Attachment A

NSF Act of 1950
and
America COMPETES Reauthorization Act of 2010

NSF Act of 1950

Only includes the relevant sections of the legislation address the circumstances making the collection of information on the Survey of Doctorate Recipients necessary.

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

(3) 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.

America COMPETES Reauthorization Act of 2010

Only includes the relevant sections of the legislation that address the circumstances making the collection of information on the Survey of Doctorate Recipients necessary.

America COMPETES Reauthorization Act of 2010

H. R. 5116—26

SEC. 505. NATIONAL CENTER FOR SCIENCE AND ENGINEERING STATISTICS.

(a) ESTABLISHMENT. – There is established within the Foundation a National Center for Science and Engineering Statistics that shall serve as a central Federal clearinghouse for the collection, interpretation, analysis, and dissemination of objective data on science, engineering, technology, and research and development.

1.

(b) DUTIES. – In carrying out subsection (a) of this section, the Director, acting through the Center shall –

2.

(1) collect, acquire, analyze, report, and disseminate statistical data related to the science and engineering enterprise in the United States and other nations that is relevant and useful to practitioners, researchers, policymakers, and the public, including statistical data on –

(A) research and development trends;

3.

(B) the science and engineering workforce;

(C) United States competitiveness in science, engineering, technology, and research and development; and

(D) the condition and progress of United States STEM education;

(2) support research using the data it collects, and on methodologies in areas related to the work of the Center; and

4.

(3) support the education and training of researchers in the use of large-scale, nationally representative data sets.

(c) STATISTICAL REPORTS. – The Director or the National Science Board, acting through the Center, shall issue regular, and as necessary, special statistical reports on topics related to the national and international science and engineering enterprise such as the biennial report required by section 4(j)(1) of the National Science Foundation Act of 1950 (42 U.S.C. 1863(j)(1)) on indicators of the state of science and engineering in the United States.

Attachment B

2015 Survey of Doctorate Recipients: Sample Design and Implementation Report

2015 SURVEY OF DOCTORATE RECIPIENTS:

Sample Design and Implementation

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1 Overview of the 2015 SDR Sample Design

Since its inception in 1950, the National Science Foundation (NSF) has been charged to provide a central clearinghouse for the collection, interpretation and analysis of data on scientific and technical resources in the United States, and provide a source of information for policy formulation by other federal agencies. The Survey of Doctorate Recipients (SDR) has been an important means for the NSF to accomplish this objective. Conducted biennially since 1973, the SDR follows a sample of U.S.-trained doctorates in science, engineering, and health (SEH) fields throughout their careers, from shortly after degree award through age 75. The SDR is widely used by the U.S. Congress and Federal agencies, universities and professional societies, and other organizations and individuals interested in the nation's education, supply, and employment of doctorate recipients in SEH fields. Employers in universities, industry, and government sectors also use the SDR to understand and predict trends in employment opportunities and salaries for SEH doctorates.

The traditional target population of the SDR includes individuals who meet the following requirements:

- Received a doctoral degree in an SEH field from a U.S. institution;
- Age 75 years or younger on survey reference date; and
- Living in a noninstitutionalized setting on the survey reference date.

The SDR has historically featured a stratified systematic sample design, where the strata are defined by degree field, gender, race and ethnicity, citizenship, disability status, and other relevant demographic variables. The SDR sample design has undergone some significant modifications over the years in response to changes in its analytical objectives and budgetary constraints. For example, the number of strata has been reduced from over 1,000 in the early cycles to 150 as a result of the 2003 redesign. The target population of the SDR has also been redefined several times over the life course of the survey. For example, doctorates awarded in humanities were once part of the target population. Furthermore, prior to the 2003 survey cycle, the SDR restricted data collection to U.S. residents only. SEH doctorates who resided outside the U.S. on the survey reference date were excluded from the target population of the survey.

In addition to the sample redesign, the 2003 SDR included a methodological experiment which showed that data collection from international residents is operationally feasible.[1] From the 2006 cycle, the SDR sample consisted of two relatively independent components: the national SDR (NSDR) and the international SDR (ISDR).[2] While the NSDR covers doctorates residing in the U.S., the ISDR targets those residing outside of the U.S. For the 2010 SDR, the NSF decided to integrate the NSDR and ISDR to create a unified survey of U.S. trained SEH doctorates regardless of residential location.[3] The integrated sample design developed for the 2010 SDR was maintained for the 2013 SDR.[4]

The 2013 SDR features a total of 194 strata, including 150 NSDR strata and 44 ISDR strata. The NSDR strata are defined by degree field, gender, race and ethnicity, citizenship at birth, and disability status; the ISDR strata are defined by degree field, gender, race and ethnicity, and citizenship at birth. These strata were defined to align with the analytical domains used in official publications as well as those used by SDR data users.

The 2015 SDR features a substantial sample size expansion and sample redesign in response to a set of updated analytical objectives and requirements. The sample size is increased from 40,078 cases in 2013 to 120,000 cases in 2015. The main objective of this expansion is to support reliable estimates of employment outcomes by the fine field of degree (FFOD) taxonomy used in the Survey of Earned Doctorates (SED). With the marked increase in the overall sample size, the traditional SDR estimation capabilities are also expected to increase. As directed by the NSF, the overarching 2015 SDR sample design objectives are twofold:

- First, the expanded SDR is required to produce reliable estimates of employment outcomes by the fine field of degree taxonomy used in the SED;
- Second, the expanded sample is expected to maintain the existing estimation capabilities associated with analytical domains defined by various demographic characteristics and currently used in National Center for Science and Engineering Statistics (NCSES) publications such as Science and

[1] Grigorian, Karen and Tom Hoffer (2005). Non-U.S. Citizen Undercoverage Feasibility Study Report. Report submitted to the National Science Foundation by the National Opinion Research Center at the University of Chicago, Chicago, IL.
[2] Cox, Brenda G., Karen Grigorian and Michael Yang (2006). The 2006 International Survey of Doctorate Recipients (ISDR): Sample Design. Report submitted to the National Science Foundation by Battelle under subcontract to the National Opinion Research Center at the University of Chicago, IL.
[3] Cox, Brenda. G., Karen Grigorian, Fang Wang, and Rebecca Wang (2012b). 2010 Survey of Doctorate Recipients: Sample Design and Implementation. Report submitted to the National Science Foundation by the National Opinion Research Center at the University of Chicago, Chicago, IL.
[4] Cox, B. G., K. Grigorian, Y.M. Yang, M. Sinclair, 2013. 2013 Survey of Doctorate Recipients: Sample Design and Implementation. Prepared for the National Science Foundation, January 2013. Chicago, IL: NORC.

Engineering Indicators , Women, Minorities and People with Disabilities report, and detailed data tables.

For more detailed discussions of the 2015 SDR sample design objectives, please refer to the attached document "Requirements of Sample Expansion and Sample Redesign of the Survey of Doctorate Recipients" and its addendum, both can be found in Appendix A.

The expansion of the SDR, along with its new estimation objectives, required a significant redesign of the SDR sample. As specified by the NSF, the broad objectives of the SDR redesign include meeting the newly defined estimation objectives, resolving any longstanding sampling issues to improve efficiency, creating a more unified sample design which eliminates the NSDR and ISDR distinction, and constructing a flexible and sustainable design for the growing demands of SDR data.

The NSF and NORC conducted extensive research in order to meet these new requirements. Many design options were considered, simulated, and reviewed during the course of the research. Appendix B contains comprehensive discussions of these options. Upon evaluating all these options, the NSF decided to select a fresh new sample from a new sampling frame constructed from the original Doctorate Record File (DRF). By so doing, the existing SDR panel will cease to exist after the 2013 cycle and a new panel will start from the 2015 cycle. The main advantage of a fresh new sample is its unparalleled simplicity as it eliminates all the sample frame, sample design, and database maintenance complexity accumulated over the past 40 years under the old design. The drawback of a fresh new sample design, however, is the interruption of a prominent longitudinal data series.

This report documents the 2015 SDR sample design and selection procedures. Section 2 summarizes the major sample design changes from the previous cycle. The remaining sections discuss in detail the main parameters of the 2015 SDR design. Section 3 describes the frame construction process which is considerably different from the prior cycles because a completely new frame is required under the fresh new sample approach. Section 4 presents the 2015 SDR sample design, including sample size, sample stratification, and sample allocation procedures under the new sample design to meet the new analytical objectives. Section 5 describes the sample selection procedures, including methodical oversampling of the traditional SDR analysis domains under the new design. Section 6 briefly discusses how the SDR design will be maintained in 2017 and beyond. Finally, Section 7 provides some concluding remarks regarding data processing procedures under the 2015 design.

2 Sample Design Changes from the 2013 Cycle

The changes between the 2013 and 2015 SDR sample designs are substantial. Design changes in a longitudinal study such as the SDR must be documented so that data users can properly analyze the data and interpret their findings, especially when they employ SDR data from multiple cycles with different sample designs. Before presenting the 2015 SDR sample design and implementation in detail, this section highlights the most significant sample design changes from the 2013 SDR and their implications for analysts, as follows.

- Through the 2013 cycle, the SDR had been a longitudinal survey with a significant panel component. Well over 90 percent of the previous cycle sample is retained in the current cycle sample. With a fresh new sample selected from a newly constructed sample frame, the 2015 SDR no longer retains the previous panel, i.e., no explicit longitudinal panel is automatically carried forward from the 2013 sample. Through oversampling, about one third of the 2013 SDR panel cases is included in the 2015 SDR sample. In general, however, the 2015 sample does not support longitudinal analyses. It practically represents the starting point of a new panel sample.
- The 2015 SDR sample frame is constructed afresh from the most recent version of the DRF. In the past, the SDR sample frame at each cycle consists of two components: the panel (old cohort frame) from the previous cycle and the new cohort doctorates awarded after the previous cycle (new cohort frame). Note that the old cohort frame is a secondary frame because it is a sample itself. Conceptually, the 2015 SDR frame contains three components: (1) the 2013 SDR sample that remains eligible for the 2015 SDR (*n*=45,936); (2) the new cohort cases from the 2012 and 2013 SEDs, and (3) the 2015 "expansion cohort" (*n* = 979,526) constructed from the 2013 DRF. The expansion cohort is made up of the following:
  - Those that were selected into the SDR sample but later dropped from the panel due to ineligibility discovered during subsequent SDR data collection, including the deceased, no degree earned, and maintenance cut, i.e., deselection from the sample during the 1995-2013 cycles;
  - Those that were eligible for sample selection but were never selected during the past cycles;
  - Those that had been ineligible for selection based on previous target population definitions.
- The 2015 sample size is increased to 120,000 cases from a sample size of 47,078 for the 2013 SDR cycle.

- Instead of defining the sampling strata by degree field and demographics, as had been the case in the past, the 2015 SDR strata are defined by fine field of degree alone, reflecting the emphasis on the new analytical objectives at the fine field level.
- The 2013 SDR sample allocation is mostly proportional, with additional allocation to small domains to guarantee a minimum sample size for these domains. The 2015 SDR sample allocation involves a two-step process to achieve a compromise between the two sets of analytical goals: the first step allocation to the fine fields is intended to meet the analytical goals at the fine field level; the second step allocation by the broad field of degree is designed to maintain and improve the existing analytical capabilities by the traditional analysis domains. The result is a much more disproportional allocation across the explicit sampling strata. Based on the variation of the base weight, the overall 2015 SDR design effect is 1.59, while the 2013 overall design effect is 1.09.
- Under the 2015 design, the traditional analytical capabilities are maintained through oversampling women and underrepresented minorities (URM). The 2013 panel cases were also oversampled to support limited longitudinal analysis. For the key traditional SDR domains, a series of tables in Appendix C compares the coefficient of variation for a typical sample estimate between the 2013 and 2015 SDRs. With rare exceptions, the 2015 SDR is projected to achieve better precision than the 2013 SDR.

3 Sample Frame Construction

The 2015 SDR employed a completely new original sample frame constructed from the DRF. This section discusses the frame construction procedures in detail. The goals of frame construction are twofold: one is to include all doctorates in the target population so they all have a non-zero probability of being selected into the sample; the other is to define auxiliary frame variables to support sample design and survey operations. Subsection 3.1 discusses the identification of frame cases; subsection 3.2 discusses the construction of key frame variables. The layout of the frame file is presented in Appendix D.

3.1 Identifying Frame Cases

Prior to the current expansion, the SDR sample of each cycle consists of two components: an old cohort sample and a new cohort sample. While the new cohort sample is selected from the new cohort portion of the frame, the old cohort sample is selected from the old cohort frame that is composed of the previous cycle's sample. That is, the old cohort frame is a so-called secondary frame rather than an original frame constructed from the DRF. The old cohort frame represents the old cohort population through the base weight, and the old cohort sample represents the longitudinal panel that gets updated at each cycle through maintenance cut. Given the sample expansion, however, the 2015 SDR needs to redefine its sampling frame from the original DRF because a fresh new sample requires a fresh new sampling frame. The DRF is a database that contains educational information for all doctorate recipients from U.S. universities since 1920. The DRF is updated annually based on the SED which collects information annually from all doctorates awarded by U.S. institutions about their educational history, funding sources, and post-doctoral plans.

The target population for the 2015 SDR remains the same as the previous cycle except for the addition of the new cohort doctorates awarded in academic years 2012 and 2013. Specifically, it includes individuals who meet the following requirements regardless of residency location:

- Received a doctoral degree in an SEH field from a U.S. institution;
- Seventy five years of age or younger on 1 February 2015; and
- Living in a noninstitutionalized setting on 1 February 2015.

The final 2015 SDR sampling frame includes 1,102,985 cases, consisting of six groups of doctorates, as shown in Table 3.1, based on their historical relationship with the existing SDR design. These six groups may be combined into three broad categories: the panel, the new cohort, and the expansion cohort, as described below.

TABLE 3.1 The Six Groups of 2015 SDR Frame

Cohort	Frame Group	Description	SED Academic Years (AY)	Number of Cases
Panel	1	2013 SDR sample cases that remain eligible for 2015 SDR	1960-2011	45,936
Expansion Cohort	2	Permanently ineligible cases determined in past cycles of the SDR accrued since 1973 forward (i.e., deceased, no degree earned, non-U.S. citizens located abroad 2 cycles in a row)	1964-2011	2,292
	3	Maintenance cut cases removed from the sample during 1995-2013 sample selection (proportionally deselected regardless of response outcome)	1960-2009	64,532
	4	Eligible for primary selection from SED 1960-2011, but not selected	1959-2011	859,891
	5	Not eligible for primary selection from SED 1975-2000 that are now considered eligible (i.e., new graduates with plans to leave the U.S. after degree award)	1975-2000	52,811
New Cohort	6	New cohort cases from SED 2012 and 2013	2012-2013	77,523
Total				1,102,985

The panel portion of the frame is identified from the 2013 SDR sample of 47,078 doctorates. Of these cases, 45,936 meet the target population definition and are included in the 2015 sample frame. There are 893 cases determined to be out of scope for the 2015 frame based on information available in the DRF; 887 cases determined to be out of scope due to age ineligibility and 6 cases classified as double doctorates. There are an additional 249 cases known to be out of scope for the SDR based on information available from the 2013 SDR. These 249 cases are transferred to the eligible expansion frame case set and give a chance at selection. Unlike past cycles, the panel cases on the 2015 frame no longer carry a base weight; they represent no other cases other than themselves on the frame.

The expansion cohort is constructed from the 2013 DRF. These doctorates are needed on the 2015 frame because they are no longer represented by the panel cases through the base weight, as it was the case in prior SDR cycles. The expansion cohort frame consists of four groups of cases:

- **Permanently ineligible cases (Group 2):** These are cases that had been selected into the SDR sample in a previous cycle but were later dropped from the sample due to ineligibility discovered

during subsequent SDR cycles. These include the deceased, those with no eligible degree, and non-U.S. citizens located abroad for two consecutive SDR cycles. NSF decided to include these known ineligible cases on the frame to simplify database maintenance as these cases, if dropped from the frame, will need to be brought back during post-survey data processing.

- **Maintenance cut cases (Group 3):** These are the cases that have been dropped from the SDR old cohort sample during 1995-2013 through random subsampling to maintain a stable sample size. Without such maintenance cut, the SDR sample size would have increased over time due to the addition of a new cohort sample at each cycle.
- **Non-selected cases (Group 4):** These are doctorates that had been eligible for sample selection but were never selected into the SDR sample in the previous cycles.
- **Previously ineligible cases (Group 5):** These are doctorates that were not eligible for the SDR based on previous target population definitions, i.e., new graduates with plans to leave the U.S. after degree award. These cases are eligible for the 2015 SDR.

The 2015 new cohort frame includes 38,140 cases from the 2012 SED and 39,383 from the 2013 SED. To ensure that all frame cases in these groups are defined consistently, only data available in the 2013 DRF are used as inputs, with the only exception being that data collected in previous SDR cycles are used to determine age eligibility.[5] The protocols for building the 2015 new cohort frame variables are applied to all eligible cases in the 2015 SDR sampling frame and are described in Section 3.2.

For each frame component, Table 3.2 shows the frequency of eligible and ineligible cases for all records in the 2013 DRF. This table accounts for eligible cases as well as cases determined to be ineligible for inclusion on the 2015 SDR frame. The final 2015 SDR frame contains 1,102,985 cases.

[5] Six cases—5 in the expansion cohort and 1 in the panel—are coded as "age eligible" and included in the 2015 frame based on SDR data although the DRF indicates that they are ineligible.

TABLE 3.2 2015 SDR frame eligibility status for all cases in the 2013 DRF

2015 SDR Frame Status		Sample Frame Component			Overall
		2013 Panel*	Expansion Cohort	New Cohort	
Eligible					
00	Frame Eligible	45,936	979,526	77,523	1,102,985
Ineligible					
01	Age ineligible	887	222,251	8	223,416
03	Deceased, according to the DRF	0	780	14	794
11	Non-SEH doctoral degree field	0	642,287	26,143	668,430
13b	Double Doc; first SEH doctorate earned before SED 2012/2013	6	261	49	316
Overall		**46,829**	**1,845,105**	**103,737**	**1,995,971**

* The 2013 SDR sample included 249 cases determined to be ineligible for the 2015 SDR based on information obtained during the 2013 survey. Most are known deceased cases. These cases are included in the 2015 SDR eligible frame shown here in the Expansion cohort case count and are given a chance of selection. If selected, these will be immediately finalized with an ineligible outcome for the 2015 cycle.

3.2 Construction of frame variables

Frame variables are used to support the sample design, including stratification variables, sorting variables, and sample selection variables. All frame variables are constructed from DRF data with age as the only exception. The primary variables used to stratify, sort, or assess eligibility for the 2015 SDR frame are as follows:

- PHDFIELD – doctorate degree field reported in the SED
- SDRFLD15 – based on PHDFIELD, aggregated recoding of the doctorate degree field
- PHDFY – year of doctorate degree award reported in the DRF
- CENTURY – based on PHDFY, the century of doctorate degree award
- RACETH15 and RACE15– these are racial group assignment derived from ethnicity and race data reported in the DRF; the component variables from the DRF are renamed ASIAN15, BLACK15, HISPANIC15, NATIVE15, PACIFIC15, and WHITE15 in the frame
- URM15 – based on RACETH15, underrepresented minority status
- BIRCIT15 – citizenship at birth based on data reported in the DRF

- SEX15 – gender reported in the DRF
- LOCSTAT15– predicted residency location based on information provided in the SED at the time of degree award
- AGE15 – age of each frame member relative to the 2015 SDR reference date based on age data reported in the DRF

When frame variables have missing data in the DRF, they are systematically imputed using a set of imputation rules. Therefore, constructing the frame variables amounts to imputing missing data on these variables. Missing data in the following frame variables are imputed: RACETH15, URM15, SEX15, LOCSTAT15, BIRCIT15, and AGE15. PHDFY and PHDFIELD are key design variables that do not contain any missing data on the DRF.

The details associated with each of these critical frame variables is described below including the imputation rules and the amount of missing data for each of the frame variables where applicable.

PHDFIELD and SDRFLD15. PHDFIELD is used to define the 2015 SDR sampling strata, and SDRFLD15 is used to support sample allocation as well as sample selection. PHDFIELD is never missing in the DRF, so no imputation is required for this variable. Since SDRFLD15 is derived from PHDFIELD, no imputation is required for SDRFLD15 either. The NSF required that all PHDFIELDs that represented fields of degree obtained in the 21st century (i.e. from academic year 2001 and later) be included in the frame and be used to form sampling strata. There are 36 eligible SEH fine fields of degree that are recorded in the DRF but were discontinued before academic year 2001. Under the 2015 design, each fine field of degree is its own sampling stratum, but these "20th century-only" fine fields are grouped together to form a single composite stratum. These discontinued fields contain a total of 26,825 cases. Table 3.3 details these discontinued fields of degree, displaying their codes, descriptions and period in which sample-eligible frame members earned degrees in those fields.

TABLE 3.3 20th Century discontinued fields of study[a] in 2015 SDR Frame

PHDFIELD Code	Fine field of degree	Years in DRF	Number of Cases
007	Animal Husbandry	1962-1982	565
032	Plant Protection/Pest Management	1988-1991	13
040	Food Sciences	1969-1989	1,720
042	Food Distribution	1994-1994	1
045	Soil Sciences	1968-1988	1,284
054	Fish and Wildlife Science	1964-1982	679
060	Wildlife	1983-1988	142
065	Forestry Science	1964-1988	1,309
140	Hydrobiology	1964-1979	132
156	Microbiology/Bacteriology	1961-1982	4,651
171	Genetics	1961-1982	1,918
186	Animal/Plant Physiology	1960-1960	1
205	Dentistry	1968-1968	1
219	Public Health/Epidemiology	1966-1982	973
224	Hospital Administration	1967-1977	37
225	Medical/Surgery	1964-1976	25
235	Optometry/Ophthalmology	1966-1966	1
322	Electrical Engineering	1961-1985	7,157
323	Electronics Engineering	1961-1983	1,081
354	Naval Architecture/Marine Engineering	1983-1991	64
506	Astronomy/Astrophysics	1962-1969	147
521	Agricultural/Food	1965-1979	221
545	Geophysics, Solid Earth	1962-1976	428
547	Fuel Technology/Petroleum Engineering	1967-1979	70
549	Mineralogy/Petrology/Geological Chemistry	1963-1969	95
554	Applied geology	1969-1991	279
555	Applied Geology/Geological Engineering	1965-1968	18
562	Electron Physics	1984-1991	23
563	Electromagnetism	1961-1979	135
567	Mechanics	1961-1976	50
573	Thermal Physics	1961-1981	161
575	Theoretical Physics	1961-1962	2
619	Human Engineering	1966-1966	1
679	Political Science/Public Administration	1960-1976	3,441
		Total of 20th century discontinued fields	26,825
		Total of 21st century fields	1,076,160
		Overall	1,102,985

[a]Two additional PHDFIELDS, Textile Engineering (375) and Experimental/Comparative & Physiological Psychology (616) were also identified as discontinued fields. However, no frame case with these PHDFIELDS was age eligible for selection into the 2015 SDR.

Table 3.4 presents the full distribution of SDRFLD15. Please see the field of study coding taxonomies crosswalk in Appendix E for the collapse of PHDFIELD into SDRFLD15.

TABLE 3.4 Frame Distribution of SDRFLD15

SDR Field	Total Cases	2013 Panel	Expansion Cohort	New Cohort
Chemistry	91,847	3,726	83,212	4,909
Physics/Astronomy	65,215	2,587	58,284	4,344
Earth/Ocean/Atmospheric Sciences	29,405	1,312	26,376	1,717
Mathematics	55,147	2,234	48,971	3,942
Computer/Information Sciences	31,530	1,434	26,358	3,738
Agricultural Sciences	43,898	1,782	39,781	2,335
Medical Sciences	49,856	2,357	42,648	4,851
NIH Biological Sciences	112,094	4,651	99,048	8,395
Other Biological Sciences	111,123	4,681	97,940	8,502
Psychology	148,409	6,030	134,603	7,776
Economics	45,983	1,916	41,396	2,671
Anthropology/Archaeology/Sociology	42,754	2,043	38,034	2,677
Other Social Sciences	64,454	2,710	57,251	4,493
Electrical/Electronics/Communications Engineering	59,871	2,545	52,410	4,916
Other Engineering	151,399	5,928	133,214	12,257
Overall	1,102,985	45,936	979,526	77,523

PHDFY and CENTURY. PHDFY represents the academic year (called 'fiscal year' in the SED) of doctoral receipt. This variable is used to define the new cohort. It is also used to construct the CENTURY indicator as one of the sorting variables to support systematic sample selection. For cases earning a degree in the 20th century (PHDFY<2001), CENTURY is set to "20"; and those earning their degree in the 21st century (PHDFY≥2001) are set to "21." Since 1958, when the SED began to field its annual survey, PHDFY is never missing. Therefore, PHDFY and CENTURY contain no imputed data. Tables 3.5 and 3.6 illustrate the distribution of these variables in the final frame.

TABLE 3.5 PHDFY Distribution by Cohort

PHDFY	2013 Panel	Expansion Cohort	New Cohort	Total Cases
1959-1969	812	24,702	0	25,514
1970-1979	5,322	153,116	0	158,438
1980-1989	7,174	188,901	0	196,075
1990-1999	10,704	259,931	0	270,635
2000-2009	17,690	285,296	0	302,986
2010-2011	4,234	67,580	0	71,814
2012-2013	0	0	77,523	77,523
Overall	45,936	979,526	77,523	1,102,985

TABLE 3.6 CENTURY Distribution by Cohort

PHDFY	2013 Panel	Expansion Cohort	New Cohort	Total Cases
20th century	25,218	653,166	0	678,384
21st century	20,178	326,360	77,523	424,601
Overall	45,936	979,526	77,523	1,102,985

RACETH15, RACE15 and URM15. RACETH15 represents race and ethnicity, and URM15 represents underrepresented minorities. They are constructed from the separate race/ethnicity variables ASIAN15, BLACK15, HISPANIC15, NATIVE15, PACIFIC15, and WHITE15 after they are imputed. RACE15 represents racial group independent of ethnicity and collapses individuals selecting more than one race as multiracial.

