying the attraction of the U.S. graduate education around the world.

- Several reports are published on science and engineering doctorates by the NSF for internal and external use. The first report to be released each year is available publicly in November, seven months after survey closeout. Additional reports follow which provide more detailed data or more analysis of the results from the Survey of Earned Doctorates.

Special tabulations of data from the survey constitute a key resource in meeting policy and program information needs of the Foundation. Examples of uses within the Foundation include:

- data on doctorates awarded to minorities and women for presentation to the National Science Board for their use in examining participation of these groups.

- data on foreign scholars provided to an interagency committee studying foreign access to U.S. science and engineering at American colleges and universities.

- baccalaureate institutions of science and engineering doctorate recipients supplied to the NSF's Division of Undergraduate Education for use in a study of institutions' contribution to the highly trained labor force.

- data supplied by the NSF to outside users. At the national level, within recent years, major data users have included the White House Office of Scientific and Technology Policy, the National Academy of Sciences, and others.

- published results in widely distributed NSF publications. Data are included in two of the Foundation's Congressionally-mandated biennial reports, *Science and Engineering Indicators,* and *Women, Minorities and Persons with Disabilities in Science and Engineering.*

- a wide range of topics related to non-U.S. doctorate recipients addressed in *Science Indicators* report, and in selected data tables that are available electronically on the Science Resources Statistics (SRS) Web Site (www.nsf.gov/statistics/doctorates).

- Aggregated data on selected variables are available for each institution through the WebCASPAR database, available to the public (http://webcaspar.nsf.gov)

b. The National Institutes of Health

The SED has been used extensively for reports mandated by Congress in the National Research Act of 1974 and funded through NIH. The committee evaluations of Biomedical and Behavioral Training Needs made considerable use of SED data; the data were also used in the committee's two follow-up studies of NIH predoctoral trainees and postdoctoral fellows. Variables such as time-to-Ph.D. and postdoctoral study plans have been used in these evaluations to compare NIH trainees and fellows with control groups. The doctoral data have also been used to estimate Ph.D. completion rates and to evaluate the NIH Minority Access to Research Careers program.

In addition, time series data by race are provided to the Division of Program Analysis for use in a program review of minority participation. A table rank ordering undergraduate institutions by the percentage of graduates who received Ph.D.'s in the biological sciences ten years later was also provided to the Office of Program Planning and Evaluation.

The Division of Research Resources conducted an analysis of SED respondents for use in evaluating the success of NIH's Minority Biomedical Research Support program (MBRS). Several tables were generated for NIH's State of Field Study on Nursing. These tables show the Ph.D. fields of persons with baccalaureates in nursing as well as baccalaureate fields of nursing Ph.D.'s.

By allowing comparisons and sustained tracking of selected doctoral candidates, the SED provides critical benchmark information for the NIH assessments of selected GPRA Target status measures of the value of pre- and post-doctoral NIH training programs. Such information will, as a consequence, be of certain value in completing the forthcoming OMB's Program Assessment (or PART) on Training Programs.

c. The Department of Education

The U.S. Department of Education has sponsored the Survey of Earned Doctorates since 1958. The Department's National Center for Education Statistics (NCES), Postsecondary Education Statistics Division, funds the survey and makes extensive use of a range of SED data. Reports have been published on a time-series analysis of doctorates in the field of education, as well as in other fields.

NCES has also used data on the postgraduate plans of new doctorates. Trend data are compiled each year and displayed in tables in the Center's publication *The Condition of Education*. NCES has also published a report containing tables from the doctorate records file comparing education doctorates to doctorates in other fields, by selected characteristics.

Data from the SED are also used for evaluation by the Department of Education's programs, such as the Office of Student Financial Aid, the individual program offices, and by the Office of Planning, Evaluation, and Policy Development.

d. The National Endowment for the Humanities

The National Endowment for the Humanities, a sponsor since 1973, uses the SED in the Congressionally-mandated State of the Humanities report. Directors of NEH also use information from the SED in reports and speeches. A Humanities Deskbook, using SED data, has been compiled by the NEH Office of Planning and Budget and is updated periodically for use throughout the agency and other interested organizations. In addition, institutional listings are prepared to estimate eligibility for programs within the agency. Several professional associations that cover humanities fields use the data produced by the SED at their conferences.

e. The Department of Agriculture

The United States Department of Agriculture (USDA), a sponsor since 1988, has developed a list of discipline areas in which it has particular concerns, analogous to the subsets developed by the National Science Foundation and the other sponsors, and has requested trend tabulations on doctorate recipients in these fields. Data collected in the Survey of Earned Doctorates are used to evaluate how widespread these programs and fields are in the United States. Data are also used in the evaluation and planning of 1890 Land Grant and Tribal College programs. A considerable and expanding number of tabulations from the SED are also available on their newly developed Food and Agricultural Education Information System (FAEIS) and other Websites.

f. The National Aeronautics and Space Administration

As a sponsor since 1995 of the SED, the Education Division of the National Aeronautics and Space Administration (NASA) has developed a program for the utilization of data from the SED in its planning and information dissemination activities. The data have been especially useful in the 10 field offices which work with colleges and universities on science issues. SED data have also been useful in providing information on the progress of women and minorities in science and engineering.

g. Other Federal Agencies and Congress

Other Federal agencies have utilized the SED in several ways - through requests for special tabulations and tables, data requests from NSF, and licensing agreements. Congressional staff have called NSF for information on several topics relevant to legislation development (such as debt levels of science doctorates at graduation) and national security interests (such as nuclear engineering doctorates awarded to foreign citizens). The Department of Energy is a prime agency in terms of the amount of tabulations they request each year from SED data.

Academic Uses of the SED

The nation's Ph.D.-granting institutions not only contribute to the SED data set but also utilize the data for many purposes. Each year since 1997, the sponsors have provided to the dean of each graduate school profiles of their graduates' demographic characteristics, debt status, postgraduation plans, and employment and other data, compared with national and peer-institution data (see Attachment 6).

Graduate and baccalaureate institutions use the data in program planning, comparison with other institutions or with national figures, and in the development of affirmative action plans. SED data on the number of Ph.D.s awarded to racial/ethnic minorities are used extensively by institutions as the only reliable source of the supply of persons with particular qualifications for academic positions. Site visits have confirmed the usefulness of the data to institutions. In the past few years, we have seen the increasing use of data by Graduate Deans to address issues of changes in the composition of the graduate schools and the time it takes to complete the doctorate, etc., and they have relied on the Survey of Earned Doctorates as the "ready made" data base of their graduates.

An analysis of users of the data show that academic institutions are the primary users of the data outside of the Federal sponsors. Over the past three years, over 100 requests for data have been fulfilled. While the universities in this country carry out the Survey of Earned Doctorates with very little burden, it is clear that they get something back from the survey in terms of use of the data for their own purposes; this is a symbiotic data collection effort.

In addition, academic researchers can apply to use selected microdata from the SED under the SRS Licensing program, if publicly available data do not address the specific needs of their study. These are legal documents that assure that the confidential data will be used and secured according to the license agreement.

A.3. Consideration of Using Improved Technology

Planning for the development of an electronic questionnaire administration of the SED was begun in late 1999 and has been refined, implemented, and expanded since that time. The purposes of instituting an electronic, Web-based option were to ease the burden on students by offering alternative completion modes and to help assure continued high response rates.

The population for this survey, graduating doctoral students, is virtually all computer literate and familiar with the world wide web. Offering a paperless survey version which can be submitted electronically is not only appealing to many students but is also very practical for respondents who are often relocating at the close of their studies and are not near the graduate offices for submission of their completed forms. The objective of ensuring high response rates is facilitated by requesting students' e-mail addresses and following up electronically with them for missing critical items or survey forms.

The phase-in of the SED electronic procedures is viewed as an ongoing test of collection procedures. This evolving test consists of three parts: a Web survey instrument to parallel the paper version; follow-up for missing questionnaires and items via e-mail; and a web institution interface which is password protected for each school (see Attachment 7). The Web version of the instrument was carefully developed and tested to assure that mode effects between it and the paper version were minimal and non-biasing. Students accessed the Web version by entering a PIN/password which was either distributed by the school or in a letter or e-mail sent to the student. Prompting for missing surveys or critical items was accomplished by the same mechanism.

The Web Institution Interface is now available to all participating institutions. This electronic Interface allows Institutional Contacts to enter their own password-protected site to monitor completion rates for their graduates, to link to various SED reports, and to print forms from PDF document files. The Interface also allows Institutional Contacts to compare their list of graduates, and their completion status, with the SED contractor-maintained database.

In general, this electronic collection system continues to demonstrate the gradual pace of adoption which can be expected of graduates and institutions. In the 2004 SED, 1,492 of the 38,271 individual completions were done via the Web. This small number included electronic prompting of non-respondents, which was a small but important component of the completion rate. This rate will increase slowly as more Graduate Schools move to an electronic collection.

In the SED, unlike many surveys, the main work of the survey distribution, collection, and submission of forms is done by the institutions. The SED work is, however, but one of many duties performed by the Institutional Contacts, who have varying degrees of task familiarity and computer literacy. The SED also must fit in with the graduate schools' procedures for completing the doctoral processing. The work of maintaining the overall cooperation of the schools while phasing in new electronic systems remains a continuing challenge, as the response rate usually drops when the school goes to a Web collection.

A.4. Efforts to Identify Duplication

The National Science Foundation has reviewed other governmental surveys through direct contacts with other agencies. At the present time, no survey gathers identical or similar information. In addition, the National Science Foundation actively maintains contacts with professional societies and groups, such as the Council of Graduate Schools, within both the higher education and data collection communities, so that information about any surveys similar to the Survey of Earned Doctorates would be immediately known. In fact, the survey carries the endorsement of several scholarly groups interested in aspects of this information.

SED survey content is also coordinated with NSF's Survey of Doctorate Recipients (SDR) and with the SESTAT data on scientists and engineers. The Survey of Doctorate Recipients is designed to provide demographic and career history information about individuals with doctoral degrees. The results of the SDR are vital for educational planners within the Federal Government and in academia. The SDR results are also used by employers in all sectors (education, industry, and the government) to understand trends in employment and salaries in S&E fields for doctorate holders and to evaluate the effectiveness of equal opportunity efforts. NSF also finds the results important for internal planning, since most NSF grants and fellowships go to individuals with doctoral degrees.

The data base system known as the Scientists and Engineers Statistical Data System (SESTAT) combines data from the SDR, the National Survey of College Graduates, and the National Survey of Recent College Graduates. The SESTAT system is designed to provide a comprehensive picture of the number and characteristics of individuals with training and/or employment in science and engineering in the United States. The SED survey content is coordinated with the SESTAT surveys to avoid unnecessary duplication of items and to assure relevant uniform approaches on similar items such as race and ethnicity.

The sample frame used to identify SDR respondents is the SED's Doctorate Records File. Locating information obtained in the SED survey is necessary for contacting new Ph.D.'s who are added yearly to the SDR sample. The coordination of content and procedures is, therefore, critical to the success of both the SED and SDR surveys.

Differences between the Survey of Earned Doctorates and the Integrated Postsecondary Education Data System (IPEDS), which collects some information on doctoral degrees, are outlined below. The IPEDS Completions survey, conducted by the National Center for Education Statistics (NCES) of the Department of Education, collects aggregate data from institutions on numbers of degrees at each level by discipline and gender. It provides no data on individuals, only data on aggregate institutional doctorate recipients (race/ethnicity and gender).

The Survey of Earned Doctorates obtains information from the individual research doctorate recipient on over twodozen variables - information not collected through the IPEDS survey. As mentioned earlier, NCES uses the Survey of Earned Doctorates extensively to present data that are not available from IPEDS.

There are three data items collected on both the SED and IPEDS that may appear, on the surface, to be duplicative: field of study, gender, and race/ethnicity. However, important purposes are served by including these variables in both databases:

- In the SED, these variables are frequently used in analyses that link these variables with other key variables (such as the length of time spent pursuing the degree and the amount of debt accumulated during the graduate education) which cannot not be collected from the institutions that provide information to IPEDS. These three variables are also used to identify individuals in "rare subgroups" for oversampling in the SDR (described above). Without these questions, the SDR would need to be greatly expanded to meet the needs for the Congressionally mandated report, *Women, Minorities and Persons with Disabilities in Science and Engineering,* for education and labor market data.

- It is also not a feasible option to exclude collection of the information about doctoral degree recipients from IPEDS, because inclusion of field of degree, sex, and race/ethnicity permits comparative analyses of trends in degree production at different degree levels. SED data cannot be substituted for the IPEDS in such comparisons, because of the inevitable differences between an institutional survey and a demographic survey. For example, individuals' self-identification on these variables may differ from those maintained by the institutions.

- Including these three questions on both surveys also provides important validity checks of both surveys at the aggregate level.

A.5. Efforts to Minimize Burden on Small Business

Not applicable. The SED does not collect information from small businesses.

A.6. Consequences of Less Frequent Data Collection

If the SED were conducted less frequently, national estimates of the characteristics of U.S. doctoral degree recipients would be seriously degraded. The survey is also an important source for monitoring changes in academic fields and participation in disciplines by demographic groups of interest (including U.S. and non U.S. citizens on both permanent and temporary visas). These data provide an annual barometer of the market conditions encountered by new doctoral degree recipients and are therefore an integral component in policy implementation and program design.

Less frequent data collection would also result in a more complicated administration of the survey in the Graduate Deans' offices. The Survey collects data from each person receiving a doctorate at the time they complete the requirements for their degree. Staff at the Graduate Deans' offices insert the Survey of Earned Doctorates into the package of materials for doctorate recipients. Any less frequent collection of the Survey of Earned Doctorates would yield far lower response rates because the Graduate Deans' offices would be uncertain about the distribution of questionnaires to prospective doctoral graduates, a process which now occurs continuously throughout the survey year. Discussion with the Council of Graduate Schools and several universities confirms the extreme difficulty graduate schools would have in operating the survey on a stop and start basis. Stability of the survey form and of the survey collection process are imperative for the usefulness of the data to the Federal agencies and for the ease of collection of the universities. A continuation of the current survey methodology serves the best interests of all involved.

If the SED were conducted less frequently, there would also be significant repercussions to the success of the Survey of Doctorate Recipients (SDR). The Doctorate Records File is the sample frame used to identify SDR respondents. Locating information obtained in the SED survey is necessary for contacting the new Ph.D.s whom are added to the SDR sample. The coordination of timing, content and procedures of these two studies is, therefore, critical to the success of both the SED and SDR surveys.

A.7. Special Circumstances

The SED does not involve any special circumstances that require extraordinary burden on respondents or that deviate from valid statistical practice. Specifically, the SED does not require respondents to:

- report information to the NSF more than quarterly;
- prepare a written response in fewer than 30 days after receipt;
- submit more than an original and two copies of any document;
- retain records for more than three years;
- submit proprietary trade secrets or other confidential information without procedures to protect confidentiality to the extent permitted by law.

In addition, the SED:

- is designed to produce valid and reliable results that can be generalized to the universe of the study;
- does not require the use of a statistical data classification that has not been reviewed and approved by OMB;
- includes a pledge of confidentiality that is supported by authority established in statue of regulation (the Privacy Act), is supported by disclosure and data security policies, and does not impede sharing of data with other sponsoring agencies for confidential use.

A.8. Federal Register Announcement and Consultations Outside the Agency

The Federal Register announcement for the SED appeared on December 19, 2005 (see Attachment 8). Public comments have been received by NSF from 24 persons in response to the announcement, as of the close-out date of January 19, 2006. These all, with one exception, were the same e-mail (distributed at the National Communication Association meeting) that propose breaking apart the Communication fields and placing them in 3 separate categories on the SED Field of Study list. (see Attachment 9 for the list and e-mail (23 responses), and the other e-mail sent). In addition, SRS directly received 2 e-mails from individuals in the Association for Education in Journalism and Mass Communication who opposed the National Communication Association proposal for the Field of Study listing. (see attachment 9)

Consultations Outside the Agency

In the many years of operation of the Survey of Earned Doctorates, the six Federal sponsors and the contractors have consistently invited others to comment on the SED. The comments come from many and varied quarters, especially from the SED advisory committee meetings, the Council of Graduate Schools, and other governmental and academic institutions. Comments and suggestions regarding the Survey of Earned Doctorates and the manner in which it is conducted have been received from individual respondents, university faculty advisors, Graduate Deans' offices, and professional researchers by telephone, mail, and in person contacts. University representatives have been sought out for consultation at venues such as professional conferences and meetings. These consultations have helped to determine if there are problems in the conduct of the survey or in the interpretation of certain items. These problems are discussed with graduate deans for their conceptual validity and applicability to all fields of study, and the need for such information is weighed against respondent burden. The sponsors work closely with the Council of Graduate Schools and their input was received on the questionnaire for the SED 2007.

Formal visits have been conducted by National Science Foundation and National Opinion Research Center staff for the purpose of consulting with graduate deans and campus administrators. The majority of institutions visited include those with poor response rates, primarily to resolve the survey collection problems at those institutions. However, the site visits also allow for the discussion of the uses of the Survey of Earned Doctorates by the Federal sponsors and by the universities themselves.

<u>Other Consultations</u>

The SED has also been informed by numerous other contacts between NSF and the user community. For example, routine information requests provide insight into the interests of the general public. In addition, there has also been consultation with members of the respondent population for the survey.

At the request of NSF, NORC organized a Technical Review Panel in July 2004 to discuss the possibility of adding a salary question to the SED. Labor economists, researchers, and graduate school administrators discussed the logistics of adding a salary question and the uses for the data with NORC and the federal sponsors. In May 2005, NSF gave approval for a set of focus groups to examine the impact of adding a question on salary on students, institution contacts, and graduate school deans. The conclusion of the focus groups was that adding a salary question would not negatively impact the survey's response rate, and the data would be informative for individual students as well as institutions. NSF then requested NORC to conduct a set of cognitive interviews to explore the most appropriate wording and placement of the question with the targeted population of recent doctoral graduates or doctoral students nearing graduation. These interviews took place in July 2005. Based on the recommendations of these focus groups and cognitive interviews, an experiment with salary questions will be conducted in the 2007 round, and the resulting question will be added to the 2008 questionnaire form (see Attachment 10).

See Attachment 3 for a list of persons who had input and who participated in the review of the revised Survey of Earned Doctorates form for 2007-2009.

A.9. Payment or Gifts to Respondents

No incentives in the form of payment or gifts to the doctoral graduates are used in the SED. Respondents may access previous Summary Reports of the study via a Web site address provided in each questionnaire.

A.10. Assurance of Confidentiality

The SED will be collected in conformance with the Privacy Act of 1974, including the section of the Privacy Act requiring notification of the respondent concerning the uses to be made of the data and the voluntary nature of his/her responses. The Survey of Earned Doctorates contains an explicit statement that the information collected will be protected under the Privacy Act of 1974. The statement indicates that the data will be used for statistical purposes only and also cites the specific circumstances under which identifying data may be released. Further, the SED is collected in conformance with the strict confidentiality requirement found in the NSF Act as Amended.

Specific procedures for protecting both hard copy and electronic data are used by NORC (see Attachment 11). Data files with personal identifiers are provided to two Federal Sponsors (NSF & NIH) and their contractors only. As indicated explicitly in the confidentiality statement, the respondent's institution may request data for respondents for that institution only with a written agreement to use such data for statistical and program evaluation purposes only. No one outside of these groups can obtain data files with direct identifiers such as phone numbers and addresses. Qualifying researchers can obtain microdata on selected variables (but no direct identifiers) only by executing a License Agreement with NSF through their employer.

A.11. Justification for Sensitive Questions

The SED recognizes the growing sensitivity of requesting respondents' Social Security numbers to an increasing segment of the population. The SED is allowed to collect respondent Social Security numbers under the NSF Act of 1950 (42 U.S.C. 1861 et seq.) and in accordance with the Privacy Act of 1974. However, the SED will collect only the last 4 digits of the Social Security number to be used to ascertain the correct identity of the survey respondent in survey operation and evaluation purposes.

A.12. Estimate of Respondent Burden

The SED is a census of all individuals receiving a research doctorate in the United States. In 2007, this is expected to include approximately 42,787 graduates. A response rate of 92 percent is anticipated. As noted above, the SED has had recent response rates of approximately 91-92 percent each year. The resulting number of completed responses is expected to be approximately 39,364 annually. The time to complete the questionnaire is estimated at 19 minutes, based on the results of cognitive interviews and staff testing with the proposed SED 2007 form. Therefore, the entire information burden for the respondents is estimated to be 12,465 hours.

The cost to respondents for this data collection is estimated to be $349,020 (based on the estimated 12,465 response burden hours times $28.00 per hour). The $28.00 estimate is derived from the 2003 SDR data that indicate that the median income for individuals with science and engineering doctoral degrees who are 35 years of age or younger was $60,000. ($60,000 /52weeks/40hours = $28.84). To adjust for salaries of doctorates not in the hard sciences, the hourly rate was adjusted down to an average of $28.00 an hour.

A.13. Cost Burden to Respondents

There is no cost to the SED respondents other than the burden hour cost noted in A.12. Respondents need not purchase, operate, or maintain capital equipment, software, or storage facilities.

A.14. Cost to the Federal Government

The cost to the Federal Government for this annual data collection is approximately $2 million a year. This amount was based on the negotiated contract cost for the 2003 SED ($1.98 million).

A.15. Program Changes or Adjustments

The only program changes are changes to the survey questions, detailed in section B.4. These changes do not affect overall respondent burden, and the time required for completion is still 19 minutes. Only the increasing number of research doctorate awards since the last OMB clearance submission caused a slightly higher annual burden on respondents. However, NSF is currently designing a test to determine the optimal form and potential impact of adding a question on projected salary for the 2/3rds of the respondents who have definite plans after graduation. This test will be described in a generic OMB clearance package this spring (Field Test of Possible SED Salary Questions). The SED must assume that some form of a salary question will be on the 2008 SED, and will address that program change with OMB next spring through a revision of the SED 2007-2009 collection.

A.16. Tabulation and Publication Plans and Project Schedule

The results of the SED are disseminated in a number of ways. To release the data, an NSF InfoBrief is published. Then the NSF Detailed Statistical Tables report will be released (containing a set of approximately 10 detailed statistical tables from the survey). These tables will be descriptive in nature and will provide extensive information on the education and employment plans of S&E doctoral graduates by field of study, granting institution, degree, future occupational and postdoctoral training plans, and demographic characteristics.

The six Federal agencies participating in the SED sponsor the compilation of survey results on all fields of study. An interagency report is prepared and published by NORC as the Summary Report (provided free of charge to responding institutions) and is available via the Web, the address of which is noted in the SED questionnaire.

The SED data will also be used in the development of key NSF reports, including the Congressionally mandated reports *Science and Engineering Indicators* and *Women, Minorities, and Persons with Disabilities in Sciences and Engineering*. All of these publications, plus additional detailed tables, will become available on NSF's Science Resources Statistics (SRS) Web site.

It is also planned to include SDR variables taken from the SED data in the SESTAT (Science and Engineering Statistical Data System), which is resident on the Web. The SESTAT system, described in section A.4, can be used to produce tabulations from the component surveys, providing a rich resource to those within and outside the government. As noted above, microdata will also be disseminated to Federal co-sponsors and collaborating researchers (with legal licenses) in order that specialized studies can be conducted. These, in turn, are expected to result in reports and other publications further disseminating the data. Finally, it is anticipated that substantive analyses of the SED data will be presented at appropriate professional meetings, such as the annual meetings of the Association for Institutional Research, the Council of Graduate Schools, the American Education Research Association, the American Statistical Association, the American Economics Association, the American Sociological Association, etc.

The schedule for the SED results in data that are released very quickly. The 2007 survey form covers the period from July 1, 2006 to June 30, 2007. The forms will be mailed to the graduate schools in early May 2006, for continuous distribution to individuals as they complete the requirements for their doctorate. Returned survey forms are edited and coded until survey close-out, which for the 2007 academic year is May 2008. After the survey close out, data variables are constructed, edited, evaluated, and reviewed for trend consistency in June/July. In August, the file is further evaluated by an outside party (a separate contractor) and quality control checks made in August. Data are tabulated in September and prepared for publication by October. Aggregate data are made available to the public in November via a release by NSF on the World Wide Web.

Project Schedule

The 2007 survey schedule follows. The 2008 and 2009 survey schedules are expected to be similar except lagged by a year and two years respectively.

Phase	**Time**
OMB clearance approval	April 15, 2006
Mailing of new forms to graduate deans	May 2006
Forms distributed to graduates	July 2006 – March 2007
Data collection close-out	May 15, 2008
Preparation of data file	August 2008
Production of tabulations	September 2008
Release of data by NSF	October 2008
Summary Report to printer	November 15, 2008

A.17. Display of OMB Expiration Date

The OMB Expiration Date will be displayed, as indicated.

A.18. Exception to the Certification Statement

The 2007-9 SED will comply with the certification statement on form OMB 83 1.

SECTION B: Collection of Information Employing Statistical Methods

The Survey of Earned Doctorates questionnaire is distributed to new doctorate recipients by the Graduate Deans of the approximately 430 doctorate granting institutions in the United States. The forms, either hard copy or electronic, are filled out at the time the individuals complete all requirements for their doctoral degrees and are returned to NSF's contractor by the Graduate Dean. Because doctorates complete the requirements for graduation throughout the year, the questionnaire distribution and completion process is continuous.

Experience shows that the process is highly effective. The distribution of the form by the university itself, the clear nature of the questionnaire, and the cooperation of the Graduate Deans all combine to keep survey response rates around 92 percent.

A high rate of response is essential for the survey to fulfill its role as a key part of the universe frame for longitudinal sample surveys, such as the Survey of Doctorate Recipients, and as the only reliable source of information on very small groups (racial/ethnic minorities, women, and persons with disabilities) in specialized fields of study at the Ph.D. level.

The feasibility of conducting the Survey of Earned Doctorates on a sample basis, and the utility of the resulting data, have been considered and found to be unacceptable. First, it is highly unlikely that the 430 graduate offices that distribute the form voluntarily could be expected to effectively carry out a sampling scheme such as handing out the form to every fifth doctoral candidate. In fact, one of the reasons many institutions participate in the survey is to receive complete information about all of their doctorate recipients.

A second sampling option -- a mailing to doctorate recipients AFTER graduation -- would likely have a much lower response rate because of difficulties in obtaining accurate addresses of doctorate recipients, particularly foreign citizens. Such a technique would impose on the universities the additional burden of providing current addresses of new graduates, a somewhat ineffective process because experience with mailing surveys to new doctorates shows many addresses are outdated almost immediately after graduation.

A third alternative, the sending of the questionnaire to doctorate recipients at a selected subset of institutions, would result in only a marginal decrease in respondent burden because the largest universities, all of which would need to be included in such a scheme, grant a disproportionate number of doctoral degrees. For example, the 50 largest institutions annually grant 51 percent of all doctoral degrees. Application of these sampling techniques would unacceptably reduce both the utility of the data and the overall accuracy of the collected data. Matrix or item sampling -- a widely used technique in achievement testing -- would not be feasible because the characteristic information is needed for each doctorate recipient for use in selecting the sample for the follow up SDR. It would reduce the utility of the information to request, for example, sex, or race, or field of degree information for some doctorate recipients and not for others. These characteristics are not evenly distributed across the doctorate population, and the extensive uses made of the data base rely on the completeness and accuracy of the information on doctorate recipients.

Therefore, sampling doctorates would decrease the utility of the data while increasing burden on the Graduate Schools which administer the survey.

When the hard copy survey forms are received at NORC they are entered directly into NORC's Computer Assisted Data Entry (CADE) program. This system permits edits (for completeness, consistency, valid ranges, etc.) during data entry. Surveys received via the Web site do not need data entry but do receive edit checks. Errors which can clearly be remedied are corrected immediately; any questionnaire failing the edit for critical items will have a follow up letter or e-mail generated for the respondent. This system also permits monitoring the frequency distribution of variables on a continuous basis, so that emerging problems, such as high item non-response rates, can be identified early in the data collection phase and appropriate corrective measures implemented, if necessary.

The accuracy of the data from the Survey of Earned Doctorates has been one of its strongest points. An ongoing evaluation of the accuracy of coding, editing, and data entry processes is conducted. It consistently indicates that the error rate is very low (less than one percent). Additional quality control checks on the merger of paper and electronic forms as well as the merger of missing information into the master data base are also ongoing.

The survey forms are constantly compared with the universities' commencement programs to make sure that only those persons with earned research doctorates are included. Universities are also asked to provide addresses of any non-respondents. If by survey close-out an individual has not responded, public information from the commencement programs is used to construct a skeletal record on that individual. If a survey form is later received from a previous non-respondent, the skeletal record is replaced by the information provided by the respondent into the correct year's data set.

The NSF project officer will be pleased to provide any of the documents referred to in this supporting statement.

B.1. Universe and Sampling Procedures

The SED is a census of all students receiving a research doctorate between July 1 and June 30 of the following year. Because it is a census, no sampling is involved. All institutions identified in IPEDS as granting doctoral degrees are asked to participate IF they confer "research doctorates". If so, they are asked to distribute survey forms, or cooperate in the electronic distribution of PIN/passwords, to their research doctoral recipients at the time of graduation.

B.2. Survey Methodology

Because there is no sampling involved in the SED, there has traditionally been no weighting involved. Basic information about non-responding individuals is obtained, where possible, from public records at their graduating institutions, graduation lists, etc. Both unit and item nonresponse are handled by including categories of "unknown" for all variables in tabulated results. The statistical experts associated with this survey are Colm O'Muircheartaigh, Vice President of Statistics and Methodology at NORC (312-759-4017) and Rachel Harter, Senior Statistician on the project at NORC (312) 759-4058). At NSF, Susan Hill, Project Officer for this survey (703-292-7790) and Ron Fecso, Chief Mathematical Statistician, (SRS) (703-292-7769), will provide statistical oversight.

B.3. Methods to Maximize Response

The SED has enjoyed an extremely high response rate during its existence, with an average of 92% completions over the past 30 years. It owes this high rate, in part, to the use of the data by the Graduate Deans who go to extraordinary lengths to encourage participation on the part of their graduates. Each Graduate Dean receives a profile of their graduates, compared with other institutions in their Carnegie class, soon after the data are released each year. It is also due to extensive university outreach efforts on the part of the survey contractor, NORC, and National Science Foundation staff and to the importance the universities themselves place on the data.

Throughout the data collection period, schools are constantly monitored for completion rates. Data on each commencement date are compared to data from the previous round in order to flag fluctuations in expected returns. Schools with late returns or reduced completion rates are individually contacted. Site visits, primarily to institutions with low response rates, by NSF staff are also critical to maintaining a high response rate to this survey. NORC's electronic monitoring systems are particularly important to these efforts, as each institution's graduation dates or SED submission dates can vary from monthly to annual.

In addition to the broad efforts to maintain high completion rates, targeted efforts to prompt for missing surveys and critical items are also key. NORC works with Institutional Contacts and with dissertation advisors and also utilizes Web-based locating sites to contact students by mail and e-mail for missing surveys or items. A Missing Information Roster is sent to Institutional Contacts who can sometimes provide basic items, in addition to addresses. A series of Missing Information Letters, requesting either the missing survey or certain critical items, and containing PIN/passwords for web access plus hard copy questionnaires are sent to non-responding students. All receipted data are merged and checked to avoid duplicate requests going out to the various sources. The results of these varied efforts significantly increase the number of completions as well as reduce the number of missing critical items, thereby improving the quality of the SED data.

The response rates of institutions and to questionnaire items are evaluated annually. For example, the evaluation of the response rate for 2004 indicated that over half of the non-response was due to 26 institutions. Institutions with poor response rates were targeted for special letters or site visits by NSF or NORC staff and, to a large extent, these efforts have been very successful in raising the response rates at institutions.

B.4. Testing of Procedures

The SED has undergone an extensive period of testing of the items in the questionnaire, and of obtaining advice on, and testing of, selected revised items. The changes made to the SED 2007 survey version are a result of many activities which helped inform changes to instruments and procedures (see Attachment 2 for a list of the methodological studies). These included:

- extensive reviews of item-by-item frequencies
- coordination of items common to the SDR and SESTAT instruments (see section A.4)
- review of all respondent comments for concerns over confidentiality or item improvements
- detailed review of emerging and declining fields of study and alignment with the CIP (Classification of Instructional Programs)
- specific analysis of the items changed in the 2004 questionnaire form
- in-depth analysis of confidentiality issues
- consultation with data processing managers on issues of paper and electronic data handling and mergers
- improvements in the coding and editing processes to ensure faster data entry resulting in more timely follow-up with non-respondents
- improvements in quality control processes resulting in earlier release of the data
- conduct of cognitive interviews, noted above, with doctoral students from various disciplines
- review of "other, please specify" information in consideration of expanding or changing answer options.

The draft questionnaire was reviewed by SED Sponsors in November of 2005, and the final questionnaire was reviewed by the Federal sponsors in December and approved. (See Attachment 3 for the list of persons who were consulted or who reviewed the questionnaire.) The list below details changes made to the SED 2007 questionnaire from the 2004 version and the rationales for those changes. Still under consideration is a possible format change to the Field of Studies list that appears on page seven of the questionnaire. Also, as mentioned before, NSF will conduct a field experiment on proposed versions of a salary question; this documents indicates where that question will appear in the SED 2008 survey form.

CHANGES to the SED 2007-9 QUESTIONNAIRE from SED 2004:

Cover *Cover:* Type of research doctorate degree (Ph.D., …) The word research was added before doctorate on the cover page respondent information section.

Rationale: This addition clarifies the type of doctorate that is included in the SED, and should lower the incidence of non-research doctorates completing the survey.

The dates which the questionnaire will cover were updated to July 1, 2006 to June 30, 2007.

Confidentiality Statement: The sentence "The last four digits of your Social Security Number are also solicited under the NSF Act of 1950, as amended; provision of it is voluntary" was changed.

Rationale: The survey now only asks for the last four digits of the respondent's Social Security Number. The confidentiality statement was updated to reflect this change.

PART A – EDUCATION

SED04 Ques#	**SED07 Ques #**
A5	A5. *Sources of Support:* The term "stipend" was removed from option b. The option "Spouse's, partner's, or family earnings" was changed to "Spouse's, partner's, or family's earnings." *Rationale:* Cognitive interviews found that "Stipend" is a general term used in most universities, and was not specifically tied to grants. "Family" was changed to "family's" to be grammatically consistent with the other terms in the response option.
A7	A7. *Post-secondary education debt:* Two categories "60,001 to 70,000", and "$70,001 and up" were added. "$50,000 and up" was changed from "$50,001 to $60,000." *Rationale:* A review of the responses to this question found a ceiling effect at the '50,000 and up" category. Two more options above $50,000 should keep pace with growing debt levels.
A8.	A8. *Education History:* The wording in part c. was changed from "Month/year of degree award" to "Month/year degree granted." *Rationale:* The wording obtains better data for collecting time-to-degree information and is now consistent with the front cover and question A9.

A9 A9. *Additional post-secondary degrees:* "Field Number" and "Month/Year granted" added to the list of requested items.

Rationale: This additional data should provide a more complete picture of the additional degrees earned.

A11 A11. *Year first entering graduate school:* Month first entered graduate school was added to the question.

Rationale: More explicit questioning, by including the month first started, should make the calculation of time to degree more accurate.

A12 A12. *Years taking courses for doctorate:* This question was combined with A13 (Years working on dissertation), and formatted to have each item asked as a different part of one question.

Rationale: This format revision will clarify that each part is exclusive of the other.

A13. *Years spent not working on degree:* This question was added.

Rationale: This explicit question was added to capture the amount of time, or "gap years", when a respondent was not working toward their degree. The question is based on a similar item in the 1987 SED that asked about time spent not working on a degree between the BA and the PhD. By referring to this time off between graduate school entry and PhD, this question should greatly add to the context of the time to degree measure.

A15 A15. *Medical or dental degree:* The question now asks specifically about an MD or DDS instead of a professional medical degree.

Rationale: The 2004 data showed that there were many respondents who included a medical degree, foreign and domestic, in A9, but answered "No" to A15. The new wording should make it more obvious to those with an MD or DDS that they should answer "Yes." NIH is specifically interested in these two types of professional doctorates.

PART B – POSTGRADUATION PLANS

B3 B3. *Postgraduate plan status:* The term "postdoc" replaced the term "postdoctoral" in response option 1, and the phrase was re-ordered to read "postdoc or other work." The response option "Other degree program (e.g., MD, DDS, JD, MBA, etc.)" was added, and the example "(e.g., family commitments, etc.)" was added to response option "Do not plan to work or study."

Rationale: The "Other degree program" option was added for respondents who do not fit the employment/postdoc "employment" model for the remaining questions in the section. 2004 data indicates these respondents chose "further work or study" in this question, and therefore were guided through the rest of the section. The new category should reduce the possibility of frustrating respondents with questions that do not apply to them. Additionally, adding "family commitments" to "do not plan to work or study" should direct respondents who would normally chose "other- specify" to choose "do not plan to work or study", which is the more appropriate category.

B4 B4. *Immediate postgraduate plans:* The term "postdoctoral" was replaced with the term "postdoc" in all headings and response options, and the wording of the first heading now reads "Postdoc or further training". For category five "Employment", the instructions now read "(other than postdoc or further training)".

Rationale: Emphasizing the term "postdoc" in several areas should reduce the number of true postdocs who choose employment for this question. The word "postdoc" is used instead of "postdoctoral" to be consistent with the question which defines postdoc.

