RICHARD C. ATKINSON

Richard C. Atkinson, an internationally known cognitive scientist and psychologist, served as president of the ten-campus University of California System from 1995 to 2003. His previous administrative experience included fifteen years as chancellor of the University of California's San Diego campus (1980-1995) and five years as deputy director and director of the National Science Foundation (1975-1980).

Career at Stanford University

After earning his bachelor's degree at the University of Chicago, PhD at Indiana University, and two years in the U.S. Army, Atkinson joined the faculty at Stanford University in 1956. Except for a three-year interval at UCLA, he served as professor of psychology at Stanford from 1956 to 1980. His research on mathematical models of human memory and cognition led to additional appointments in the School of Engineering, the School of Education, the Applied Mathematics and Statistics Laboratories, and the Institute for Mathematical Studies in the Social Sciences. Atkinson's theory of human memory has been influential in shaping research in the field of experimental psychology. Advances in computer-assisted instruction and mathematical methods for improving the learning process have been among the more applied outcomes of his theoretical interests.

The scope and significance of his research achievements in the field of psychology were recognized by the American Psychological Association's Distinguished Scientific Contribution Award in 1977. According to the citation, Atkinson earned this recognition *"For combining classical methods of mathematics with emerging techniques of computer science, the best traditions of experimental psychology with new concepts of information processing, in the advancement of psychological theory and its applications. His long-term collaboration with Patrick Suppes yielded among its fruits the first extensive application of learning theory to multiperson interactions. With Richard M. Shiffrin, Atkinson developed the model that has set the pace for research on human short-term memory; with James Juola and others he developed an almost equally influential family of models for recognition and search processes. And on a quite different tack, Atkinson anticipated current demands for 'relevance' with his pioneering contributions to computer-assisted instruction and optimization of learning."*

National Science Foundation

As deputy director and then director of the National Science Foundation under Presidents Gerald Ford and Jimmy Carter, Atkinson had a wide range of responsibilities for science policy at a national and international level. Among them was negotiating the first memorandum of understanding between the People's Republic of China and the United States, an agreement for the exchange of scientists and scholars. It became part of a more comprehensive agreement on science and technology between China and the United States signed by Chair Deng Xiaoping and President Carter in January 1979.

During Atkinson's tenure at NSF, skeptics in both Congress and the media mounted frequent attacks on government funding for basic research as little more than subsidizing idle curiosity about trivial topics at the taxpayers' expense. This trend was aptly symbolized by Senator William Proxmire's Golden Fleece Awards for waste and fraud in public programs, one of which went to NSF for a study of the biology of pest control. Atkinson defended this project—whose value even Senator Proxmire ultimately acknowledged—as well as the long-term importance of fundamental intellectual inquiry to the nation and its economy. In the same vein, NSF initiated research programs focused on the role of science and technology driving national productivity and economic growth.

Chancellor of UC San Diego

As chancellor of the University of California at San Diego (UCSD) from 1980-1995, Atkinson instituted a major administrative reorganization of the campus and began a sustained effort to strengthen UCSD's ties with the city of San Diego. This highly successful effort yielded important dividends in the form of financial and community support, with private giving rising dramatically during his chancellorship. Despite a series of tight budgets in the late 1980s, he found innovative ways to fund the construction of new buildings and to support new academic programs. UCSD's increasing academic stature was reflected in its 1982 election to membership in the prestigious Association of American Universities, consisting of 62 of the nation's top research universities. The campus's steady growth in size and distinction was a mark of Atkinson's tenure. UCSD's faculty expanded by nearly 50 percent and enrollment doubled to about 18,000 students. In 1995, the quality of its research and graduate programs was ranked tenth in the nation by the National Research Council. The only public universities in the top ten were UC Berkeley and UCSD.

