Vannevar Bush Award
Science-The Endless Frontier
May 21, 2003

For outstanding contributions toward the welfare of mankind and the nation through public service activities in science and technology

Richard C. Atkinson
President
University of California

## Citation

For his contributions to our understanding of human cognition and his vigorous advocacy of the scientific enterprise in the public interest

## Background

Dr. Richard C. Atkinson has had a profound influence on U.S. science and technology, as an internationally recognized scientist, educational statesman, and articulate proponent of scientific research and education.

Early in his career, as a faculty member at Stanford University, he earned an international reputation for his research in memory and cognition. His interest in the applied problems of learning led him to develop one of the first computer-controlled systems for instruction. The system served as a prototype for the commercial development of computer-assisted instruction. In 1968 he co-authored a paper on memory entitled “Human memory: A Proposed System and Its Control processes,” which continues to have a major influence on memory research. The high quality of his research was recognized by his election to both the American Academy of Sciences and the National Academy of Sciences in 1974.

Dr. Atkinson was named deputy director of the National Science Foundation in 1975, acting director in 1976, and director in 1977. He was the first behavioral scientist to lead the agency. At the time of his appointment, Congress was questioning the appropriateness of many of the Foundation’s research grants and the peer review system. Dr. Atkinson skillfully defended the agency, won congressional support, and maintained the Foundation’s commitment to basic science and the peer review process.

Under his leadership, the Foundation’s work in science education and the social sciences grew. One of his initiatives was the Experimental Program to Stimulate Competitive Research, known as EPSCoR, launched in 1979. The purpose was to expand the geographic and institutional distribution of the Foundation’s funding through partnerships among colleges, universities, state governments, and industry in states

that received the fewest foundation awards. EPSCoR remains an important program today. Also in 1979, he raised the visibility of the Foundation's support for engineering by reorganizing several entities to create the Directorate for Engineering and Applied Science.

In 1980 Dr. Atkinson was named chancellor of the University of California at San Diego. During his 15-year tenure, nationally recognized faculty members were recruited and enrollment doubled. He established the School of Engineering, now known for its cutting-edge research. More than 80 biotech and high tech companies were created as a result of research conducted at the University.

The University of California's Board of Regents named Dr. Atkinson president of the University in 1995. To encourage the transformation of ideas into applications, he established the Industry-University Cooperative Research Program, an innovative mechanism to encourage research partnerships in disciplines critical to the state's economic competitiveness. Working with the governor of California, he established the California Institutes for Science and Innovation on four University campuses. These centers are conducting research in fields such as nanotechnology, information technology, and bioengineering.

Dr. Atkinson is a forceful advocate for improving math and science education and has expanded the University's teacher professional development programs. He has increased enrollment in computer science and engineering by more than 50 percent. More than 70,000 public school teachers attend annual summer institutes to improve their teaching of reading, science, algebra, history and other subjects.

Dr. Atkinson has been the catalyst for the national debate over standardized testing for college admission. Based on his own research and his work on the National Research Council's Board on Testing and Assessment, he called for an admissions test that focused on mastery of key intellectual skills needed to succeed in college. The College Board agreed to modify the SAT to align it more closely with actual knowledge acquired during the educational process.