

2023-2025
Survey of Graduate Students
and
Postdoctorates in Science
and Engineering

OMB Supporting Statement
Section A

July 2023

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A. JUSTIFICATION

This submission requests a three-year reinstatement of the previously approved OMB clearance for the Survey of Graduate Students and Postdoctorates in Science and Engineering (GSS). The survey is sponsored by the National Center for Science and Engineering Statistics (NCSES) within the National Science Foundation (NSF) and by the National Institutes of Health (NIH). The GSS is an annual survey that was last conducted in fall 2022. The OMB clearance for the GSS will expire on August 31, 2023. With this clearance package, NSF requests approval to collect data for the 2023, 2024, and 2025 survey cycles.

A.1 Necessity for Information Collection

Established within the NSF by the America COMPETES Reauthorization Act of 2010 § 505, codified in the National Science Foundation Act of 1950, as amended, the National Center for Science and Engineering Statistics (NCSES) 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.¹ Information obtained through the GSS is critically important to NCSES's ability to measure science and engineering resources in the United States. Furthermore, the GSS data serve as the nation's only source of comprehensive graduate enrollment information for specific science, engineering, and health (SEH) disciplines at the departmental level. These data are solicited under the authority of the NSF Act of 1950,² as amended, and are central to the analysis presented in a pair of congressionally mandated reports^{3,4} published by NSF, the *Science and Engineering Indicators* and the *Women, Minorities, and Persons with Disabilities in Science and Engineering*.

The GSS is the only annual national survey that collects information on the characteristics of master's and doctoral student enrollment for specific SEH disciplines at the departmental level. It also collects information on master's and doctoral student enrollment by degree level, race and ethnicity, citizenship, sex, source of support, and mechanism of support; information on Postdoctorates (postdocs) by citizenship, sex, source of support, mechanism of

¹ Section 505, Pub. L. No. 111-358. See Attachment 1

² See Attachment 2.

³ 42 U.S. Code § 1863(j)(1)

⁴ 42 U.S. Code § 1885(a), 1885(d)

support, and origin of doctoral degree; and information on other doctorate-holding nonfaculty researchers (NFRs) by sex and type of doctoral degree (see Attachment 3 for screenshots of the GSS web instrument). The GSS has been conducted by NCSES annually since 1972. Additional financial support for the GSS is provided by the NIH.

The GSS is a census of all organizational “units” (departments, programs, research centers, and health care facilities) in SEH fields within eligible academic institutions in the United States that grant research-based master’s or doctorate degrees. The survey collects information on graduate students enrolled in these units, as well as postdocs and NFRs working within these institutions. As a part of the GSS, NCSES also biennially surveys Federally Funded Research and Development Centers (FFRDCs) to collect information on postdocs. The FFRDC postdoc survey is an extension of the GSS targeted to the 43 federally funded research centers. Unlike the GSS, data for the FFRDC postdoc survey is collected at the center level as opposed to individual departments (in other words, each FFRDC constitutes a single organizational unit). Similar to the GSS, the FFRDC postdoc survey collects data on postdoctoral researcher race/ethnicity, sex, citizenship, source of support and area of research (see Attachment 4 for screenshots of the FFRDC Postdoc Survey web instrument). Historically only approximately 50% of centers have postdocs to report.

A.2 Uses of Information

Data from the GSS and the FFRDC postdoc survey are available as public use files, and the GSS data is also available through the NCSES Interactive Data Tool (<https://ncesdata.nsf.gov/ids/gss>). The Interactive Data Tool contains institutional and summary data from all of NCSES’s academic sector surveys for all institutions offering graduate-level instruction and/or maintaining research and development (R&D) activity in SEH fields. In calendar year 2022 (the most recent year available), Google Analytics data showed a total of 2,573 unique pageviews of GSS in the Interactive Data Tool by web users external to NCSES. Between 1 January 2020 and 31 December 2022, GSS public use data files were downloaded 653 times by users.