There is a considerable amount of imputation in the 2015 SDR racial variables. Data on race and ethnicity are entirely missing before 1973 since the SED only started collecting this data with the 1973 cycle. In addition, the racial category of "Native Hawaiian/Pacific Islander" did not exist in the SED until the 2001 survey. The NSF-approved rules for assigning race and ethnicity are as follows:

1. Use reported data from the SED;
2. When ethnicity is missing, use the U.S. Census Bureau Hispanic surname list and impute any matches as Hispanic ethnicity (if race is also missing and the surname is Hispanic, impute the race to white);[6]
3. When race is missing, and ethnicity is either missing or non-Hispanic, use the GENESYS Asian surname list[7], and logically impute any matches as NH Asian;
4. When ethnicity is still missing, but race is reported, use place of birth to logically impute ethnicity;
5. When race and ethnicity are both still missing, use place of birth to logically impute race and ethnicity;

[6]The 2015 new cohort cases and 2015 panel cases that joined the panel in the 2013 survey round were updated using the Hispanic surname list based on the 2000 U.S. Census available as of 2011 located at http://www.census.gov/genealogy/www/data/2000surnames/index.html. The 2015 panel cases that joined the panel prior to the 2013 survey round were updated using the Hispanic surname list based on the 1990 U.S. Census.
[7] Market Systems Group provides the GENESYS Sampling Systems suite of sampling tools, which includes this algorithm that matches surnames to an Asian surname list for a nominal fee (http://www.m-s-g.com/Web/genesys/index.aspx).

6. When race and ethnicity are both still missing and place of birth is missing, impute to NH white.

The crosswalk of birth places to race and ethnicity imputation assignments is located in Appendix F, Table F2. The sources for race and ethnicity data in the 2015 SDR frame are detailed in Tables 3.7 and 3.9.

TABLE 3.7 Race Data Sources: 2015 SDR Frame

Race Data Source	Total Cases	2013 Panel	Expansion Cohort	New Cohort
Self-reported	947,363	39,825	836,286	71,252
Surname imputation (Asian)	15,588	549	13,601	1,438
Birthplace imputation	95,403	3,854	90,790	759
Hot deck imputation	0	0	0	0
Default imputation (white)	44,631	1,708	38,849	4,074
Overall	1,102,985	45,936	979,526	77,523

After all missing data on race are imputed, the variable RACE15 is created to tabulate race classifications independent of ethnicity. In cases where one race is identified, the value of RACE15 is assigned to that race. Otherwise, in cases where self-report indicates more than one race, RACE15 is assigned to '6' for "more than one race". The frequencies of RACE15 are shown in Table 3.8 below.

TABLE 3.8 Frame Distribution of RACE15

Ethnicity Data Source	2013 Panel	Expansion Cohort	New Cohort	Total Cases
Asian	11,095	228,920	24,727	264,742
Black	2,605	29,599	3,398	35,602
Native	199	2,646	287	3,132
Pacific	84	696	112	892
White	31,414	712,301	47,263	790,978
More than one race	539	5,364	1,736	7,639
Overall	45,936	979,526	77,523	,102,985

TABLE 3.9 Ethnicity Data Sources: 2015 SDR Frame

Ethnicity Data Source	Total Cases	2013 Panel	Expansion Cohort	New Cohort
Self-reported	962,550	40,837	850,247	71,466
Surname imputation (Hispanic)	3,552	199	3,068	285
Birthplace imputation	87,032	3,221	83,279	532
Hot deck imputation	0	0	0	0
Default imputation (non-Hispanic)	49,851	1,679	42,932	5,240
Overall	1,102,985	45,936	979,526	77,523

RACETH15 is defined in the following hierarchical manner:

- If a case is Hispanic or Latino, assign the case to the Hispanic value regardless of race;
- If a case is not Hispanic (NH) and is black, assign the case to the NH black regardless of other race selections;
- If a case is not Hispanic or black, and is Asian, assign the case to the NH Asian regardless of other race selections;
- If a case is not Hispanic, black, or Asian, and is American Indian or Alaskan Native, assign the case to the NH American Indian regardless of other race selections;
- If a case is not Hispanic, black, Asian, or American Indian, and is Native Hawaiian or other Pacific Islander, assign the case to the NH Pacific Islander regardless of other race selections; and
- Otherwise, assign the case to NH white.

The distribution of the resulting race/ethnicity group assignments is shown in Table 3.10.

TABLE 3.10 Race/Ethnicity Assignment: 2015 SDR Frame

Race/ethnicity Group	Total Cases	2013 Panel	Expansion Cohort	New Cohort
Hispanic	46,114	3,406	37,976	4,732
NH-American Indian	4,157	246	3,494	417
NH-Asian	266,747	11,267	230,139	25,341
NH-Black	36,046	2,628	29,854	3,564
NH-Pacific Islander	984	102	748	134
NH-White	748,937	28,287	677,315	43,335
Overall	1,102,985	45,936	979,526	77,523

URM15 is defined in the following manner:

- If a case is Hispanic or Latino, assign the case to URM regardless of race;
- If a case is not Hispanic (NH) and is American Indian, black, or Pacific Islander, or reports more than one race, assign the case to URM; and
- If a case is not Hispanic or not American Indian, black, or Pacific Islander, and is Asian or White, assign the case to non-URM.

The distribution of the resulting URM15 variable is shown in Table 3.11.

TABLE 3.11 Frame Distribution of Underrepresented Minority (URM15)

URM	Total Cases	2013 Panel	Expansion Cohort	New Cohort
Yes	90,355	6,616	74,171	9,568
No	1,012,630	39,320	905,355	67,955
Overall	1,102,985	45,936	979,526	77,523

BIRCIT15. The BIRCIT15 variable indicates the sample member's citizenship at birth, defined as either U.S. or non-U.S. For all cases in the frame, this information is obtained from the SED. Cases that do not have valid information on birth citizenship are imputed to be non-U.S. The sources for birth citizenship data in the 2015 SDR frame files are detailed in Table 3.12. The distribution of the resulting birth citizenship variable is shown in Table 3.13.

TABLE 3.12 Citizenship at Birth Sources: 2015 SDR Frame

Citizenship at Birth Data Source	Total Cases	2013 Panel	Expansion Cohort	New Cohort
Self-reported in SED	1,055,996	44,329	938,676	72,991
Citizenship imputed from DRF with BIRTHPL and PDLOC	1,117	32	1,048	37
Default imputation (non-U.S. born)	45,872	1,575	39,802	4,495
Overall	1,102,985	45,936	979,526	77,523

TABLE 3.13 Frame Distribution of Citizenship at Birth

Citizenship at Birth Assignment	Total Cases	2013 Panel	Expansion Cohort	New Cohort
U.S. born	656,847	27,839	589,281	39,727
Not U.S. born	446,138	18,097	390,245	37,796
Overall	1,102,985	45,936	979,526	77,523

SEX15. SEX15 is defined from data in the SED. Cases with missing data on sex are imputed to be female, giving these cases a higher probability of selection. The data sources for the sex variable in the 2015 frame are shown in Table 3.14. The distribution of the resulting sex variable is shown in Table 3.15.

TABLE 3.14 Data Sources for SEX15

Sex Data Source	Total Cases	2013 Panel	Expansion Cohort	New Cohort
Self-reported	1,101,208	45,880	977,859	77,469
Default imputation (female)	1,777	56	1,667	54
Overall	1,102,985	45,936	979,526	77,523

TABLE 3.15 Frame Distribution of SEX15

Sex Assignment	Total Cases	2013 Panel	Expansion Cohort	New Cohort
Male	749,244	29,321	675,528	44,395
Female	353,741	16,615	303,998	33,128
Overall	1,102,985	45,936	979,526	77,523

LOCSTAT15. The LOCSTAT15 variable indicates the last known residence location of the sample member prior to the 2015 SDR; it is either in the U.S. or out of the U.S. The 2010 SDR was the first cycle to use this variable.[8] In the past two cycles, this variable was used to distinguish between NSDR and ISDR cases. Under the 2015 SDR design, it is used as one of the sorting variables. For all cases in the

[8] For more details about the LOCSTAT variable development for the 2010 SDR and continued for the 2013 and 2015 SDR, see the memoranda "2010 SDR Sample Frame Development Memo #3 – Sample Member Location Variable" sent to Daniel Foley and Steve Cohen, NSF, on April 23, 2010 from Karen Grigorian, NORC, and Brenda Cox, SRA, and "2015 SDR Frame Decisions – Frame File Layout" sent to Steve Proudfoot, NSF, on March 28, 2014 from Karen Grigorian and Lance Selfa, NORC.

2015 frame, LOCSTAT15 is derived from responses to the SED question about planned post-graduation location. Any cases with no residency data from the SED are imputed to be in the U.S.

The sources for the location data in the 2015 SDR frame files are detailed in Table 3.16. The distribution of the resulting location variable is shown in Table 3.17.

TABLE 3.16 Location Data Sources: 2015 SDR Frame

Location Data Source	Total Cases	2013 Panel	Expansion Cohort	New Cohort
SED	1,064,194	44,297	948,386	71,511
Default imputation (in the U.S.)	38,791	1,639	31,140	6,012
Overall	1,102,985	45,936	979,526	77,523

TABLE 3.17 Frame Distribution of LOCSTAT15

Location Assignment	Total Cases	2013 Panel	Expansion Cohort	New Cohort
In the U.S.	987,174	40,832	877,149	69,193
Out of the U.S.	115,811	5,104	102,377	8,330
Overall	1,102,985	45,936	979,526	77,523

BIRCIT15. The BIRCIT15 variable indicates the sample member's citizenship at birth, defined as either U.S. or non-U.S. For all cases in the frame, this information is obtained from the SED. Cases that do not have valid information on birth citizenship are imputed to be non-U.S. The sources for birth citizenship data in the 2015 SDR frame files are detailed in Table 3.18. The distribution of the resulting birth citizenship variable is shown in Table 3.19.

TABLE 3.18 Citizenship at Birth Sources: 2015 SDR Frame

Citizenship at Birth Data Source	Total Cases	2013 Panel	Expansion Cohort	New Cohort
Self-reported in SED	1,055,996	44,329	938,676	72,991
Citizenship imputed from DRF with BIRTHPL and PDLOC	1,117	32	1,048	37
Default imputation (non-U.S. born)	45,872	1,575	39,802	4,495
Overall	1,102,985	45,936	979,526	77,523

TABLE 3.19 Frame Distribution of Citizenship at Birth

Citizenship at Birth Assignment	Total Cases	2013 Panel	Expansion Cohort	New Cohort
U.S. born	656,847	27,839	589,281	39,727
Not U.S. born	446,138	18,097	390,245	37,796
Overall	1,102,985	45,936	979,526	77,523

AGE15. The AGEYR15variable indicates the sample member's year of birth and is used to create AGE15 and IAGE15. The primary sources of AGEYR15 are birth year data reported on the SED, supplemented with birth year information collected from the SDR. Any missing data on AGEYR15 are imputed from sample members' bachelor's degree year, if known, or from their doctorate degree year, which is known for all sample members. The birth year imputation rules assume that sample members are 18 when they earned their bachelor's degree, 21 when they earned their doctoral degree. These age assumptions may not be realistic; they are intended to minimize frame undercoverage which could arise if we eliminate those doctorates who are missing birth year but have earned a doctoral degree at a young age. The sources for age in the 2015 SDR frame files are detailed in Table 3.20. The distribution of the resulting age variable is shown in Table 3.21.

TABLE 3.20 Age Source: 2015 SDR Frame

Age Data Source	Total Cases	2013 Panel	Expansion Cohort	New Cohort
Self-reported in SED	1,051,578	43,833	935,485	72,260
BA Year Imputation	15,875	652	14,022	1,201
PhD Year Imputation	35,532	1,451	30,019	4,062
Overall	1,102,985	45,936	979,526	77,523

TABLE 3.21 Frame Distribution of Age

Age Assignment	Total Cases	2013 Panel	Expansion Cohort	New Cohort
Under 35	111,950	3,445	57,776	50,729
35-39	129,168	6,579	106,668	15,921
40-44	123,227	6,872	110,924	5,431
45-49	123,076	6,063	114,770	2,243
50-54	127,462	5,357	120,737	1,368
55-59	121,617	4,887	115,755	975
60-64	123,245	4,545	118,140	560
65-75	243,240	8,188	234,756	296
Overall	1,102,985	45,936	979,526	77,523

HCAPIN15. The disability status variable, HCAPIN15, is not used in the sampling process, but has been included on the frame and in this reporting section as disability status is important to future reporting and analysis. The HCAPIN15 variable indicates the sample member's disability status – either disabled or not disabled. For all cases in the 2015 sample, the disability information is obtained from the SED, which has gathered data on disability since 1985. The historical data on disability in the DRF are recorded in the variable DISABILITY1. Starting with the 2012 cycle, the SED is using the identical disability question and code frame (summarized in DISABILITY2) as does the SDR. Therefore, defining disability status for frame cases requires using both DISABILITY1 and DISABILITY2. Cases that never reported disability status, including those who completed the SED before the disability questions were introduced to the SED, are imputed to be non-disabled. This imputation means that the proportion of disabled doctorates in the population should be much higher than known on the frame because the cases with unknown disability status have been imputed to be not disabled. The sources for disability status in the 2015 SDR frame files are presented in Table 3.22. The distribution of the resulting disability status variable is shown in Table 3.23.

TABLE 3.22 Disability Status Source: 2015 SDR Frame

Disability Status Data Source	Total Cases	2013 Panel	Expansion Cohort	New Cohort
Self-reported in SED	679,405	30,631	579,270	69,504
Default imputation (not disabled)	423,580	15,305	400,256	8,019
Overall	1,102,985	45,936	979,526	77,523

TABLE 3.23 Frame Distribution of Disability Status

Disability Status Assignment	Total Cases	2013 Panel	Expansion Cohort	New Cohort
Disabled	13,866	559	9,220	4,087
Not disabled	1,089,119	45,377	970,306	73,436
Overall	1,102,985	45,936	979,526	77,523

SUMMARY OF FRAME VARIABLES DATA SOURCES. Table 3.24 summarizes the data sources for the key frame variables subject to imputation. These results are shown by variable and by the three main sample frame components.

TABLE 3.24 Data Sources for Sample Frame Variables Subject to Imputation and/or Derivation: 2015 SDR Frame

Sample Frame Component	Sample Frame Variable	2015 SDR Sample Frame Cases		
		Reported Values in the Final Frame	Imputed from a Non-default Rule	Assigned Default Imputation
2013 Panel	Race (RACE15)	39,825	4,403	1,708
	Ethnicity (HISPANIC15)	40,837	3,420	1,679
	Sex (SEX15)	45,880	n/a	56
	Location (LOCSTAT15)	44,297	n/a	1,639
	Citizenship at birth (BIRCIT15)	44,329	32	1,575
	Disability status (HCAPIN15)	30,631	n/a	15,305
	Birth year (AGEYR15)	43,828	2,108	n/a
Expansion Cohort	Race (RACE15)	836,286	104,391	38,849
	Ethnicity (HISPANIC15)	850,247	86,347	42,932
	Sex (SEX15)	977,859	n/a	1,667
	Location (LOCSTAT15)	948,386	n/a	31,140
	Citizenship at birth (BIRCIT15)	938,676	1,048	39,802
	Disability status (HCAPIN15)	579,270	n/a	400,256
	Birth year (AGEYR15)	935,484	44,042	n/a
New Cohort	Race (RACE15)	71,252	2,197	4,074
	Ethnicity (HISPANIC15)	71,466	817	5,240
	Sex (SEX15)	77,469	n/a	54
	Location (LOCSTAT15)	71,511	n/a	6,012
	Citizenship at birth (BIRCIT15)	72,991	37	4,495
	Disability status (HCAPIN15)	69,504	n/a	8,019
	Birth year (AGEYR15)	72,260	5,263	n/a
Overall	Race (RACE15)	947,363	110,991	44,631
	Ethnicity (HISPANIC15)	962,550	90,584	49,851
	Sex (SEX15)	1,101,208	n/a	1,777
	Location (LOCSTAT15)	1,064,194	n/a	38,791
	Citizenship at birth (BIRCIT15)	1,055,996	1,117	45,872
	Disability status (HCAPIN15)	679,405	n/a	423,580
	Birth year (AGEYR15)	1,051,572	51,413	n/a

4 Sample Design

4.1 Precision Requirements

The SDR sample design has undergone several major changes since its inception in 1973, reflecting changing estimation objectives and budgetary situations. For the past few cycles, the SDR was designed to produce estimates by various analytical domains defined by aggregated field of degree, gender, race and ethnicity, citizenship at birth, and disability status. The existing SDR sample stratification and allocation system reflects these estimation goals. A new significant change to the 2015 SDR design is a major sample size expansion to support employment outcome estimates by fine field of degree (FFOD). The sample size of the 2013 SDR is 47,078 cases, while the current expansion calls for a sample size increase to 120,000 cases for the 2015 SDR.

With the marked increase in the overall sample size, the estimation capability of the 2015 SDR is expected to increase substantially. To guide the SDR sample redesign, the NSF specified general requirements regarding the analytical objectives of the 2015 sample. The following comes from the document "Requirements of Sample Expansion and Sample Redesign of the Survey of Doctorate Recipients" and its addendum (full text in Appendix A):

- **Specified precision at FFOD level**: Producing employment outcome estimates at the SED fine field of degree (FFOD) level for the entire SDR eligible population regardless of their residential location and time of receiving doctorates. The precision is required to be within 5% margin of errors at the 95% confidence level for important outcomes.[9]
- **Maintain precision of key 2013 domains**: The overall expanded sample should maintain the existing 2013 estimation capability at the aggregated degree levels and for domains defined by various demographic characteristics currently used in NCSES publications. This set of requirements will be examined by comparing the estimates' precision levels derived under the proposed designs and the actual 2013 SDR sample results.

The expansion of the SDR, along with its new estimation objectives, calls for a significant redesign of the SDR sample. The objectives of the SDR redesign include meeting the newly defined estimation objectives, resolving any longstanding sampling issues to improve efficiency, creating a unified sample design for NSDR (National SDR) and ISDR (International SDR), and constructing a flexible and

[9] This requirement was later relaxed to a 5% margin of error at the *90%* confidence level.

sustainable design for the growing demands of SDR data. The rest of this section describes design considerations and the final design chosen for the 2015 SDR sample redesign.

4.2 Design Approaches Considered

This subsection briefly discusses the two broad design approached considered for the 2015 SDR design. More detailed descriptions of these approaches and design options are presented in Appendix B.

Broadly speaking, the 2015 SDR frame may be thought of as consisting of two overlapping frames. Frame A, which contains the first four frame groups in Table 3.1, covers the portion of the SDR population that is represented by the existing 2013 SDR sample, or the panel sample. Frame B encompasses Frame A as well as the population that is not represented by the panel sample, namely, frame groups 5 and 6 in Table 3.1, including new cohort doctorates awarded in 2012 and 2013 as well as those that were excluded from the SDR frame prior to 2000. Therefore, Frame A is completely nested within frame B which includes all six frame groups in Table 3.1

Under the guidance of NCSES, NORC considered two major design approaches for the 2015 SDR redesign: dual frame design, and single frame design with a fresh new sample, as discussed below.

Dual Frame Design

The main motivation of the dual frame design is to preserve the existing SDR panel, both to reduce data collection cost and improve data utility. Under this approach, the 2015 SDR sample would include two independent and partially overlapping samples: the panel sample (i.e., the existing 2013 SDR sample) from Frame A and an independent expansion sample from Frame B. For estimation, these two samples would be combined through a dual frame method to derive the overall 2015 estimates.

Let's designate the existing panel sample from Frame A as sample a and the new expansion sample to be selected from Frame B sample b. The two samples would be first be weighted separately according to their respective sample design, generating two sets of sampling weights $w_j^{(a)}$ and $w_j^{(b)}$. Then a single set of weights would be created for the combined sample through a combining factor. For a sample member j selected into either sample, its sampling weight will be calculated as

$$w_j = \begin{cases} w_j^{(b)}, \text{ if } j \in \text{sample } b \text{ and not frame } A \\ \lambda w_j^{(a)}, \text{if } j \in \text{sample } a \text{ and frame } A \\ (1-\lambda) w_j^{(b)}, \text{if } j \in \text{sample } b \text{ and frame } A \\ \lambda w_j^{(a)} + (1-\lambda) w_j^{(b)}, \text{ if } j \in \text{both sample } a \text{ and sample } b \text{ and frame } A \end{cases}$$

The first category includes cases that are in Frame B but not in Frame A, representing the non-overlapping portion of the frame. For this portion of the population, the estimate will be based only on a subset of sample b. The other three categories include samples from the overlapping portion of the population. For this portion of the population, there are two estimates, one based on sample a and the other based on a subset of sample b.

The combining factor λ is defined as

$$\lambda = \frac{n_{eff}^{(a)}}{n_{eff}^{(a)} + n_{eff}^{(b)}}$$

In this expression, n_{eff}^{a} is the effective sample size associated with sample a selected from Frame A; and n_{eff}^{b} is the effective sample size associated with sample b selected from Frame A. The effective sample size is the expected number of complete surveys divided by the design effect due to unequal weighting.

With a single set of weights defined, the usual Horvitz-Thompson estimator can be used to derive point estimates after proper adjustments for eligibility, nonresponse, and frame coverage.

Under this dual frame estimation approach, the effective sample size from sample a $n_{eff}^{(a)}$, is known for each fine field. Therefore, sample size determination is to estimate $n_{eff}^{(b)}$ such that $1.96 * \sqrt{V(\hat{p})} \leq .05$ when estimating a population proportion P for a fine field. The quantity $n_{eff}^{(b)}$ can then be converted to a nominal sample size based on the design effect and expected completion rate.

Single Frame with a Fresh New Sample

Under this design approach, a fresh new sample would be selected from Frame B, and the existence of the panel sample has no bearing on the 2015 SDR design. The sample will be stratified by FFOD only. Sample allocation to the strata is determined to balance the competing estimation goals discussed earlier. For a sample member j, its sampling weight will be

$$w_j = \frac{1}{p_j}$$

where p_j is the inclusion probability under the sample design. The Horvitz-Thompson estimator can be used to derive point estimates after proper adjustments for eligibility, nonresponse, and frame coverage.

4.3 Sample Allocation

We now discuss the Fresh New Sample approach that the NSF decided to adopt. Under this approach, the SDR sample is stratified by FFOD to 216 sampling strata, including the discontinued 20th century fields strata. As discussed below, the sample of 120,000 cases is allocated to the strata in two steps. The two-step allocation is implemented to achieve a balance between satisfying the fine field level estimation requirement and maintaining the existing estimation capabilities of the SDR with regard to the key analytical domains under the prior design. In particular, the second step is intended to improve the representation of the population by the 15-category aggregate degree fields.[10] This measure is implemented because, after step one, aggregate fields with a large population but consisting of a small number of fine fields (e.g., Computer/Information Sciences) are underrepresented, while aggregate fields with a small population but consisting of a large number of fine fields (e.g., Agricultural Sciences) are overrepresented. The objective of the two step allocation is to make the representation of aggregate degree fields more proportional to the population.

NSF decided to allocate 1,000 cases to the stratum that represents the discontinued fields. The remaining 119,000 cases are allocated to the other 215 strata as described in Steps 1 and 2 below.

[10] The 15 categories are: Chemistry, Physics/Astronomy, Earth/Ocean/Atmospheric Sciences, Mathematics, Computer/Information Science, Agricultural Sciences, Medical Sciences, NIH Biological Sciences, Other Biological Sciences, Psychology, Economics, Anthropology/Archeology/Sociology, Other Social Sciences, Electrical/Electronics/Communications, and Other engineering.

Step 1

The first step features an equal allocation to each stratum. For a population proportion centered at 50 percent, the first step allocation is designed to achieve a 5 percent margin of error (MOE) with 90% confidence. The following summarizes how the first step allocation is derived.

- Assume that the population proportion is $\hat{P} = 0.50$ to derive the most conservative sample size estimate;
- The number of complete surveys needed per stratum is $n_{completed} = \left(\hat{P} * \left(1 - \hat{P}\right)\right) * \left(\frac{Z_{90}}{MOE}\right)^2$, where Z_{90} is the critical value of the standard normal distribution for a 2-tailed test at a 90% confidence level (approximately 1.645), and MOE = 5%
- Assume that the completion rate is 70%, the number of cases to sample per stratum is $n_{sampled} = \frac{n_{completed}}{0.70}$
- In strata where the allocated sample size exceeds the number of cases on the frame, the stratum sample size is set to equal to the frame size, $n1_{FFOD} = \min(N_{FFOD}, n_{sampled})$, where N_{FFOD} = Total frame size for the FFOD
- The total sample allocated in step one is $Total\_Step1 = \sum_{FFOD} n1_{FFOD}$

The nominal sample size allocated to each stratum is 387, which will produce 271 complete surveys with an expected completion rate of 70%, enough to satisfy the stratum level precision requirements. Note that the finite population correction factor (FPC) is not incorporated in the sample size estimation described above. When sampling from a finite population, the variance of the mean is reduced by a factor $(N - n) / N$, called FPC, where N is the population size and n is the sample size. For sample size estimation, the application of the FPC helps to reduce the sample size necessary to meet the specified precision requirement. To be conservative, NCSES and NORC decided not to apply the FPC when estimating the sample size per stratum. The effect of ignoring the FPC is to overestimate the standard error of the mean; but it offers additional insurance in case the completion rate is lower than expected.

