

THE CALIFORNIA CRUCIBLE: DEMOGRAPHY, EXCELLENCE, AND ACCESS AT THE UNIVERSITY OF CALIFORNIA⁽¹⁾

Richard C. Atkinson

When Jim Langley invited me to speak today, I agreed enthusiastically. CASE has established itself as the premier advancement organization in the world. I applaud you for recognizing that education is essential to virtually every good thing our society aspires to accomplish. And I congratulate you for your consistently outstanding service, not just to your individual institutions but to all of higher education.

Last February I gave an address to the American Council on Education about two proposals I have made to the Academic Senate of the University of California. [The first proposal was that the University make the SAT I examination optional for admission](#) to the University of California, and that we replace it with a standardized test that assesses mastery of specific academic subject areas rather than aptitude, as the SAT I purports to do. The second was that the University should move away from admissions processes that use narrowly defined quantitative formulas and instead adopt procedures that look at applicants in a more comprehensive way.

In California, admissions issues inspire the kind of passion that in England or Italy is reserved for the World Soccer Cup. The reasons are similar: those involved know that it is a high-stakes game, that not everyone can play, and that the winners can count on substantial rewards. But I was unprepared for the national response to my proposal. I have heard from hundreds of educators, students, parents, and members of the public from around the country, many with moving personal stories about their experience with the SAT I. Clearly, a national debate on the SAT I and its influence on the lives and prospects of millions of American young people is overdue.

Yet reactions to my proposal have also made it clear that there is some confusion about what I proposed and why I proposed it. Many do not realize, for example, that eliminating the SAT I as a requirement is only one of several admissions changes I have recommended to the Academic Senate.

Today I would like to describe the context of my several proposals and the reasons I consider them steps in the right direction for the University. To understand why admissions issues at the University of California are the focus of so much public attention in this state, you have to understand some things about California.

A diverse and knowledge-driven society

California is one of the nation's first "new societies"--a society in which no racial or ethnic group predominates. With 34 million people, California is not only the nation's most populous state; it is also the most diverse. One in every four Californians was born outside the United States. It is estimated that by 2005, one in every three Californians will be foreign-born. Native Mexicans

constitute 44 percent of California's immigrants; another 10 percent come from other Latin American countries; and Asians make up 34 percent of the state's newcomers. Nearly four in ten Californians speak a language other than English at home. Although the biggest population increases in recent decades have been among the state's Hispanics and Asians, more than 60 different countries, from Australia to Yugoslavia, contribute immigrants to California. No other state--and no other country--has the range of races, ethnicities, languages, and cultures that characterize California today.

And to glimpse California's future, look at the composition of the nearly six million children enrolled in its K-12 public schools. Forty-three percent are Hispanic and 36 percent are white. Asian and Pacific Islanders make up 11 percent, while African Americans number close to nine percent and Native Americans are just under one percent. Twenty percent of these students have limited proficiency in English.

The demands on California's public schools are staggering. Their quality ranges from schools that can compare with the best in the nation to schools in which literacy is the ceiling rather than the floor of student achievement. The state's governor, Gray Davis, has made school reform the principal priority of his administration and has asked the University to play a significant role in improving the academic preparation of *all* California students. The University of California is spending well over \$300 million a year to improve public schooling and to increase access to higher education. Our professional development programs in reading and algebra help 70,000 teachers a year; our counseling and academic support programs reach over 100,000 students and families; and each of our campuses is involved in long-term partnerships with public schools--all together, over 300 elementary, middle, and high schools.

The students who apply to UC come from public and private high schools around the state that vary widely in terms of the quality of teaching and curricula, opportunities to take Advanced Placement courses, and even the availability of basic textbooks. The students themselves come from communities that range from extreme poverty to great affluence, from the rural Central Valley to urban Los Angeles. Some have parents who enroll them in preschool and later hire tutors to help them with algebra; some struggle to learn in schools with crumbling classrooms and teachers who are overworked and underprepared. These students have vastly different lives and dramatically different opportunities to learn.