After each survey round, major findings from the GSS and the FFRDC postdoc survey are published in an InfoBrief. The most recent GSS InfoBrief, *2021 Graduate Enrollment in Science, Engineering, and Health Fields at All-Time High as Postdocs Continue to Decline*, and

the most recent FFRDC postdoc survey InfoBrief, *The Shifting Demographic Composition of Postdoctoral Researchers at Federally Funded Research and Development Centers in 2021* are both available on the NCSES website (GSS: <https://nces.nsf.gov/pubs/nsf23311>, FFRDC postdoc survey: <https://nces.nsf.gov/pubs/nsf22345>), and are also included in this document as Attachment 5.

A.2.1 Federal

Data derived from the GSS and the FFRDC postdoc survey are routinely provided to Congress and to various agencies of the Executive Branch. Recent examples of provided data include:

- Data on graduate SEH enrollment is provided annually to the National Center for Education Statistics (NCES) for comparison purposes and are published in the *Digest of Education Statistics*.
- Data in specially prepared GSS tabulations used by the NIH to answer specific questions to help their agencies prepare budgets and conduct program evaluation studies.

NCSES and NIH extensively use the information on the number and characteristics of students currently enrolled in graduate SEH programs and of persons engaged in postdoctoral programs to assess the future stock of trained SEH personnel. A variety of more general information needs are met through the annual release of data in electronic format. NCSES publishes a short InfoBrief and a set of statistical tables, *Survey of Graduate Students and Postdoctorates in Science and Engineering Data Tables*, available on the NCSES website.

A.2.2 NSF Uses

Special tabulations from the GSS data constitute a key resource in meeting policy and program information needs of the Foundation. Major examples of GSS data uses are in the two congressionally mandated biennial reports produced by NCSES, *Science and Engineering Indicators* and *Diversity and STEM: Women, Minorities, and Persons with Disabilities*.

The GSS is one of four NCSES surveys whose microdata are combined into an integrated database to produce the *Academic Institution Profiles* published on the NCSES website (<https://ncesdata.nsf.gov/profiles/>). The other three surveys are (1) the Survey of Earned Doctorates (SED); (2) the Higher Education Research and Development (HERD) Survey; and

(3) the Survey of Science and Engineering Research Facilities. As explained in the next section, these data are further integrated with institutional data from other NCSES surveys and with surveys conducted by the National Center for Education Statistics (NCES). Together these data provide policy makers with information on the role of higher education in the context of the national R&D effort.

Primary uses of the GSS data also include reviewing changing enrollment levels to assess the effects of NSF initiatives; tracking student support patterns; and analyzing participation in SEH fields by targeted groups for all disciplines or for selected disciplines and for selected groups of institutions. Program officers check departmental and institutional records, including data from the GSS and NCES's Integrated Postsecondary Education Data System (IPEDS), to determine department eligibility for NSF programs targeted to special populations or instructional programs.

A.2.3 Use by Academic Institutions

The surveyed institutions themselves are major users of the GSS data. Institutions use the NCSES's GSS data reports or the Interactive Data Tool to study selected groups of peer institutions for planning and comparative purposes. They combine the NCSES data with information from state and local governments on institutions in their geographic areas. Institutions also use the comparative data to review the strength of their own programs on the basis of factors such as support of students by various federal agencies and progress in reaching special target populations.

A.2.4 Use by the Carnegie Foundation

Data from the GSS are used by the American Council on Education (ACE) in developing the Carnegie Classification of Institutions of Higher Education. ACE uses the GSS data on postdocs and nonfaculty research staff with doctorates as components of the "research activity" measure constructed for doctorate-granting universities (for more detail see: https://carnegieclassifications.acenet.edu/classification_descriptions/basic.php).