B5 B5. *Postgraduate source of support:* The term "postdoc" replaces the term "postdoctoral" in the question stem.

Rationale: The wording was changed to be consistent with the rest of the questionnaire.

B6 B6. *Type of employer:* The question stem was changed to read "What type of principal employer will you be working for (or training with) in the next year?" The coding changed from an alpha list to a numerical list.

Rationale: The new question wording should be easier to understand for respondents, and the word "principal" should clarify that the question is referring to the primary job if there is more than one. The coding update will make the question consistent with the other "Mark One" questions.

****** A proposed question on salary expected, for those with definite plans, would go here.

B8 B8. *Work activities:* The instructions were moved directly over the responses.

Rationale: The placement of the instructions should reduce the instances where respondents choose more than one option per column.

PART C – BACKGROUND INFORMATION

C3 C3. *Dependents:* The phrase "(children or adults)" was added to the question stem, and the instructions were changed to "Write in number" right above the box. The box for no dependents was lined up directly above the other boxes.

Rationale: The cognitive interviews found that respondents were defining dependents to mean children only. Specifically mentioning adults should clarify that all financial dependents should be included. Additionally, the new instructions should help reduce the instances of respondents checking a box when they should write in a number.

C4 C4. *Parents' educational attainment:* The list of professional degrees was updated.

Rationale: The list of degrees is now in line with the most common professional degrees earned.

C12 C12. *Hispanic or Latino:* The parentheses around "Latino" were removed.

Rationale: The question is now more closely aligned with the U.S. Census version of this question.

C15 C15. *Social Security Number:* This question will ask only for the last four digits of the SSN, instead of the full nine digit number.

Rationale: Cognitive interviews, focus groups, and respondent comments found that this question was highly sensitive, and many respondents were very uncomfortable providing this information. This question also had a high level of item non-response. The research showed that asking for only the last four digits would ease respondent discomfort. However, it will still provide enough information for the purposes of the survey. The SED will use the last 4 digits to make sure there are no duplicate forms in the collection and to ensure that the correct person is located in the SDR sample, if applicable.

C16 *E-mail and phone contact information:* Cell phone number was also asked for.

Rationale: Added to reflect the increased use of the cell phone; it will aid in location of new Ph.D.'s, a very mobile population.

C18 *Signature and Date:* This question was dropped from the survey.
Rationale: Signature is not collected in the web SED and is not collected in most other Federal surveys; therefore it is dropped to increase consistency between the two modes and other surveys.

B.5. Contacts for Statistical Aspects of Data Collection

National Opinion Research Center (Tom Hoffer, Project Director) is the contractor that will conduct the 2007 survey and perform some of the analyses. As noted above, little statistical estimation work (see B.2) has been necessary for this survey in the past, because it is an annual census. Statistical experts at NORC associated with the Doctoral Data Project (Colm O'Muircheartaigh and Rachel Harter, noted in B.2, will be asked to evaluate the analyses done at NORC). Ron Fecso, Chief Statistician at SRS/NSF, will be asked to evaluate analyses done at NORC as well as those done at NSF.

ATTACHMENT 1: PROPOSED 2007 QUESTIONNAIRE (Unformatted) AND ACTUAL 2004 QUESTIONNAIRE

NOTE: Changes in the SED 2007 from the SED 2004 are highlighted in yellow.

COVER PAGE

Please print your name in full:

First Name	Middle Name	Last Name	Suffix (e.g., Jr.)
Cross reference: Birth name or former name legally changed			
Name of Doctoral Institution		City or Branch	
Type of Research Doctorate Degree (e.g., Ph.D., Ed.D., D.M.A., etc.)			Date Degree Granted (mm/yyyy)

Survey of Earned Doctorates

July 1, 2006, to June 30, 2007

Conducted by
The National Opinion Research Center at the University of Chicago
for
The National Science Foundation
The National Institutes of Health
The U.S. Department of Education
The National Endowment for the Humanities
The U.S. Department of Agriculture
The National Aeronautics and Space Administration

This information is solicited under the authority of the National Science Foundation Act of 1950, as amended. ALL INFORMATION YOU PROVIDE WILL BE TREATED AS CONFIDENTIAL and used only for research or statistical purposes by your doctoral institution, the survey sponsors, their contractors, and collaborating researchers for the purpose of analyzing data, preparing scientific reports and articles, and selecting samples for a limited number of carefully defined follow-up studies. The last four digits of your Social Security Number are also solicited under the NSF Act of 1950, as amended; provision of it is voluntary. It will be kept confidential. It is used for quality control, to assure that we identify the correct persons, especially when data are used for statistical purposes in Federal program evaluation. Any information publicly released (such as statistical summaries) will be in a form that does not personally identify you. Your response is voluntary and failure to provide some or all of the requested information will not in any way adversely affect you.

The time needed to complete this form varies according to individual circumstances, but the average time is estimated to be 19 minutes. If you have comments regarding this time estimate, you may write to the National Science Foundation, 4201 Wilson Blvd., Arlington, VA 22230, Attention: NSF Reports Clearance Officer. A Federal agency may not conduct or sponsor a collection of information unless it displays a currently valid OMB control number.

OMB No.: 3145-0019
Approval Expires XX/XX/2009

PAGE 2

INSTRUCTIONS

Thank you for taking the time to complete this questionnaire. Directions are provided for each question.

- If you have not already done so, please print your name on the front cover.
- Please print all responses; you may use either a pen or pencil.
- When answering questions that require marking a box, please use an "X."

PART A - Education

A1. What is the title of your dissertation?
Please mark (X) this box if the title below refers to a performance, project report, or a musical or literary composition required instead of a dissertation.

Title: ____

A2. Please write the name of the primary field of your dissertation research.
Name of Field __________________

Using the list on page 7, choose the code that best describes the primary field of your dissertation research.
Number of Field ________________

If your dissertation research was interdisciplinary, list the name and number of your secondary field.
Name of Field __________________
Number of Field_________________

If there were more than two fields, please continue on the back cover of the questionnaire (p. 8).

A3. Please name the department (or interdisciplinary committee, center, institute, etc.) of the university that supervised your doctoral studies.

____
Department/Committee/Center/Institute/Program

A4. If you received full or partial tuition remission (waiver) for your doctoral studies, was it:
0 I did not receive any tuition remission
1 for less than 1/3 of tuition
2 between 1/3 and 2/3 of tuition
3 more than 2/3 of tuition but less than full
4 full tuition remission

A5. Which of the following were sources of financial support during graduate school?
Mark ALL that apply

a. Fellowship, scholarship
b. Grant
c. Teaching assistantship
d. Research assistantship
e. Other assistantship
f. Traineeship
g. Internship, clinical residency
h. Loans (from any source)
i. Personal savings
j. Personal earnings during graduate school (other than sources listed above)
k. Spouse's, partner's, or family's earnings or savings
l. Employer reimbursement/assistance
m. Foreign (non-U.S.) support
n. Other - Specify

A6. Which TWO sources listed in A5 provided the most support?
Enter letters of primary and secondary sources

1 Primary source of support
2 Secondary source of support
Mark (X) if no secondary source

A7. When you receive your doctoral degree, how much money will you owe that is directly related to your undergraduate and graduate education?
Mark (X) one in each column

Undergraduate	Graduate
0 None	0 None
1 $10,000 or less	1 $10,000 or less
2 $10,001 - $20,000	2 $10,001 - $20,000
3 $20,001 - $30,000	3 $20,001 - $30,000
4 $30,001 - $40,000	4 $30,001 - $40,000
5 $40,001 - $50,000	5 $40,001 - $50,000
6 $50,001 - $60,000	6 $50,001 - $60,000
7 $60,001 - $70,000	7 $60,001 - $70,000
8 $70,001 or more	8 $70,001 or more

PAGE 3

A8. The next few questions ask about the degrees you have received. Starting with this doctorate degree, please provide the following information for the most recent master's degree and your first bachelor's degree.

	This research doctorate degree		Most recent master's degree (e.g. MS, MA, MBA) or equivalent		First bachelor's degree (e.g. BA, BS, AB) or equivalent	
a. Have you received a degree of this type? . .	Yes X	No	Yes	No	Yes	No
b. Month/year that you started your degree. . .	Month		Month		Month	
	Year		Year		Year	
c. Month/year degree granted..	Month		Month		Month	
	Year		Year		Year	
d. Primary field of study						
e. Field number from list on p. 7						
f. Institution name						
g. Branch or city.						
h. State or province						
i. Country	USA					

A9. Excluding those above, have you attained any additional postsecondary degrees? …

Yes No

↳ If yes, please list the additional degree(s), granting institution(s), and years.

Degree Type ________________________________
Degree Field ________________________________
Field Number, p. 7 ________________________________
Month/Year Granted ________________________________
Institution ________________________________
Branch or City ________________________________
State or Country ________________________________

Degree Type ________________________________
Degree Field ________________________________
Field Number, p. 7 ________________________________
Month/Year Granted ________________________________
Institution ________________________________
Branch or City ________________________________
State or Country ________________________________

If necessary, please continue this list on the back cover (p.8).

A10. Was a master’s degree a prerequisite for admission to your doctoral program?

Yes No

A11. In what month and year did you first enter graduate school in any program or capacity, in any university?

Month ______ Year __________

A12. How many years were you:

a. taking courses or preparing for exams for this doctoral degree (including a master's degree, if that was part of your doctoral program)?

Years __________

Round to whole years

b. working on your dissertation after coursework and exams (non-course related preparation or research, writing, and defense)?

Years __________

Round to whole years

A13. Was there any time from the year you entered your doctoral program and the award of your doctorate that you were not working on your degree (that is, not taking courses or working on your dissertation)?

Yes No

↳ If yes, please provide the number of years ______

Round to whole years.

PAGE 4

A14. Did you earn college credit from a community or two-year college?

1 Yes
2 No

A15. Are you earning, or have you earned, an MD or a DDS?

1 Yes
2 No

PART B - Postgraduation Plans

B1. In what country or state do you intend to live after graduation (within the next year)?

0 in U.S. → State ___________
1 not in U.S. → Country ___________

B2. Do you intend to take a "postdoc" position?
(A "postdoc" is a temporary position primarily for gaining additional education and training in research, usually awarded in academe, industry, or government.)

1 Yes
2 No

B3. What is the status of your postgraduate plans (in the next year)?
Mark (X) one

0 Returning to, or continuing in, predoctoral employment
1 Have signed contract or made definite commitment for a "postdoc" or other work
GO TO B4

2 Negotiating with one or more specific organizations
3 Seeking position but have no specific prospects
4 Other full-time degree program (e.g., MD, DDS, JD, MBA, etc.)
5 Do not plan to work or study (e.g., family commitments, etc.)
6 Other - Specify
SKIP TO C1

B4. What best describes your (within the next year) postgraduate plans?
Mark (X) one

"POSTDOC" OR FURTHER TRAINING

0 "Postdoc" fellowship
1 "Postdoc" research associateship
2 Traineeship
3 Intern, clinical residency
4 Other - Specify

GO TO B5

EMPLOYMENT

5 Employment (other than "postdoc or further training")
6 Military service
7 Other - Specify

SKIP TO B6

B5. What will be the main source of financial support for your "postdoc" or further training within the next year?
Mark (X) one

0 U.S. government
1 Industry/business
2 College or university
3 Private foundation
4 Nonprofit, other than private foundation or college
5 Foreign government
6 Other - Specify
7 Unknown

B6. What type of principal employer will you be working for (or training with) in the next year?
Mark (X) one

EDUCATION

1. U.S. 4-year college or university other than medical school
2. U.S. medical school (including university-affiliated hospital or medical center)
3. U.S. university-affiliated research institute
4. U.S. community or two-year college
5. U.S. preschool, elementary, middle, secondary school or school system
6. Foreign educational institution

GOVERNMENT (other than education institution)

7. Foreign government
8. U.S. federal government
9. U.S. state government
10. U.S. local government

PRIVATE SECTOR (other than education institution)

11. Not for profit organization
12. Industry or business (for profit)

OTHER

13. Self-employed
14. Other - Specify

PAGE 5

B7. Please name the organization and geographic location where you will work or study.

Name ________________

State (if U.S.) ________________

OR

Country (if not U.S.) ________________

******** A salary question being tested now will be placed here in the SED AY2008**********

B8. What will be your primary and secondary work activities?

	Mark (X) one in each column	
	a. Primary	b. Secondary
Research and development	1	1
Teaching	2	2
Management or administration	3	3
Professional services to individuals	4	4
Other - Specify	5	5
Mark (X) if no secondary work activities.		

PART C - Background Information

C1. Are you –

1 Male

2 Female

C2. What is your marital status?

Mark (X) one

1 Married

2 Living in a marriage-like relationship

3 Widowed

4 Separated

5 Divorced

6 Never married

C3. Not including yourself or your spouse/partner, how many dependents (children or adults) do you have – that is, how many others receive at least one half of their financial support from you?

Mark (x) box if none ☐

Write in Number

5 years of age or younger	☐
6 to 18 years	☐
19 years or older	☐

C4. What is the highest educational attainment of your mother and father (or guardians)?

Mark (X) one for each parent

	a. Mother	b. Father
Less than high/secondary school graduate	1	1
High/secondary school graduate	2	2
Some college	3	3
Bachelor's degree	4	4
Master's degree (e.g., MA, MS, MBA, MSW, etc.)	5	5
Professional degree (e.g., MD, DDS, JD, D.Min, Psy.D., etc.)	6	6
Research doctoral degree	7	7
Not applicable	8	8

C5. What is your place of birth?

State (if U.S.) ___________

OR

Country (if not U.S.) ___________

C6. What is your date of birth?

Month __________ Day __________ Year 19______

C7. What is your citizenship status?
Mark (X) one

U.S. CITIZEN
- 0 Since birth
- 1 Naturalized

SKIP TO C9

NON-U.S. CITIZEN
- 2 With a Permanent U.S. Resident Visa ("Green Card")
- 3 With a Temporary U.S. Visa

GO TO C8

PAGE 6

C8. (IF A NON-U.S. CITIZEN) Of which country are you a citizen?

____
(Specify country of present citizenship)

C9. In what state or country was the high school/secondary school that you last attended?

State (if U.S.) __________
OR
Country (if not U.S.) __________

C10. Are you a person with a disability?
- 1 Yes → GO TO C11
- 2 No → SKIP TO C12

C11. Which of the following categories describes your disability(ies)?
Mark (X) one or more
- a. Blind/Visually Impaired
- b. Deaf/Hard of Hearing
- c. Physical/Orthopedic Disability
- d. Learning/Cognitive Disability
- e. Vocal/Speech Disability
- f. Other - Specify

C12. Are you Hispanic or Latino?
- 1 Yes → GO TO C13
- 2 No → SKIP TO C14

C13. Which of the following best describes your Hispanic origin or descent?
Mark (X) one
- 1 Mexican or Chicano
- 2 Puerto Rican
- 3 Cuban

4 Other Hispanic - Specify

C14. What is your racial background? *Mark (X) one or more*

a. American Indian or Alaska Native
Specify tribal affiliation(s) ________________
b. Native Hawaiian or other Pacific Islander
c. Asian
d. Black or African-American
e. White

C15. Please fill in the last four digits of your Social Security Number.

XXX – XX - ___ ___ ___ ___

C16. In case we need to clarify some of the information you have provided, please list an E-mail address and telephone number where you can be reached.

E-mail address ____________________
Daytime or cell telephone ____________________

C17. Please provide your address and the name and address of a person who is likely to know where you can be reached.

Your Current Address:

Street Address

City State Country Zip or Postal Code

Current Address of a person who will know where you can be reached:

Name

Street Address

City State Country Zip or Postal Code

The results of this survey will be published in a Summary Report; the Summary Reports on earlier surveys are available at http://www.norc.uchicago.edu/issues/docdata.htm

Please use the back cover to make any additional comments you may have about this survey.

Thank you for completing the questionnaire. Please return this questionnaire to your GRADUATE SCHOOL for forwarding to Survey of Earned Doctorates, NORC at the University of Chicago, 1 N. State Street, Floor 16, Chicago, IL 60602. If you have questions or concerns about the survey, you may contact us by e-mail at 4800-sed@norc.uchicago.edu or phone at 1-800-248-8649.

Please print your name in full:

First Name	Middle Name	Last Name	Suffix (e.g., Jr.)

Cross reference: Birth name or former name legally changed

Name of Doctoral Institution	City or Branch

Type of Doctoral Degree (e.g., Ph.D., Ed.D., D.B.A.)	Date Degree Granted (mm/yyyy)

Survey of Earned Doctorates

July 1, 2005, to June 30, 2006

Conducted by
The National Opinion Research Center at the University of Chicago
for
The National Science Foundation
The National Institutes of Health
The U.S. Department of Education
The National Endowment for the Humanities
The U.S. Department of Agriculture
The National Aeronautics and Space Administration

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The time needed to complete this form varies according to individual circumstances, but the average time is estimated to be 19 minutes. If you have comments regarding this time estimate, you may write to the National Science Foundation, 4201 Wilson Blvd., Arlington, VA 22230, Attention: NSF Reports Clearance Officer. A Federal agency may not conduct or sponsor a collection of information unless it displays a currently valid OMB control number.

OMB No.: 3145-0019
Approval Expires 07/31/06

INSTRUCTIONS

Thank you for taking the time to complete this questionnaire. Directions are provided for each question.

- **If you have not already done so, please print your name on the front cover.**
- **Please print all responses; you may use either a pen or pencil.**
- **When answering questions that require marking a box, please use an "X."**

PART A - Education

A1. What is the title of your dissertation?

☐ *Please mark (X) this box if the title below refers to a performance, project report, or a musical or literary composition required instead of a dissertation.*

Title

A2. Please write the name of the primary field of your dissertation research.

Name of Field

Using the list on page 7, choose the code that best describes the primary field of your dissertation research.

Number of Field

If your dissertation research was interdisciplinary, list the name and number of your secondary field.

Name of Field

Number of Field

If there were more than two fields, please continue on the back cover of the questionnaire (p. 8).

A3. Please name the department (or interdisciplinary committee, center, institute, etc.) of the university that supervised your doctoral studies.

Department/Committee/Center/Institute/Program

A4. If you received full or partial tuition remission (waiver) for your doctoral studies, was it:

0 ☐ I did not receive any tuition remission
1 ☐ for less than 1/3 of tuition
2 ☐ between 1/3 and 2/3 of tuition
3 ☐ more than 2/3 of tuition but less than full
4 ☐ full tuition remission

A5. Which of the following were sources of financial support during graduate school?

Mark ALL that apply

a. ☐ Fellowship, scholarship
b. ☐ Grant, stipend
c. ☐ Teaching assistantship
d. ☐ Research assistantship
e. ☐ Other assistantship
f. ☐ Traineeship
g. ☐ Internship, clinical residency
h. ☐ Loans (from any source)
i. ☐ Personal savings
j. ☐ Personal earnings during graduate school (other than sources listed above)
k. ☐ Spouse's, partner's, or family earnings or savings
l. ☐ Employer reimbursement/assistance
m. ☐ Foreign (non-U.S.) support
n. ☐ Other - Specify

A6. Which TWO sources listed in A5 provided the most support?

Enter letters of primary and secondary sources

1 ☐ Primary source of support
2 ☐ Secondary source of support
☐ *Mark (X) if no secondary source*

A7. When you receive your doctoral degree, how much money will you owe that is directly related to your undergraduate and graduate education?

Mark (X) one in each column

Undergraduate	Graduate
0 ☐ None	0 ☐ None
1 ☐ $10,000 or less	1 ☐ $10,000 or less
2 ☐ $10,001 - $20,000	2 ☐ $10,001 - $20,000
3 ☐ $20,001 - $30,000	3 ☐ $20,001 - $30,000
4 ☐ $30,001 - $40,000	4 ☐ $30,001 - $40,000
5 ☐ $40,001 - $50,000	5 ☐ $40,001 - $50,000
6 ☐ $50,001 or more	6 ☐ $50,001 or more

A8. The next few questions ask about the degrees you have received. Starting with this doctorate degree, please provide the following information for the most recent master's degree and your first bachelor's degree.

	This research doctorate degree	Most recent master's degree (e.g. MS, MA, MBA) or equivalent	First bachelor's degree (e.g. BA, BS, AB) or equivalent
a. Have you received a degree of this type?	Yes [X] No [ ]	Yes [ ] No [ ]	Yes [ ] No [ ]
b. Month/year that you started your degree	Month [ ][ ] Year [ ][ ][ ][ ]	Month [ ][ ] Year [ ][ ][ ][ ]	Month [ ][ ] Year [ ][ ][ ][ ]
c. Month/year of degree award	Month [ ][ ] Year [ ][ ][ ][ ]	Month [ ][ ] Year [ ][ ][ ][ ]	Month [ ][ ] Year [ ][ ][ ][ ]
d. Primary field of study			
e. Field number from list on p. 7	[ ][ ][ ]	[ ][ ][ ]	[ ][ ][ ]
f. Institution name			
g. Branch or city			
h. State or province			
i. Country	USA		

A9. Excluding those above, have you attained any additional postsecondary degrees? Yes [ ] No [ ]

If yes, please list the additional degree(s), granting institution(s), and years.

Degree Type ____________________
Degree Field ____________________
Year Granted ____________________
Institution ____________________
Branch or City ____________________
State or Country ____________________

Degree Type ____________________
Degree Field ____________________
Year Granted ____________________
Institution ____________________
Branch or City ____________________
State or Country ____________________

If necessary, please continue this list on the back cover (p.8).

A10. Was a master's degree a prerequisite for admission to your doctoral program? Yes [ ] No [ ]

A11. In what year did you first enter graduate school in any program or capacity, in any university? Year [ ][ ][ ][ ]

A12. How many years were you taking courses or preparing for exams for this doctoral degree (including a master's degree, if that was a part of your doctoral program)? Years [ ][ ]

Round to whole years

A13. After coursework and exams, how many years did you work on your dissertation (non-course related preparation or research, writing, and defense)? Years [ ][ ]

Round to whole years

A14. Did you earn college credit from a community or two-year college?

1 ☐ Yes   2 ☐ No

A15. Are you earning, or have you earned, a professional medical or dental degree (e.g. MD, DDS), in addition to the doctorate?

1 ☐ Yes   2 ☐ No

PART B - Postgraduation Plans

B1. In what country or state do you intend to live after graduation (within the next year)?

0 ☐ in U.S. → State ______

1 ☐ not in U.S. → Country ______

B2. Do you intend to take a "postdoc" position?
(A "postdoc" is a temporary position primarily for gaining additional education and training in research, usually awarded in academe, industry, or government.)

1 ☐ Yes   2 ☐ No

B3. What is the status of your postgraduate plans (in the next year)? *Mark (X) one*

0 ☐ Returning to, or continuing in, predoctoral employment
1 ☐ Have signed contract or made definite commitment for other work or study
2 ☐ Negotiating with one or more specific organizations
→ **GO TO B4**

3 ☐ Seeking position but have no specific prospects
4 ☐ Do not plan to work or study
5 ☐ Other - Specify ______
→ **SKIP TO C1**

B4. What best describes your (within the next year) postgraduate plans? *Mark (X) one*

FURTHER TRAINING OR STUDY

0 ☐ Postdoctoral fellowship
1 ☐ Postdoctoral research associateship
2 ☐ Traineeship
3 ☐ Intern, clinical residency
4 ☐ Other - Specify ______
→ **GO TO B5**

EMPLOYMENT

5 ☐ Employment (other than 0, 1, 2, 3, 4)
6 ☐ Military service
7 ☐ Other - Specify ______
→ **SKIP TO B6**

B5. What will be the main source of financial support for your postdoctoral study/research within the next year? *Mark (X) one*

0 ☐ U.S. Government
1 ☐ Industry/Business
2 ☐ College or university
3 ☐ Private foundation
4 ☐ Nonprofit, other than private foundation or college
5 ☐ Other - Specify ______
6 ☐ Unknown

B6. For what type of employer will you be working or in training within the next year? *Mark (X) one*

EDUCATION

a. ☐ U.S. 4-year college or university other than medical school
b. ☐ U.S. medical school (including university-affiliated hospital or medical center)
c. ☐ U.S. university-affiliated research institute
d. ☐ U.S. community college or technical institute
e. ☐ U.S. preschool, elementary, middle, secondary school or school system
f. ☐ Foreign educational institution

GOVERNMENT (other than education institution)

g. ☐ Foreign government
h. ☐ U.S. federal government
i. ☐ U.S. state government
j. ☐ U.S. local government

PRIVATE SECTOR (other than education institution)

k. ☐ Not for profit organization
l. ☐ Industry or business (for profit)

OTHER

m. ☐ Self-employed
n. ☐ Other - Specify ______

B7. For this position, will you receive a 9 or 12 month salary?

0 ☐ 9 month
1 ☐ 12 month
2 ☐ Don't Know

B8. Before deductions, what will be your <u>basic annual salary</u> for this job? *Do <u>not</u> include bonuses, overtime or additional compensation for summertime teaching or research. <u>If you are not salaried</u>, please estimate your earned income excluding business expenses. Mark (X) one*

0 ☐ Less than $30,000
1 ☐ $30,001 - $40,000
2 ☐ $40,001 - $50,000
3 ☐ $50,001 - $60,000
4 ☐ $60,001 - $70,000
5 ☐ $70,001 - $80,000
6 ☐ Above $80,001
7 ☐ Don't Know

B9. Please name the organization and geographic location where you will work or study.

Name

State (if U.S.)

OR

Country (if not U.S.)

B10. What will be your primary and secondary work activities?

Mark (X) one in each column

	a. Primary	b. Secondary
Research and development	1 ☐	1 ☐
Teaching	2 ☐	2 ☐
Management or administration	3 ☐	3 ☐
Professional services to individuals	4 ☐	4 ☐
Other - Specify	5 ☐	5 ☐

☐ *Mark (X) if no secondary work activities.*

PART C - Background Information

C1. Are you -

1 ☐ Male

2 ☐ Female

C2. What is your marital status?

Mark (X) one

1 ☐ Married

2 ☐ Living in a marriage-like relationship

3 ☐ Widowed

4 ☐ Separated

5 ☐ Divorced

6 ☐ Never married

C3. Not including yourself or your spouse/partner, how many dependents do you have - that is, how many others receive at least one half of their financial support from you?

☐ *Mark (X) box if none*

	Number
5 years of age or younger	
6 to 18 years	
19 years or older	

C4. What is the highest educational attainment of your mother and father (or guardians)?

Mark (X) one for each parent

	a. Mother	b. Father
Less than high/secondary school graduate	1 ☐	1 ☐
High/secondary school graduate	2 ☐	2 ☐
Some college	3 ☐	3 ☐
Bachelor's degree	4 ☐	4 ☐
Master's degree (e.g., MA, MS, MBA, MSW, etc.)	5 ☐	5 ☐
Professional degree (e.g., JD, LLB, D.Min, MD, DDS, etc.)	6 ☐	6 ☐
Doctoral degree	7 ☐	7 ☐
Not applicable	8 ☐	8 ☐

C5. What is your place of birth?

State (if U.S.)

OR

Country (if not U.S.)

C6. What is your date of birth?

Month ☐☐ Day ☐☐ Year 1 9 ☐☐

C7. What is your citizenship status?

Mark (X) one

U.S. CITIZEN

0 ☐ Since birth

1 ☐ Naturalized

→ **SKIP TO C9**

NON-U.S. CITIZEN

2 ☐ With a Permanent U.S. Resident Visa ("Green Card")

3 ☐ With a Temporary U.S. Visa

→ **GO TO C8**

C8. (IF A NON-U.S. CITIZEN) Of which country are you a citizen?

(Specify country of present citizenship)

C9. In what state or country was the high school/secondary school that you last attended?

State (if U.S.) ______

OR

Country (if not U.S.) ______

C10. Are you a person with a disability?

1 ☐ Yes → **GO TO C11**

2 ☐ No → **SKIP TO C12**

C11. Which of the following categories describes your disability(ies)?

Mark (X) one or more

a. ☐ Blind/Visually Impaired

b. ☐ Deaf/Hard of Hearing

c. ☐ Physical/Orthopedic Disability

d. ☐ Learning/Cognitive Disability

e. ☐ Vocal/Speech Disability

f. ☐ Other - Specify ______

C12. Are you Hispanic (or Latino)?

1 ☐ Yes → **GO TO C13**

2 ☐ No → **SKIP TO C14**

C13. Which of the following best describes your Hispanic origin or descent?

Mark (X) one

1 ☐ Mexican or Chicano

2 ☐ Puerto Rican

3 ☐ Cuban

4 ☐ Other Hispanic - Specify ______

C14. What is your racial background? *Mark (X) one or more*

a. ☐ American Indian or Alaska Native

Specify tribal affiliation(s) ______

b. ☐ Native Hawaiian or other Pacific Islander

c. ☐ Asian

d. ☐ Black or African-American

e. ☐ White

C15. Please fill in your *partial* U.S. Social Security Number.

X X X - X X - ☐ ☐ ☐ ☐

We request only the last four digits of your SSN to assure additional protection of your data. All personal information is kept strictly confidential and is not used outside the National Science Foundation's Survey of Earned Doctorates project under any condition. We ask for this information in order to assure that no duplicate records are in the historical file. Also, NSF conducts a voluntary, longitudinal survey of a sample of doctorate recipients. Partial SSN's and personal contact information are used to obtain these sample graduates' mailing addresses two or more years after completion of their doctoral programs. Further information on the purpose and use of this survey and on the privacy safeguards is available at: http://www.norc.uchicago.edu/issues/docdata.htm

C16. In case we need to clarify some of the information you have provided, please list an E-mail address (if applicable), and telephone number where you can be reached.

E-mail address ______

Daytime telephone ______

C17. Please provide your address and the name and address of a person who is likely to know where you can be reached.

Current Address

Street Address

City State Country Zip or Postal Code

Contact Person

First Name Last Name

Street Address

City State Country Zip or Postal Code

Phone Number (including area or country code)

E-mail Address

The results of this survey will be published in a Summary Report; the Summary Reports on earlier surveys are available at http://www.norc.uchicago.edu/issues/docdata.htm

Please use the back cover to make any additional comments you may have about this survey.

Thank you for completing the questionnaire. Please return this questionnaire to your GRADUATE SCHOOL for forwarding to Survey of Earned Doctorates, NORC at the University of Chicago, 1 N. State Street, Floor 16, Chicago, IL 60602. If you have questions or concerns about the survey, you may contact us by e-mail at 4800-sed@norc.uchicago.edu or phone at 1-800-248-8649.

FIELD OF STUDY

INSTRUCTIONS: The following field listing is to be used in responding to items A2 and A8. Please choose the code that best describes the name of your field.

AGRICULTURAL SCIENCES/NATURAL RESOURCES
000 Agri. Economics
005 Agricultural Animal Breeding
010 Animal Nutrition
014 Poultry Science
019 Animal Sci., Other
020 Agronomy & Crop Science
025 Agric. & Hort. Plant Breeding
030 Plant Pathology/ Phytopathology
039 Plant Sciences, Other
043 Food Science
044 Food Science and Technology, Other
046 Soil Chemistry/ Microbiology
049 Soil Sciences, Other
050 Horticulture Science
055 Fishing and Fisheries Sciences/Mgt.
066 Forest Sciences and Biology
070 Forest/Resources Mgt.
072 Wood Science & Pulp/Paper Tech.
074 Natural Resources/ Conservation
079 Forestry & Related Science, Other
080 Wildlife/Range Management
081 Environmental Science
098 Agriculture, General
099 Agricultural Sci., Other

BIOLOGICAL/ BIOMEDICAL SCIENCES
100 Biochemistry (see 539)
103 Biomedical Sciences
105 Biophysics (see 565)
107 Biotechnology
110 Bacteriology
115 Plant Genetics
120 Plant Pathology/ Phytopathology
125 Plant Physiology
129 Botany/Plant Biology
130 Anatomy
133 Biometrics & Biostatistics
136 Cell/Cellular Biology and Histology
139 Ecology
142 Developmental Biology/Embryology
145 Endocrinology
148 Entomology
151 Immunology
154 Molecular Biology
157 Microbiology
160 Neuroscience
163 Nutrition Sciences
166 Parasitology
169 Toxicology
170 Genetics, Human & Animal
175 Pathology, Human & Animal
180 Pharmacology, Human & Animal
185 Physiology, Human & Animal
189 Zoology, Other
198 Biology/Biological Sciences, General
199 Biology/Biomed Sci, Other

HEALTH SCIENCES
200 Speech-Lang. Pathology & Audiology
210 Environmental Health
211 Environmental Toxicology
212 Health Systems/ Service Administration
215 Public Health
220 Epidemiology
222 Kinesiology/Exercise Sci
230 Nursing Science
240 Pharmacy
245 Rehabilitation/ Therapeutic Services
250 Veterinary Medicine
298 Health Sciences, General
299 Health Sciences, Other

ENGINEERING
300 Aerospace, Aeronautical & Astronautical
303 Agricultural
306 Bioengineering & Biomedical
309 Ceramic Sciences
312 Chemical
315 Civil
318 Communications
321 Computer
324 Electrical, Electronics and Communications
327 Engineering Mechanics
330 Engineering Physics
333 Engineering Science
336 Environmental Health Engineering
339 Industrial & Manufacturing
342 Materials Science
345 Mechanical
348 Metallurgical
351 Mining & Mineral
357 Nuclear
360 Ocean
363 Operations Research (See also 465, 930)
366 Petroleum
369 Polymer & Plastics
372 Systems
398 Engineering, General
399 Engineering, Other

COMPUTER & INFORMATION SCIENCES
400 Computer Science
410 Information Science & Systems
419 Computer & Information Science, Other

MATHEMATICS
420 Applied Mathematics
425 Algebra
430 Analysis & Functional Analysis
435 Geometry/Geom. Anal.
440 Logic
445 Number Theory
450 Statistics (See also 690)
455 Topology/Found.
460 Computing Theory & Practice
465 Operations Research (See also 363, 930)
498 Math/Stat, General
499 Math/Stat, Other

PHYSICAL SCIENCES
Astronomy
500 Astronomy
505 Astrophysics

Atmospheric Sci. & Meteorology
510 Atmospheric Chemistry and Climatology
512 Atmospheric Physics and Dynamics
514 Meteorology
518 Atmospheric Science/ Meteorology, General
519 Atmospheric Science/ Meteorology, Other

Chemistry
520 Analytical
522 Inorganic
526 Organic
528 Medicinal/ Pharmaceutical
530 Physical
532 Polymer
534 Theoretical
538 Chemistry, General
539 Chemistry, Other (See also 100)

Geological & Earth Sciences
540 Geology
542 Geochemistry
544 Geophysics & Seismology
546 Paleontology
548 Mineralogy & Petrology
550 Stratigraphy & Sedimentation
552 Geomorphology & Glacial Geology
558 Geological and Earth Sciences, General
559 Geological and Earth Sciences, Other

Physics
560 Acoustics
561 Atomic/Molec/Chem
564 Particle (Elem)
565 Biophysics (see 105)
568 Nuclear Physics
569 Optics/Phototonics
570 Plasma/Fusion
572 Polymer
574 Condensed Matter/Low Temp
576 Applied Physics
578 Physics, General
579 Physics, Other

Ocean/Marine Sciences
585 Hydrology & Water Resources
590 Oceanography, Chemical and Physical
595 Marine Sciences
599 Ocean/Marine, Other

PSYCHOLOGY
600 Clinical
603 Cognitive & Psycholinguistics
606 Comparative
609 Counseling
612 Developmental & Child
613 Human Devlpmt. & Family Studies
615 Experimental
618 Educational (See also 822)
620 Family Psychology
621 Industrial & Organizational (See also 935)
624 Personality
627 Physiological/ Psychobiology
633 Psychometrics and Quantitative Psychology
636 School (See also 825)
639 Social
648 Psychology, General
649 Psychology, Other

SOCIAL SCIENCES
650 Anthropology
652 Area Studies
658 Criminology
662 Demography/ Population Studies
666 Economics
668 Econometrics
670 Geography
674 International Relations/Affairs
678 Political Science & Government
682 Public Policy Analysis
686 Sociology
690 Statistics (See also 450)
694 Urban Affairs/Studies
698 Social Sciences, General
699 Social Sciences, Other

HUMANITIES
History
700 History, American
703 History, Asian
705 History, European
706 History, African
707 History, Latin American
710 History/Philosophy of Science & Technolog
718 History, General
719 History, Other

Letters
720 Classics
723 Comparative Literature
724 Folklore
729 Linguistics
732 Literature, American
733 Literature, English
734 English Language
736 Speech & Rhetorical Studies
738 Letters, General
739 Letters, Other

Foreign Languages & Literature
740 French
743 German
746 Italian
749 Spanish
752 Russian
755 Slavic (other than Russian)
758 Chinese
762 Japanese
768 Arabic
769 Other Languages & Literature

Other Humanities
770 American/U.S. Studies
773 Archeology
776 Art History/Criticism/ Conservation
780 Music
785 Philosophy
790 Religion/Religious Studies (See also 984)
795 Drama/Theater Arts
798 Humanities, General
799 Humanities, Other

EDUCATION
800 Curriculum & Instruction
805 Educ. Administration & Supervision
807 Educ. Leadership
810 Educ./Instructional Media Design
815 Educ. Statistics/ Research Methods
820 Educ. Assessment/ Testing/Measure
822 Educ. Psychology (See also 618)
825 School Psychology (See also 636)
830 Social/Philosophical Foundations of Educ.
835 Special Educ.
840 Counseling Educ./ Counseling & Guidanc
845 Higher Educ./ Evaluation & Research

Teacher Education
850 Pre-elementary/Early Childhood
852 Elementary
856 Secondary
858 Adult & Continuing

Teaching Fields
860 Agricultural Education
861 Art Education
862 Business Education
864 English Education
866 Foreign Languages Education
868 Health Education
870 Family & Consumer Sci./Home Economics
874 Math. Education
876 Music Education
878 Nursing Education
880 Physical Education & Coaching
882 Reading Education
884 Science Education
885 Social Science Education
887 Trade & Ind. Educ.
889 Teach Educ. & Prof Dev.