California is not only a highly diverse society; it is also a premier example of an economy driven by knowledge. The state has some 80,000 scientists and engineers, the largest concentration in the country. California institutions were issued more than 18,000 patents in 1999--20 percent of all US patents issued that year. Many of those patents went to scientists and engineers at UC, which earns more patents annually than any other educational institution.

California's public and private sectors expended over \$42 billion on research in 1997--more than the next three-highest states combined. Everyone has heard of Silicon Valley; it is less well known that Southern California produces almost 40 percent of California's high-technology goods and services. Innovation is as much a part of the California landscape as freeways and palm trees.

The critical role of innovation and research in the California economy has been well demonstrated. Huge cuts in the aerospace and defense industries sent the state into a devastating recession in the early 1990s. Those jobs have never been replaced, but hundreds of new high-technology companies, fueled by technologies created at California's research universities, have made up for all the jobs we lost *and* created thousands of additional high-paying jobs. Computer software, biotechnology, telecommunications, and other knowledge-intensive industries are driving the California economy today. It is widely recognized that the state's excellent system of higher education, especially its research universities, has been a key advantage in California's rise to the fifth-largest economy in the world.

The state expects the University of California to contribute the innovative research on which our knowledge-based economy depends. We are able to do so because of the distinction of our faculty and the size of our research enterprise. Recognizing the enormous contributions University research makes to economic growth, Governor Davis has established four California Institutes for Science and Innovation. The purpose of these institutes is to create the knowledge-based industries of the future, and they involve a partnership among UC, State government, and more than 200 of the state's high-technology businesses. Each institute will focus on areas of multidisciplinary research critical to the California economy--biomedicine, bioengineering, nanosystems, telecommunications, and information technology. The institutes will also help produce the next generation of scientists and engineers by giving undergraduate and graduate students the opportunity to involve themselves in research with some of the state's best minds from both industry and academia.

Excellence and access

California is clear about the role it expects the University to play in making this diverse and knowledge-driven society work. We must contribute cutting-edge research to fuel the state's economy, and provide an education for the state's citizens that combines excellence and access. I have already discussed UC's research role. Now let me turn to education.

California is unique in promising access to the state's public colleges and universities to every citizen with the ability and motivation to succeed. We need broad access to prepare students for the responsibilities of citizenship in a society where so many cultures, languages, and traditions intersect. And in a knowledge-based economy like California's, life is much kinder to the skilled than the unskilled. Someone with a bachelor's degree can expect to earn almost 70 percent more over a working lifetime than someone with a high school diploma. As a public university, we are responsible for ensuring that we are open to students from every background and that we recognize intellectual talent in all its many varieties.

Excellence and access are difficult to achieve under any circumstances. They are all the more difficult given that UC, like California, is growing rapidly. Over the next decade we expect our enrollments to expand by 52,700 students, from 158,300 to 211,000. To keep up with this growth and replace faculty who have retired, we will need to hire 7,000 faculty over the next decade. When you are faced with the need to expand so much and so quickly, the temptation is to lower standards. That would be a strategy for disaster. The University's tradition of faculty excellence must be maintained if we are going to meet our responsibilities to California.

Admissions policies that are inclusive and fair: four proposals

Now let me explain what all this has to do with admissions policy and the SAT. Under California's Master Plan for Higher Education, the University of California is required to draw its freshman class from the top 12-1/2 percent statewide of high school seniors. We must do so under certain constraints. For example, we cannot use race or ethnicity as factors in admissions, as a result of the passage of Proposition 209 in 1996. Since most UC campuses receive far more applications than they can accept, we know that our admissions policies and practices will attract attention not only inside the University but outside as well—from legislators, educators, parents, and students. Every eligible student is guaranteed a place at the University, but not necessarily at the campus of first choice. For Fall 2001, UC received almost 92,000 freshman and transfer applications for 39,000 places.