A.2.5 Use by the Professional Societies

Data users include the American Association of Colleges of Nursing, American Association of Universities, American Chemical Society, American Council of Education,

American Geological Society, American Institute of Physics, American Physical Society, American Society for Engineering Education, Association of American Medical Colleges, Association of International Educators, Commission on Professionals in Science and Technology, Computing Research Association, Council of Graduate Schools, Federation of American Societies for Experimental Biology, and the National Postdoctoral Association. Generally, associations use GSS data to monitor trends in enrollment by field of study, and many are also interested in tracking the numbers of postdocs and NFRs.

A.2.6 Use in Research

Researchers studying a diverse range of policy issues relating to the SEH labor pipeline have used GSS data. From 2020-2022, at least 27 journal articles, 6 monographs, and one working paper using GSS data were published (see Attachment 6). Topics included visa policies for international students wanting to work in the United States, work-life balance for postdoctoral researchers, discipline specific pipeline issues, and underrepresentation of women and racial and ethnic minorities in STEM.

A.2.7 Media Uses

Enrollment of graduate students in S&E fields are reported by the press, including *Forbes*, *The Chronicle of Higher Education*, and *Science*. Recent examples of the use of GSS data are *Inside Higher Ed* articles on foreign students and graduate enrollment (see Attachment 6).

A.3 Consideration of Using Improved Technology

NCSES has engaged in a process of continuous improvement for the GSS, involving technical innovations to increase the utility of the data collected and reduce respondent burden. In 2017, NCSES leveraged these technical innovations to implement Electronic Data Interchange (EDI) as the primary method of reporting GSS data. Since 2017, all schools are asked to use one of the two following data uploading options:

- Upload a file containing de-identified individual records that the Web system automatically aggregates to the unit-level format and then populates the appropriate cells in the GSS web survey questionnaire.
- Upload a file resulting from an Excel macro program that aggregates individual-level data into unit-level data directly on the respondent's computer. This option is

available for respondents who do not wish to provide individual-level data over the Internet.

Based on analyses of respondent behavior in the 2017 and subsequent data collections, the expansion of available upload options has led to a large increase in the number of respondents that supply GSS data through file uploads and has led to a reduction in the overall burden of completing the survey through the web instrument.

Because FFRDC respondents only report on a single organizational unit there is little efficiency to be gained from EDI. Consequently, the FFRDC postdoc survey continues to rely on manual data entry on a web-based survey instrument.

A.4 Efforts to Identify Duplication

NCSES staff consult regularly with other federal agencies and private organizations to prevent duplication of data collection activities and to stay abreast of changes in other surveys. Such consultations take place with the NCES, the Council of Graduate Schools (CGS), and others. Specific surveys conducted by these groups will be discussed below. In addition, NCSES staff participate in a variety of NCES-related activities, including serving on the 2020 Classification of Instructional Programs (CIP) Working Group and Technical Review Panels. The routine data uses of the federal agencies described in Section A.2.1 have largely determined the content of the GSS questionnaire.

Only the GSS collects the following information at the level of detailed SEH fields of study:

- For full-time master's and doctorate students, aggregate counts by
 - sources of major financial support (federal agencies, institutions, self-support, etc.)
 - mechanisms of major financial support (fellowships, teaching assistantships, etc.)
 - gender
 - citizenship
 - enrollment status (full-time or part-time; first time)
 - race/ethnicity background of U.S. citizens
- For part-time master's and doctorate students, aggregate counts by
 - gender
 - citizenship
 - race/ethnicity background of U.S. citizens

- For postdocs, aggregate counts by
 - sources of major financial support
 - mechanism of major financial support
 - gender
 - citizenship
 - type of doctoral degree
 - doctoral degree origin
- For NFRs, aggregate counts by
 - gender
 - type of doctoral degree

Because the data are collected from all eligible institutions with graduate SEH departments, data are available at the detailed field of study by institutional characteristics, such as highest degree granted, geographical location, type of control (public or private), or any other special grouping (medical schools, historically black colleges and universities, land-grant institutions, etc.) as well as by rankings on various characteristics (foreign enrollment, minority enrollment, field-specific enrollment, etc.)