Other Education
898 Education, General
899 Education, Other

PROFESSIONAL FIELDS
Business Mgmt./Administrative Services
900 Accounting
905 Banking/Financial Support Services
910 Business Admin. & Management
915 Business/Managerial Economics
916 International Business/Trade/ Commerce
917 Mgmt. Information Systems/Business Data
920 Marketing Management & Research
921 Human Resources Development
930 Operations Research (See also 363, 465)
935 Organiz. Behavior (See also 621)
938 Business Mgmt./ Administration Serv., General
939 Business Mgmt./ Administration Serv., Other

Communications
940 Communications Research
947 Mass Communication/ Media Studies
957 Communication Theory
958 Communications, General
959 Communications, Other

Other Professional Fields
960 Architec. Environ. Design
964 Family/Consumer Sci./Human Sci., General
968 Law
972 Library Science
974 Parks/Sports/Rec./ Leisure/Fitness
976 Public Administration
980 Social Work
984 Theo./Religious Education (See also 790)
989 Prof. Fields, Other

Other Fields
999 Other Fields

To the Doctorate Recipient:

Congratulations on earning a doctoral degree! This is an important accomplishment for you. Your accomplishment is also significant for both this nation and others, as the new knowledge generated by research doctorates enhances the quality of life in this country and throughout the world. Because of the importance of persons earning research doctorates, several Federal agencies—listed on the cover—sponsor this Survey of Earned Doctorates.

The basic purpose of this survey is to gather objective data about doctoral graduates. These data are important in improving graduate education both at your home institution and beyond. Often, decisions made by governmental and private agencies to develop new programs, or to support present ones, are based in part on the data developed from this survey. If you have any comments about the survey, please provide them in the space below.

On behalf of the sponsoring Federal agencies, I thank you for your participation in this survey.

Best wishes,

Dr. Lynda T. Carlson
National Science Foundation

Additions to Questions

A2 (continued)

Name of Field

Number of Field

Name of Field

Number of Field

A9 (continued)

Degree Type		Degree Type	
Degree Field		Degree Field	
Year Granted		Year Granted	
Institution		Institution	
Branch or City		Branch or City	
State or Country		State or Country	

Comments about the Survey

Please return this questionnaire to your GRADUATE SCHOOL for forwarding to Survey of Earned Doctorates, NORC at the University of Chicago, 1 N. State Street, Floor 16, Chicago, IL 60602. If you have questions or concerns about the survey, you may contact us by e-mail at 4800-sed@norc.uchicago.edu or phone at 1-800-248-8649.

OFFICE USE ONLY					
Case ID		Instit. Code:	Grad Date:	Main Disp.:	
PROCESSING					
Receipt		Editing		CADE	
Initials	Date	Initials	Date	Initials	Date
Ver. Adjust		Retrieval		Updates	
Initials	Date	Initials	Date	Initials	Date

ATTACHMENT 2: LIST OF METHODOLOGICAL RESEARCH CONDUCTED ON THE SED

Methodological Research Concerning the Survey of Earned Doctorates

Note: Reports available upon request from Susan Hill (sthill@nsf.gov).

Summary of Respondent Comments on the Survey of Earned Doctorates: 2001- 2004: qualitative analysis of respondent verbatim comments spanning 1999 - 2001 survey forms. (Lashley, Hess, and Reyes, 2006)

Survey of Earned Doctorates: Qualitative Testing for the SED Questionnaire: Key findings and recommendations from 6 Focus Groups and 17 cognitive interviews conducted on the SED, with Special Emphasis on potential methods to ask for salary. The purpose was to inform the questionnaire revisions for the SED 2007-2009, including a salary question and a truncated social security question. (Hess, Hoffer, Lee, 2005)

The Salary Panel Meeting for the Survey of Earned Doctorates: A NORC report on the rationale, limitations, and next steps should NSF decide to add a question on expected salary on the Survey of Earned Doctorates. Includes recommendations from the 8 panelists from government, academe, and professional associations. (Hess, Hoffer, 2004)

Survey of Earned Doctorates: Testing a Web Collection Process in Institutions: a report on the initial beta-test of the process of incorporating a web-based survey for the Survey of Earned Doctorates and the development of an electronic institutional interface; describes the challenges of incorporating into the procedures used for the collection of the SED by a variety of Graduate Schools. (Simko, Hess, 2003)

Evaluation of the SED Educational History Question: an analysis of the effect of question changes regarding the capture of educational history information in the Survey of Earned Doctorates. (Hoffer, Hess, Sederstrom, Selfa, Welch, Bullock, 2002)

Survey of Earned Doctorates: Cognitive Interviews on the SED Web Questionnaire: discussion of results of cognitive interviews on the 2002 SED Web questionnaire. (Simko, Hess, Ahsan, and Hoffer, 2002)

Results from Cognitive Interviews of NSF Earned Doctorates Web Survey: discussion of results of cognitive interviews on the 2002 SED web and paper versions. (Althheimer and Dillman, 2002)

Working Focus Group Report of Institutional Contacts for the Survey of Earned Doctorates: results of a technical experts group meeting. (Friedman, Hess, and Hoffer, 2002)

Summary of Respondent Comments: Survey of Earned Doctorates, 1999- 2001: qualitative analysis of respondent verbatim comments spanning 1999 - 2001 survey forms. (Alfred-Liro, Hill, Reyes, and Hess, 2003)

Analysis of the Potential Undercoverage in the SDR from Double Doctorates: a report showing that .05 percent of doctorates eligible for the SDR sample are excluded from the SED universe because they earned a S&E doctorate after earning a non-S&E doctorate, which does not create an undercoverage problem for the SDR. (Harris/Bouzouth/Hill, 2002)

Analysis of Data from the SED and the SDR Concerning Disabilities: a report on the comparison of somewhat different methods of measuring disability in the SED and the SDR showing that disability on-set is primarily with age in the SDR. (Hill/Green, 2001)

SED 2000 Web Survey Instrument Development and Beta Test: Final Results Report: report on initial development of setting up a SED Web questionnaire, devising a system of access to the instrument, capturing the data from a small group of respondents, and folding in these data to the annual SED data base. (Hoffer, Nichols, et al., 2001)

Development/Testing of New Locating Method for Survey of Earned Doctorates Nonrespondents Using Dissertation Abstracts-On Line: measurement of the efficiency of using the Dissertation abstracts electronic system for locating new doctorates who had not received a Survey of Earned Doctorates form from their university (Green, 2001)

Summary of Respondent Comments: Survey of Earned Doctorates, 1999: qualitative analysis of respondent verbatim comments written on 1999 survey forms. (Alfred-Liro and Hill, 2001)

Citizenship and Race/Ethnicity of Ph.D. Degree Recipients: A Comparison of Data from the University of California and Survey of Earned Doctorates: discussion of results of a validation study of race/ethnicity and citizenship data, comparing University of California administrative records and Survey of Earned Doctorates data. (Sui, et al., 2000)

Report on Cognitive Research for the 2000 SED Questionnaire Development Task: discussion of results of cognitive interviews on proposed SED 2001 item revisions and additions with 13 doctoral candidates. (Dugoni, Lee and Baldwin, NORC, 1999)

A Qualitative Pre-Test of the Revised Survey of Earned Doctorates, Using Three Focus Groups: presented the results of three focus groups testing the revised Survey of Earned Doctorates form. Results were cumulative because modifications were made to the questionnaire after each focus group was held. (Policy Research Methods Inc., 1996)

Advisory Committee on the Content of the Survey of Earned Doctorates: recommendations of a large panel representing users of the Survey of Earned Doctorates concerning the content of the survey (NRC, 1996)

Technical Panel Review of the Content of the Survey of Earned Doctorates: outside panel recommendations for changes to the survey form and content. (NRC, 1993 and 1995)

Analysis of the Stay Rates of Foreign Doctorate Recipients from U.S. Universities: data from the Survey of Earned Doctorates were matched with Social Security data to provide new information on this topic as well as information on the accuracy of the postgraduation plans section and the Social Security Numbers provided by foreign citizens when they completed the Survey of Earned Doctorates. (Finn, ORISE, 1995 and 1997)

Review of the Format of the Survey of Earned Doctorates: Professor Don Dillman made recommendations for changes to the questionnaire format at the request of the NSF (Dillman, 1995)

Validation Study of the Survey of Earned Doctorates: a major report attempting to validate most sections of the survey, but focusing on assessing the validity of questions on Sources of Support and Postgraduation Plans. Also described the results of "think-aloud" interviews conducted with a sample of doctorate recipients. (NRC, 1994)

Investigation of the Computerized Administration of the Survey of Earned Doctorates: examined the possible impact on the graduate school and students of having an electronically-administered Survey of Earned Doctorates. (Sun-Guen Baek, Graduate Division, U. of California at Berkeley, 1994)

Federal Agency Sponsors Focus Group on the Content and Use of the SED: described the focus group meeting of the Federal agency sponsors at Airle House to discuss the issues, content, and uses of the questions in the Survey of Earned Doctorates. (NRC, 1994)

Validation of the Sources of Support Question on the Survey of Earned Doctorates by Comparison with University Records: a detailed validation of a problem question on the SED, the sources of financial support, via a comparison with the individual records of graduates of the University of California at Berkeley. (Nerad, U. of California at Berkeley, 1993)

Comparison of the Data on Mathematics Doctorates Collected by the Survey of Earned Doctorates and the American Mathematical Society: detailed comparison of the results of two collections of data on mathematics doctorate awards by institution. Conducted by IPA to NSF. (Maxwell, Hill, and Thurgood, 1993)

Evaluation Reports, Quality Profiles for the Survey of Earned Doctorates: description of the methodology, coverage, survey response, and item response for each year of the Survey of Earned Doctorates from 1991 to 1996. (NRC), 1997 to 2001 (NORC)

Coder Perceptions of the Survey of Earned Doctorates Questionnaire: summarized the perceptions of the coders of the over 40,000 questionnaires for the Survey of Earned Doctorates for indications of respondent confusion, error patterns, and the effects of formatting. (NRC, 1992) (NRC, 1996)

Focus Group Report on the Survey of Earned Doctorates Questionnaire: summarized the findings of focus group interviews to obtain respondents' perceptions to questionnaire items and format. (Wienman and Hill. 1991)

Analysis of Nonresponse in the Survey of Earned Doctorates: examined the trend response rates for the survey since 1958 and highlighted the nonresponse problems in terms of both institutional practices and nonrespondent profiles. (Hill, Susan 1989)

ATTACHMENT 3: LIST OF PERSONS WHO REVIEWED THE SED

Persons who have been consulted and who have reviewed the questionnaire for the OMB clearance of the SED 2007-2009:

NORC:
Mary Hess, Survey Director
Thomas Hoffer, DDP Director
Karen Grigorian, SDR Survey Director
Lance Selfa, Computer Analyst
Vince Welch, Research Analyst
Kim Williams, Survey Analyst
Lisa Lee, Methodologist
Dan Loew, Cognitive Interviewer
Jamie Friedman, Institutional Liaison with the Graduate Schools
Mary Ann Latter, Institutional Liaison with the Graduate Schools
Syed Ahsan, Web Survey Manager
Kristy Webber, Locating Manager
Sharnia Bullock, CADE Manager

SRI, International:
Delores Thurgood, SED specialist

Federal Sponsors:
Nancy Schantz Borkow, NCES/USED
Linda Zimbler, NCES/USED
Roz Korb, NCES/USED
Ella Smith, USDA
Jeffrey Gilmore, USDA
Walter Schaffer, NIH
Bill McGarvey, NIH
Walter Goldschmidts, NIH
Frank Shaw, NEH
Jeff Thomas, NEH
Malcom Phelps, NASA
Frank Owens, NASA

NSF Division of Science Resources Statistics:
Susan Hill, COTR and NSF liaison for the SED
Nancy Leach, HRS Program Director
Lynda Carlson, Division Director
Mary Frase, Deputy Division Director
Ron Fecso, Chief Statistician
Cleo Redline, Senior Survey Statistician
Jeri Mulrow, Senior Mathematical Statistician
Kelly Kang, NSCG and NSRCG survey manager

John Tsapogas, SDR survey manager
Julia Oliver, GSS survey manager
Nirmala Kannankutty, SESTAT overview manager
Lawrence Burton, Indicators education project manager
Joan Burrelli, Indicators education author
Maurya Green, Science Survey Associate
Rolf Lehming, SEI Program Director
Alan Rapoport, SEI Senior Analyst
John Jankowski, RDS Program Director
Mark Regets, SEI Analyst
Fran Featherston, Survey Statistician
Emilda Rivers, Mathematical Statistician

NSF Staff outside SRS
Jim Lightbourne, Graduate Education Task Force
Roosevelt Johnson, EHR Program Director
Wyn Jennings, EHR Program Director
Margaret Tolbert, Office of the NSF Director
Carter Kimsey, BIO Program Officer
Melissa Lane, GEO Division Webmaster
Linda Parker, ENG Directorate

Other Persons outside NSF:
Peter Syverson, Vice President of Research, Council of Graduate Schools (retired)
Heath Brown, Research and Policy Analysis, Council of Graduate Schools
Paul Tate, Dean in Residence at the Council of Graduate Schools
Debra Stewart, President of the Council of Graduate Schools
Council of Graduate Schools -- December 2005 Booth at Conference (50 university representatives)
Jennifer Loh, American Association of Medical Schools
Lori Homer, Center for Research and Innovation in Graduate Education, U. of Washington
Judi Sui, Graduate School, U. of California at Berkeley
Fred Hall, Dean of Graduate Studies, McMaster University, Canada
Valerie Peters, Project Manager, Center for Education Statistics, STATCanada
Don Dillman, consultant to NSF for statistical and format questions on surveys in SRS
Jon Krosnick, Advisory Committee for SBE/Subcommittee for SRS

ATTACHMENT 4: AUTHORIZING LEGISLATION OF SPONSORING AGENCIES

THE NATIONAL SCIENCE FOUNDATION

SECTION I
NATIONAL SCIENCE FOUNDATION ACT OF 1950

FUNCTIONS (42 U.S.C. §1862)

§ 1862. Functions

(a) Initiation and support of studies and programs; scholarships; current register of scientific and engineering personnel

The Foundation is authorized and directed—

(1) to initiate and support basic scientific research and programs to strengthen scientific research potential and science education programs at all levels in the mathematical, physical, medical, biological, social, and other sciences, and to initiate and support research fundamental to the engineering process and programs to strengthen engineering research potential and engineering education programs at all levels in the various fields of engineering, by making contracts or other arrangements (including grants, loans, and other forms of assistance) to support such scientific, engineering, and educational activities and to appraise the impact of research upon industrial development and upon the general welfare;
(2) to award, as provided in section 1869 of this title, scholarships and graduate fellowships for study and research in the sciences or in engineering;
(3) to foster the interchange of scientific and engineering information among scientists and engineers in the United States and foreign countries;
(4) to foster and support the development and use of computer and other scientific and engineering methods and technologies, primarily for research and education in the sciences and engineering;
(5) to evaluate the status and needs of the various sciences and fields of engineering as evidenced by programs, projects, and studies undertaken by agencies of the Federal Government, by individuals, and by public and private research groups, employing by grant or contract such consulting services as it may deem necessary for the purpose of such evaluations; and to take into consideration the results of such evaluations in correlating the research and educational programs undertaken or supported by the Foundation with programs, projects, and studies undertaken by agencies of the Federal Government, by individuals, and by public and private research groups;
(6) to provide a central clearinghouse for the collection, interpretation, and analysis of data on scientific and engineering resources and to provide a source of information for policy formulation by other agencies of the Federal Government;
(7) to initiate and maintain a program for the determination of the total amount of money for scientific and engineering research, including money allocated for the construction of the facilities wherein such research is conducted, received by each educational institution and appropriate nonprofit organization in the United States, by grant, contract, or other arrangement from agencies of the Federal Government, and to report annually thereon to the President and the Congress; and

(8) to take a leading role in fostering and supporting research and education activities to improve the security of networked information systems.

BIENNIAL REPORT (42 U.S.C. §1885d)

§ 1885d. Biennial reports

(a) By January 30, 1982, and biennially thereafter, the Director shall simultaneously transmit a report to the Congress, the Attorney General, the Director of the Office of Science and Technology Policy, the Chairman of the Equal Employment Opportunity Commission, the Director of the Office of Personnel Management, the Secretary of Labor, the Secretary of Education, and the Secretary of Health and Human Services.

(b) The report required by subsection (a) of this section shall contain—

(1) an accounting and comparison, by sex, race, and ethnic group and by discipline, of the participation of women and men in scientific and engineering positions, including—

(A) the number of individuals in permanent and temporary and in full-time and part-time scientific and engineering positions by appropriate level or similar category;
(B) the average salary of individuals in such scientific and engineering positions;
(C))the number and type of promotional opportunities realized by individuals in such scientific and engineering positions;
(D) the number of individuals serving as principal investigators in federally conducted or federally supported research and development; and
(E) the unemployment rate of individuals seeking scientific and engineering positions;

(2) an assessment, including quantitative and other data, of the proportion of women and minorities studying scientific and engineering fields, including mathematics and computer skills, at all educational levels; and

(2) such other data, analyses, and evaluations as the Director, acting on the advice of the Committee on Equal Opportunities in Science and Engineering, determines appropriate to carry out the Foundation’s functions as well as the policies and programs of sections 1885 to 1885d of this title.

THE NATIONAL INSTITUTES OF HEALTH

TITLE 42--THE PUBLIC HEALTH AND WELFARE

CHAPTER 6A--PUBLIC HEALTH SERVICE

SUBCHAPTER III--NATIONAL RESEARCH INSTITUTES

Part A--National Institutes of Health

Sec. 282. Director of National Institutes of Health

(a) Appointment

The National Institutes of Health shall be headed by the Director of the National Institutes of Health (hereafter in this subchapter referred to as the “Director of NIH”) who shall be appointed by the President by and with the advice and consent of the Senate. The Director of NIH shall perform functions as provided under subsection (b) of this section and as the Secretary may otherwise prescribe.

(b) Duties and authority

In carrying out the purposes of section 241 of this title, the Secretary, acting through the Director of NIH--

(1) shall be responsible for the overall direction of the National Institutes of Health and for the establishment and implementation of general policies respecting the management and operation of programs and activities within the National Institutes of Health;

(2) shall coordinate and oversee the operation of the national research institutes and administrative entities within the National Institutes of Health;

(3) shall assure that research at or supported by the National Institutes of Health is subject to review in accordance with section 289a of this title;

(4) for the national research institutes and administrative entities within the National Institutes of Health--

(A) may acquire, construct, improve, repair, operate, and maintain, at the site of such institutes and entities, laboratories, and other research facilities, other facilities, equipment, and other real or personal property, and

(B) may acquire, without regard to section 34 of title 40, by lease or otherwise through the Administrator of General Services, buildings or parts of buildings in the District of Columbia or communities located adjacent to the District of Columbia for use for a period not to exceed ten years;

(5) may secure resources for research conducted by or through the National Institutes of Health;

(6) may, without regard to the provisions of title 5 governing appointments in the competitive service, and without regard to the provisions of chapter 51 and subchapter III of chapter 53 of such title relating to classification and General Schedule pay rates, establish such technical and scientific peer review groups and scientific program advisory committees as are needed to carry out the requirements of this subchapter and appoint and pay the members of such

groups, except that officers and employees of the United States shall not receive additional compensation for service as members of such groups;

(7) may secure for the National Institutes of Health consultation services and advice of persons from the United States or abroad;

(8) may use, with their consent, the services, equipment, personnel, information, and facilities of other Federal, State, or local public agencies, with or without reimbursement therefore;

(9) may, for purposes of study, admit and treat at facilities of the National Institutes of Health individuals not otherwise eligible for such treatment;

(10) may accept voluntary and uncompensated services;

(11) may perform such other administrative functions as the Secretary determines are needed to effectively carry out this subchapter;

(12) after consultation with the Director of the Office of Research on Women's Health, shall ensure that resources of the National Institutes of Health are sufficiently allocated for projects of research on women's health that are identified under section 287d(b) of this title;

(13) may conduct and support research training--

(A) for which fellowship support is not provided under section 288 of this title; and

(B) which does not consist of residency training of physicians or other health professionals; and

(14) may appoint physicians, dentists, and other health care professionals, subject to the provisions of title 5 relating to appointments and classifications in the competitive service, and may compensate such professionals subject to the provisions of chapter 74 of title 38.

The Federal Advisory Committee Act shall not apply to the duration of a peer review group appointed under paragraph (6). The members of such a group shall be individuals who by virtue of their training or experience are eminently qualified to perform the review functions of such group. Not more than one-fourth of the members of any such group shall be officers or employees of the United States.

(c) Availability of substances and organisms for research

The Director of NIH may make available to individuals and entities, for biomedical and behavioral research, substances and living organisms. Such substances and organisms shall be made available under such terms and conditions (including payment for them) as the Secretary determines appropriate.

(d) Services of experts or consultants; number; payment of expenses, conditions, recovery

(1) The Director of NIH may obtain (in accordance with section 3109 of title 5, but without regard to the limitation in such section on the period of service) the services of not more than 220 experts or consultants, with scientific or other professional qualifications, for the National Institutes of Health.

(2)(A) Except as provided in subparagraph (B), experts and consultants whose services are obtained under paragraph (1) shall be paid or reimbursed, in accordance with title 5, for their travel to and from their place of service and for other expenses associated with their assignment.

(B) Expenses specified in subparagraph (A) shall not be allowed in connection with the assignment of an expert or consultant whose services are obtained under paragraph (1) unless the expert or consultant has agreed in writing to complete the entire period of the assignment or one year of the assignment, whichever is shorter, unless separated or reassigned for reasons which are beyond the control of the expert or consultant and which are acceptable to the Secretary. If the expert or consultant violates the agreement, the money spent by the United States for such expenses is recoverable from the expert or consultant as a debt due the United States. The Secretary may waive in whole or in part a right of recovery under this subparagraph.

(e) Dissemination of research information

The Director of NIH shall--

(1) advise the agencies of the National Institutes of Health on medical applications of research;

(2) coordinate, review, and facilitate the systematic identification and evaluation of, clinically relevant information from research conducted by or through the national research institutes;

(3) promote the effective transfer of the information described in paragraph (2) to the health care community and to entities that require such information;

(4) monitor the effectiveness of the activities described in paragraph (3); and

(5) ensure that, after January 1, 1994, all new or revised health education and promotion materials developed or funded by the National Institutes of Health and intended for the general public are in a form that does not exceed a level of functional literacy, as defined in the National Literacy Act of 1991 (Public Law 102-73).

(f) Associate Director for Prevention; functions

There shall be in the National Institutes of Health an Associate Director for Prevention. The Director of NIH shall delegate to the Associate Director for Prevention the functions of the Director relating to the promotion of the disease prevention research programs of the national research institutes and the coordination of such programs among the national research institutes and between the national research institutes and other public and private entities, including elementary, secondary, and post-secondary schools. The Associate Director shall--

(1) annually review the efficacy of existing policies and techniques used by the national research institutes to disseminate the results of disease prevention and behavioral research programs; and

(2) recommend, coordinate, and oversee the modification or reconstruction of such policies and techniques to ensure maximum dissemination, using advanced technologies to the maximum extent practicable, of research results to such entities.

(g) Enhancing competitiveness of certain entities in obtaining research funds

(1)(A) In the case of entities described in subparagraph (B), the Director of NIH, acting through the Director of the National Center for Research Resources, shall establish a program to enhance the competitiveness of such entities in obtaining funds from the national research institutes for conducting biomedical and behavioral research.

(B) The entities referred to in subparagraph (A) are entities that conduct biomedical and behavioral research and are located in a State in which the aggregate success rate for applications to the national research institutes for assistance for such research by the entities in the State has historically constituted a low success rate of obtaining such funds, relative to such aggregate rate for such entities in other States.

(C) With respect to enhancing competitiveness for purposes of subparagraph (A), the Director of NIH, in carrying out the program established under such subparagraph, may--

(i) provide technical assistance to the entities involved, including technical assistance in the preparation of applications for obtaining funds from the national research institutes;

(ii) assist the entities in developing a plan for biomedical or behavioral research proposals; and

(iii) assist the entities in implementing such plan.

(2) The Director of NIH shall establish a program of supporting projects of biomedical or behavioral research whose principal researchers are individuals who have not previously served as the principal researchers of such projects supported by the Director.

(h) Increased participation of women and disadvantaged individuals in biomedical and behavioral research

The Secretary, acting through the Director of NIH and the Directors of the agencies of the National Institutes of Health, shall, in conducting and supporting programs for research, research training, recruitment, and other activities, provide for an increase in the number of women and individuals from disadvantaged backgrounds (including racial and ethnic minorities) in the fields of biomedical and behavioral research.

(i) Discretionary fund; uses; report to Congressional committees; authorization of appropriations

(1) There is established a fund, consisting of amounts appropriated under paragraph (3) and made available for the fund, for use by the Director of NIH to carry out the activities authorized in this chapter for the National Institutes of Health. The purposes for which such fund may be expended include--

(A) providing for research on matters that have not received significant funding relative to other matters, responding to new issues and scientific emergencies, and acting on research opportunities of high priority;

(B) supporting research that is not exclusively within the authority of any single agency of such Institutes; and

(C) purchasing or renting equipment and quarters for activities of such Institutes.

(2) Not later than February 10 of each fiscal year, the Secretary shall submit to the Committee on Energy and Commerce of the House of Representatives, and to the Committee on Labor and Human Resources of the Senate, a report describing the activities undertaken and expenditures made under this section during the preceding fiscal year. The report may contain such comments of the Secretary regarding this section as the Secretary determines to be appropriate.

(3) For the purpose of carrying out this subsection, there are authorized to be appropriated $25,000,000 for fiscal year 1994, and such sums as may be necessary for each of the fiscal years 1995 and 1996.

(j) Data bank of information on clinical trials for drugs for serious or life-threatening diseases and conditions

(1)(A) The Secretary, acting through the Director of NIH, shall establish, maintain, and operate a data bank of information on clinical trials for drugs for serious or life-threatening diseases and conditions (in this subsection referred to as the "data bank"). The activities of the data bank shall be integrated and coordinated with related activities of other agencies of the Department of Health and Human Services, and to the extent practicable, coordinated with other data banks containing similar information.

(B) The Secretary shall establish the data bank after consultation with the Commissioner of Food and Drugs, the directors of the appropriate agencies of the National Institutes of Health (including the National Library of Medicine), and the Director of the Centers for Disease Control and Prevention.

(2) In carrying out paragraph (1), the Secretary shall collect, catalog, store, and disseminate the information described in such paragraph. The Secretary shall disseminate such information through information systems, which shall include toll-free telephone communications, available to individuals with serious or life-threatening diseases and conditions, to other members of the public, to health care providers, and to researchers.

(3) The data bank shall include the following:

(A) A registry of clinical trials (whether federally or privately funded) of experimental treatments for serious or life-threatening diseases and conditions under regulations promulgated pursuant to section 355(i) of title 21, which provides a description of the purpose of each experimental drug, either with the consent of the protocol sponsor, or when a trial to test effectiveness begins. Information provided shall consist of eligibility criteria for participation in the clinical trials, a description of the location of trial sites, and a point of contact for those wanting to enroll in the trial, and shall be in a form that can be readily understood by members of the public. Such information shall be forwarded to the data bank by the sponsor of the trial not later than 21 days after the approval of the protocol.

(B) Information pertaining to experimental treatments for serious or life-threatening diseases and conditions that may be available--

(i) under a treatment investigational new drug application that has been submitted to the Secretary under section 360bbb(c) of title 21; or

(ii) as a Group C cancer drug (as defined by the National Cancer Institute).

The data bank may also include information pertaining to the results of clinical trials of such treatments, with the consent of the sponsor, including information concerning potential toxicities or adverse effects associated with the use or administration of such experimental treatments.

(4) The data bank shall not include information relating to an investigation if the sponsor has provided a detailed certification to the Secretary that disclosure of such information would substantially interfere with the timely enrollment of subjects in the investigation, unless the Secretary, after the receipt of the certification, provides the sponsor with a detailed written determination that such disclosure would not substantially interfere with such enrollment.

(5) For the purpose of carrying out this subsection, there are authorized to be appropriated such sums as may be necessary. Fees collected under section 379h of title 21 shall not be used in carrying out this subsection.

(k) Day care for children of employees

(1) The Director of NIH may establish a program to provide day care services for the employees of the National Institutes of Health similar to those services provided by other Federal agencies (including the availability of day care service on a 24-hour-a-day basis).

(2) Any day care provider at the National Institutes of Health shall establish a sliding scale of fees that takes into consideration the income and needs of the employee.

(3) For purposes regarding the provision of day care services, the Director of NIH may enter into rental or lease purchase agreements.

(l) Interagency research on trauma

The Director of NIH shall carry out the program established in part F of subchapter X of this chapter (relating to interagency research on trauma).

(July 1, 1944, ch. 373, title IV, Sec. 402, as added Pub. L. 99-158, Sec. 2, Nov. 20, 1985, 99 Stat. 823; amended Pub. L. 100-607, title I, Sec. 111, Nov. 4, 1988, 102 Stat. 3052; Pub. L. 102-321, title I, Sec. 163(b)(3), July 10, 1992, 106 Stat. 376; Pub. L. 103-43, title I, Sec. 141(b), title II, Secs. 201, 202, 206, 208, 210(b), (c), title III, Sec. 303(b), June 10, 1993, 107 Stat. 139, 144, 148-150, 153; Pub. L. 105-115, title I, Sec. 113(a), Nov. 21, 1997, 111 Stat. 2310; Pub. L. 105-362, title VI, Sec. 601(a)(1)(A), Nov. 10, 1998, 112 Stat. 3285; Pub. L. 105-392, title IV, Sec. 409, Nov. 13, 1998, 112 Stat. 3589.)

References in Text

The provisions of title 5 governing appointments in the competitive service, referred to in subsec. (b)(6), (14), are classified generally to section 3301 et seq. of Title 5, Government Organization and Employees.

The General Schedule, referred to in subsec. (b)(6), is set out under section 5332 of Title 5, Government Organization and Employees.

The provisions of title 5 relating to classifications, referred to in subsec. (b)(14), are classified generally to chapter 51 (Sec. 5101 et seq.) and to subchapter III (Sec. 5331 et seq.) of chapter 53 of Title 5, Government Organization and Employees.

The Federal Advisory Committee Act, referred to in subsec. (b), is Pub. L. 92-463, Oct. 6, 1972, 86 Stat. 770, as amended, which is set out in the Appendix to Title 5, Government Organization and Employees.

The provisions of title 5 relating to reimbursement for travel expenses, referred to in subsec. (d)(2)(A), are classified generally to section 5701 et seq. of Title 5, Government Organization and Employees.

The National Literacy Act of 1991, referred to in subsec. (e)(5), is Pub. L. 102-73, July 25, 1991, 105 Stat. 333, as amended, which was repealed by Pub. L. 105-220, title II, Sec. 251(a)(2), Aug. 7, 1998, 112 Stat. 1079. For complete classification of this Act to the Code, see Tables.

Amendments

1998--Subsec. (b)(13), (14). Pub. L. 105-392 added pars. (13) and (14).

Subsec. (f). Pub. L. 105-362 inserted ``and'' at end of par. (1), substituted a period for "; and" at end of par. (2), and struck out par. (3) which read as follows: "annually prepare and submit to the Director of NIH a report concerning the prevention and dissemination activities undertaken by the Associate Director, including--

"(A) a summary of the Associate Director's review of existing dissemination policies and techniques together with a detailed statement concerning any modification or restructuring, or recommendations for modification or restructuring, of such policies and techniques; and

"(B) a detailed statement of the expenditures made for the prevention and dissemination activities reported on and the personnel used in connection with such activities."

1997--Subsecs. (j) to (l). Pub. L. 105-115 added subsec. (j) and redesignated former subsecs. (j) and (k) as (k) and (l), respectively.

1993--Subsec. (b)(12). Pub. L. 103-43, Sec. 141(b), added par. (12).

Subsec. (e)(5). Pub. L. 103-43, Sec. 210(b), added par. (5).

Subsec. (f). Pub. L. 103-43, Sec. 201, substituted "other public and private entities, including elementary, secondary, and post-secondary schools. The Associate Director shall—" and pars. (1) to (3) for "other public and private entities. The Associate Director shall annually report to the Director of NIH on the prevention activities undertaken by the Associate Director. The report shall include a detailed statement of the expenditures made for the activities reported on and the personnel used in connection with such activities".

Subsec. (g). Pub. L. 103-43, Sec. 202, added subsec. (g).

Subsec. (h). Pub. L. 103-43, Sec. 206, added subsec. (h).

Subsec. (i). Pub. L. 103-43, Sec. 208, added subsec. (i).

Subsec. (j). Pub. L. 103-43, Sec. 210(c), added subsec. (j).

Subsec. (k). Pub. L. 103-43, Sec. 303(b), added subsec. (k).

1992--Subsec. (d)(1). Pub. L. 102-321 substituted "220" for "two hundred".

1988--Subsec. (b)(6). Pub. L. 100-607 inserted "and scientific program advisory committees" after "peer review groups".

Change of Name

Committee on Energy and Commerce of House of Representatives treated as referring to Committee on Commerce of House of Representatives by section 1(a) of Pub. L. 104-14, set out as a note preceding section 21 of Title 2, The Congress.

Effective Date of 1997 Amendment

Amendment by Pub. L. 105-115 effective 90 days after Nov. 21, 1997, except as otherwise provided, see section 501 of Pub. L. 105-115, set out as a note under section 321 of Title 21, Food and Drugs.

Effective Date of 1992 Amendment

Amendment by Pub. L. 102-321 effective Oct. 1, 1992, with provision for programs providing financial assistance, see section 801(c), (d) of Pub. L. 102-321, set out as a note under section 236 of this title.

Collaboration and Report

Section 113(b) of Pub. L. 105-115 provided that:
"(1) In general. —The Secretary of Health and Human Services, the Director of the National Institutes of Health, and the Commissioner of Food and Drugs shall collaborate to determine the feasibility of including device investigations within the scope of the data bank under section 402(j) of the Public Health Service Act [subsec. (j) of this section].
"(2) Report.-- Not later than two years after the date of enactment of this section [Nov. 21, 1997], the Secretary of Health and Human Services shall prepare and submit to the Committee on Labor and Human Resources of the Senate and the Committee on Commerce of the House of Representatives a report--

"(A) of the public health need, if any, for inclusion of device investigations within the scope of the data bank under section 402(j) of the Public Health Service Act;

"(B) on the adverse impact, if any, on device innovation and research in the United States if information relating to such device investigations is required to be publicly disclosed; and

"(C) on such other issues relating to such section 402(j) as the Secretary determines to be appropriate."

Chronic Fatigue Syndrome; Experts and Research Representatives on Advisory Committees and Boards

Section 902(c) of Pub. L. 103-43 provided that: "The Secretary of Health and Human Services, acting through the Director of the National Institutes of Health, shall ensure that appropriate individuals with expertise in chronic fatigue syndrome or neuromuscular diseases and representative of a variety of disciplines and fields within the research community are appointed to appropriate National Institutes of Health advisory committees and boards."

Third-Party Payments Regarding Certain Clinical Trials and Certain Life-Threatening Illnesses

Section 1901(a) of Pub. L. 103-43 provided that: "The Secretary of Health and Human Services, acting through the Director of the National Institutes of Health, shall conduct a study for the purpose of--

"(1) determining the policies of third-party payors regarding the payment of the costs of appropriate health services that are provided incident to the participation of individuals as subjects in clinical trials conducted in the development of drugs with respect to acquired immune deficiency syndrome, cancer, and other life-threatening illnesses; and

"(2) developing recommendations regarding such policies."

Personnel Study of Recruitment, Retention and Turnover

Section 1905 of Pub. L. 103-43 directed Secretary of Health and Human Services, acting through Director of National Institutes of Health, to conduct a study to review the retention, recruitment, vacancy and turnover rates of support staff, including firefighters, law enforcement, procurement officers, technicians, nurses and clerical employees, to ensure that National Institutes of Health is adequately supporting conduct of efficient, effective and high quality research for the American public, and to submit a report to Congress on results of such study not later than 1 year after June 10, 1993.

Chronic Pain Conditions

Section 1907 of Pub. L. 103-43 directed Director of the National Institutes of Health to submit to Congress, not later than 2 years after June 10, 1993, a report and study on the incidence in the United States of cases of chronic pain, including chronic pain resulting from back injuries, reflex sympathetic dystrophy syndrome, temporomandibular joint disorder, post-herpetic neuropathy, painful diabetic neuropathy, phantom pain, and post-stroke pain, and the effect of such cases on the costs of health care in the United States.