To meet its responsibilities to a diverse and knowledge-based society, the University of California must choose the state's highest-performing students in ways that are inclusive and fair. More, they must be *demonstrably* inclusive and fair.

We should do this, in my view, by assessing students in their full complexity, which means considering not only grades and test scores but also what students have made of their "opportunities-to-learn," the obstacles they have overcome, and the special talents they possess. I have made four proposals that seek to move the University in this direction. They are 1) comprehensive review of applicants; 2) Eligibility in the Local Context; 3) Dual Admissions; and 4) changes in test requirements, including the SAT I. I would like to describe each briefly.

Comprehensive review. Current UC policy defines two tiers for admission, and in the first tier students are admitted by a formula that places principal weight on grades and test scores. Selective private universities have by and large used a comprehensive review of a student's full record in making admissions decisions and, given the intense competition for places at UC, I believe we must follow their lead. I have recommended eliminating the two-tier system in favor of ensuring that every applicant receives the same comprehensive review of his or her achievements and potential. The proposal is now before the Academic Senate, which expects to act on it sometime during the coming fall quarter.

Eligibility in the Local Context. For the first time this year, students can qualify for admission to the University through what we are calling Eligibility in the Local Context, or the Four Percent Plan. This program grants UC eligibility to students who are in the top four percent of the graduating class in each California high school and who have successfully completed UC's required college-preparatory courses. It ensures that high-performing students, including those from rural and urban schools, have access to UC regardless of whether their schools offer such academic enrichment opportunities as Advanced Placement or honors courses. Almost 97 percent of California public high schools participated in the Four Percent Plan this year, many of which have traditionally sent few or no students to UC. The response has been enthusiastic from schools and students alike.

Dual Admissions. Another new path to UC is the Dual Admissions Proposal, which has been approved by the Academic Senate and will go to the University's Board of Regents for final

action later this month. Under the proposal, students who fall below the top four percent but within the top 12-1/2 percent of each California high school graduating class would be admitted simultaneously to a community college and to UC, with the proviso that students must fulfill their freshman and sophomore requirements at the community college with a solid grade-point average before transferring to a UC campus. Consistent with Proposition 209, the Dual Admissions Proposal will not admit students based on race or ethnicity. But a large number of students who would qualify under this proposal are Latino, African American, and Native American. Like the Four Percent Plan, the Dual Admissions Proposal, if approved, will give students who have excelled academically in disadvantaged high schools a clear path to a UC degree.

SAT. And this brings me to the last of the proposed changes in UC admissions policies. This proposal is now before the Academic Senate, which expects to act on it sometime during the coming academic year.

The SAT I--a two-part test assessing mathematical and verbal aptitude--has become the single most influential test in American higher education. Yet as an aptitude test that claims to assess quantitative reasoning and verbal ability, it is based on questionable assumptions about the nature of intelligence. As a rite of passage that can have lasting consequences for the futures of millions of young people every year, it has become a destructive national obsession.

Some have assumed that, because I oppose the SAT I, I also oppose all standardized tests. That is not the case. Grading practices vary across high schools, and standardized tests are essential to providing a measure of what students know that is independent of grades. But we need to be exceedingly careful about what standardized tests we choose. Students should not be judged on the basis of tests that embody ill-defined notions of aptitude or intelligence.

Accordingly, I have recommended that the University make significant changes in its test requirements. Under current UC admissions policy, applicants are required to take five tests, the two SAT I aptitude tests and three SAT II achievement tests--writing, mathematics, and a third in a subject of their choice. I have proposed that UC no longer require the SAT I for admission but instead use tests that have a demonstrable relationship to the curriculum that students study in preparation for college-level work.

