

December 11, 2014

Ms. Jennifer Jessup
Departmental Paperwork Clearance Officer
Department of Commerce, Room 6616
14th and Constitution Avenue NW
Washington, DC 20230

Dear Ms. Jessup,

I am writing on behalf of the National Science Board (NSB) to urge you to retain the “Undergraduate Field of Degree” question (Question 12) on the American Community Survey (ACS).

A U.S. workforce educated and trained in science, technology, engineering, and mathematics (STEM) is vital to our Nation’s prosperity, security, and competitiveness. To ensure the health of that workforce, policymakers, leaders in academia and industry, and other decision makers need objective data. The data and analyses enabled by the responses to Question 12 inform decisions regarding job creation, competitiveness, innovation, education, and research and development, and many other issues of national interest.

Congressional action over the past 60 years clearly demonstrates the value of these data to informing U.S. policy decisions. As part of the National Science Foundation (NSF) Organic Act, NSF was charged “to provide a central clearinghouse for the collection, interpretation, and analysis of data on scientific and engineering resources...”¹ The America COMPETES Reauthorization Act of 2010 further codified this mission through the establishment of the National Center for Science and Engineering Statistics (NCSES).² Among the responsibilities for NCSES set forth in the COMPETES Act was collecting, acquiring, analyzing, reporting, and disseminating statistical data on the science and engineering (S&E) workforce. Likewise, the Science and Engineering Equal Opportunities Act of 1980 requires NSF to provide Congress with “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...[and]...an assessment...of the proportion of women and minorities studying scientific and engineering fields.”³

The “Field of Degree” question on the ACS is a cornerstone to NSF’s ability to carry out its congressionally mandated mission to monitor and report these vital indicators. The NSB’s *Science and Engineering Indicators (Indicators)* report provides Congress and the President, state and local policymakers, researchers, and numerous other stakeholders with policy-neutral, largely quantitative data and analysis on the state of the U.S. S&E enterprise, including a full

¹ 42 U.S. Code § 1862(a)(6)

² 42 U.S. Code § 1862p(a)

³ 42 U.S. Code § 1885d(b)

chapter covering data and trends relating to the S&E labor force. The majority of the analysis is based on survey data that are derived from the Field of Degree as included within the ACS. It is important, however, to note that this question is asked in a section on educational attainment—it is the combination of the responses to Question 12 with the responses to these other context-setting questions in the ACS that makes Question 12 essential for the analysis that is developed for the *Indicators* report.

NSF reports on populations of particular interest to policymakers in another congressionally mandated report, *Women, Minorities, and Persons with Disabilities in Science and Engineering*. These data provide the basis for a variety of other important reports and statistical briefs by the NSB and NCSES, federal agencies such as the Department of Labor and the National Institutes of Health, and other public and private stakeholders.⁴

The "Field of Degree" question has been a key tool for both the Census Bureau and NSF to conduct surveys of scientists and engineers for several decades. NSF and the Census Bureau have collaborated for 50 years to provide these important data, first through the Decennial long form and then more recently through the ACS. During this time, NCSES commissioned several National Research Council Committee on National Statistics reports to explore the availability of alternative means to collect this information; all concluded that there are no practical, viable alternatives.⁵ Based on the preliminary analysis of NCSES, if it needed to collect these data in an alternate fashion, the cost in taxpayer dollars would likely run in the tens of millions of dollars, greatly increase the burden on the public, and the data quality would suffer. Thus, the historic uses of these data cannot be replaced without severe impacts to Federal statistics.

In short, retaining the “Field of Degree” question on the ACS will ensure our Nation continues to have available the highest quality data on the scientific workforce through the most efficient, most cost effective, and least burdensome means possible.

Sincerely,

/ Signed /
Dan E. Arvizu
Chairman

cc: John H. Thompson, Director, U.S. Census Bureau
Penny Pritzker, Secretary, U.S. Department of Commerce

⁴ For example, ACS data form the basis for an informative online STEM workforce visualization tool developed by the Census Bureau: “Where do college graduates work? A Special Focus on Science, Technology, Engineering and Math.” (July 2014). <https://www.census.gov/dataviz/visualizations/stem/stem-html/>.

⁵ See, for example: Committee on National Statistics Division of Behavioral and Social Sciences and Education National Research Council. “Using the American Community Survey for the National Science Foundation’s Science and Engineering Workforce Statistics Program.” (2008). <http://www.nae.edu/19582/Reports/25143.aspx>.