

A THREE-YEAR REPORT TO ALUMNI

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Good evening and welcome to Blake House. I hope you've found today's discussions productive. Rita and I are delighted to have this chance to visit with you. As leaders of the University's nearly one million alumni, you represent a constituency that includes untold talent in every conceivable endeavor, from Nobel Prize winners to Supreme Court justices to movie stars to poets laureate. I take pride in the accomplishments of UC's alumni, and pleasure in thanking you for your many activities on behalf of your alma mater.

When I took office in October 1995, one of the first things I did was to make a handwritten list of my goals as president of the University of California. I have always been a great believer in lists, and this one was especially useful because I was often asked about my goals in the early days of my administration. During those first months as president, a few people saw me refer to the list and asked for a copy. To my surprise, one of those xeroxed copies turned up at this alumni event, along with a request that I report about the progress I've made on my goals after three years as president--a reminder of the hazards of committing anything to writing.

There are nine entries on the list. With the exception of the first, the goals and initiatives are not ranked in any particular order. They do have a connecting thread, however. As a new president and a former UC chancellor, I was convinced that UC needed to take certain steps--educational, organizational, financial, technological, and political--to be ready for the coming years. These goals and initiatives can be thought of as nine answers to a single question--what must the University do to prepare itself for the twenty-first century?

1. Maintain faculty quality.

At the top of the list are three words that reflect my highest priority for the University: Maintain faculty quality. The reason is simple. Academic quality is what defines the University of California. I'm pleased to say that both the chancellors and the leaders of the Academic Senate agree that the faculty hired across the system over the past several years are outstanding, perhaps the best in UC's history. When I became president in 1995 there were real concerns about UC's ability to continue attracting a world-class faculty. We had endured five of the worst budget years in our history; quite a few distinguished faculty members retired under three early retirement programs. Many chose to stay on, however, and continue with their research and teaching. At the same time, thanks to the savings generated by these retirements, UC was able to recruit a significant number of new faculty in a period when other universities were cutting back.

Why did the University of California remain a magnet for talent despite a fiscal crisis of unprecedented proportions? In my view, its tradition of quality. What I mean by that is an institutional environment in which high aspiration and achievement are routine expectations. Whether from pioneer optimism, a stubborn refusal to recognize obstacles, or a premonition about its future, UC expected to be among the best from the day it was chartered in 1868. It succeeded to an amazing extent. By the early years of this century, UC Berkeley had already won a place among the top six research universities in the country; on the threshold of the next, all campuses of the UC System are among the top research universities in the world. This tradition of excellence is, in my judgment, the reason so many faculty members chose to weather the bad years of the early 1990s and remain at UC when they could easily have gone elsewhere.

Consider a few of the marks of quality UC has demonstrated in the last three years:

- The National Research Council's 1995 survey of graduate program quality ranked UC Berkeley first in the nation, UC San Diego tenth, and UCLA twelfth, with remarkably consistent academic quality across all of our campuses. Of the top-ranked twelve universities, all were private except for the three UC campuses.
- The following year three of our campuses--Davis, Santa Barbara, and Irvine--were invited to join Berkeley, UCLA, and San Diego as members of the prestigious Association of American Universities, making UC the only university system in the country with more than one campus as a member. Given that UCSF is not eligible because it is principally a health science campus, six of eight campuses as members of the AAU is truly remarkable.
- And since 1995, Nobel Prizes have been awarded to seven UC faculty and a research scientist at our Livermore National Laboratory who is also a member of the Stanford faculty. Among public universities, we have played a special role in maintaining quality. My goal as president is to see that we continue to focus on that UC tradition of excellence as we move into the next century.

2. Ensure diversity at UC.

It is clear that the University will not serve this state well unless its student body reflects the rich diversity of California itself. Although I have been a long-term supporter of affirmative action (as chancellor of UC San Diego I opposed the Regents' adoption of SP- 1), I am also a believer in the capacity of the university to adapt. We have an opportunity to show the same flexibility and resourcefulness in the post-Proposition 209 era that we demonstrated in the age of affirmative action.

