

National Science Board

# SCIENCE AND ENGINEERING INDICATORS 2008

Volume 1



NATIONAL SCIENCE FOUNDATION

# National Science Board

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# Science and Engineering Indicators 2008

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## Cover Image

The cover for *Science and Engineering Indicators 2008* celebrates the 2007–09 International Polar Year with a montage of photographic images from the Arctic and Antarctic regions. At the center is an ice cave at Loudwater Cove, on Anvers Island. Arcing above it are smaller images showing (right to left) the Beacon Valley field camp in the Dry Valleys of southern Victoria Land, a deepwater cnidarian, a female polar bear and her cub on sea ice, a skua chick, an aurora borealis, a sunset at Cape Hallett, and an LC-130 Hercules cargo aircraft. (Credit, ice cave: Zenobia Evans, National Science Foundation (NSF). Credits, images right to left: Josh Landis, NSF; Katrin Iken and Bodil Bluhm, University of Alaska, Fairbanks; *The Hidden Ocean*, Arctic 2005 Exploration; Ariana Owens, NSF; Patrick Smith; Ken Ryan, NSF; Jerry Marty, NSF).

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# National Science Board

January 15, 2008

## MEMORANDUM FROM THE CHAIRMAN OF THE NATIONAL SCIENCE BOARD

TO: The President and Congress of the United States

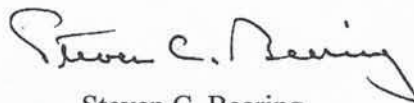
SUBJECT: *Science and Engineering Indicators 2008*

It is our honor to transmit the eighteenth in the series of biennial science indicators reports, *Science and Engineering Indicators 2008*. The National Science Board submits this report as required by 42 U.S.C. § 1863 (j) (1).

The Science Indicators series was designed to provide a broad base of quantitative information about U.S. science, engineering, and technology for use by public and private policymakers. With each new edition, the Board seeks to continually expand the data sources and pertinence to the broad user community. *Science and Engineering Indicators 2008* contains analyses of key aspects of the scope, quality, and vitality of the Nation's science and engineering enterprise and global science and technology.

The report presents information on science, mathematics, and engineering education at all levels; the scientific and engineering workforce; U.S. and international research and development performance and competitiveness in high technology; and public attitudes and understanding of science and engineering. A chapter on state-level science and engineering presents state comparisons on selected indicators. An Overview chapter of this report distills selected key themes emerging from the eight chapters of Volume I of the two-volume publication.

The Board hopes that both the Administration and Congress find the new quantitative information and analysis in the report useful and timely for informed thinking and planning on national priorities, policies, and programs in science and technology.



Steven C. Beering  
Chairman  
National Science Board

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