During his years at UCSD, Atkinson also followed a strategy of encouraging technology transfer and active involvement with industry, especially with the small, high-technology companies that were springing up around San Diego in the 1980s. The UCSD CONNECT program, self-sustaining but run by UC San Diego Extension, began in 1985. It was successful in helping aspiring entrepreneurs in high-technology fields find information, funding, and practical support on such crucial topics as writing a business plan, marketing, and attracting capital. It also acted as an advocate on public policy issues that affect business.

UCSD's outstanding faculty, innovative research, and commitment to industry-university partnerships were major factors in transforming the San Diego region into a world leader in technology-based industries. Atkinson's role in this transformation was noted in a 2007 study of research universities and their impact on the genesis of high-technology centers.[1]

[1] Raymond Smilor, Niall O'Donnell, Gregory Stein and Robert S. Welborn, III, "The Research University and the Development of High-Technology Centers in the United States," *Economic Development Quarterly,* Vol. 21, No. 3, August 2007, pp. 203-222.

President of the UC System

Atkinson became the University of California's seventeenth president in October 1995. In that role, he faced some of the most contentious and complex issues in American higher education, from the end of affirmative action at UC to the use and misuse of standardized testing in college admissions.

His first goal was sustaining the excellence of UC's faculty, recognized in several national studies of academic program quality. An equally important challenge was accommodating an additional 63,000 undergraduates—an enrollment increase of forty percent—between 1998 and 2010. UC Merced, the University's first new campus in forty years, was founded during Atkinson's presidency.

He sought to expand the University's contributions to California's productivity and economic growth through such efforts as the Industry-University Cooperative Research Program, which supports collaborative research in areas critical to the state's competitive edge. The California Institutes for Science and Innovation, proposed by California Governor Gray Davis in his 2000 budget and established at four UC campuses, are aimed at creating the next generation of knowledge in specific high-technology fields through interdisciplinary research partnerships with industry.

The University prospered during Atkinson's tenure. For the first time, private giving reached the billion-dollar mark in a single year**.** UC's state-funded budget nearly doubled, and federal research funds soared.

Atkinson's most important task as president flowed from the July 1995 decision by the UC Board of Regents to eliminate racial preferences in admission. Under his guidance, UC embarked on an ambitious partnership with the K-12 public schools to raise the level of academic accomplishment among all California children. Within UC, the Academic Senate and the Regents approved his proposals for several new paths to undergraduate admission that moved UC closer to the comprehensive review of students' records used by selective private universities. By the end of his tenure, UC was admitting more minority students than it was in 1997, the year before the ban on affirmative action took effect.

In February 2001, Atkinson announced he was recommending elimination of the SAT college entrance examination as a requirement for admission to the University of California. Students, he argued, should be tested on what they had actually achieved academically, not on the basis of "ill-defined notions of aptitude." Atkinson's challenge inaugurated a national debate on the relative merits of aptitude versus achievement tests and ultimately led to a major revision of the SAT. The new version, introduced in 2005, incorporates higher-level mathematics and a written essay to reflect the quantitative and writing skills students need for success in college-level work.

Under Atkinson's leadership, the University adopted a new academic freedom policy in 2003 that clearly defined the central role of the faculty in protecting and promoting the freedom to teach, to do research, and to express and publish views in the context of the modern research university. He established the California Digital Library to expand access to UC's collections and to advance new forms of scholarly communication. UC added several new professional schools during his presidency and began expanding its graduate enrollments. Enrollment in engineering and computer science—disciplines essential to the high-tech California economy—rose by nearly 70 percent, and total UC enrollment increased by a third, from 150,000 to 202,000 students.

Atkinson's achievements in science, education, and public service have been recognized by election to the National Academy of Sciences, the National Academy of Medicine, the National Academy of Education, and the American Philosophical Society. He is past president of the American Association for the Advancement of Science, former chair of the Association of American Universities, the recipient of the Vannevar Bush Medal of the National Science Board, and a mountain in Antarctica has been named in his honor. Atkinson Hall, the home of the California Institute for Telecommunications and Information Technology at UC San Diego, is also named in his honor.

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