

# Survey of Earned Doctorates (SED)

Website: <http://www.nsf.gov/statistics/srvydoctorates/>

## 1. OVERVIEW

The Survey of Earned Doctorates (SED) is an annual census of new doctorate recipients from accredited colleges and universities in the United States. The SED is conducted by the National Opinion Research Center (NORC) at the University of Chicago and is funded by six federal agencies: the National Science Foundation (NSF), the lead sponsor; the Department of Education; the Department of Agriculture (USDA); the National Institutes of Health (NIH); the National Endowment for the Humanities; and the National Aeronautics and Space Administration.

Only research doctorates—primarily the Ph.D., Ed.D., and D.Sc.—are counted in the SED. Professional doctorates (e.g., M.D., J.D., Psy.D.) are excluded. While graduate schools are responsible for distributing the survey forms to students, the surveys are completed by the doctorate recipients themselves. The surveys collect information on recipients’ demographic characteristics, educational history (from high school to doctorate), sources of graduate school support, debt level, and postgraduation plans.

The first SED was conducted during the 1957–58 academic year. In addition to housing the results of all surveys, the Doctorate Records File (DRF)—the survey database—contains public information on earlier doctorate recipients back to 1920. Thus, the DRF is a virtually complete data bank on more than 1.7 million doctorate recipients. The DRF also serves as the sampling frame for the biennial Survey of Doctorate Recipients (SDR), a longitudinal survey of science, engineering, and humanities doctorate recipients employed in the United States.

### Purpose

To obtain consistent, annual data on individuals receiving research doctorates from U.S. institutions for the purpose of assessing trends in Ph.D. production.

### Components

There is one component to the SED.

**Survey of Earned Doctorates.** The doctorate institution is responsible for administering the surveys to research doctoral candidates and, for the hard-copy version of the survey, collecting the completed questionnaires for mailback to the survey contractor. The doctorate recipients themselves complete the surveys. The following information is collected in the SED: all postsecondary degrees received and years awarded (although only the *first* baccalaureate, master’s, first-professional, and doctoral degrees are entered in the database); years spent as a full-time student in graduate school; specialty field of doctorate; type of financial support received in graduate school; level of debt incurred in undergraduate and graduate school; employment/study status in the year preceding doctoral award; postgraduation plans (how definite, study vs. employment, type of employer, location, and basic annual salary); high school location and year of graduation; demographic characteristics (sex, race/ethnicity, date and place of birth, citizenship status, country of citizenship for non-U.S. citizens, marital status, number of dependents, disability status, educational attainment of parents); and personal

### ANNUAL CENSUS OF NEW RESEARCH DOCTORATE RECIPIENTS:

SED collects self-reported data on:

- Demographic characteristics
- Educational history from high school to doctorate
- Mechanisms of financial support in graduate school
- Debt related to education
- Postgraduation plans

identifiers (name, last four digits of the Social Security Number, and permanent address). Dissertation field is keyed both as verbatim text and as a numeric code.

### Periodicity

Annual since inception of the SED in the 1957–58 academic year. The database also includes basic information (obtained from public sources) on doctorates for the years 1920 to 1957.

## 2. USES OF DATA

The results from the SED are used by government agencies, academic institutions, and industry to address a variety of policy, education, and human resource issues. The survey is invaluable for assessing trends in doctorate production and the characteristics of Ph.D. recipients. The SED data are used to monitor the educational attainment of women and minorities, particularly in science and engineering. The increasing numbers of foreign citizens earning doctorates in the United States are studied by country of origin, field of concentration, sources of graduate school support, and the U.S. “stay” rate after graduation. Trends in time-to-doctorate are also analyzed by field, type of support received, and personal characteristics (such as marital status). Data on postdoctoral plans provide insight into the labor market for new Ph.D. recipients, whose careers can be followed in the longitudinal Survey of Doctorate Recipients, whose sample is drawn from the SED.

There is also substantial interest in the institutions attended by Ph.D. recipients. Doctorate-granting institutions frequently compare their survey results with peer institutions, and undergraduate institutions want to know their contribution to doctorate production. The availability of Carnegie Classifications in the DRF facilitates meaningful comparisons of the institutions attended by different demographic groups (e.g., men vs. women). Separate indicators for Historically Black Colleges and Universities (HBCUs) can allow researchers to examine the roles these institutions play in the educational attainment of Blacks.

## 3. KEY CONCEPTS

Some of the key terms and analytic variables in the SED are described below.