UC requires students to take college preparatory courses that are referred to as the "a-g requirements." These requirements cover five main subject areas: English, mathematics, history/social science, laboratory science, and foreign language. The development of new standardized tests to cover these five areas should not be a difficult task; I believe either the ETS or the ACT could readily accomplish such an assignment for UC.

Until such tests are developed, the faculty committee responsible for UC admissions is considering, among other options, the use of five SAT II tests to replace the two SAT I tests and the three SAT II tests currently required. The five tests would be selected so that they correlated with the a-g requirements.

The principal claim about the usefulness of the SAT I---that it functions as the gold standard of student quality--rests on its supposed capacity to tell us how students will do in their first year of college. As one of the nation's largest users of SAT tests, UC is perhaps the only university in the country that has a data base large enough to compare the predictive power of the SAT I with that of the achievement-based SAT II tests. We have required both the SAT I and the SAT II since 1968, which means that we can compare component test scores with subsequent college performance for a large pool of students.

These data challenge the conventional wisdom about the superior predictive power of the SAT I. They indicate that the best single predictor of first-year college grades is high school grades; further, the three SAT II tests combined are a far better predictor than the two SAT I tests. If high school grades and the SAT II are combined, then one can account for 21.0 percent of the variance in college freshman grades. Combining high school grades, the SAT II, *and* the SAT I, one can account for 21.1 percent of the variance. In other words, the SAT I adds virtually nothing to our ability to predict freshman college grades.

There is another reason why the SAT I does not serve either students or schools. School reform efforts in California, like others across the country, are based on three principal tenets: curriculum content and goals should be clearly defined; students should be held to well-defined standards; and standardized tests should be used to assess whether those standards have been met. The SAT I, because it is not aligned with subject or scholarship requirements, sends a confusing message to students, teachers, and schools. It says that students will be tested on material that is unrelated to what they study in their classes. It says that the grades they achieve can be devalued by tests of material that is not part of their school curriculum. Most important, the SAT I scores only tell a student that he or she scored higher or lower than his or her classmates. They provide no basis for self-assessment and improvement.

The irony of the SAT I is that it began as an effort to move higher education closer to egalitarian values. Yet its roots are in a very different tradition: the IQ testing that took place during the First World War, when two million men were tested and assigned an IQ based on the results. The framers of these tests assumed that intelligence was a unitary, inherited attribute, that it was not subject to change over a lifetime, and that it could be measured and individuals ranked and assigned their place in society accordingly. Although the SAT I is more sophisticated from a psychometric standpoint, it is based on the same questionable assumptions about human talent and potential. The SAT I gives credence to the notion that intellectual ability is a unidimensional attribute that can be measured and expressed by a single number. I hope California will take a more thoughtful approach.

Final remarks

The common link among the admissions proposals I have made is that they call on students to work hard and strive for high academic achievement, and in return they commit UC to view those achievements in the context of the opportunities students enjoyed and the challenges they faced. While these proposals benefit all students, they particularly benefit hard-working, high-achieving students who through no fault of their own attend low-performing schools. In this respect, these proposals complement the educational reform efforts launched by Governor Davis.

The University of California has always reviewed its admissions policies from time to time to ensure that they are right for the young people of this state. The difference between the California of an earlier time and the California of today is that our economy is far more reliant on the generation and application of knowledge, the students coming to us are far more diverse, and the K-12 public schools are far more variable in the quality of their teaching and curricula. What we expect of our students in 2001 is no less rigorous than what we expected in the past. But now the admissions policies we employ to judge student achievement and promise must be comprehensive enough to recognize talent in all its forms. These policies must tell schools what we expect them to teach to prepare students for university-level study. They must give students the message that, with hard work in demanding courses, a University of California education is within their reach. They must help the University do what we have always done, which is to combine excellence and access by setting high standards and admitting students who meet those standards. We have no more important responsibility in the new society that is being born in California today.

1. Keynote address delivered at the 2001 International Assembly of the Council for Advancement and Support of Education, San Francisco, July 2, 2001.