

SUPPORTING STATEMENT

for the

2017 Early Career Doctorates Survey

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A. JUSTIFICATION

The National Center for Science and Engineering Statistics (NCSES) within the National Science Foundation (NSF) serves as a central Federal clearinghouse for the collection, interpretation, analysis, and dissemination of objective data on science, engineering, technology, and research and development for use by practitioners, researchers, policymakers, and the public. The Early Career Doctorates Survey (ECDS), co-sponsored by the National Institutes of Health (NIH), is the newest part of an integrated survey system that meets the human resources part of this mission.

The Early Career Doctorates Project was established to gather in-depth information about early career doctorates (ECD), including postdoctoral researchers (postdocs). ECD are critical to the success of the U.S. scientific enterprise and will influence U.S. and global scientific markets for years to come. Despite their importance, extant surveys of this population have significant coverage issues and are limited by the lack of individual level data on the ECD work experiences. The NSF's Survey of Earned Doctorates (SED) and the Survey of Doctorate Recipients (SDR) are limited to individuals who received their research doctorates from U.S. academic institutions, thereby excluding individuals who earned professional doctoral degrees, as well as those who earned research doctorates from institutions outside the United States but are currently employed in the United States. The NSF's Survey of Graduate Students and Postdoctorates in Science and Engineering (GSS) provides data on postdocs and non-faculty researchers working in science, engineering, and selected health (SEH) fields regardless of where they earned the degree, but is limited to U.S. academic institutions and collects aggregate count data at the program or research unit level. The 2005 Sigma Xi Postdoc Survey and current University of Chicago National Postdoc Survey¹ had (have) significant sample design issues with respect to identifying and recruiting postdocs.

Through its multi-year Postdoc Data Project (PDP), NCSES determined the need for and the feasibility of gathering information about postdocs and other ECD working in the United States. The PDP aimed to increase the coverage of postdocs working in non-academic sectors. NCSES assessed various options for filling the coverage and content gaps across all sectors. Several recommendations for list sources emerged to address these gaps in the government sector, and quasi-government/non-profit sector. Efforts were unsuccessful in making substantial inroads into providing good coverage of postdocs in the private sector. Additionally, efforts to reliably identify and gather information about postdocs at the individual level proved difficult due to substantial variation in how institutions characterize and report postdoc appointments. As a result, NCSES decided to expand the target population to include all individuals who earned their first doctoral degree within the past 10 years. With this expansion of the target population, the Postdoc Data Project was transformed into the Early Career Doctorates Project (ECDP).

Unique in scope, the key goals of the ECDP are:

¹ For more information on these surveys, please see <http://www.sigmaxi.org/docs/default-source/Programs-Documents/Critical-Issues-in-Science/postdoc-survey/highlights> and www.postdocsurvey.org, respectively.

- To broaden the scope and depth of national statistics on the ECD population working in the United States (both U.S. degreed and non-U.S. degreed) across various employment sectors and fields of discipline,
- To collect nationally representative data from ECD that can be used by funding agencies, policy makers, and other researchers to better understand the labor markets for and work experiences of recent doctorate recipients, and
- To develop common definitions for postdocs and other types of ECD (e.g., junior faculty and non-faculty researchers) that can be applied across and within employment sectors.

The current focus of the ECDP is to conduct a survey of ECD working in three areas of employment: U.S. academic institutions in the GSS, Federally Funded Research and Development Centers (FFRDCs), and the National Institutes of Health (NIH) Intramural Research Programs (IRP). Attempts to collect data from ECD working across all sectors are limited by the lack of a frame source that provide the necessary coverage, privacy, and confidentiality requirements to adequately measure the ECD population.² Thus, NCSES leverages our experiences and contacts from the GSS which covers these three employment areas (U.S. academic institutions, FFRDCs, and NIH IRP) as a conduit for frame building. Under generic clearance OMB control #3145-0174, NCSES conducted the Early Career Doctorates Study to test the feasibility of 1) obtaining lists of ECD from organizations in these three employment sectors and 2) using these lists to sample and survey ECD. Completed in February 2013, this methodological study confirmed that institutions in these sectors could build sampling frames for their ECD and that NCSES could successfully contact and survey these individuals through the information on these frames. This study also tested several contacting protocols and showed that sample members were more likely to respond when a high authority figure (HA) from their institution notified them of their selection and supported their participation.