Support for Bioengineering Research

Section 1912 of Pub. L. 103-43 directed Secretary of Health and Human Services, acting through Director of the National Institutes of Health, to conduct a study for the purpose of determining the sources and amounts of public and private funding devoted to basic research in bioengineering, including biomaterials sciences, cellular bioprocessing, tissue and rehabilitation engineering, evaluating whether that commitment is sufficient to maintain the innovative edge that the United States has in these technologies, evaluating the role of the National Institutes of Health or any other Federal agency to achieve a greater commitment to innovation in bioengineering, and evaluating the need for better coordination and collaboration among Federal agencies and between the public and private sectors, and, not later than 1 year after June 10, 1993, to prepare and submit to Committee on Labor and Human Resources of Senate, and Committee on Energy and Commerce of House of Representatives, a report containing the findings of the study together with recommendations concerning the enactment of legislation to implement the results of such study.

Master Plan for Physical Infrastructure for Research

Section 2002 of Pub. L. 103-43 directed Secretary of Health and Human Services, acting through Director of the National Institutes of Health, not later than June 1, 1994, to present to Congress a master plan to provide for replacement or refurbishment of less than adequate buildings, utility equipment and distribution systems (including the resources that provide electrical and other utilities, chilled water, air handling, and other services that the Secretary, acting through the Director, deemed necessary), roads, walkways, parking areas, and grounds that underpin the laboratory and clinical facilities of the National Institutes of Health, and provided that the plan could make recommendations for the undertaking of new projects that are consistent with the objectives of this section, such as encircling the National Institutes of Health Federal enclave with an adequate chilled water conduit.

Section Referred to in Other Sections

This section is referred to in sections 283, 284, 285g-4, 289a of this title; title 21 section 360bbb.

THE UNITED STATES DEPARTMENT OF EDUCATION

PUBLIC LAW 107–279—NOV. 5, 2002
EDUCATION SCIENCES REFORM
116 STAT. 1940 PUBLIC LAW 107–279—NOV. 5, 2002
Public Law 107–279
107th Congress

The following sections of the legislation address the circumstances making the collection of information on the Survey of Earned Doctorates necessary:

SEC. 112. FUNCTIONS.
From funds appropriated under section 194, the Institute, directly or through grants, contracts, or cooperative agreements, shall—
(1) conduct and support scientifically valid research activities, including basic research and applied research, statistics activities, scientifically valid education evaluation, development, and wide dissemination;
(2) widely disseminate the findings and results of scientifically valid research in education;
(3) promote the use, development, and application of knowledge gained from scientifically valid research activities;
(4) strengthen the national capacity to conduct, develop, and widely disseminate scientifically valid research in education;
(5) promote the coordination, development, and dissemination of scientifically valid research in education within the Department and the Federal Government; and
(6) promote the use and application of research and development to improve practice in the classroom.

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116 STAT. 1947 PUBLIC LAW 107–279—NOV. 5, 2002
(2) To ensure the methodology applied in conducting research, development, evaluation, and statistical analysis is consistent with the standards for such activities under this title.
(3) To coordinate education research and related activities carried out by the Institute with such research and activities carried out by other agencies within the Department and the Federal Government.
(4) To advise the Secretary on research, evaluation, and statistics activities relevant to the activities of the Department.
(5) To establish necessary procedures for technical and scientific peer review of the activities of the Institute, consistent with section 116(b)(3).
(6) To ensure that all participants in research conducted or supported by the Institute are afforded their privacy rights and other relevant protections as research subjects, in accordance with section 183 of this title, section 552a of title 5, United States Code, and sections 444 and 445 of the General Education Provisions Act (20 U.S.C. 1232g, 1232h).
(7) To ensure that activities conducted or supported by the Institute are objective, secular, neutral, and nonideological and are free of partisan political influence and racial, cultural, gender, or regional bias.

(8) To undertake initiatives and programs to increase the participation of researchers and institutions that have been historically underutilized in Federal education research activities of the Institute, including historically Black colleges or universities or other institutions of higher education with large numbers of minority students.
(9) To coordinate with the Secretary to promote and provide for the coordination of research and development activities and technical assistance activities between the Institute and comprehensive centers.
(10) To solicit and consider the recommendations of education stakeholders, in order to ensure that there is broad and regular public and professional input from the educational field in the planning and carrying out of the Institute's activities.
(11) To coordinate the wide dissemination of information on scientifically valid research.
(12) To carry out and support other activities consistent with the priorities and mission of the Institute.

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(2) to report education information and statistics in a timely manner; and
(3) to collect, analyze, and report education information and statistics in a manner that—
(A) is objective, secular, neutral, and nonideological and is free of partisan political influence and racial, cultural, gender, or regional bias; and
(B) is relevant and useful to practitioners, researchers, policymakers, and the public.

SEC. 152. COMMISSIONER FOR EDUCATION STATISTICS.
The Statistics Center shall be headed by a Commissioner for Education Statistics (in this part referred to as the "Statistics Commissioner") who shall be highly qualified and have substantial knowledge of statistical methodologies and activities undertaken by the Statistics Center.
SEC. 153. DUTIES.
(a) GENERAL DUTIES.—The Statistics Center shall collect, report, analyze, and disseminate statistical data related to education in the United States and in other nations, including—
(1) collecting, acquiring, compiling (where appropriate, on a State-by-State basis), and disseminating full and complete statistics (disaggregated by the population characteristics described in paragraph (3)) on the condition and progress of education, at the preschool, elementary, secondary, postsecondary, and adult levels in the United States

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(i) the relationship between victims and perpetrators;
(ii) demographic characteristics of the victims and perpetrators; and
(iii) the type of weapons used in incidents, as classified in the Uniform Crime Reports of the Federal Bureau of Investigation;
(I) the financing and management of education, including data on revenues and expenditures;

(J) the social and economic status of children, including their academic achievement;
(K) the existence and use of educational technology and access to the Internet by students and teachers in elementary schools and secondary schools;
(L) access to, and opportunity for, early childhood education;
(M) the availability of, and access to, before-school and after-school programs (including such programs during school recesses);
(N) student participation in and completion of secondary and postsecondary vocational and technical education programs by specific program area; and
(O) the existence and use of school libraries;
(2) conducting and publishing reports on the meaning and significance of the statistics described in paragraph (1);
(3) collecting, analyzing, cross-tabulating, and reporting, to the extent feasible, information by gender, race, ethnicity, socioeconomic status, limited English proficiency, mobility, disability, urban, rural, suburban districts, and other population characteristics, when such disaggregated information will facilitate educational and policy decisionmaking;

PART E—GENERAL PROVISIONS

SEC. 181. INTERAGENCY DATA SOURCES AND FORMATS.

The Secretary, in consultation with the Director, shall ensure that the Department and the Institute use common sources of data in standardized formats.

SEC. 182. PROHIBITIONS.

(a) NATIONAL DATABASE.—Nothing in this title may be construed to authorize the establishment of a nationwide database of individually identifiable information on individuals involved in studies or other collections of data under this title.
(b) FEDERAL GOVERNMENT AND USE OF FEDERAL FUNDS.— Nothing in this title may be construed to authorize an officer or employee of the Federal Government to mandate, direct, or control the curriculum, program of instruction, or allocation of State or local resources of a State, local educational agency, or school, or to mandate a State, or any subdivision thereof, to spend any funds or incur any costs not provided for under this title.
(c) ENDORSEMENT OF CURRICULUM.—Notwithstanding any other provision of Federal law, no funds provided under this title to the Institute, including any office, board, committee, or center of
20 USC 9572.
20 USC 9571.
Deadline.

SEC. 184. AVAILABILITY OF DATA.

Subject to section 183, data collected by the Institute, including any office, board, committee, or center of the Institute, in carrying out the priorities and mission of the Institute, shall be made available to the public, including through use of the Internet.

THE NATIONAL ENDOWMENT FOR THE HUMANITIES

SUBCHAPTER I - NATIONAL FOUNDATION ON THE ARTS AND THE HUMANITIES

The following section of the legislation addresses the circumstances making the collection of information on the Survey of Earned Doctorates necessary:

The Chairperson of the National Endowment for the Arts shall, in ongoing consultation with State and local agencies, relevant organizations, and relevant Federal agencies, continue to develop and implement a practical system of national information and data collection and public dissemination on the arts, artists and arts groups, and their audiences. Such system shall include artistic and financial trends in the various artistic fields, trends in audience participation, and trends in arts education on national, regional, and State levels. Such system shall also include information regarding the availability of the arts to various audience segments, including rural communities. Such system shall be used, along with a summary of the data submitted with State plans under subsection (g) of this section, to prepare a periodic report on the state of the arts in the Nation. The state of the arts report shall include a description of the availability of the Endowment's programs to emerging, rural, and culturally diverse artists, arts organizations, and communities and of the participation by such artists, organizations, and communities in such programs. The state of the arts report shall be submitted to the President and the Congress, and provided to the States, not later than October 1, 1992, and quadrennially thereafter.

THE UNITED STATES DEPARTMENT OF AGRICULTURE

Sec. 3121. Responsibilities of Secretary and Department of Agriculture

-STATUTE-

The Department of Agriculture is designated as the lead agency of the Federal Government for agricultural research (except with respect to the biomedical aspects of human nutrition concerned with diagnosis or treatment of disease), extension, and teaching in the food and agricultural sciences, and the Secretary, in carrying out the Secretary's responsibilities, shall -

(1) establish jointly with the Secretary of Health and Human Services procedures for coordination with respect to nutrition research in areas of mutual interest;

(2) keep informed of developments in, and the Nation's need for, research, extension, teaching, and manpower development in the food and agricultural sciences and represent such need in deliberations within the Department of Agriculture, elsewhere within the executive branch of the United States Government, and with the several States and their designated land-grant colleges and universities, other colleges and universities, agricultural and related industries, and other interested institutions and groups;

(3) coordinate all agricultural research, extension, and teaching activity conducted or financed by the Department of Agriculture and, to the maximum extent practicable, by other agencies of the executive branch of the United States Government;

(4) take the initiative in establishing coordination of State-Federal cooperative agricultural research, extension, and teaching programs, funded in whole or in part by the Department of Agriculture in each State, through the administrative heads of land-grant colleges and universities and the State directors of agricultural experiment stations and cooperative extension and other appropriate program administrators;

(5) consult the Advisory Board and appropriate advisory committees of the Department of Agriculture in the formulation of basic policies, goals, strategies, and priorities for programs of agricultural research, extension, and teaching;

(6) report (as a part of the Department of Agriculture's annual budget submissions) to the House Committee on Agriculture, the House Committee on Appropriations, the Senate Committee on Agriculture, Nutrition, and Forestry, and the Senate Committee on Appropriations actions taken or proposed to support the recommendations of the Advisory Board;

(7) establish appropriate review procedures to assure that agricultural research projects are timely and properly reported and published and that there is no unnecessary duplication of effort or overlapping between agricultural research units;

(8) establish Federal or cooperative multidisciplinary research teams on major agricultural research problems with clearly defined leadership, budget responsibility, and research programs;

(9) in order to promote the coordination of agricultural research of the Department of Agriculture, conduct a continuing inventory of ongoing and completed research projects being conducted within or funded by the Department;

(10) coordinate all agricultural research, extension, and teaching activities conducted or financed by the Department of Agriculture with the periodic renewable resource assessment and program provided for in sections 1601 and 1602 of title 16 and the appraisal and program provided for in sections 2004 and 2005 of title 16;

(11) coordinate the efforts of States, State cooperative institutions, State extension services, the Advisory Board, and other appropriate institutions in assessing the current status of, and developing a plan for, the effective transfer of new technologies, including biotechnology, to the

farming community, with particular emphasis on addressing the unique problems of small- and medium-sized farms in gaining information about those technologies; and

(12) establish appropriate controls with respect to the development and use of the application of biotechnology to agriculture.

THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

SUBCHAPTER I - GENERAL PROVISIONS

Sec. 2451. Congressional declaration of policy and purpose.

(a) Devotion of space activities to peaceful purposes for benefit of all mankind.

(b) Aeronautical and space activities for welfare and security of United States; control by civilian agency; exceptions.

(c) Commercial use of space.

(d) Objectives of aeronautical and space activities.

(e) Ground propulsion systems research and development.

(f) Bioengineering research, development, and demonstration programs.

(g) Purpose of chapter.

The following section of the legislation addresses the circumstances making the collection of information on the Survey of Earned Doctorates necessary:

SPACE SETTLEMENTS

Section 217 of Pub. L. 100-685 provided that:

"(a) The Congress declares that the extension of human life beyond Earth's atmosphere, leading ultimately to the establishment of space settlements, will fulfill the purposes of advancing science, exploration, and development and will enhance the general welfare.

"(b) In pursuit of the establishment of an International Space Year in 1992 pursuant to Public Law 99-170 (Dec. 5, 1985, 99 Stat.1012), the United States shall exercise leadership and mobilize the international community in furtherance of increasing mankind's knowledge and exploration of the solar system.

"(c) Once every 2 years after the date of the enactment of this Act (Nov. 17, 1988), the National Aeronautics and Space Administration shall submit a report to the President and to the Congress which -

"(1) provides a review of all activities undertaken under this section including an analysis of the focused research and development activities on the Space Station, Moon, and other outposts that are necessary to accomplish a manned mission to Mars;

"(2) analyzes ways in which current science and technology can be applied in the establishment of space settlements;

"(3) identifies scientific and technological capacity for establishing space settlements, including a description of what steps must be taken to develop such capacity;

"(4) examines alternative space settlement locations and architectures;

"(5) examines the status of technologies necessary for extraterrestrial resource development and use and energy production;

"(6) reviews the ways in which the existence of space settlements would enhance science, exploration, and development;

"(7) reviews mechanisms and institutional options which could foster a broad-based plan for international cooperation in establishing space settlements;

"(8) analyzes the economics of financing space settlements, especially with respect to private sector and international participation;

"(9) discusses sociological factors involved in space settlement such as psychology, political science, and legal issues; and

"(10) addresses such other topics as the National Aeronautics and Space Administration considers appropriate."

ATTACHMENT 5: CURRENT REPRESENTATIVES FROM SPONSORING AGENCIES

Federal Sponsors of the Survey of Earned Doctorates (1/2006)
(subject to change during clearance period)

National Science Foundation
Susan Hill, Director, Doctorate Data Project
National Science Foundation/SBE/SRS
4210 Wilson Boulevard, Suite 965
Arlington, VA 22230

(703) 292-7790 Fax (703) 292-9092
email: sthill@nsf.gov

National Center for Education Statistics/USED
Nancy Borkow/Michelle Coon (x7357)
National Center for Education Statistics
U.S. Department of Education
1990 K St. N.W., Room 8114
Washington, D.C. 20006

(202) 502-7311 Fax (202)502-7460
e-mail: Nancy.Borkow@ed.gov

National Institutes of Health
Bill McGarvey /Walter Goldschmidts/ Wally Schaffer
National Institutes of Health
6701 Rockledge Drive, Room 3518
Bethesda, Maryland 20892-7911

(301) 435-2691 Fax (301) 480-0146
e-mail: bm50b@nih.gov

National Endowment for the Humanities
Frank Shaw/ Jeff Thomas
Office of Strategic Planning
National Endowment for the Humanities
1100 Pennsylvania Avenue, NW-Room 403
Washington, D.C. 20506

(202) 606-8428 Fax (202) 606-8619
e-mail: jthomas@neh.fed.us
fshaw@neh.fed.us

United States Department of Agriculture

Ella Smith/Jeff Gilmore
Higher Education Programs
U.S. Department of Agriculture
1400 Independence Avenue, SW
Room 3107- Waterfront Building
Washington D.C., 20250-2251
(202) 720-3842 Fax (202) 720-2030
e-mail: Esmith@CSREES.USDA.GOV

National Aeronautics and Space Administration

Malcom Phelps/Frank Owens
Education Division
NASA Headquarters, Code FE
Washington, D.C. 20546
(202) 358-1110 Fax (202) 358-3048
e-mail: malcom.phelps@hq.nasa.gov

ATTACHMENT 6: EXAMPLE OF INSTITUTION PROFILE PROVIDED TO EACH GRADUATE DEAN And PRODUCTS AVAILABLE

Institution Profile

	All		Science and engineering		Non-science and engineering	
	Number	Percent	Number	Percent	Number	Percent
Post-Graduation Plans						
Post-graduation status (Immediate status following award of degree)						
Continuing pre-doctoral employment	145	24	67	17	78	36
Signed contract	326	53	251	63	75	35
Negotiating for specific position	23	4	19	5	4	2
Seeking position	109	18	56	14	53	25
Other	8	1	3	1	5	2
Post-graduation plans (Type of employment immediately following doctorate)						
Postdoctoral fellowship	60	10	58	15	2	1
Postdoctoral research associateship	80	13	76	19	4	2
Postdoctoral traineeship	5	1	5	1	0	0
Other study	15	2	13	3	2	1
Employment (other than postdoc)	428	71	230	59	198	93
Military service	6	1	4	1	2	1
Other plans	8	1	4	1	4	2
Post-graduation employment (Excluding postdoctoral fellowships, associateships, traineeships)						
Academic	229	54	95	41	134	69
Government	18	4	16	4	2	1
Industry	118	28	105	45	13	7
Other	60	14	15	6	45	23

	All	Science and Engineering	Non-science and engineering
Median time to degree (Number of years since receiving bachelor's degree)			
Median total time to degree	10 years	8.3	13.9
Median registered time to degree	7.4 years	6.9	8.5

"Science/Engineering" includes physical science/math, engineering, life sciences, and social sciences.
"Non-Science/Engineering" includes humanities, education and other professional fields

Source: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates.

Institution Profile from the Survey of Earned Doctorates
Results for Unknown Uiversity

Section I. A comparison of research doctorates at your institution with research doctorates from Research I institutions, and all doctorate institutions

	Your Institution		All Research I Institutions		All Institutions	
	Number	**Percent**	**Number**	**Percent**	**Number**	**Percent**
Total of research doctorate recipients	656	100	27,292	100	41,140	100
Demographics						
Sex						
Male	367	56	16,257	60	23,460	57
Female	287	44	10,913	40	17,493	43
Unknown	2	0	122	0	187	<1
Citizenship						
U.S.	449	69	17,879	68	27,622	71
Permanent visa	37	6	1,584	6	2,300	6
Temporary visa	167	26	6,721	26	9,068	23
Race/Ethnicity (Excludes temporary visas)						
American Indian/Alaska Native	5	1	114	1	219	1
Asian/Pacific Islander	36	8	1,821	9	2,518	8
Black	13	3	962	5	1,729	6
Hispanic	17	4	744	4	1,246	4
White	395	84	15,481	80	23,725	80
Other	2	0	175	1	254	1
Graduate Study						
Ph.D. field						
Physical sciences/Math	85	13	4,680	17	6,324	15
Engineering	79	12	4,119	15	5,337	13
Life Sciences	175	27	5,892	22	8,126	20
Social Sciences	79	12	4,245	16	7,036	17
Humanities	107	16	4,085	15	5,468	13
Education	97	5	2,930	11	6,557	16
Professional/Other	34	5	1,341	5	2,292	6
Debt level (U.S. citizens only)						
None	210	50	7,496	43	11,457	43
$15,000 or less	120	28	4,750	28	6,784	26
More than $15,000	94	22	5,015	29	8,291	31

Name of University

	Your Institution		Research I Institutions		All Institutions	
	Number	Percent	Number	Percent	Number	Percent
Post-Graduation Plans						
Post-graduation status (Immediate status following award of degree)						
Continuing pre-doctoral employment	145	24	4,554	18	8,492	23
Signed contract	326	53	12,984	52	17,483	47
Negotiating for specific position	23	4	1,741	7	2,482	7
Seeking position	109	18	5,498	22	8,183	22
Other	8	1	329	1	498	1
Post-graduation plans (Type of employment immediately following doctorate)						
Postdoctoral fellowship	60	10	3,868	16	5,435	15
Postdoctoral research associateship	80	13	2,979	12	3,818	10
Postdoctoral traineeship	5	1	190	1	322	1
Other study	15	2	735	3	1,098	3
Employment (other than postdoc)	428	71	16,571	67	25,350	69
Military service	6	1	131	1	229	1
Other plans	8	1	267	1	409	1
Post-graduation employment (Excluding postdoctoral fellowships, associateships, traineeships)						
Academic	229	54	8,374	52	12,430	50
Government	18	4	1,127	7	1,875	8
Industry	118	28	5,180	32	7,217	29
Other	60	14	1,500	9	3,303	13
Primary work activity (Excluding postdoctoral fellowships, associateships, traineeships)						
Research and development	158	38	6,299	39	8,130	33
Teaching	156	37	6,125	38	9,544	39
Administration	51	12	1,212	8	2,710	11
Professional services	43	10	1,885	12	3,455	14
Other	12	3	571	4	855	3
Secondary work activity (Excluding postdoctoral fellowships, associateships, traineeships)						
Research and development	143	41	5,538	42	8,200	40
Teaching	87	25	3,205	24	5,018	24
Administration	57	12	2,179	16	3,448	17

	Your Institution		Research I Institutions		All Institutions	
	Number	Percent	Number	Percent	Number	Percent
Postdoctoral study support						
U.S. government **	51	51	2,563	34	3,320	32
College or university	54	54	2,559	34	3,458	33
Private foundation	11	11	656	9	919	9
Non-profit other	3	3	215	3	318	3
Other	21	21	603	8	878	8
Unknown	17	17	1,024	13	1,491	14

Median time to degree (Number of years since receiving bachelor's degree)

	Your Institution	Research I Institutions	All Institutions
Median total time to degree	10 years	9.7 years	10.4 years
Median registered time to degree	7.4 years	7.3 years	7.3 years

Section II. A comparison of science and engineering doctorates with doctorates in other fields at

	All		Science and engineering		Non-science and engineering	
	Number	Percent	Number	Percent	Number	Percent
Total of research doctorate recipients	656	100	418	64	238	36
Demographics						
Citizenship						
U.S. citizen	449	69	264	63	185	78
Permanent visa	37	6	26	6	11	5
Temporary visa	167	26	126	30	41	17
Graduate Study						
Debt level (U.S. citizens only)						
None	210	50	124	49	86	50
$15,000 or less	120	28	80	32	40	23
More than $15,000	94	22	49	19	45	19
Primary source of support during graduate school						
Own resources	154	25	55	14	99	46
Teaching assistantships	139	23	71	18	68	31
Research assistantships	221	36	202	51	19	9
Fellowships/grants	69	11	48	12	21	10

Other sources	30	5	20	5	10	5

*** Research assistantships funded by the federal government are counted as university support.*

"Science/Engineering" includes physical science/math, engineering, life sciences, and social sciences.
"Non-Science/Engineering" includes humanities, education and other professional fields.
Source: NSF/NIH/USED/NEH/USDA/NASA, Survey of Earned Doctorates,

ATTACHMENT 7: EXAMPLE OF WEB COLLECTION PIN/PASSWORD FOR INSTITUTIONS

2006 *Survey of Earned Doctorates*
Institution Interface
Prototype University

The Survey of Earned Doctorates (SED) **Institution Interface** is a secure, easy-to-use website designed for Institution Contacts and Deans involved with the SED. The **Institution Interface** will help you to more easily implement the SED at your institution and track your institution's progress!

The **Institution Interface** allows you to:

- ❖ Review your institution's current list of doctorate recipients
- ❖ View the status of the SED questionnaire for every doctorate recipient
- ❖ Download useful study materials, including the SED questionnaire

EASY ACCESS!

To access the SED **Institution Interface**, open the following link in your web browser:

http://client.norc.uchicago.edu/4800/

SECURE!

You will be prompted for a UserID and Password to access this server. Your easy-to-remember User ID and Password are:

USERID:	**sed4inst**
PASSWORD:	**4phdgrad** (Case sensitive!)

NOTE: If you are prompted for a 'Domain,' leave that field **BLANK**.

THE SED AT YOUR INSTITUTION!

To access detailed data about your institution's doctorate recipients, follow these 4 steps:

1. Click on the "Individual Institution Rosters" link in the navigation bar at the top of the screen.
2. Select your institution name from the drop-down list.
3. Enter **your INSTITUTION PASSWORD:** 4KLN8T
4. Click the "Submit" button.

ATTACHMENT 8: FEDERAL REGISTER ANNOUNCEMENTS

academic R&D funds. The survey has provided continuity of statistics on R&D expenditures by source of funds and by science & engineering (S&E) field, with separate data requested on current fund expenditures for research equipment by S&E field. Further breakdowns are collected on passed through funds to subrecipients and received as a subrecipient, and on R&D expenditures by field by science and engineering from specific Federal Government agency sources. Information on R&D for non-S&E fields is also requested. Data are published in NSF's annual publication series Academic Science and Engineering R&D Expenditures and are available electronically on the World Wide Web.

The survey is a fully automated web data collection effort and is handled primarily by the administrators at the Institutional Research Offices. To minimize burden, institutions are provided with an abundance of guidance and help menus on the Web, in addition to printing and responding via paper copy if necessary. Each record is pre-loaded with the institutions 2 previous year's data and a complete program for editing and trend checking. Response to this voluntary survey in FY 2004 was 94.0 percent. Burden estimates are as follows: [1]

Total number of institutions	Doctorate-granting burden hours	Masters-granting burden hours	Bachelors degree burden hours	FFRDC's burden hours
FY 1999 480	20.8	13.0	7.5	9.4
FY 2000 700	21.0	12.0	10.5	9.2
FY 2001 625	30.2	11.9	9.0	12.1
FY 2002 625	28.7	14.9	12.2	4.5

Suzanne H. Plimpton,

Reports Clearance Officer, National Science Foundation.

[FR Doc. 05–24192 Filed 12–16–05; 8:45 am]

BILLING CODE 7555–01–M

NATIONAL SCIENCE FOUNDATION

Notice of Intent to Extend an Information Collection

AGENCY: National Science Foundation.

ACTION: Notice and request for comments.

SUMMARY: Under the Paperwork Reduction Act of 1995, Public Law 104–13 (44 U.S.C. 3501 et seq.), and as part of its continuing effort to reduce paperwork and respondent burden, the National Science Foundation (NSF) is inviting the general public or other Federal agencies to comment on this proposed continuing information collection. The National Science Foundation (NSF) will publish periodic summaries of proposed projects.

Comments: Comments are invited on (a) whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information shall have practical utility; (b) the accuracy of the agency's estimate of the burden of the proposed collection of information; (c) ways to enhance the quality, utility, and clarity of the information to be collected; and (d) ways to minimize the burden of the collection of information on respondents, including through the use of automated collection techniques or other forms of information technology.

DATES: Written comments on this notice must be received by January 31, 2006 to be assured consideration. Comments received after that date will be considered to the extent practicable. Send comments to address below.

FOR ADDITIONAL INFORMATION OR COMMENTS: For further information or for a copy of the collection instruments and instructions, contact Ms. Suzanne H. Plimpton, Reports Clearance Officer, National Science Foundation, 4201 Wilson Boulevard, Suite 295, Arlington, Virginia 22230; telephone (703) 292–7556; or send e-mail to *splimpto@nsf.gov.* Individuals who use a telecommunications device for the deaf (TDD) may call the Federal Information Relay Service (FIRS) at 1–800–877–8339 between 8 a.m. and 8 p.m., Eastern time, Monday through Friday.

SUPPLEMENTARY INFORMATION:

Title of Collection: Survey of Earned Doctorates.

OMB Approval Number: 3145–0019.

Expriation Date of Approval: June 30, 2006.

Type of Request: Intent to seek approval to extend an information collection for three years.

1. *Abstract:* The National Science Foundation Act of 1950, as subsequently amended, includes a statutory charge to ''* * * provide a central clearinghouse for the collection, interpretation, and analysis of data on scientific and engineering resources, and to provide a source of information for policy formulation by other agencies of the Federal Government.'' The Survey of Earned Doctorates is part of an integrated survey system that meets the human resources part of this mission.

The Survey of Earned Doctorates (SED) has been conducted continuously since 1958 and is jointly sponsored by six Federal agencies in order to avoid duplication. It is an accurate, timely source of information on our Nation's most precious resource—highly educated individuals. Data are obtained via paper questionnaire or Web option from each person earning a research doctorate at the time they receive the degree. Data are collected on their field of specialty, educational background, sources of support in graduate school, debt level, postgraduation plans for employment, and demographic characteristics. For the 2007 SED, minor changes to questions, based on focus group and cognitive testing will be incorporated into the questionnaire. Also for 2007, a field test of potential questions about salary after graduation will be conducted with less than 9 institutions. Based on the field test results, the intention is to add a salary question in 2008.

The Federal government, universities, researchers, and others use the information extensively. The National Science Foundation, as the lead agency, publishes statistics from the survey in many reports, but primarily in the annual publication series, ''Science and Engineering Doctorates.'' The National Opinion Research Corporation at the University of Chicago dissemination a free interagency report entitled ''Doctorate Recipients from U.S. Universities: Summary Report.'' These reports are available in print and electronically on the World Wide Web.

[1] Average burden hours for institutions responding to burden item.

The survey will be collected in conformance with the Privacy Act of 1974. Responses from individuals are voluntary. NSF will ensure that all information collected will be kept strictly confidential and will be used for research or statistical purposes, analyzing data, and preparing scientific reports and articles.

2. *Expected Respondents:* A total response rate of 90.8% of the total 42,155 persons who earned a research doctorate was obtained in the 2004 SED. This level of response rate has been consistent for several years. The respondents will be individuals and the estimated number of respondents annually is 38,275 (based on 2004 data).

3. *Estimate of Burden:* The Foundation estimates that, on average, 19 minutes per respondent will be required to complete the survey, for a total of 12,121 hours for all respondents (based on the 2004 SED numbers). Also, for the approximately 3,000 respondents in the field test on a salary question, there would be approximately another 50 hours of response time. The total respondent burden is therefore estimated at 12,171 hours for the 2007 SED. This is slightly higher than the last annual estimate approved by OMB due primarily to an increased number of respondents since the last clearance request.

Dated: December 14, 2005.

Suzanne H. Plimpton,

Reports Clearance Officer, National Science Foundation.

[FR Doc. 05–24213 Filed 12–16–05; 8:45 am]

BILLING CODE 7555–01–M

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–52939; File No. SR–NASD–2005–137]

Self-Regulatory Organizations; National Association of Securities Dealers, Inc.; Notice of Filing and Immediate Effectiveness of Proposed Rule Change To Modify Pricing for NASD Members Using the Nasdaq Market Center and Nasdaq's Brut Facility

December 9, 2005.

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (''Act'')[1] and Rule 19b–4 thereunder,[2] notice is hereby given that on November 22, 2005, the National Association of Securities Dealers, Inc. (''NASD''), through its subsidiary, The Nasdaq Stock Market, Inc. (''Nasdaq''), filed with the Securities and Exchange Commission (''Commission'') the proposed rule change as described in Items I, II, and III below, which Items have been prepared by Nasdaq. Nasdaq has designated this proposal as one establishing or changing a due, fee, or other charge imposed by the self-regulatory organization under Section 19(b)(3)(A)(ii)[3] of the Act and Rule 19b–4(f)(2) thereunder,[4] which renders the proposal effective upon filing with the Commission. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

I. Self-Regulatory Organization's Statement of the Terms of the Substance of the Proposed Rule Change

Nasdaq proposes to modify the pricing for NASD members using the Nasdaq Market Center and Nasdaq's Brut Facility (''Brut''). Nasdaq states that it will implement the proposed rule change for a pilot period running from December 1, 2005 through December 31, 2005.

The text of the proposed rule change is below. Proposed new language is in *italics;* proposed deletions are in [brackets].

* * * * *

7010. System Services

(a)–(h) No change.

(i) Nasdaq Market Center and Brut Facility Order Execution

(1)–(4) No Change.

(5) There shall be no charges or credits for order entry, execution, routing, or cancellation by members accessing the Nasdaq Market Center or Nasdaq's Brut Facility to buy or sell exchange-listed securities subject to the Consolidated Quotations Service and Consolidated Tape Association plans, other than:

(A) The charges in Rule 7010(i)(1) for Exchange-Traded Funds,

(B) Charges described in Rule 7010(d),

(C) A fee of $0.0004 per share executed for orders delivered by Nasdaq's Brut Facility to an exchange using the exchange's proprietary order delivery system if such orders do not attempt to execute in Nasdaq's Brut Facility or the Nasdaq Market Center prior to routing to the exchange, [and]

(D) a fee of $0.009 per share executed for any limit order delivered by Nasdaq's Brut Facility to the New York Stock Exchange (''NYSE'') using the NYSE's proprietary order delivery system if such an order is not an on-close order, is not executed in the opening, and remains at the NYSE for more than 5 minutes[.]*, and*

(E) for a pilot period beginning December 1, 2005 and ending December 31, 2005, a credit of $0.0005 per share executed to a member providing liquidity for a transaction in the following stocks: Advanced Micro Devices Inc. (AMD); Apache Corp. (APA); AT&T Corp. (T); Avaya, Inc. (AV); Baker Hughes, Inc. (BHI); BJ Services Co. (BJS); Bristol-Myers Squibb Co. (BMY); Burlington Resources, Inc. (BR); Calpine Corp. (CPN); Charles Schwab Corp. (SCH); Citigroup Inc. (C); ConocoPhillips (COP); Corning Inc. (GLW); Devon Energy Corp. (DVN); EMC Corp. (EMC); Exxon Mobil Corp. (XOM); Ford Motor Co. (F); Gateway, Inc. (GTW); General Electric Co. (GE); Halliburton Co. (HAL); Hewlett-Packard Co. (HPQ); Johnson & Johnson (JNJ); JPMorgan Chase & Co. (JPM); Kohl's Corp. (KSS); LSI Logic Corp. (LSI); Micron Technology, Inc. (MU); Motorola, Inc. (MOT); Noble Corp. (NE); Occidental Petroleum Corp. (OXY); Office Depot Inc. (ODP); Pfizer Inc. (PFE); Phelps Dodge Corp. (PD); Pulte Homes, Inc. (PHM); Qwest Communications International Inc. (Q); Schlumberger Ltd. (SLB); Solectron Corp. (SLR); Sovereign Bancorp, Inc. (SOV); Time Warner, Inc. (TWX); Valero Energy Corp. (VLO); and Verizon Communications, Inc. (VZ).

(6) No change.

(j)–(v) No change.

* * * * *

II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, Nasdaq included statements concerning the purpose of and basis for the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statements may be examined at the places specified in Item IV below. Nasdaq has prepared summaries, set forth in sections A, B, and C below, of the most significant aspects of such statements.

A. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

1. Purpose

Nasdaq is proposing to modify its fee schedule for transaction executions in certain stocks listed on markets other than Nasdaq by creating a pilot program under which liquidity providers (*i.e.*, market participants that put quotes or

[1] 15 U.S.C. 78s(b)(1).

[2] 17 CFR 240.19b–4.

[3] 15 U.S.C. 78s(b)(3)(A)(ii).

[4] 17 CFR 240.19b–4(f)(2).

analyzes, publishes, and disseminates statistics on the criminal victimization in the U.S.

5. *An estimate of the total number of respondents and the amount of time estimated for an average respondent to respond:* An estimate of the total number of respondents is 77,100. It will take the average interviewed respondent an estimated 23 minutes to respond, the average non-interviewed respondent an estimated 7 minutes to respond, the estimated average follow-up interview is 12 minutes, and the estimated average follow-up for a non-interview is 1 minute.

6. *An estimate of the total public burden (in hours) associated with the collection:* The total respondent burden is approximately 62, 620 hours.

If additional information is required, contact Robert B. Briggs, Clearance Officer, United States Department of Justice, Justice Management Division, Policy and Planning Staff, Patrick Henry Building, Suite 1600, 601 D Street, NW., Washington, DC 20530.

Dated: March 15, 2006.

Robert B. Briggs,

Clearance Officer, United States Department of Justice.

[FR Doc. 06–2661 Filed 3–20–06; 8:45 am]

BILLING CODE 4410–18–M

NATIONAL SCIENCE FOUNDATION

Agency Information Collection Activities; Comment Request

AGENCY: National Science Foundation.

ACTION: Submission for OMB review; comment request.

SUMMARY: The National Science Foundation (NSF) has submitted the following information collection requirement to OMB for review and clearance under the Paperwork Reduction Act of 1995, Pub. L. 104–13. This is the second notice for public comment; the first was published in the **Federal Register** at 70 FR 75228, and twenty-six (26) comments were received. NSF is forwarding the proposed renewal submission to the Office of Management and Budget (OMB) for clearance simultaneously with the publication of this second notice. Comments regarding (a) whether the collection of information is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility; (b) the accuracy of the agency's estimated of burden including the validity of the methodology and assumptions used; (c) ways to enhance the quality, utility and clarity of the information to be collected; (d) ways to minimize the burden of the collection of information on those who are to responded, including through the use of appropriate automated, electronic, mechanical or other technological collection techniques or other forms of information technology should be addressed to: Office of Information and Regulatory Affairs of OMB, Attention: Desk Officer for National Science Foundation, 725–17th Street, NW., Room 10235, Washington, DC 20503, and to Suzanne H. Plimpton, Reports Clearance Officer, National Science Foundation, 4201 Wilson Boulevard, Suite 295, Arlington, Virginia 22230 or send e-mail to *splimpto@nsf.gov.* Comments regarding these information collections are best assured of having their full effect if received within 30 days of this notification. Copies of the submission(s) may be obtained by calling 703–292–7556.

NSF may not conduct or sponsor a collection of information unless the collection of information displays a currently valid OMB control number and the agency informs potential persons who are to respond to the collection of information that such persons are not required to respond to the collection of information unless it displays a currently valid OMB control number.

