

ATTACHMENT 12

Survey of Graduate Students and Postdoctorates in Science and Engineering (GSS) Coordinator Survey Results

Executive Summary

The National Center for Science and Engineering Statistics (NCSES) is currently considering a redesign of the Survey of Graduate Students and Postdoctorates in Science and Engineering (GSS) in 2017 to improve data utility and find ways to reduce response burden. Among the changes under consideration:

- Collecting graduate enrollment and financial support data for the master's and doctoral students separately;
- Use of Classification of Instructional Programs (CIP) codes as a disciplinary taxonomy for graduate student data, instead of GSS codes;
- Alternative approaches to collecting financial support data for graduate students and postdoctorates (postdocs); and
- Expanding institutional use of data file transfers for data submission instead of manual entry in a GSS Web survey instrument.

In preparation for these changes, NCSES has canvassed various GSS stakeholders through institutional site visits (Summer 2015), user group meetings with federal and nongovernmental organizations that use GSS data (April 2016), and a presentation at the Association for Institutional Research (June 2016). Additionally, NCSES will conduct a pilot data collection with a sample of institutions for the 2016 GSS that will test the feasibility of implementing the above changes.

The GSS 2015 Coordinator Survey was undertaken to gather information on current institution reporting practices and to assess the impact of potential changes to the data collection. The survey results will be used to ascertain the feasibility of the proposed changes and provide NCSES with the information needed to support GSS institutions as they implement the changes necessitated by the 2017 GSS redesign.

The survey was administered over the Web in summer 2016 to all GSS coordinators that participated in the 2015 GSS data collection. A total of 840 coordinators were invited to take the survey, and 676 participated for a total response rate of 80.5%.

The survey explored the following topics:

- Feasibility of separate reporting of master's and doctoral student data;
- Feasibility of using CIP codes to report data by academic discipline;
- Institutional data collection practices and challenges; and
- Use of the Upload Data feature.

Among the salient findings:

- Slightly over half of all coordinators (52.9%) report working in institutional research (IR) offices, about one-quarter (25.6%) of coordinators report working in the graduate school or graduate studies.
 - Among postdoctoral coordinators, 25% report working in postdoctoral affairs, 15.8% work in research administration, and 14.5% work in graduate schools.
- The majority of respondents (80.2%) received assistance from at least one department in obtaining data for GSS. The most common organizational contributors to 2015 GSS were academic units, graduate studies, institutional research, financial aid, human resources, and research administration.
- Responding coordinators were generally familiar with the CIP codes. Nearly 60% of respondents were "very familiar" with CIP, while 21.7% were "somewhat familiar." CIP familiarity was highest among those who work in institutional research (98.8% "very familiar" or "somewhat familiar"), and generally among coordinators who report graduate students (86.0% "very familiar" or "somewhat familiar"). CIP familiarity was lower among responding postdoc coordinators (43.6%) and those in research administration and academic offices (41.2% and 42.3%, respectively)
- CIP codes are available for the majority of academic units in which graduate students are enrolled. Among responding coordinators responsible for reporting graduate student data, 88.6% stated CIP availability for some or all of the academic units of their institution. Only 1.8% indicated that CIP codes were not available, while 8.7% did not know.
- The majority of respondents with responsibility for reporting student data indicated that using CIP codes to report student data would be a neutral or beneficial change for them. About one-third (34.5%) of respondents indicated the estimated burden for using CIP codes would be about the same as using GSS codes, while 32.4% indicated CIP would require less effort compared with the current taxonomy.
- CIP codes are less commonly used in units where postdocs are employed. Only 50.6% of respondents with postdoc reporting responsibilities indicated that CIP codes were available at some or all units that employ postdocs. Nearly one-third (31.5%) did not know whether CIP codes were available.
- Using CIP codes to collect postdoc data was considered more burdensome for respondents. Only 16.0% of coordinators thought using CIP codes for postdoc data would require less effort (either a little or a lot less), while 36.3% felt it would require a little or a lot more effort. Nearly one in five (19.0%) did not know how CIP would impact data reporting for postdocs.
- The majority of respondents at institutions that offered both master's and doctoral degrees state that their institutional records allow them to distinguish between the two degree types: 85.0% indicated this was possible for most programs, while an additional 12.3% said it was possible for some programs.

- Regarding the amount of additional effort required to report source of financial support data separately for master's and doctoral students, about one-third (35.8%) indicated it would require about the same amount of effort, while 41.2% felt it would require a little more effort, and 11.9% felt it would require a lot more effort. Figures were similar when respondents were asked to estimate the burden associated with reporting mechanism of financial support.
- Regarding the challenges associated with reporting student demographic and financial data, about half of respondents (52.8%) indicated at least one challenge in reporting demographic data, while 70.4% indicated similarly for reporting student financial data. The most common challenges in both areas centered on coordinating responses with Unit Respondents (URs) and on needing to access multiple databases. A challenge specific to student demographics was mapping the institution's unit structure to GSS codes, while lack of a centralized information system was a challenge particularly salient to student financial reporting.
- A larger proportion of respondents responsible for reporting postdoc demographics and financials encountered challenges, with 70.4% indicating at least one challenge in reporting postdoc demographics, and 77.2% indicating similarly for postdoc financial support. Among the common challenges, lack of a centralized information system, needing to query multiple data sources, and coordinating the responses from URs.
- The majority of respondents reporting nonfaculty researcher (NFR) counts reported at least one challenge (66.7%), with lack of a centralized information system and obtaining accurate data from URs among the most commonly cited challenges.
- Coordinator awareness of the GSS data upload feature was variable. Just over half (56.9%) of respondents indicated they were aware they could upload data. Of those, only another half (51.6%) were aware they could conduct partial uploads of GSS data.
- Reasons for not uploading include the time it takes to learn how to upload (22.2%), that it is not worth the time to learn how to upload (34.3%) and no time to format the data (18.4%). Two-thirds (66.4%) of coordinators who did not upload responded that manual reporting is easier than uploading.
- Of the responding coordinators who used the data upload feature for 2015 GSS, a large majority (86.0%) found the feature somewhat or very easy to use.
- About half (49.4%) of responding coordinators who do not currently upload said they were very (9.5%) or somewhat (39.9%) likely to upload in the future.
- Over half of respondents (57.5%) were aware that GSS data and reports were available on the National Science Foundation website, but less than one-quarter (22.8%) said that they were aware of their institution using the data. For those who did use GSS data, the most common uses were benchmarking against other institutions, supporting recruiting and retention efforts, and academic planning and program review.