Under OMB control #3145-0235, NCSES subsequently conducted the Pilot ECDS to refine the data collection protocols and determine whether these data could be used to develop national estimates of ECD working in U.S. academic institutions, FFRDCs, and the NIH IRP. Overall, 149 out of 176 sampled institutions (84.7%) provided lists of ECD in stage one of the Pilot ECDS, and 4,179 of 6,827 sample members were confirmed eligible respondents (66.3% response rate).³ Estimated counts of ECD subpopulations based on the Pilot ECDS, such as the number of postdocs working in each sector, were consistent with other NCSES data suggesting that the ECDS will be able to produce reliable national estimates for this population. Results from the Pilot ECDS have been used to fine-tune plans for the full implementation of the ECDS (hereafter called the 2017 ECDS). The 2017 ECDS will be a two-stage data collection. In the first stage, the sampled institutions will be contacted and asked to provide a listing of ECD working at the institution and, in the second stage, ECD will be sampled and surveyed.

² National Science Foundation, National Center for Science and Engineering Statistics, Phase 2 of the Postdoc Data Project, *Catalog of Lists for Building a Postdoc Sampling Frame* (June 7, 2007) and *Postdoc Data Project Phase 2 Summary Report* (February 15, 2011).

³ Calculated according to American Association for Public Opinion Research (AAPOR) response rate definition 2.

A.1 Necessity for Information Collection

The authority to collect information for the 2017 ECDS is established under the National Science Foundation Act of 1950, as amended, Public Law 507 (42 U.S.C. 1862), Section 3(a) (6), which directs NSF "...to provide a central clearinghouse for the collection, interpretation, and analysis of data on scientific and engineering resources and to provide a source of information for policy formation by other agencies of the federal government..."

Furthermore, Executive Order 10521 (March 17, 1954) states: "The Foundation shall continue to make comprehensive studies and recommendations regarding the Nation's scientific research effort and its resources for scientific activities, including facilities and scientific personnel, and its foreseeable scientific needs, with particular attention to the extent of the federal government's activities and the resulting effects upon trained scientific personnel." More recently, NCSES was established within the National Science Foundation by Section 505 of the America COMPETES Reauthorization Act of 2010 and given a broader mandate to collect data related to STEM education, the science and engineering workforce, and U.S. competitiveness in science, engineering, technology, and research and development (R&D).

The 2017 ECDS will greatly enhance the center's current postdoc-related data collections and provide critical information that will be used to meet NSF's responsibilities under the Acts and the Executive Order.

A.2 Uses of Information

The proposed data collection is the first full implementation of the ECDS. The goal is to produce population estimates for the total ECD working in U.S. academic institutions, FFRDC, and NIH IRP (the sectors established by the Pilot ECDS), thereby substantially improve the reliability of estimates for this population by gender, citizenship, origin of doctoral degree, and field of study. At the conclusion of the 2017 ECDS, NCSES plans to conduct an evaluation of the work conducted to date in order to determine the future of the Early Career Doctorates Project.

The goal for the evaluation is to identify the role of the ECDS in the context of NCSES's suite of science and engineering (S&E) workforce surveys. The ECDS was designed to address the coverage issues and lack of data on work experiences that has limited the understanding of the ECD population. However, there is overlap in the target population and survey content for the ECDS with other NCSES S&E workforce surveys including the Survey of Doctorate Recipients (SDR), Survey of Earned Doctorates (SED), and National Survey of College Graduates (NSCG). This evaluation should assess the unique purpose, population coverage, and data utility for each survey, and provide insight on how the suite of S&E workforce surveys jointly support NCSES's role in the collection, interpretation, analysis, and dissemination of objective data on the S&E enterprise. The findings from this evaluation will guide the future decisions for the ECDS including the timing, population coverage, survey content, and sample design for any future surveys of the ECD population.

Pending the outcome of the evaluation, NCSES might consider conducting this survey every other year survey, or alternating with and complementing the SDR data collection. NCSES will

also consider the need for and value of a longitudinal component with follow-up interviews occurring approximately 5 and 8 years from doctorate award, and with the longitudinal respondents entering the SDR sample when they age out of ECDS target population

NSF will publish statistics from the 2017 ECDS in NCSES *InfoBriefs* and reports, including the *Science and Engineering Indicators* and the *Women, Minorities and Persons with Disabilities in Science and Engineering* reports. NSF will generate data extracts and other analyses at NIH's requests. Restricted-use and public use data files will also be developed. Public-use data will be available through the NSF website; access to restricted-use data files will be assessed and granted on a case-by-case basis with licensees signing affidavits of nondisclosure. Likely users of the data include the National Postdoctoral Association (NPA), the American Association for the Advancement of Science (AAAS), the Council of Graduate Schools (CGS), the American Association of Medical Colleges (AAMC), the Association of American Universities (AAU), and the Organisation for Economic Co-operation and Development (OECD). Possible uses of the data include descriptive statistics on the employment and productivity of postdocs and other ECD, the pathways followed by ECD, and their future career plans, including plans to work outside the United States.