For fine fields with less than 387 cases in the frame, all frame cases are included in the sample. A total of 77,965 cases, or 65 percent of the total sample, are allocated in the first step. The first step allocation represents the minimum allocation to each stratum and assures that the final sample will achieve the required level of precision at the fine field level.

Step 2

The second step allocates the remaining 35 percent of the sample proportionately to the 15 SDR broad field categories, as represented by the design variable SDRFLD15. This second step allocation is designed to allocate the balance of the sample in such a way as to minimize the variation in sampling weights for the full sample, given the first step allocation. The second step allocation is carried out as follows:

- First, calculate the expected proportional allocation to the 15 broad field categories based on the overall frame distribution across the 15 broad fields. The fine fields within the discontinued 20th century fields stratum also participate in this calculation. The expected proportional allocation to each broad field of degree (BFOD) is: $Expected\_Allocation_{BFOD} = Total\_Sample * \frac{N_{BFOD}}{N}$, where N_{BFOD} is the total number of frame cases per broad field.
- Second, subtract the total first step allocation for each broad field from the expected allocation to get the second step allocation per broad field category. For those broad field categories (Agricultural Sciences and Earth/Ocean/Atmospheric Sciences) that have already exceeded the expected allocation after the first step allocation, allocate 0 cases in the second step. If the step one allocation per broad field is $Step1_{BFOD} = \sum_{FFOD \in BFOD} n1_{FFOD}$, then the step two allocation to each broad field is
- $Step2\_Allocation\_a_{BFOD} = \max(0, Expected\_Allocation_{BFOD} - Step1_{BFOD})$. The step two allocation to the broad field is then adjusted to reflect the fact that two broad fields would not receive additional allocation in step two. The adjusted step two allocation to the broad field is: $Step2\_Allocation\_b_{BFOD} = Step2\_Allocation\_a_{BFOD} * \frac{Total\_Step2}{Total\_Step2\_Allocation\_a}$, where $Total\_Step2 = 119{,}000 - Total\_Step1$, and $Total\_Step2\_Allocation\_a = \sum Step2\_Allocation\_a_{BFOD}$
- Third, within each broad field category, proportionately allocate the second step allocation to each fine field stratum based on the frame count per fine field stratum[11]. This allocation is calculated as $n2_{FFOD} = Step2\_Allocation\_b_{BFOD} * \left(\frac{N_{FFOD}}{\sum_{FFOD \in BFOD} N_{FFOD}}\right)$
- The final allocation to each fine field stratum is the sum of step one and step two allocations or the frame size if the sum exceeds the frame size, i.e., $Final\_Allocation_{FFOD} = \min(N_{FFOD}, n1_{FFOD} + n2_{FFOD})$

[11] The fine fields that make up the discontinued fields stratum do not receive any allocation.

When a fine field does not have enough cases to support the final allocation, the total allocation is equal to the frame total. In that situation, the shortage is allocated to the discontinued field stratum. For this reason, the final allocation to the discontinued stratum is slightly over 1,000. In the final allocation, a total of 118,916 cases are allocated to the 215 fine field strata, with the remaining 1,084 cases allocated to the 216th stratum representing the 20th century discontinued fields. Appendix Table G.1 shows the step one, step two, and total allocation by 2015 sampling stratum. For comparison, Appendix Table G.2 shows the total sample allocation by 2013 sampling stratum.

5. Sample Selection

Within each of the 216 strata, a random sample is selected systematically with probability proportionate to size (PPS). PPS sampling is adopted as a vehicle to oversample underrepresented racial and ethnic minorities (URM), women, and the 2013 panel cases. Oversampling of URM and women allows the sample to sustain the estimation capabilities under the prior SDR design. The addition of a panel oversample maintains the simplicity of a fresh new sample, but allows for limited longitudinal analysis using earlier waves of the SDR. The oversampling is achieved by assigning a measure of size to each frame member and then selecting the sample systematically with PPS within each stratum. Each frame case is assigned a measure of size (MOS), as follows:

- Male URM: 2.0
- Female URM: 2.5
- Female non-URM: 1.5
- Panel cases, regardless of gender or URM status: 5.0
- All other cases: 1.0

Under PPS sampling, the selection probability for a case i in stratum h is $p_{hi} = n_h * MOS_i / \sum MOS_i$, where n_h is the stratum sample size, MOS_i is the measure of size for case i, and the summation is over all frame cases within a stratum. For cases with large MOS, the selection probability may be equal to or greater than 1. Such cases are identified first because they would be selected with certainty into the sample. For each stratum, the certainty cases are identified as follows:

1. Sort the frame cases in descending order by MOS;
2. Sum MOS across all frame cases to get the total MOS *Total_MOS*;
3. Denote the total allocated sample size as *Total_Allocated* ;
4. Carry out the following procedures, starting at the top of the sorted frame
    a. If MOS ≥ (Total_MOS/Total_Allocated) then this case is a certainty selection:
        i. Set sampling weight = 1;
        ii. Move the case to a separate file that contains all certainty cases;

iii. Recompute Total_MOS = Total_MOS – MOS;

iv. Recompute Total_Allocated = Total_Allocated – 1;

v. Return to 4.a to evaluate the next case on the sorted frame.

b. If MOS < (Total_MOS/Total_Allocated) then this case and all cases following this case are not certainty cases

i. All non-certainty cases constitute the frame for systematic PPS sampling;

ii. The final sample consists of the certainty cases and those selected from the rest of the frame through systematic PPS sampling.

Before systematic sampling, the frame is sorted by the following variables to impose an implicit stratification within each stratum. The sorting variables are:

- CENTURY
- RACETH15
- BIRCIT15
- SEX15
- LOCSTAT15
- SDRFLD15
- PHDFY

The purpose of implicit stratification is to improve the representation of the sample with respect to the sorting variables. Note that sorting by SDRFLD15 (the 15 broad fields) is only effective in the discontinued stratum because all the other strata represent a single field. The purpose of sorting by SDRFLD15 within the discontinued fields is to ensure a proportional representation of the broad fields within the discontinued stratum.

With the certainty cases set aside, the SAS procedure PROC SURVEYSELECT is used to carry out the systematic sampling within each stratum. Systematic sampling selects cases at a fixed interval throughout the stratum after a random start. PROC SURVEYSELECT uses a fractional sampling interval to provide exactly the specified sample size. The interval within a stratum is $\frac{\sum MOS_i}{n}$. The expected number of hits (selections) for a case is $\frac{n * MOS_i}{\sum MOS_i}$. The sampling weight is the inverse of the expected number of hits. The final sample includes all the certainty cases and those selected through PROC SURVEYSELECT.

Subsequent to selection, the selected sample along with the quality assurance procedures were sent to the NSF for review and approval.[12]

[12] See the memo sent to Emilda Rivers and Steve Proudfoot at the NSF from Michael Yang, Lance Selfa, and Karen Grigorian at NORC entitled "2015 SDR – Sample Selection Quality Control Procedures and Results" issued on 16 February 2015 as well as the sample review tables in the attachment file named " 2015 SDR Expansion Sample Allocation and Review Tables.zip."

6. SDR 2017 and Beyond

The NSF adopted the fresh new sample approach to meet new estimation goals, to simplify the sample design and estimation procedures, and to resolve longstanding frame and sampling issues accumulated over time. With a fresh new sample, the 2015 SDR represents a significant turning point in the hitherto longitudinal sample design dating back to 1973. Although the SDR sample has undergone several major redesigns, for the first time since the 1975 SDR, the new sample does not include a substantial panel component. Instead, the 2015 SDR is expected to be the starting point of a new longitudinal data series. The NSF has not yet provided any guidelines for the 2017 SDR sample design, but it is most likely that the 2015 SDR sample will form the sampling frame for the old cohort sample for 2017 while a new cohort sample will be selected from the new cohort frame consisting of SEH doctorates awarded in 2014 and 2015 academic years. Unless the analytical objectives change, we expect the 2017 SDR to follow the same stratification scheme and sample collection procedures.

Assuming that the 2017 SDR sample size will be kept at the current level, a maintenance cut to the old cohort sample will be necessary while adding a new cohort sample. To preserve the oversampling of URM, women, and the 2013 panel cases, we expect the 2017 SDR old cohort sample to be a straightforward equal probability random sample within each stratum. Like the 2015 SDR, the 2017 new cohort sample will be stratified by FFOD, and the sample allocation will be guided by the analytical objectives specified by the NSF. If the analytical objectives stay the same, for example, the 2015 allocation procedures may be adapted to allocate the 2017 new cohort sample.

7. Concluding Remarks

The current SDR sample redesign may have significant implications for post-survey data processing procedures such as weighting adjustment, missing data imputation, and variance estimation. We conclude this report by discussing these likely implications. Additional research will be needed to modify these procedures if they turn out to be necessary.

Starting from the 2010 cycle, the SDR has moved from the traditional weighting class method to the model-based propensity score method for noncontact and nonresponse weighting adjustments. A propensity score is predicted from a logistic regression model for both eligibility determination and interview cooperation; these scores are then used, either directly or indirectly, to adjust the original sampling weight to compensate for noncontact and nonresponse prior to a final poststratification adjustment. Given the changes to the sample design, the 2015 noncontact and nonresponse models are likely to be different from the models of the prior rounds. For example, additional predictor variables may need to be included to capture the noncontact and nonresponse pattern associated with the expansion cohort cases that appear in the SDR sample for the first time. Furthermore, with the newly defined estimation goals, the poststratification procedures may also need to be revamped to match the poststrata with analysis domains. For example, it may be necessary to define the poststrata by fine field of degree, among other key factors.

The SDR conducts extensive missing data imputation, using basically the same set of imputation procedures in the past few cycles. With the sample redesign, these imputation procedures may need to be adapted to the 2015 SDR. For example, many variables are imputed through multivariate regression models; these models may need to be updated to reflect the new sampling frame and relevant features of the sample design. The sorting variables under hot deck imputation may also need to be updated by new variables and new models.

The SDR has used a replication method for variance estimation to account for its complex design features that cannot be adequately captured with the Taylor Series linearization method. The current successive difference replication method (SDRM) is designed for systematic samples where implicit stratification puts similar cases close to each other on the sampling frame. Under the existing strategy initially developed by the Census Bureau, the replicates are formed as if a systematic sample is selected from a single large stratum. While this method may effectively account for the reduction in variance resulting

from implicit stratification within the explicit strata, it may not account for the impact of explicit stratification on the sampling variance. NORC has proposed to the NSF to explore alternative variance estimation approaches to improve potentially both statistical and cost efficiency. With the 2015 sample redesign, it may be a good time to revisit the current procedures. For example, we would like to compare the SDRM with a simpler and more efficient procedure based on a Taylor Series or Jackknife method. In case the SDRM does not lead to noticeable reduction in the variances, the Taylor series or Jackknife methods would make more efficient alternatives.

In addition to SDRM replicate weights, the SDR also provides estimated Generalized Variance Functions (GVFs) for a set of key NSDR and ISDR domains. The GVFs are valuable because they provide a mechanism for data users to compute the variance of estimates not directly provided by the SDR. With the sample redesign, it may be necessary to redefine the GVF definitions so that they match with key analysis domains.

Appendices removed

Attachment C

First Federal Register Announcement

amount of data elements removed compared to those being added have negated any program differences in burden. Adjustments in the number respondents are due to the decline of federally-insured credit unions.

Type of Review: Revision of a previously approved collection.

Affected Public: Private Sector: Not-for-profit institutions.

Estimated No. of Respondents: 5,954.

Estimated No. of Responses per Respondent: 4.

Estimated Annual Responses: 23,816.

Estimated Burden Hours per Response: 6.

Estimated Total Annual Burden Hours: 142,896.

Request for Comments: Comments submitted in response to this notice will be summarized and included in the request for Office of Management and Budget approval. All comments will become a matter of public record. The public is invited to submit comments concerning: (a) Whether the collection of information is necessary for the proper execution of the function of the agency, including whether the information will have practical utility; (b) the accuracy of the agency's estimate of the burden of the collection of information, including the validity of the methodology and assumptions used; (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 the information on the respondents, including the use of automated collection techniques or other forms of information technology.

By Gerard Poliquin, Secretary of the Board, the National Credit Union Administration, on September 14, 2016.

Dated: September 14, 2016.

Dawn D. Wolfgang,

NCUA PRA Clearance Officer.

[FR Doc. 2016–22457 Filed 9–16–16; 8:45 am]

BILLING CODE 7535–01–P

NATIONAL CREDIT UNION ADMINISTRATION

Submission for OMB Review; Comment Request

AGENCY: National Credit Union Administration (NCUA).

ACTION: Notice.

SUMMARY: The National Credit Union Administration (NCUA) will be submitting the following information collection request to the Office of Management and Budget (OMB) for review and clearance in accordance with the Paperwork Reduction Act of 1995, Public Law 104–13, on or after the date of publication of this notice.

DATES: Comments should be received on or before October 19, 2016 to be assured of consideration.

ADDRESSES: Send comments regarding the burden estimate, or any other aspect of the information collection, including suggestions for reducing the burden, to (1) Office of Information and Regulatory Affairs, Office of Management and Budget, Attention: Desk Officer for NCUA, New Executive Office Building, Room 10235, Washington, DC 20503, or email at *OIRA_Submission@OMB.EOP.gov* and (2) NCUA PRA Clearance Officer, 1775 Duke Street, Alexandria, VA 22314, Suite 5067, or email at *PRAComments@ncua.gov.*

FOR FURTHER INFORMATION CONTACT: Copies of the submission may be obtained by emailing *PRAComments@ncua.gov* or viewing the entire information collection request at *www.reginfo.gov.*

SUPPLEMENTARY INFORMATION:

OMB Number: 3133–0052.

Type of Review: Extension of a previously approved collection.

Title: Federal Credit Union Bylaws.

Abstract: Section 108 of the Federal Credit Union (FCU) Act (12 U.S.C. 1758) requires the National Credit Union Administration (NCUA) Board to prepare bylaws before an FCU's charter is complete. The form bylaws are established to simplify the organization of a FCU and establish uniformity regarding FCU operations and member rights. The NCUA Board adopted the Bylaws and incorporated them into NCUA's regulations at 12 CFR 701.2 and as Appendix A to Part 701, in 2007. The bylaws address a broad range of matters concerning: an FCU's organization and governance; the FCU's relationship to members; and the procedures and rules an FCU follows. The NCUA uses the information both to regulate FCUs to protect consumers and monitor their safety and soundness to protect the National Credit Union Share Insurance Fund.

Affected Public: Private Sector: Not-for-profit institutions.

Estimated Annual Burden Hours: 436,614.

By Gerard Poliquin, Secretary of the Board, the National Credit Union Administration, on September 14, 2016.

Dated: September 14, 2016.

Dawn D. Wolfgang,

NCUA PRA Clearance Officer.

[FR Doc. 2016–22456 Filed 9–16–16; 8:45 am]

BILLING CODE 7535–01–P

NATIONAL SCIENCE FOUNDATION

Agency Information Collection Activities: Proposed Collection; Comment Request

AGENCY: National Science Foundation.

ACTION: Notice and request for comments.

SUMMARY: The National Science Foundation (NSF) is announcing plans to request renewal of the Survey of Doctorate Recipients (OMB No.: 3145–0020). In accordance with the requirement of section 3506(c)(2)(A) of the Paperwork Reduction Act of 1995 (Pub. L. 104–13), we are providing opportunity for public comment on this action. After obtaining and considering public comment, NSF will prepare the submission requesting that OMB approve clearance of this collection for three years.

DATES: Written comments on this notice must be received by November 18, 2016 to be assured consideration. Comments received after that date will be considered to the extent practicable.

FOR FURTHER INFORMATION CONTACT: Contact Suzanne H. Plimpton, Reports Clearance Officer, National Science Foundation, 4201 Wilson Boulevard, Suite 1265, Arlington, Virginia 22230; telephone (703) 292–7556; or send email 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, which is accessible 24 hours a day, 7 days a week, 365 days a year (including federal holidays). You may also obtain a copy of the data collection instrument and instructions from Ms. Plimpton.

SUPPLEMENTARY INFORMATION:

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

Title of Collection: Survey of Doctorate Recipients.

OMB Approval Number: 3145–0020.
Expiration Date of Approval: August 31, 2018.

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

Abstract: The Survey of Doctorate Recipients (SDR) has been conducted biennially since 1973 and is a longitudinal survey. The 2017 SDR will consist of a sample of individuals less than 76 years of age who have earned a research doctoral degree in a science, engineering or health (SEH) field from a U.S. institution. The purpose of this panel survey is to collect data that will be used to provide national estimates on the doctoral science and engineering workforce and changes in their employment, education and demographic characteristics. The SDR is sponsored by the National Center for Science and Engineering Stataistics (NCSES) within the NSF and the National Institutes of Health. Data will be obtained by web survey, mail questionnaire, and computer-assisted telephone interviews beginning in February 2017. Information from the SDR are used in assessing the quality and supply of the nation's SEH personnel resources for educational institutions, private industry, and professional organizations, as well as federal, state, and local governments. A public release file of the collected data, designed to protect respondent confidentiality, will be made available to researchers, reporters, and other interested persons on the Internet.

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 SDR is designed to comply with these mandates by providing information on the supply and utilization of the nation's doctoral level scientists and engineers.

The survey data will be collected in conformance with the Confidential Information Protection and Statistical Efficiency Act of 2002 and the individual's response to the survey is voluntary. NSF will ensure that all information collected will be kept strictly confidential and will be used only for statistical purposes.

Use of the Information: The NSF uses the information from the SDR to prepare congressionally mandated reports such as *Women, Minorities and Persons with Disabilities in Science and Engineering* and *Science and Engineering Indicators.* These two reports are made available, in full, on the internet. However, summary *Digests* of facts and figures from these lengthy reports are made available both in print and online. Although NSF publishes statistics from the SDR in many reports, a full report with over 80 tables is produced online in the biennial series, *Characteristics of Scientists and Engineers with U.S. Doctorates.*

Expected Respondents. The NCSES within NSF enhanced and expanded the sample for the prior 2015 cycle of the SDR to measure employment outcomes according to the eligible SEH fine fields of degree captured in the Survey of Earned Doctorates. Providing reliable estimates by fine fields required expanding the 2013 SDR sample from approximately 47,000 to 120,000 in 2015. Another effect of expanding the 2015 SDR sample is the enhanced production of reliable estimates of SEH fine fields by various demographic characteristics, such as gender, ethnicity, and race. The 2017 SDR will maintain the 2015 expanded sample along with a new sample of about 10,000 doctorates from the most recent 2014 and 2015 academic years and will not exceed 123,000 individuals in total with U.S. earned doctorates in SEH fields. NSF expects the overall 2017 SDR response rate to be approximately 75 percent.

Estimate of Burden. The amount of time to complete the questionnaire may vary depending on an individual's circumstances; however, on average it takes approximately 25 minutes. Thus, NSF estimates that the total annual burden for the 2017 SDR will be 38,438 hours (that is, 123,000 respondents at 75% response rate for 25 minutes).

Dated: September 13, 2016.

Suzanne H. Plimpton,

Reports Clearance Officer, National Science Foundation.

[FR Doc. 2016–22402 Filed 9–16–16; 8:45 am]

BILLING CODE 7555–01–P

NATIONAL SCIENCE FOUNDATION

Astronomy and Astrophysics Advisory Committee; Notice of Meeting

In accordance with the Federal Advisory Committee Act (Pub. L. 92–463, as amended), the National Science Foundation announces the following meeting:

NAME AND COMMITTEE CODE: Astronomy and Astrophysics Advisory Committee (#13883).

DATE AND TIME:
October 27, 2016; 9:00 a.m.–5:00 p.m.
October 28, 2016; 9:00 a.m.–12:00 p.m.

PLACE: National Science Foundation, 4201 Wilson Blvd., Arlington, VA 22230, Stafford II, Room 555–II.

TYPE OF MEETING: Open.

CONTACT PERSON: Dr. Christopher Davis, Program Director, Division of Astronomical Sciences, Suite 1045, National Science Foundation, 4201 Wilson Blvd., Arlington, VA 22230. Telephone: 703–292–4910.

PURPOSE OF MEETING: To provide advice and recommendations to the National Science Foundation (NSF), the National Aeronautics and Space Administration (NASA) and the U.S. Department of Energy (DOE) on issues within the field of astronomy and astrophysics that are of mutual interest and concern to the agencies.

AGENDA: To hear presentations of current programming by representatives from NSF, NASA, DOE and other agencies relevant to astronomy and astrophysics; to discuss current and potential areas of cooperation between the agencies; to formulate recommendations for continued and new areas of cooperation and mechanisms for achieving them.

Dated: September 13, 2016.

Crystal Robinson,

Committee Management Officer.

[FR Doc. 2016–22390 Filed 9–16–16; 8:45 am]

BILLING CODE 7555–01–P

NUCLEAR REGULATORY COMMISSION

[NRC–2012–0121, NRC–2011–0265, NRC–2013–0104, NRC–2013–0052, NRC–2014–0068, NRC–2014–0057 and NRC–2013–0186]

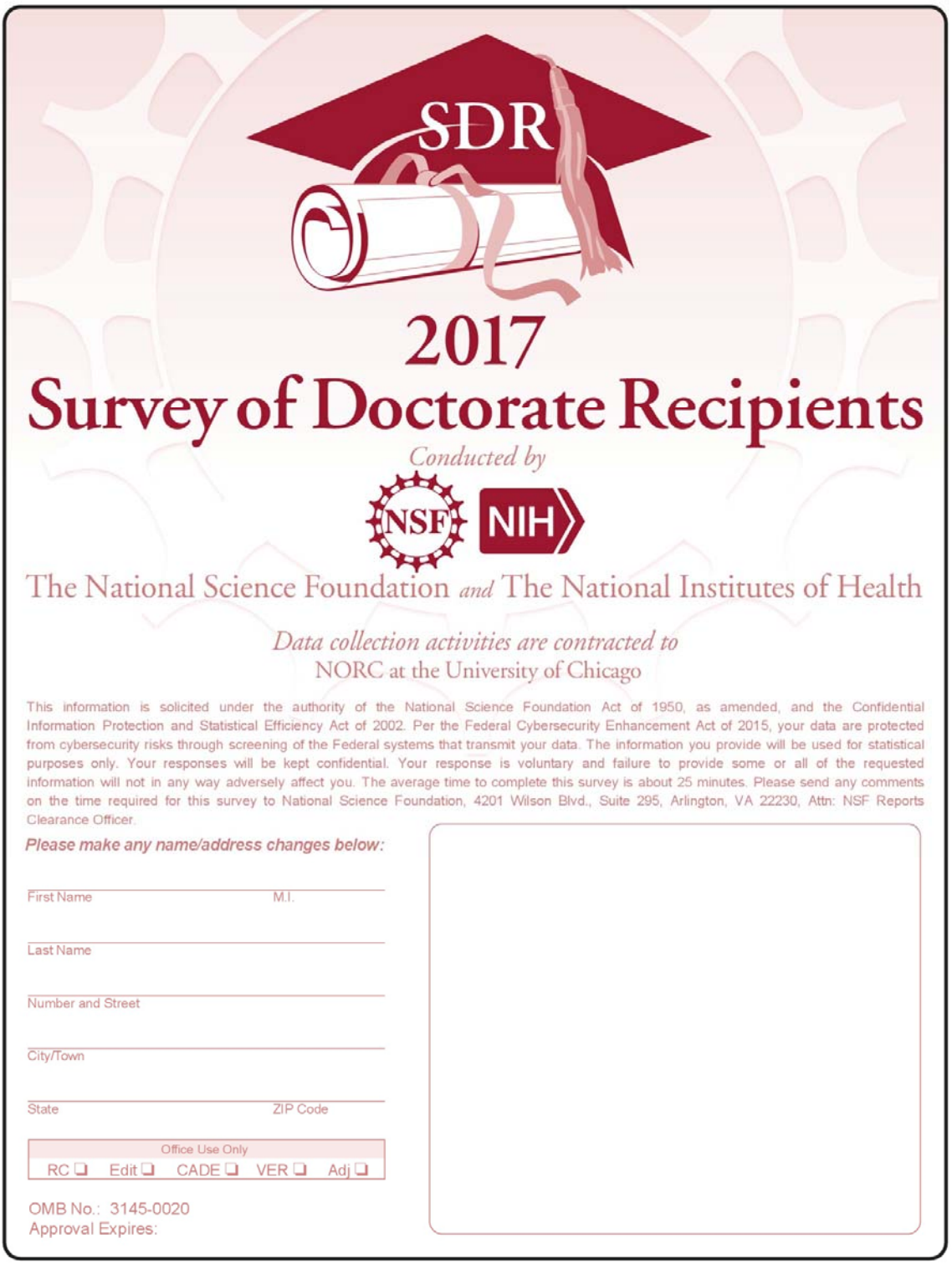
Issuance of Updates to NUREG–1556 (Consolidated Guidance About Materials Licenses), Volumes 1 (Portable Gauges), 2 (Industrial Radiography), 3 (Sealed Sources and Devices), 4 (Fixed Gauges), 10 (Master Material Licenses), 15 (Changes of Control and Bankruptcy), and 19 (Reciprocity)

AGENCY: Nuclear Regulatory Commission.