Some graduate enrollment data are collected by other organizations, either federal or private, but none of the other data collection efforts both contain the detailed field distribution that is required for analyses and provide the necessary data for NCSES and NIH. IPEDS, for example, collects race and ethnicity data every 2 years for only nine select fields of study (of which four are within the NCSES definition of science and engineering, but are at a more general level than is collected for the GSS). The IPEDS annual fall enrollment data collected by race and ethnicity category are not reported by the field, and hence, they do not provide a viable substitute for the race and ethnicity data collected in the GSS. No data are collected elsewhere on source of support for postdocs and NFRs.

The CGS conducts an annual survey of graduate enrollment in cooperation with the Graduate Records Examinations (GRE) Board, most recently surveying 759 institutions in 2021 that were members of the CGS or one of the four regional graduate school associations—the Conference of Southern Graduate Schools, the Midwestern Association of Graduate Schools, the Northeastern Association of Graduate Schools, and the Western Association of Graduate Schools. The survey had a response rate of 72%, with 545 schools responding. The survey collects data by 51 fine fields of study using the GRE discipline codes as its taxonomy, type of

institutional control, and highest level of degree offered, but has no data on source of financial support. CGS also collects information on postbaccalaureate and post-master's certificates and applications to graduate schools. Only the GSS maintains detailed data grouped into 21 broad and 108 fine fields of study on all SEH degree fields at all eligible institutions and institution-provided data on source of financial support.

A number of surveys are conducted by other professional societies or by groups of institutions and are limited to a single field or group of related fields or to institutions that are members of the organization. These surveys may collect far more detailed data on the fields of interest to the organization conducting the survey and may even collect data on topics not covered by the GSS (e.g., on undergraduate enrollment), but they do not provide compatible data on all SEH fields, nor do they often address the issue of sources and mechanisms of financial support for graduate students.

NCSES is unaware of any other survey efforts similar to the FFRDC postdoc survey.

A.5 Efforts to Minimize Burden on Small Business

The GSS and FFRDC postdoc survey do not collect information from small businesses.

A.6 Consequences of Less Frequent Data Collection

A less frequent survey cycle for the GSS would have several serious consequences. First, there would be the loss of information. Because of the data uses described previously, biennial or less frequent collection means that data users would be unable to access current information. Collecting the GSS annually also increases the value of the data for monitoring trends, particularly the effects of dramatic changes in the larger context. Minor shifts in enrollment trends are monitored as early indicators of likely future changes in the supply of SEH professionals.

Other examples of trend monitoring are changes in the foreign graduate student enrollment and postdoc employment counts that correspond to the events such as September 11, 2001, the 2007-2009 Great Recession, the Covid pandemic, and immigration policy changes. Less than annual data collection may not capture such changes or reveal the inflection point of a changing trend. Following the Covid outbreak in 2020, the release of the GSS fall enrollment data was used to examine trends in SEH graduate enrollment of U.S. citizens, permanent

residents, and foreign visa holders. Foreign full-time master's student enrollment dropped 24% from 2019 to 2020, and then rebounded in 2021 with a 42% increase. Data revealed additional notable shifts in enrollment patterns with increases in part-time enrollment over the past 3 survey cycles. Those nuances would have been lost if the data had not been collected every year.

Annual collection of the GSS also helps reduce respondent burden. Most colleges and universities have automated record keeping systems, facilitating their ability to respond to the GSS on an annual cycle. These automated record systems considerably reduce the time required to assemble and report information needed for the GSS related to graduate enrollment by field, demographics, postdoctoral appointments, and sources and mechanisms of support, etc. Thus, because the database and software are retained, kept current, and easily accessed, collecting consistent data annually considerably reduces respondent burden for academic institutions with automated data systems.

