National Center for Science and Engineering Statistics

(Formerly Division of Science Resources Statistics)

National Science Foundation

NCSES Commitment to Quality

Background

The National Center for Science and Engineering Statistics (NCSES) of the National Science Foundation (NSF) is one of 13 principle statistical agencies in the federal statistical system represented on the Interagency Council on Statistical Policy (ICSP). As established within the National Science Foundation by Section 505 of the America COMPETES Reauthorization Act of 2010, NCSES serves to "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".

The U.S. Office of Management and Budget (OMB) issued final guidelines at 67 FR 5365 on February 22, 2002, directing all Federal agencies to issue and abide by quality guidelines for information that they disseminate. For many years, the National Center for Science and Engineering Statistics has had the responsibility to inform users of the concepts and methodologies used in collecting data, the quality of the data it produces and provides, and other features and assumptions of the data that may affect their use or interpretation. This information allows users to decide if the data are similar in concept and definitions to the data that they need to complete their work. It also allows users to assess the limitations of the data.

NCSES is enhancing and updating its statistical Information Quality Guidelines (Guidelines). The NCSES Guidelines supplement the National Science Foundation's Information Quality Guidelines, and NCSES adheres to both.

NCSES Role

The National Center for Science and Engineering Statistics is the nation's primary source of high- quality, comprehensive, quantitative information on the science and technology (S&T) enterprise. The Center is mandated to "collect, acquire, analyze, report, and disseminate statistical data on the following:

- Research and development
- The science and engineering workforce
- U.S. competitiveness in science, engineering, technology and R&D
- The condition and progress of STEM education in the United States

To fulfill this role, NCSES engages in:

- Planning and designing surveys and other means of collecting data
- Developing concepts and methods.
- Collecting data
- Processing and editing data
- Analyzing and synthesizing data produced in the U.S. and internationally
- Producing estimates and developing indicators
- Reviewing information products and disseminating information in published reports, electronic files, and other media requested by users.

NCSES Commitment to Quality

NCSES's commitment to quality and professional principles of practice are described below:

1. Use of modern statistical and survey practices and theory in all technical work

2. Use of appropriate internal and external expertise in areas relevant to our mission

3. Documentation designed for users to assess the suitability of the information for their needs

4. Diligence about fitness of use of external data and information and notation of limitations of the data or information

5. Review of information products and documentation by technically qualified staff (or independent experts when appropriate)

6. Ongoing quality assurance and improvement programs