ACTION: NUREG; issuance.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) has issued Revision 2 to NUREG–1556, Volumes 1 and 3 and Revision 1 to NUREG–1556, Volumes 2, 4, 10, 15, and 19, revising licensing guidance for various materials licenses. These documents have been updated to include information on updated regulatory requirements, safety culture, security of radioactive materials, protection of sensitive information, and

Attachment D
Draft 2017 SDR Questionnaire


SDR
2017
Survey of Doctorate Recipients
Conducted by
NSF
NIH
The National Science Foundation and The National Institutes of Health
Data collection activities are contracted to
NORC at the University of Chicago
This information is solicited under the authority of the National Science Foundation Act of 1950, as amended, and the Confidential Information Protection and Statistical Efficiency Act of 2002. Per the Federal Cybersecurity Enhancement Act of 2015, your data are protected from cybersecurity risks through screening of the Federal systems that transmit your data. The information you provide will be used for statistical purposes only. Your responses will be kept confidential. Your response is voluntary and failure to provide some or all of the requested information will not in any way adversely affect you. The average time to complete this survey is about 25 minutes. Please send any comments on the time required for this survey to National Science Foundation, 4201 Wilson Blvd., Suite 295, Arlington, VA 22230, Attn: NSF Reports Clearance Officer.
Please make any name/address changes below:
First Name
M.I.
Last Name
Number and Street
City/Town
State
ZIP Code
Office Use Only
RC ❑ Edit ❑ CADE ❑ VER ❑ Adj ❑
OMB No.: 3145-0020
Approval Expires:

INSTRUCTIONS

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

- In order to get comparable data, we will be asking you to refer to the week of February 1, 2017, when answering most questions.
- Follow all appropriate skip instructions after marking a box. If no skip instruction is provided, you should continue to the next question.

Thank you again for your help; we really appreciate it.

Part A - Employment Situation

A1. Were you working for pay or profit during the week of February 1, 2017?

Working includes being self-employed and not getting paid that week, on a postdoctoral appointment, traveling while employed, or on any type of paid or unpaid leave, including vacation.

Use an X to mark your answer.

1 ☐ Yes → ***Go to question A8***

2 ☐ No

A2. *(If No)* **Did you look for work during the four weeks preceding February 1, 2017? This would be between January 4th and February 1st.**

1 ☐ Yes

2 ☐ No

A3. What were your reasons for not working during the week of February 1, 2017?

Mark Yes or No for each item.

		Yes	No
1	Retired	1 ☐	2 ☐
	If Yes → Year retired		
2	On layoff from a job	1 ☐	2 ☐
3	Student	1 ☐	2 ☐
4	Family responsibilities	1 ☐	2 ☐
5	Chronic illness or permanent disability	1 ☐	2 ☐
6	Suitable job not available	1 ☐	2 ☐
7	Did not need or want to work	1 ☐	2 ☐
8	Other – *Specify*	1 ☐	2 ☐

A4. Prior to the week of February 1, 2017, when did you last work for pay or profit?

0 ☐ ← ***Mark this box if you never worked for pay or profit and then go to page 10, question D1***

LAST WORKED Month ____ Year ____

A5. What was the title of the last job you held prior to the week of February 1, 2017?

Example: Physics professor

A6. What kind of work were you doing on this last job – that is, what were your duties and responsibilities on your last job? Please be as specific as possible, including any area of specialization.

Example: Taught physics and conducted research. Specialized in high energy physics.

A7. Using the JOB CATEGORY list on pages 16-17, choose the code that best describes the last job you held prior to the week of February 1, 2017.

CODE ____ → ***Go to page 8, question A42***

A8. Although you were working during the week of February 1, had you previously retired from any position?

Examples of retirement include mandatory retirement, early retirement, or voluntary retirement.

1 ☐ Yes → Year retired ____

2 ☐ No

Page 2

Principal Employer

A9. Who was your principal employer during the week of February 1, 2017?

If you had more than one job, report the one for which you worked the most hours that week.

If your employer had more than one location, report the location that employed you.

If you worked for a contracting or consulting company, report the name of that company, not the client organization.

Employer Name

Department/Division

City/Town

State/Territory or Country

ZIP Code or Postal Code

A10. What was that employer's main business or industry – that is, what did that employer make or do?

If your principal employer had more than one type of business, report the type of business primarily performed at the location where you worked.

Example: Production of microprocessor chips

EMPLOYER'S MAIN BUSINESS

A11. Counting all locations where this employer operates, how many people work for your principal employer? Your best estimate is fine.

Mark one answer.

1 ☐ 10 or fewer employees
2 ☐ 11 - 24 employees
3 ☐ 25 - 99 employees
4 ☐ 100 - 499 employees
5 ☐ 500 - 999 employees
0 ☐ 1,000 - 4,999 employees
7 ☐ 5,000 - 24,999 employees
8 ☐ 25,000 or more employees

A12. Did your principal employer come into being as a new business within the past 5 years?

1 ☐ Yes
2 ☐ No

A13. Which one of the following best describes your principal employer during the week of February 1, 2017? Were you…

Mark one answer.

SELF-EMPLOYED or a BUSINESS OWNER
1 ☐ In a non-incorporated business, professional practice, or farm
2 ☐ In an incorporated business, professional practice, or farm

PRIVATE SECTOR employee
3 ☐ In a for-profit company or organization
4 ☐ In a non-profit organization (including tax-exempt and charitable organizations)

U.S. GOVERNMENT employee
5 ☐ In a local government in the U.S. (e.g., city, county, school district)
0 ☐ In a U.S. state government (including U.S. state colleges/universities)
7 ☐ In the U.S. military service, active duty or Commissioned Corps (e.g., USPHS, NOAA)
8 ☐ In the U.S. Federal Government (e.g., civilian employee)

OTHER type of employee
9 ☐ In a non-U.S. government at any level
10 ☐ Other – *Specify type of employer* 7

A14. Was your principal employer an educational institution?

1 ☐ Yes
2 ☐ No → ***Go to page 4, question A19***

A15. *(If Yes)* **Was the educational institution where you worked a...**

Mark one answer.

1 ☐ Preschool, elementary, middle, or secondary school or system → ***Go to page 4, question A19***
2 ☐ Two-year college, community college, or technical institute
3 ☐ Four-year college or university, other than a medical school
4 ☐ Medical school (including university-affiliated hospital or medical center)
5 ☐ University-affiliated research institute
6 ☐ Other – *Specify*

A16. During the week of February 1, 2017, what type of academic position(s) did you hold at this institution?

Mark Yes or No for each item.

		Yes	No
1	President, Provost, or Chancellor (any level)	1 ☐	2 ☐
2	Dean (any level), department head, or department chair	1 ☐	2 ☐
3	Research faculty, scientist, associate, or fellow	1 ☐	2 ☐
4	Teaching faculty	1 ☐	2 ☐
5	Adjunct faculty	1 ☐	2 ☐
6	Postdoc (e.g., postdoctoral fellow or associate)	1 ☐	2 ☐
7	Research assistant	1 ☐	2 ☐
8	Teaching assistant	1 ☐	2 ☐
9	Other position – *Specify*	1 ☐	2 ☐

A17. What was your faculty rank?

Mark one answer.

1 ☐ Not applicable: no ranks designated at this institution
2 ☐ Not applicable: no ranks designated for my position
3 ☐ Professor
4 ☐ Associate Professor
5 ☐ Assistant Professor
6 ☐ Instructor
7 ☐ Lecturer
8 ☐ Other – *Specify*

A18. What was your tenure status?

Mark one answer.

1 ☐ Not applicable: no tenure system at this institution
2 ☐ Not applicable: no tenure system for my position
3 ☐ Tenured → Year tenured ☐☐☐☐
4 ☐ On tenure track but not tenured
5 ☐ Not on tenure track

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Principal Job

A19. What was the title of the principal job you held during the week of February 1, 2017?

Example: Physics professor

A20. What kind of work were you doing on this job – that is, what were your duties and responsibilities on your principal job? Please be as specific as possible, including any area of specialization.

Example: Taught physics and conducted research. Specialized in high energy physics.

A21. Using the JOB CATEGORY list on pages 16-17, choose the code that best describes the principal job you held during the week of February 1, 2017.

CODE ☐☐☐

A22. Did your duties on this job require the technical expertise of a bachelor's degree or higher in...

Mark Yes or No for each item.

		Yes	No
1	Engineering, computer science, math, or the natural sciences	1☐	2☐
2	The social sciences	1☐	2☐
3	Some other field (e.g., health, business, or education) – *Specify*	1☐	2☐

A23. Was this job a "postdoc"?

A "postdoc" is a temporary position awarded in academe, industry, a non-profit organization, or government primarily for gaining additional education and training in research.

1☐ Yes

2☐ No ⟶ ***Go to question A26***

A24. *(If Yes)* **What were your reasons for taking this postdoc?**

Mark Yes or No for each item.

		Yes	No
1	Additional training in PhD field	1☐	2☐
2	Training in an area outside of PhD field	1☐	2☐
3	Work with a specific person or in a specific place	1☐	2☐
4	Other employment not available	1☐	2☐
5	Postdoc generally expected for a career in this field	1☐	2☐
6	Some other reason – *Specify*	1☐	2☐

A25. Which two reasons in question A24 were your most important reasons for taking this postdoc?

Enter number of appropriate reason from question A24 above.

1 ____ Most important reason

2 ____ Second most important reason *(Enter "0" if no second reason)*

A26. During what month and year did you start this job (that is, the principal job you held during the week of February 1, 2017)?

PRINCIPAL JOB STARTED Month ☐☐ Year ☐☐☐☐

A27. To what extent was your work on your principal job related to your first U.S. doctoral degree? Was it...

Mark one answer.

1 ☐ Closely related
2 ☐ Somewhat related → ***Go to question A30***
3 ☐ Not related

A28. *(If Not related)* **Did these factors influence your decision to work in an area outside the field of your first U.S. doctoral degree?**

Mark Yes or No for each item.

		Yes	No
1	Pay, promotion opportunities	1 ☐	2 ☐
2	Working conditions (e.g., hours, equipment, working environment)	1 ☐	2 ☐
3	Job location	1 ☐	2 ☐
4	Change in career or professional interests	1 ☐	2 ☐
5	Family-related reasons (e.g., children, spouse's job moved)	1 ☐	2 ☐
6	Job in doctoral degree field not available	1 ☐	2 ☐
7	Some other reason – *Specify*	1 ☐	2 ☐

A29. Which two factors in question A28 were your most important reasons for working in an area outside the field of your first U.S. doctoral degree?

Enter number of appropriate reason from question A28 above.

1 ____ Most important reason

2 ____ Second most important reason
(Enter "0" if no second reason)

A30. The next question is about your work activities on your principal job. Which of the following work activities occupied at least 10 percent of your time during a typical work week on this job?

Mark Yes or No for each item.

		Yes	No
1	Accounting, finance, contracts	1 ☐	2 ☐
2	Basic research – study directed toward gaining scientific knowledge primarily for its own sake	1 ☐	2 ☐
3	Applied research – study directed toward gaining scientific knowledge to meet a recognized need	1 ☐	2 ☐
4	Development – using knowledge gained from research for the production of materials, devices	1 ☐	2 ☐
5	Design of equipment, processes, structures, models	1 ☐	2 ☐
6	Computer programming, systems or applications development	1 ☐	2 ☐
7	Human resources – including recruiting, personnel development, training	1 ☐	2 ☐
8	Managing or supervising people or projects	1 ☐	2 ☐
9	Production, operations, maintenance (e.g., chip production, operating lab equipment)	1 ☐	2 ☐
10	Professional services (e.g., health care, counseling, financial services, legal services)	1 ☐	2 ☐
11	Sales, purchasing, marketing, customer service, public relations	1 ☐	2 ☐
12	Quality or productivity management	1 ☐	2 ☐
13	Teaching	1 ☐	2 ☐
14	Other – *Specify*	1 ☐	2 ☐

A31. On which two activities in question A30 did you work the most hours during a typical week on this job?

Enter number of appropriate activity from question A30 above.

1 ____ Activity most hours

2 ____ Activity second most hours
(Enter "0" if no second most)

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A32. Did you supervise the work of others as part of the principal job you held during the week of February 1, 2017?

Mark "Yes" if you recommended or initiated personnel actions such as hiring, firing, evaluating, or promoting others.

Teachers: Do not count students.

1 ☐ Yes

2 ☐ No → ***Go to question A34***

A33. *(If Yes)* **How many people did you typically...**

	Number supervised
1 Supervise directly? *(If none, enter "0")*	
2 Supervise indirectly through subordinate supervisors? *(If none, enter "0")*	

A34. Thinking about your principal job held during the week of February 1, please rate your satisfaction with that job's...

Mark one answer for each item.

	Very satisfied	Somewhat satisfied	Somewhat dissatisfied	Very dissatisfied
1 Salary	1 ☐	2 ☐	3 ☐	4 ☐
2 Benefits	1 ☐	2 ☐	3 ☐	4 ☐
3 Job security	1 ☐	2 ☐	3 ☐	4 ☐
4 Job location	1 ☐	2 ☐	3 ☐	4 ☐
5 Opportunities for advancement	1 ☐	2 ☐	3 ☐	4 ☐
6 Intellectual challenge	1 ☐	2 ☐	3 ☐	4 ☐
7 Level of responsibility	1 ☐	2 ☐	3 ☐	4 ☐
8 Degree of independence	1 ☐	2 ☐	3 ☐	4 ☐
9 Contribution to society	1 ☐	2 ☐	3 ☐	4 ☐

A35. How would you rate your overall satisfaction with the principal job you held during the week of February 1, 2017?

Mark one answer.

1 ☐ Very satisfied

2 ☐ Somewhat satisfied

3 ☐ Somewhat dissatisfied

4 ☐ Very dissatisfied

A36. As of the week of February 1, 2017, what was your basic annual salary on your principal job, before deductions?

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.

$, , .00 IN USD
ANNUAL SALARY OR EARNED INCOME

A37. Was this salary based on a 52-week year, or less than that?

Include paid vacation and sick leave.

1 ☐ 52-week year
2 ☐ Less than 52 weeks →

NUMBER OF WEEKS PER YEAR

A38. During a typical week on your principal job, how many hours did you work?

NUMBER OF HOURS WORKED PER WEEK

If fewer than 35 hours, go to question A39.

If 35 or more hours, go to question A41.

A39. *(If fewer than 35 hours)* **Did you want to work 35 or more hours per week on your principal job?**

1 ☐ Yes
2 ☐ No

A40. For which of the following reasons did you usually work fewer than 35 hours per week on the principal job you held during the week of February 1, 2017?

Mark Yes or No for each item.

		Yes	No
1	Previously retired or semi-retired	1☐	2☐
	If Yes → Year retired		
2	Student	1☐	2☐
3	Family responsibilities	1☐	2☐
4	Full-time job not available	1☐	2☐
5	Held more than one job	1☐	2☐
6	Did not need or want to work more hours	1☐	2☐
7	Other – *Specify*	1☐	2☐

A41. Concerning your principal job during the week of February 1, 2017, were any of the following benefits available to you, even if you chose not to take them?

Mark Yes or No for each item.

		Yes	No
1	Health insurance that was at least partially paid by your employer	1☐	2☐
2	A pension plan or a retirement plan to which your employer contributed	1☐	2☐
3	A profit-sharing plan	1☐	2☐
4	Paid vacation, sick, or personal days	1☐	2☐

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A42. **Thinking back now to 2016, was any of your work during 2016 supported by contracts or grants from the U.S. Federal Government?**

U.S. federal employees: Please answer "No."

Mark one answer.

0 ☐ Did not work in 2016 → ***Go to question B1 on this page***

1 ☐ Yes

2 ☐ No

3 ☐ Don't know → ***Go to question A44***

A43. *(If Yes)* **Which Federal Government agencies or departments were supporting your work?**

Mark all that apply.

1 ☐ Department of Defense (DOD)

2 ☐ Department of Education

3 ☐ Department of Energy (DOE)

4 ☐ National Institutes of Health (NIH)

5 ☐ Department of Health and Human Services (except NIH)

6 ☐ National Aeronautics and Space Administration (NASA)

7 ☐ National Science Foundation (NSF)

8 ☐ Other – *Specify*

9 ☐ DON'T KNOW SOURCE AGENCY

A44. **Counting all jobs held in 2016, what was your total earned income for 2016, before deductions?**

Include all wages, salaries, bonuses, overtime, commissions, consulting fees, net income from businesses, summertime teaching or research, or other work associated with scholarships.

$, , .00 IN USD

TOTAL 2016 EARNED INCOME

Part B - Past Employment

B1. **Were you working for pay or profit during both of these time periods – the week of February 1, 2015, and the week of February 1, 2017?**

1 ☐ Yes

2 ☐ No → ***Go to page 9, question C1***

B2. *(If Yes)* **During these two time periods – the week of February 1, 2015, and the week of February 1, 2017 – were you working for…**

Mark one answer.

1 ☐ Same employer and in same type of job → ***Go to page 9, question C1***

2 ☐ Same employer but in different type of job

3 ☐ Different employer but in same type of job

4 ☐ Different employer and in different type of job

B3. *(If Different)* **Why did you change your employer or your job?**

Mark Yes or No for each item.

	Yes	No
1 Pay, promotion opportunities	1 ☐	2 ☐
2 Working conditions (e.g., hours, equipment, working environment)	1 ☐	2 ☐
3 Job location	1 ☐	2 ☐
4 Change in career or professional interests	1 ☐	2 ☐
5 Family-related reasons (e.g., children, spouse's job moved)	1 ☐	2 ☐
6 School-related reasons (e.g., returned to school, completed a degree)	1 ☐	2 ☐
7 Laid off or job terminated (includes company closings, mergers, buyouts, grant or contract ended)	1 ☐	2 ☐
8 Retired	1 ☐	2 ☐
9 Some other reason – *Specify*	1 ☐	2 ☐

Part C - Other Work-Related Experiences

C1. During the past 12 months, did you take any work-related training, such as workshops or seminars?

Include conferences or professional meetings only if you attended a training session at the conference or meeting.

Do not include college coursework for which you were enrolled in a degree program.

1 ☐ Yes

2 ☐ No → ***Go to question C4***

C2. (If Yes) For which of the following reasons did you take training during the past 12 months?

Mark Yes or No for each item.

		Yes	No
1	To improve skills or knowledge in your current occupational field	1 ☐	2 ☐
2	To increase opportunities for promotion or advancement in your current occupational field	1 ☐	2 ☐
3	For licensure or certification in your current occupational field	1 ☐	2 ☐
4	To facilitate a change to a different occupational field	1 ☐	2 ☐
5	Required or expected by employer	1 ☐	2 ☐
6	For leisure or personal interest	1 ☐	2 ☐
7	Other – *Specify*	1 ☐	2 ☐

C3. What was your most important reason from question C2 for taking training?

Enter number of appropriate reason from question C2 above.

MOST IMPORTANT REASON ____

C4. During the past 12 months, did you attend any professional society or association meetings or professional conferences?

Include regional, national, or international meetings.

1 ☐ Yes

2 ☐ No

C5. To how many regional, national, or international professional societies or associations do you currently belong?

If none, enter "0."

NUMBER ____

C6. When thinking about a job, how important is each of the following factors to you?

Mark one answer for each item.

		Very important	Somewhat important	Somewhat unimportant	Not important at all
1	Salary	1 ☐	2 ☐	3 ☐	4 ☐
2	Benefits	1 ☐	2 ☐	3 ☐	4 ☐
3	Job security	1 ☐	2 ☐	3 ☐	4 ☐
4	Job location	1 ☐	2 ☐	3 ☐	4 ☐
5	Opportunities for advancement	1 ☐	2 ☐	3 ☐	4 ☐
6	Intellectual challenge	1 ☐	2 ☐	3 ☐	4 ☐
7	Level of responsibility	1 ☐	2 ☐	3 ☐	4 ☐
8	Degree of independence	1 ☐	2 ☐	3 ☐	4 ☐
9	Contribution to society	1 ☐	2 ☐	3 ☐	4 ☐

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Part D - Recent Educational Experiences

D1. Between February 2015 and February 2017, did you complete another degree such as a master's or another doctorate?

1 ☐ Yes
2 ☐ No ⟶ ***Go to page 11, question D7***

D2. *(If Yes)* **What type of degree did you earn?**

If you completed more than one degree, mark the level for the highest degree awarded.

Mark one answer.

1 ☐ Bachelor's degree (e.g., BS, BA, AB)
2 ☐ Master's degree (e.g., MS, MA, MBA)
3 ☐ Doctorate (e.g., PhD, DSc, EdD)
4 ☐ Other professional degree (e.g., JD, LLB, MD, DDS, DVM) – *Specify*
5 ☐ Other – *Specify*

D3. What was the primary field of study for this degree?

PRIMARY FIELD OF STUDY

D4. In what month and year was this degree awarded?

DEGREE AWARDED — Month: ___ Year: 2 0 1 ___

D5. From which academic institution did you receive this degree?

College or University Name

Department

City/Town

State/Territory or Country

D6. For which of the following reasons did you obtain this degree?

Mark Yes or No for each item.

		Yes	No
1	To gain further education before beginning a career	1 ☐	2 ☐
2	To prepare for graduate school or further education	1 ☐	2 ☐
3	To change your academic or occupational field	1 ☐	2 ☐
4	To gain <u>further</u> skills or knowledge in your academic or occupational field	1 ☐	2 ☐
5	For licensure or certification	1 ☐	2 ☐
6	To increase opportunities for promotion, advancement, or higher salary	1 ☐	2 ☐
7	Required or expected by employer	1 ☐	2 ☐
8	For leisure or personal interest	1 ☐	2 ☐
9	Other – *Specify*	1 ☐	2 ☐

D7. **During the week of February 1, 2017, were you enrolled in or taking courses at a college or university?**

1 ☐ Yes

2 ☐ No ⟶ ***Go to page 12, question E1***

D8. *(If Yes)* **Were you taking courses or enrolled as...**

Mark one answer.

1 ☐ A full-time student in a degree program

2 ☐ A part-time student in a degree program

3 ☐ Not enrolled in a degree program, but taking courses

D9. **Toward what degree were you working?**

If you were working toward more than one degree, mark the level for the highest degree.

Mark one answer.

0 ☐ No specific degree ⟶ ***Go to question D11***

1 ☐ Bachelor's degree (e.g., BS, BA, AB)

2 ☐ Master's degree (e.g., MS, MA, MBA)

3 ☐ Doctorate (e.g., PhD, DSc, EdD)

4 ☐ Other professional degree (e.g., JD, LLB, MD, DDS, DVM) – *Specify type*

5 ☐ Other – *Specify type*

D10. **What was the primary field of study for this degree?**

PRIMARY FIELD OF STUDY

D11. **For which of the following reasons were you taking courses or enrolled?**

Mark Yes or No for each item.

		Yes	No
1	To gain further education before beginning a career	1 ☐	2 ☐
2	To prepare for graduate school or further education	1 ☐	2 ☐
3	To change your academic or occupational field	1 ☐	2 ☐
4	To gain further skills or knowledge in your academic or occupational field	1 ☐	2 ☐
5	For licensure or certification	1 ☐	2 ☐
6	To increase opportunities for promotion, advancement, or higher salary	1 ☐	2 ☐
7	Required or expected by employer	1 ☐	2 ☐
8	For leisure or personal interest	1 ☐	2 ☐
9	Other – *Specify*	1 ☐	2 ☐

D12. **Were any of your school-related costs for taking courses paid for by an employer?**

1 ☐ Yes

2 ☐ No

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Part E - Demographic Information

E1. On February 1, 2017, were you...

Mark one answer.

1 ☐ Married
2 ☐ Living in a marriage-like relationship
3 ☐ Widowed
4 ☐ Separated
5 ☐ Divorced
6 ☐ Never married

→ ***Go to question E4***

E2. *(If Married or Living in a marriage-like relationship)* **During the week of February 1, 2017, was your spouse or partner working?**

1 ☐ Yes, full-time
2 ☐ Yes, part-time
3 ☐ No → ***Go to question E4***

E3. *(If Yes)* **Did your spouse's or partner's duties on this job require the technical expertise of a bachelor's degree or higher in...**

Mark Yes or No for each item.

		Yes	No
1	Engineering, computer science, math, or the natural sciences	1 ☐	2 ☐
2	The social sciences	1 ☐	2 ☐
3	Some other field (e.g., health, business, or education) – *Specify*	1 ☐	2 ☐

E4. As of the week of February 1, 2017, did you have <u>any children</u> living with you as part of your family?

Only count children who lived with you at least 50 percent of the time.

1 ☐ Yes
2 ☐ No → ***Go to page 13, question E6***

E5. *(If Yes)* **How many of these children living with you as part of your family were...**

If no children in a category, enter "0."

		Number of children
1	Under age 2	
2	Aged 2-5	
3	Aged 6-11	
4	Aged 12-18	
5	Aged 19 or older	

E6. **On February 1, 2017, were you living in the United States or Puerto Rico, another U.S. territory, or were you living in another country?**

Mark one answer.

1 ☐ United States or Puerto Rico
2 ☐ Another U.S. territory
3 ☐ Another country – *Specify*

E7. **On February 1, 2017, were you a...**

1 ☐ U.S. citizen
2 ☐ Non-U.S. citizen → ***Go to question E9***

E8. *(If U.S. citizen)* **Were you a U.S. citizen...**

Mark one answer.

