Backlash Strikes At Affirmative Action Programs

New rulings cast doubt on efforts to encourage diversity in science

The connection between a contract for building highway guardrails in Colorado and efforts to encourage diversity in science may not seem obvious, but it's worrying educators. The reason: The contract in question was the focus of a decision, handed down last June by the U.S. Supreme Court, that has sent shock waves through the federal government's affirmative action programs and cast doubt on the future of efforts aimed at boosting diversity in science.

The Supreme Court case—brought by a white-owned company called Adarand Constructors Inc., which lost the guardrail contract to a minority firm because of a federal affirmative action policy—is just one in a series of events signaling a sea change in U.S. policies on opportunities for women and minorities. Soon after the Supreme Court decided in Adarand's favor, Senator Bob Dole (R–KS) introduced the Equal Opportunity Act of 1995, which would outlaw all federal race and gender preference programs. Across the country, California has led the way in efforts to purge affirmative action from education: The University of California (UC) Board of Regents last July ordered the end of preferences in admissions and hiring, and the California Civil Rights Initiative (CCRI), which will be on Californians' fall ballot, would quash all state preference programs, including some highly effective science enrichment programs for kindergarten through grade 12 (K-12). And California is not alone, as other states have proposed similar bills.

The rulings are too new for policy-makers to be certain about how they will affect the mix of Americans who choose science and engineering careers, but if California is a sign of things to come, the news could be grim: Educators there predict that regulations already in place will mean fewer minority faces at top UC campuses. And the CCRI, if it passes, could torpedo efforts to recruit minorities into science statewide. Some observers predict that although the backlash may end some programs open only to women and minorities, it will promote systemic improvements in science education. But affirmative action's staunchest proponents are preparing to defend their efforts against these legal challenges, arguing that diversity programs are so badly needed that systemic reforms alone cannot get the job done. Meanwhile, top administrators insist their support for diversity will not flag. "NIH has as firm a commitment as it has ever had" to increasing diversity in science, says National Institutes of Health (NIH) Deputy Director Ruth Kirschstein.

LAWS OF THE LAND

UC REGENTS v. BAKKE: 28 June 1978.
Supreme Court decision ruled a UC Davis medical school program unconstitutional for using race as the sole criterion for special admission. However, it reaffirmed the right of universities to use race as one of many criteria for admission.

EQUAL OPPORTUNITIES IN SCIENCE AND ENGINEERING ACT OF 1980: 12 December 1980.
Act instructed the National Science Foundation to seek to boost the participation of women and minorities in science and engineering. Mandated some specific programs, including visiting professorships for women, and encouraged parallel programs for minorities.

ADARAND CONSTRUCTORS v. PENA: 12 June 1995.
Supreme Court ruling in favor of Adarand Constructors, a white-owned construction company that lost a bid to a minority-owned firm. Outlaws racial preferences by federal agencies, except where preference programs are narrowly tailored to further compelling government interests.

UC REGENTS RESOLUTION: 12 July 1995.
Resolution eliminates race, religion, sex, color, ethnicity, or national origin as criteria for admission to the University of California. Effective fall 1997 for graduate programs, spring 1998 for undergraduate admissions.

EQUAL OPPORTUNITY ACT OF 1995: Pending in Senate and House.
Prohibits the federal government from discriminating against, or granting preference to, any individual or group based on race, color, national origin, or sex. Does not prohibit recruitment of qualified women or minorities to the applicant pool, as long as no quotas or preferences are involved.

CALIFORNIA CIVIL RIGHTS INITIATIVE: To be on the fall ballot in California.
Prohibits the state from discriminating against, or granting preference to, any individual or group on the basis of race, sex, color, ethnicity, or national origin.

The nation's bellwether

In California, the debate over affirmative action came to a head last summer, when the UC governing board of regents drafted a rule outlawing racial and gender preferences in hiring and admissions. That resolution, which met with protests from faculty, students, and the chancellors of UC's nine campuses, will have a dramatic effect on student admissions, according to a UC task force that met last fall (*Science*, 9 February, p. 752).