A.3 Consideration of Using Improved Technology

At the institutional level, communications with high authority figures (HAs), list coordinators (LCs), and communication coordinators (CCs) will be primarily conducted through e-mail, apart from introductory conversation via telephone. A new secure application accessible through the ECDS website (www.earlycareerdoctoratessurvey.org) will be created to enable HAs to approve the survey and identify LCs and CCs online and provide a mechanism for LCs to upload their ECD lists (see Attachment G). HAs will also be able to access the HA pre-notification tool used in the methodological study and the Pilot ECDS to assist HAs with sending individualized e-mails to each sample member. In the Pilot ECDS, this tool was enhanced to allow HAs to modify the body of the message within the application rather than within each e-mail. LCs will also be able to log into this secure section of the ECDS website to review instructions for preparing and uploading their ECD lists.

During the stage two data collection, communications will also be primarily through e-mail, with seven of ten possible contacts being e-mails. Two of the reminders for non-respondents will be completed by phone and one will be a hard-copy mail (see Attachment C). Sample members will have two methods by which to participate in the survey. The primary method will be self-administration of the Web questionnaire, which can be completed on personal computers and mobile devices. The secondary method is completing the questionnaire through a telephone interview, in which a project staff member would access the web questionnaire, read the questions, and record the responses into the web instrument. In the Pilot ECDS, less than 1 percent of respondents completed some or all of their survey by telephone. Using a web questionnaire for all responses reduces the costs of creating multiple versions of the questionnaire, improves data consistency and quality, eliminates costs associated with data entry, and reduces post completion processing time.

The data collection system used for the 2017 ECDS is designed so that respondents are able to change response modes should the need arise. For example, respondents may partially complete the survey on their own and, upon receiving a reminder call, finish the survey with the telephone interviewer picking up where they broke off. The survey will have a real-time monitoring system, allowing NSF to monitor response status by mode, system problems, and comments from respondents. The survey will also perform checks on inconsistent and unlikely answers and prompt respondents to correct or confirm the data. Respondents will also be informed of their progress through the instrument and, upon completion, receive an automated e-mail confirming their completion and thanking them for their participation.

A.4 Efforts to Identify Duplication

Some overlap in terms of target population and content exists with the Survey of Doctorate Recipients (SDR) and National Survey of College Graduates (NSCG), however the ECDS will provide more comprehensive coverage of its target population (individuals working in U.S. academic institutions, FFRDC, and NIH IRP who earned their first doctorate within the last 10 years) than either the SDR or NSCG. The ECDS will also provide more complete data on foreign degreed doctorate holders.

While both the SDR and NSCG gather basic data about current employment and work experience, the ECDS collects substantially more information about work experiences, especially with regard to postdoc experiences, professional activities and achievements, funding, and future career plans. As a result, the ECDS is the only comprehensive survey of recent U.S. and non-U.S. doctorate recipients working in the United States in these three areas of employment.

Within a sample drawn from the Survey of Earned Doctorates, the SDR is a survey of individuals through age 75 that earned their doctorate in a research field from a U.S. academic institution. Due to its frame, the SDR does not include doctorate holders currently employed in the United States who earned professional doctorates or earned doctorates from institutions outside the United States.

Less than 2 percent (n=48) of the individuals sampled in the methodological study were also in the 2013 SDR sample; 4 percent (n=263) of the Pilot ECDS sample members were also sampled for the 2015 SDR. The increase in overlap between 2013 and 2015 was due to the increased sample size of the Pilot ECDS and the 2015 SDR. The ECDS and SDR staff will work together to identify sample members selected for both surveys. Because the ECDS collects substantially more information than the SDR, the 2017 ECDS will attempt to contact all sample members, even those identified as having been in the 2017 SDR. Given the expansion of the ECDS sample, we expect the sample overlap between the 2017 ECDS and 2017 SDR to be approximately 900 cases (4% of the ECDS sample and 0.7% of the SDR sample). The 2017 ECDS sample members identified as having been in the 2017 SDR will receive a different version of the survey invitation e-mail/letter that clarifies that this is a different survey and asks these ECD to participate in both surveys.