1 ☐ Born in the United States, Puerto Rico, or another U.S. territory
2 ☐ Born abroad of U.S. citizen parent(s)
3 ☐ By naturalization

→ ***Go to question E11***

E9. *(If Non-U.S. citizen)* **Were you a non-U.S. citizen...**

1 ☐ With a Permanent U.S. Resident Visa (Green Card)
2 ☐ With a Temporary U.S. Resident Visa
3 ☐ Who no longer held a U.S. Resident Visa

E10. **Of which country are you a citizen?**

COUNTRY

E11. **What is your birthdate?**

Month ___ Day ___ Year 1 9 ___ ___

E12. **These questions are asked to verify that our records are correct and that we have reached the correct person selected for this study.**

1 At which U.S. institution did you receive your first research doctorate?

U.S. GRADUATE INSTITUTION

2 In what field of study did you receive your first research doctorate?

DOCTORAL FIELD OF STUDY

3 In what month and year did you receive your first research doctorate?

Month ___ Year ___ ___ ___ ___

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E13. The next several questions are designed to help us better understand the career paths of individuals with specific functional limitations.

What is the USUAL degree of difficulty you have with...

Mark one answer for each item.

	None	Slight	Moderate	Severe	Unable to do
1 SEEING words or letters in ordinary newsprint (with glasses/contact lenses, if you usually wear them)	1☐	2☐	3☐	4☐	5☐
2 HEARING what is normally said in conversation with another person (with hearing aid, if you usually wear one)	1☐	2☐	3☐	4☐	5☐
3 WALKING without human or mechanical assistance or using stairs	1☐	2☐	3☐	4☐	5☐
4 LIFTING or carrying something as heavy as 10 pounds, such as a bag of groceries	1☐	2☐	3☐	4☐	5☐
5 CONCENTRATING, REMEMBERING, or MAKING DECISIONS because of a physical, mental, or emotional condition	1☐	2☐	3☐	4☐	5☐

E14. 0☐ ← **Mark this box if you answered "None" to <u>all the activities</u> in question E13, and go to question E16.**

E15. What is the earliest age at which you <u>first</u> began experiencing <u>any</u> difficulties in <u>any</u> of these areas?

AGE ____ OR 0☐ ← SINCE BIRTH

E16. In case we need to clarify some of the information you have provided, please list phone numbers and an email address where you can be reached.

Country code is "1" for U.S. and Canada; enter a country code for phone numbers located elsewhere.

Home Phone Number 0 0 1 - ____ - ____ - ____
Country Code / Area/City Code / Number

Work Phone Number 0 0 1 - ____ - ____ - ____
Country Code / Area/City Code / Number

Cell Phone Number 0 0 1 - ____ - ____ - ____
Country Code / Area/City Code / Number

Email Address ____ @

E17. **Because we are interested in how education and employment change over time, we may be contacting you in 2019. To help us contact you, please provide the name and contact information for two people who are likely to know where you can be reached. Do not include someone who lives in your household.**

As with all the information provided in this questionnaire, complete confidentiality will be provided. These people will only be contacted if we have difficulty contacting you in 2019.

Person 1 ☐ Decline to answer

First Name | MI | Last Name

Email Address

@

Number and Street Address

City/Town | State | ZIP/Postal Code

Country (if outside of U.S.)

___ - ___ - ___ - ___

Country Code (if non-US) Area/City Code Number

Person 2 ☐ Decline to answer

First Name | MI | Last Name

Email Address

@

Number and Street Address

City/Town | State | ZIP/Postal Code

Country (if outside of U.S.)

___ - ___ - ___ - ___

Country Code (if non-US) Area/City Code Number

E18. **How would you like to complete future rounds of this survey?**

Mark one answer.

1 ☐ A questionnaire sent in the mail

2 ☐ An online questionnaire

3 ☐ A telephone interview

4 ☐ No preference

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JOB CATEGORY

If you cannot find the code that best describes your job, use the "OTHER" code under the most appropriate broad category. If none of the codes fit your job, use Code 500.

• **Biological/Life Scientists**	021 Agricultural and food scientists 022 Biochemists and biophysicists 023 Biological scientists (e.g., botanists, ecologists, zoologists) 024 Forestry and conservation scientists	025 Medical scientists (excluding practitioners) 026 Technologists and technicians in the biological/life sciences 027 OTHER biological and life scientists
• **Clerical/Administrative Support Occupations**	031 Accounting clerks and bookkeepers 032 Secretaries, receptionists, typists	033 OTHER administrative (e.g., record clerks, telephone operators)
• **Clergy/Other Religious Workers**	040 Clergy and other religious workers	
• **Computer Occupations** *Also consider 173 Operations research analysts, including modeling*	*** Computer engineers – *also consider 087 Computer engineers – hardware and 088 Computer engineers – software* 051 Computer & information scientists, research 052 Computer network architect 053 Computer programmers (business, scientific, process control) 054 Computer support specialists 055 Computer system analysts	056 Database administrators 057 Information security analysts 058 Network and computer systems administrators 059 Software developers – applications and systems software 060 Web developers 061 OTHER computer and information science occupations
• **Consultants**	*Find the category on page 16 or 17 that comes closest to your field of consulting and select the code*	
• **Counselors**	070 Counselors (Educational, vocational, mental health and substance abuse) *Also consider 236 Psychologists, including clinical*	
• **Engineers/Architects** *Also consider 100 to 104 under Engineering Technologists, Technicians and Surveyors*	081 Architects 082 Aeronautical/aerospace/astronautical engineers 083 Agricultural engineers 084 Bioengineers or biomedical engineers 085 Chemical engineers 086 Civil, including architectural/sanitary engineers 087 Computer engineers – hardware 088 Computer engineers – software 089 Electrical and electronics engineers	090 Environmental engineers 091 Industrial engineers 092 Marine engineers and naval architects 093 Materials and metallurgical engineers 094 Mechanical engineers 095 Mining and geological engineers 096 Nuclear engineers 097 Petroleum engineers 098 Sales engineers 099 OTHER engineers
• **Engineering Technologists/ Technicians/Surveyors**	100 Electrical, electronic, industrial, and mechanical technicians 101 Drafting occupations, including computer drafting 102 Surveying and mapping technicians	103 OTHER engineering technologists and technicians 104 Surveyors, cartographers, photogrammetrists
• **Farmers/Foresters/Fishermen**	110 Farmers, foresters and fishermen	
• **Health Occupations**	111 Diagnosing/treating practitioners (e.g., dentists, optometrists, physicians, psychiatrists, podiatrists, surgeons, veterinarians) 112 Registered nurses, pharmacists, dieticians, therapists, physician assistants, nurse practitioners	236 Psychologists, including clinical – *Also consider 070 Counselors* 113 Health technologists and technicians (e.g., dental hygienists, health record technologists/technicians, licensed practical nurses, medical or laboratory technicians, radiological technicians) 114 OTHER health occupations
• **Lawyers/Judges**	120 Lawyers, judges	
• **Librarians/Archivists/Curators**	130 Librarians, archivists, curators	
• **Managers and Supervisors, First-Line**	*Find the category on page 16 or 17 that best describes the occupation of the people you manage and select the code*	
• **Managers, Top-level Executives/Administrators**	141 Top-level managers, executives, administrators (e.g., CEO/COO/CFO, president, district manager, general manager, legislator, chancellor, provost)	
• **Managers, Other** *People who manage other managers*	142 Computer and information systems managers 143 Engineering managers 144 Medical and health services managers 145 Natural sciences managers 146 Education administrators (e.g., registrar, dean, principal) 147 OTHER mid-level managers	

JOB CATEGORY (Continued)

• **Management-Related Occupations** *Also consider 142 to 147 under Managers, Other*	151	Accountants, auditors, and other financial specialists	153	OTHER management related occupations
	152	Personnel, training, and labor relations specialists		
• **Mathematical Scientists**	171	Actuaries	174	Statisticians
	172	Mathematicians	175	Technologists and technicians in the mathematical sciences
	173	Operations research analysts, including modeling	176	OTHER mathematical scientists
• **Physical Scientists**	191	Astronomers	195	Oceanographers
	192	Atmospheric and space scientists	196	Physicists, except biophysicists
	022	Biochemists and biophysicists	197	Technologists and technicians in the physical sciences
	193	Chemists, except biochemists		
	194	Geologists, including earth scientists	198	OTHER physical scientists
• **Research Associates/ Assistants**	*Find the category on page 16 or 17 that comes closest to your research field and select the code*			
• **Sales/Marketing Occupations**	200	Insurance, securities, real estate, and business services	202	Sales occupations – retail (e.g., furnishings, clothing, motor vehicles, cosmetics)
	201	Sales occupations – commodities except retail (e.g., industrial machinery/equipment/ supplies, medical and dental equip./supplies)	203	OTHER marketing and sales occupations
• **Service Occupations, Except Health** *Also consider 111 to 114 under Health Occupations*	221	Food preparation and service (e.g., cooks, waitresses, bartenders)	223	OTHER service occupations, except health (e.g., probation officers, human services workers)
	222	Protective services (e.g., fire fighters, police, guards, wardens, park rangers)		
• **Social Scientists**	231	Anthropologists	236	Psychologists, including clinical – *Also consider 070 Counselors*
	232	Economists	237	Sociologists
	233	Historians	238	OTHER social scientists
	235	Political scientists		
• **Social Workers**	240	Social workers		
• **Teachers—Precollege**	251	Pre-kindergarten and kindergarten	255	Secondary – other subjects
	252	Elementary	256	Special education – primary and secondary
	253	Secondary – computer, math, or sciences	257	OTHER precollegiate area
	254	Secondary – social sciences		
• **Teachers/Professors—Postsecondary**	271	Agriculture	283	History
	272	Art, Drama, and Music	286	Mathematics and Statistics
	273	Biological Sciences	287	Health and Related Sciences
	274	Business, Commerce, and Marketing	288	Physical Education
	275	Chemistry	289	Physics
	276	Computer Science	290	Political Science
	277	Earth, Environmental, and Marine Science	291	Psychology
	278	Economics	293	Sociology
	279	Education	297	OTHER Natural Sciences
	280	Engineering	298	OTHER Social Sciences
	281	English	299	OTHER Postsecondary fields
	282	Foreign Language		
• **Teachers—Other**	300	OTHER teachers and instructors (e.g., private tutors, dance or flying instructors, martial arts instructors)		
• **Writers/Editors/Public Relations Specialists/Artists/ Entertainers/Broadcasters**	010	Writers, editors, public relations specialists, artists, entertainers, broadcasters		
• **Other Professions**	401	Construction and extraction occupations	403	Precision/production occupations (e.g., metal workers, woodworkers, butchers, bakers, assemblers, printing occupations, tailors, shoemakers, photographic process)
	402	Installation, maintenance, and repair occupations	405	Transportation and material moving occupations
• **OTHER OCCUPATIONS**	500	**OTHER OCCUPATIONS (Not Listed)**		

THANK YOU FOR COMPLETING THE QUESTIONNAIRE.

Please return the completed form within two weeks in the envelope provided.

If you have any questions or need assistance, please visit our SDR website at www.norc.uchicago.edu/sdr, call us toll-free at 1-800-685-1663, or email us at SDR@norc.uchicago.edu. If you cannot find the envelope or would like another, please email or call us.

Our mailing address is:

2017 Survey of Doctorate Recipients
c/o NORC at the University of Chicago
55 East Monroe Street, 19th Floor
Chicago, IL 60603
UNITED STATES OF AMERICA

- Results of the Survey of Doctorate Recipients can be found on the National Science Foundation's Website at http://www.nsf.gov/statistics/doctoratework.
- You are not required to respond to any information collection unless it displays a valid approval number from the Office of Management and Budget. The approval number for this survey is 3145-0020.

COMMENTS ABOUT THIS SURVEY:

Attachment E

Draft 2017 SDR Survey Mailing Materials

The 2017 Survey of Doctorate Recipients (SDR) contact materials are consistent with materials utilized in past cycles. The various materials used in outreach to the SDR sample members are listed below. All letters will be printed on the SDR 2017 letterhead found on pages E-2 and E-3.

- Mail Start Mode Prenotice Letter for 2015 Cooperative (M_PN1)
- Mail Start Mode Prenotice Letter for 2015 Nonresponse Retirees/2015 NIR/Partial Responders (M_PN2)
- Mail Start Mode Prenotice Letter for 2017 New Cohort (M_PN3)
- CATI Start Mode Prenotice Letter for 2015 Cooperative (C_PN1)
- CATI Start Mode Prenotice Letter for 2015 Nonresponse Cases/2017 New Cohort (C_PN2)
- Web Start Mode Initial Notice sent via USPS to 2015 Cooperative cases (W_IC1_u)
- Web Start Mode Initial Notice sent via USPS to 2015 Cooperative Retiree cases (W_IC2_u)
- Web Start Mode Initial Notice sent via USPS to 2015 Nonresponse Cases (W_IC3_u)
- Web Start Mode Initial Notice sent via USPS to 2015 Cooperative Green Appeal (W_IC5_u)
- Web Start Mode Initial Notice sent via USPS to 2017 New Cohort and 2015 Panel Locating Problems (W_IC7_u)
- Web Start Mode Enclosed InfoCard - USPS: 2017 New Cohort and 2015 Panel Locating Problems (InfoCard)
- Mail Start Mode First Questionnaire Cover Letter for 2015 Cooperative cases (M_Quex1_1)
- Mail Start Mode First Questionnaire Cover Letter for 2015 Cooperative Retiree cases (M_Quex1_2)
- Mail Start Mode First Questionnaire Cover Letter for 2015 Nonresponse Retiree cases (M_Quex1_3)
- Mail Start Mode First Questionnaire Cover Letter for Refusals/NIR/Partial Responders (M_Quex1_4)
- Mail Start Mode First Questionnaire Cover Letter for 2017 New Cohort cases (M_Quex1_5)
- Mail Start Mode First Questionnaire Cover Letter for Money Cooperative cases (incentive) (M_Quex1_10)
- Web Start Mode Follow-up Notice sent via USPS to 2015 Cooperative cases (W_FN1_u)
- Web Start Mode Follow-up Notice sent via USPS to 2015 Locating/2015 Nonresponse Cases (W_FN2_u)
- Web Start Mode Follow-up Notice sent via USPS to 2015 Cooperative Green Appeal (W_FN3_u)
- Web Start Mode Follow-up Notice sent via USPS to New Cohort (incentive) (W_FN10_u)
- CATI Start Mode Prompting Message sent via USPS to Panel (C_PM_u)
- CATI Start Mode Prompting Message sent via USPS to New Cohort (incentive) (C_PM2_u)
- CATI and Web Start Modes First Questionnaire Cover Letter sent to 2015 Non-retired cases (CW_Quex1_6)
- CATI and Web Start Modes First Questionnaire Cover Letter sent to 2015 Cooperative Retiree cases (CW_Quex1_7)
- CATI and Web Start Modes First Questionnaire Cover Letter sent to New Cohort (CW_Quex1_10)
- Mail Start Second Questionnaire Cover Letter to all sample member types (Quex2)
- Mail Start Mode Second Questionnaire Cover Letter to New Cohort (incentive) (Quex2_10)
- CATI and Web Start Survey Request Letter: Panel except Locating Problems (CW_InfoCard_letter_for_SMs)
- CATI and Web Start Survey Request Letter: New Cohort and Panel Locating Problems (CW_Letter_with_Graphic_not_InfoCard)
- Postcard Text sent to all sample member types

SDR Letterhead text (front)

SDR Letterhead text (back)

SDR Study Information

You have been randomly selected to represent the population of doctorate holders trained in science, engineering, and health fields at U.S. academic institutions for the 2017 Survey of Doctorate Recipients (SDR). The SDR is not an employer-based survey and seeks to represent doctorate-degree holders whether they are working, retired, seeking work, or in some other situation.

Your survey participation helps make the SDR data series more complete, accurate, and reliable. While we hope that you will agree to fully participate in the SDR, it is a voluntary survey for which you are not required to answer any questions.

The SDR is sponsored by the National Science Foundation (NSF) and the National Institutes of Health (NIH). The NSF and NIH are independent agencies of the U.S. government dedicated to promoting the progress of science. The 2017 SDR data collection activities are contracted to NORC at the University of Chicago.

NORC at the University of Chicago is a not-for-profit social science research organization serving the public interest and informed decision making.

More information about NORC can be found at:
www.norc.org/Research/Projects/Pages/survey-of-doctorate-recipients.aspx

If you have questions about your rights as a study participant, you may call the NORC Institutional Review Board Administrator, toll-free within the U.S., at 1-866-309-0542.

All information you provide will be kept strictly confidential and safeguarded in accordance with the Privacy Act of 1974 and the Confidential Information Protection and Statistical Efficiency Act of 2002. Your responses are used for research purposes only.

Per the Federal Cybersecurity Enhancement Act of 2015, your data are protected from cybersecurity risks through screening of the Federal systems that transmit your data.

Information that personally identifies you is separated from your survey responses. Published reports show only summary information.

You are uniquely qualified to contribute to this study and cannot be replaced by anyone else – please participate in the 2017 SDR.

Mail Start Mode Prenotice Letter: 2015 Cooperative (M_PN1.docx)

This letter will be sent to sample members printed on the SDR 2017 letterhead, images of which can be found on pages D-2 and D-3.

[DATE], 2017

Dr. [FIRST NAME] [MIDDLE INITIAL] [LAST NAME]
[ORGNAME]
[STREET ADDRESS 1]
[STREET ADDRESS 2]
[CITY], [STATE] [ZIP CODE]

Dear Dr. [LAST NAME],

In a few days, you should receive a questionnaire in the mail for the 2017 Survey of Doctorate Recipients (SDR). **Thank you for your past contribution to this unique study of doctorate holders, sponsored by the National Science Foundation (NSF) and the National Institutes of Health.** The participation of doctorate holders like you has provided governmental organizations, businesses, and academic institutions with crucial information concerning the availability of highly-educated personnel in a variety of fields.

The SDR has been conducted biennially since 1973 and is the only source of data on the careers of science, engineering, and health doctorate holders from U.S. academic institutions. The value of the data obtained over the years with the help of its participants is immeasurable, **and your continued participation ensures the validity and accuracy of the survey data**. Aggregated results from earlier rounds of the study are publicly available at the NSF website listed below.

All information you provide will be kept strictly confidential and safeguarded in accordance with the Privacy Act of 1974 and the Confidential Information Protection and Statistical Efficiency Act of 2002.

NORC at the University of Chicago is the survey contractor conducting this survey on our behalf. If you do not receive a questionnaire within two weeks or have any questions regarding this study, please contact NORC via the toll-free number or email address listed below. **A secure, online version of the survey is also available**; please contact NORC for your unique survey PIN and password if you prefer to complete the 2017 SDR online. Staff members are available from 9 a.m. to 9 p.m. (Central Time) to assist you.

I would greatly appreciate your continued participation in this significant effort.

Sincerely,

John R. Gawalt, Director
National Center for Science and Engineering Statistics
National Science Foundation

ID: [SDR ID]

Mail Start Mode Prenotice Letter: 2015 Nonresponse Retirees/2015 NIR/Partial Responders (M_PN2.docx)

This letter will be sent to sample members printed on the SDR 2017 letterhead, images of which can be found on pages D-2 and D-3.

[DATE], 2017

Dr. [FIRST NAME] [MIDDLE INITIAL] [LAST NAME]
[ORGNAME]
[STREET ADDRESS 1]
[STREET ADDRESS 2]
[CITY], [STATE] [ZIP CODE]

Dear Dr. [LAST NAME],

In a few days, you should receive a questionnaire in the mail for the 2017 Survey of Doctorate Recipients (SDR), which is sponsored by the National Science Foundation (NSF) and the National Institutes of Health. **The SDR has been conducted biennially since 1973 and is the only source of data on the careers of science, engineering, and health doctorate holders from U.S. academic institutions.** Analysis and reports prepared using this survey data have provided governmental organizations, businesses, and academic institutions with crucial information concerning the availability of highly-educated personnel in a variety of fields.

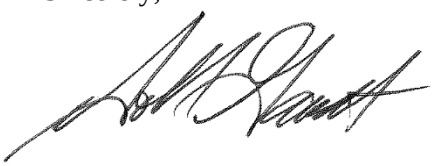
Your response is needed, regardless of your current employment status or occupation. **Because you were scientifically selected to represent a crucial segment of the population, we cannot substitute any other person for you**. Your involvement in this ongoing effort will help to ensure the validity and accuracy of the survey data. Aggregated results from earlier rounds of the study are publicly available at the NSF website listed below.

All information you provide will be kept strictly confidential and safeguarded in accordance with the Privacy Act of 1974 and the Confidential Information Protection and Statistical Efficiency Act of 2002.

NORC at the University of Chicago is the survey contractor conducting this survey on our behalf. If you do not receive a questionnaire within two weeks or have any questions regarding this study, please contact them via the toll-free number or email address listed below. **A secure, online version of the survey is also available; please contact NORC for your unique PIN and password if you prefer to complete the 2017 SDR online.** Staff members are available from 9 a.m. to 9 p.m. (Central Time) to assist you.

I would greatly appreciate your cooperation in this significant effort.

Sincerely,



John R. Gawalt, Director
National Center for Science and Engineering Statistics
National Science Foundation

ID: [SDR ID]

Mail Start Mode Prenotice Letter: New Cohort (M_PN3.docx)

This letter will be sent to sample members printed on the SDR 2017 letterhead, images of which can be found on pages D-2 and D-3.

[DATE], 2017

Dr. [FIRST NAME] [MIDDLE INITIAL] [LAST NAME]
[ORGNAME]
[STREET ADDRESS 1]
[STREET ADDRESS 2]
[CITY], [STATE] [ZIP CODE]

Dear Dr. [LAST NAME],

In a few days, you should receive a questionnaire in the mail for the 2017 Survey of Doctorate Recipients (SDR), which is sponsored by the National Science Foundation (NSF) and the National Institutes of Health. **The SDR has been conducted biennially since 1973 and is the only source of data on the careers of science, engineering, and health doctorate holders from U.S. academic institutions.** Analysis and reports prepared using this survey data have provided governmental organizations, businesses, and academic institutions with crucial information concerning the availability of highly-educated personnel in a variety of fields.

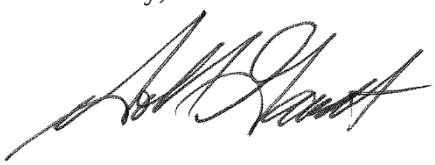
You were scientifically selected to **represent a crucial segment of the population** of individuals earning a research doctorate in the U.S. **As such, we cannot substitute any other person for you**. Your involvement in this ongoing effort will help ensure the validity and accuracy of the survey data. Aggregated results from earlier rounds of the study are publicly available at the NSF website listed below.

All information you provide will be kept strictly confidential and safeguarded in accordance with the Privacy Act of 1974 and the Confidential Information Protection and Statistical Efficiency Act of 2002.

NORC at the University of Chicago is the survey contractor conducting this survey on our behalf. If you do not receive a questionnaire within two weeks or have any questions regarding this study, please contact them via the toll-free number or email address listed below. **A secure, online version of the survey is also available; please contact NORC for your unique survey PIN and password if you prefer to complete the 2017 SDR online.** Staff members are available from 9 a.m. to 9 p.m. (Central Time) to assist you.

I would greatly appreciate your cooperation in this significant effort.

Sincerely,



John R. Gawalt, Director
National Center for Science and Engineering Statistics
National Science Foundation

ID: [SDR ID]

CATI Start Mode Prenotice Letter: 2015 Cooperative (C_PN1.docx)

This letter will be sent to sample members printed on the SDR 2017 letterhead, images of which can be found on pages D-2 and D-3.

[DATE], 2017

Dr. [FIRST NAME] [MIDDLE INITIAL] [LAST NAME]
[ORGNAME]
[STREET ADDRESS 1]
[STREET ADDRESS 2]
[CITY], [STATE] [ZIP CODE]

Dear Dr. [LAST NAME],

We will be calling you soon to request your participation in the 2017 Survey of Doctorate Recipients (SDR). **Thank you for your past contribution to this unique study of doctorate holders, sponsored by the National Science Foundation (NSF) and the National Institutes of Health.** The participation of doctorate holders like you has provided governmental organizations, businesses, and academic institutions with crucial information concerning the availability of highly-educated personnel in a variety of fields.

The SDR has been conducted biennially since 1973 and is the only source of data on the careers of science, engineering, and health doctorate holders from U.S. academic institutions. The value of the information obtained over the years with the help of its participants is immeasurable, **and your continued participation ensures the validity and accuracy of the survey data**. Aggregated results from earlier rounds of the study are publicly available at the NSF website listed below.

All information you provide will be kept strictly confidential and safeguarded in accordance with the Privacy Act of 1974 and the Confidential Information Protection and Statistical Efficiency Act of 2002.

NORC at the University of Chicago is the survey contractor conducting this survey on our behalf. The interview should take about 25 minutes. If you do not receive a call within the next two weeks or have any questions regarding this study, please contact NORC via the toll-free number or email address listed below. **A secure, online version of the survey is also available**; please contact NORC for your unique survey PIN and password if you prefer to complete the 2017 SDR online. Staff members are available from 9 a.m. to 9 p.m. (Central Time) to assist you.

I would greatly appreciate your continued participation in this significant effort.

Sincerely,

John R. Gawalt, Director
National Center for Science and Engineering Statistics
National Science Foundation

ID: [SDR ID]

CATI Start Mode Prenotice Letter: 2015 Nonresponse /2017 New Cohort (C_PN2.docx)

This letter will be sent to sample members printed on the SDR 2017 letterhead as found on pages D-2 and D-3.

[DATE], 2017

Dr. [FIRST NAME] [MIDDLE INITIAL] [LAST NAME]
[ORGNAME]
[STREET ADDRESS 1]
[STREET ADDRESS 2]
[CITY], [STATE] [ZIP CODE]

Dear Dr. [LAST NAME],

We will be calling you soon to request your participation in the 2017 Survey of Doctorate Recipients (SDR), sponsored by the National Science Foundation (NSF) and the National Institutes of Health. **The SDR has been conducted biennially since 1973 and is the only source of data on the careers of science, engineering, and health doctorate holders from U.S. academic institutions.** Analysis and reports prepared using this survey data have provided governmental organizations, businesses, and academic institutions with crucial information concerning the availability of highly-educated personnel in a variety of fields.