SUPPLEMENTARY INFORMATION:

Comment: On December 19, 2005, we published in the **Federal Register** (70 FR 75228) a 60-day notice of our intent to request renewal of this information collection authority from OMB. In that notice, we solicited public comments for 60 days ending February 17, 2006. Twenty-six (26) comments were received in response to the public notice. One comment came from B. Sachau of Florham Park, NJ, via e-mail on December 19, 2005. Ms. Sachau objected to the information collection but had no specific suggestions for altering the data collection plans other than to discontinue them entirely.

Response: NSF believes that because the comment does not pertain to the collection of information on the required forms for which NSF is seeking OMB approval, NSF is proceeding with the clearance request.

Comment: Public comments have been received by NSF from 23 persons in response to the announcement, as of the close-out date of February 17, 2006. These all were the same e-mail (distributed at the National Communication Association meeting) that proposed breaking apart the Commission fields and placing them in 3 separate categories on the SED Field of Study List. In addition, SRS directly received 2 e-mails from individuals in the Association for Education in Journalism and Mass Communication who opposed the National Communication Association proposal for the Field of Study listing.

Response: NSF has taken these suggestions (along with other suggestions received on the same topic) into consideration concerning the placement of the field of Communication on the Field of Study list for respondents to select their bachelor's, master's and doctorate degree field of study.

Title of Collection: Survey of Earned Doctorates.

OMB Approval Number: 3145–0019.

Type of Request: Intent to seek approval to extend an information collection for three years.

1. Abstract: The National Science Foundation Act of 1950, as subsequently amended, includes a statutory charge to ''provide a central clearinghouse for the collection, interpretation, and analysis of data on scientific and engineering resources, and to provide a source of information for policy formulation by other agencies of the Federal Government.'' The Survey of Earned Doctorates is part of an integrated survey system that meets the human resources part of this mission.

The Survey of Earned Doctorates (SED) has been conducted continuously since 1958 and is jointly sponsored by six Federal agencies in order to avoid duplication. It is an accurate, timely source of information on our Nation's most precious resource—highly educated individuals. Data are obtained via paper questionnaire or Web option from each person earning a research doctorate at the time they receive the degree. Data are collected on their field of specialty, educational background, sources of support in graduate school, debt level, postgraduation plans for employment, and demographic characteristics. For the 2007 SED, minor changes to questions, based on focus group and cognitive testing will be incorporated into the questionnaire. Also for 2007, a field test of potential questions about salary after graduation will be conducted with less than 9 institutions. Based on the field test results, the intention is to add a salary question in 2008.

The Federal Government, universities, researchers, and others use the information extensively. The National Science Foundation, as the lead agency, publishes statistics from the survey in many reports, but primarily in the annual publication series, ''Science and Engineering Doctorates''. The National

Opinion Research Corporation at the University of Chicago disseminates a free interagency report entitled ''Doctorate Recipients from U.S. Universities: Summary Report.'' These reports are available in print and electronically on the World Wide Web.

The survey will be collected in conformance with the Privacy Act of 1974. Responses from individuals are voluntary. NSF will ensure that all information collected will be kept strictly confidential and will be used for research and statistical purposes, analyzing data, and preparing scientific reports and articles.

2. Expected Respondents: A total response rate of 90.8% of the total 42,155 persons who earned a research doctorate was obtained in the 2004 SED. This level of response rate has been consistent for several years. The respondents will be individuals and the estimated number of respondents annually is 47,787 with a response rate of 92%.

3. Estimate of Burden: The Foundation estimates that, on average, 19 minutes per respondent will be required to complete the survey, for a toal of 12,465 hours for all respondents (based on the 2004 SED numbers). Also, for the approximately 3,000 respondents in the field test on a salary question, there would be approximately another 50 hours of response time. The total response burden is therefore estimated at 12,171 hours for the 2007 SED. This is slightly higher than the last annual estimate approved by OMB due primarily to an increased number of respondents since the last clearance request.

Dated: March 15, 2006.

Suzanne H. Plimpton,

Reports Clearance Officer, National Science Foundation.

[FR Doc. 06–2657 Filed 3–20–06; 8:45 am]

BILLING CODE 7555–01–M

NUCLEAR REGULATORY COMMISSION

Agency Information Collection Activities: Proposed Collection; Comment Request

AGENCY: U.S. Nuclear Regulatory Commission (NRC).

ACTION: Notice of pending NRC action to submit an information collection request to OMB and solicitation of public comment.

SUMMARY: The NRC is preparing a submittal to OMB for review of continued approval of information collections under the provisions of the Paperwork Reduction Act of 1995 (44 U.S.C. Chapter 35).

Information pertaining to the requirement to be submitted:

1. *The title of the information collection:* NRC Form 590, Application/ Permit for Use of the Two White Flint North (TWFN) Auditorium.
2. *Current OMB approval number:* 3150–0181.
3. *How often the collection is required:* Each time public use of the auditorium is requested.
4. *Who is required or asked to report:* Members of the public requesting use of the NRC Auditorium.
5. *The number of annual respondents:* 5.
6. *The number of hours needed annually to complete the requirement or request:* 1.25 hours (15 minutes per request).
7. *Abstract:* In accordance with the Public Buildings Act of 1959, an agreement was reached between the Maryland-National Capital Park and Planning Commission (MPPC), the General Services Administration (GSA), and the Nuclear Regulatory Commission that the NRC auditorium will be made available for public use. Public users of the auditorium will be required to complete NRC Form 590, Application/ Permit for Use of Two White Flint North (TWFN) Auditorium. The information is needed to allow for administrative and security review and scheduling, and to make a determination that there are no anticipated problems with the requester prior to utilization of the facility.

Submit, by May 22, 2006, comments that address the following questions:

1. Is the proposed collection of information necessary for the NRC to properly perform its functions? Does the information have practical utility?
2. Is the burden estimate accurate?
3. Is there a way to enhance the quality, utility, and clarity of the information to be collected?
4. How can the burden of the information collection be minimized, including the use of automated collection techniques or other forms of information technology?

A copy of the draft supporting statement may be viewed free of charge at the NRC Public Document Room, One White Flint North, 11555 Rockville Pike, Room O–1 F21, Rockville, MD 20852. OMB clearance requests are available at the NRC world wide web site: *http://www.nrc.gov/public-involve/doc-comment/omb/index.html.* The document will be available on the NRC home page site for 60 days after the signature date of this notice.

Comments and questions about the information collection requirements may be directed to the NRC Clearance Officer, Brenda Jo. Shelton (T–5 F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555–0001, by telephone at 301–415–7233, or by Internet electronic mail to *INFOCOLLECTS@NRC.GOV.*

Dated at Rockville, Maryland, this 10th day of March 2006.

For the Nuclear Regulatory Commission.

Brenda Jo. Shelton,

NRC Clearance Officer, Office of Information Services.

[FR Doc. E6–4086 Filed 3–20–06; 8:45 am]

BILLING CODE 7590–01–P

NUCLEAR REGULATORY COMMISSION

Advisory Committee on Reactor Safeguards; Subcommittee Meeting on Planning and Procedures; Notice of Meeting

The ACRS Subcommittee on Planning and Procedures will hold a meeting on April 5, 2006, Room T–2B1, 11545 Rockville Pike, Rockville, Maryland.

The entire meeting will be open to public attendance, with the exception of a portion that may be closed pursuant to 5 U.S.C. 552b(c)(2) and (6) to discuss organizational and personnel matters that relate solely to the internal personnel rules and practices of the ACRS, and information the release of which would constitute a clearly unwarranted invasion of personal privacy.

The agenda for the subject meeting shall be as follows:

Wednesday, April 5, 2006, 10:30 a.m.–12 Noon

The Subcommittee will discuss proposed ACRS activities and related matters. The Subcommittee will gather information, analyze relevant issues and facts, and formulate proposed positions and actions, as appropriate, for deliberation by the full Committee.

Members of the public desiring to provide oral statements and/or written comments should notify the Designated Federal Official, Mr. Sam Duraiswamy (telephone: 301–415–7364) between 7:30 a.m. and 4:15 p.m. (ET) five days prior to the meeting, if possible, so that appropriate arrangements can be made. Electronic recordings will be permitted only during those portions of the meeting that are open to the public.

Further information regarding this meeting can be obtained by contacting the Designated Federal Official between 7:30 a.m. and 4:15 p.m. (ET). Persons planning to attend this meeting are urged to contact the above named

ATTACHMENT 9: RESPONSES TO FEDERAL REGISTER NOTICE

Plimpton, Suzanne H.

From: jean public [jeanpublic@yahoo.com]
Sent: Monday, December 19, 2005 11:50 AM
To: Plimpton, Suzanne H.
Subject: public comment on federal registre of 12/19/05 vol 70 #242 pg 75228

fed register doc 05 24213
nsf noi info collection omb 3145-0019

i think this survey can be stopped and the resulting federal taxpayer dollars saved from NOT doing this survey anymore. america does not need this information. american funds are overspent by quadrillions and america's budget is in serious difficulty so that medicare is being cut.

this kind of survey can be cut. we dont' need to know. certainly our educational institutions are educating lots of foreigners on the american tax dollar these days, that certainly should be cut since it does not help americans.

b. sachau
15 elm st
florham park nj 07932

Plimpton, Suzanne H.

From: Leach, Nancy L.
Sent: Tuesday, February 21, 2006 3:01 PM
To: Plimpton, Suzanne H.
Cc: Hill, Susan
Subject: Response to B Sachau comment about the SED

Suzanne,
Here is our response to Ms. Sachau concerning her comments to the SED.

Nancy

Dear Ms. Sachau,

This is in response to your question and comment to the Federal Register Notice on the National Science Foundation's Survey of Earned Doctorates.

"Why is the Federal Government collecting this information?"

These data are collected to provide information to all the stakeholders in graduate education in this country. These data on the education, employment plans, and demographic characteristics of the research doctorates from United States universities are also used by universities, National Science Foundation and National Science Board, 5 other Federal agencies, non Federal policymakers and the public. This information that describes the most highly educated persons in our labor force, persons who perform the research and create new knowledge, is so useful to the Federal government that 6 Federal agencies sponsor and contribute funding to it. The National Science Foundation and the Office of Management and Budget have reviewed the budgets for this survey and deem that it is an appropriate use of federal funds to collect this vital information about the nation's doctorate recipients.

Thank you for your interest in the Survey of Earned Doctorates.

Nancy L. Leach
Program Director, Human Resources Statistics
Division of Science Resource Statistics (SRS)
National Science Foundation
4201 Wilson Blvd, Suite 965
Arlington, VA 22230
Telephone: 703 292-7768
FAX: 703 292-9092
E-mail: nleach@nsf.gov

Please note:

The following “form email” was received from the list of 23 individuals noted on the tables on the next few pages.

Plimpton, Suzanne H.

From: Michael Morgan [mmorgan@comm.umass.edu]
Sent: Tuesday, January 10, 2006 11:23 AM
To: Plimpton, Suzanne H.
Subject: NCA REQUEST

Dear Suzanne,

I would like to request the following changes, which were introduced at the annual NCA meeting of doctoral chairs, and were initially endorsed: 1. Under the Social Sciences category, insert "Communication Studies and Mass Communication"
2. Under the Humanities/Letters category, keep "Speech and Rhetorical Studies"
3. Under the Professional Fields category, remove the entire "Communications" category (940, 947, 957, 958, and 959) as well as the word "Communications." Replace the word "communications" with "Journalism, Broadcast, and Other Professional."

This categorization places our discipline more accurately in the disciplines of social sciences, humanities, and professional realms.

Sincerely,

-Michael Morgan

~~~~~~
Michael Morgan mmorgan@comm.umass.edu
Professor & Chair, Dept. of Communication, UMass/Amherst
phone: 413 545 4314 // fax: 413 545 6399
~~~~~~

paul.mongeau@asu.edu Paul A. Mongeau Director, Interdisciplinary Ph.D. Program Hugh Downs School of Human Communication Arizona State University Tempe, AZ 85287-1205 480-965-3773 (office) 480-965-5095 (department) 480-965-4291 (fax)	jhale@uga.edu Jerold L. Hale Professor and Head Department of Speech Communication University of Georgia Athens, GA, USA 30602 706–542-4893 (office) 706-542-3245 (fax)
comfrank@buffalo.edu Frank Tutzauer, Chair Department of Communication University at Buffalo	bjwilson@uiuc.edu Barbara J. Wilson, Department Head Paul C. Friedland Professorial Scholar Department of Speech Communication University of Illinois at Urbana-Champaign 702 S. Wright St., Rm. 244 Urbana, IL 61801 Phone: 217-333-2683 Fax: 217-244-1598
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Mjf12@cornell.edu Michele Finkelstein Graduate Field Assistant Department of Communication Cornell University 334 Kennedy Hall Phone: 607-255-2112 Fax: 607-254-1322	Ngrant@uky.edu Nancy Grant Harrington, Ph.D. Chair, Department of Communication Associate Dean for Research, College of Communications & Information Studies University of Kentucky, Lexington, KY 40506-0042 859-257-3622 (office) 859-257-4103 (fax)
mmorgan@comm.umass.edu Michael Morgan Professor & Chair, Dept. of Communication, Umass/Amherst 413-545-4314 (phone) 413-545-6399 (fax)	crogers@jmail.umd.edu Carol L. Rodgers, Ph.D. Director of Doctoral and Research Studies Editor, Science Communication Philip Merrill College of Journalism University of Maryland College Park, MD 20742-7111 Phone: (301)-405-2430 Fax: (301)-314-9166
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rsmitter@natcom.org Roger Smitter, Ph. D. Executive Director National Communication Association 1765 N Street NW Washington, DC 202-464-4622, x105 (office) 202-577-6946 (Cell) 202-464-4600 (Fax)	Eveland.6@osu.edu Dr. William “Chip” Eveland Associate Professor & Director of Graduate Studies School of Communication The Ohio State University Office: 3139 Derby Hall Phone: 614-247-6004 Fax: 614-292-2055

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Jpd16@psu.edu James P. Dillard, Professor and Head Department of Communication Arts & Sciences Pennsylvania State University University Park, PA 16802 Phone: 814-865-5232 Fax: 814-863-7986	eisenber@cas.usf.edu Eric M. Eisenberg Professor and Chair Department of Communication University of South Florida Tampa, FL 33620-7800
sscarter@gwm.sc.edu Shirley Staples Carter, Director School of Journalism and Mass Communications College of Mass Communications and Information Studies University of South Carolina Columbia, SC 29208 (803) 777-3324 (voice) (803) 777-4103 (Fax)	psias@wsu.edu Patty Sias Professor and Associate Director of Graduate Studies Edward R. Murrow School of Communication Washington State University Pullman, WA 99164-2520 (509) 335-8857
brummett@mail.utexas.edu Barry Brummett Charles Sapp Centennial Professor in Communication Department of Communication Studies Chair CMA 7.114 A1105 University of Texas-Austin Austin TX 78712 512-232-1714 (office) 512-471-3504 (fax)	

Please note:

The following “form email” was sent to the list of 23 individuals noted on the tables on the preceding pages.

Plimpton, Suzanne H.

From: Leach, Nancy L.
Sent: Tuesday, February 28, 2006 11:47 AM
To: 'bjwilson@uiuc.edu'
Cc: Hill, Susan; Plimpton, Suzanne H.
Subject: NSF response to NCA comments on the SED

Dear Dr. Wilson,

The National Science Foundation appreciates your response to the Federal Register Notice of December 19, 2005 regarding the proposed OMB clearance of the Survey of Earned Doctorates (SED) for Academic Years (AY) 2007-2009. We have taken your suggestion (along with other suggestions received on the same topic) into consideration concerning the placement of the field of Communication on the Field of Study list for respondents to select their bachelor's, master's and doctorate degree field of study.

We are proposing the following changes to the Field of Study listing in response to your comments:

- We will change "Communications" to singular wherever it appears on the listing, but other than that, the titles for the subcategories will remain the same.
- The entire field of Communication (CIP codes 940, 947, 957, 958, and 959) will be placed as a separate group between the listings for Social Sciences and Humanities. This approach will keep the SED field of study list in conformance with the U. S. Department of Education's Classification of Instructional Programs, while fulfilling your request that Communication be physically located closer to the Social Sciences.
- Speech and Rhetorical Studies (code 736) will remain under the Humanities/Letters listing.

We have discussed the above proposed accommodation with 2 members of the National Communication Association, Dr. Dawn Braithwaite (Director, Research Board) and Dr. Patrice Buzzanell (Purdue University), when they were at NSF on January 30, 2006.

The next step is that all 6 SED sponsoring agencies will discuss the entire field of study list and concur on any changes. OMB clearance for the AY 2006-7 SED is expected in April, the SED forms will be printed in May, and distributed to upcoming doctorate recipients starting in June for the July 2006 to June 2007 academic year.

We will keep in touch with Dawn Braithwaite of the National Communication Association as this process progresses.

Thank you again for your interest in the Survey of Earned Doctorates. If you need any further information about the survey, please feel free to contact Susan Hill at sthill@nsf.gov.

Nancy

Nancy L. Leach
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Please note:

The following two emails elicited their own response.

Plimpton, Suzanne H.

From: Hill, Susan
Sent: Wednesday, January 25, 2006 10:31 AM
To: Plimpton, Suzanne H.
Subject: FW: communication/field of study (fwd)

Here is the 2nd one, Suzanne.

-----Original Message-----
From: Leach, Nancy L.
Sent: Tuesday, January 24, 2006 5:12 PM
To: Hill, Susan
Subject: FW: communication/field of study (fwd)

FYI

-----Original Message-----
From: joseph bernt [mailto:berntj@ohio.edu]
Sent: Tuesday, January 24, 2006 4:49 PM
To: Leach, Nancy L.; dunwoody@wisc.edu
Cc: Jennifer McGill; cself@ou.edu; Wayne Wanta; hodson@ohio.edu; mould@ohio.edu
Subject: communication/field of study (fwd)

Ms. Leach:
I too write in opposition to the NCA suggestions for new headings under "Social Sciences." I do so as the Graduate Director of a Journalism School that has offered a Ph.D. in Mass Communication for nearly 40 years and as a current principal investigator on a large NSF grant grounded in mass communication theory. What NCA has recommended flies in the face of decades, really centuries, of Communication Studies-Communication-Interpersonal Communication-Speech Communication-Rhetoric tradition--a tradition based in the humanities but recently sliding into the social sciences. Mass Communications has been a social science program since inception in the 1930s, and Mass Communications has a tradition completely removed from that of the Communication Studies, formerly speech communication. Communication Studies and Mass Communication should not be yoked in the NSF taxonomy.

For these reasons, I join Professor Sharon Dunwoody in her objection to the NCA recommendations and wholly endorse Professor Dunwoody's recommendations about moving Journalism/Mass Communication under the social sciences but as a category separate from Communication/Communication Studies.

Joseph Bernt
Associate Director for Graduate Studies & Research
E. W. Scripps School of Journalism
Ohio University
Athens, Ohio 42501

---------- Forwarded Message ----------
Date: Tuesday, January 24, 2006 12:51 PM -0600
From: Sharon Dunwoody <dunwoody@wisc.edu>
To: nleach@nsf.gov
Subject: communication/field of study

Ms. Leach -

Communication doctoral programs have probably been inundating you with requests to modify the taxonomy of the Survey of Earned Doctorates in hopes that communication/mass communication becomes a listing in the social sciences.

Permit me to weigh in as well, with a recommendation that differs to some extent from that offered by the National Communication Association. My bona fides? In addition to serving as current president of the Association for Education in Journalism and Mass Communication, the nation's primary organization for journalism and mass communication scholars and educators, I am also an associate dean in the University of Wisconsin-Madison Graduate School, responsible for social science research and education issues here.

For reference, I list, below, the three recommendations that NCA has communicated to you.

AEJMC enthusiastically endorses the overall recommendation to move the labels for most communication doctoral programs from the heading "professional fields" to either "humanities" or "social sciences."

However, we strongly disagree with recommendation #3, which suggests leaving behind, in the "professional fields" category, labels such as journalism and broadcast. Instead, AEJMC recommends that all journalism and mass communication doctoral programs be lodged within the "social sciences" heading. Within that heading, we would recommend employing the following labels:

Communication/Communication Studies
Journalism/Mass Communication
Communication, Other

Our argument on behalf of such a wholesale abandonment of the "professional fields" domain is that, while the undergraduate and professional master's components of the journalism/communication discipline are typically professional in nature, the doctoral component is not. I am aware of no doctoral program in journalism and/or mass communication that turns out individuals for professional work. Instead, every one of our doctoral degrees--regardless of label--focuses on research training in preparation for a scholarly career.

That scholarly training focus distinguishes our degrees sharply from those in law, for example, or in public administration.

Thus, my bottom line recommendations on behalf of AEJMC are that

1. The "communications" subhead now sitting under "professional fields" be eliminated and all communication (singular, not plural) degrees be referenced in "social sciences." (This recommendation does not speak to

the location of such labels as "rhetoric," as those are not a part of our mass communication domain.)

2. Within the social sciences, the appropriate communication headings are:
?Communication Studies
?Journalism/Mass Communication
?Communication, Other

Permit me to briefly speak as an associate dean from UW-Madison:

The "professional fields" subsection of the "field of study" listing is a rather eclectic brew of both scholarly and professional degrees. On my UW campus, we have been working to operationally distinguish professional from research degrees--those with an occupational training focus from those with a scholarly, research focus. If I were to apply our operational definitions to the degrees listed in the "professional fields" subsection, many of them would be culled and placed in another subsection. Certainly, the communication listings would come out, as would library science, social work, and the family/consumer science label. All, at the doctoral level, are firmly lodged in the social sciences at UW-Madison. To the extent, then, that NSF is working to clarify the "field of study" categories, I hope the professional fields subheading will undergo a substantial refurbishing.

Thanks for the opportunity to provide input.

NCA recommendations:

1. Under the Social Sciences category, insert "Communication Studies and Mass Communication"
2. Under the Humanities/Letters category, keep "Speech and Rhetorical Studies"
3. Under the Professional Fields category, remove the entire "Communications" category (940, 947, 957, 958, and 959) as well as the word "Communications." Replace the word "communications" with "Journalism, Broadcast, and Other Professional."

Sharon Dunwoody
President, Association for Education in Journalism and Mass Communication
Associate Dean for Social Studies, University of Wisconsin-Madison

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Evjue Bascom Professor
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Plimpton, Suzanne H.

From: Leach, Nancy L.
Sent: Tuesday, February 28, 2006 5:35 PM
To: 'joseph bernt'
Cc: Hill, Susan; Plimpton, Suzanne H.
Subject: NSF response to AEJMC comment on the SED

Dear Dr. Bernt,

The National Science Foundation appreciates your response on behalf of the Association for Education in Journalism and Mass Communications (AEJMC) to the Federal Register Notice of December 19, 2005 regarding the proposed OMB clearance of the Survey of Earned Doctorates (SED) for Academic Years (AY) 2007-2009. We have taken your comment into consideration concerning the placement of the field of Communication and its subcategories on the Field of Study list for respondents to select their bachelor's, master's and doctorate degree field of study.

We are proposing the following changes to the Field of Study listing in response to your comments:

- We will change "Communications" to singular wherever it appears on the listing, but other than that, the titles for the subcategories will remain the same.
- The entire field of Communication (CIP codes 940, 947, 957, 958, and 959) will be placed as a separate group between the listings for Social Sciences and Humanities. This approach will keep the SED field of study list in conformance with the U. S. Department of Education's Classification of Instructional Programs, while fulfilling the request that Communication be physically located closer to the Social Sciences.
- The titles for the categories will not be changed. In order for Journalism to be added to the SED list, there must be at least 3 institutions awarding a total of at least 10 doctorates in the field for at least 3 consecutive years. This is based on what is reported on the SED, so you need to encourage your new doctorates to specify Journalism when they fill out their SED questionnaires.

The next step is that all 6 SED sponsoring agencies will discuss the entire field of study list and concur on any changes. OMB clearance for the AY 2006-7 SED is expected in late April, the SED forms will be printed in May, and distributed to upcoming doctorate recipients starting in June for the July 2006 to June 2007 academic year.

Thank you again for your interest in the Survey of Earned Doctorates. If you need any further information about the survey, please feel free to contact Susan Hill at sthill@nsf.gov.

Nancy

Nancy L. Leach
Program Director, Human Resources Statistics
Division of Science Resource Statistics (SRS)
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ATTACHMENT 10: QUALITATIVE TESTING OF THE SED QUESTIONNAIRE

SURVEY OF EARNED DOCTORATES:

Qualitative Testing for the SED Questionnaire

Prepared by:

**Mary Hess, Tom Hoffer, Lisa Lee,
Daniel Loew, Kristy Webber, and Kimberly Williams**

August 2005

NORC
A national organization for research at the University of Chicago

Table of Contents

Key Findings and Recommendations

In spring 2005, NORC conducted six Focus Groups on the possibility of adding salary questions to the Survey of Earned Doctorates (SED), as well as the reaction to other sensitive items on the survey. The groups consisted of:

- Three groups with doctoral students nearing graduation or those that have recently earned their doctorate.
- Two groups with graduate deans from participating institutions.
- One group with institution contacts from participating institutions.

The conclusion of these groups was that:

1) the vast majority of participants did not object to providing their salary on the Survey of Earned Doctorates,
2) institutions did see the value in having these data available to them, and
3) students did object to providing their full social security number, and would feel more comfortable providing a partial SSN, especially if there was an explanation of how these data would be used and protected.

Based on this conclusion, the NSF authorized NORC to conduct 17 cognitive interviews in summer 2005 with recently graduated doctorates or those nearing graduation. The purpose of the interviews was to inform questionnaire revisions for the SED Academic Year 2007, including the proposed salary question and truncated Social Security Number question. The key recommendations for these interviews were:

1) The proposed salary question (B7) should ask for base salary, with instructions to exclude summertime research and bonuses, and should provide categorized response options in $10,000 ranges.
2) An additional question is needed (within B7) to determine if the salary is not annual, and should ask for the number of months that salary covers.
3) The truncated SSN question (C15) with an explanation box greatly eased participants discomfort about providing this sensitive information and should be used for future survey rounds.
4) The term “Stipend” used in a response option along with “Grant” as a source of support (A5) was interpreted differently by most of the respondents and should be removed to promote consistency.
5) The item on time spent in classes versus working on the thesis/dissertation (A12 & A13, respectively) caused confusion and should be reworded or reformatted.
6) The question asking participants to identify their employer (B6) should be reworded to be more specific about the term “employer.”
7) The term “dependents” used in the question asking participants to enumerate the number of people financially dependent on them (C3) led many to think this question was only asking about children and should be reworded.

Purpose and Background of the Study

The Survey of Earned Doctorates (SED) is an annual census of research doctorate recipients in the United States and is sponsored by the National Science Foundation (NSF) and five other federal agencies – the National Institutes of Health, the U.S. Department of Education, the National Endowment for the Humanities, the U.S. Department of Agriculture, and the National Aeronautic and Space Administration. The SED collects information on the educational histories, funding sources, and post-doctoral plans of U.S. research doctorates. Each year the SED data are added to a larger historical record of doctorate-degree graduates, the Doctorate Records File (DRF), which contains over one million records. The NSF requested that the National Opinion Research Center (NORC) at the University of Chicago (the current survey contractor for the SED) conduct a panel and methodological research on adding a salary question to the SED 2007 survey form.

In July 2004, the NSF convened a panel meeting for the SED to discuss the possibility of adding questions on salary to the SED questionnaire. The panel identified three main reasons for adding a starting salary question to the SED:

- To provide compensation information to prospective doctoral students and new doctorate recipients about what to expect from their career choices,
- To provide data to program administrators and researchers seeking a better understanding of the labor market for doctorate recipients in different fields of specialization, and
- To provide researchers with a more complete picture of career trajectories when presented with salary data from the NSF's Survey of Doctorate Recipients (SDR).

Following the salary panel meeting, a series of (1) focus groups were proposed to examine the impact of adding a question on salary and, (2) cognitive interviews to explore the most appropriate wording and placement of the question. NSF obtained OMB clearance for this methodological work; clearance included approval of $75 for each participant, given the high levels of education of each type of participant.

Key project staff from NORC were Senior Research Scientist Tom Hoffer, Senior Survey Director Mary Hess, Senior Survey Methodologist Lisa Lee, and Survey Specialists Dan Loew, Kristy Webber and Kim Williams. George Balch, from Balch Associates, acted as moderator for the focus groups. (See Appendix C).

Focus Groups

The intent of the focus groups was to explore the possible reactions of graduate students, Institution Contacts (ICs)[1], and graduate deans to the addition of a question on salary to the SED. Issues of particular interest to this research included:

- Students' concerns about answering salary questions
- Reactions to alternative kinds of salary questions
- Concerns about and reactions to sensitive items (in conjunction with salary)
- Perceptions of added value of salary question data
- Expectations of student reactions to salary data
- How institutions might limit negative reactions
- Ways the SED can help Institution Contacts if the salary question is added

The focus groups were conducted by a third party moderator, George Balch, PhD of Balch and Associates, not affiliated with NORC or the SED sponsors. Each session was conducted nationally via telephone using state-of-the-art technology that allows simultaneous phone participation by the participants as well as by three client observers. The protocol was developed in early spring 2005 by Dr. Balch in consultation with NORC staff and was reviewed by the NSF SED Contracting Officer's Technical Representative (COTR), Susan Hill. Tailored protocols were developed for the student, IC, and graduate dean sessions.

The conclusion of the focus groups was that adding a question on salary would not negatively affect the survey's response rate. As a result, NSF asked NORC to proceed with cognitive testing of the instrument to determine appropriate question wording and placement.

Cognitive Interviews

The intent of the cognitive interviews was to inform questionnaire development for the SED – specifically to understand how graduate students respond to a question on salary so that NORC could develop recommendations for such a question. Although the salary question was of central importance, the entire instrument was tested during the interview. (See Appendix B).

Testing the entire questionnaire enabled NSF and NORC to understand the impact of the salary question (1) in the context of the whole instrument to get a sense of its appropriateness and any additional burden it may place on the respondent and (2) in relation to other sensitive items (i.e., Social Security Number, date of birth).

[1] Institution Contacts are university staff who assist NORC's SED team in the data collection efforts. ICs typically assist in the distribution and collection of the SED questionnaire and also field questions from students.

Additionally, testing the entire instrument allowed NSF to understand any need for changes to the SED instrument at the time of Office of Management and Budget (OMB) review in winter 2006.

Issues of particular interest to this research included:

- Reactions to alternate versions of asking about salary
- Reactions to placement of the salary question
- Overall impressions of the instrument
- Concerns about sensitive information, particularly Social Security Number
- Particular questions that prove difficult
- Improvements to question wording

Dan Loew, Kristy Webber, and Kim Williams of NORC conducted a total of 17 cognitive interviews. Each session was conducted in person at NORC using participants from local universities. The protocol was developed in early summer 2005 by NORC staff and reviewed by the NSF SED COTR. Each interview began with a “think aloud” session followed by a series of in-depth probes. Prior to beginning the cognitive interviews, two pretest interviews were conducted. Review of the pretests prompted minor modifications to the protocol. All interviews were video taped and reviewed upon completion.

Focus Groups

Method of Discussions

Six sessions of focus groups consisting of three groups of students, one group of ICs, and two groups of graduate deans were conducted nationally via telephone in spring 2005. This state of the art technology allows simultaneous phone participation by the participants and client observers. Participants are contacted by the teleconference facility at a phone number they provide to the project's recruiter in advance and are asked to hold briefly. In the event that they would not be at the number they specified, participants are able to dial an 800 number and enter a pass code to enter the session. Client observers dial into a specific line and enter a pass code to join the session; during the session the observers listen on a muted line. Once the session time has begun, the moderator greets the participants and initiates the session. All participants can speak freely and be heard as if they were having a regular conversation. Each session was audiotape recorded and lasted no more than 90 minutes.

Session Protocol

The protocol was developed in early spring 2005 by Balch Associates with consultation by NORC staff, and was reviewed by the NSF SED COTR. Six focus groups were conducted – two with graduate deans, three with doctoral students near graduation, and one with institution contacts – between May 10th and May 17th, 2005. Tailored protocols were developed for the students', Institution Contacts', and graduate deans' sessions. Each focus group began with an informal icebreaker to initiate conversation among the participants. Once Dr. Balch established sufficient rapport with the participants, he proceeded with the discussion guide for that group (see "Adding a Salary Question to the Survey of Earned Doctorates (SED): Findings from Exploratory Qualitative Research" for a copy of each discussion guide).

For the student sessions, the primary objectives were to understand their concerns about and reactions to being asked to share their salary information. For the IC session, the objectives were to understand how their role would be affected by the inclusion of a salary question and discuss ways NORC might help ICs prepare for the change. The main objectives for the graduate dean sessions were to discuss the usefulness of salary data and how such data would affect their institution.

While each discussion guide was tailored for the specific session, all participants discussed their reactions to different ways about asking for salary information. Prior to the focus group session, each participant received a Fed Ex envelope containing three sealed envelopes that included a sample version of the SED questionnaire containing a question on salary. Each envelope was assigned a different color label. During the session, Dr. Balch instructed participants to open a specific envelope, review its contents, and respond. This process was repeated three times until all versions of the sample questionnaire had been presented.

Once Dr. Balch covered the points on the discussion guide, he paused for a few minutes to check with the client observers to identify any points that were not covered or that needed additional follow-up. During this time, he instructed the participants to discuss among themselves a topic related to the evening's discussion. Upon returning to the session, Dr. Balch raised additional questions if the observers brought them up. At the conclusion of each evening (a maximum of two groups were conducted each evening), Dr. Balch debriefed with NORC observers on the sessions' outcomes.

Sampling

NORC handled all sampling and recruitment for the focus groups. Initial sampling for recruitment began with the list of all known educational programs in the United States that award research doctoral degrees (n=588). In most institutions, this program is the graduate school, which handles the SED for all the doctoral graduates. For other institutions, there could be several schools or departments that handle the SED. For example, one institution may offer a doctoral degree in education and one in biology, where the School of Education handles the SED for their graduates, while the Biology Department handles it for the biology Ph.D.s. Therefore, the number of programs noted above is greater than the number of institutions granting doctorate degrees in the U.S.

Ninety-five of these programs were selected using the following parameters to ensure representation, though not statistically, of the entire universe of doctoral institutions in the U.S.:

- **Geographic region** – Institutions were selected from the northwestern, western, southwestern, Midwestern, southeastern, mid-Atlantic, and northeastern regions of the United States.

- **Graduation date** – Institutions that award degrees in May and August were selected. Institutions that did not offer May or August graduations were excluded so that the sample of focus group participants would (1) have limited exposure to the SED questionnaire and (2) would be more likely to have firm job offers than fall graduates and therefore, they would be more apt to provide reactions to questions about expected salary.

- **Private and Public Institution status –** NORC sought to include an equal number of private and public institutions in the sample.

- **Institution Size –** As reactions might differ between large and small schools, institutions of all sizes were included. The number of research doctorates that each educational institution grants annually determined size in this context. Size categories included:
    - fewer than100 doctorates awarded annually
    - 100-200 doctorates awarded annually

  - 201-300 doctorates awarded annually
  - 301-500 doctorates awarded annually
  - 501 or more doctorates awarded annually

- **Historically Black Colleges and Universities (HBCUs)** – Several HBCUs were included in the sample.

- **Specialized Institutions –** Several specialized institutions (e.g., medical research universities, theological seminaries) were included in the sample.

- **Problem Schools –** Through extensive interactions with Institution contacts, SED staff members have identified certain educational institutions which have been traditionally uncooperative. These "problem schools" were excluded from the sample.

- **Deans and Institution Contacts –** Institution contacts and graduate deans were recruited from different universities to avoid institution bias in the sessions. Institutions were excluded if their IC also served as a graduate dean. These institutions were excluded to ensure that the ICs contacted to participate in the focus group would be responding as ICs and not in some other capacity.

Recruitment

NORC sought to recruit eight participants for each of the focus groups, totaling 24 students, eight ICs, and 16 graduate deans. NORC also sought to line up several alternates for each session. To streamline the recruitment process, NORC contacted the same institutions for the student and IC groups and relied on assistance from ICs in reaching the students. NORC contacted graduate deans directly. Students and ICs were offered $75 to participate in the focus groups, paid upon completion of the group. Graduate deans were provided with a summary of their focus group session and given the opportunity to provide feedback to the focus group moderator.

Student/IC Recruitment

Recruitment for the student and IC focus groups occurred in three parts; a total of 63 institutions were contacted. The first recruiting effort involved a Fed-Ex mailing to 18 institutions that included the focus group informational letter and flyer (see Appendix A). Prior to sending the flyers, ICs from 26 institutions were called to inform them of the study and request their help in distributing the flyers to students; 18 agreed to accept the flyers. A week after the flyers arrived, each IC received a follow up email reminding them about the IC and student focus group, encouraging their participation, and thanking them for their assistance in recruiting students.

The second recruiting effort involved sending a mass email to ICs at 24 new schools with an electronic copy of the flyer attached. The body of the email included the focus group informational letter and asked if they would post or distribute the flyer to doctoral students nearing the end of their degree requirements.

The third recruiting effort involved contacting eight ICs who were recommended by Jamie Friedman, the NORC SED Institution Coordinator, as being particularly helpful and/or easy to work with. These ICs received a personal email that included a brief summary of the focus groups, requested their participation in the IC group, and asked for their help in recruiting students (by either sending out the brief informational paragraph provided or by posting the attached flyer).