Annual collection (or biennially for the FFRDC postdoc survey) also helps to maintain contacts with the coordinators within institutions and FFRDCs. Having this continuity helps the coordinators maintain their databases and, therefore, maintain the quality of the data.

A.7 Special Circumstances

These data collections do not require any of the reporting requirements listed.

A.8 Federal Register Announcement and Consultations Outside the Agency

The Federal Register notice was published on February 17, 2023 (88 FR 10386) (see Attachment 7). NCSES received no comments.

As described in the next sections, in the past three years, several consultations with the respondents have taken place to examine different aspects of the GSS data collection and to inform the changes introduced in 2017.

A.8.1 GSS Institution Site Visits

NCSES routinely conducts site visits to better understand the reporting experiences of institutions that participate in the GSS. Due to the Covid-19 pandemic, site visits during this current OMB clearance period were held as virtual meetings. In addition to the virtual site visits conducted around efforts to collect NFR data and the NFR definition used by institutions, from

2020 to 2022, NCSES conducted 5 virtual meetings to institutions of various size and reporting capacity. The meetings focused on data availability, quality, barriers to using Electronic Data Interchange (EDI), and assisting coordinators in making the transition from manual entry to EDI. Most coordinators expressed an interest in uploading but did not fully understand the benefits, work required, or potential to reduce burden in the subsequent years. The information gathered in these meetings also informs data collection procedures to better assist other coordinators complete the survey.

While no in-person site visits or virtual meetings with FFRDCs occurred during the previous clearance cycle, NCSES will on occasion visit FFRDCs to explore issues of data availability and quality. The last such site visit was January 2020.

A.8.2 Other Consultations

NCSES regularly consults with the Department of Education's NCES, and other federal agencies, such as NIH, professional societies, and institutions. 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. GSS sessions are typically held at the Association for Institutional Researchers (AIR) Annual Forum and the CGS Annual Meeting each year to obtain respondent input. In July 2023, NCSES conducted a GSS user group meeting with staff representing federal agencies that are current or previous consumers of GSS data. A meeting with a group of data users from non-governmental organizations such as the American Council of Education, Council of Graduate Schools, and the National Academies of Sciences, Engineering, and Medicine is scheduled to take place in August of 2023. Data users were or will be asked about their current and future data needs as they relate to GSS, with a focus on how they utilize NFR data and their general data needs regarding research staff employed at GSS-participating institutions. These user group meetings also explored or will explore ways in which users would utilize demographic data on gender identity beyond the traditionally collected binary categories.

A.9 Payment or Gifts to Respondents

There are no payments or gifts to GSS or FFRDC postdoc survey respondents.

A.10 Assurance of Confidentiality

No pledge of confidentiality is given to institutions providing data to the GSS or the FFRDC postdoc survey because all data collected are aggregate counts of students, postdocs, and NFRs. Data are published only at the departmental summary level.

A.11 Justification for Sensitive Questions

The survey does not contain any questions of a sensitive nature.

A.12 Estimate of Respondent Burden

Each survey cycle when respondents reach the end of the GSS web instrument, they are asked to report how long it took them to complete the data collection. Reported burden to complete the GSS varies considerably across respondents. Factors impacting burden include: the number of organizational units at the institution; the degree to which requested data can be queried from centralized institutional databases or whether the GSS survey coordinator relies on the Unit Respondents (URs) in various organizational units (e.g., academic departments or research centers) for some of the requested data; and whether the respondent uploads their data electronically or manually enters it into the GSS web instrument. When those factors are considered the average reported burden per coordinator over the past three cycles (2019-2021), was 19.7 hours, based on 59% of coordinators and 48% of URs who provided burden estimates.

The use of URs has the largest impact on respondent burden as this practice requires the use of multiple individuals at the department level to assist with the data collection. Exhibit 1 and Exhibit 2 demonstrate the variance in reported burden when coordinators that utilize URs and those who do not are separated. The average reported burden per year to complete the GSS at a school without unit respondents was 17.2 hours. Between 2019 and 2021, the average reported burden for individual unit respondents was 2.4 hours, 3.1 hours, and 2.7 hours, respectively. The average reported burden for institutions that that used unit respondents was 58.9 hours.