Sample overlap with the NSCG is expected to be minimal as only a small fraction of their sample will be ECD.

A.5 Efforts to Minimize Burden on Small Business

Not applicable. Small businesses will not be included in this round of data collection.

A.6 Consequences of Less Frequent Data Collection

NCSES is seeking clearance for a single data collection cycle only.

The ECDS data are valuable to the analysis presented in a pair of congressionally mandated reports published by NSF – *Science and Engineering Indicators* and *Women, Minorities, and Persons with Disabilities in Science and Engineering*. Since these reports are published on a biennial schedule, they rely on the availability of updated data on the science and engineering resources every two years. Conducting the ECDS on a less frequent basis would prohibit NSF from meeting its congressional mandate to produce a report that contains an accurate accounting and comparison, by sex, race, and ethnic group and by discipline, of the participation of women and men in scientific and engineering positions. The impact of not being able to meet this congressional mandate is that government, business, industry, and universities would have less recent data to use as a basis for formulating the nation's science and engineering policies.

A.7 Special Circumstances

Not applicable. This data collection does not require any of the reporting requirements listed.

A.8 Federal Register Announcement and Consultations outside the Agency

Federal Register Notice

The Federal Register notice was published on June 3, 2016 (see Attachment F). NSF received no public comment in response to the announcement by the closing date of August 5, 2016.

Consultations outside the Agency

NCSES regularly consults with the Department of Education's National Center for Education Statistics (NCES) and other federal agencies, such as the NIH and the Department of Education, professional societies, such as the National Postdoctoral Association, and university staff. NCSES staff members maintain frequent contact with members of the data-using community as well as with major academic data providers through attendance at professional society meetings and consultation with institutional and agency officials.

NCSES has sought advice and guidance of survey methodologists, statisticians, demographers, researchers, data analysts, and policymakers to examine numerous issues related to the development of the ECDS.

- Evaluation of the Pilot ECDS questionnaire for the 2017 ECDS

NCSES convened a Human Resources Expert Panel (HREP) to review methodological findings related to the Pilot ECDS and review the ECDS questionnaire section by section to solicit feedback on the survey content for the 2017 ECDS questionnaire.

HREP Panel Members

Catherine Didion, Olin College

Cary Funk, Pew Research Center

Howard Garrison, Federation of American Societies for Experimental Biology

Beverly Karplus Hartline, Montana Tech

David Laurence, Modern Language Association

Cheryl Leggon, Georgia Institute of Technology

Sean McConnell, University of Chicago

Earnestine Psalmonds, National Science Foundation

Yvette Seger, National Postdoctoral Association

Karen Stamm, American Psychological Association

Jodi Yellin, Association of American Medical Colleges

Outside Agency Participant

Jennifer Sutton, National Institutes of Health

- Evaluation of the NCSES Effort to Measure the Science and Engineering (S&E) Workforce Population

The National Academies of Science, Engineering, and Medicine's Committee on National Statistics (CNSTAT), at the request of NCSES has convened an expert panel to review, assess, and provide guidance on NCSES's effort to measure the S&E workforce population in the United States. Given the evolving data needs of NCSES stakeholders and the budget climate uncertainty under which NCSES operates, NCSES would like to develop a framework for measuring the S&E workforce that will enable the flexibility to examine emerging issues related to this unique population while at the same time allowing for stability in the estimation of trend data. This framework would provide direction for numerous issues related to measuring the S&E workforce population including content, data sources, survey design, survey methodology, data collection, data processing, data integration, data dissemination, and data promotion.

At the end of its review, the panel will issue a report with findings, recommendations, and priorities for improving the relevance, accuracy, timeliness, and cost-effectiveness of S&E workforce data for the next decade and beyond. The information included in this report will provide the details, direction, and guidance necessary for NCSES to develop a robust and flexible framework for measuring the S&E workforce over the coming decades.

CNSTAT Panel Chairs and Panel Members

CNSTAT Panel Chairs

Rita Colwell, University of Maryland and Johns Hopkins University

James House, University of Michigan

CNSTAT Panel Members

Jennifer Sue Bond, Council on Competitiveness
Geoff Davis, Verily
Don Dillman, Washington State University
Richard Freeman, Harvard University
Jack Gambino, Statistics Canada
Maresi Nerad, University of Washington
Randy Olsen, Ohio State University
Willie Pearson, Georgia Institute of Technology
Keith Rust, Westat
Nora Cate Schaeffer, University of Wisconsin
James Wagner, University of Michigan
Yu Xie, Princeton University

A.9 Payment or Gifts to Respondents

Not applicable. There will be no payments to the 2017 ECDS respondents.