Our strategy, based on the report of the Outreach Task Force, recognizes that UC's future is tied to the future of the K-12 schools. It relies on a vastly expanded partnership between UC's campuses and K-12 schools up and down California, especially those schools that have historically sent few students to the University. The Outreach Task Force estimated that to make real progress we would need to double our expenditures on outreach from the \$60 million a year we were then investing to \$120 million within five years. I am pleased to report that we have had

strong support for our programs from both the private sector and the State. As a result we will be spending about \$141 million next year on outreach--well ahead of our five-year schedule.

We propose to raise the level of academic achievement in grades K-12 on a scale never attempted before in order to give California's 5.7 million children the best possible start in life. Here are a few examples of our outreach activities:

- Through such after-school programs as UC Links and in-school programs like UC Nexus, we are using our expertise in information technology to bring together teachers, students, and UC people throughout California to strengthen K-12 education. New technologies are enabling us to work with the schools on a scale unimaginable even a few years ago.
- We will be offering computer-based a-f courses (required for admission to UC) on the World Wide Web, as well as advanced placement courses. High school students can access these courses from home computers, community libraries, and schools.
- We are launching a statewide network of Educational Resource Centers to help disadvantaged communities not only to strengthen K-12 education but to improve the community environment--public health, safe schools, economic vitality--that has such a fundamental impact on the schools' ability to teach and children's ability to learn.
- Most important of all, UC's chancellors and faculty have made a strong commitment to the success of our partnership with the schools. We are investing our work with a new level of commitment and dedication.

3. Expand UC's partnership with the K-12 schools.

Our outreach work with the schools is a critical but not the only dimension of our collaboration with the K-12 system; UC's partnership with California's schools is as old as the University itself. Soon after becoming president I received a letter signed by the executive vice chancellors of all nine UC campuses calling for a major expansion of that partnership. By every significant criterion, they pointed out, California's schools vie for last place among the 50 states--a crisis so severe that the very future of California is at stake. The vice chancellors urged me to mobilize the University's talents and resources to help address this crisis.

This is an example of the convergence of two great issues--the need to ensure diversity in higher education and the imperative to raise educational achievement for *all* California schoolchildren. Over the past three years, we have taken a hard look at UC's more than 800 cooperative programs with the schools to encourage what works, eliminate what doesn't, and introduce new approaches.

If I tried to tell you about these programs in any comprehensive way, we would be here late into the night. Instead, let me mention just one aspect of our efforts.

A recent study on what helps improve student learning concluded that nothing contributes more to that goal than good teachers. We agree. Some of UC's most important partnership programs

are focused on teachers and the teaching profession. Our "Subject Matter Projects" encourage teachers to learn from master teachers through demonstration workshops in the arts, foreign language, history, literature, science, mathematics, and writing. Approximately 32,000 teachers participate every year.

Through accelerated teacher training programs, we are helping to prepare the estimated 20,000 new teachers that California will need annually over the next decade. We are establishing joint doctorates in education with the California State University; through summer training institutes we are encouraging professional development among California's teachers.

4. Reinforce public perception of UC's critical role in research.

A decade ago it was common to hear complaints that the country would be better served if research universities would concentrate exclusively on undergraduate teaching. Since then there has been a turnaround in public attitudes. Today the role of the research university as a driver of economic growth is well understood by CEOs, governors, and legislators around the country, and perhaps especially here in California. In a recent survey by the Council on Competitiveness, industry leaders were unanimous in pointing to their dependence on university research to pursue opportunities in innovation.

One reason for this turnaround has been a development in economics called "new growth theory." The work of the new growth theorists is summarized in a report by the Council of Economic Advisers: 50 percent of American economic growth since World War II has been the result of investments in research and development. Obviously, the private sector plays a key role in this R&D, but so does federally funded research in universities like UC. I have made it a priority to speak out about new growth theory and its most striking implication--that the successful economies of the 21st century will be knowledge-based. This means that research universities like UC have moved to center stage of American life.

The University's opportunities in research are greater than they have been in decades. Federal funding for research is the highest in U.S. history; UC's percentage of these federal dollars is the largest in our history. And indications suggest that federal support will increase substantially in the future.