UC accepts the top 12.5% of California's high school graduates. But only 5% of black and 4% of Hispanic high school graduates are in that group. Currently, applicants who are underrepresented minorities (blacks, Hispanics, and American Indians) get extra points, but the regents' order will end that practice within 2 years. To try to maintain diversity anyway, task force members were charged with finding criteria to substitute for racial preferences. They used UC's database of applicants to test models based on criteria such as socioeconomic class, geographical distribution, or whether an applicant was the first family member to go to college. But no matter how they cast their net, the model admitted many more Asians than blacks or Hispanics, because 32% of the state's Asian high school graduates—including poor students and immigrants—fall within the magic top 12.5%.

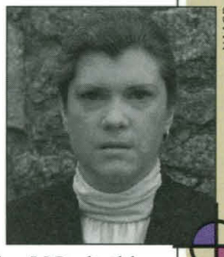
The task force concluded that the effect of the regents' resolution is likely to be most profound on Berkeley and UCLA, the two campuses where applicants face the stiffest competition. Those campuses will see "precipitous drops in the number of blacks and Hispanics," predicts task force member and UC Davis biologist Merna Villarejo.

And the drop in diversity is likely to be even greater than that predicted by the task force, say some faculty members involved in recruiting top minority students in science. "The message that was given by [the regents] was a very nasty one [that UC] is not necessarily going to be a very hospitable place" for minority students, says Stanley Prussin, a nuclear engineer who directs Berkeley's Professional Development Program for minorities. Some top minority students are already staying away, even before the new admissions rules have gone into effect. The representation of blacks in the pool of undergraduate engineering applicants at Berkeley dropped 27% this year, and the number of blacks in the top tier of engineering applicants dropped by 40%, says Alice Agogino, director of Berkeley's Minority Engineering Program.

These impacts may be bad enough, but educators fear they could be amplified if voters pass the CCRI next November. That would ban any preferential treatment by the state based on race, sex, or ethnicity. It's tough to predict the initiative's chances—poll re-

sponses swing from 81% to 29% support, depending on how the law is described. Penda Hair, director of the Washington, D.C., Regional Office of the NAACP Legal Defense and Educational Fund, says that if the CCRI became law, it would likely put a stop to science enrichment programs for girls or minority students.

A prime example is MESA, an effective statewide program for middle and high schoolers, which reaches 1200 minority students each year and sends 62% of them on to science programs at UC. Ward Connerly, a UC regent and supporter of the CCRI, argues that such programs needn't be targeted by race or sex but can work just as well if they are aimed at public school districts that produce relatively few UC-eligible graduates. But MESA Director Michael Aldaco counters that if the program didn't target kids by race, it would serve many fewer minorities.



NAACP

Echoes of California?

On the national front, the Dole bill and a companion bill in the House echo the CCRI. Worries about anti-affirmative action laws are running high in federal science agencies, which sponsor a spectrum of programs. Their efforts range from those that provide grants only to women or minorities, such as the National Science Foundation's (NSF's) visiting professorships for women, to K-12 education programs that target girls or minorities, but benefit all students. "Obviously, we're concerned about it," says Luther Williams, assistant director for education and human resources at the NSF. "If the political positions that have been announced are sustained, it could have very profound implications. The most Draconian, I suppose, could be a congressional mandate that prohibits programs aimed at minorities or women or persons with disabilities."

While officials nervously eye developments in Congress, they are already trying to assess the implications of the *Adarand* decision. Although *Adarand* doesn't rule out affirmative action entirely, it requires such programs to be "narrowly tailored" to address a specific goal judged to be in the government's interest. Broad, sweeping measures to advance a particular group based on the general notion of past discrimination won't fly. Instead, the burden of proof is on administrators to show that their programs are necessary, either because past discrimination specifically kept women and minorities out of science, or because it's in the state's interest to tap their talent. As a result, the Department of Justice has ordered a review of programs for women and minorities in all federal agencies, including NIH and NSF.

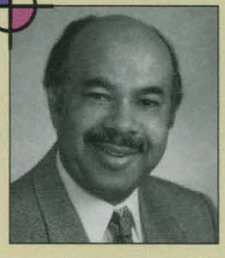
The NSF's review, due to be completed within 3 to 5 months, according to Williams, is analyzing programs to see how well they succeed—and how well they could be defended in court. "What is driving the review is how do you make your programs stand up to legal challenges," says policy analyst Daryl Chubin, director of the division of research, evaluation, and communication at NSF.