A.10 Assurance of Confidentiality

NSF and its contractors are fully committed to protecting the confidentiality of all survey respondents. The ECDS data will be collected under the authority of the National Science Act of 1950, as amended, the Confidential Information Protection and Statistical Efficiency Act (CIPSEA) of 2002, and the Federal Cybersecurity Enhancement Act of 2015. Institutional contacts (HAs, CCs and LCs) and prospective respondents are assured in contact materials that personally identifiable information (PII) and all responses will be kept confidential. Prospective respondents will also provide informed consent before beginning the survey. Attachment D (Confidentiality and Security Measures) outlines the other multiple steps during each stage of data collection that will be taken in order to protect both PII and survey responses.

Cover letters and survey questionnaire sent to each selected sample member advise them that the information they provide is confidential (see Attachment B – Institutional Contact Materials and Attachment C – ECD Contact Materials). The same notice of confidentiality (Attachment D) will be used in the introduction to the computer-assisted telephone interview (CATI) as will be displayed prior to the start of the survey in the Web instrument. The specific confidentiality wording that will be used in the CATI and Web instruments is as follows:

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

Standard data collection procedures incorporate numerous safeguards for the data and must conform to a detailed security plan approved by NSF. All data collected and processed will be stored in a secure internal data network with access available only to authorized users. While collecting ECDS data, the PII data are separated from the survey response data and are not included in the analytic data sent to NSF. All project staff at the survey contractor and NSF will receive annual CIPSEA training to reinforce their legal obligations to protect the privacy and

confidentiality of ECDS and sign data use agreements annually to acknowledge this legal obligation.

The contractor takes special steps to ensure that data collected via the Web questionnaire are secure. First, access to the Web instrument is only allowed with a valid Personal Identification Number (PIN) and password correctly entered in combination. Second, data are transmitted by the Secure Sockets Layer (SSL) protocol that uses powerful encryption during transmission through the Internet. If a respondent keeps a Web survey open without any activity, the Web server closes it after a short period of inactivity, thus preserving the data up to the break-off point and securely closing the connection. The database architecture underlying the Web and CATI survey systems is designed such that authentication information and response data are maintained in separate tables with randomly generated identification numbers assigned for data collection purposes, and new, random identification numbers generated for the analytic files. This strategy provides an extra layer of security to protect respondents' data. Both development and production servers are backed up nightly, as required by the contractor's disaster recovery plan.

All published findings, analyses, and restricted databases are in formats which preclude individual identification and measures are taken so that the identity of individuals or organizations is not disclosed.

A.11 Justification for Sensitive Questions

No questions of a sensitive nature are asked in this data collection.

A.12 Estimate of Respondent Burden

There are four types of respondents to the ECDS. At the first stage of sampling, we will select approximately 350 institutional sampling units. For each of these sampling units, a high authority figure (HA) will authorize the institution's participation in the survey and designate a list coordinator (LC) and a communication coordinator (CC). The LC will provide a list of all individuals working at their institution who earned their first doctorate or doctorate-equivalent degree within the past 10 years, including postdocs, nonfaculty researchers, and faculty members. The CC will be the point of contact for interaction with the HA's office, and will assist the HA with developing a letter of support.

In the methodological study and Pilot ECDS, these stage one tasks were typically completed in less than an hour with administrative personnel in the HA's office playing an important role in completing these tasks. As a result, NCSSES is adding a formal CC role and is estimating that these tasks will take an average of 80 minutes in the 2017 ECDS – 20 minutes for the HA and up to 60 minutes for the CC. Assuming that deciding not to participate takes a similar amount of time as deciding to participate, NCSSES estimates the total HA burden for stage one to be 117 hours and the total CC burden for stage one to be 350 hours.

Based on the methodological study and Pilot ECDS, it is expected that 15% of the institutions and 21% of individual sample members will not participate (2% will be ineligible and 19% will

not respond). Thus, in order to yield 18,000 eligible ECD respondents, NCSES will need to sample 22,855 individuals from the approximately 300 participating sampling units.

The primary responsibility of the LC is to prepare a list of ECD employed at the institution. In the Pilot ECDS, LCs required an average of 8 hours to fulfill their duties. Assuming 300 institutions will participate, we estimate the total burden for LCs to be 2,400 hours.