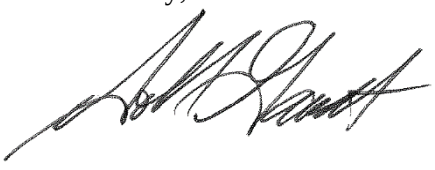
You were scientifically selected to **represent a crucial segment of the population** of individuals earning a research doctorate in the U.S. **As such, we cannot substitute any other person for you**. Your involvement in this ongoing effort will help ensure the validity and accuracy of the survey data. Aggregated results from earlier rounds of the study are publicly available at the NSF website listed below.

All information you provide will be kept strictly confidential and safeguarded in accordance with the Privacy Act of 1974 and the Confidential Information Protection and Statistical Efficiency Act of 2002.

NORC at the University of Chicago is the survey contractor conducting this survey on our behalf. The interview should take about 25 minutes. If you do not receive a call within the next two weeks or have any questions regarding this study, please contact NORC via the toll-free number or email address listed below. **A secure, online version of the survey is also available**; please contact NORC for your unique survey PIN and password if you prefer to complete the 2017 SDR online. Staff members are available from 9 a.m. to 9 p.m. (Central Time) to assist you.

We would greatly appreciate your cooperation in this important effort.

Sincerely,



John R. Gawalt, Director
National Center for Science and Engineering Statistics
National Science Foundation

ID: [SDR ID]

Web Start Mode Initial Notice - USPS: 2015 Cooperative (W_IC1_u.docx)

This letter will be sent to sample members printed on the SDR 2017 letterhead, images of which can be found on pages D-2 and D-3.

[DATE], 2017

Dr. [FIRST NAME] [MIDDLE INITIAL] [LAST NAME]
[ORGNAME]
[STREET ADDRESS 1]
[STREET ADDRESS 2]
[CITY], [STATE] [ZIP CODE]

Dear Dr. [LAST NAME],

Thank you for your past participation in the Survey of Doctorate Recipients (SDR), sponsored by the National Science Foundation (NSF) and the National Institutes of Health. Your responses, aggregated with other participants' responses, help academic and governmental organizations with decision-making, for instance, in the anticipation of personnel shortages and funding needs for research and development. The information you provided has also proven valuable for students who want to learn about the occupational potential of their graduate education.

Please continue to participate by completing the 2017 SDR online. Because the survey is secure and confidential, you'll need to enter your unique and case-sensitive PIN and password to access the survey after going to the survey website.

https://websurvey.norc.org/2017sdr

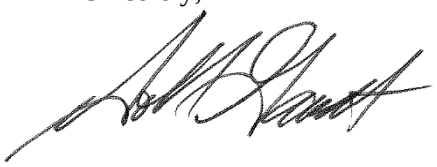
PIN: **[WEBPIN]** Password: **[WEBPWD]**

To ensure receipt, **we are also sending you access to the survey to the email address we have on record for you.** The information you provide will be collected by NORC at the University of Chicago, the survey contractor conducting SDR on our behalf. Your data will be kept strictly confidential and safeguarded in accordance with the Privacy Act of 1974 and the Confidential Information Protection and Statistical Efficiency Act of 2002.

If you have any questions regarding the survey or would like to request a paper version of the survey, please contact NORC via the toll-free number or email address listed below. Staff members are available from 9 a.m. to 9 p.m. (Central Time) to assist you.

Thank you in advance for contributing to the SDR. We look forward to receiving your online survey.

Sincerely,



John R. Gawalt, Director
National Center for Science and Engineering Statistics
National Science Foundation

ID: [SDR ID]

Web Start Mode Initial Notice - USPS: 2015 Cooperative Retiree (W_IC2_u.docx)

This letter will be sent to sample members printed on the SDR 2017 letterhead, images of which can be found on pages D-2 and D-3.

[DATE], 2017

Dr. [FIRST NAME] [MIDDLE INITIAL] [LAST NAME]
[ORGNAME]
[STREET ADDRESS 1]
[STREET ADDRESS 2]
[CITY], [STATE] [ZIP CODE]

Dear Dr. [LAST NAME],

Thank you for your past participation in the Survey of Doctorate Recipients (SDR), sponsored by the National Science Foundation (NSF) and the National Institutes of Health. Your responses, aggregated with other participants' responses, help academic and governmental organizations with decision-making, for instance, in the anticipation of personnel shortages and funding needs for research and development. The information you provided has also proven valuable for students who want to learn about the occupational potential of their graduate education.

Please continue to participate by completing the 2017 SDR online. Because the survey is secure and confidential, you'll need to enter your unique and case-sensitive PIN and password to access the survey after going to the survey website.

https://websurvey.norc.org/2017sdr

PIN: **[WEBPIN]** Password: **[WEBPWD]**

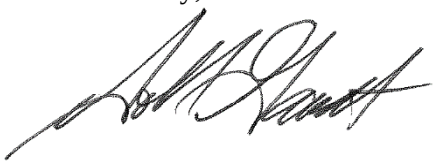
To ensure receipt, **we are also sending you access to the survey to the email address we have on record for you.** The information you provide will be collected by NORC at the University of Chicago, the survey contractor conducting SDR on our behalf. Your data will be kept strictly confidential and safeguarded in accordance with the Privacy Act of 1974 and the Confidential Information Protection and Statistical Efficiency Act of 2002.

Our records show that you were retired when you last participated in the SDR. Your response is vital, regardless of your employment situation. We want to hear from you whether you are retired and not working, retired but working part time, or back to working full time.

If you have any questions regarding the survey, please contact NORC via the toll-free number or email address listed below. Staff members are available from 9 a.m. to 9 p.m. (Central Time) to assist you.

Thank you in advance for contributing to the SDR. We look forward to receiving your online survey.

Sincerely,



John R. Gawalt, Director
National Center for Science and Engineering Statistics
National Science Foundation

ID: [SDR ID]

Web Start Mode Initial Notice - USPS: 2015 Nonresponse (W_IC3_u.docx)

This letter will be sent to sample members printed on the SDR 2017 letterhead, images of which can be found on pages D-2 and D-3.

[DATE], 2017

Dr. [FIRST NAME] [MIDDLE INITIAL] [LAST NAME]
[ORGNAME]
[STREET ADDRESS 1]
[STREET ADDRESS 2]
[CITY], [STATE] [ZIP CODE]

Dear Dr. [LAST NAME],

We are requesting your participation in the 2017 Survey of Doctorate Recipients (SDR). The study is sponsored by the National Science Foundation (NSF) and the National Institutes of Health and is the only source of data on the careers of science, engineering, and health doctorate holders from U.S. academic institutions.

Your response is needed whatever your current employment status or occupation. **Because you were scientifically selected to represent a crucial segment of the population, we cannot substitute any other person for you.** Your involvement in this effort will help ensure the validity and accuracy of the survey results.

Please contribute to this research by completing the SDR online. Because the survey is secure and confidential, you'll need to enter your unique and case-sensitive PIN and password to access the survey after going to the survey website.

https://websurvey.norc.org/2017sdr

PIN: **[WEBPIN]** Password: **[WEBPWD]**

To ensure receipt, **we are also sending you access to the survey to the email address we have on record for you.** The information you provide will be collected by NORC at the University of Chicago, the survey contractor conducting SDR on our behalf. Your data will be kept strictly confidential in accordance with the Privacy Act of 1974 and the Confidential Information Protection and Statistical Efficiency Act of 2002.

If you have any questions regarding the survey or would like to request a paper version of the survey, please contact the survey contractor, NORC at the University of Chicago, via the toll-free number or email address listed below. Staff members are available from 9 a.m. to 9 p.m. (Central Time) to assist you.

Thank you in advance for contributing to the SDR. We look forward to receiving your online survey.

Sincerely,

John R. Gawalt, Director
National Center for Science and Engineering Statistics
National Science Foundation

ID: [SDR ID]

Web Start Mode Initial Notice - USPS: 2015 Cooperative Green Appeal (W_IC5_u.docx)

This letter will be sent to sample members printed on the SDR 2017 letterhead, images of which can be found on pages D-2 and D-3.

[DATE], 2017

Dr. [FIRST NAME] [MIDDLE INITIAL] [LAST NAME]
[ORGNAME]
[STREET ADDRESS 1]
[STREET ADDRESS 2]
[CITY], [STATE] [ZIP CODE]

Dear Dr. [LAST NAME],

Thank you for your past participation in the Survey of Doctorate Recipients (SDR), sponsored by the National Science Foundation (NSF) and the National Institutes of Health. Your responses, aggregated with other participants' responses, help academic and governmental organizations with decision-making, for instance, in the anticipation of personnel shortages and funding needs for research and development. The information you provided has also proven valuable for students who want to learn about the occupational potential of their graduate education.

We are asking you to complete the 2017 SDR online rather than a paper questionnaire sent in the mail to promote a more efficient and eco-friendly way to participate in the 2017 SDR. We hope you will support the NSF's efforts to conserve resources.

Please continue to participate by completing the survey online. Because the survey is secure and confidential, you'll need to enter your unique and case-sensitive PIN and password to access the survey after going to the survey website.

https://websurvey.norc.org/2017sdr

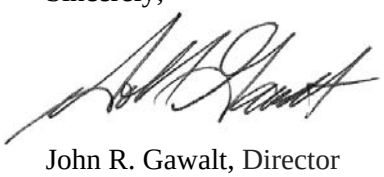
PIN: **[WEBPIN]** Password: **[WEBPWD]**

To ensure receipt, **we are also sending you access to the survey to the email address we have on record for you.** The information you provide will be collected by NORC at the University of Chicago, the survey contractor conducting SDR on our behalf. Your data will be kept strictly confidential and safeguarded in accordance with the Privacy Act of 1974 and the Confidential Information Protection and Statistical Efficiency Act of 2002.

If you have any questions regarding the survey or would rather complete the paper version of the survey, please contact NORC via the toll-free number or email address listed below. Staff members are available from 9 a.m. to 9 p.m. (Central Time) to assist you.

Thank you in advance for contributing to the SDR. We look forward to receiving your online survey.

Sincerely,



John R. Gawalt, Director
National Center for Science and Engineering Statistics
National Science Foundation

ID: [SDR ID]

Web Start Mode Initial Notice - USPS: 2017 New Cohort and 2015 Panel Locating Problems (W_IC7_u.docx)

Please see pages D-14 and D-15 for the referenced enclosed InfoCard
This letter will be sent to sample members printed on the SDR 2017 letterhead, images of which can be found on pages D-2 and D-3.

[DATE], 2017

Dr. [FIRST NAME] [MIDDLE INITIAL] [LAST NAME]
[ORGNAME]
[STREET ADDRESS 1]
[STREET ADDRESS 2]
[CITY], [STATE] [ZIP CODE]

Dear Dr. [LAST NAME],

We are requesting your participation in the 2017 Survey of Doctorate Recipients (SDR), sponsored by the National Science Foundation (NSF) and the National Institutes of Health. The SDR collects career outcome information from a highly educated and important population – individuals who have earned a science, engineering, or health doctorate degree from a U.S. academic institution.

Please complete this important survey online using the access information below. Your PIN and password are unique, and, for your convenience, we are sending this same information to the email address we have on record for you.

https://websurvey.norc.org/2017sdr

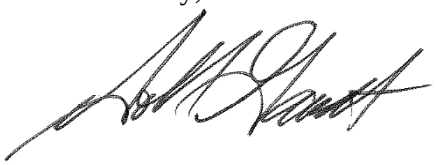
PIN: **[WEBPIN]** Password: **[WEBPWD]**

Your response will help us better understand the career and employment patterns of the U.S. trained doctorate population. Your response is needed regardless of your present employment situation, whether you are working, retired, or looking for a job. We also understand that highly-trained individuals like yourself are mobile, and we want to hear from you, wherever you currently reside.

To thank you for your consideration, you'll find a card enclosed that provides more information about the SDR with an attached bookmark. If you have any questions regarding the survey, please contact NORC via the toll-free number or email address listed below. Staff members are available from 9 a.m. to 9 p.m. (Central Time) to assist you.

We look forward to receiving your online survey.

Sincerely,



John R. Gawalt, Director
National Center for Science and Engineering Statistics
National Science Foundation

SDR ID: [SDR ID]

Web Start Mode Enclosed InfoCard - USPS: 2017 New Cohort and 2015 Panel Locating Problems (InfoCard) OUTSIDE VIEW

Graphic and statistics, as well as color of the InfoCard will be updated utilizing the 2015 SDR data.

Web Start Mode Enclosed InfoCard - USPS: 2017 New Cohort and 2015 Panel Locating Problems (InfoCard) INSIDE VIEW

Graphic and statistics, as well as color of the InfoCard will be updated utilizing the 2015 SDR data.

Mail Start Mode First Questionnaire Cover Letter: 2015 Cooperative (M_Quex1_1.docx)

This letter will be sent to sample members printed on the SDR 2017 letterhead, images of which can be found on pages D-2 and D-3.

[DATE], 2017

Dr. [FIRST NAME] [MIDDLE INITIAL] [LAST NAME]
[ORGNAME]
[STREET ADDRESS 1]
[STREET ADDRESS 2]
[CITY], [STATE] [ZIP CODE]

Dear Dr. [LAST NAME],

Thank you for your past participation in the Survey of Doctorate Recipients (SDR). For over 40 years, you and other SDR respondents have contributed to an irreplaceable collection of longitudinal data about doctorate holders. Your responses, aggregated with other participants' responses, help academic and governmental organizations with decision-making, for instance, in the anticipation of personnel shortages and funding needs for research and development. The information you provided has also proven valuable for students who want to learn about the occupational potential of their graduate education.

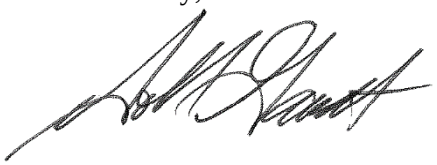
At this time, we are asking for you to complete the enclosed 2017 SDR questionnaire. The study is sponsored by the National Science Foundation (NSF) and the National Institutes of Health. Your response, regardless of your employment situation, is vital to the creation of an accurate picture of the doctorate population. We want to learn how many doctorate holders are working in or out of their field of study, are seeking employment, are retired, or are in other employment-related situations. We can only learn about how the career patterns of doctorate recipients change over time from you. Aggregated results from earlier rounds of the study are publicly available at the NSF website listed below.

Please complete the enclosed questionnaire and return it in the postage-paid envelope to NORC.

If you have any questions about the survey, please contact the survey contractor, NORC at the University of Chicago, via the toll-free number or email address listed below. Staff members are available from 9 a.m. to 9 p.m. (Central Time) to assist you.

Thank you for your continued participation. We look forward to receiving your completed survey.

Sincerely,



John R. Gawalt, Director
National Center for Science and Engineering Statistics
National Science Foundation

ID: [SDR ID]

Mail Start Mode First Questionnaire Cover Letter: 2015 Cooperative Retiree (M_Quex1_2.docx)

This letter will be sent to sample members printed on the SDR 2017 letterhead, images of which can be found on pages D-2 and D-3.

[DATE], 2017

Dr. [FIRST NAME] [MIDDLE INITIAL] [LAST NAME]
[ORGNAME]
[STREET ADDRESS 1]
[STREET ADDRESS 2]
[CITY], [STATE] [ZIP CODE]

Dear Dr. [LAST NAME],

Thank you for your past participation in the Survey of Doctorate Recipients (SDR). For over 40 years, you and other SDR respondents have contributed to an irreplaceable collection of longitudinal data about doctorate holders. Your responses, aggregated with other participants' responses, help academic and governmental organizations with decision-making, for instance, in the anticipation of personnel shortages and funding needs for research and development. The information you provided has also proven valuable for students who want to learn about the occupational potential of their graduate education.

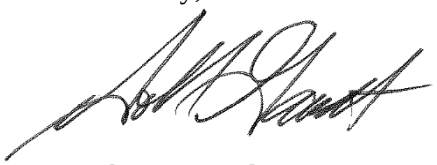
At this time, we are asking for you to complete the enclosed 2017 SDR questionnaire. The study is sponsored by the National Science Foundation (NSF) and the National Institutes of Health. Our records show that you were retired when you last participated in the SDR. Your response, regardless of your employment situation, is vital to the creation of an accurate picture of the doctorate population. We can only learn about how the career patterns of doctorate recipients change over time from you. Aggregated results from earlier rounds of the study are publicly available at the NSF website listed below.

Please complete the enclosed questionnaire and return it in the postage-paid envelope to NORC.

If you have any questions about the survey, please contact the survey contractor, NORC at the University of Chicago, via the toll-free number or email address listed below. Staff members are available from 9 a.m. to 9 p.m. (Central Time) to assist you.

Thank you for your continued participation. We look forward to receiving your completed survey.

Sincerely,



John R. Gawalt, Director
National Center for Science and Engineering Statistics
National Science Foundation

ID: [SDR ID]

Mail Start Mode First Questionnaire Cover Letter: 2015 Nonresponse Retiree (M_Quex1_3.docx)

This letter will be sent to sample members printed on the SDR 2017 letterhead, images of which can be found on pages D-2 and D-3.

[DATE], 2017

Dr. [FIRST NAME] [MIDDLE INITIAL] [LAST NAME]
[ORGNAME]
[STREET ADDRESS 1]
[STREET ADDRESS 2]
[CITY], [STATE] [ZIP CODE]

Dear Dr. [LAST NAME],

We are requesting your participation in the 2017 Survey of Doctorate Recipients (SDR). The study is sponsored by the National Science Foundation (NSF) and the National Institutes of Health and an irreplaceable collection of longitudinal data on the careers of science, engineering, and health doctorate holders from U.S. academic institutions.

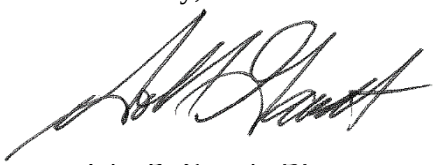
Our records show that you were retired during a previous round of the SDR. Your response, regardless of your current employment situation, is vital to the creation of an accurate picture of the doctorate population. We can only learn about the extent to which retirement decisions change or remain stable over time from you. Aggregated results from earlier rounds of the study are publicly available at the NSF website listed below.

Please complete the enclosed questionnaire and return it in the postage-paid envelope to NORC at the University of Chicago.

If you have any questions about the survey, please contact the survey contractor, NORC at the University of Chicago, via the toll-free number or email address listed below. Staff members are available from 9 a.m. to 9 p.m. (Central Time) to assist you.

Thank you in advance for your participation. We look forward to receiving your completed survey.

Sincerely,



John R. Gawalt, Director
National Center for Science and Engineering Statistics
National Science Foundation

ID: [SDR ID]

Mail Start Mode First Questionnaire Cover Letter: Refusals/NIR/Partial Responders (M_Quex1_4.docx)

This letter will be sent to sample members printed on the SDR 2017 letterhead, images of which can be found on pages D-2 and D-3.

[DATE], 2017

Dr. [FIRST NAME] [MIDDLE INITIAL] [LAST NAME]
[ORGNAME]
[STREET ADDRESS 1]
[STREET ADDRESS 2]
[CITY], [STATE] [ZIP CODE]

Dear Dr. [LAST NAME],

We are requesting your participation in the 2017 Survey of Doctorate Recipients (SDR). The study is sponsored by the National Science Foundation (NSF) and the National Institutes of Health and is an irreplaceable collection of longitudinal data on the careers of science, engineering, and health doctorate holders from U.S. academic institutions.

Your response, regardless of your employment situation, is vital to the creation of an accurate picture of the doctorate population. We want to learn how many doctorate holders are working in or out of their field of study, are seeking employment, are retired, or are in other employment-related situations. **We can only learn about how the career patterns of doctorate recipients change over time from you.**

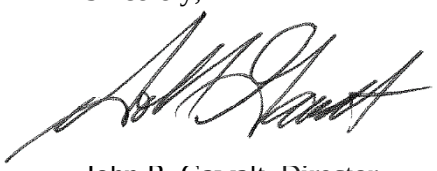
Your data will be kept strictly confidential and safeguarded in accordance with the Privacy Act of 1974 and the Confidential Information Protection and Statistical Efficiency Act of 2002. The data collected will be aggregated and used to prepare scientific reports, articles, and statistical summaries, but any information released publicly will maintain the confidentiality of all participants. Results from earlier studies are available at the NSF website listed below.

Please complete the enclosed questionnaire and return it in the postage-paid envelope to NORC.

If you have any questions about the survey, please contact the survey contractor, NORC at the University of Chicago, via the toll-free number or email address listed below. Staff members are available from 9 a.m. to 9 p.m. (Central Time) to assist you.

Thank you in advance for your participation. We look forward to receiving your completed survey.

Sincerely,



John R. Gawalt, Director
National Center for Science and Engineering Statistics
National Science Foundation

ID: [SDR ID]

Mail Start Mode First Questionnaire Cover Letter: 2017 New Cohort (M_Quex1_5.docx)

This letter will be sent to sample members printed on the SDR 2017 letterhead, images of which can be found on pages D-2 and D-3.

[DATE], 2017

Dr. [FIRST NAME] [MIDDLE INITIAL] [LAST NAME]
[ORGNAME]
[STREET ADDRESS 1]
[STREET ADDRESS 2]
[CITY], [STATE] [ZIP CODE]

Dear Dr. [LAST NAME],

We are requesting your participation in the 2017 Survey of Doctorate Recipients (SDR). The study is sponsored by the National Science Foundation (NSF) and the National Institutes of Health.

As mentioned in our previous correspondence, you were scientifically selected to represent a crucial segment of the population and as such, **we cannot substitute any other person for you**. Your response, regardless of your employment situation, is vital to the creation of an accurate picture of the doctorate population.

Please complete the enclosed questionnaire and return it in the postage-paid envelope to NORC at the University of Chicago—or complete an online survey by using the access information below. Because the survey is secure and confidential, you'll need to enter your unique and case-sensitive PIN and password to access the survey after going to the survey website.

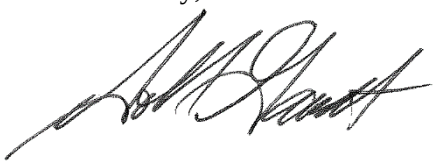
https://websurvey.norc.org/2017sdr

PIN: **[WEBPIN]** Password: **[WEBPWD]**

If you have any questions about the survey, please contact the survey contractor, NORC at the University of Chicago, via the toll-free number or email address listed below. Staff members are available from 9 a.m. to 9 p.m. (Central Time) to assist you.

We would greatly appreciate your cooperation in this significant effort. We look forward to receiving your completed survey.

Sincerely,



John R. Gawalt, Director
National Center for Science and Engineering Statistics
National Science Foundation

ID: [SDR ID]

Mail Start Mode First Questionnaire Cover Letter: Money Cooperative (M_Quex1_10.docx)

This letter will be sent to sample members printed on the SDR 2017 letterhead, images of which can be found on pages D-2 and D-3.

[DATE], 2017

Dr. [FIRST NAME] [MIDDLE INITIAL] [LAST NAME]
[ORGNAME]
[STREET ADDRESS 1]
[STREET ADDRESS 2]
[CITY], [STATE] [ZIP CODE]

Dear Dr. [LAST NAME],

We are requesting your participation in the 2017 Survey of Doctorate Recipients (SDR). The study is sponsored by the National Science Foundation (NSF) and the National Institutes of Health and is an irreplaceable collection of longitudinal data on the careers of science, engineering, and health doctorate holders from U.S. academic institutions.

Please find a $30 token of our appreciation enclosed to thank you for your past contribution and in advance for your 2017 SDR participation. Your response, regardless of your employment situation, is vital to the creation of an accurate picture of the doctorate population. We want to learn how many doctorate holders are working in or out of their field of study, are seeking employment, are retired, or are in other employment-related situations. **We can only learn about how the career patterns of doctorate recipients change over time from you.**

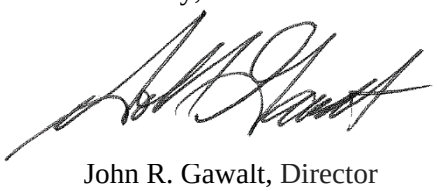
Your data will be kept strictly confidential and safeguarded in accordance with the Privacy Act of 1974 and the Confidential Information Protection and Statistical Efficiency Act of 2002. The data collected will be aggregated and used to prepare scientific reports, articles, and statistical summaries, but any information released publicly will maintain the confidentiality of all participants. Results from earlier studies are available at the NSF website listed below.

Please complete the enclosed questionnaire and return it in the postage-paid envelope to NORC.

If you have any questions about the survey, please contact the survey contractor, NORC at the University of Chicago, via the toll-free number or email address listed below. Staff members are available from 9 a.m. to 9 p.m. (Central Time) to assist you.

Thank you in advance for your participation. We look forward to receiving your completed survey.

Sincerely,



John R. Gawalt, Director
National Center for Science and Engineering Statistics
National Science Foundation

ID: [SDR ID]

Web Start Mode Follow-up Notice - USPS: 2015 Cooperative (W_FN1_u.docx)

This letter will be sent to sample members printed on the SDR 2017 letterhead, images of which can be found on pages D-2 and D-3.

[DATE], 2017

Dr. [FIRST NAME] [MIDDLE INITIAL] [LAST NAME]
[ORGNAME]
[STREET ADDRESS 1]
[STREET ADDRESS 2]
[CITY], [STATE] [ZIP CODE]

Dear Dr. [LAST NAME],

We would like your help in completing the 2017 Survey of Doctorate Recipients (SDR). The SDR is sponsored by the National Science Foundation (NSF) and the National Institutes of Health.