Exhibit 1. GSS 2019-2021 Reported coordinator burden, by institutional reporting size and data provision method

	2019		2020		2021		2019-2021	
	n	Average Burden (hours)	n	Average Burden (hours)	n	Average Burden (hours)	n	Weighted Average Burden (hours)
More than 15 units, EDI	188	29.1	182	27.6	191	32.5	561	29.8
More than 15 units, Manual data entry	9	27.4	9	29.1	8	18.3	26	25.2
15 or fewer units, EDI	243	8.2	211	11.8	235	10.1	689	9.8
15 or fewer units, Manual data entry	83	5.8	59	8.2	67	7.4	209	6.9
<i>Estimated total</i>	523	15.6	461	17.8	501	18.4	1,485	17.2

Exhibit 2. GSS 2019-2021 Reported burden for institutions using unit respondents, by institutional reporting size and data provision method

	2019		2020		2021		2019-2021	
	n	Average Burden (hours)	n	Average Burden (hours)	n	Average Burden (hours)	n	Weighted Average Burden (hours)
More than 15 units, EDI	15	78	10	108.8	10	87.2	15	89.4
More than 15 units, Manual data entry	9	64.3	6	35.4	7	53.9	22	53.1
15 or fewer units, EDI	5	5.1	6	101.6	0	0	11	57.7
15 or fewer units, Manual data entry	10	11.0	7	53.2	9	13.3	26	23.1
<i>Estimated total</i>	39	48.3	29	78.7	26	52.6	94	58.9

As mentioned above, while coordinators and URs are asked about the burden to complete the survey, the percentage of coordinators and URs that provided burden estimates was only 59% and 48% respectively over the three-year period. To address low response rates, the following technique was used to impute the burden for non-responding coordinators and URs. First, for both groups, outlier values defined as 3 standard deviations above the mean were removed. Next, missing data was replaced with the mean of the analysis group. Finally, unit respondent burden

was calculated and included with the coordinator’s burden. This calculation is necessary because when a school utilizes URs, the coordinators’ burden is minimal while the response burden falls to individual URs. Average UR burden was applied to all units at schools utilizing URs and was then added to the coordinator’s burden. Burden estimates were weighted by use of unit respondents, size of institution, and data provision method over the three-year period and are presented in Exhibit 3. The weighted average burden hours in Exhibit 3 represent the total effort required to complete the survey and are the basis for the 2023, 2024, and 2025 burden estimates.

Exhibit 3. GSS 2019-2021 Total Burden by Institutional Reporting Size, Data Provision Method, and Unit Respondent Status

Institution Type	Do Not Use URs		Uses URs		All Coordinators		
	Avg.	Year-Weighted	Avg.	Year-Weighted	Avg.	Year-Weighted	Avg. Per Cycle
	n	Avg. Burden (hours)	n	Avg. Burden (hours)	n	Avg. Burden (hours)	Burden (hours)
More than 15 units, EDI	314	29.9	19	179.2	332	38.3	12,716
More than 15 units, Manual data entry	24	24.7	8	152.8	32	58.1	1,859
15 or fewer units, EDI	350	9.9	5	28.8	354	10.1	3,575
15 or fewer units, Manual data entry	149	7.4	14	22.1	164	8.7	1,427
Average Estimated Total	836	17.4	46	110.2	882	22.2	19,603

*All Coordinators column may not add up to ‘do not use URs’ and ‘Uses URs’ columns due to rounding.

Having taken into account the number of institutions utilizing unit respondents in the above calculations, to estimate burden for the next three data collection cycles, the GSS frame is split by response method (EDI or manual entry) and the number of organizational units reported by the institution (more than 15 units are large reporters and 15 or fewer units are small reporters). Based on the 2021 GSS, 38.8% of schools were large uploaders, 2.9% were large manual entry, 40.3% were small uploaders, and 18.0% were small manual entry.

