



National  
Science  
Foundation

# Survey of Federal Science and Engineering Support in FY 2001 to Universities, Colleges, and Nonprofit Institutions

12/4/2003

Version for DoD agencies

**Please note: The Federal Support Survey is a web-only survey (multiple screens). There is no paper questionnaire to collect data from respondents. However, NSF prepared this replica questionnaire to provide users with the text of the survey questions, response categories and instructions that are included in the Web version of this survey.**

The congressionally mandated Survey of Federal Science and Engineering (S&E) Support to Universities, Colleges, and Nonprofit Institutions (Federal S&E support survey) originated in 1965 to report annually on Federal obligations to academic institutions. Data on nonprofit institutions were added to the mandate in 1968. The National Science Foundation prepares an annual report to the President and Congress (NSF) in accordance with Section 3(a)(7) of the NSF Act as amended in August 1968.

## **Why Your Survey Response Is Important**

The academic sector produces most of the Nation's scientists and engineers and performs about one-half of all federally sponsored basic research. The characteristics and distribution of Federal academic and/or nonprofit funds are of interest to science and technology policy officials at all levels of government, to academic administrators, and to industry and nonprofit personnel. This survey is the only source of detailed data on Federal S&E obligations to individual universities, colleges, and nonprofit organizations and therefore attracts a wide audience. Specific users have included the Chronicle of Higher Education and Experimental Program to Stimulate Competitive Research (EPSCoR). Since 1979, EPSCoR has assisted States that have historically received little Federal R&D funding, and that have demonstrated a commitment to develop their research bases and improve science and engineering research and education programs at their universities and colleges to compete more successfully for such funding.

## **What You Should Report**

This questionnaire collects information from Federal agencies on (1) total program support in thousands of dollars for S&E activities to academic institutions, and (2) R&D and R&D plant support to nonprofit institutions. Data should be provided for fiscal year 2001 (October 1, 2000, through September 30, 2001). **Report all funding in terms of the immediate recipient, whether or not the funds obligated were later subcontracted.**

Please use the appropriate form for reporting obligations to each institution:

- **Part I**—Universities and Colleges
- **Part II**—Nonprofit Institutions

## **When You Should Report**

We are requesting the same data your agency will submit to the Office of Management and Budget (OMB) in January. Do not wait for later markups or revisions. **Please complete your submission by April 15, 2002.**

## **Federal Interagency Committee on Education (FICE) codes**

The 6-digit FICE code is a unique number used to identify each institution. The 2002 Code Book for Compatible Statistical Reporting of Federal Science and Engineering Support to Universities, Colleges, and Nonprofit Institutions contains FICE codes for all institutions. It has once again been expanded and the particular changes are listed in the introduction to the Code Book. If you wish to report data for an institution for which you do not have a FICE code, please contact us for the appropriate code. An online version of the codebook is available on the FSSweb survey site.

## **Relationship to the Survey of Federal Funds for Research and Development**

The concepts and definitions for this survey conform as far as possible to those of the NSF Survey of Federal Funds for Research and Development (Federal funds survey). Totals reported in each of the two surveys for R&D and R&D plant obligations to (1) universities and colleges and (2) nonprofit institutions should be in close agreement. Where differences exist in data reported for the two surveys, your agency should attach an explanation for the differences, including a statement of the amount for each factor contributing to the difference.

For example, totals could differ because methods differ for reporting funds that are transferred to another agency before being distributed to institutions. In this survey, the agency that distributes the funds directly to the institution is responsible for reporting the obligations. Thus, agencies reporting in this survey would include funds received from other agencies but would exclude funds transferred to other agencies. For the Federal funds survey, however, the obligations are reported by the original source of funds, i.e., the agency that transfers the funds to the second agency.

If you have a question about the survey in general, please contact Mr. Richard Bennof via e-mail at [rbennof@nsf.gov](mailto:rbennof@nsf.gov) or call 1-703-292-7783. If you have a question about a specific item in the survey, please contact Michael Rossi of ORC Macro via e-mail at [mrossi@orc.com](mailto:mrossi@orc.com) or call him at 301-657-3077, extension 178.

Thank you for your participation.

## Part 1: Obligations to Universities and colleges

**Please fill out this form for *each* university and college to which your agency obligated research and development funding during FY 2001 (October 1, 2000 to September 30, 2001).**

**Universities and colleges** are those institutions of higher education in the United States that offer at least 1 year of college-level study leading toward a degree. Included are colleges of liberal arts; schools of arts and sciences; professional schools, as in engineering and medicine, including affiliated hospitals and associated research institutes; and agricultural experiment stations.

<b>Your agency's name:</b> <input style="width: 150px; height: 15px;" type="text"/>
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	Name	FICE
1. What is the name and FICE code for this institution?	<input style="width: 150px; height: 15px;" type="text"/>	<input style="width: 80px; height: 15px;" type="text"/>

**Finding FICE codes:** The 2002 Code Book for Compatible Statistical Reporting of Federal Science and Engineering Support to Universities, Colleges, and Nonprofit Institutions (about 400 pages) contains FICE codes for universities and colleges. The introduction to the codebook lists changes. Use "System Office" codes only for funds that your agency obligated directly to the central office of a system of universities **and** for which the ultimate distribution to individual institutions within the system is unobtainable.