As one of the nation's premier research universities, UC is deeply involved in many kinds of technology transfer, from research agreements with private industry to the most potent technology transfer of all, the training of graduate students. The Industry-University Cooperative Research Program (IUCRP), entering its third year, is intended to create jobs and protect California's world leadership in high technology. Jointly funded by the State, private industry, and UC, the IUCRP creates partnerships between the University and industry focused on research areas that show the most promise for spurring economic growth. The result is greater competitiveness for California companies and more jobs for California citizens. Over the next four years, we expect the IUCRP will invest over \$40 million annually in these research partnerships. This is an innovative program that illustrates the growing contributions of research universities to stimulating productivity and economic growth.

5. Maintain the vitality and quality of education at UC.

The education UC offers its students is outstanding, and my goal is to see that it continues to be outstanding. There are just two points I'd like to underscore.

First, of all the skills our students will need in the next century, probably the most important is the ability to adapt creatively to change. The only way to prepare our students is to provide them with the skills that will allow them to continue learning long after they have left UC. This kind of education clearly includes the quantitative skills associated with the natural and social sciences. And it just as clearly includes the ability to communicate and to create meaning that we associate with the humanities and the arts. The shorthand term for this broad intellectual preparation is a "liberal education." Students are graduating into a society driven by change, and they can navigate successfully only if their education equips them to develop their own moral and intellectual compass. A liberal education is the best way to acquire such a compass. It is essential that UC offer students this kind of preparation for their future.

Second, it is important for the University to convey to our publics the critical role of graduate education. I am troubled by the increasingly widespread assumption that graduate programs should be drastically cut because of the claim by some that the nation faces an oversupply of PhDs. It is true that talk of an oversupply would resonate, for example, with high-energy physicists and humanists; in the latter disciplines, the placement rate in academic positions for new history and English PhDs is estimated to be less than 50 percent. But if you look at computer science or electrical engineering, the only oversupply we face is a surplus of jobs. This is, in other words, a field-by-field rather than an across-the-board phenomenon. Certainly we can do better in preparing our graduate students to take the broadest possible view of their career options; it is part of educating students for change. And of course we do tailor the size of the graduate enterprise in each field to the demands of the marketplace. But our plans should take a long-term perspective on those demands if we expect to keep our economy growing.

6. Maintain UC's world leadership in the application of digital technology to learning and instruction.

Telecommunications and computers are creating the greatest revolution in education since the invention of the printing press. They will transform universities and how we carry out all our activities. UC is at the forefront of this digital revolution:

- When it opens its doors in 2005, UC's planned tenth campus--UC Merced--will be a campus for the twenty-first century, a model for the use of technology in teaching and research.
- We are a leader in the California Virtual University, which offers hundreds of online courses from California's colleges and universities.
- We have recently launched the California Digital Library, a virtual library that will make UC's digital collection of journals, books, and works of art available via computer throughout the UC System and ultimately throughout California.

- UC is a key player in the Research and Education Network (CalREN2), California's contribution to the national high-speed Internet2 project. Internet2 will go beyond some of the constraints of the Internet by allowing billions of bits per second to flow among computers located at the nation's colleges and universities. Recently, for example, UCSD researchers on the West Coast and Cornell researchers on the East Coast simultaneously analyzed biological specimens on the Internet through a high-powered electron microscope linked to a supercomputer. Internet2 will forge a powerful connection among UC campuses, Stanford, Caltech, USC, and the California State University.

7. Expand UC's role in extended education.

The emergence of new professions, the restructuring of the workplace, and the transition to an information-based economy are requiring individuals to renew their skills continually. This means that UC Extension, which offers 17,000 courses to 500,000 Californians annually, is more important than ever.

UC's participation in the California Virtual University is through University Extension, and more and more Extension courses are becoming available on the World Wide Web. A new UC degree, the "Master of Advanced Study," will offer professional education and liberal studies beyond the bachelor's degree at times and places that are convenient for working adults.

The goal of these and other activities is to create closer linkages between the campuses and University Extension. Lifelong learning is now a necessity in our society, and we must make continuing education central to UC's educational mission.

8. Restructure business practices and distribute authority to the campuses so that they are as entrepreneurial as possible, yet with the clear proviso that authority is exercised according to systemwide policy, with the Office of the President playing an oversight role to ensure accountability.