Although it's not yet clear how the lower courts will interpret *Adarand*, observers say the reviews could result in a range of outcomes. Agencies may judge some programs as indefensible and scrap them rather than risk having them declared unconstitutional. "When people are concerned about legal challenges, they tend to act conservatively," notes Catherine Didion, president of the Association of Women in Science. On the other hand, if agencies decide to defend some programs, they may be on solid legal ground, says Martin Michaelson, an attorney with the Washington, D.C., law firm Hogan & Hartson. The Supreme Court has

CROSSFIRE

The Affirmative Action Debate

Sparks fly when the topic of affirmative action arises. Here, in separate interviews with *Science*, passionate advocates present opposing positions. Attorney **Penda Hair** (pro, shown at left) directs the Washington, D.C., office of the NAACP Legal Defense and Educational Fund. **Ward Connerly** (con, shown below) is a Sacramento, California, businessman and member of the University of California Board of Regents; he spearheaded the recent regents' resolution on race- and gender-blind admissions.



(On racial preferences)

Connerly: "The first objection I have to preferences is that ... the Constitution doesn't allow it, unless there are very narrowly tailored circumstances to justify it. ... Colorblindness is the official policy of this nation."

Hair: "Sometimes you have to take race or gender into account to get beyond it. ... Affirmative action equalizes a system that stands against women and minorities. There is no other way to neutralize those factors, because [they are] so amorphous."

(On discrimination)

Hair: "We know the discrimination is there. There are massive amounts of data."

Connerly: "I don't buy the notion that the statistics translate into patterns of discrimination. ... There is such a thing as freedom of choice. There may be people who are not inclined culturally or otherwise to pursue math."

(On merit)

Connerly: "[With preferences] the whole reward system gets thrown out the door. ... When you give a preference to one, you are distributing a disadvantage to somebody else."

Hair: "Scores are not a measure of the whole person. ... What affirmative action tries to do is give some credit for the fact that we know that women and minorities have had a tougher time and have had to overcome barriers. ... Affirmative action has the benefit of measuring the whole person."

(On the importance of diversity)

Hair: "[Affirmative action] allows business or government to use all of America's talent and not limit it to one race or one gender. ... [It] produces a diverse student body, which is good for everybody. It is good for those 4.0 students with top SATs to be exposed to persons ... who come from poor communities and poor schools. There is massive agreement among educators that that type of diversity is essential for a well-rounded education."

Connerly: "Instead of focusing on diversity, we ought to be focusing on trying to instill in all students, regardless of their race, the notion that you have to work hard, you have to get good grades, and the reward for that will be [admission to] the public institution of your choice."

(On the success of affirmative action)

Connerly: "I don't think that it is helping black people. ... In 1978 [at the University of California], 4% of our student enrollment was black. Today it is still under 5%. ... The only way we can get a critical mass [of minorities at a campus like Berkeley] is to admit them under 'special admits.' ... They are not prepared for the rigors of a Berkeley. ... They are devastated because they can't make it, and they drop out, and they don't get a college education at all. "

Hair: "I do not believe that affirmative action is supposed to bring unqualified people into positions. [When that does happen], that is an argument for mending it in particular applications, but it is not an argument for ending it."

–M.B.

affirmed the right of universities to use race as one of many admissions criteria. Moreover, many NIH and NSF programs stem from congressional mandates, such as the Equal Opportunities in Science and Engineering Act of 1980, which specifically directed NSF to increase participation in science by underrepresented groups.

The dearth of minorities and women in science will also provide a defense against legal assaults on such programs, says attorney Hair, of the NAACP Legal Defense Fund: "When the courts start looking at the particular programs, many of them will be upheld, because they are justified."

The programs most at risk may be those that qualify as "set-asides," because they are open only to women and minorities. But Hair believes that even after *Adarand*, such programs can be legally justified if they meet a clear need. "We don't believe that limiting programs in certain circumstances to one race or one gender is going to be fatal," she says. Decisions on individual programs will most likely come down to a cost-benefit analysis of legal risk versus success, predicts one government official who spoke on condition of anonymity: "What agencies will bring to bear on the decision is how important certain programs might be, relative to their legal risk."

