

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>>

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

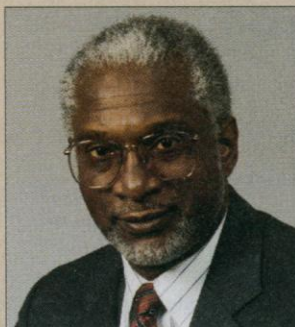
ADVICE TOP from the

Reaching Out and Moving Up

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



David Satcher

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 institu-

tions 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