**Research Doctorate.** Any doctoral degree that (1) requires the completion of a dissertation or equivalent project of original work (e.g., musical composition); and (2) is not primarily intended as a degree for the

practice of a profession. While the most typical research doctorate is the Ph.D., there are more than 20 other degree types (e.g., Ed.D., D.Sc., D.B.A.). Not included in this definition are professional doctorates: M.D., D.D.S., D.V.M., O.D., D.Pharm., Psy.D., J.D., and other similar degrees.

**Doctorate-Granting Institution.** Any postsecondary institution in the United States that awards research doctorates (as defined above) and is accredited at the higher education level by an agency recognized by the Secretary of the U.S. Department of Education. There are over 420 research doctorate-granting institutions.

**Field of Doctorate.** Specialty field of doctoral degree, as reported by the doctorate recipient. There are over 290 fields in the SED Specialties List, grouped under the following umbrellas: agricultural sciences/natural resources; biological/biomedical sciences; health sciences; engineering; computer and information sciences; mathematics; physical sciences (subdivided into astronomy, atmospheric science and meteorology, chemistry, geological and earth sciences, physics, and ocean/marine sciences); psychology; social sciences; humanities (subdivided into history, letters, foreign languages and literature, and other humanities); education (subdivided into research and administration, teacher education, teaching fields, and other education); and professional fields (subdivided into business management/administration, communication, and other professional fields). Because field of doctorate is designated by the doctorate recipient, the classification in the SED may differ from that reported by the institution in the NCES Integrated Postsecondary Education Data System (IPEDS) Completions Survey (see [IPEDS chapter](#)).

**Time-to-Doctorate.** There are two standard, published measures of time-to-doctorate. The first measures the total elapsed time between bachelor’s degree receipt and doctorate degree receipt and can only be computed if baccalaureate year is known. The second time-to-doctorate variable gauges the time between entry into graduate school (in any program or capacity, and in any university) and doctoral award. Both of these measures are computed from items in the educational history section of the questionnaire.

**Source of Support.** Any source of financial support received during graduate school. Doctorate recipients are asked to mark all types of support received and to indicate the primary and secondary sources of support. For most SED years, sources are categorized as own/family resources; university related (teaching and research assistantships, university fellowships, college work-study); federal research assistantships (by

agency); other federal support (by mechanism and agency); nonfederal U.S. nationally competitive fellowships (by funding organization); student loans (Stafford, Perkins); and other sources (business/employer, foreign government, state government).

In 1997–98, the number of source options was reduced from 35 to 13. Sources are no longer identified by the specific provider (e.g., federal agency, foundation, loan provider) since students do not always have that knowledge. Only the mechanism of support (e.g., fellowship, research assistantship, loan) is now requested. Most current categories are aggregates of multiple categories in previous questionnaires. For example, the new category “research assistantship” (RA) combines five earlier categories: university-related RA, NIH RA, NSF RA, USDA RA, and other federal RA. The following three categories are new as of 1997–98: grant, internship or clinical residency, and personal savings.

## 4. SURVEY DESIGN

### Target Population

All individuals awarded research doctorates from accredited colleges and universities in the United States between July 1 of one year and June 30 of the following year. Currently, about 49,000 research doctorates are awarded annually by over 420 institutions located in the United States and Puerto Rico. Institutions in other U.S. jurisdictions do not grant research doctorates.

### Sample Design

The SED is a census of all recipients of research doctorates in the United States and Puerto Rico.

### Data Collection and Processing

The data collection and editing process spans a 21-month period ending 9 months after the last possible graduation date (i.e., June 30). The update of the database and preparation of tables for the first data release generally require another 4 to 6 months. From the inception of the SED in 1957–58 through the 1995–96 cycle, the survey was conducted by the National Research Council (NRC) of the National Academy of Sciences. In 1996–97, the SED was conducted by the NRC and processed by the new survey contractor, NORC. NORC has conducted all administrations since. The 1996–97 and 1997–98 administrations are considered a transition period. Not all NRC procedures were implemented in this period, and NORC continues to develop and test new procedures.

**Reference Dates.** The data are collected for an academic year, which includes all graduations from July 1 of one year through June 30 of the following year.