The following schools were contacted for the student and IC focus groups:

Alabama A&M University
Brigham Young University
Carnegie Mellon University
Clark Atlanta University
Columbia University
Georgia Institute of Technology
Harvard University
Jackson State University
Johns Hopkins University
Morgan State University
Northwestern University
Pennsylvania State University
Purdue University-Main Campus
Texas A&M University
Univ. of Arkansas-Main Campus
Univ. of Calif.-Berkeley
Univ. of Calif.-Santa Barbara
Univ. of Colorado-Boulder
Univ. of Iowa
Univ. of Massachusetts-Amherst
Univ. of Michigan-Ann Arbor
Univ. of Nebraska-Lincoln
Univ. of New Mexico
Univ. of Notre Dame
Univ. of Pennsylvania
Univ. of San Francisco
Univ. of Utah
Univ. of Washington
Yale University
Baylor College of Medicine
Brown University
Chicago Theological Seminary
College of William and Mary
Emory Univ.
Grambling State University
Howard University
Jewish Theo. Seminary of America
Massachusetts Institute of Technology
New Jersey Institute of Technology
Ohio State University-Main Campus
Princeton University
Stanford University
Tufts University
Univ. of Calif. San Diego
Univ. of Calif.-Davis
Univ. of Chicago
Univ. of Georgia
Univ. of Maryland-College Park
Univ. of Med & Dent of N. J.
Univ. of Minnesota-Twin Cities
Univ. of Nevada-Las Vegas
Univ. of North Dakota
Univ. of Pennsylvania-School of Education
Univ. of Pittsburgh
Univ. of Southern California
Univ. of Vermont
Villanova University

Graduate Dean Recruitment

Recruitment for the graduate dean focus groups occurred in two parts; a total of 49 institutions were contacted. The first effort at reaching graduate deans involved a direct phone call to graduate deans at 25 institutions. Approximately a week after the original phone call, a follow up email was sent to each of the deans. NORC believed that graduate deans would be most accessible via email and decided to direct future efforts in that manner. As a second effort to obtain interest in the graduate dean focus groups, a mass email was sent to deans at 24 institutions (these are the same 24 institutions that received the IC mass email).

The following schools were contacted for the dean focus groups:

Alabama A & M University
Baylor College of Medicine
Brigham Young University
Carnegie Mellon University
Chicago Theological Seminary
Claremont Graduate University
Clark Atlanta University
College of William and Mary
Colorado State University
Cornell University
CUNY Graduate Center
Dartmouth College
DePaul University
Georgetown University
Grambling State University
Harvard University
Indiana University-Bloomington
Jackson State University
Johns Hopkins University
Loyola University of Chicago
Mass. Institute of Technology
New Orleans Baptist Theo Seminary
Pennsylvania State University
Portland State University
Princeton University
Purdue University-Main Campus
Rutgers University-New Brunswick
Texas A & M University
Univ. of Arizona
Univ. of Calif.-Davis
Univ. of Calif.-Los Angeles
Univ. of Calif.-San Diego
Univ. of Calif.-Santa Barbara
Univ. of Florida
Univ. of Houston - College of Natural Sciences
Univ. of Illinois-Urbana
Univ. of Kansas-Main Campus
Univ. of Med & Dent of N. J.
Univ. of Missouri-Columbia
Univ. of Nebraska-Lincoln
Univ. of North Carolina-Chap. Hill
Univ. of Oklahoma
Univ. of Pittsburgh
Univ. of Utah
Univ. of Vermont
Univ. of Wisconsin-Madison
Vanderbilt University
Wake Forest University
Yale University

Scheduling

Almost 100 doctoral students expressed interest in the Student Focus Group. Each interested student received a background information sheet, which they were instructed to fill out and return to NORC via email (see Appendix A). Students who indicated that they had a definite commitment to work or study were given top priority, followed by students who were negotiating with one or more organizations. Students who were seeking a position were given lowest priority, while students who did not plan to work or study were excluded. Beyond these criteria, NORC sought to include an equal distribution of males and females as well as a broad representation of various fields of study from the schools contacted.

Participant Demographics

Students

A total of 24 students participated in the focus groups, consisting of 12 males and 12 females. Three students were from institutions in the Northeast, three from the Southeast, eight from the Midwest, six from the west, and four from the Northwest. The majority of students (n = 15) had signed a contract or made a definite commitment to work or study, while eight were returning to or continuing in predoctoral employment, and one was negotiating with one or more specific organizations. Two-thirds of the participants were from public universities and the remaining were from private universities; three students were from specialized institutions, which included a medical and dental research university and a technical university. Institution size (determined by the number of doctorates awarded) was fairly evenly represented in the focus groups.

The following fields of study were represented:

Business Administration	International Relations
Chemistry	Literature
Civil Engineering	Mechanical Engineering
Clinical Psychology	Molecular Biology
Earth & Planetary Science	Molecular Genetics
Education	Physics
Educational Administration	Political Science
Ethnomusicology	Social Psychology
Geography	Sociology
Immunology	Urban Ecology

Institution Contacts

A total of six ICs participated in the Institution Contact Focus Group; all participants were female. One IC was located in the Northeast region of the U.S., two were located in the Southeast, one was located in the Midwest, one was located in the Mountain region, and one was located in the West. The majority of the ICs were from mid-sized institutions (200-500 doctorates awarded annually), while one was from a small institution (less than 100 doctorates awarded annually) and one was from a large institution (more than 500 doctorates annually). One IC was from a specialized school, which was a technical university.

Graduate Deans

A total of 12 graduate deans participated in the Graduate Dean Focus Groups, consisting of 8 males and 4 females. Two deans were located in the Northeast, one was located in the Southeast, three were located in the Midwest, two in the West, two in the Southwest, and two were located in the Mountain region. Ten of the graduate deans were from public institutions while two were from private institutions. A few graduate deans represented each institution size in the sample. There was one dean from a specialized institution, which was a technical university.

Findings and Recommendations

Focus group participants were presented with mock-up SED questionnaires which contained three different versions of the salary question. The first version asked participants to write in a salary range within which their estimated salary would fit, the second version asked participants to write their estimated salary, while the third version asked participants to choose their salary from set ranges in a multiple-choice format. Participants had clear preferences for the simpler question wording – with a clear definition of "salary" - with set ranges in a multiple-choice format. In addition, nearly all of the students said they would provide this information and most did not consider it too sensitive.

Some focus group participants, particularly graduate deans, mentioned a variety of ways in which salary data would be useful. They were interested in supplementing current salary data sources with data gathered from the SED, which would provide many practical applications of salary data. Proposed applications included comparing students' level of investment with indebtedness, comparing salary range distributions across fields, and comparing starting salaries to manage hiring within their universities.

When asked about their reactions to other items in the questionnaire, participants' greatest concern by far was the Social Security Number question. All considered answering this question risky, due to salient concerns of identity theft. Many urged that the SED form explain how the SSN will be used. Only asking for the last 4 digits of the SSN was greatly supported, as was providing information concerning the reasons for the SED's collection of the SSN.

The conclusion of the focus groups was that adding a question on salary would not negatively affect the survey's response rate. As a result, NSF asked NORC to proceed with cognitive testing of the instrument to determine appropriate question wording and placement. Detailed findings and recommendations of the focus groups are presented in Dr. Balch's report, "Adding a Salary Question to the Survey of Earned Doctorates (SED): Findings from Exploratory Qualitative Research" (See Appendix D).

Cognitive Testing

The focus group findings supported moving forward with cognitive interviews to determine how students would react to being asked for salary information in the actual context of completing the questionnaire. Additionally, the cognitive testing encompassed the entire instrument so that NORC could gain respondent information and present additional proposed changes to the SED instrument at the time of OMB review in winter 2006.

Interview Protocol

The protocol was developed in early summer 2005 by NORC staff and reviewed by the NSF SED COTR. All interviews were conducted at NORC's downtown Chicago facility during the weeks of July 11 and July 18. Loew, Webber, and Williams conducted 17 interviews. Each interview lasted between 45 – 90 minutes and was completed using paper and pencil materials. Interview lengths varied depending on the participants' feedback. The interview was broken down into four parts:

> *Part 1:* The participant was instructed to read an introductory letter and the "Purpose and Use" brochure that explained the SED. These documents were presented as background information. The interviewer asked the participant if s/he had any questions about the material.
>
> *Part 2:* The cognitive interview began with a "think aloud" session whereby the participant was asked to complete the questionnaire and share their thought processes with the interviewer. The interviewer led the participant through an example prior to beginning the session and told the participant that what s/he was most interested in was how the participant was coming up with his/her responses and not necessarily the responses themselves.
>
> *Part 3:* Once the participant completed the think aloud segment, the interviewer began a series of scripted in-depth probes for specific questions. In addition to the pre-determined probes, interviewers listened carefully and interjected ad-libbed probes where appropriate. The combination of scripted and ad-libbed probes created consistency across all interviews while allowing for interviewer flexibility to tease out pertinent information from the participants.
>
> *Part 4:* At the completion of the probe segment, the interviewer reviewed his/her notes from the think aloud session and asked the participant to elaborate on any point that deserved further discussion.

NORC staff utilized findings from the focus groups, SED's 2002 cognitive testing of the web questionnaire, and recommendations from NORC Senior Survey Methodologists when developing the interview protocol. Examples of salary questions were of central importance to the protocol. NORC tested two versions of the salary question based on feedback from the focus group participants. Some focus group participants found it helpful if the salary question contained instructions on what to include and exclude in their salary and some did not. Therefore, one version of the question with instructions, based on SDR salary question wording, was presented in the cognitive interviews and one was presented without instructions. In each case, the response options consisted of seven salary ranges (ranging from less than $30,000 to above $80,001 in $10,000 increments) and a "don't know" option.

Although the salary question and Social Security Number question emerged as the most prominent components of the scripted probes, additional survey items were selected for testing. The additional survey items included in the protocol along with an explanation for their inclusion are listed below (see Appendices A and B for copies of the probes and questionnaires):

- Source of financial support during graduate school (question A5)
  - Participants in the 2002 cognitive interviews mentioned that some of the response options could be better defined.

- Years taking courses/working on dissertation (questions A12, A13)
  - Participants in the 2002 cognitive interviews mentioned that this question was confusing because it was not clear to them if they should include or exclude experiences prior to graduate school entry.

- Intention to take a postdoc (question B2)
  - The word "intend" may be ambiguous to respondents as it can mean both a desire and/or a concrete plan.

- Status of postgraduation plans (question B3)
  - The word "predoctoral" may be ambiguous to respondents as it can mean both the time before starting the doctoral program and/or the time before earning the doctoral degree.

- Postgraduation plans (question B4)
  - The response options may be unclear to respondents. Graduate deans in the focus groups suggested that students might not be aware of any difference between "postdoctoral fellowship" and "postdoctoral research associateship". The deans indicated that this terminology was most often used at the administrative level.

- Employer type (question B6)
  - The response options may not be exhaustive. Some focus group participants mentioned that they could not easily find a place for international and non-governmental organizations.

- Employer name and location (question B9)
    - NORC was interested in the sensitivity of also requesting job title in this item.

- Marital status (question C2)
    - Some participants from the 2002 cognitive interviews noted difficulty understanding which option they should select if they felt they fit into multiple categories. Some focus group participants were uncomfortable with the response options, particularly “living in a marriage like relationship” and “never married”.

- Dependents (question C3)
    - The layout of the response options is visually confusing since the check boxes are not aligned. Additionally, the word “dependents” may influence respondents to automatically think of children and exclude adults.

- Race/ethnicity (questions C12, C13, C14)
    - Although the response options are based on the OMB regulations, respondents occasionally call the SED 1-800 number with questions about why they were asked to provide a race when they already indicated they were Hispanic in question C12. This indicates that the respondents did not think of Hispanicity as their ethnicity, but that they thought of it as their race.

Pretest

In preparation for the cognitive interviews, NORC conducted two pretests to test the protocol, timing and flow of the interviews. Lee and Webber each conducted one interview, with Lee, the Senior Survey Methodologist, conducting the first so that Webber and Williams could take notes on her approach and style. After completing the interviews, Lee, Webber, and Williams discussed what worked well in the protocol and what adjustments were necessary.

It was decided that the interview would work better if the probes on the salary questions and Social Security Number were asked at the beginning of the probe segment as opposed to the order they appear in the questionnaire since they were the most important items. Lee worked with Webber and Williams on modifying several of the probes to better meet the desired objectives. Each of the pretests lasted approximately one hour and additional modifications to the protocol were not necessary.

Videotaping and Summary of Findings

Once all of the interviews were completed, NORC transferred the videos to VHS tapes. Loew, Webber, and Williams reviewed each tape to confirm and clarify original notes; Hess reviewed a tape from each interviewer. Loew, Webber, and Williams aggregated and shared their notes in a debriefing session. A second debriefing was held with Hess, Hoffer, and the NSF SED COTR to discuss the initial findings before specific recommendations were developed.

Recruitment

NORC handled all recruitment for the cognitive interviews and offered a $75 incentive to students for participation. Because cognitive interviews are best conducted in person[2], only Chicago-area research doctorate-granting universities were included. The following institutions were contacted: the University of Chicago, Loyola University of Chicago, Northwestern University, the University of Illinois at Chicago and at Champaign-Urbana, Rush University, DePaul University, the Illinois Institute of Technology and the Chicago Theological Seminary.

NORC sought to recruit 16 participants for the cognitive interviews, in addition to two pretest participants and several alternates. The recruiting effort involved contacting the ICs at the universities mentioned above to ask for their assistance in recruiting. ICs who agreed to assist with the recruiting were sent an informational email they could forward on to their students and an electronic copy of the flyer attached. NORC requested that ICs send the information to all research doctoral students who were scheduled to graduate either in spring or summer 2005. NORC also requested that ICs post the flyer in locations frequented by doctoral students. Students were informed to contact Loew via phone or email for more information.

Scheduling

NORC received interest from 35 students. Each interested student received a background information sheet, which they were instructed to fill out and return to NORC via email (see Appendix A). Students were eligible for the cognitive interviews if they had graduated in spring 2005 or would graduate in summer 2005. Students who indicated that they had a definite commitment to work or study were given top priority, followed by students who were negotiating with one or more organizations and students who were seeking a position. Students who did not plan to work or study were excluded. Beyond these criteria, NORC sought to include an equal distribution of males and females as well as a broad representation of various fields of study.

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[2] Willis, Gordon (2005). *Cognitive Interviewing: A Tool for Improving Questionnaire Design.* London: Pantheon Books.

Participant Demographics

A total of 17 students participated in the cognitive interviews, which included 10 females and 7 males. Students represented the University of Chicago, Loyola University of Chicago, Northwestern University, and the University of Illinois at Chicago. The majority (n = 13) of the participants had signed a contract or made definite commitments for other work or study, while four participants were negotiating with one or more specific organizations.

The following fields of study were represented in the cognitive interviews:

Art History	Mathematics
Business Administration	Music
Chemistry	Nutrition
Curriculum Design	Pharmacology
Economics	Public Health
Evolutionary Biology	Public Policy
History	Social Work

The following section is a question-by-question review of all comments made by participants during the cognitive interviews. For each item, the question and response options are presented followed by a question description, item discussion, and NORC's recommendations. This section begins with discussions on the salary questions tested during the cognitive interviews followed by the Social Security item. Subsequent items are discussed in the order they appear in the questionnaire.

I. 9 or 12 Month Salary (Question B7)

This question was added to the questionnaire for the purposes of the cognitive testing. Focus group participants suggested it would be helpful to identify whether the salary was for a standard vs. "academic" contract period.

B7. For this position, will you receive a 9 or 12 month salary?

0 ☐ 9 month
1 ☐ 12 month
2 ☐ Don't Know

Discussion

The probes for this question were developed to understand the usefulness of this question, and how their ability to answer the salary question (B8) would be affected if this question were not on the survey.

Most of the participants did not think that this question was necessary, and several did not fit into the categories provided. For example, one respondent had an 11 month post doc assignment. A few participants suggested incorporating this question into the salary question. They did not see the need for a stand-alone question, but did recognize that these data could be valuable.

Recommendations

While it may not be needed as a separate question, this information would be useful in the analysis of salary data and post-graduation employment. We recommend incorporating this question into the salary question by having the respondent indicate the number of months the salary covers either before or after the salary category (see question B8):

*If this is less than a 12 month salary, write in the number of months this salary is for*_____

II. Annual Salary (Question B8)

This question was added to the questionnaire for the purposes of the cognitive testing and requests the range within which the participant's projected salary falls. Both the 9 month/12 month question and the salary question were placed after the question on employer type (question B6). NORC determined this logical placement for the salary question because it followed employer type but preceded employer name and location. NORC suggested that if salary were requested after specific employer name and location were requested, the salary item might experience a higher level of nonresponse.

Two versions of the question were presented to participants. Half of the participants first saw Version 1 on the questionnaire and half saw Version 2. Participants then were presented with the alternate version of the question during the probe segment. The wording for Version 1 is similar to how the SDR requests salary information and includes explicit instructions. Version 2 of the question is abbreviated and parallels how the Canadian Survey of Earned Doctorates requests salary information.

Version 1:
B8. Before deductions, what will be your basic annual salary for this job? *Do not include bonuses, overtime or additional compensation for summertime teaching or research. If you are not salaried, please estimate your earned income excluding business expenses.* Mark (X) one

0 ☐ Less than $30,000	4 ☐ $60,001 - $70,000
1 ☐ $30,001 - $40,000	5 ☐ $70,001 - $80,000
2 ☐ $40,001 - $50,000	6 ☐ Above $80,001
3 ☐ $50,001 - $60,000	7 ☐ Don't Know

Version 2:
B8. What will be your base annual salary or wages? Mark (X) one

0 ☐ Less than $30,000	4 ☐ $60,001 - $70,000
1 ☐ $30,001 - $40,000	5 ☐ $70,001 - $80,000
2 ☐ $40,001 - $50,000	6 ☐ Above $80,001
3 ☐ $50,001 - $60,000	7 ☐ Don't Know

Discussion

Participants were probed on several different issues for this question including sensitivity, the question stem wording, the response options provided, and how they came up with their response. Additionally, participants were asked about components of their hiring package.

None of the participants had any objections to providing their salary data on the survey. Most commented that this information was publicly available in some cases, or standardized and widely known in others. A few participants commented on the category breakdown. Some suggested adding more to the lower end, breaking down the $30,000 to $40,000 category further, and one indicated that the ceiling ($80,001 and over) was too low. Most post doc positions pay between $30K to $40K, and therefore a finer breakdown in that range will be informative for that population. Several participants did comment that this question presumed the person answering it has a traditional, full-time job, and this did not fit their situation or the situation of many others they knew (e.g., persons taking an adjunct teaching position).

While more participants preferred Version 1 to Version 2, it was by a relatively small margin. Those that preferred Version 1 thought the italicized instructions made it clear exactly what information the survey was requesting, while those who preferred Version 2 thought the instructions were unnecessary or confusing. Most of the participants did not include any extras like bonuses or overtime regardless of the version they saw. However, most of the participants did think it was necessary to keep the wording that instructed them to exclude summertime research or teaching. It should also be noted that all of the participants interviewed were either taking a post doc or a position in academia. Therefore, predictions or recommendations for those going into industry may not be appropriate.

All participants were entering academia or a postdoc position and had limited hiring packages to speak of. Most participants who received "extras" upon hiring received a modest moving allowance or potential money for conference attendance. These components, including salary, they reported, were not as important to the participant as the position itself.

Recommendations

The participants did not seem to have a strong preference for either version of the question and thought there were benefits to both the instructions in Version 1 and the simplicity of Version 2. Therefore, we recommend creating a new question, derived from Version 1 and keeping only the most relevant instructions. The new question should also specify that we are asking about the *primary or principal* position, and it should use the same reference point as the other questions about postgraduate employment. In addition, the salary ranges could be changed, to better capture the nuances of post doc salaries, and to increase the ceiling. Finally, question B7 should be incorporated to capture data on the number of the months this salary covers.

A preliminary recommended question is below:

What will be your basic annual salary for this principal job (in the next year)? *Do not include bonuses or additional compensation for summertime teaching or research. If you are not salaried, please estimate your earned income. Mark (X) one.*

0 ☐ *$30,000 or less*	5 ☐ *$60,001 - $70,000*
1 ☐ *$30,001 - $35,000*	6 ☐ *$70,001 - $80,000*
2 ☐ *$35,001 - $40,000*	7 ☐ *$80,001 - $90,000*
3 ☐ *$40,001 - $50,000*	8 ☐ *$90,001 or above*
4 ☐ *$50,001 - $60,000*	9 ☐ *Don't Know*

Is this for 12 months?

1 ☐ *Yes*

2 ☐ *No*

If no, write in the number of months this salary is for: ______.

Forthcoming research will shape the question further. NORC will review other Federal surveys, professional association surveys, and other sources of salary data to understand how the results from the SED would be comparable. NORC will also consult members of the 2004 salary panel, labor economists, and graduate school administrators for their input on the question wording.

The distributions of salary are sensitive to the "top coding decision," and it is best to have more categories than fewer. NORC was also asked to examine how adding this question will affect the postgraduation plans section as a whole. The changes in the skip patterns in the 2004 instrument now take all respondents who are going on to further training or study through the entire postgraduation plans section, whereas they previously were not directed to the questions on employer type, location, and work activities. Because of this change, respondents who are continuing their education in an additional graduate program (M.D., MBA, etc) and will not be receiving a salary would see the salary question given the proposed placement between the original questions B6 and B7. Therefore, the salary question will need to make an accommodation for these respondents in the form of another response option or a note that directs them to indicate that they will not be receiving a salary.

III. Social Security Number (Question C15)

Social Security Number (SSN) has historically been one of the most sensitive items on the SED questionnaire. Respondents have been increasingly more reluctant to provide their Social Security Number over the past several years, citing privacy concerns and the possibility of identity theft.

Students who participated in the focus groups also indicated a high degree of discomfort with providing their SSN. NORC asked Dr. Balch to ask focus group participants how they would feel about providing the last four digits of their SSN. Focus group participants felt more comfortable with providing the last four digits but also urged that the survey explain why it is requesting the information.

As a result, NORC modified the questionnaire to present a truncated version of the SSN question and developed a plan for experimental distribution during the 2006 survey round. Cognitive interview participants were presented with the truncated version of this question.

C15. Please fill in your partial U.S. Social Security Number.

X X X - X X - __ __ __ __

We request only the last four digits of your SSN to assure additional protection of your data. All personal information is kept strictly confidential and is not used outside the National Science Foundation's Survey of Earned Doctorates project under any condition. We ask for this information in order to assure that no duplicate records are in the historical file. Also, NSF conducts a voluntary, longitudinal survey of a sample of doctorate recipients. Partial SSNs and personal contact information are used to obtain these sample graduates' mailing addresses two or more years after completion of their doctoral programs. Further information on the purpose and use of this survey and on the privacy safeguards is available at: http://www.norc.uchicago.edu/issues/docdata.htm

Discussion

For this item, participants were asked about their reactions to being asked for their partial SSN, how it compared to being asked for their full SSN, and the impact of the explanation box.

When asked about providing only the last four digits of their SSN, all the participants agreed that it was much better than providing all nine, though a few were still reluctant to give any part of their SSN. A few mentioned they were accustomed to other agencies using the last four digits as an identifier. The most common concern voiced was identity theft, but most agreed it would be very difficult to perpetrate identity theft with only a partial SSN. While most still had some misgivings about providing this information, the participants did feel confident that NORC would keep the information secure and confidential.

While some participants did not feel the need to read the explanation box, the majority of those who did said the explanation made them feel more comfortable about providing the partial SSN. Only two participants thought the box was not convincing, and still did not understand why we needed SSN. A few participants thought the text could be cut down, to increase clarity and make it more likely that people will read it. The first sentence seemed to cause the most confusion, as many people did not understand what it meant.

Recommendations

Due to the highly sensitive nature of this question, we recommend asking only for the last four digits of the Social Security Number. This measure should greatly decrease the unease of participants when completing the SED. The last four digits, coupled with name, will be an effective identifier to prevent duplicate records in the historical file and can also be used to help locate participants in the future for follow-up studies.

In addition, we recommend altering the explanation box to be more succinct. The first line should be dropped, since it seems to cause confusion for the respondent. The reasons/uses of SSN should be shortened to two bullet points. The recommended explanation is below:

> We ask for your partial Social Security Number for these reasons:
> 1) It is used to evaluate Federal programs that apply to graduate students.
> 2) The NSF uses partial SSN and personal contact information to locate a sample of doctorate recipients for a voluntary employment survey after graduation.
> 3) It helps assure that no duplicate records are in the historical file.
>
> Further information on the purpose and use of this survey and on the privacy safeguards is available at:
> http://www.norc.uchicago.edu/issues/docdata.htm

IV. Source of Financial Support (Question A5)

This question asks respondents about the different sources of financial support during graduate school.

> A5. Which of the following were sources of financial support during graduate school?
> *Mark ALL that apply*
>
> a. ☐ Fellowship, scholarship
> b. ☐ Grant, stipend
> c. ☐ Teaching assistantship
> d. ☐ Research assistantship
> e. ☐ Other assistantship
> f. ☐ Traineeship
> g. ☐ Internship, clinical residency
> h. ☐ Loans (from any source)
> i. ☐ Personal savings
> j. ☐ Personal earnings during graduate school (other than sources listed above)
> k. ☐ Spouse's, partner's, or family earnings or savings
> l. ☐ Employer reimbursement/assistance
> m. ☐ Foreign (non-U.S.) support
> n. ☐ Other – Specify _____________

Discussion

Participants were asked to define the first four response options, describe their sources of support in their own words, and were all given the same hypothetical situation to see if the responses would differ based on the respondent answering the question.

While most of the participants did not seem to have a problem answering this question during the think aloud, further probing revealed a divergence in their definitions or understanding of the response categories. The most common issue involved response option b) Grant, stipend. The participants made several comments indicating the term stipend was not mutually exclusive. For example, a student with a teaching assistantship who received a tuition waiver was paid to teach or assist a professor, but the payment was in the form of a stipend. Participants suggested that for a fellowship/scholarship, the student does not need to work for the payment, but the word "stipend" is still used to refer to the money the student receives for living expenses, etc. There was also some confusion over the options "c. Teaching assistantship" and "d. Research assistantship." Some universities do not distinguish between these terms, and refer to them collectively as a "graduate assistantship."

Additionally, participants were given a scenario of a Canadian student on a full scholarship paid for by the Canadian government, and asked how they would respond if they were in that situation. The majority of the participants asked indicated they would choose either "a. Fellowship, scholarship" or "m. Foreign (non-U.S.) support," but not both. Two participants would choose both options. In one instance, a respondent did in fact receive a scholarship from her (non-US) government, and she only chose response option "m. Foreign (non-U.S. support)" to reflect this form of support.

Recommendations

While this question originally did not seem to be a problem, it became clear that some of the response options were not universally understood. Specifically, the use of the term "stipend" seemed to cause confusion due to its generic and commonly accepted definition as money graduate students receive for living expenses. We recommend removing the term "stipend" from response option b. Due to the different naming conventions at each institution, it may not be possible to account for all the variations on sources of support. Therefore, we do not recommend any other changes at this time.

V. Years Taking Courses/Writing Dissertation (Questions A12/A13)

These questions ask respondents about the amount of time spent preparing for their doctoral degree.

> A12. How many years were you taking courses or preparing for exams for this doctoral degree (including a master's degree, if that was a part of your doctoral program)?
> Years_______
> *Round to whole years*
>
> A13. After coursework and exams, how many years did you work on your dissertation (non-course related preparation or research, writing, and defense)?
> Years________
> *Round to whole years*

Discussion

During the probes, participants were asked how they came up with their answer for these items, and what, if anything caused them confusion.

While most participants eventually answered this question correctly, several began by including all of the years they spent in graduate school for A12. After reading A13, all but one respondent went back to A12 to correct their answer, to only include the years they spent in classes. While several participants commented that they continued to take classes even while they were in the dissertation-writing stage, they did not include that time in their final answer for A12. Conversely, a few participants indicated they began working on their dissertation even while they were taking the required courses, and they too were confused as to how to answer this question.

Recommendations

We have two recommendations to make this question clearer. The first would be to add the phrase “pre-candidacy” to question A12, as this is a common phrase used by graduate students who have yet to reach the dissertation writing stage of their doctoral program. The other would be to combine questions A12 and A13 together, thus increasing the chance that the participants will think of their graduate program in two parts.

Recommendation 1:

A12. How many years were you taking courses or preparing for exams in the pre-candidacy stage for this doctoral degree (including a master's degree, if that was a part of your doctoral program)?
Years_______
Round to whole years

A13. After coursework and exams, how many years did you work on your dissertation (non-course related preparation or research, writing, and defense)?
Years________
Round to whole years

Recommendation 2:

A12. How many years were you:

a) taking courses or preparing for exams during the pre-candidacy stage for this doctoral degree (including a master's degree, if that was a part of your doctoral program)?
Years_______
Round to whole years

b) working on your dissertation after coursework and exams (non-course related preparation or research, writing, and defense)?
Years________
Round to whole years

VI. Intention to Take a Postdoc (Question B2)

This question asks participants if they intend to take a postdoc position.

B2. Do you intend to take a “postdoc” position? (A “postdoc” is a temporary position primarily for gaining additional education and training in research, usually awarded in academe, industry, or government.)

1 ☐ Yes
2 ☐ No

Discussion

Participants were asked about their interpretation of the word “intend” and their overall comprehension of the question.

Nearly all of the participants interpreted the word “intend” to mean both definite plans for taking a postdoc and general interest in taking a postdoc. Some participants noted that this question could be confusing for individuals who were still on the job market and had applied to both postdocs and other types of positions.

Recommendations

The NSF SED COTR indicated that the word “intend” could encompass both the student’s reality or a projected hope. Because participants understood the word “intend” in the correct way as defined by the NSF SED COTR, we do not propose any changes for this question. As a new item on the 2004 questionnaire, NORC should closely examine the 2004 (and subsequent years) data, particularly the percent of non-response, to determine the completeness of the response options. The item non-response rate for 2004 was 2.4%.

Note: NORC is currently conducting focus groups funded by the NSF on the postdoc experience, and the result may inform future changes to this question.

VII. Status of Postgraduation Plans (Question B3)

This question asks respondents about the status of their postgraduation plans, whether they have a commitment, are seeking one, or do not have plans.

B3. What is the status of your postgraduate plans (in the next year)? *Mark (X) one*

0 ☐ Returning to, or continuing in, predoctoral employment
1 ☐ Have signed contract or made definite commitment for other work or study
2 ☐ Negotiating with one or more specific organizations
3 ☐ Seeking position but have no specific prospects
4 ☐ Do not plan to work or study
5 ☐ Other – Specify ________________

Discussion

Participants' understanding of the term "predoctoral" was examined using a scenario and other probes. Participants were presented with a hypothetical scenario in which they played the role of a student who taught a few classes at a local university while they were working on their doctoral degree and the university extended them a contract to work full-time once they graduated. The timeframe used in the question was also asked about.

In response to the scenario, participants generally chose response option 1 "Have signed contract or made definite commitment for other work or study" if the job offer was firm, or response option 2 "Negotiating with one or more specific organizations" if the job offer was under negotiation. A few respondents explained that they wouldn't choose the response option 0 (Returning to, or continuing, in predoctoral employment) because the full-time position would involve a contractual change in role, status, and personal priorities. When asked to define "predoctoral", roughly half of the respondents understood the term to refer to anytime before they entered their doctoral program, while roughly half understood the term to refer to anytime before earning their doctoral degree.

Recommendations

The distinction between response options 0 and 1 for this question collapses when the data are grouped into the categories of "definite employment or study" and "seeking employment or study", as they are in the SED Summary Report, because both 0 and 1 constitute some type of definite plan. However, the addition of salary data to the survey may prompt a closer look at these items, particularly if differences in salary exist between individuals who are returning to/continuing in employment and individuals who report having signed a contract. For instance, the data may show that salaries are higher for those who are returning to employment because their doctoral degree may likely mark a promotion or salary increase where it would not in the case of first time (postdoctoral) employment. Therefore, at this time we have no recommendations to alter the question. We do, however, suggest that this item be explored in conjunction with the salary data to better understand how the items are related.

VIII. Postgraduation Plans (Question B4)

This question asks respondents to select one option for their postgraduation plans.

B4. What best describes your (within the next year) postgraduate plans?
Mark (X) one

FURTHER TRAINING OR STUDY
0 ☐ Postdoctoral fellowship
1 ☐ Postdoctoral research associateship

2 ☐ Traineeship
3 ☐ Intern, clinical residency
4 ☐ Other – Specify _____________

EMPLOYMENT
5 ☐ Employment (other than 0, 1, 2, 3, 4)
6 ☐ Military service
7 ☐ Other – specify ______________

Discussion

Participants were asked to describe their answering process, to note any unclear response options, and to explain the difference between (1) postdoctoral fellowship and postdoctoral research associateship and (2) traineeship and internship.

Participants generally found their response without too many problems, but several found it difficult to differentiate between the aforementioned response options. Most participants did not know the difference between a postdoc fellowship (response option 0) and a postdoc research associateship (response option 1). Several participants described a postdoc fellowship as more of an honorary title than a research associateship. Other differentiations included the idea that a fellowship is primarily tied to a university or a large company and that it involves more freedom to design projects, while a research associateship would involve joining a team on a set project, often tied to a specific professor's research. Several participants were taking postdocs, and weren't sure if their postdoc was a fellowship or an associateship, but chose "fellowship" because the term was in their offer.

Some respondents did not know what the word traineeship meant, and could not differentiate between the response options "traineeship" and "intern, clinical residency". Although, one thought that a traineeship involved training in an organization for long-term employment, while an internship involved training in an organization without commitment for future employment. Another respondent thought that traineeships are found in many fields of study while clinical residencies are more associated with medicine. However, one participant who had a traineeship during her doctoral career knew the term referred to an NIH program.

Recommendations

Although participants found it difficult to differentiate between several of the response options, we tentatively do not recommend any changes to this question because each participant was able to find their answer relatively easily. However, we advise that the results of the postdoc focus groups that NORC is conducting this fall for NSF/SRS be considered before a final recommendation is made.

IX. Employer Type (Question B6)

This question asks respondents to indicate the type of employer they will be working or in training with in the next year.

B6. For what type of employer will you be working or in training within the next year? *Mark (X) one*

EDUCATION
a. ☐ U.S. 4-year college or university other than medical school
b. ☐ U.S. medical school (including university-affiliated hospital or medical center)
c. ☐ U.S. university-affiliated research institute
d. ☐ U.S. community college or technical institute
e. ☐ U.S. preschool, elementary, middle, secondary school or school system
f. ☐ Foreign educational institution

GOVERNMENT (other than education institution)
g. ☐ Foreign government
h. ☐ U.S. federal government
i. ☐ U.S. state government
j. ☐ U.S. local government

PRIVATE SECTOR (other than education institution)
k. ☐ Not for profit organization
l. ☐ Industry or business (for profit)

OTHER
m. ☐ Self-employed
n. ☐ Other – Specify ________________

Discussion

For this item, participants were asked to describe how they arrived at their answer, if they felt their answer fit into more than one response option, or if any other response options should be added.

For the most part, participants answered this question easily. However, several participants found it difficult to fit their answer within the available response options. Several participants were going into a postdoc that was housed at a U.S. 4-year university (response option a), but was funded by a U.S. university-affiliated research institute (response option c). These individuals were confused as to how to answer, and one felt that her answer belonged in both response options a) and c).

Generally, participants did not suggest the addition of new response options, although there were some exceptions. One respondent suggested adding another response option for national labs. Several participants thought that the "Private Sector" section was not comprehensive enough, and would not know what to choose if they had taken positions at other places they applied (e.g., museum or non-governmental agencies [NGOs]).

Recommendations

Several participants whose postdoc research was funded and housed at separate institutions were confused as to how they should answer this question. To help remedy this confusion, the survey should be more specific about the term "employer".

X. Postgraduate Employer and Location (Question B9)

This question asks the respondent to indicate the name and location of the organization where s/he will work or study after graduation.

> B9. Please name the organization and geographic location where you will work or study.
>
> Name
> State (if U.S.)
> OR
> Country (if not U.S.)

Discussion

Participants were asked how they would feel if this question also asked them to report their job title. None of the participants thought job title was a sensitive item and they would provide it if asked in this question. One participant commented that the information is readily available on the university website where she will be teaching. Another noted that this might be difficult for postdocs to answer since there is no real title associated with the position in many universities.

Recommendations

It does not appear that adding a field for job title would threaten the response rate of this item or the questionnaire. NORC recommends no changes unless the Sponsors and others want to demonstrate the utility and coding options for this item.

XI. Marital Status (Question C2)

This question asks the respondent to indicate his/her marital status. Focus group participants expressed sensitivity about this question and NORC decided to explore this in the cognitive interviews.

C2. What is your marital status? *Mark (X) one*

1 ☐ Married
2 ☐ Living in a marriage-like relationship
3 ☐ Widowed
4 ☐ Separated
5 ☐ Divorced
6 ☐ Never married

Discussion

Participants were asked about their level of comfort with the response options and to provide an example of response option 2.

Generally, participants found this question very easy to answer and not overly sensitive, unlike the focus group participants. Response option 2, "Living in a marriage-like relationship" was not a point of uncertainty for participants, as they all understood "living in a marriage-like relationship" to involve cohabitation with a same-sex or different-sex romantic partner, a long-term personal commitment, and the sharing of living expenses. Overall, participants understood the question to be asking about their current marital status.

Recommendations

This question was easily understood; there were few objections to the wording of the stem or response options. Therefore, no changes are recommended at this time. OMB has been investigating this issue for Federal surveys in general.