The University is a \$12 billion enterprise, a budget that would rank twenty-third among the states. When I became president three years ago it was clear that our business systems were not adequate to provide the services needed by a twenty-first century research university. We also needed to ensure that we were not only managing our resources well, but demonstrably managing them well.

During these years we have worked hard to streamline the business side of our enterprise, and to see that we are striking the right balance of centralization and oversight in the Office of the President versus decentralization and flexibility on the campuses. For example:

- We have given the campuses greater authority in generating and managing funds. In return, the campuses are expected to assume greater accountability for the use of funds allocated to them.
- We have created the position of "vice president--financial management" to improve financial controls and accountability systemwide. An important step in this direction is that campus financial officers now have a reporting relationship both to the campus's "vice chancellor--

business and finance" and to the systemwide "vice president--financial management." The role of these financial officers is to see that the University's resources are protected and used effectively.

- We have instituted a new financial system to encourage longer-term planning throughout the University. Each campus and the Office of the President will annually develop a three-year plan--the operating budget for the first year, with projections for the second and third years. We will then be able to compare the plans with subsequent results.
- We have developed a new model of risk management. Simply stated, its purpose is to protect the University from risk in our business and financial processes by assessing risk accurately and managing it intelligently. We are doing this in two ways: through technological improvements that yield better information, and through streamlining our current procedures. Fiscal closing, one of the most labor-intensive financial processes in the University, has been shortened by at least 25 percent by assessing relative risks and changing our approach based on those assessments.
- We have restructured our Office of Technology Transfer and revised policies to foster research partnerships with industry. As the nation's leading university in the generation of patents, we are organizing ourselves to derive even greater benefits from the research programs of the University and to accelerate the sharing of these benefits with society.

9. Strengthen UC's ties with the public, its elected representatives in Washington, DC and Sacramento, and the University's one million alumni.

UC's representation in the state's and the nation's capitals should reflect our role as a major state and national resource. I am pleased that we have an outstanding team in both places. Under the leadership of Vice President Bruce Darling, Assistant Vice President Steve Arditti in Sacramento and Assistant Vice President Scott Sudduth in Washington are representing UC with energy and skill. They cannot be as successful in telling UC's story as they need to be without the help and support of our alumni. My goal is to give alumni an even larger role as ambassadors and representatives of the University.

The federal government has had a long and productive relationship with research universities like UC. I believe this relationship will become more important in the years ahead as recognition grows of the vital link between research and educated people on the one hand and the nation's ability to sustain prosperity on the other. Our presence in the nation's capital therefore deserves special attention and care.

We are building a new Washington, DC center that will open in the summer of 2001, located across the street from Scott Circle. The building will provide living accommodations for 280 students, the Washington Academic Center (encompassing undergraduate and graduate programs) and the Office of Federal Relations. This facility is an important step towards expanding opportunities for our students studying in Washington and for strengthening UC's presence there.

These have been a busy three years, good ones in which to be president. This is not to say that they have lacked problems. UC's student-faculty ratio, 14.7 to 1 in the mid-1960s, is much too high at today's 18.7 to 1. Our libraries face an acquisitions crisis: due to budgetary constraints and skyrocketing costs, they purchase 20,000 fewer serials today than they did ten years ago. The cutbacks in support services and staff early in this decade have not been restored, generating serious strains in our ability to support teaching and research. UC's tenth campus, UC Merced, represents exciting opportunities but also formidable challenges in planning, logistics, and funding.

Yet the gains far exceed the losses. We have appointed six new chancellors, every one of whom brings talented leadership to our campuses and to the University. Recent years have brought strong budgets that have allowed us to repair some of the damage done by the fiscal storms of the early 1990s. The budgetary stability we have enjoyed has given us precious opportunities to take the initiatives I've described here. Most important of all, we have sustained the University's academic quality.

Of all the institutions in the United States, none will have a greater impact on our future success or failure as a society than the research university. The discovery and application of knowledge have come to play a key role in our ability to create a better life for our citizens in just about every dimension. I cannot think of a more exciting place to be, or a more rewarding cause to serve.