

## BROADENING PARTICIPATION

# Berkeley Engineering Students Demand Greater Effort to Promote Diversity

In the summer of 2009, the dean of the College of Engineering at the University of California, Berkeley, pledged to improve the school's poor record of attracting and retaining minority and women students. But since then, by all accounts, the situation at one of the country's top public universities has gotten worse instead of better. So last week a coalition of student organizations used a meeting of the college's executive committee as a forum to demand action.

"In 2009, the college said its strategy would work and the numbers would improve," says Ryan Shelby, a graduate student in mechanical engineering and the driving force behind the Coalition of Underrepresented Engineering Students, whose recent letter to Engineering Dean S. Shankar Sastry prompted last week's discussion. "But in April, there was a report [from a faculty committee] saying that what they are doing is not working, and we've collected the data to show how low the numbers really are. We've put together a plan for recruitment, retention, and mentoring that we think could really make a difference if it were implemented." Sastry has promised the students that he'll come up with an "action plan" by mid-December, starting with an effort to persuade students admitted next spring to attend Berkeley in the fall.

In the 1980s, Berkeley became a national leader in addressing the dearth of African Americans, Latinos, Native Americans, and women in engineering. But in recent years those efforts have sagged, and in 2010, Berkeley ranked last among its peers in both the percentage and absolute number of minorities in its freshman engineering class (see graphic).

The coalition's letter says those low numbers stem in part from "a cold climate for diversity" and a lack of support for students from underrepresented groups. Claudia Rangel, a fourth-year student in civil engineering, says she felt the chill after graduating

at the top of her high school class. "My first year was a huge shock academically and culturally," Rangel recalls. "I was overwhelmed. I didn't feel that I belonged anywhere, and it was especially hard to find other minority students in engineering." A campus group called Cal NERDS was her salvation, she says, offering academic tutoring and a range of career services—from finding a lab to visiting graduate schools—that she hopes will help her achieve her goal of becoming a professor.

School officials say they are committed to improving diversity but face steep obstacles. For starters, they cite a 1996 state law, called

sive support services, and personalized career counseling—borrows heavily from suggestions offered in a two-page report written last spring by Oscar Dubon, then chair of the college's Committee on Broadening Participation. But Dubon, an associate professor of materials science and engineering, says that officials ignored his suggestions until the students unveiled their petition shortly before the 21 November meeting with Sastry. "Frankly, I was very disappointed," Dubon says. "My goal was to move ahead with an action plan, but nothing happened."

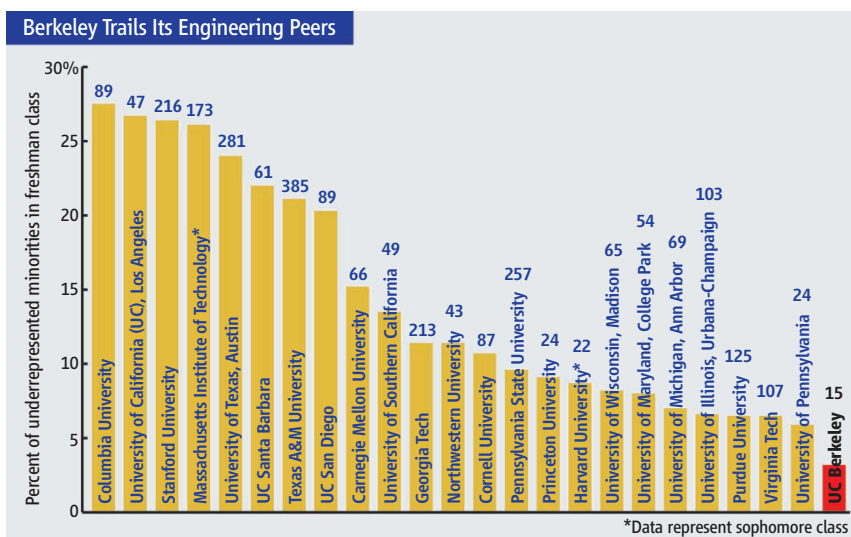
The committee was formed after Sastry abolished a standalone center, which served underrepresented students, as part of a reorganization of services to all engineering students (*Science*, 28 August 2009, p. 1057). But Dubon says it has not been very active. "I wrote the report with limited input" from the other members, he notes.

In addition to offering enrichment activities and a sense of community to those already on campus, Dubon says, Berkeley needs to change its recruitment and admissions process. He notes that the percentage of minorities in the applicant pool has nearly doubled since 2001, to 19%, but admission rates have hovered at about 9%—and last year dropped to 4% for African Americans. In comparison, 22% of white applicants and 27% of Asians were admitted. Once

accepted, minorities are also much less likely than whites or Asians to choose Berkeley. The so-called yield for African Americans was 13%—a minuscule two from an eligible pool of 15—compared with 32% for whites, 42% for Asians, and 58% for international students. "The fewer students you have, the more difficult it is to maintain a supportive climate," notes Sheila Humphreys, director of diversity for the college's Department of Electrical Engineering and Computer Sciences.

Dubon believes the students' letter "has nudged the boulder forward" by focusing attention on the issue. But Shelby says it will take more than words. "I'm scheduled to finish in May," he says. "But I may need to delay that because I want to make sure this gets done. I want to leave Berkeley a better place."

—JEFFREY MERVIS



**At the bottom.** Berkeley had by far the smallest percentage of underrepresented minorities in its entering 2010 class among top-25 U.S. engineering programs—and the fewest students.

Proposition 209, that prohibits universities from showing gender or racial preferences in any programs, along with an ever-worsening budget crisis that limits their ability to compete with private institutions offering generous financial aid packages. Being in northern California reduces Berkeley's appeal to a large pool of minority students in southern California who want to stay close to home, adds Karen Rhodes, head of the college's marketing and communications office. She also points to the growing number of slots being filled by international students, whose willingness to pay full out-of-state tuition makes them attractive candidates. "I'm not sure we know all the reasons our numbers are low," Rhodes says.

The list of student demands—they want more aggressive recruitment, comprehen-