XII. Dependents (Question C3)

This question asks respondents to indicate the number of dependents they have.

C3. Not including yourself or your spouse/partner, how many dependents do you have – that is, how many others receive at least one half of their financial support from you?

☐ *Mark (X) box if none*

	Number
5 years of age or younger	☐
6 to 18 years	☐
19 years or older	☐

Discussion

Probes for this question were designed to understand how participants understood the word “dependents”. Participants were also asked to consider a scenario in which a graduate student on a paid assistantship was married to a physician and they had two children and no other dependents. Participants were then asked how they think this graduate student should answer question C3. This was done to help understand if participants considered shared income when thinking about dependents.

Many participants thought of dependents in tax terms, and a few understood “dependents” to mean children only and did not think of elderly dependents. Most, however, understood the term to include anyone who is financially dependent on them. In response to the hypothetical scenario, most of the participants said that the graduate student should respond by writing the number 2 in the appropriate box, as married couples’ individual salaries would most commonly be considered as shared. However, a couple of participants thought that if a “literally minded” respondent was filing their taxes separately from their spouse, this could change the answer. Participants clearly understood that if they had no dependents, they should mark the first box.

Recommendations

Because the word “dependents” was not universally understood, we recommend revising the question to be more explicitly worded. As a formatting change, it is further recommended that the “none” box be moved in line with the rest of the boxes. We recommend the following revision:

> Not including yourself or your spouse/partner, how many others (children or adults) receive at least one half of their financial support from you?
>
> Mark (x) box if none ☐

	Number
5 years of age or younger	☐
6 to 18 years	☐
19 years or older	☐

XIII. Race/Ethnicity (Questions C12 – C14)

The following question series asks respondents to indicate their Hispanic ethnicity (if any) and their race.

> C12. Are you Hispanic (or Latino)?
> 1 ☐ Yes
> 2 ☐ No

C13. Which of the following best describes your Hispanic origin or descent?
Mark (X)
a. ☐ Mexican or Chicano
b. ☐ Puerto Rican
c. ☐ Cuban
d. ☐ Other Hispanic – Specify ____________

C14. What is your racial background? *Mark (X) one or more*
a. ☐ American Indian or Alaska Native, Specify tribal affiliation(s) ______________
b. ☐ Native Hawaiian or other Pacific Islander
c. ☐ Asian
d. ☐ Black or African-American
e. ☐ White

Discussion

Because people often hold differing definitions of the terms "Hispanic" and "Latino", participants were probed as to their understanding of them. Participants were also asked about their understanding of the word "Hispanic" and how that compares/contrasts to the phrase "Hispanic origin or descent." Finally, participants were asked whether they thought definitions of the racial categories would be helpful.

Participants understood the terms "Hispanic or Latino" in a fairly uniform fashion, although several participants pointed out that the ancestry and cultural identification of participants can complicate the exact definition of these terms. Participants unanimously did not see any difference between the terms "Hispanic" and the phrase "of Hispanic origin or descent". It should be noted that, in these cognitive interviews, none of the participants considered themselves to be Hispanic or Latino.

Participants did not find the race question difficult to answer, as the racial categories were well known to them. None of the participants, including foreign graduates, felt that definitions of racial categories were necessary.

Recommendations

We do not recommend any changes to these questions, as the OMB mandates the stem and response options. However, further research could examine the use (or non use) of parentheses around the word "Latino" in question C12, in addition to the absence of the phrase "origin or descent" in question C12.[3] (See Possibilities for Future Research on page 34).

[3] Lavrakas, P.J., M. Courser, and L. Diaz-Castillo. 2005. *What a difference a word can make: new research on the differences between Hispanic "origin" and Hispanic "identity" and their implications*. Paper presented at the 2005 Annual Meeting of the American Association for Public Opinion Research, Miami, Florida.

Salary Validation Task

After one round of salary data has been collected, NORC could conduct a validation study to identify if students are accurately reporting their salaries. Also, graduates who indicated they were negotiating positions could be contacted to see if reported salary data were ultimately accurate. Additionally, studies comparing trend lines of planned and actual salaries/positions from SED and SDR would be informative.

Additional Focus Groups

NORC could conduct focus groups with institution contacts after one round of salary data has been collected to identify if the new question has increased the burden on students or on the Institution Contacts; the ICs could also discuss the impact of the shortened SSN. The focus groups could explore ways NORC could work with the institutions to reduce any burden and assist the ICs in fielding questions from students. Focus groups could also be held with deans to assess the utility of the salary data to their institutions, faculty, and students.

Exploration of Hispanic/Latino Question

NORC could conduct research on adding a “Mark one or more” instruction in the Hispanic origin or descent item. Using input from both OMB and the U.S. Census, NORC could consider whether this option is appropriate for Hispanic doctorate recipients. NORC could also conduct methodological research on the question stem for this set of questions, to explore if the term “origin or descent” and how that affects the participant’s response.

Salary Data Analysis

NORC could compare trend lines of salaries and positions across the SED and the SDR after one round of salary data is collected. NORC could also conduct a set of focus groups with graduate deans to assess the utility of the salary data to their institutions, faculty, and students.

Appendix A

Qualitative Testing Recruitment Materials and Protocol

Focus Group Recruitment Letter

NORC is recruiting research doctorate candidates who are nearing graduation (i.e., graduating in May or June 2005) to participate in a confidential focus group that will discuss possible changes in the SED questionnaire. NORC is hoping to get valuable feedback from doctoral students so that we can understand the impact of modifying the questionnaire.

Three sessions of focus groups for students will be offered: May 10, May 12 and May 17. Students only need to participate in one of the sessions. The time for these sessions is 6:00 – 7:30 p.m. Eastern time.

All of the focus groups will take place over the phone and will last no longer than 90 minutes. This technology works a lot like a conference call and is extremely flexible because participants can call in from their home, office, or any other convenient location; we only ask that cellular phones not be used. During the focus group, participants will be able to respond to prompts from a professional moderator (who is not affiliated with NORC or the SED sponsors) and discuss them among other participants from across the U.S.

Each participant will be paid $75.00 upon completion of the focus group.

Thank you for assisting me in posting and/or distributing this flyer. Please feel free to post or distribute this letter as well.

Please let me know if need any additional information. Thank you for your continued participation in the SED!

Dan Loew, Survey Specialist
National Opinion Research Center
312-325-2527 – direct
1-800-248-8649
loew-dan@norc.org

Focus Group Recruitment Flyer

NORC

A national organization for research at the University of Chicago

EARN $75 BY SHARING YOUR OPINIONS!

THE NATIONAL OPINION RESEARCH CENTER IS SEEKING DOCTORAL STUDENTS TO TAKE PART IN A FOCUS GROUP DISCUSSING POSSIBLE CHANGES IN THE SURVEY OF EARNED DOCTORATES QUESTIONNAIRE.

Doctoral students who are nearing graduation will be paid **$75** to take part in a focus group on May 10, May 12, or May 17 from 6 to 7:30 pm (Eastern time).

The focus group will last no more than 90 minutes and will take place over the phone. This way, you can participate from any location!
(No cell phones, please.)

If you are interested, please contact DAN LOEW for more information at

1-800-248-8649
or
4800-sed@norc.uchicago.edu

Focus Group Participant Background Sheet

NORC
A national organization for research
at the University of Chicago

SURVEY OF EARNED DOCTORATES (SED)
Focus Group Background Sheet

1. Contact Information

Name:	_____
Address:	_____
City, State, Zip:	_____
Day phone:	_____
Evening phone:	_____
Email address:	_____

2. When is the best day of the week and time of day to reach you by telephone? _____

3. What is your date of birth? _____

4. What is your doctoral field of study? _____

5. What university do you currently attend? _____

6. Are you: ☐ Male ☐ Female

7. Month and year you began your doctoral program: _____
   Month and year you expect to graduate: _____

8. Is English your first language? ☐ Yes ☐ No

9. Are you currently a U.S. Citizen? ☐ Yes ☐ No

10. In what country or state to you intend to live after graduation (within the next year)?
    ☐ In U.S. → State: _____
    ☐ Not in U.S. → Country: _____

11. Do you intend to take a “postdoc” position? (A “postdoc” is a temporary position primarily for gaining additional education and training in research, usually awarded in academe, industry, or government.)
    ☐ Yes ☐ No

12. What is the status of your postgraduate plans (in the next year)? (Mark ☒ one)
    ☐ Returning to, or continuing in, pre-doctoral employment
    ☐ Have signed contract or made definite commitment for other work or study
    ☐ Negotiating with one or more specific organizations
    ☐ Seeking position but have no specific prospects
    ☐ Do not plan to work or study
    ☐ Other – specify: _____

13. Have you received a copy of the SED questionnaire? ☐ Yes ☐ No
    (this is not a requirement to participate in the focus group)

Cognitive Interview Recruitment Email

NORC is recruiting research doctorate candidates who are nearing graduation (i.e., graduating in June, July or August 2005) to participate in a confidential cognitive interview that will discuss the Survey of Earned Doctorates (SED) questionnaire. During the interview, participants will be asked to "think aloud" as they fill out the questionnaire and respond to questions. NORC is hoping to get valuable feedback from doctoral students so that we can better understand how students respond to the questionnaire.

Cognitive interviews are scheduled to take place during the weeks of July 11 and July 18 during regular business hours at NORC's downtown office (55 E. Monroe Street, Chicago, IL 60603). The session will last no more than 90 minutes, and students only need to participate in one session.

Each participant will be paid $75.00 upon completion of the cognitive interview.

I am hoping that you can assist me in recruiting these participants. Their feedback is invaluable to us. If you can get in touch with any doctoral students who fit the criteria, and ask them to contact me, it will be very helpful. We would like to get the word out to as many students as possible, so if there is a way to distribute the information electronically or to a large audience (i.e., in student mailboxes) that would be extremely helpful. Please let me know if I can provide our information in another format that would be easier to distribute (I have attached a flyer for posting).

Thank you for assisting me in posting and/or distributing this information! Please let me know if you need any additional information or have any questions. We appreciate your continued participation in the SED!

Dan Loew, Survey Specialist
National Opinion Research Center
312-325-2527 – direct
1-800-248-8649
loew-dan@norc.org

Cognitive Interview Recruitment Flyer

NORC
A national organization for research
at the University of Chicago

EARN $75 BY SHARING YOUR OPINIONS!

THE NATIONAL OPINION RESEARCH CENTER IS SEEKING DOCTORAL STUDENTS TO TAKE PART IN A COGNITIVE INTERVIEW DISCUSSING
THE SURVEY OF EARNED DOCTORATES QUESTIONNAIRE.

Doctoral students who are nearing graduation will be paid **$75** to take part in a cognitive interview during the week of July 11th or July 18th
(during regular business hours).

The interview will last no more than 90 minutes and will take place at NORC's downtown office:
55 East Monroe Street, Chicago, IL 60603.

If you are interested, please contact DAN LOEW for more information at

1-800-248-8649
or
4800-sed@norc.uchicago.edu

Cognitive Interview Participant Background Sheet

NORC

A national organization for research
at the University of Chicago

SURVEY OF EARNED DOCTORATES (SED)
Cognitive Interview Participant Background Sheet

1. Contact Information

Name:	_____
Address:	_____
City, State, Zip:	_____
Day phone:	_____
Evening phone:	_____
Email address:	_____

2. When is the best day of the week and time of day to reach you by telephone? _____

3. What is your date of birth? _____

4. What is your doctoral field of study? _____

5. What university do you currently attend? _____

6. Are you: ☐ Male ☐ Female

7. Month and year you began your doctoral program: _____
   Month and year you expect to graduate: _____

8. Is English your first language? ☐ Yes ☐ No

9. Are you currently a U.S. Citizen? ☐ Yes ☐ No

10. In what country or state to you intend to live after graduation (within the next year)?
    - ☐ In U.S. → State: _____
    - ☐ Not in U.S. → Country: _____

11. Do you intend to take a "postdoc" position? (A "postdoc" is a temporary position primarily for gaining additional education and training in research, usually awarded in academe, industry, or government.)
    ☐ Yes ☐ No

13. What is the status of your postgraduate plans (in the next year)? (Mark ☒ one)
    - ☐ Returning to, or continuing in, pre-doctoral employment
    - ☐ Have signed contract or made definite commitment for other work or study
    - ☐ Negotiating with one or more specific organizations
    - ☐ Seeking position but have no specific prospects
    - ☐ Do not plan to work or study
    - ☐ Other – specify: _____

13. Have you received a copy of the SED questionnaire? ☐ Yes ☐ No
    (this is not a requirement to participate in the cognitive interview)

Cognitive Interview Consent Form

STATEMENT OF INFORMED CONSENT
Survey of Earned Doctorates – Cognitive Interviews

PURPOSES AND BENEFITS

The National Opinion Research Center (NORC) is conducting a series of cognitive interviews for the Survey of Earned Doctorates (SED) on behalf of the National Science Foundation and its sponsors, the National Institutes of Health, the U.S. Department of Education, the National Endowment for the Humanities, the U.S. Department of Agriculture, and the National Aeronautics and Space Administration. Your participation will involve completing a pencil-and-paper questionnaire and answering some follow up questions about your experience with this questionnaire. By participating in this study, you are assisting us in the revision of our primary research instrument.

PROCEDURES

NORC will interview you at its Chicago downtown facilities. You will be asked to complete a videotaped think aloud session, where you will complete the paper-and-pencil questionnaire, and then answer follow up questions about your thought process during this exercise and your experience as a whole with the survey. The interview will take no more than 90 minutes of your time. Upon completion of the interview, you will be paid $75.00 in the form of a personal check to be mailed to an address, which you provide. Your participation is completely voluntary and your status as a doctoral student will not be affected in any way by your decision to participate or not to participate in this study. You may stop the interview at any time and you are free to refrain from answering any of the questions.

RISKS, STRESS, AND DISCOMFORT

This survey will take no more than 90 minutes of your time. You may choose to not answer any one of the questions, and you may stop the interview at any time.

OTHER INFORMATION

Your answers to the survey questions are completely confidential and cannot be used against you in any way. The information we gather from you will be used only to refine future survey questions and the design of the questionnaire. The interview will be videotaped for quality purposes only, and will be destroyed, along with any link between your name and your answers, once the study has been completed.

Your answers, along with the answers provided by other participants in this study may be given to other research organizations, but your identification will never be revealed to anyone who is not a member of this research team.

___________________________________ _____________________
Interviewer Date

PARTICIPANT STATEMENT

I understand that this session will be videotaped and that it is completely confidential. I have had an opportunity to ask questions about my rights as a participant before I signed this form. I also understand that any further questions I have about this study or about my rights will be answered by the interviewer named above.

___________________________________ _____________________
Participant Date

Cognitive Interview Protocol Form

A. Welcome
- Begin by thanking the participant for coming to the interview and explain that you are going to go over a few things with him/her before beginning the session
- Give a brief summary of what the SED is, who sponsors it, and what the interviews are for
- Give a summary of what you are going to do: consent, instructions, etc. Be sure to mention that the camera is not on yet.

B. Informed Consent
- Present the participant with the consent form and explain the information it contains (make sure you have a pen available for the participant to use)
- Remember to give 2: one to be signed for NORC and one for him/her to keep.

C. Explanation of videotaping
- Remind the participant that the interviews will be taped and briefly go over our procedures to keep the tapes secure.
- Now turn on the camera

D. Letter and Brochure
- Tell the participant that in the Fed Ex envelope there is a letter & brochure for him/her to read. Let them know this is some background information on the project.
- Once he/she has read the materials, ask the participant if he/she has any feedback or questions about either.

E. Instructions & "think aloud" training exercise
- Explain the interview procedures to the participant
- Ask the participant to complete the think aloud training exercise

F. Completion of the SED
- Have the participant complete entire questionnaire

G. Cognitive Interview (probes)
- Once the think aloud session is complete, begin probing the participant using the attached sheet of probe questions.

H. Wrap-Up
- Use this time to go back and touch on any items that the participant brought up in the think aloud that you did not get to during the probes
- Ask the participant if there is anything else he/she would like to share about the survey
- Let the participant know that he/she can take the 1st page of the quex with them since it contains personal information.

I. Verify Address

- Have the participant verify the address where he/she will be up to 6 weeks after the interview

J. Conclusion

- Answer any questions from the participant and thank him/her for their time

Cognitive Interview Instructions

During this interview, I am going to ask you to complete a questionnaire and answer some follow up questions. As you complete the questionnaire, I would like you to try to think aloud and verbally share your thoughts and reactions; please try not to censor your thoughts. Please feel free to share all of your opinions and questions about what you are seeing. One of the things I am most interested in is how you are deciding which answer to select. I am going to take notes and will try to respond to your questions when we are finished.

Before we begin, I'd like go through an exercise to help familiarize you with what I mean by "think aloud". [**PAUSE**] Try to visualize the place where you live. Now, think about how many windows there are in that place. [**PAUSE**] As you count up the windows, tell me what you are seeing and thinking about.

[AFTER PARTICPANT RESPONDS]
That's an example of what I would like you to try and do as you read through these materials. Do you have any questions before we begin?

[HAND PARTICIPANT THE ENVELOPE]
In this envelope you will find a questionnaire and a pencil. The letter and brochure will provide some background information on the survey. I would like you to take out the questionnaire. Beginning with the first page, please complete the questionnaire using the pencil provided. Please remember to tell me what you are thinking about as you respond to the questionnaire. Please feel free to share all comments with me.

[AFTER THE PARTICIPANT HAS COMPLETED THE QUESTIONNAIRE]
Now that you have seen the entire questionnaire, I have some follow up questions. I will ask you to refer back to the questionnaire as we go through the questions.

[BEGIN PROBES]

Cognitive Interview Probes, Version 1

SED Cognitive Interview Probes
(QUEX VERSION 1)

Now I am going to ask you some follow up questions. **[Let the participant know that you're going to jump around a bit]**

B8
The first question I would like you to take a look at is B8.

1. **[If needed]** How do you feel about providing your salary information?

2. Can you please repeat the question for me in your own words?

3. When you read the question, did you also read the italicized instructions?

4. When you were thinking about your answer did you exclude any payroll deductions such as income taxes, insurance contributions, or retirement plan contributions?

5. When you were thinking about your answer did you exclude any bonuses that you might receive around the holidays or some other time?

6. What about overtime? Did you exclude any estimates of overtime that you might work?

7. If you will be on an academic contract, did you exclude any work you might do over the summer that is not included in your base salary?

8. When you were thinking about your answer did you exclude any business expenses such as reimbursement for travel or equipment?

9. Do the instructions add clarity or create confusion about what the question is asking?
   [OR] Are the instructions clear or confusing?

10. Would it be helpful if the question instructed you to think only about your "primary" job?
    [OR] Were you thinking about one job or a combination of jobs when you answered this question?

11. In thinking about the salary you had in mind when you answered this question, where were you drawing your information from? **[Try to get an idea of what the source of knowledge is. Is it a contract, verbal agreement, something they saw online or talked about with friends, a guess?]**

B7
Now please look at question B7.

1. If there was no question asking to clarify if your salary was for 9 months or 12 months, how would that affect your ability to answer the salary question?

Now I would like you to take a look at another way of asking for salary information. **[Hand participant Version 2 of the quex]** Please take a look at questions B7 and B8 on page 4. As you look at these questions, please tell me what you are thinking.

- If you had to pick one version of the question, which one would you pick? Can you tell me a little more about that?

[Now we need to get an idea about other parts of their hiring package. It will be helpful to refer to their quex to find out what industry they will be working in so you can better direct the probes]

1. Other than salary, what are the other components of your hiring package?

2. **[If needed]** Did you receive a signing bonus? Moving allowance? Lab start up costs? Etc.?

3. Which of these was the most important in deciding whether or not to take this position?

B9
Please refer to question B9.

1. How would you feel if this question also asked you to report your job title? **[Try to determine whether or not this would increase the sensitivity of the item]**

C15
Please refer to question C15.

1. Do you have any concerns about sharing your partial social security number?

2. Is sharing the last four digits of your social security number better or the same as sharing your full social security number?

3. When you were responding to the question, did you read the explanation in the box?

4. Does the explanation make you feel more comfortable providing us with your partial social security number?

5. Does the explanation help you understand why the survey is requesting your social security number?

6. How confident do you feel that this information will be kept secure?

7. What does the first sentence in the explanation mean to you?

A5

Now I would like you to take a look at question A5.

1. I would like you to think about the sources of your financial support during graduate school. Can you tell me what these were? **[Pause, wait for response]** Were there any other sources of support? **[Gently probe until you feel all responses are mentioned. If they worked during graduate school, did they account for this?]**

2. Now please refer to question A5. How does what you just indicated compare to what you marked on the questionnaire?

3. Was it easy or difficult to find your answer among these response options? **[With probes 2 and 3, try to get an idea of how well the form captures what the respondent said]**

4. Let's say you charged some of your tuition payments to a credit card. How would respond to this question?

5. Are there any response options that you do not fully understand?
[If so], which ones and why?

6. How would you define response option a)? b)? c)? d)? **[Try to get an idea of what their source of knowledge is. Is it personal experience, friends' experiences, an educated guess?]**

7. Now, let's say you are a foreign student from Canada, studying at the University of Chicago on a full scholarship provided by the Canadian government. How would you respond to this question?

A6

1. Thinking about the example I just gave about the foreign student, please look at question A6. How would you respond to this question if your primary source of support was a scholarship provided by a foreign government?

A12

Please refer to question A12.

1. Can you explain for me how you came up with your answer to question A12? **[Probe to find out if the participant had any difficulty coming up with his/her answer]**

B2

Please refer to question B2.

1. Can you please explain to me in your own words what you think this question is asking?

   [If necessary:]
   - In the context of this question, how do you interpret the word 'intend'?
   - Let's say you have applied for three post docs and have received one rejection letter but have not yet heard back from the other two. How would you respond to this question?

B3

Please refer to question B3.

1. Let's say you taught a few classes at a local university while you were working on your doctoral degree and the university extended you a contract to work full-time once you graduated. How would you respond to this question?
2. Would you add any other response options?
3. What time period do you believe the question is asking about?
4. How would you define the word "predoctoral"?

B4
Please refer to question B4.

1. Can you tell me how you came up with your answer?

2. Are any response options unclear as to their meaning?

3. Looking at the first two response options, how would you explain the difference between "postdoctoral fellowship" and "postdoctoral research associateship"? **[If they know, try to get an idea of what their source of knowledge is. Is it personal experience, friends' experiences, an educated guess?]**

4. Looking at the second and third response options, how would you explain the difference between "traineeship" and "internship"? **[If they know, try to get an idea of what their source of knowledge is. Is it personal experience, friends' experiences, an educated guess?]**

B6
Please refer to question B6.

1. Can you describe how you arrived at your answer for this question?

2. **[If needed]** Do you feel that your answer fits into more than one response option?

3. Do you feel that any other response options should be added?

C2
Please refer to question C2.

1. **[If needed]** Do you feel that your answer fits into more than one response option?

2. Can you give me an example of someone who is "living in a marriage like relationship?" **[May need to probe further here to really understand how they define this phrase]**

3. Are you comfortable or uncomfortable with the wording of the response option "never married"?

4. **[If applicable, ask]** If the question read, "What is your current marital status?" would this make it easier to answer?

C3
Please refer to question C3.

1. Can you please repeat this question to me in your own words? **[Pay attention here to see if they use the word "children" in place of dependents. If so, this may require further probing. We want to understand how they understand the word 'dependents' in this question]**

2. If you had no dependents, how would you answer this question?

3. If you had an elderly parent who lived with you who did not work and you supported them financially, how would you respond to this question?

4. Let's say a graduate student on a paid assistantship is married to a physician and they have 2 children. How do you think the graduate student should respond to this question?

C12/C13/C14
Please refer to question C12.

1. What do you think of when someone says they're Hispanic or Latino?

2. Do you think there a difference between the terms "Hispanic" and "of Hispanic origin or descent"?

3. Do you think it would be helpful if there were definitions of the racial categories?

[At the end of the session, be sure to ask if there is anything else the participant would like to comment on. If there is time, you could go back and probe on some of the points that came up during the think aloud session.]

Cognitive Interview Probes, Version 2

SED Cognitive Interview Probes
(QUEX VERSION 2)*

*The probes for Version 2 of the questionnaire were identical to the probes for Version 1 with the exception of the probes for the salary question presented below.

Now I am going to ask you some follow up questions. **[Let the participant know that you're going to jump around a bit]**

B8
The first question I would like you to take a look at is B8.

1. **[If needed]** How do you feel about providing your salary information?

2. Can you please repeat the question for me in your own words?

3. What do you think the question is referring to when it says "base annual salary"? **[Try to get an idea of what they may have included when they thought about their total-are they including just the salary or other parts of their package?}**

4. Would it be helpful if the question instructed you to think only about your "primary" job? **[OR]** Were you thinking about one job or a combination of jobs when you answered this question?

5. In thinking about the salary you had in mind when you answered this question, where were you drawing your information from? **[Try to get an idea of what the source of knowledge is. Is it a contract, verbal agreement, something they saw online or talked about with friends, a guess?]**

B7
Now please look at question B7.

1. If there was no question asking to clarify if your salary was for 9 months or 12 months, how would that affect your ability to answer the salary question?

Now I would like you to take a look at another way of asking for salary information. **[Hand participant Version 1 of the quex]** Please take a look at questions B7 and B8 on page 4. As you look at these questions, please tell me what you are thinking.

- Do the instructions add clarity or create confusion about what the question is asking?
  [OR] Are the instructions clear or confusing?

- If you had to pick one version of the question, which one would you pick? Can you tell me a little more about that?

[Now we need to get an idea about other parts of their hiring package. It will be helpful to refer to their quex to find out what industry they will be working in so you can better direct the probes]

1. Other than salary, what are the other components of your hiring package?

2. **[If needed]** Did you receive a signing bonus? Moving allowance? Lab start up costs? Etc.?

3. Which of these was the most important in deciding whether or not to take this position?

Appendix B

Cognitive Interview Survey Instruments

Cognitive Interview Survey Instrument

Version 1

Cognitive Interview Survey Instrument

Version 2

Appendix C

Key Project Staff

Balch Associates

George Balch, PhD, a qualitative research consultant of Balch and Associates moderated the focus groups. Balch has over 30 years of experience in research, consulting, teaching and training in marketing and behavioral science. He worked closely with NORC staff on developing the focus group protocol. Balch prepared an interim and final report on the outcomes of the focus groups for NSF and NORC.

NORC

Kim Williams, Survey Specialist, managed the focus group and cognitive interview tasks. She contributed to the focus group and cognitive interview protocol and conducted two interviews. In preparation for the cognitive interview task, Williams reviewed Cognitive Interviewing: A Tool For Improving Questionnaire Design by Gordon Willis and participated in the pretest training. Williams reviewed interview tapes, summaries of the interview notes, and contributed to the final report for this project.

Dan Loew, Survey Specialist, handled recruitment, scheduling, and incentives for the focus groups and cognitive interviews and contributed to the focus group and cognitive interview protocol. In preparation for the interviews, Loew attended “Cognitive Interviewing: A Hands-On Approach”, a two day short course sponsored by the Joint Program in Survey Methodology instructed by Gordon Willis. Loew conducted eight cognitive interviews, developed summaries for each interview he conducted, and contributed to the final report for this project.

Kristy Webber, Survey Specialist, contributed to the cognitive interview protocol and conducted seven cognitive interviews. In preparation for the cognitive interview task, Webber reviewed Cognitive Interviewing: A Tool For Improving Questionnaire Design by Gordon Willis, conducted a pretest interview, and participated in the pretest training. Webber developed summaries of each interview she conducted and contributed to the final report for this project.

Lisa Lee, Senior Survey Methodologist, provided project specific training on cognitive interviewing. Lee worked closely with Williams, Loew, and Webber on the cognitive interview protocol and conducted one of the pretest interviews. She reviewed summaries of the interview notes and offered recommendations for the final report.

Mary Hess, Senior Survey Director and Project Manager for the SED, contributed to the focus group and cognitive interview protocol and worked closely with Williams, Loew, and Webber in organizing the interview sessions, developing recommendations and the final report.

Tom Hoffer, Senior Research Scientist and Project Director for the SED, reviewed interview notes, offered recommendations, and contributed to the final report.

Appendix D

Balch Associates' Focus Group Report

Adding a Salary Question to the Survey of Earned Doctorates (SED): Findings from Exploratory Qualitative Research

August 4, 2005

Prepared by:

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Background and Purpose

Survey of Earned Doctorates (SED)

The Survey of Earned Doctorates (SED) is a census of the research doctorates awarded at United States universities during the academic year, from July 1 of one year to June 30 of the following year. The survey gathers information on all fields that award research and applied-research doctorates, except professional degrees such as the MD, DDS, OD, DVM, and JD. It gathers data on a field-specific basis, and includes information on ethnic background, sex, post-secondary education, time to doctoral degree from the baccalaureate degree, financial support during graduate studies, and post-doctoral plans.

Data from the SED become part of the Doctorate Records File (DRF), a virtually complete database on doctorate recipients from 1920 to the present.

The SED is sponsored by six Federal agencies: the National Science Foundation (NSF), the National Institutes of Health (NIH), the U.S. Department of Education (USED), the National Endowment for the Humanities (NEH), the U.S. Department of Agriculture (USDA), and the National Aeronautics and Space Administration (NASA).

Salary Information

Salary is one of many career factors doctoral graduates take into consideration. Adding a starting salary question to the SED may: (1) provide information to prospective doctoral students and new doctorate recipients about what to expect from their own career choices; (2) provide data to program administrators and researchers seeking a better understanding of the labor market for doctorate recipients in different fields of specialization; and (3) provide researchers who use salary data from the NSF's Survey of Doctorate Recipients (SDR) with a more complete picture of career trajectories.

Since the SED has not asked about salary to date, it is important to explore the strengths and weaknesses of the SED as a vehicle for collecting salary data. Therefore, NORC contracted with Balch Associates to conduct exploratory qualitative research to learn more about:

- Expectations of student reactions to a salary question

- Reactions to alternative kinds of salary questions
- Concerns about sensitive items in general and in conjunction with asking about salary
- What might lighten student concerns about answering a salary question
- Perceptions of the value of adding a salary question to the SED (for graduate deans and students)
- What "institution contacts" (the university staff who distribute and collect the SED questionnaires) perceive as possible reactions
- How NORC can help institution contacts

Methods

Balch Associates conducted a total of six computer-assisted telephone (CAT) focus groups in May, 2005 with graduate deans, doctoral students near graduation, and institution contacts, all from a variety of doctorate-granting institutions across the continental United States.

Computer-Assisted Telephone (CAT) Focus Groups

CAT focus groups were deemed suitable for this initial exploratory research phase because they provide the most cost-effective and efficient method for meeting with, and for gathering information from, a variety of target audience members across the nation representing a range of geographic locations and types of institutions. CAT focus groups are especially helpful for assuring a sense of privacy and encouraging open discussion about sensitive topics. (See Appendix A for more information on CAT focus groups.)

Sample

We conducted six CAT focus groups – two with graduate deans, three with doctoral students near graduation, and one with institution contacts – on May 10, May 12, and May 17, 2005, with groups beginning at 6:00 p.m. and 8:00 p.m. Eastern time. Focus group participants were affiliated with a variety of United States doctorate granting institution types (public and private), sizes (large and small – graduating from 35 research doctorates to 767 doctorates in 2003), and locations (representing, in a very limited way, all regions of the country).

Graduate Deans: A total of 12 graduate deans participated in two groups, 8 of whom were men and 4 women, representing 12 different schools (2 private and 10 public – one of which is a technical university) located in the following states: California, Colorado, Florida, Indiana, Kansas, New Jersey, Oklahoma, Texas, Utah, and Wisconsin. Deans were affiliated with institutions awarding between 114 research doctorates and 653 doctorates.

Students: A total of 24 doctoral students near graduation participated in three groups, half of whom were men and half women, representing 12 different schools (4 private and 8 public – one of which is a technical university and another a medical and dental research institution) located in the following states: Arkansas, California, Georgia, Illinois, Iowa, New Hampshire, New Jersey, and Washington. The following fields of study were represented: applied social psychology, American colonial history, business (marketing), chemistry, civics, civil environmental engineering, clinical psychology, comparative literature, earth and planetary sciences, education administration, environmental engineering, ethnomusicology, geography, immunology, international relations, mechanical engineering, molecular biology, molecular genetics, nursing education, political science, religious ethics, sociology, theatre, and urban design and planning. Students were affiliated with institutions awarding between 35 research doctorates and 767 doctorates in 2003. Four students were non-U.S. citizens. NORC did not obtain racial/ethnic background information on the participants.

Institution Contacts: A total of 6 institution contacts, all women, participated in one group, representing 6 different schools (1 private and 5 public – one of which is a technical university) located in the following states: California, Colorado, Georgia, Pennsylvania, and Wisconsin. ICs were affiliated with institutions awarding between 51 research doctorates and 653 doctorates.

Recruitment

A NORC project representative identified and contacted graduate deans and institution contacts directly to participate in this study. Institution contacts helped in the recruitment of doctoral students by distributing and posting invitation flyers, as well as by sending emails and placing information in campus mailboxes, with a project-specific 1-800 number and email address to contact if interested in participating in the focus groups.

A screener form was used to place students with a definite commitment to work or study into the groups first, select students who were negotiating with an organization second, and consider students seeking a position last. Students who did not plan to work or study were not eligible for the study. (See Appendix B for the Participant Recruitment Screener.) The NORC representative followed-up with interested participants via confirmation phone calls, emails, and letters until a quota was reached with an eye toward diversity across gender, field of study, and school type/size/location. One student and one institution contact from Historically Black Colleges or Universities (HBCUs) were scheduled but dropped out, leaving no participants representing HBCUs. Two alternate students were identified for each group to replace no-shows.

Thank you letters were sent to all participants upon completion of the groups. Students and institution contacts received a $75 incentive for participating. Graduate deans received a summary of the group discussion in which they participated and were invited to comment on its accuracy and provide any additional thoughts. This was intended to insure accuracy and completeness of findings and to reinforce a sense of collaboration.

Data Collection

George I. Balch, Ph.D., moderated the focus groups, using separate discussion guides appropriate for graduate deans, students, and institution contacts, respectively, developed by Balch Associates in consultation with NORC. (See Appendices C, D, and E for the discussion guides.) All groups discussed what they knew about and may have experienced with the SED, with particular emphasis on the sensitivity of questions and response rates, as well as their expectations of the benefits and drawbacks of adding a salary question. Then all were asked to react to three sample ways of asking about salary (embedded in an abbreviated questionnaire), in different order across groups to minimize any potential bias related to the order of presentation:

Option #1: Open-Ended Salary Range Response Format

The first two focus groups reacted to the following question that included an open-ended salary range response format:

> B7. Before deductions, what will be your annual salary or wages for this job? Do not include bonuses, overtime, or additional compensation for summertime teaching or research. If you are not salaried, please estimate your earned income including expenses.
>
> Please provide the range that your salary falls within.
> _________ to _________.
> Low High

After the first two focus groups (one each with graduate deans and students), the moderator asked groups to react to a shorter initial question:

> B7. What will be your annual salary or wages?
>
> Please provide the range that your salary falls within.
> _________ to _________.
> Low High

(See Appendix F for a copy of the sample questionnaire including this format.)

Option #2: Exact Salary Figure Response Format

> B7. Before deductions, what will be your basic annual salary for this job? Do not include bonuses, overtime, or additional compensation for summertime teaching or research. If you are not salaried, please estimate your earned income including expenses.
>
> ____
> Please write in your annual salary or earned income.

(See Appendix G for a copy of the sample questionnaire including this format.)

Option #3: $10,000 Increment Check-Box Response Format

B7. Before deductions, what will be your basic annual salary for this job? Do not include bonuses, overtime, or additional compensation for summertime teaching or research. If you are not salaried, please estimate your earned income including expenses. Mark (X) one:

0 Less than $30,000
1 $30,001 – $40,000
2 $40,001 – $50,000
3 $50,001 – $60,000
4 $60,001 – $70,000
5 $70,001 – $80,000
6 Above $80,001

(See Appendix H for a copy of the sample questionnaire including this format.)

Analysis and Reporting

All group sessions lasted about 90 minutes and were audio-taped. Because we provided graduate deans with a summary of their group discussion, only the groups with the deans were transcribed verbatim. Observers from NORC listened on muted telephone lines (with participants' consent) and were able to insert additional probes of issues for the moderator to ask the group before the discussion ended. Immediately after each session, while memories were fresh, the moderator and observers debriefed about what was learned. Subsequently, Balch Associates reviewed transcripts and observers' hand-written notes and tapes for themes that emerged across and within groups and categories of participants.

Balch Associates also prepared a summary of each of the deans' sessions and sent them to the respective participants for feedback. Eight of the 12 graduate deans responded to the summary of their respective session, all of whom found the summaries to capture the highlights of the conversations faithfully, with one offering a specific recommendation related to the widths of the salary intervals. In our experience, this is an exceptionally high response. We consider it highly likely that those who did not respond had nothing to challenge.

Findings in this report reflect agreement among Balch Associates, observers, and the graduate deans who participated in this study.

Note on Method

Qualitative research of this sort provides rich, in-depth information most useful in understanding *what* people think about and *how* they think, feel, and behave. The sample in this study is a *purposive* sample – composed of only people who are most directly relevant to the specific research issues at hand, rather than a probability sample of the broad target audiences of students, graduate deans, and institution representatives. Moreover, the data take the form of in-depth, contextually rich, interactive conversations rather than brief answers to identically administered questionnaires. Generalization from the findings is more credible when findings are similar across multiple groups, as they tended to be in this study.