Your participation helps to ensure that SDR information and statistics are valid and complete. Because you were scientifically selected for the SDR, we cannot substitute any other person for you. Your response, regardless of your employment situation, is vital to the creation of an accurate picture of the doctorate population. We want to learn how many doctorate holders are working in or out of their field of study, are seeking employment, are retired, or are in other employment-related situations.

Please complete this important survey online using the access information below.

https://websurvey.norc.org/2017sdr

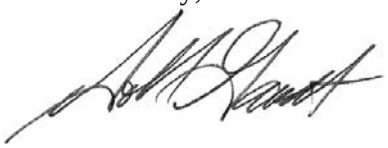
PIN: **[WEBPIN]** Password: **[WEBPWD]**

If you would rather complete this survey on the telephone or via a paper questionnaire, please let us know by contacting the study's toll-free number or email address listed below. For your convenience, this information has also been sent to the email address we have on record for you.

If you have any questions regarding the survey, please contact the survey contractor, NORC at the University of Chicago, where staff members are available from 9 a.m. to 9 p.m. (Central Time) to assist you.

Thank you in advance for your cooperation in this important effort.

Sincerely,



John R. Gawalt, Director
National Center for Science and Engineering Statistics
National Science Foundation

P.S. **If you have already completed the 2017 survey**, thank you so much for your time!

ID: [SDR ID]

Web Start Mode Follow-up Notice - USPS: 2015 Locating/2015 Nonresponse (W_FN2_u.docx)

This letter will be sent to sample members printed on the SDR 2017 letterhead, images of which can be found on pages D-2 and D-3.

[DATE], 2017

Dr. [FIRST NAME] [MIDDLE INITIAL] [LAST NAME]
[ORGNAME]
[STREET ADDRESS 1]
[STREET ADDRESS 2]
[CITY], [STATE] [ZIP CODE]

Dear Dr. [LAST NAME],

We would like your help in completing the 2017 Survey of Doctorate Recipients (SDR). The SDR is sponsored by the National Science Foundation (NSF) and the National Institutes of Health.

Your participation helps to ensure that SDR information and statistics are valid and complete. Science, engineering, and health doctorate holders are highly trained and mobile, moving from one country to another to take advantage of opportunities in their fields. We want to gather information on the productivity and career paths of individuals like you, wherever you may live or work. Because you were scientifically selected for the SDR, we cannot substitute any other person for you.

Please complete this important survey online using the access information below.

https://websurvey.norc.org/2017sdr

PIN: **[WEBPIN]** Password: **[WEBPWD]**

If you would rather complete this survey on the telephone or via a paper questionnaire, please let us know by contacting the study's toll-free number or email address listed below. For your convenience, this information has also been sent to the email address we have on record for you.

If you have any questions regarding the survey, please contact the survey contractor, NORC at the University of Chicago, where staff members are available from 9 a.m. to 9 p.m. (Central Time) to assist you.

Thank you in advance for your cooperation in this important effort.

Sincerely,

John R. Gawalt, Director
National Center for Science and Engineering Statistics
National Science Foundation

P.S. **If you have already completed the 2017 survey**, thank you so much for your time!

ID: [SDR ID]

Web Start Mode Follow-up Notice - USPS: 2015 Cooperative Green Appeal (W_FN3_u.docx)

This letter will be sent to sample members printed on the SDR 2017 letterhead, images of which can be found on pages D-2 and D-3.

[DATE], 2017

Dr. [FIRST NAME] [MIDDLE INITIAL] [LAST NAME]
[ORGNAME]
[STREET ADDRESS 1]
[STREET ADDRESS 2]
[CITY], [STATE] [ZIP CODE]

Dear Dr. [LAST NAME],

We would like your help in completing the 2017 Survey of Doctorate Recipients (SDR). The SDR is sponsored by the National Science Foundation (NSF) and the National Institutes of Health.

Your participation helps ensure that SDR information and statistics are valid and complete. Because you were scientifically selected for the SDR, we cannot substitute any other person for you. Your response, regardless of your employment situation or location, is vital to the creation of an accurate picture of the doctorate population. We want to learn how many doctorate holders are working in or out of their field of study, are seeking employment, are retired, or are in other employment-related situations.

Please complete this important survey online using the access information below.

https://websurvey.norc.org/2017sdr

PIN: **[WEBPIN]** Password: **[WEBPWD]**

We are asking you to complete the survey online in an effort to make the SDR a more sustainable and environmentally-friendly program. If you would rather complete this survey on the telephone or via a paper questionnaire, please let us know by contacting the study's toll-free number or email address listed below. For your convenience, this information has also been sent to the email address we have on record for you.

If you have any questions regarding the survey, please contact the survey contractor, NORC at the University of Chicago, where staff members are available from 9 a.m. to 9 p.m. (Central Time) to assist you.

Thank you in advance for your cooperation in this important effort.

Sincerely,

John R. Gawalt, Director
National Center for Science and Engineering Statistics
National Science Foundation

P.S. **If you have already completed the 2017 survey**, thank you so much for your time!

ID: [SDR ID]

Web Start Mode Follow-up notice - USPS: New Cohort (W_FN4_u.docx)

This letter will be sent to sample members printed on the SDR 2017 letterhead, images of which can be found on pages D-2 and D-3.

[DATE], 2017

Dr. [FIRST NAME] [MIDDLE INITIAL] [LAST NAME]
[ORGNAME]
[STREET ADDRESS 1]
[STREET ADDRESS 2]
[CITY], [STATE] [ZIP CODE]

Dear Dr. [LAST NAME],

Please find a $30 token of our appreciation enclosed to thank you in advance for participating in the 2017 Survey of Doctorate Recipients (SDR).

Your participation helps to ensure that SDR information and statistics are valid and complete. Because you were scientifically selected for the SDR, we cannot substitute any other person for you. Doctorate holders in science, engineering, and health are highly trained and mobile, moving to take advantage of opportunities in their fields. Understanding the productivity and career paths of individuals like you is important no matter where they live and work.

Please complete this important survey online using the access information below.

https://websurvey.norc.org/2017sdr

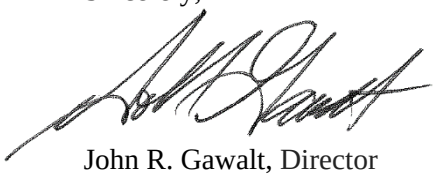
PIN: **[WEBPIN]** Password: **[WEBPWD]**

If you would rather complete this survey on the telephone or via a paper questionnaire, please let us know by contacting the study's toll-free number or email address listed below. For your convenience, this information has also been sent to the email address we have on record for you.

The 2017 SDR is sponsored by the National Science Foundation (NSF) and the National Institutes of Health. The information you provide will be collected by NORC at the University of Chicago, the survey contractor conducting the SDR on our behalf. If you have any questions regarding the survey, please contact NORC, where staff members are available from 9 a.m. to 9 p.m. (Central Time) to assist you.

Thank you in advance for your cooperation in this important effort.

Sincerely,



John R. Gawalt, Director
National Center for Science and Engineering Statistics
National Science Foundation

P.S. **If you have already completed the 2017 survey**, thank you so much for your time!

SDR ID: [SDR ID]

CATI Start Mode Prompting Message - USPS: Panel (C_PM_u.docx)

This letter will be sent to sample members printed on the SDR 2017 letterhead, images of which can be found on pages D-2 and D-3.

[DATE], 2017

Dr. [FIRST NAME] [MIDDLE INITIAL] [LAST NAME]
[ORGNAME]
[STREET ADDRESS 1]
[STREET ADDRESS 2]
[CITY], [STATE] [ZIP CODE]

Dear Dr. [LAST NAME],

We recently attempted to reach you by telephone to complete the 2017 Survey of Doctorate Recipients (SDR). The SDR is sponsored by the National Science Foundation (NSF) and the National Institutes of Health. We regret that we have been unable to reach you.

Your participation helps to ensure that SDR information and statistics are valid and complete. Because you were scientifically selected for the SDR, we cannot substitute any other person for you. Your response, regardless of your employment situation, is vital to the creation of an accurate picture of the doctorate population. We want to learn how many doctorate holders are working in or out of their field of study, are seeking employment, are retired, or are in other employment-related situations.

The data you provide will be kept strictly confidential and safeguarded in accordance with the Privacy Act of 1974 and the Confidential Information Protection and Statistical Efficiency Act of 2002.

We are offering three different ways by which you may participate.

1. **Paper**: To request a paper version of the survey, please call 1-800-685-1663.
2. **Telephone:** If you prefer a telephone interview, please call 1-800-685-1663.
3. **Online:** If you prefer to complete the survey online, please go to the following URL and enter your unique and case-sensitive PIN and password to securely access the survey:

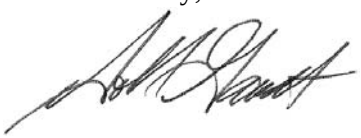
   https://survey.norc.org/2017sdr

   PIN: **[WEBPIN]** Password: **[WEBPWD]**

For your convenience, we are also sending you access to the online survey to the email address we have on record for you. If you have any questions regarding the survey, please contact the survey contractor, NORC at the University of Chicago, via the toll-free number or email address listed below. Staff members are available from 9 a.m. to 9 p.m. (Central Time) to assist you.

Thank you in advance for your cooperation in this important effort.

Sincerely,



John R. Gawalt, Director
National Center for Science and Engineering Statistics
National Science Foundation

ID: [SDR ID]-113

CATI Start Mode Prompting Message - USPS: New Cohort (C_PM2_u.docx)

This letter will be sent to sample members printed on the SDR 2017 letterhead, images of which can be found on pages D-2 and D-3.

[DATE], 2017

Dr. [FIRST NAME] [MIDDLE INITIAL] [LAST NAME]
[ORGNAME]
[STREET ADDRESS 1]
[STREET ADDRESS 2]
[CITY], [STATE] [ZIP CODE]

Dear Dr. [LAST NAME],

Please find a $30 token of our appreciation enclosed to thank you in advance for participating in the 2017 Survey of Doctorate Recipients. We recently attempted to reach you by telephone to complete the survey and regret we have been unable to reach you. The SDR is sponsored by the National Science Foundation (NSF) and the National Institutes of Health.

Your participation helps to ensure that SDR information and statistics are valid and complete. Because you were scientifically selected for the SDR, we cannot substitute any other person for you. Your response, regardless of your employment situation, is vital to the creation of an accurate picture of the doctorate population. We want to learn how many doctorate holders are working in or out of their field of study, are seeking employment, are retired, or are in other employment-related situations.

The data you provide will be kept strictly confidential and safeguarded in accordance with the Privacy Act of 1974 and the Confidential Information Protection and Statistical Efficiency Act of 2002.

We are offering three different ways by which you may participate.

1. **Paper**: To request a paper version of the survey, please call 1-800-685-1663.
2. **Telephone:** If you prefer a telephone interview, please call 1-800-685-1663.
3. **Online:** If you prefer to complete the survey online, please go to the following URL and enter your unique and case-sensitive PIN and password to securely access the survey:

   https://survey.norc.org/2017sdr

   PIN: **[WEBPIN]** Password: **[WEBPWD]**

For your convenience, we are also sending you access to the online survey to the email address we have on record for you. If you have any questions regarding the survey, please contact the survey contractor, NORC at the University of Chicago, via the toll-free number or email address listed below. Staff members are available from 9 a.m. to 9 p.m. (Central Time) to assist you.

Thank you in advance for your cooperation in this important effort.

Sincerely,

John R. Gawalt, Director
National Center for Science and Engineering Statistics
National Science Foundation

ID: [SDR ID]

CATI and Web Start Mode First Questionnaire Cover Letter: 2015 Non-retirees (CW_Quex1_6.docx)

This letter will be sent to sample members printed on the SDR 2017 letterhead, images of which can be found on pages D-2 and D-3.

[DATE], 2017

Dr. [FIRST NAME] [MIDDLE INITIAL] [LAST NAME]
[ORGNAME]
[STREET ADDRESS 1]
[STREET ADDRESS 2]
[CITY], [STATE] [ZIP CODE]

Dear Dr. [LAST NAME],

We are requesting your participation in the 2017 Survey of Doctorate Recipients, sponsored by the National Science Foundation (NSF) and the National Institutes of Health. Recently, we tried to contact you by email and telephone but have not received your completed questionnaire.

Whether you are working in or out of your doctoral field of study, seeking employment, retired, or in another employment-related situation, your response is vital. We can only learn about how the career patterns of doctorate recipients change over time from you. This study is conducted every two years and takes an average of 25 minutes of your time. Results from earlier studies are available at the NSF website below.

For your convenience, we are offering three different ways by which you can participate.

1. **Paper:** Please fill out the enclosed questionnaire and return it using the enclosed envelope.
2. **Telephone:** If you prefer a telephone interview, please call 1-800-685-1663.
3. **Online:** If you prefer to complete this survey online, please go to the following URL and enter your unique and case-sensitive PIN and password to securely access the survey:

   https://survey.norc.org/2017sdr

   PIN: **[WEBPIN]** Password: **[WEBPWD]**

If you have any questions regarding the survey, please contact the survey contractor, NORC at the University of Chicago, via the toll-free number or email address listed below. Staff members are available from 9 a.m. to 9 p.m. (Central Time) to assist you.

Thank you for your help with this important effort. We look forward to your response.

Sincerely,

John R. Gawalt, Director
National Center for Science and Engineering Statistics
National Science Foundation

ID: [SU_ID]

CATI and Web Start Mode First Questionnaire Cover Letter: 2015 Cooperative Retiree (CW_Quex1_7.docx)

This letter will be sent to sample members printed on the SDR 2017 letterhead, images of which can be found on pages D-2 and D-3.

[DATE], 2017

Dr. [FIRST NAME] [MIDDLE INITIAL] [LAST NAME]
[ORGNAME]
[STREET ADDRESS 1]
[STREET ADDRESS 2]
[CITY], [STATE] [ZIP CODE]

Dear Dr. [LAST NAME],

We are requesting your participation in the 2017 Survey of Doctorate Recipients, sponsored by the National Science Foundation (NSF) and the National Institutes of Health. Recently, we tried to contact you by email and telephone but have not received your completed questionnaire.

Whether you are retired and not working, retired but working part time, or back to working full time, your response is vital. We can only learn about the extent to which retirement decisions change or remain stable over time from you. Aggregated results from earlier rounds of the study are publicly available at the NSF website listed below.

For your convenience, we are offering three different ways by which you can participate.

1. **Paper:** Please fill out the enclosed questionnaire and return it using the enclosed envelope.
2. **Telephone:** If you prefer a telephone interview, please call 1-800-685-1663.
3. **Online:** If you prefer to complete this survey online, please go to the following URL and enter your unique and case-sensitive PIN and password to securely access the survey:

   https://survey.norc.org/2017sdr

   PIN: **[WEBPIN]** Password: **[WEBPWD]**

If you have any questions regarding the survey, please contact the survey contractor, NORC at the University of Chicago, via the toll-free number or email address listed below. Staff members are available from 9 a.m. to 9 p.m. (Central Time) to assist you.

Thank you for your help with this important effort. We look forward to your response.

Sincerely,

John R. Gawalt, Director
National Center for Science and Engineering Statistics
National Science Foundation

ID: [SU_ID]

CATI and Web Start Mode First Questionnaire Cover Letter: New Cohort (CW_Quex1_10.docx)

This letter will be sent to sample members printed on the SDR 2017 letterhead, images of which can be found on pages D-2 and D-3.

[DATE], 2017

Dr. [FIRST NAME] [MIDDLE INITIAL] [LAST NAME]
[ORGNAME]
[STREET ADDRESS 1]
[STREET ADDRESS 2]
[CITY], [STATE] [ZIP CODE]

Dear Dr. [LAST NAME],

I hope you received the $30 token of our appreciation recently mailed to you for the 2017 Survey of Doctorate Recipients (SDR). We are requesting your participation in this important study, which is sponsored by the National Science Foundation (NSF) and the National Institutes of Health. We have not yet received your completed questionnaire and hope you will contribute to 2017 SDR.

Whether you are working in or out of your doctoral field of study, seeking employment, retired, or in another employment-related situation, your response is vital. We can only learn about how the career patterns of doctorate recipients change over time from you. This study is conducted every two years and takes an average of 25 minutes of your time. Results from earlier studies are available at the NSF website below.

For your convenience, we are offering three different ways by which you can participate.

1. **Paper:** Please fill out the enclosed questionnaire and return it using the enclosed envelope.
2. **Telephone:** If you prefer a telephone interview, please call 1-800-685-1663.
3. **Online:** If you prefer to complete this survey online, please go to the following URL and enter your unique and case-sensitive PIN and password to securely access the survey:

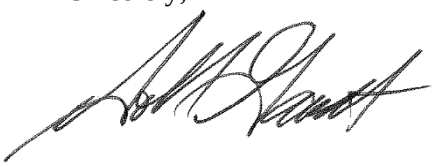
   https://survey.norc.org/2017sdr

   PIN: **[WEBPIN]** Password: **[WEBPWD]**

If you have any questions regarding the survey, please contact the survey contractor, NORC at the University of Chicago, via the toll-free number or email address listed below. Staff members are available from 9 a.m. to 9 p.m. (Central Time) to assist you.

Thank you for your help with this important effort. We look forward to your response.

Sincerely,



John R. Gawalt, Director
National Center for Science and Engineering Statistics
National Science Foundation

ID: [SU_ID]

Mail Start Second Questionnaire Cover Letter: All (Quex2.docx)

This letter will be sent to sample members printed on the SDR 2017 letterhead, images of which can be found on pages D-2 and D-3.

[DATE], 2017

Dr. [FIRST NAME] [MIDDLE INITIAL] [LAST NAME]
[ORGNAME]
[STREET ADDRESS 1]
[STREET ADDRESS 2]
[CITY], [STATE] [ZIP CODE]

Dear Dr. [LAST NAME],

We recently mailed you a 2017 Survey of Doctorate Recipients (SDR) questionnaire and have not yet received your completed survey. Your participation greatly influences the accuracy, usefulness, and overall success of the survey and its results and will take about 25 minutes of your time.

Your response is needed wherever you live and whatever your employment status is. Please complete this important survey. For your convenience, we are offering three different participation options.

1. **Paper:** Please fill out the enclosed questionnaire and return it using the enclosed envelope.
2. **Telephone:** If you prefer a telephone interview, please call 1-800-685-1663.
3. **Online:** If you prefer to complete the survey online, please go to the following URL and enter your unique and case-sensitive PIN and password to securely access the survey:

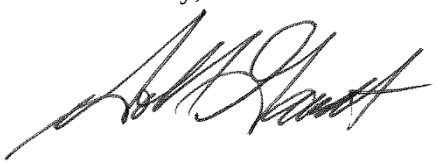
   https://survey.norc.org/2017sdr

   PIN: **MPMUK** Password: **[WEBPWD]**

If you have any questions regarding the survey, please contact the survey contractor, NORC at the University of Chicago, via the toll-free number or email address listed below. Staff members are available from 9 a.m. to 9 p.m. (Central Time) to assist you.

Thank you in advance for your cooperation in this important effort, which is sponsored by the National Science Foundation (NSF) and the National Institutes of Health.

Sincerely,



John R. Gawalt, Director
National Center for Science and Engineering Statistics
National Science Foundation

ID: [SU_ID]

Mail Start Second Questionnaire Cover Letter: New Cohort (Quex2_10.docx)

This letter will be sent to sample members printed on the SDR 2017 letterhead, images of which can be found on pages D-2 and D-3.

[DATE], 2017

Dr. [FIRST NAME] [MIDDLE INITIAL] [LAST NAME]
[ORGNAME]
[STREET ADDRESS 1]
[STREET ADDRESS 2]
[CITY], [STATE] [ZIP CODE]

Dear Dr. [LAST NAME],

We recently mailed you a 2017 Survey of Doctorate Recipients (SDR) questionnaire and have not yet received your completed survey. Your participation greatly influences the accuracy, usefulness, and overall success of the survey and its results and will take about 25 minutes of your time.

Please find a $30 token of appreciation enclosed to thank you in advance for participating in the 2017 SDR. Your response is needed wherever you live and whatever your employment status is.

Please complete this important survey. For your convenience, we are offering three different participation options.

1. **Paper:** Please fill out the enclosed questionnaire and return it using the enclosed envelope.
2. **Telephone:** If you prefer a telephone interview, please call 1-800-685-1663.
3. **Online:** If you prefer to complete the survey online, please go to the following URL and enter your unique and case-sensitive PIN and password to securely access the survey:

   https://survey.norc.org/2017sdr

   PIN: **MPM2IR** Password: **[WEBPWD]**

If you have any questions regarding the survey, please contact the survey contractor, NORC at the University of Chicago, via the toll-free number or email address listed below. Staff members are available from 9 a.m. to 9 p.m. (Central Time) to assist you.

Thank you in advance for your cooperation in this important effort, which is sponsored by the National Science Foundation (NSF) and the National Institutes of Health.

Sincerely,

John R. Gawalt, Director
National Center for Science and Engineering Statistics
National Science Foundation

ID: [SU_ID]

CATI and Web Start Survey Request Letter: Panel except Locating Problems (CW_InfoCard_letter_for_SMs.docx)

Please see pages D-14 and D-15 for the referenced enclosed InfoCard
This letter will be sent to sample members printed on the SDR 2017 letterhead, images of which can be found on pages D-2 and D-3.

[DATE], 2017

Dr. [FIRST NAME] [MIDDLE INITIAL] [LAST NAME]
[ORGNAME]
[STREET ADDRESS 1]
[STREET ADDRESS 2]
[CITY], [STATE] [ZIP CODE]

Dear Dr. [LAST NAME],

We have not yet received your completed 2017 Survey of Doctorate Recipients (SDR) and are requesting your participation. Your participation will enhance the accuracy, usefulness, and overall success of the survey and will help us better understand the career and employment patterns of doctorate holders like you.

Your response is important wherever you live worldwide and whatever your employment status. Enclosed you'll find a card that provides additional information about the SDR and contains an attached bookmark.

To complete the 2017 SDR online, go to the following URL and enter your unique PIN and password:

https://survey.norc.org/2017sdr

PIN: **[WEBPIN]** Password: **[WEBPWD]**

If you prefer a telephone interview or a mailed paper questionnaire, contact NORC via email or telephone using the information listed below. Staff members can assist you from 9 a.m. to 9 p.m. (U.S. Central Time).

Sincerely,

John R. Gawalt, Director
National Center for Science and Engineering Statistics
National Science Foundation

SDR ID: [SDR ID]

CATI and Web Start Survey Request Letter: New Cohort and Panel Locating Problems (CW_Letter_with_Graphic_not_InfoCard.docx)

Graphic and statistics will be updated utilizing the 2015 SDR data.

This letter will be sent to sample members printed on the SDR 2017 letterhead, images of which can be found on pages D-2 and D-3.

[DATE], 2017

Dr. [FIRST NAME] [MIDDLE INITIAL] [LAST NAME]
[ORGNAME]
[STREET ADDRESS 1]
[STREET ADDRESS 2]
[CITY], [STATE] [ZIP CODE]

Dear Dr. [LAST NAME],

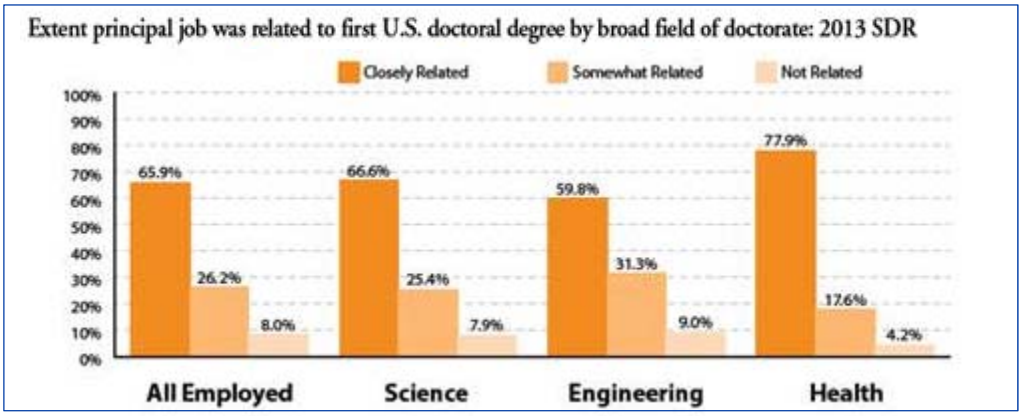
Please participate in the 2017 Survey of Doctorate Recipients (SDR). Your participation helps us to accurately continue to report on the career outcomes of U.S.-trained doctorate recipients.

To complete the survey online, please go to the following secure URL and enter your PIN and password:

https://survey.norc.org/2017sdr

PIN: **[WEBPIN]** Password: **[WEBPWD]**

Results from the 2013 SDR show that 86% of U.S.-trained doctorates living in the U.S. were employed full or part time; 58% worked in science occupations, 13% in engineering; and 46% worked at educational institutions. The figure below shows 66% of employed science, engineering, and health doctorates had jobs closely related to their degree field.



Thank you in advance for your participation in the 2017 SDR,

John R. Gawalt, Director
National Center for Science and Engineering Statistics
National Science Foundation

SDR ID: [SDR ID]

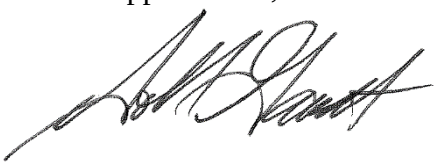
Postcard Text: All (Thank_you_Postcard_text.docx)

Last week you should have received a survey in the mail from NORC at the University of Chicago, who has been contracted to conduct a survey sponsored by the National Science Foundation (NSF) and the National Institutes of Health. Many thanks if you have already completed the survey, we look forward to receiving it shortly. If you have not completed the survey, we hope you will complete it as soon as you can.