2. What were your obligations to this institution in FY 2001 for each type of ***science and engineering*** activity below? (*Report dollars in thousands; if none, enter "0."*)  
***Please see Attachment 1 for details of what should be included in the categories below.***

a. Research .....	\$	<input style="width: 60px; height: 15px;" type="text"/>	,	000
b. Major systems development .....	\$	<input style="width: 60px; height: 15px;" type="text"/>	,	000
c. Advanced technology development .....	\$	<input style="width: 60px; height: 15px;" type="text"/>	,	000
d. Fellowships, traineeships, and training grants .....	\$	<input style="width: 60px; height: 15px;" type="text"/>	,	000
e. R&D Plant (R&D facilities and fixed equipment) .....	\$	<input style="width: 60px; height: 15px;" type="text"/>	,	000
f. Facilities and equipment for instruction .....	\$	<input style="width: 60px; height: 15px;" type="text"/>	,	000
g. General support for science and engineering .....	\$	<input style="width: 60px; height: 15px;" type="text"/>	,	000
h. Other science and engineering activities .....	\$	<input style="width: 60px; height: 15px;" type="text"/>	,	000
<b>Grand total</b>	<b>\$</b>	<input style="width: 60px; height: 15px; background-color: #cccccc;" type="text"/>	<b>,</b>	<b>000</b>

NOTE: Shaded totals are automatically summed in the web version of this survey.

## Part 2: Obligations to Nonprofit Institutions

**Please fill out this form for *each* nonprofit institution to which your agency obligated research and development funding during FY 2001 (October 1, 2000 to September 30, 2001).**

**Nonprofit institutions** are private organizations, other than educational institutions, whose net earnings in no part inure to the benefit of a private stockholder or individual and other private organizations organized for the exclusive purpose of turning over their entire net earnings to such nonprofit organizations.

*See Attachment 2 for definitions of the following types of nonprofit institutions:*

- Agricultural cooperative
- Private foundation
- Professional or technical society, or academy of science and engineering
- Science exhibitor
- Trade association
- Voluntary hospital

<b>Your agency's name:</b> <input style="width: 150px;" type="text"/>
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	Name	FICE
1. What is the name and FICE code for this institution?	<input style="width: 150px;" type="text"/>	<input style="width: 80px;" type="text"/>

**Finding FICE codes:** The 2002 Code Book for Compatible Statistical Reporting of Federal Science and Engineering Support to Universities, Colleges, and Nonprofit Institutions (about 400 pages) contains FICE codes for nonprofit institutions. It is updated on a yearly basis. If your agency has obligated funding for R&D and/or R&D plant to any nonprofit institution *not* listed in the code book, please report this via FSSWeb, the Web-based data collection system.

2. What were your obligations to this institution in FY 2001 for each type of ***science and engineering*** activity below? (*Report dollars in thousands; if none, enter "0."*)

*Please see Attachment 1 for details of what should be included in the categories below.*

a. Research and development.....	\$	<input style="width: 60px;" type="text"/>	,	000
b. R&D Plant (R&D facilities and fixed equipment) .....	\$	<input style="width: 60px;" type="text"/>	,	000
<b>Grand total</b>	<b>\$</b>	<input style="width: 60px; background-color: #cccccc;" type="text"/>	<b>,</b>	<b>000</b>

NOTE: Shaded totals are automatically summed in the web version of this survey.

# Attachment 1

## Definitions for reporting categories

**Research and development** - Research and development (R&D) activities comprise creative work undertaken on a systematic basis in order to increase the stock of knowledge, including knowledge of man, culture and society, and the use of this stock of knowledge to devise new applications. Also, include administrative expenses for R&D. Include basic research, applied research, and development. (See definitions below.)

***Exclude the following from research and development:***

- Physical assets for R&D such as R&D equipment and facilities
- Routine product testing
- Quality control
- Mapping
- Collection of general-purpose statistics
- Experimental production
- Routine monitoring and evaluation of an operational program
- Training of scientific and technical personnel

**Basic research** is defined as systematic study directed toward fuller knowledge or understanding of the fundamental aspects of phenomena and of observable facts without specific applications towards processes or products in mind.

**Applied research** is defined as systematic study to gain knowledge or understanding necessary to determine the means by which a recognized and specific need may be met.

**Development** is defined as systematic application of knowledge or understanding, directed toward the production of useful materials, devices, and systems or methods, including design, development, and improvement of prototypes and new processes to meet specific requirements.

**Advanced technology development** represents DoD research category 6.3A and includes all advanced technology development of subsystems/components and includes concept/technology demonstrations of new system concepts. Projects in this category have a direct relevance to identified military needs. These funds are used to demonstrate the general military utility or cost reduction potential of technology when applied to different types of military equipment or techniques. It also includes evaluation and synthetic environment and proof-of-principle demonstrations in field exercises to evaluate system upgrades or provide new operational capabilities. (This category is Budget Activity 3 of the DoD Financial Management Regulation (FMR).)