The expected frame for the 2022 GSS includes 704 institutions comprising 792 schools with 871 total respondents. The estimates provided below assume a steady state in the use of URs and the data reporting method (EDI or manual entry). An additional 5 small institutions reporting data manually in each data cycle (2023, 2024, and 2025) are expected based on organic growth in the census frame, resulting in 338 large uploaders, 25 large manual entry, 351 small

uploaders, and 162 small manual entry reporters expected in the 2022 GSS (Exhibit 4). Given the historically high levels of participation, a 100 percent school response rate is used in these estimates.

This methodology is the same that was used to project burden for the GSS 2020-2022 OMB submission. In the previous submission NCSES estimated the total three-year burden to be 55,435 and the actual reported burden was 58,780. The difference between the actual and estimated burden was just 6.0%. Further, 2019 was within 1.5% and 2021 was within 3.5% of the annual projected burden hour estimates, respectively. The 2020 GSS cycle was off by 13.0%, however, NCSES believes difficulties surrounding the COVID-19 pandemic influenced respondent burden. These results lend credibility to the methodology and resulting estimates.

Exhibit 4. Expected Composition of the 2022 GSS Frame, by institution size and reporting method

Institution size and reporting method	# of Schools	Percent
More than 15 units, EDI	338	38.8%
More than 15 units, Manual data entry	25	2.9%
15 or fewer units, EDI	351	40.3%
15 or fewer units, Manual data entry	157	18.0%
Total	871	100.0%

In addition to the regular GSS data collection, the 2023 and 2025 survey cycles will include a biennial FFRDC postdoc survey. Response burden for the FFRDCs is estimated based on the 2021 data collection in which FFRDCs reported an average of 2.1 hours per center to complete the information request. Of the 43 FFRDC coordinators, 33 (or 76.7%) provided burden estimates.

Exhibit 5. Burden Estimates for the 2023 GSS

Institution Type	Respondents (# of schools)	Average Burden (hours)	Total Burden (hours)
More than 15 units, Uploading	338	38.3	12,945
More than 15 units, Manually Enter	25	58.1	1,453
15 or fewer units, Uploading	351	10.1	3,545
15 or fewer units, Manually Enter	162	8.7	1,409
FFRDCs	43	2.1	90

Estimated total	919		19,442
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Exhibit 6. Burden Estimates for the 2024 GSS

Institution Type	Respondents (# of schools)	Average Burden (hours)	Total Burden (hours)
More than 15 units, Uploading	338	38.3	12,945
More than 15 units, Manually Enter	25	58.1	1,453
15 or fewer units, Uploading	351	10.1	3,545
15 or fewer units, Manually Enter	167	8.7	1,453
Estimated total	881		19,396

Exhibit 7. Burden Estimates for the 2025 GSS

Institution Type	Respondents (# of schools)	Average Burden (hours)	Total Burden (hours)
More than 15 units, Uploading	338	38.3	12,945
More than 15 units, Manually Enter	25	58.1	1,453
15 or fewer units, Uploading	351	10.1	3,545
15 or fewer units, Manually Enter	172	8.7	1,496
FFRDCs	43	2.1	90
Estimated total	929		19,529

The annual burden estimates are presented in Exhibit 8, along with the cost burden estimate for respondents. At an estimated cost of \$37.06 per hour (based on the Bureau of Labor Statistics May 2021 average hourly wages for “Management Analysts,” within NAICS 611300 – Colleges, Universities, and Professional Schools, accessed on December 6th, 2022, at <http://data.bls.gov/oes/>), the average annual cost to respondent institutions is \$745,750 (\$820 per respondent). In addition, the burden estimate includes 2,000 hours for conducting GSS site visits, virtual meetings, methodological testing, and other survey improvements. In anticipation of research related to the Federal Interagency Technical Working Group on Race and Ethnicity Standards efforts exploring revisions to OMB’s 1997 Statistical Policy Directive No. 15, the number of methodological hours in this clearance package increased from 1,000 hours to 2,000 hours when compared to the previous submission. Additionally, NCSES is interested in