**Data Collection.** In advance of each administration of the survey, the contractor staff reviews the listings of accredited U.S. institutions in the Higher Education Directory to confirm that past participants are still doctorate granting and identify accredited institutions that are newly doctorate granting. As further confirmation of doctorate-granting status, the degree levels offered are checked in the IPEDS Institutional Characteristics data file ([IPEDS chapter](#)). By May of each year, questionnaires are mailed to the institutions for distribution to doctoral candidates who expect to receive their degree between July 1 of that year and June 30 of the following year. Institutional Coordinators are responsible for the distribution, collection, and return of the surveys. They are asked to provide official graduation lists or commencement programs along with the questionnaires and to provide addresses for students who did not complete questionnaires.

The vast majority of completed questionnaires (87 percent in 2008) are hard-copy versions of the SED survey instrument. A web-based SED option was implemented in 2001. Institutions distribute a link to the SED survey registration web page when students apply for graduation. Upon registering, students receive a PIN and password information via e-mail as well as the URL to the web survey instrument. This process enables coordinators to track the SED completion status of students who choose the web option. Utilization of the web option has grown over time, and accounted for 11 percent of the completed SED surveys in 2008. A third mode of data collection, an abbreviated questionnaire administered through computer-assisted telephone interviewing (CATI) that was initiated in 2005, accounted for the remaining 2 percent of completed surveys in 2008.

Upon receipt of a graduation batch, the contractor staff compares the names of students on completed questionnaires (“self-reports”) with the names in the commencement program or official graduation list. Any discrepancies are followed up with the institution for confirmation of graduation. If an address for a nonrespondent is provided by the institution or found through other means, a letter and questionnaire are mailed (or e-mailed) to the individual to request completion of the survey. A second mail/e-mail attempt is made to elicit participation if a response is not received within a month. Telephone solicitations using the CATI SED data collection mode follow the

mail/e-mail efforts. In recent years, these follow-up efforts have yielded enough completed surveys to increase the survey's overall self-report rate by 5 to 7 percentage points.

For doctorate recipients whose survey returns are still missing after these mailings, "skeleton" records are created from information contained in commencement programs or graduation lists: name; doctorate institution, field, and year; similar information for baccalaureate and master's degrees; and sex (if it can be positively assumed from the name). Skeleton records have accounted for 7.3 to 8.8 percent of the records each year during the 2000s. In addition, a small percentage of surveys every year (usually less than 1 percent) are classified as "institutional" returns, having been completed by the institutions with whatever information was available to them. While institutional returns may contain more information than is available from commencement programs, their information is minimal compared to that in the self-reported surveys.

Survey contractor staff undergoes intensive training in the complexities of coding and checking procedures and is monitored throughout the collection cycle.

**Data Processing.** The SED processing includes two special efforts to increase response rates for key items. First, the data entry procedures used by both the NRC and NORC include triggers if any of eight "critical" items is missing: date of birth, sex, citizenship status, country of citizenship (if foreign), race/ethnicity, baccalaureate institution, baccalaureate year, and postdoctoral location. If any of these items is absent, a "missing information letter" (MIL) is generated and sent to the respondent. For these cases, five noncritical items (if missing) are also requested: birthplace, high school graduation year, high school location, master's institution, and year of master's degree.

Then, a second follow-up effort requests the same critical items from the doctorate-granting institutions, both for individuals who never completed a survey (skeletons) and for individuals who completed a survey (self-reports) but did not return the MIL. Because of the lower MIL yield during the transition period, more information was requested from institutions in 1996–97 and 1997–98. Respondents are now asked to provide the name and contact information of a person who is likely to know where they can be reached.

**Editing.** Records are processed through a multilayered edit routine that checks all variables for valid ranges of values and reviews the interrelationships among variables. The NRC performed these edits and the correction of errors online during data entry; then the full data file was processed a second time through

selected edits after survey closure. NORC's computer-assisted data entry (CADE) system also includes built-in range edits, but the interrelationship (consistency) edits are done after CADE is completed and after derived variables are created. There are more than 130 edit tests for the SED: about 20 range edits (all hard, mandatory edits that cannot be overridden) and nearly 120 interrelationship edits. About two-thirds of the interrelationship edits are hard edits. The remaining third are soft edits, which can be overridden after the responses are double-checked and verified as accurate.

The entire battery of edit tests was reviewed during the 1994–95 SED cycle. A large set of interrelationship tests was developed at this time to verify the accuracy of foreign-country coding for the various time frames covered in the survey. Other interrelationship tests check for reasonable time frames in the doctorate recipient's chronology, from date of birth through date of doctoral award. Still others verify that the appropriate items are answered in a skip pattern (e.g., study vs. employment postdoctoral plans).