**Major systems development** represents DoD research categories 6.3B through 6.6 (demonstration and validation, engineering and manufacturing development, management and support, and operational system development) and Budget Activities 4 through 7 of the DoD Financial Management Regulation (FMR).

**Fellowships, traineeships, and training grants** include all fellowship, traineeship, and training grant programs that are directed primarily toward the development and maintenance of scientific and technical staffing.

***Exclude the following:***

- Projects that support research and educational institutes, seminars, and conferences, such as teacher training activities provided through teacher institutes, short courses, research participation, and in-service seminars;
- Activities aimed at the development of educational techniques and materials for use in S&E training;
- Programs that provide special opportunities for increasing the scientific knowledge and experience of precollege and undergraduate students.

If these excluded activities are related to science and engineering, please report them under **Other activities related to science and engineering**.

**R&D plant (R&D facilities and fixed equipment)** includes all projects whose principal purpose is to provide support for construction, acquisition, renovation, modification, repair, or rental of facilities, land, works, or fixed equipment for use in scientific or engineering **research and development**. A facility is to be interpreted broadly to include any physical resource important to the conduct of research or development. All costs—direct, indirect, and related expenditures—are to be included. If the R&D facilities are to be a larger facility devoted to other purposes as well, the funds should be distributed among the categories of support involved as appropriate. In general, another category that would be involved is **facilities and equipment for instruction in science and engineering**.

*Exclude the following:*

- Expendable research equipment
- Office furniture and equipment
- Other activities, not specifically related to science and engineering

**Facilities and equipment for instruction in science and engineering** includes all programs whose principal purpose is to provide support for construction, acquisition, renovation, modification, repair, or rental of facilities, land, works, or equipment for use in **instruction** in science and engineering. If the instructional facilities are part of a larger facility devoted to other purposes as well, the funds should be distributed among the support involved as appropriate. In general, the other category most likely to be involved is **R&D plant**.

**General support for science and engineering** includes activities that provide support for nonspecific or generalized purposes related to scientific research and education. Such projects are generally oriented toward academic departments, institutes, or institutions as a whole. "General support" implies a spectrum of varying types of support. At one extreme is support provided without any specification of purpose other than that funds be used for scientific activities. Another kind of "general support" is to be found in projects that provide funds for an activity within a specified field of science and engineering but without specification of explicit purpose. The distinguishing feature of "general support for science and engineering" projects is that they permit a significant measure of freedom as to purpose (research, faculty support, education, institutional support, etc.).

Among the projects to be reported under the category "general support for science and engineering" are projects awarded through these agency programs:

- NIH Minority Biomedical Research Support for Undergraduate Colleges
- NIH Minority Biomedical Support Grants

Other programs consistent with the above guidelines may also be reported under this category.

**Other science and engineering activities** includes all academic S&E activities that cannot meaningfully be assigned to one of the five categories previously set forth: Facilities and Equipment for Instruction in Science and Engineering; Fellowships, Traineeships, and Training Grants (FTTGs); General Support for Science and Engineering; Research and Development; and R&D Plant (R&D Facilities and Fixed Equipment). Among the types of activities to be included in this category are support for scientific conferences and symposia, teacher institutes, and activities aimed at increasing the scientific knowledge of precollege and undergraduate students.

## **Attachment 2**

### **Descriptions of types of nonprofit institutions.**

**Agricultural cooperative** - An organization of individuals or business entities that are normally competitors in the production and sale of agricultural products. Its activities may include one or more of the following areas: collective marketing or purchasing, research, public relations, and the improvement of the economic conditions of the farm population of the United States.

**Private foundation** - A nongovernmental, nonprofit organization having a principal fund of its own, managed by its own trustees or directors, and established to maintain or to aid social, educational, charitable, religious, or other activities serving the common welfare. This organizational type includes operating foundations that allocate the greater proportion of their R&D budgets to intramural performance, and philanthropic foundations that allocate most of their funds to grants and contracts for research to be performed extramurally.

**Professional or technical society, or academy of science and engineering** - A voluntary association of individuals sharing a common interest in the advancement of knowledge, either within a single field or across a broad spectrum of disciplines. The major function of these organizations is to aid and encourage the collection, collation, and dissemination of S&E knowledge for the benefit of their members and the community as a whole.

**Science exhibitor** - A nonprofit organization in which the primary goal is to expand the scientific literacy within its community by providing exhibits that display and interpret the latest scientific findings within its field or fields. Included in this category are museums, zoological parks, botanical gardens, and arboretums.

**Trade association** - An organization of business competitors, in a specific industry or business, that is interested primarily in the commercial promotion of products or services. Membership is usually held in the name of a business entity. Its services may fall into one or more of the following: business ethics, management practices, standardization, commercial (i.e., statistical) research, publication, promotion, and public relations.

**Voluntary hospital** - A member of the American Hospital Association not subject to the control of either Federal, State, or local governments, nor an integral part of any institution of higher education. Hospitals that have been set up by research institutes and that, while providing patient care, function primarily as laboratories for the research institutes, are included in the "research institutes" category.