In stage two, the HAs and CCs will send a pre-notification e-mail to sample members within their institution. In the methodological study and Pilot ECDS, most HAs were able to complete this task in less than 30 minutes. To maximize response rates, NCSES will ask the HA to identify a CC who can send e-mails for the HA or to designate another recognizable authority (e.g., Vice Chancellor for Research) to send the pre-notification e-mails. In the Pilot ECDS, 23% of participating institutions chose to have NSF send the pre-notification or did not send the pre-notification e-mail within the specified time period, so for purposes of estimating burden for the 2017 ECDS, NCSES assumes 80% of participating institutions will send the stage two pre-notification. At 10 minutes per HA and 30 minutes per CC (more sample members per institution than in the Pilot ECDS), NCSES estimates a total burden of 40 hours for HAs and 120 hours for CCs to send the pre-notification e-mail.

Based on survey timing data from the methodological study and planned changes to the questionnaire, NCSES estimates that ECD will require approximately 32 minutes on average to complete the questionnaire for eligible ECD and less than 2 minutes for ineligible respondents. Assuming 18,000 eligible ECD respond and 410 ineligible respondents, NCSES estimates the total respondent burden will be approximately 9,614 hours.

Table 1. Estimated Burden by Stage and Respondent Type: 2017 ECDS

Respondent Type	Number of Respondents	Minutes Per Respondent	Estimated Total Hours
<i>Stage 1: Frame Creation</i>			
High Authorities (HA)	350	20	117
Communication Coordinators (CC)	350	60	350
List Coordinators (LC)	300	480	2,400
Subtotal			2,867
<i>Stage 2: Individual Survey</i>			
High Authorities (HA)	240	10	40
Communication Coordinators (CC)	240	30	120
Early Career Doctorates (ECD)	18,000	32	9,600
Ineligible Respondents	410	2	14
Subtotal			9,774
Total			12,641

Taking into account all respondent types across both stages of data collection, NCSES estimates the total respondent burden to be just over 12,600 hours. Table 1 shows detailed estimates of burden across respondent types.

A.13 Cost Burden to Respondents

Not applicable. This survey does not require respondents to purchase equipment, software, or services beyond those normally used in universities as part of customary and usual business.

A.14 Cost Burden to the Federal Government

The total estimated cost to the Government for the 2017 ECDS is \$6.13 million for survey costs, associated methodological work, and for NSF staff costs to provide oversight and coordination with other surveys. The cost estimated for the survey cycle is \$6.08 million, which is based on sample size; length of questionnaire; CATI and Web data collection technology; administrative overhead, design, printing mail, and telephone data collection costs; data keying, editing, and processing; data quality control; imputation for missing item responses; weighting and estimating sampling error; file preparation and delivery; methodological work, preparation of documentation and final reports; and survey evaluation. NSF staff costs are estimated at \$675,000 (\$150,000 annual salary of 1.5 FTE for 3 years).

A.15 Reason for Change in Burden

NCSES expects that per respondent burden for the 2017 ECDS to be slightly less than that observed in the Pilot ECDS. The NCSES Human Resources Expert Panel (HREP) advised that the questionnaire was too long, so NCSES shortened the survey by 20% from 41 to 32 minutes. However, the total burden for the 2017 ECDS is expected to increase from 4,803 hours in the Pilot ECDS to 12,533 hours primarily due to the increase in sample size (see table 1 above).

A.16 Schedule for Information Collection and Publication

The 2017 ECDS will be a two-stage data collection. In the first stage, sampled institutions are contacted to begin the frame building process. Because ECD listings from sampled institutions will be received at various times, the second stage of the data collection will be a rolling process beginning approximately one month after the receipt of the ECD listing from the institution and ending two to three months after the survey invitation. The *InfoBrief*, detailed statistical tables, and public use data files will be published and made available on the NCSES website. The time schedule for the ECDS data collection and publication is currently estimated as follows:

Table 2. ECDS Data Collection and Publication Schedule

Activities	Dates
Stage 1 (Institutional) Data Collection	October 2017 – January 2017
Stage 2 (Individual ECD) Data Collection	October 2017 – May 2018
Final Edited/Weighted/Imputed data file	July 2018
Public Use Data File and Documentation	December 2018
Survey Evaluation Report	January 2019

A.17 Display of OMB Expiration Date

The OMB expiration date will appear on all ECDS webpages, including the welcome page, login page, confidentiality page, and survey questions pages.

A.18 Exceptions to the Certification Statement

Not applicable. There are no exceptions.