### Estimation Methods

No weighting is performed since the SED is a census. Some logical assumptions are made during coding and updating of the database. For example, U.S. citizenship is assumed for Ph.D. recipients who designate their ethnicity as Puerto Rican since, legally, Puerto Ricans are U.S. citizens. Entries of "China" in country of citizenship may be recoded to either Taiwan or the People's Republic of China, based on the locations of birthplace, high school, baccalaureate institution, and master's degree institution. Postdoctoral plans are assumed to be employment if items in the employment section are answered and the postdoctoral study section is blank. Postdoctoral study is assumed if the opposite scenario is indicated.

### Recent Changes

During the 1990s, the National Science Foundation asked the NRC to implement several new procedures in an effort to improve both the quantity and quality of the SED data. Since the 1989–90 SED, there has been rigorous follow-up of complete nonrespondents and respondents who do not answer key data items. Race/ethnicity, postdoctoral location, and country of citizenship (if foreign) were first followed up in the 1989–90 cycle, increasing the completeness of these items from that time forward. In the mid-1990s, more than 100 new edit tests were implemented to check the coding of certain foreign countries for specific time frames. In recent years, the survey instrument has been reformatted a number of times to make it more respondent-friendly. Although the content has remained the same, the survey form was expanded

from 4 to 12 pages in 1996, reduced to 8 pages in 2001, expanded to 10 pages in 2007, and expanded again to 12 pages in 2010.

During the 1996–97 cycle, the contract for conducting the SED was transferred from the NRC to NORC; this has brought some changes in procedures, as documented in earlier sections. In addition, the 1997–98 questionnaire included a major revision to the source of support question; the response set was changed from specific providers and mechanisms of support to only mechanisms. The marital status question was also changed in 1997–98 to (1) separate “widowed” from “separated/divorced” and (2) add a new category for “living in a marriage-like relationship.”

### Future Plans

Additional changes to the SED are under consideration, both to capture new data relevant to current issues in graduate education and to collect better data through existing questions.

## 5. DATA QUALITY AND COMPARABILITY

The 1990s brought a reexamination of all operational processes, introduction of state-of-the-art technologies, evaluations of data completeness and accuracy, and renewed efforts to attain even higher response rates for every item in the survey. A Technical Advisory Committee was established to guide the conduct of the SED with a look toward the future. A Validation Study was conducted to assess the limitations of the SED data, and data user groups were convened to advise on survey content. The survey instrument was reformatted to make it more respondent-friendly, and questions were revised in 2004 to collect more complete and accurate information. Beginning with the SED 2004, some Federal sponsor-approved changes were made to the standard questionnaire; questions were added to gather data on additional postsecondary degrees, master’s degree as a prerequisite (formerly a check box and not a separate item), and postdoctoral position. In addition, the Education History items were redesigned and reformatted to ask only for information on completed degrees. Response codes for various items were also modified.

### Sampling Error

The SED is a census and, thus, is not subject to sampling error.

### Nonsampling Error

The main source of nonsampling error in the SED is measurement error. Coverage error is believed to be very limited. Unit and item response rates have been very high and relatively stable since the first survey in 1957–58 (although they were somewhat lower during the transfer of the SED administration to the new contractor).

**Coverage Error.** The SED is administered to a universe of research doctorate recipients identified by the universe of research doctorate-granting institutions. Therefore, undercoverage might result from (1) an incomplete institution universe; and/or (2) an incomplete enumeration of research doctorate recipients. The SED coverage has been evaluated and the undercoverage rate has been found to be less than 1 percent, due to the high visibility of doctorate-granting institutions and a comprehensive approach to data collection.

Every year, the universe of institutions is reviewed and compared to the institutional listings in the *Higher Education Directory* and other sources to determine the current list of doctorate-granting institutions. Any institutions newly determined to be doctorate granting are contacted for verification of doctorate-granting status and then invited to participate in the SED. A few qualifying institutions refuse to participate, but it is known from the IPEDS Completions Survey that these institutions contribute minimally to the overall doctorate population.

Individual doctorate recipients are enumerated through (1) survey forms completed by the new Ph.D. recipients and returned by the institution; (2) transmittal rosters that provide the official count of doctorates, the number of surveys completed and returned, and the names of individuals who did not complete surveys; and (3) commencement programs covering every graduation at an institution over the course of a year. Comparisons of the number of research doctorates in the SED with the total number of doctorates reported by institutions in the IPEDS Completions Survey show that SED’s coverage typically differs from IPED’s by less than 1 percent.