If you did not receive the materials, or if you would like to complete the survey online or over the telephone, please contact NORC via email at NSFstudy@norc.uchicago.edu or toll-free at 1-800-685-1663 between 9 a.m. and 9 p.m. (U.S. Central Time).

Your participation is important for the success of this study.

With appreciation,



John R. Gawalt, Director
National Center for Science and Engineering Statistics
National Science Foundation

Attachment F

2017 SDR Sample Allocation and Selection Table

At the summary level and by strata defined by fine field of degree

2017 Survey of Doctorate Recipients Sample Allocation and Selection Table

Stratum 2017	Fine Field of Doctorate Degree	Panel Cohort Count	Panel Cohort Population	New Cohort Count	Total Frame Count	Total Population	Total Stratum Allocation Target	Desired New Cohort Allocation	Final New Cohort Allocation	Final Stratum Allocation	Panel Cohort Sampling Rate	New Cohort Sampling Rate	Overall Sampling Rate
000	Agricultural Economics	720	5,469	198	918	5,667	673	22	22	742	13%	11%	13%
003	Natural Resource/Environmental Economics	51	51	67	118	118	393	221	67	118	100%	100%	100%
005	Agricultural Animal Breeding	379	528	0	379	528	387	0	0	379	72%	0%	72%
010	Animal Nutrition	372	2,638	90	462	2,728	387	12	12	384	14%	13%	14%
012	Dairy Science	197	197	0	197	197	387	0	0	197	100%	0%	100%
014	Animal Science, Poultry (or Avian)	380	389	56	436	445	387	48	48	428	98%	86%	96%
019	Animal Science, Other	377	2,377	192	569	2,569	387	28	28	405	16%	15%	16%
020	Agronomy & Crop Science	340	4,232	161	501	4,393	387	14	14	354	8%	9%	8%
025	Agricultural & Horticultural Plant Breeding (2010 & 2011)	375	1,695	82	457	1,777	387	17	17	392	22%	21%	22%
030	Plant Pathology/Phytopathology	354	2,939	131	485	3,070	387	16	16	370	12%	12%	12%
039	Plant Sciences, Other	384	1,001	172	556	1,173	387	56	56	440	38%	33%	37%
043	Food Science	385	1,154	218	603	1,372	387	61	61	446	33%	28%	32%
044	Food Science & Technology, Other	384	2,689	86	470	2,775	387	12	12	396	14%	14%	14%
046	Soil Chemistry/Microbiology	382	638	37	419	675	387	21	21	403	60%	57%	60%
049	Soil Sciences, Other	381	1,539	99	480	1,638	387	23	23	404	25%	23%	25%
050	Horticulture Science	358	2,366	101	459	2,467	387	15	15	373	15%	15%	15%
055	Fishing & Fisheries Sciences/Management	378	1,279	112	490	1,391	387	30	30	408	30%	27%	29%
066	Forest Sciences & Biology	383	635	59	442	694	387	33	33	416	60%	56%	60%
068	Forest Engineering	40	40	0	40	40	387	0	0	40	100%	0%	100%
070	Forest/Resources Management	384	679	64	448	743	387	33	33	417	57%	52%	56%
072	Wood Science & Pulp/Paper Technology	377	426	19	396	445	387	16	16	393	89%	84%	88%
074	Natural Resources/Conservation	380	1,084	157	537	1,241	387	48	48	428	35%	31%	34%
079	Forestry & Related Science, Other	380	1,116	44	424	1,160	387	14	14	394	34%	32%	34%
080	Wildlife/Range Management	380	1,226	61	441	1,287	387	18	18	398	31%	30%	31%
081	Environmental Science	372	3,446	396	768	3,842	387	39	39	411	11%	10%	11%
098	Agriculture Sciences/Natural Resources, General	230	230	46	276	276	387	63	46	276	100%	100%	100%
099	Agriculture Sciences/Natural Resources, Other	342	1,523	35	377	1,558	387	8	8	350	22%	23%	22%
100	Biochemistry	1,867	29,993	1,568	3,435	31,561	1,804	87	87	1,954	6%	6%	6%
102	Bioinformatics	411	964	358	769	1,322	413	111	111	522	43%	31%	39%
103	Biomedical Sciences	506	4,372	853	1,359	5,225	488	79	79	585	12%	9%	11%
104	Computational Biology	341	341	224	565	565	398	157	157	498	100%	70%	88%
105	Biophysics	515	5,439	367	882	5,806	502	31	31	546	9%	8%	9%
107	Biotechnology	395	444	83	478	527	397	62	62	457	89%	75%	87%
110	Bacteriology	406	465	47	453	512	410	37	37	443	87%	79%	86%
115	Plant Genetics	437	1,124	105	542	1,229	441	37	37	474	39%	35%	39%
120	Plant Pathology/Phytopathology	397	876	49	446	925	405	20	20	417	45%	42%	45%
125	Plant Physiology	447	2,006	35	482	2,041	482	8	8	455	22%	23%	22%

Stratum 2017	Fine Field of Doctorate Degree	Panel Cohort Count	Panel Cohort Population	New Cohort Count	Total Frame Count	Total Population	Total Stratum Allocation Target	Desired New Cohort Allocation	Final New Cohort Allocation	Final Stratum Allocation	Panel Cohort Sampling Rate	New Cohort Sampling Rate	Overall Sampling Rate
129	Botany/Plant Biology	484	4,668	190	674	4,858	484	18	18	502	10%	10%	10%
130	Anatomy	481	2,918	40	521	2,958	526	7	7	488	16%	18%	16%
133	Biometrics & Biostatistics	453	2,935	330	783	3,265	451	45	45	498	15%	14%	15%
134	Epidemiology	407	5,586	673	1,080	6,259	664	70	70	477	7%	10%	8%
136	Cell/Cellular Biology & Histology	607	8,165	651	1,258	8,816	560	41	41	648	7%	6%	7%
137	Evolutionary Biology	450	1,274	424	874	1,698	461	115	115	565	35%	27%	33%
139	Ecology	665	10,334	904	1,569	11,238	610	48	48	713	6%	5%	6%
142	Developmental Biology/Embryology	466	3,242	385	851	3,627	458	48	48	514	14%	13%	14%
145	Endocrinology	401	714	48	449	762	402	25	25	426	56%	52%	56%
148	Entomology	507	5,400	222	729	5,622	498	19	19	526	9%	9%	9%
151	Immunology	628	8,920	928	1,556	9,848	581	53	53	681	7%	6%	7%
152	Marine Biology and Biological Oceanography	211	211	196	407	407	395	190	190	401	100%	97%	99%
154	Molecular Biology	925	19,537	1,302	2,227	20,839	796	49	49	974	5%	4%	5%
155	Structural Biology	248	248	123	371	371	394	131	123	371	100%	100%	100%
157	Microbiology	1,002	12,398	945	1,947	13,343	975	68	68	1,070	8%	7%	8%
158	Cancer Biology	490	2,103	910	1,400	3,013	519	156	156	646	23%	17%	21%
160	Neurosciences	1,123	14,815	2,137	3,260	16,952	1,133	141	141	1,264	8%	7%	7%
163	Nutrition Sciences	513	4,800	361	874	5,161	488	34	34	547	11%	9%	11%
166	Parasitology	403	754	57	460	811	424	28	28	431	53%	49%	53%
167	Environmental Toxicology	147	147	84	231	231	391	142	84	231	100%	100%	100%
168	Virology	417	636	326	743	962	429	145	145	562	66%	45%	58%
169	Toxicology	477	3,433	222	699	3,655	458	27	27	504	14%	12%	14%
170	Genetics/Genomics, Human & Anima	722	6,822	757	1,479	7,579	721	71	71	793	11%	9%	10%
175	Pathology, Human & Animal	565	3,947	186	751	4,133	571	25	25	590	14%	14%	14%
180	Pharmacology, Human & Animal	900	10,573	534	1,434	11,107	884	41	41	941	9%	8%	8%
185	Physiology, Human & Anima	901	10,801	418	1,319	11,219	892	32	32	933	8%	8%	8%
188	Wildlife Biology	0	0	83	83	83	389	389	83	0	0%	100%	0%
189	Zoology, Other	516	6,064	78	594	6,142	512	6	6	522	9%	8%	8%
198	Biology/Biomedical Sciences,General	608	8,558	506	1,114	9,064	569	31	31	639	7%	6%	7%
199	Biology/Biomedical Sciences,Other	531	6,069	139	670	6,208	511	11	11	542	9%	8%	9%
200	Speech-Language Pathology & Audiology	377	4,083	230	607	4,313	387	20	20	397	9%	9%	9%
207	Oral Biology/Oral Pathology	72	72	34	106	106	387	124	34	106	100%	100%	100%
210	Environmental Health	378	1,734	158	536	1,892	387	31	31	409	22%	20%	22%
211	Environmental Toxicology	230	230	0	230	230	387	0	0	230	100%	0%	100%
212	Health Systems/Service Administration	387	1,341	159	546	1,500	387	41	41	428	29%	26%	29%
215	Public Health	403	5,714	835	1,238	6,549	387	48	48	451	7%	6%	7%
217	Health Policy Analysis	110	110	132	242	242	387	211	132	242	100%	100%	100%
222	Kinesiology/Exercise Science	398	3,156	513	911	3,669	387	53	53	451	13%	10%	12%
227	Gerontology	50	50	27	77	77	387	134	27	77	100%	100%	100%
230	Nursing Science	424	10,757	1,115	1,539	11,872	387	36	36	460	4%	3%	4%

Stratum 2017	Fine Field of Doctorate Degree	Panel Cohort Count	Panel Cohort Population	New Cohort Count	Total Frame Count	Total Population	Total Stratum Allocation Target	Desired New Cohort Allocation	Final New Cohort Allocation	Final Stratum Allocation	Panel Cohort Sampling Rate	New Cohort Sampling Rate	Overall Sampling Rate
240	Pharmaceutical Sciences	399	5,729	550	949	6,279	387	33	33	432	7%	6%	7%
245	Rehabilitation/Therapeutic Services	383	1,171	170	553	1,341	387	48	48	431	33%	28%	32%
250	Veterinary Sciences	366	1,811	98	464	1,909	387	19	19	385	20%	19%	20%
280	Health and Behavior	0	0	214	214	214	387	387	129	129	0%	60%	60%
298	Health Sciences, General	370	1,128	75	445	1,203	387	23	23	393	33%	31%	33%
299	Health Sciences, Other	381	3,969	191	572	4,160	387	17	17	398	10%	9%	10%
300	Aerospace, Aeronautical & Astronautical	698	7,998	746	1,444	8,744	688	57	57	755	9%	8%	9%
303	Agricultural Engineering	467	2,554	147	614	2,701	480	26	26	493	18%	18%	18%
306	Bioengineering & Biomedical Engineering	840	11,261	2,174	3,014	13,435	844	135	135	975	7%	6%	7%
309	Ceramic Sciences Engineering	391	1,028	0	391	1,028	423	0	0	391	38%	0%	38%
312	Chemical Engineering	1,345	23,662	1,975	3,320	25,637	1,269	96	96	1,441	6%	5%	6%
315	Civil Engineering	1,144	18,999	1,255	2,399	20,254	1,080	66	66	1,210	6%	5%	6%
316	Structural Engineering	296	296	226	522	522	405	175	175	471	100%	77%	90%
318	Communications Engineering	445	863	59	504	922	452	28	28	473	52%	48%	51%
321	Computer Engineering	962	7,284	877	1,839	8,161	951	101	101	1,063	13%	12%	13%
324	Electrical, Electronics & Communications Engineering	3,634	40,799	3,956	7,590	44,755	3,481	306	306	3,940	9%	8%	9%
327	Engineering Mechanics	505	3,892	136	641	4,028	528	17	17	522	13%	13%	13%
330	Engineering Physics	372	937	66	438	1,003	422	27	27	399	40%	41%	40%
333	Engineering Science	435	1,269	132	567	1,401	435	41	41	476	34%	31%	34%
336	Environmental Health Engineering	514	3,532	553	1,067	4,085	528	70	70	584	15%	13%	14%
337	Geotechnical and Geoenvironmental Engineering	100	100	140	240	240	395	230	140	240	100%	100%	100%
339	Industrial & Manufacturing Engineering	658	6,897	541	1,199	7,438	641	46	46	704	10%	9%	9%
342	Materials Science Engineering	975	14,572	1,707	2,682	16,279	941	98	98	1,073	7%	6%	7%
345	Mechanical Engineering	1,534	28,398	2,798	4,332	31,196	1,461	128	128	1,662	5%	5%	5%
348	Metallurgical Engineering	459	2,968	58	517	3,026	492	9	9	468	15%	16%	15%
351	Mining & Mineral Engineering	388	625	0	388	625	409	0	0	388	62%	0%	62%
357	Nuclear Engineering	526	3,976	286	812	4,262	535	35	35	561	13%	12%	13%
360	Ocean Engineering	411	663	66	477	729	412	37	37	448	62%	56%	61%
363	Operations Research	380	2,785	205	585	2,990	393	26	26	406	14%	13%	14%
366	Petroleum Engineering	439	1,483	212	651	1,695	445	55	55	494	30%	26%	29%
369	Polymer & Plastics Engineering	447	1,589	143	590	1,732	446	36	36	483	28%	25%	28%
372	Systems Engineering	546	2,150	200	746	2,350	552	46	46	592	25%	23%	25%
373	Transportation and Highway Engineering	156	156	207	363	363	399	228	207	363	100%	100%	100%
376	Engineering Management & Administration	291	291	89	380	380	400	93	89	380	100%	100%	100%
398	Engineering, General	428	1,647	82	510	1,729	447	20	20	448	26%	24%	26%
399	Engineering, Other	556	4,826	327	883	5,153	566	35	35	591	12%	11%	11%
400	Computer Science	1,844	26,764	3,321	5,165	30,085	1,551	169	169	2,013	7%	5%	7%
410	Information Science/Systems	527	2,845	309	836	3,154	511	49	49	576	19%	16%	18%
415	Robotics	185	185	161	346	346	400	186	161	346	100%	100%	100%
418	Computer/Information Sciences, General	0	0	211	211	211	395	395	132	132	0%	63%	63%

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419	Computer/Information Sciences, Other	451	1,261	148	599	1,409	442	46	46	497	36%	31%	35%
420	Applied Mathematics	388	8,809	912	1,300	9,721	408	37	37	425	4%	4%	4%
425	Algebra	357	3,950	319	676	4,269	396	29	29	386	9%	9%	9%
430	Analysis & Functional Analysis	361	5,145	298	659	5,443	399	21	21	382	7%	7%	7%
435	Geometry/Geometric Analysis	373	2,345	228	601	2,573	393	34	34	407	16%	15%	16%
440	Logic	351	986	47	398	1,033	389	17	17	368	36%	36%	36%
445	Number Theory	373	1,609	170	543	1,779	391	37	37	410	23%	22%	23%
450	Statistics	389	8,528	782	1,171	9,310	407	33	33	422	5%	4%	5%
455	Topology/Foundations	357	2,712	164	521	2,876	393	22	22	379	13%	13%	13%
460	Computing Theory & Practice	332	1,500	43	375	1,543	390	10	10	342	22%	23%	22%
465	Operations Research	374	1,034	62	436	1,096	389	21	21	395	36%	34%	36%
498	Mathematics/Statistics, General	376	5,771	478	854	6,249	401	30	30	406	7%	6%	6%
499	Mathematics/Statistics, Other	368	2,670	180	548	2,850	393	24	24	392	14%	13%	14%
500	Astronomy	405	2,818	198	603	3,016	401	26	26	431	14%	13%	14%
505	Astrophysics	424	3,948	345	769	4,293	407	32	32	456	11%	9%	11%
509	Astronomy, Other	47	47	15	62	62	387	94	15	62	100%	100%	100%
510	Atmospheric Chemistry & Climatology	377	1,047	78	455	1,125	387	26	26	403	36%	33%	36%
512	Atmospheric Physics & Dynamics	377	959	110	487	1,069	387	39	39	416	39%	36%	39%
514	Meteorology	345	909	62	407	971	387	24	24	369	38%	39%	38%
518	Atmospheric Science/Meteorology, General	381	966	117	498	1,083	387	41	41	422	39%	35%	39%
519	Atmospheric Science/Meteorology, Other	373	705	46	419	751	387	23	23	396	53%	50%	53%
520	Analytical Chemistry	1,052	12,206	804	1,856	13,010	1,026	62	62	1,114	9%	8%	9%
522	Inorganic Chemistry	964	10,779	726	1,690	11,505	960	58	58	1,022	9%	8%	9%
524	Nuclear Chemistry	350	458	0	350	458	411	0	0	350	76%	0%	76%
526	Organic Chemistry	1,706	24,199	1,232	2,938	25,431	1,660	77	77	1,783	7%	6%	7%
528	Medicinal Chemistry	511	2,700	165	676	2,865	529	30	30	541	19%	18%	19%
530	Physical Chemistry	1,152	14,291	708	1,860	14,999	1,135	52	52	1,204	8%	7%	8%
532	Polymer Chemistry	578	3,624	262	840	3,886	577	38	38	616	16%	15%	16%
534	Theoretical Chemistry	495	2,337	214	709	2,551	514	42	42	537	21%	20%	21%
538	Chemistry, General	950	10,492	816	1,766	11,308	948	67	67	1,017	9%	8%	9%
539	Chemistry, Other	611	4,276	420	1,031	4,696	616	54	54	665	14%	13%	14%
540	Geology	376	4,487	265	641	4,752	387	21	21	397	8%	8%	8%
542	Geochemistry	369	2,152	179	548	2,331	387	29	29	398	17%	16%	17%
544	Geophysics & Seismology	379	3,273	273	652	3,546	387	29	29	408	12%	11%	12%
546	Paleontology	349	1,055	68	417	1,123	387	23	23	372	33%	34%	33%
548	Mineralogy & Petrology	353	1,001	36	389	1,037	387	13	13	366	35%	36%	35%
550	Stratigraphy & Sedimentation	347	1,020	32	379	1,052	387	11	11	358	34%	34%	34%
552	Geomorphology & Glacial Geology	359	684	52	411	736	387	27	27	386	52%	52%	52%
558	Geological & Earth Sciences, General	351	974	114	465	1,088	387	39	39	390	36%	34%	36%
559	Geological & Earth Sciences, Other	367	1,194	112	479	1,306	387	32	32	399	31%	29%	31%

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560	Acoustics	359	647	39	398	686	390	21	21	380	55%	54%	55%
561	Atomic/Molecular/Chemical Physics	399	4,016	246	645	4,262	407	23	23	422	10%	9%	10%
564	Particle (Elementary) Physics	441	7,375	487	928	7,862	423	26	26	467	6%	5%	6%
565	Biophysics	399	1,082	258	657	1,340	393	76	76	475	37%	30%	35%
566	Fluids	344	532	0	344	532	389	0	0	344	65%	0%	65%
568	Nuclear Physics	380	3,748	188	568	3,936	405	19	19	399	10%	10%	10%
569	Optics/Phototonics	417	3,676	410	827	4,086	406	40	40	457	11%	10%	11%
570	Plasma/Fusion Physics	396	2,447	170	566	2,617	399	25	25	421	16%	15%	16%
572	Polymer Physics	391	635	70	461	705	390	39	39	430	62%	56%	61%
574	Condensed Matter/Low Temperature Physics	512	13,255	827	1,339	14,082	452	26	26	538	4%	3%	4%
576	Applied Physics	397	1,257	302	699	1,559	394	76	76	473	32%	25%	30%
577	Medical Physics/Radiological Science	308	308	187	495	495	389	147	147	455	100%	79%	92%
578	Physics, General	461	8,502	514	975	9,016	429	24	24	485	5%	5%	5%
579	Physics, Other	431	5,815	258	689	6,073	415	17	17	448	7%	7%	7%
585	Hydrology & Water Resources	373	1,182	139	512	1,321	387	40	40	413	32%	29%	31%
590	Oceanography, Chemical & Physica	364	3,421	155	519	3,576	387	16	16	380	11%	10%	11%
595	Marine Sciences	378	1,200	83	461	1,283	387	24	24	402	32%	29%	31%
599	Ocean/Marine, Other	383	788	36	419	824	387	17	17	400	49%	47%	49%
600	Clinical Psychology	2,582	46,057	2,398	4,980	48,455	2,333	111	111	2,693	6%	5%	6%
602	Behavioral Analysis	98	98	114	212	212	395	212	114	212	100%	100%	100%
603	Cognitive Psychology & Psycholinguistics	567	3,973	421	988	4,394	561	53	53	620	14%	13%	14%
606	Comparative Psychology	349	388	0	349	388	403	0	0	349	90%	0%	90%
609	Counseling	1,103	15,380	796	1,899	16,176	1,039	49	49	1,152	7%	6%	7%
612	Developmental & Child Psychology	728	7,526	435	1,163	7,961	707	37	37	765	10%	9%	10%
613	Human Development & Family Studies	514	2,778	275	789	3,053	506	45	45	559	19%	16%	18%
614	Health and Medical Psychology	110	110	181	291	291	398	248	181	291	100%	100%	100%
615	Experimental Psychology	714	7,660	285	999	7,945	713	24	24	738	9%	8%	9%
618	Educational Psychology	510	3,403	124	634	3,527	534	18	18	528	15%	15%	15%
620	Family Psychology	414	819	97	511	916	423	44	44	458	51%	45%	50%
621	Industrial & Organizational	637	5,536	424	1,061	5,960	624	43	43	680	12%	10%	11%
624	Personality Psychology	397	1,076	42	439	1,118	433	15	15	412	37%	36%	37%
627	Physiological/Psychobiology Psychology	536	3,750	251	787	4,001	547	33	33	569	14%	13%	14%
630	Psychometrics	350	404	0	350	404	404	0	0	350	87%	0%	87%
633	Psychometrics & Quantitative Psychology	405	577	81	486	658	413	50	50	455	70%	62%	69%
636	School Psychology	562	4,072	225	787	4,297	559	28	28	590	14%	12%	14%
639	Social Psychology	706	7,240	461	1,167	7,701	699	40	40	746	10%	9%	10%
648	Psychology, General	814	9,451	565	1,379	10,016	793	43	43	857	9%	8%	9%
649	Psychology, Other	646	6,005	322	968	6,327	642	31	31	677	11%	10%	11%
650	Anthropology, General	1,274	15,124	285	1,559	15,409	1,019	18	18	1,292	8%	6%	8%
651	Gender and Women's Studies	0	0	74	74	74	388	388	74	74	0%	100%	100%

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652	Area /Ethnic/Cultural Studies	397	1,333	171	568	1,504	408	44	44	441	30%	26%	29%
655	Anthropology, Cultural	0	0	584	584	584	410	410	82	82	0%	14%	14%
656	Anthropology, Physical and Biologica	0	0	148	148	148	393	393	79	79	0%	53%	53%
658	Criminology	473	1,695	183	656	1,878	463	44	44	517	28%	24%	28%
662	Demography/Population Studies	396	623	52	448	675	396	30	30	426	64%	58%	63%
665	Natural Resource/Environmental Economics	98	98	96	194	194	396	195	95	193	100%	100%	99%
667	Economics	2,781	36,134	2,266	5,047	38,400	2,286	131	131	2,912	8%	6%	8%
668	Econometrics	433	1,057	86	519	1,143	444	33	33	466	41%	38%	41%
670	Geography	538	6,032	594	1,132	6,626	480	42	42	580	9%	7%	9%
674	International Relations/Affairs	456	3,511	209	665	3,720	440	23	23	479	13%	11%	13%
676	Linguistics	603	7,941	562	1,165	8,503	507	32	32	635	8%	6%	7%
678	Political Science & Government	986	20,193	1,635	2,621	21,828	692	51	51	1,037	5%	3%	5%
682	Public Policy Analysis	503	4,102	570	1,073	4,672	451	55	55	558	12%	10%	12%
684	Gerontology	106	106	52	158	158	389	126	52	158	100%	100%	100%
685	Natural Resource/Environmental Policy	0	0	92	92	92	388	388	92	92	0%	100%	100%
686	Sociology	1,614	20,694	1,423	3,037	22,117	1,288	79	79	1,693	8%	6%	8%
690	Statistics	365	1,784	42	407	1,826	391	9	9	374	20%	21%	20%
694	Urban Affairs/Studies	426	2,579	66	492	2,645	426	10	10	436	17%	15%	16%
698	Social Sciences, General	379	1,072	114	493	1,186	404	36	36	415	35%	32%	35%
699	Social Sciences, Other	502	4,940	304	806	5,244	462	26	26	528	10%	9%	10%
710	History, Science &Technology & Society	401	1,345	148	549	1,493	408	39	39	440	30%	26%	29%
770	American/U.S. Studies	398	2,774	250	648	3,024	436	30	30	428	14%	12%	14%
773	Archaeology	443	1,358	226	669	1,584	452	62	62	505	33%	27%	32%
822	Educational Psychology	896	11,360	547	1,443	11,907	872	38	38	934	8%	7%	8%
930	Operations Research	368	1,652	200	568	1,852	391	40	40	408	22%	20%	22%
DIS	Discontinued Fields	844	20,727	0	844	20,727	908	0	0	844	4%	0%	4%
Overall		113,814	1,035,376	82,522	196,336	1,117,898	120,519	13,916	10,766	124,580	11%	13%	11%