

December 5, 1996

NSF PR 96-80

Media contact:

George Chartier

(703) 306-1070/gchartie@nsf.gov

Program Contact:

Jean M. Johnson

(703)306-1777/jmjohnso@nsf.gov

**WESTERN EUROPE KEEPS COMPETITIVE PRESSURE ON U.S. FOR
SCIENCE AND ENGINEERING INVESTMENT**

The European Union gives a high priority to investments in science and engineering education and research, according to a newly released Data Brief from the National Science Foundation (NSF). Building first-class laboratories, the brief says, is just one of several ways European investment in civilian research and development (R&D) approaches the U.S. level. Also, Europe is overtaking the U.S. in the production of Ph.D.s in the natural sciences.

"As the capacity to perform R&D expands throughout the world, it is increasingly important for the United States to be knowledgeable about the scientific and technological accomplishments of other world regions," says Jean M. Johnson, a senior analyst and author of the NSF Data Brief. The brief summarizes her forthcoming Division of Science Resources Studies (SRS) report, *Human Resources for Science and Technology: The European Region* (to be released at the end of January 1997).

The U.S. is still a world leader in R&D, NSF data show, but at least one gap is narrowing: The amount of funds spent on research performed at academic institutions in Western Europe - about \$20 billion in 1992 - now equals that spent on U.S. campuses. The total combined R&D investment of Western European countries in 1993 was \$103.5 billion, compared to the \$137.3 billion spent by the United States. This represents 2.1 percent of Western Europe's combined gross domestic production (GDP), compared to the U.S.'s 2.7 percent.

Over a 17-year period examined in the report issued by NSF, Western and Central European nations collectively more than doubled their annual production of first university degrees (a bachelor's degree or equivalent) in the natural sciences and engineering (NS&E). This is a 4.5 percent average annual rate of increase in NS&E degrees overall, with a slightly higher rate of increase (5.0 percent) in engineering degrees. In 1992 Europe produced almost 300,000 NS&E degrees, compared to 173,000 awarded by U.S. universities and colleges. Europe and the U.S. would have to combine their potential human resources for science and engineering to approach Asia, which awarded just over 523,000 NS&E degrees in 1992.

In 1992, doctoral degrees awarded in NS&E fields by Western and Central European institutions totaled 25,310, 38 percent above the U.S. level (18,251), and more than twice as many as recorded for Asian countries (11,223).

-NSF-

Editors: For the Data Brief, NSF 96-330, see: <http://www.nsf.gov/sbe/srs/databrf/db.htm>

For the complete SRS report on the European Region, NSF 96-316 (due to be released at the end of January 1997), see: <http://www.nsf.gov/sbe/srs/stats>

"AMERICANS LEAD THE WORLD IN COMPUTER USE, BUT HAVE LITTLE UNDERSTANDING OF SCIENCE, SAYS NEW REPORT"

George Chartier
(703) 306-1070/gchartie@nsf.gov
NSF PR 96-25
May 23, 1996

Program contact:
Jennifer Bond
(703) 306-1777/jbond@nsf.gov

Many Americans have little understanding of science. They expect science can cure virtually every disease and solve any environmental problem.

A majority -- 55 percent -- of Americans use a computer at home or at work. Seven percent of adults reported in 1995 that they used an on-line computer service during the preceding year. About 40 percent of Americans are "very confident" in the leadership of the scientific and medical communities, but only one in nine Americans feel well informed about science and technology. Only one in four Americans can explain some of the reasons for the thinning of the ozone layer, and fewer than one in 10 can explain a molecule.

Education prompts interest and understanding: Individuals with more years of formal education and more courses in science and math tend to indicate a high level of interest in science and technology and are more likely to understand the nature of scientific inquiry than other citizens.

These are among findings measuring public attitudes and understanding of science and technology, appearing in the newly published National Science Board report, Science & Engineering Indicators 1996. The Board oversees the National Science Foundation, which produces the biennial compendium of vital statistics to help decision-makers assess the performance of the nation's science and engineering (S&E) enterprise.

"More than eight of 10 Americans believe that science and technology continue to make their lives healthier, easier and more comfortable, reflecting nearly two decades of positive assessment of the net impact of science and technology on their lives and society," says Jon D. Miller, vice president of the Chicago Academy of Sciences and professor of political science at Northern Illinois University.

"Although most American adults have a limited understanding of basic science constructs, they are using a wide array of new technologies in their own lives," Miller says. "In 1995, a majority of Americans reported using a computer at home, work, or both -- a level higher than any other nation." Miller compiled and interpreted the data on public attitudes and understanding of science and technology for S&E Indicators.

S&E Indicators also contains data on the national and international S&E work force, technology development, investment in research and development, elementary and secondary school science and mathematics education, and higher education's role in science and technology. Required by law, S&E Indicators is submitted by the National Science Board (NSB) to the president of the United States, who delivers it to Congress.

The NSB "recognizes the importance of monitoring the impact of science and technology on the lives of Americans," says Phillip A. Griffiths, who chaired the Committee on Science and Engineering Indicators and oversaw preparation of the report for the Board. "The Board hopes that our nation's leaders and educators will take note of the American public's interest in science and its need for deeper understanding of the scientific process of discovery."

-NSF-

EDITORS NOTE: S&E Indicators is accessible on the Worldwide Web at:
<http://www.nsf.gov/sbe/srs/seind96/start.htm>



MINNESOTA HISTORICAL SOCIETY

Copyright in the Walter F. Mondale Papers belongs to the Minnesota Historical Society and its content may not be copied without the copyright holder's express written permission. Users may print, download, link to, or email content, however, for individual use.

To request permission for commercial or educational use, please contact the Minnesota Historical Society.



www.mnhs.org