understanding how institutions collect and report sex and gender data for graduate students, postdocs, and NFRs in anticipation of possible changes to the GSS data collection. NCSES expects to conduct a series of focus groups, cognitive interviews, and a record keeping survey focused on sex, gender, and race/ethnicity in light of evolving demographic standards and best practices.

Exhibit 8. Total Burden Estimates for 2023-2025 GSS

Survey Cycle	Respondents (# of coordinators)	Total Burden (hours)	Total Annual Cost to Coordinators	Annual Cost per Coordinator
2023 GSS	919	19,442	\$720,546	\$784
GSS Coordinators	876	19,352	\$717,200	\$819
FFRDC Coordinators	43	90	\$3,347	\$78
2024 GSS	881	19,396	\$718,812	\$816
2025 GSS	929	19,529	\$723,771	\$779
GSS Coordinators	886	19,439	\$720,424	\$813
FFRDC Coordinators	43	90	\$3,347	\$78
Future methodological testing (all 3 years)	--	2,000	\$74,120	NA
Total estimated burden	2,729	60,367	\$2,237,249	\$820
Estimated average annual burden	910	20,202	\$746,200	\$820

A.13 Cost Burden to Respondents

This survey does not require the purchase of equipment, software, or services beyond those normally used in universities as part of customary and usual business. See exhibit 8 for annual respondent personnel costs.

A.14 Cost to the Federal Government

The average cost per cycle of conducting the GSS is \$1.99M based on the total estimated value of the current contract (\$7.95M) to conduct four cycles, 2022-25. The estimated total cost of the GSS to the federal government is approximately \$2.3M per cycle. These costs are inclusive of the \$296,000 to conduct two rounds of the FFRDC postdoc survey alongside the GSS. Exhibit 8 presents more detailed information on this estimate.

Exhibit 9. Annual GSS and FFRDC Postdoc Survey Federal Government Estimated Costs

GSS and FFRDC Resources and Activities	Total (\$)
Data collection and processing contract	1,987,500
GSS survey manager (1.0-person year)	172,075
Other NCSES staff (program manager, statistician, editor, etc.)	210,000
Publication Web posting, printing and mailing costs	1,000
Estimated total	2,370,575

For the 2021 GSS, NIH contributed \$452,129 (19%) of the annual contract costs. It is assumed that NIH will continue that level of support. NCSES funds the remainder of the annual costs to the federal government.

A.15 Program Changes or Adjustments in Burden

Burden estimates have been lowered substantially from previous clearances. The new procedures for data uploads have streamlined the process, especially for large universities.

A.16 Publication Plan and Project Schedule

The GSS and FFRDC postdoc survey project schedules (Attachment 8) for the entire project from design to final publication is similar each year. For the GSS, institutions are contacted to confirm the survey coordinators in September, and the survey is launched in October, with a final closeout date in April of the following year. The most recent InfoBrief was published in January 2023 along with the detailed data tables, and a description of the survey methodology (see Attachment 5).

The biennial FFRDC postdoc survey is conducted over a three-month period spanning February to April of a given survey year. Coordinator confirmation activities begin in early January, data collection begins mid-February, and the survey deadline is the end of March. The 2021 FFRDC postdoc survey InfoBrief was published October 2022.

A.17 Exceptions to Displaying of OMB Expiration Date

Not applicable. The OMB control number and expiration date will be displayed on the GSS and FFRDC web survey login pages and on GSS and FFRDC postdoc survey worksheets

provided to respondents for reference purposes (worksheets are no longer used for actual data submission).

A.18 Exceptions to the Certification Statement

No exceptions to the certification statement are being sought.