Key Findings

Overall, participants cited a range of potential uses for a starting salary question and concluded there is little or no disadvantage to including it. All groups generally concluded that a salary question would not reduce overall SED response rates noticeably. They had clear preferences for a short, simple question with check-off response categories.

Participants' greatest concern by far was the Social Security Number question. All considered it risky (identity theft). They found it the greatest source of questions, complaints and nonresponses. Many urged that the questionnaire explain how it will be used. All preferred using only the last 4 digits to raise response rate to the question and, perhaps, completion of the questionnaire.

Salary

Uses Of Salary Data

Participants across all focus groups identified potentially valuable uses of salary data in the SED. They would appreciate the ability to supplement current salary data sources with relevant data gathered from the SED, and thought new analyses such as correlating geographic location of a job with salary (e.g., to assess cost of living issues) would be especially helpful.

Participants across focus groups felt these data would help in advising undergraduates contemplating graduate school (e.g., comparing differences among jobs in academia, industry, government, and non-governmental organizations) and prospective and current graduates (e.g., making realistic salary expectations across disciplines, types of institutions, and position levels). Students, in particular, thought data on salary would help them negotiate compensation wisely, manage student debt and compare the level of investment with indebtedness, and perhaps pressure institutions to raise post-doc stipends. They were especially interested in the correlation between amount of student debt and starting salary.

Graduate deans said salary information may be useful generally for monitoring trend data for projections and budget planning (e.g., rates of increase in salary). They added that these data would assist them in comparing starting salaries to manage institutional hiring (to keep salaries in line with peer institutions over time and be able to make competitive offers), as well as in comparing gender and race differences in salary with peer institutions and over time. They reported wanting to learn about differences in salary by geographic location, field of study, institutional type, race/ethnicity, marital status, gender, and number of children.

Expected Response Rate

All groups generally concluded that a salary question would <u>not</u> reduce overall SED response rates noticeably.

The groups concluded that students would not be reluctant to answer a question about their starting salary. They also agreed that those few students who might not answer a salary-related question would continue with the rest of the questionnaire.

In the student groups, nearly all participants said they would share the salary information; most did not consider it too sensitive. Many said they are comfortable providing this information, as peers tend to be open about this topic and some salaries are on the public record. The dean groups and institution contact groups also concluded that most students would answer the question. All groups generally agreed that it would not reduce overall SED response rates noticeably. And several noted that an explanation of how the salary information is used – perhaps by adding a one sentence explanation in a text-box next to this question on the SED – would likely raise students' comfort level about answering a salary-related question.

The institution contact group – the only one to feel strongly that including a salary question would result in more feelings of discomfort and cynicism among students – also concluded that asking a salary question would not lower the overall SED response rate. The institution contacts recruited to participate in this study were invited precisely because they are "seasoned" professionals dedicated to securing a high response rate for the SED each year – they have probably heard complaints from students over the many years they have served in this position at their respective institutions.

Institution contacts observed that they address students' privacy concerns by reiterating that the data are used in the aggregate. They also acknowledged that a vocal minority of students report finding the SED too long and intrusive as it is. They felt that this minority of students uncomfortable with a salary question, especially when paired with the name and location of their employer, would simply not answer it. But this unease need not depress overall response rate.

Most Useful Approach to Asking About Salary

Participants generally preferred a short, simple question, such as "What will be your base salary?" plus a clear definition of salary (time covered, what is included and excluded). All participants immediately and strongly preferred the response format with check-off categories.

Question Wording

Participants generally preferred a short, simple question, such as "What will be your base salary?" plus a clear definition of salary (time covered, what is included and excluded).

Several administrators (graduate deans and institution contacts) also emphasized the need for a definition of salary to assure that all students had the same definition in mind. It might exclude bonuses, research expenses, start-up expenses, benefits, and the like, since these may confuse some, are highly variable, and are not easily compared. Participants would also want the period for which the salary is covered to be identified, e.g., 9 months, 12 months, part-time (at a specified percentage); this would make it clearer to respondents and data users.

Response Format

All participants immediately and strongly preferred the response format with check-off categories. They considered it clearest, most familiar, easiest and quickest to answer, least intrusive and, implicitly, more valid. [Many also noted that it easiest to analyze and report and would be most reliable.]

Participants also made a point of considering the advantages and disadvantages of different increments for dividing the intervals (e.g., $5K versus $10K; graded increments where salaries above $80K are collected in $10K intervals while salaries below $80K are collected in $5K intervals). In general, the $10K interval was acceptably precise.

They also reviewed the range of salaries in the question. Some participants suggested decreasing the lowest category to “less than $20,000” to capture some post-docs, fellowships, summer positions, and part-time adjunct positions. At the other end, to produce more sensitive data for doctoral graduates of professional schools, such as business and engineering, they also thought raising the upper category to at least $120,000 would include meaningful data on those students in the higher end of the salary range; for amounts above $80K the intervals might be broader.

For the open-ended salary range response option, participants across groups said a self-selected range is difficult to understand and far too ambiguous: respondents might understand it very differently and it would be impossible to prevent even uselessly vague responses such as “0 to $100,000.” One student added that this format made him feel “paranoid” that institutions would use this information to offer salaries on the low end of a respondent’s range.

Participants across groups said the exact salary figure response option felt too intrusive. People generally do not like giving their exact salary, and students may often not know their specific salary amount.

Social Security Number

Participants' greatest concern by far was the Social Security Number question. They considered it risky, particularly for identity theft. Graduate deans and institutional contacts found it to be the greatest source of questions, complaints and nonresponses. Many participants urged that the questionnaire explain how this information will be used. All preferred truncating it to the last 4 digits to maintain or raise response rate to the question and, perhaps, completion of the questionnaire.

Students expressed inquietude about why this information is requested. Participants in all focus groups said an explanation for why this number, or an equivalent, is needed to raise its response rate. So, too, they said, is a satisfactory "privacy and protection" disclosure statement. Since the passage of the Patriot Act, international students are especially wary of this question.

All groups preferred that the SED request only the last four digits of the Social Security Number to raise response rate of the question and, perhaps, that of the entire questionnaire. Many students are accustomed to other sources (e.g., credit card companies) requesting the last four digits and are increasingly being exposed to university-wide student identification systems that no longer use Social Security Numbers. Students underscored that they would be more likely to report the four digits if they felt there was a legitimate use for this information.

All focus groups agreed that the Social Security Number question should not cause students to refuse to fill out the entire survey, particularly if only the last four digits are requested *and* an adequate explanation of how this information is used is provided next to, above, or below the question.[4] More often than not, participants across focus groups agreed that students uncomfortable with this particular question will simply not answer it and move on to the rest of the questionnaire (especially since this question is asked toward the end of the survey, after respondents have already completed most of it).

[4] On the web version of the questionnaire, if a respondent does not provide SSN they are presented with a screen that explains why the survey requests the information and ensures confidentiality. The paper version of the questionnaire addresses these issues on the cover page in the informed consent statement.

Collateral Findings

Current SED Uses and Possible Uses of Salary Information

Graduate deans, students, and institution contacts reported that data from the SED are currently used by them for a variety of purposes.

Graduate deans use the SED to track trends among graduate students within their own home institutions and across peer institutions nationally. They monitor doctoral degree production among specific departments, and across different disciplines, schools, and institutions, as well as identify diversity in fields of study. This information helps to plan resource allocation across departments, disciplines, schools, and institutions.

The SED helps the deans and departments map where, and in what sectors, students get jobs. Institutions would like to use data from the SED to assess the level of diversity among graduate students and faculty members, professional development needs (e.g., preparing students for academia versus industry), the correlation of student background with career outcomes, the amount of student indebtedness, and time-to-degree.

Deans suggested several possible uses of salary information on the SED. It might help in comparing students' level of investment with indebtedness, as well as in comparing salary range distributions across fields. It would also be helpful to future graduates for setting realistic expectations to help them choose post-graduate positions. In addition, it would provide students with a useful perspective on the competitiveness of their degree and for negotiating their salary.

Institutions reported other ways in which they used it, such as to assess: the level of diversity among their faculty; doctoral degree production among different disciplines and schools; graduates' amount of indebtedness; time-to-degree; and how home institutions compare with others nationally. Certain units on their campuses (e.g., Office of Institutional Research or Institutional Analysis or Institutional Research & Planning) are interested in monitoring SED trends for: faculty hiring (e.g., related to increasing diversity and preparing for future faculty programs); general trends on graduate students produced by different graduate schools; and professional development purposes (proportion of students pursuing academic versus industry careers).

Some graduate deans in this study were not aware of how a variety of personnel and units at their institutions (such as deans of multiple levels, graduate student advisors, faculty, equal employment offices, career services, public relations offices, development offices, institutional research offices, and alumni associations) may (or may not) be using the SED, though on reflection they recognized benefits that they could gain by sharing institutional profiles and national reports.

Salary information could help students to deal with debt management; help institutions to advise undergraduates who are thinking about entering graduate school; and help institutions to know what salary is appropriate when hiring fresh doctoral graduates. One dean also noted that her school examines the economic impact of its graduating students on her own state: how many are taking jobs in the state; presumably, knowing their salaries would enrich that knowledge.

Factors Students Consider When Taking First Job

Salary is not necessarily the main factor in deciding one's career path, according to the students. Others students mentioned: autonomy (e.g., opportunity to work in personal area of interest); collegiality within a department; flexibility (e.g., possibility for interdisciplinary research; flexible hours); intellectually challenging and stimulating work environment; lifestyle (e.g., parental leave policy; quality of life; treatment of women); location (e.g., urban versus rural; whether partner can also find job; close to family); long-term stability; prospects for professional growth; reasonable workload; reputation, prestige, and research direction of department and faculty; research productivity of the school; resources for research (e.g., financial support, number of graduate students); and size of a program.

Students in all three groups highlighted geographic location, in particular, as an important determinant of their employment choice. For example, a few students in the same group shared they had turned down offers in Syracuse (for one in Colorado), Canada (as this would require a change in citizenship), and the rural South. They tended to prefer professional possibilities in urban settings, as these have a higher chance of being culturally-rich, offering work possibilities for partners, and having larger academic programs – all lifestyle characteristics that would benefit them. Location, for some, was a deal-breaker even for a higher salary. Indeed, any of the named factors might also be a deal-breaker. In general, these students consider all the factors before making a decision.

Administering the SED

At least two institution contacts mentioned having transitioned to an electronic version of the SED. Since this method requires students to print their questionnaire and mail it to the appropriate office at least for one institution, institution contacts mentioned the possibility of this electronic methodology lowering the SED's response rate. One or two of the institution contacts reported that they distribute the SED Purpose and Use brochure along with the questionnaire.

Institution contacts echoed each other in their experiences fielding students' multiple questions about the purpose of the SED, sharing that some students have not been shy to voice their discontent about completing yet another form before graduation.

From the focus groups, we learned that students often think the SED is supposed to be "anonymous" and question whether it truly is since they have to include personal information that would readily identify them individually (e.g., date of birth, email address, employer address, information on individuals that may be able to locate them).

Main Conclusions: Salary and Sensitive Items

Effect of a Salary Question on SED Response Rate

From the findings of this qualitative research study, we conclude that a salary question will not noticeably affect the high overall response rate to the SED questionnaire. In the student groups, nearly all participants said they would share the information; most did not consider it too sensitive. The graduate dean and institution contact groups also concluded that most students would answer the question and those who would not answer it would skip it but probably complete the questionnaire in any case.

Preferred Salary Question Wording

Participants generally preferred a short, simple question, such as "What will be your base salary?" plus a clear definition of salary (time covered, what is included and excluded). All participants immediately and strongly preferred the response format with check-off categories; they considered this format to be clearest, easiest and quickest to answer, least intrusive, easiest to report, and most reliable.

Reaction to Social Security Number Question

As participants across the board acknowledged a large and growing concern with identity theft and how personal data will be used, the Social Security Number question is the most sensitive item on the SED questionnaire. Asking for date of birth and email address along with Social Security Number may especially make students balk as at least a couple of students and one institution contact reported believing the SED claims it is "anonymous" (though, in fact, it claims only confidentiality and never sharing data that identify information about any individual).

Truncating the Social Security Number into four digits will be an acceptable and practical alternative to asking for the full Social Security Number. An explanation as to why the four digits are needed, however, must also be provided.

Recommendations

The findings from these focus groups suggest several recommendations for adding a useful salary question while improving SED administration and assuring a continued high SED response rate.

To increase response rate, students should be presented the current SED Purpose and Use Brochure – attached to the questionnaire – so that answers to questions about the SED are readily available. The word "confidential" should be used to describe how SED data will be treated. The fact that such a trusted source as NORC manages the survey should also be highlighted.

Explanations for why the salary and Social Security Number (full or last four digits) questions are being posed are critically needed, along with a "privacy and protection" disclosure statement. A one-sentence explanation in the form of a text-box could be provided next to these questions on the SED, in addition to a footnote with a Web site address for more detailed information.

NORC should consider working with a variety of units and personnel at institutions (such as deans of multiple levels [e.g., assistant, associate], graduate student advisors, faculty, equal employment offices, career services, public relations offices, development offices, institutional research offices, and alumni associations) to raise awareness of how the SED can help them in their respective efforts. These expanded promotional efforts may encourage greater support and commitment to promoting the SED to students, as well as fuller use of its data.

The salary question format with the check-boxes should be used with an initial salary question and definition of salary that are short and simple and clear about whether benefits, bonuses, over-time, summer-time teaching, etc., are included and excluded. (In view of the incomparability of the items beyond base salary it may be wise to exclude them.) The salary range should be expanded to include "less than \$20,000" and "\$120,000 or more," and the intervals widened at the higher levels (above \$80,000). The size of the intervals may need to be changed depending on how the first year of data collected on salary are distributed.

It should be clear whether a reported salary is based on a 12-month calendar year, 9-month academic year, or part-time position (and at what percentage). It should also be clear about whether it captures benefits and start-up packages and/or income earned from off-campus consulting. Finally, we recommend cognitive testing of prospective questions, followed by pilot-testing the implementation of the above recommendations with a sub-set of SED questionnaires. Such a quantitative experiment with a national sample of SED questionnaires will help to confirm or refute the predicted protection of response rate when the salary question is added, the Social Security Number truncated, and both questions satisfactorily justified.

Appendix A

Computer Assisted Telephone Focus Groups[5]

Telephone focus groups have been in use for over 30 years, and have been enhanced by computer technology invented in the past decade. Organizations are increasingly finding it valuable for reaching people from all over the U.S., going beyond the usual less-than-a-handful of major markets to represent many locations and kinds of participants that could not otherwise be considered. It is especially useful where participants are geographically dispersed, relatively rare, reluctant or unable to travel to a central facility, or in need of anonymity.

People can participate from the comfort of their home or other private place where they have access to a phone. This permits equal ease across locations. Participants may also feel more candid than in face-to-face groups. All are equal on the phone. There is less distraction, less silence, less formality and posturing, and a greater sense of privacy.

Everyone can hear everyone else clearly. Interaction starts fast and is often more natural and intense than in face-to-face groups. The fact that participants cannot see each other is not unusual or problematic. People use the phone to communicate all the time. Participants use complete sentences and nonverbal remarks, like "uh-huh" to substitute for the nonverbal head nods. They are encouraged to "chorus" their agreement or disagreement. Pauses become more obvious and meaningful. Many other nonverbal auditory cues supplement the conversation, such as participants using their name each time they speak. Mutual invisibility also permits more creative and diverse group composition, such as mixing people from different demographic and geographic situations.

The computer technology provides several unique advantages. The moderator can identify who is talking -- on a computer screen. Client observers can call in from anywhere to listen without being heard and can pass notes to the moderator; the notes appear on the moderator's computer screen without interrupting the group. Removal of the (rare) disruptive participant is quick, simple, and invisible to other participants.

Compared to face-to-face focus groups, CAT focus groups are more representative, easier to recruit, and faster to set up. They eliminate the costs, time, and inconvenience of travel for client observers as well as for participants. They permit involvement by a broader variety of clients (such as executives and implementers) as well as participants. And, most importantly, they provide a greater flexibility of research designs and depth of response.

[5]For further detail, see Balch, G.I. C.A.T. (Computer-Assisted Telephone) Focus Groups: Better, Faster, Cheaper Focus Groups for the "Hard-To-Reach." *Social Marketing Quarterly,* Vol. 7 (Winter 2001) no. 4, pp. 38-40; Silverman, G (1994). *Introduction to telephone focus groups*. Orangeburg, N.Y.: Market Navigation, Inc.

Appendix B

Participant Recruitment Screener

See Appendix A in Main Report

Appendix C

Moderator's Guide: Graduate Deans

Objectives are to explore:

- Perceptions of added value of salary question data.
- Reactions to possible salary question types.
- Any concerns about confidentiality of student data?
- Expectations of student reactions to salary questions?
- Uses of questions vs. problems with questions vs. don't care.

Introduction (5 minutes)

- Welcome, thanks for participating
- *Purpose of group*
- *Taping, confidentiality, presence of observers*
- *Have envelope(s) we sent available*
- *Have paper and pen/pencil available*
- Introduce moderator, topic, participants – first name, type of institution
- Describe focus group process, summary for review

Warm-up: (10 minutes)

[EVERYBODY:] Have you heard of the SED before and if so, say ONE thing you have heard or know.
Does your university use SED data? Let's list some of the ways your institution uses the SED data (EACH NAME ONE).

- *Others?*
- *Which is most important on the list? How so?*

How, if at all, would salary questions help? (10 minutes)

What incremental benefits would accrue? To whom? How important are these (compared to current benefits)?

- *[PROBE:]To the university, advisors, and faculty, EEO advisors, career services, PR office, Development office, Research Office, Alumni association? Others?*
- *How important is a high student response rate for these uses?*
- *Would there be any negative impacts of providing salary data on/for your student?*

Brief Reactions to sample <u>ways</u> of including expected salary question(s) (20 minutes)

***[READ]** Now we need your reactions to some different ways of including questions about expected salary. Let's look at them one at a time, in the context of some of the other* *questions on the current questions... [DEANS OPEN SAMPLE K*[6] *ENVELOPE WHEN INSTRUCTED; ROTATE ORDER OF SAMPLES ACROSS DEAN GROUPS]*

- *Impressions?*
- *How would this provide useful data for you/your university?*
- *How might the salary question be made more useful?*
- *How might students respond to it? [Skip? Make them not return the whole questionnaire? Lie? Guess wildly?]*

REPEAT FOR REMAINING SAMPLES
Which of these three approaches to the salary question do you think would:

- *Provide the most useful data for you/your university? How so?*
- *Provide the best response rate to the question and the questionnaire?*
- *How does asking about expected salary compare with other personal info?*

How reactions to salary questions may affect your institution (15 minutes)

- *Student reactions*
- *How much of a difference do you think that adding salary make to overall response rate? [Insignificant, significant, or the straw that breaks the camel's back?]*
- *[IF SIGNIFICANT OR THE LAST STRAW]: Is it worth it to your institution's uses of the data?*
- *Any other effects of adding salary questions? [Questions for Deans and Institution Contacts (ICs)? Complaints? Negative buzz?]*

[6] Each envelope has a meaningless code for identification, e.g., a letter or combination of letters in middle of the alphabet

CHECK OBSERVERS

Closing **(5-10 minutes)**

- *Any additional items from observers.*
- *Covered everything—anything to add?*
- *Correct misinformation, answer questions about SED if needed.*[7]
- *Reminder to look for summary and please provide feedback to keep this accurate and complete.*
- *Thanks!*

[7] Qualified NORC observer does this, if needed

Appendix D

Moderator's Guide: Institution Contacts

Objectives are to explore:

- Reactions to possible salary question types and sensitive items in general, asking all of the sensitive items on one form.
- Expectations of student reactions to salary questions.
- How Institution Contacts might limit negative reactions.
- How NORC can help.

Introduction **(5 minutes)**

- Welcome, thanks for participating.
- *Purpose of group.*
- *Taping, confidentiality, presence of observers.*
- *Have envelope(s) we sent available.*
- *Have paper and pen/pencil available.*
- Introduce moderator, topic, participants – first name, job title, type of institution, about when did you start your responsibilities for the SED.
- Describe focus group process

Warm-up: **(10 minutes)**

EVERYBODY: Name one thing that sticks in your mind – if anything does -- that you have heard or know about the SED.

What's it like to distribute and collect them; how do you do that?

- *What helps get it done?*
- *What hinders?*

Sensitive Questions

How many of you have seen the questions? [SHOW OF "YES"]

Do you ever hear from students about them? Anything they say they feel uncomfortable answering?

- *What questions?*
- *What do they do about it (discuss, skip, not return questionnaire)?*
- *How do you deal with it?*
- *Do you think adding a question about their expected starting salary would affect your interactions with graduating students about the SED? How?*

Brief Reactions to sample <u>ways</u> of including expected salary question(s) (20 minutes)

[READ] *Let's see how what you think about to some different ways of including a question about expected salary. [ICs OPEN SAMPLE K[8] ENVELOPE WHEN INSTRUCTED; ROTATE ORDER OF SAMPLES ACROSS DEAN GROUPS]*

- *Overall impressions?*
- *Concerns and suggested improvements for the salary question to maximize response?*

REPEAT FOR REMAINING SAMPLES
Which of these three salary questions will provide the best response rate for the questionnaire? How so?
How does asking about expected salary compare with other personal info?
How much of a difference in overall questionnaire response do you think adding a salary question to the other personal info will make? [Little or none; some; the straw that breaks the camel's back]

How reactions to salary questions may affect your institution
(20 minutes)

Student reactions

- *Reactions to prior SED about any of these personal info questions.*
- *Other possible anticipated student reactions with salary questions*
- *Little to none?*
- *Raise questions for Deans and Institution Contacts (ICs)? Which wording would raise the fewest?*
- *Complaints? Which wording would raise the fewest?*
- *Negative buzz? Which wording would raise the least?*
- *Other …?*
- *Don't know?*
- *Positive reactions?*

Possible institution preparation for student reactions

[NOTE GENTLY THAT THEIR INSTITUTIONS GET THE DATA FOR THEIR OWN INSTITUTION AS WELL AS OVERALL, AND SOME MAY FIND SALARY DATA USEFUL.]

- *Change promotion? Distribution? Collection? How? /Why not?*
- *Other …?*

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[8] Each envelope has a meaningless code for identification, e.g., a letter or combination of letters in middle of the alphabet

How might NORC help Institution Contacts prepare?
(5 minutes)

CHECK OBSERVERS

Closing **(5-10 minutes)**

Any additional items from observers
Covered everything—anything to add?
Correct misinformation, answer questions about SED if needed[9]
Thanks—check or notification of donation should arrive within 6 weeks from now (June 23). Call Dan if you need a progress report.

[9] Qualified NORC observer does this, if needed

Appendix E

Moderator's Guide: Students

Objectives are to explore:

- Concerns about answering salary questions in general and what might lighten them.
- Reactions to alternative kinds of salary questions and what might lighten concerns.
- Concerns about/reactions to sensitive items in general and in conjunction with asking about salary.

Introduction **(5 minutes)**

- Welcome, thanks for participating.
- *Purpose of group.*
- *Taping, confidentiality, presence of observers.*
- *Have envelope(s) we sent available.*
- *Have paper and pen/pencil available.*
- Introduce moderator, topic, participants – first name, field of study, department.
- Describe focus group process

Warm-up: job choice criteria **(10 minutes)**

Other than salary, what is the most important thing you were/are looking for in your first job after graduation? Name one. (ASK ALL PARTICIPANTS)
What other things did/do you consider important?
Which of these, if any, are/were deal-breakers? Why? More important than salary?
How do you find salary information to help you make career choices? [PROBE: The web, friends, professors, published data?]

SED awareness and perceptions **(5-10 minutes)**

A. *Ever heard anything about the SED? [SHOW OF YESES]*

   1. *Impressions? (Big deal, not, how?)*
   2. *PROBE ONLY IF ISSUES ARE RAISED*

B. *As you may know, the SED is sponsored by several organizations: the National Science Foundation, the National Institutes of Health, the National Endowment for the Humanities, the U.S. Dept. of Agriculture, and the National Aeronautics and Space Administration. How do you feel about sharing your personal information with these organizations? [Trust? Concerns?]*

Reactions to sample <u>ways</u> of including expected salary question(s) (45 minutes)

[READ] *Now need your reactions to some different ways of including questions about expected salary. [STUDENTS OPEN SAMPLE K*[10] *ENVELOPE WHEN INSTRUCTED; ROTATE ORDER OF SAMPLES ACROSS STUDENT/POST-DOC GROUPS]*

- *First impressions?*
- *Take a minute to fill out – we won't ask what you wrote.*
- *Clear? Hard to answer? Questions? Concerns?*
- *How did you feel about answering the expected salary question?*
- *How firmly did you know your "starting salary"?*
- *If not firm, what did you do? Estimate? Leave it blank?*
- *How comfortable or uncomfortable do you feel answering about expected starting salary compared with answering about:*
  - *Your salary if it were in mid-career?*
  - *SSN*
  - *Your future contact info*
  - *A contact person's contact info*
  - *Your signature*
  - *Date of birth (age)*
  - *Asking all of these items on one form?*
  - *Did you feel inclined to answer any of them, including the salary questions?*
  - *If not, which might you NOT answer? Why?*
  - *Would you continue with the rest of the questions? Why/not?*

If the salary question were not there, would you answer the rest of the questions?

REPEAT FOR REMAINING SAMPLES, FOCUSING ON THE SALARY QUESTION: Which of these three ways of asking the salary question are you most comfortable answering? What makes it so? Which is least comfortable? What makes it so?

Benefits of salary information to future graduate students (5 minutes)

How might salary info help future grad students?

- *Choose field, specialty*
- *Other planning choices…?*

CHECK OBSERVERS

Closing (5-10 minutes)

- *Any additional items from observers.*
- *Covered everything—anything to add?*
- *Correct misinformation, answer questions about SED if needed.*[11]

[10] Each envelope has a meaningless code for identification, e.g., a letter or combination of letters in middle of the alphabet

- Thanks—check or notification of donation should arrive within 6 weeks from now (June 21/23/28). Call Dan if you need a progress report.

[11] Qualified NORC observer does this, if needed

Appendix F

Sample Salary Question – Open-Ended Salary Range

SAMPLE QUESTIONNAIRE

PART B – POSTGRADUATION PLANS

B4. What best describes your (within the next year) postgraduate plans? Mark (x) one.

0 ☐ Postdoctoral fellowship
1 ☐ Postdoctoral research associateship
2 ☐ Traineeship
3 ☐ Intern, clinical residency
4 ☐ Other-specify

Go to B5

5 ☐ Employment (other than 0,1,2,3,4)
6 ☐ Military service
7 ☐ Other-specify

Skip to B6

B5. What will be the main source of financial support for your postdoctoral study/research within the next year? Mark (x) one.

0 ☐ U.S. Government
1 ☐ Industry/Business
2 ☐ College or university
3 ☐ Private foundation
4 ☐ Nonprofit, other than private foundation or college
5 ☐ Other – specify ____________________________

6 ☐ Unknown

B6. For what type of employer will you be working or in training within the next year? Mark (x) one.

EDUCATION
a. ☐ U.S. 4-year college or university other than medical school
b. ☐ U.S. medical school (including university-affiliated hospital or medical center)
c. ☐ U.S. university-affiliated research institute
d. ☐ U.S. community college or technical institute
e. ☐ U.S. preschool, elementary, middle, secondary school or school system
f. ☐ Foreign educational institution

GOVERNMENT (other than education institution)
g. ☐ Foreign government
h. ☐ U.S. federal government
i. ☐ U.S. state government
j. ☐ U.S. local government

PRIVATE SECTOR (other than education institution)
k. ☐ Not for profit organization
l. ☐ Industry or business (for profit)

OTHER
m. ☐ Self-employed
n. ☐ Other-specify ________________________

B7. What will be your annual salary or wages?

Please provide the range that your salary falls within.
_________ to _________
Low High

B8. Please name the organization and geographic location where you will work or study.
Name _____________________
State (if U.S.) _____________________
OR
Country (if not in U.S.) _________________

Part C – Background Information

C1. Are you –
1 ☐ Male
2 ☐ Female

C2. What is your marital status? Mark (x) one.
1 ☐ Married
2 ☐ Living in a marriage-like relationship
3 ☐ Widowed

4 ☐ Separated
5 ☐ Divorced
6 ☐ Never married

C6. What is your date of birth?

Month	Day	Year
☐☐	☐☐	☐☐☐☐

C15. Please fill in your U.S. Social Security Number.
☐☐☐-☐☐-☐☐☐☐

C16. In case we need to clarify some of the information you have provided, please list an E-mail address (if applicable), and telephone number where you can be reached.

E-mail address ________________________________
Daytime telephone ______________________________

C17. Please provide your address and the name and address of a person who is likely to know where you can be reached.

Current Address
Street Address ________________________________
City, State/Country, Zip or Postal code ________________________

Contact Person
First Name ________________ Last Name _____________________
Street Address _________________________________
City, State/Country, Zip or Postal code ________________________
Phone Number (including area or country code) ________________
E-mail address ____

C18. Please sign and date.

____
Signature Date

Appendix G

Sample Salary Question – Exact Salary Figure

SAMPLE QUESTIONNAIRE

PART B – POSTGRADUATION PLANS

B4. What best describes your (within the next year) postgraduate plans? Mark (x) one.

0 ☐ Postdoctoral fellowship

1 ☐ Postdoctoral research associateship

2 ☐ Traineeship

3 ☐ Intern, clinical residency

4 ☐ Other-specify

Go to B5 (options 1–4)

5 ☐ Employment (other than 0,1,2,3,4)

6 ☐ Military service

7 ☐ Other-specify

Skip to B6 (options 5–7)

B5. What will be the main source of financial support for your postdoctoral study/research within the next year? Mark (x) one.

0 ☐ U.S. Government
1 ☐ Industry/Business
2 ☐ College or university
3 ☐ Private foundation
4 ☐ Nonprofit, other than private foundation or college
5 ☐ Other – specify ____________________________

6 ☐ Unknown

B6. For what type of employer will you be working or in training within the next year? Mark (x) one.

EDUCATION
a. ☐ U.S. 4-year college or university other than medical school
b. ☐ U.S. medical school (including university-affiliated hospital or medical center)
c. ☐ U.S. university-affiliated research institute
d. ☐ U.S. community college or technical institute
e. ☐ U.S. preschool, elementary, middle, secondary school or school system
f. ☐ Foreign educational institution

GOVERNMENT (other than education institution)
g. ☐ Foreign government
h. ☐ U.S. federal government
i. ☐ U.S. state government
j. ☐ U.S. local government

PRIVATE SECTOR (other than education institution)
k. ☐ Not for profit organization
l. ☐ Industry or business (for profit)

OTHER
m. ☐ Self-employed
n. ☐ Other-specify ________________________

B7. Before deductions, what will be your basic annual salary for this job?
Do not include bonuses, overtime or additional compensation for summertime teaching or research. If you are not salaried, please estimate your earned income including expenses.

____
Please write in your annual salary or earned income.

B8. Please name the organization and geographic location where you will work or study.
Name ____________________
State (if U.S.) ____________________
OR
Country (if not in U.S.) ________________

Part C – Background Information

C1. Are you –
1 ☐ Male
2 ☐ Female

C2. What is your marital status? Mark (x) one.

1 ☐ Married
2 ☐ Living in a marriage-like relationship
3 ☐ Widowed
4 ☐ Separated
5 ☐ Divorced
6 ☐ Never married

C6. What is your date of birth?

Month	Day	Year
☐☐	☐☐	☐☐☐☐

C15. Please fill in your U.S. Social Security Number.

☐☐☐-☐☐-☐☐☐☐

C16. In case we need to clarify some of the information you have provided, please list an E-mail address (if applicable), and telephone number where you can be reached.

E-mail address ______________________________
Daytime telephone ___________________________

C17. Please provide your address and the name and address of a person who is likely to know where you can be reached.

Current Address
Street Address ______________________________
City, State/Country, Zip or Postal code ______________________

Contact Person
First Name ________________ Last Name ____________________
Street Address ________________________________
City, State/Country, Zip or Postal code ______________________
Phone Number (including area or country code) ________________
E-mail address ____

C18. Please sign and date.

____
Signature Date

Appendix H

Sample Salary Question – $10,000 Increment Check-Box

SAMPLE QUESTIONNAIRE

PART B – POSTGRADUATION PLANS

B4. What best describes your (within the next year) postgraduate plans? Mark (x) one.

0 ☐ Postdoctoral fellowship	**Go to B5**
1 ☐ Postdoctoral research associateship	
2 ☐ Traineeship	
3 ☐ Intern, clinical residency	
4 ☐ Other-specify	
5 ☐ Employment (other than 0,1,2,3,4)	**Skip to B6**
6 ☐ Military service	
7 ☐ Other-specify	

B5. What will be the main source of financial support for your postdoctoral study/research within the next year? Mark (x) one.

0 ☐ U.S. Government
1 ☐ Industry/Business
2 ☐ College or university
3 ☐ Private foundation
4 ☐ Nonprofit, other than private foundation or college
5 ☐ Other – specify ___________________________

6 ☐ Unknown

B6. For what type of employer will you be working or in training within the next year? Mark (x) one.

EDUCATION
a. ☐ U.S. 4-year college or university other than medical school
b. ☐ U.S. medical school (including university-affiliated hospital or medical center)
c. ☐ U.S. university-affiliated research institute
d. ☐ U.S. community college or technical institute
e. ☐ U.S. preschool, elementary, middle, secondary school or school system
f. ☐ Foreign educational institution

GOVERNMENT (other than education institution)
g. ☐ Foreign government
h. ☐ U.S. federal government
i. ☐ U.S. state government
j. ☐ U.S. local government

PRIVATE SECTOR (other than education institution)
k. ☐ Not for profit organization
l. ☐ Industry or business (for profit)

OTHER
m. ☐ Self-employed
n. ☐ Other-specify ________________________

B7. Before deductions, what will be your basic annual salary for this job?
Do not include bonuses, overtime or additional compensation for summertime teaching or research. If you are not salaried, please estimate your earned income including expenses. Mark (X) one:

0 ☐ Less than $30,000
1 ☐ $30,001 - $40,000
2 ☐ $40,001 - $50,000
3 ☐ $50,001 - $60,000
4 ☐ $60,001 - $70,000
5 ☐ $70,001 - $80,000
6 ☐ Above $80,001

B8. Please name the organization and geographic location where you will work or study.
Name ______________________
State (if U.S.) ______________________
OR
Country (if not in U.S.) _________________

Part C – Background Information

C1. Are you –
1 ☐ Male
2 ☐ Female

C2. What is your marital status? Mark (x) one.
1 ☐ Married
2 ☐ Living in a marriage-like relationship
3 ☐ Widowed
4 ☐ Separated
5 ☐ Divorced
6 ☐ Never married

C6. What is your date of birth?

Month	Day	Year
☐☐	☐☐	☐☐☐☐

C15. Please fill in your U.S. Social Security Number.
☐☐☐-☐☐-☐☐☐☐

C16. In case we need to clarify some of the information you have provided, please list an E-mail address (if applicable), and telephone number where you can be reached.

E-mail address ________________________________
Daytime telephone _____________________________

C17. Please provide your address and the name and address of a person who is likely to know where you can be reached.

Current Address
Street Address ________________________________
City, State/Country, Zip or Postal code ________________________

Contact Person
First Name ________________ Last Name _____________________
Street Address _________________________________
City, State/Country, Zip or Postal code ________________________
Phone Number (including area or country code) ________________
E-mail address ____

C18. Please sign and date.

____
Signature Date

ATTACHMENT 11: DATA USE AGREEMENT FOR INDIVIDUALS
(NSF staff and contractors)

National Science Foundation
Division of Science Resources Statistics

INDIVIDUAL DATA USE AGREEMENT FOR NSF STAFF AND CONTRACTORS

Data collected by the Survey of Earned Doctorates (SED) may be used only for the purpose for which they were obtained – statistical analysis and reporting. Any effort to determine the identity of any respondent or to use the information for any purpose other than statistical reporting and analysis could violate the NSF Act of 1950, as amended; the Privacy Act of 1974, as amended; and other applicable statutes. The Director of Science Resources Statistics (SRS) is the designated System Manager for the above mentioned systems of records. SRS has taken every effort to assure that the confidentiality of the data is carefully protected. Considerable harm could ensue if there were unauthorized access to or disclosure of identifiable information concerning an individual who responded to the survey by any user of the data files. Therefore, the undersigned gives the following assurances with respect to the data files:

I will not use the data in the file for any purpose other than statistical reporting, analysis, or other uses as authorized by SRS. Information from the files will be released only in statistical summaries which do not disclose information about any individual;

(1) I will not release the data sets or any part of them to any other person or organization;

(2) I will not use the data sets to attempt to learn the identity of, or to gain information concerning, any person included in the data sets unless the task is directly related to survey administrative tasks under the SRS contract; and

(3) If the identity of any person should be discovered inadvertently, I will not make use of this knowledge and advise the Director, SRS:

(a) of the incident;
(b) how the information about the individual will be safeguarded; and
(c) no one else will be told of the information discovered.

____
Print Name

____
Signature

____
Organization

____
Date

NOTE: Data Use Agreements must be renewed annually if access to the confidential data is to be continued. Survey Contractor's Staff are exempt from the condition (4) above when the identification is directly involved in the survey conduct.