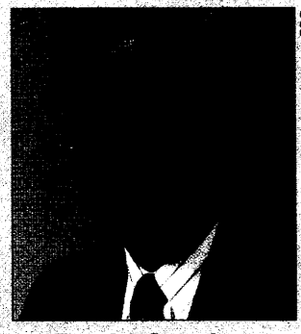
Even some supporters of affirmative action agree that reviews of the potency of these programs are needed. Indeed, many feel that they haven't worked very well, for despite 20 years of effort, faculty and graduate students in most fields of science are still overwhelmingly white, and, to a lesser extent, male. One reason, says Kati Haycock, of the American Association for Higher Education, is that the K-12 public education system fails to bring minorities into the mainstream. That's an argument in favor of the newest wave in affirmative action: systemic efforts to raise the level of all students (see p. 1902). These programs are also "less likely to be problematic under the Constitution than other types of remedies" that favor certain groups, says Hair. For both these reasons, programs such as MESA are reorienting themselves to be more systemic, focusing on teacher training to improve science education for all students. That approach "is not based on anything having to do with race," says MESA Director Aldaco, and so should be immune to the CCRI. He argues for the importance of both this and a more targeted approach. And as CCRI and its counterpart bills move forward, affirmative action supporters will need to rally all their defenses, from legal strategies to systemic change, in order to continue their efforts to diversify science.

–Marcia Barinaga

For more on diversity in science, see the on-line forum on *Science*'s Next Wave on the World Wide Web at <http://sci.aaas.org/nextwave/public.html>

ADVICE *from the* TOP

Reaching Out and Moving Up



David Satcher

Thirty years ago, when David Satcher was making history as the first black student to earn an M.D./Ph.D. at Case Western Reserve University, he was almost forced to drop out. His first 3 years as a graduate student in cytogenetics were paid for by a research stipend. But for the next 2 years of medical school he was on his own, and his night job in a lab wasn't paying nearly enough. He asked his adviser for help, and together they wrote a proposal that included a trainee stipend to the National Cancer Institute. When it was accepted, Satcher's education was secure. That was Satcher's first proposal—but far from the last.

Since then, Satcher's proposals have helped revive two historically black medical schools, led to research centers in sickle cell disease and cancer prevention, and put violence on the nation's agenda as a public health problem. Today he heads the Centers for Disease Control and Prevention in Atlanta and says one key to his success is that he's managed to find outside support for his causes, whether they were his own education, community health care, or sickle cell disease. "It's important to be aggressive and to assume that people want to be helpful," he says. Minorities in particular, he says, need to "reach out" to faculty and programs that can help them succeed.

Such resources do exist, and throughout his career Satcher has made it his business to find them. "I've never hesitated to walk into the office of the director of the National Institutes of Health [NIH] or the Robert Wood Johnson Foundation and sit down and say, look, this is what we want to do, and we need your help." While president of Meharry Medical College in Nashville, Tennessee, in the 1980s, for example, Satcher headed a group that asked then-NIH Director James B. Wyngaarden to boost research at historically black medical colleges. Wyngaarden said no, but the group managed to present the plan to the NIH advisory council—and it was funded.

Satcher, 55, grew up on an Alabama farm, the son of parents who didn't finish elementary school. His doctoral work earned him the top research award at Case, but his experiences in the segregated South and treating people in Cleveland slums convinced him to work to improve the health of the poor.

"I've had a mission throughout my life," he says. "I wanted to make the greatest difference for the people whom I thought had the greatest need." That's often meant using his skills and contacts to create partnerships between mainstream institutions and black medical schools facing crises. For example, early in his career he forged links between the University of California, Los Angeles, and King-Drew Medical Center, a struggling black medical school in Watts. At Meharry, he spent 4 years overcoming racially tinged resistance to a merger of the teaching hospital and Nashville's crumbling city hospital, thus ensuring the survival of both institutions.

Satcher says there's no doubt that black scientists sometimes have a tough time being recognized. The answer, he says, is for young scientists to seek out mentors and institutional help: "Use support systems and find people who want to be supportive. ... A lot of white scientists would like to be helpful, but they need to feel wanted."

Such cooperation between minorities and the mainstream is often mutually beneficial, says Satcher. Indeed, he's convinced that right now the country needs help from minority biomedical scientists to solve some of the most intractable health ills, such as HIV. Such challenges are often opportunities in disguise, he says: "I assume that you can change people and change situations. You just need to find a way to do it."

–Jocelyn Kaiser