**Nonresponse Error.** Targets have been set for both unit and item response in the SED. While the target rates are not always attained, response has been unusually high for a mail survey throughout the 40-plus years of the SED.

**Unit Nonresponse.** Basic information on non-respondents can be obtained from institutions or commencement programs, so records exist for all recipients of research doctorates. However, response to

the SED is measured by the percentage of doctorate recipients who complete the surveys themselves (*self-report rate*), thus providing details that are not available from any other source. SED's goal is a stable self-report rate of 95 percent. This rate has been achieved or surpassed in all but 21 of the 51 surveys processed to date (through the 2008 SED). Response first fell below the target rate in 1986 and stayed low throughout the rest of the 1980s, at which time site visits and intensive follow-up procedures were initiated in an effort to increase the percentage of self-reported questionnaires. Response achieved the target level from 1990 to 1995 but has remained below target from 1996 to 2008 (ranging from 91.2 to 92.9 percent).

Because the SED is administered through doctorate-granting institutions, the self-report rate is dependent upon their overall cooperation and survey practices. Nonresponse tends to be concentrated in a small group of institutions. In the 2008 SED, 1 percent of the 421 doctorate-granting institutions accounted for 13 percent of the total nonrespondents, and the 19 percent of institutions with the highest nonresponse accounted for 65 percent of the total nonrespondents.

To improve tracking of institution response rates, NORC has devised an "early warning system" to identify institutions whose self-report rates lag behind the goal of 90 percent. Estimates for each seasonal graduation are developed based on the numbers for an institution's graduations in previous years. This system also allows monitoring of institutions with specific substantive interest for the SED (e.g., engineering schools, institutions awarding doctorates to large numbers of racial/ethnic minorities).

*Item Nonresponse.* Certain items are available for all doctorate recipients, whether or not they complete a questionnaire: name, doctorate institution, field of doctorate, month and year of doctoral award, and type of doctorate. This information is always provided by the institution in its commencement program or graduation list.

A 95 percent target is set for eight "critical" items: date of birth, sex, citizenship, country of citizenship (if foreign), race/ethnicity, baccalaureate institution, baccalaureate year, and postdoctoral location. From the 1989–90 SED (when rigorous follow-up of these items began) to the 1995–96 SED, all items but postdoctoral location achieved response rates above 95 percent. Rates for all critical items except sex and foreign country of citizenship fell below this goal in the 1996–97 and 1997–98 SED administrations, the transition period between contractors. In the 2008 administration,

all of the critical items except sex achieved response rates below 95 percent.

Critical items are followed up through letters to self-reporting survey respondents and through requests to institutions for Ph.D. recipients who did not complete questionnaires. Thus, the response rates for these items often exceed the overall self-reporting rate for the survey. Because information can be obtained from sources other than the doctorate recipients, item response rates for the SED are computed on the universe of recipients, whether or not they responded to the survey.

*Measurement Error.* Most measurement error in the SED results from respondents' misinterpretation of questions or limited recall of past events. The 1994 Validation Study sought to determine the limitations of the SED data. Think-aloud interviews were conducted with recent Ph.D. recipients, who were asked to complete a second survey form within a few months of their original survey submission. The question on sources of support caused the most difficulty; few Ph.D. recipients responded exactly as they did in the initial survey. Problems with this item were confirmed by focus group discussions and comparisons of the SED results with raw data obtained from organizations that fund the various types of support. The source of support question was revised in the 1997–98 SED to request only the mechanism of support (e.g., research assistantship, fellowship, loan) rather than the actual source of funding (e.g., NSF, NIH), which some students do not know.

Interviewees were sometimes confused about the educational history section of the survey, thinking that information on short-term attendance at a school or attendance not leading to a degree was not required. Others were unsure about whether or not to include the time spent working on their dissertations. Such inconsistencies have an impact on time-to-doctorate computations. To address these issues, several new questions on time to degree were added to the 2001 SED.

Several interviewees also had difficulty responding to the questions on postgraduation plans because, although they currently had a job, they wanted to indicate that they were still seeking a position that would satisfy their aspirations. These comments led to discussions among sponsors and other data users about the intent of the postdoctoral questions and what information is most relevant for policymaking.

### **Data Comparability**

Because a prime use of the SED data is trend analysis, tremendous efforts have been made to maintain

continuity of survey content. Five new items have been added since 2001: the basic annual salary for graduates with definite employment plans in the coming year, the level of tuition remission/waiver received during doctoral study, past enrollment in community college, master's degree as prerequisite for doctoral degree, and past or pending D.D.S. or M.D. degree. Occasional changes have been made to item response categories, sometimes affecting the comparability of data over time. For example, in 2001 the racial background question was changed to allow respondents to choose more than one option. In 2004 the education history questions were reformatted to ask specifically for information about the Ph.D., most recent master's degree, and first baccalaureate degree, and an additional question now asks about degrees earned beyond those three. For the items on disability status and debt level, format changes have occurred frequently enough to make comparisons with earlier years unreliable.

An additional modification was made to the 1997–98 questionnaire, affecting the sources of support item. The response set was overhauled to request information on only the mechanism of support (e.g., research assistantship, fellowship, loan) rather than mechanism *and* funder (e.g., NIH RA, NSF RA, university fellowship, NSF fellowship, Ford Foundation fellowship, Stafford loan, Perkins loan). As noted under Measurement Error above, focus groups and comparisons of the SED results with raw data obtained from organizations that fund the various types of support revealed that students do not always know the actual source of their support. The 1997–98 response set for the item on sources of support also includes three new categories: dissertation grant, internship/residency, and personal savings.

This major change has broken the time series for the sources of support item except for selected sources. NORC mapped the pre-1998 response categories to the new response set and then compared the 1997–98 distribution of responses to earlier distributions back to 1990. Significant shifts were observed in the proportions for some categories, raising concerns about whether the new code frame accurately captures the desired information on sources of support and suggesting the need for more cognitive work in this area. Therefore, users should be cautious about making generalizations regarding the financing of doctoral education over time.

Another comparability issue for the SED involves changes (generally, additions) made over the years to the survey's Specialties List, which is used to code fields for degrees, postdoctoral study, and employment.

Because any specialties added to the list would have been coded into an "other" category (e.g., other biological sciences) in previous surveys, users should be careful in their interpretation of time-series field data at the most disaggregated level. The historical changes in the Specialties List are documented in *Science and Engineering Doctorates: 1960–91* (National Science Foundation 1993) and the subsequent series, [Science and Engineering Doctorate Awards](#) (Hill 2000).

While both unit and item response rates in the SED have been relatively stable through the years, fluctuations can affect data comparability. This is especially important to consider when analyzing data by citizenship and race/ethnicity, where very small fluctuations in response may result in increases or decreases in counts that do not reflect real trends. New procedures implemented in the early 1990s had a significant positive impact on response to these two items as well as to the items on foreign country of citizenship and postdoctoral location, making the data from 1990 to 1996 better in both quantity and quality than data from the late 1980s. Item response for citizenship and race/ethnicity has since fallen to the level of 1990 and earlier years, and item response for postdoctoral location is lower than in most years in the 1990s. Response to country of citizenship among non-U.S. citizens fell 3 percentage points (to 94.3 percent) in the first transition year (the 1997 SED) and has failed to return to pretransition levels.

The reformat of the questionnaire in 1995–96, described in earlier sections, resulted in substantial increases in response to primary source of support, postdoctoral work activity, and postdoctoral employment field. Users should take these changes into account when analyzing trends.

**Comparisons with IPEDS.** The IPEDS Completions Survey also collects data on doctoral degrees, but the information is provided by institutions rather than by doctorate recipients. The number of doctorates reported in the IPEDS Completions Survey is slightly higher than in the SED. This difference is largely attributable to the inclusion in the IPEDS Completions Survey of nonresearch doctorates, primarily in the fields of theology and education. The differences in counts have been generally consistent since 1960, with ratios of IPEDS-to-SED counts ranging from 1.01 to 1.06. Because a respondent to the SED may not classify his or her specialty identically to the way the institution reports the field in the IPEDS Completions Survey, differences between the two surveys in the number of doctorates for a given field may be greater than the difference for all fields combined.

## 6. CONTACT INFORMATION

The National Science Foundation is the Systems Manager of Record for the Survey of Earned Doctorates. The micro-data can be used by institutions that enter into licensing agreements with NSF. The persons to contact concerning this are:

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## 7. METHODOLOGY AND EVALUATION REPORTS

### General

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