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# Students

From the issue dated April 28, 2000

## A Top University Wonders Why It Has No Black Freshmen

**Embarrassed Caltech officials look at their demographics, their competition, and themselves**

By LEO REISBERG

Pasadena, Calif.

Kevin Shand's passion for physics formulas and mathematical equations drew him to the California Institute of Technology three years ago. But the color of his skin has often made him homesick for New York City.

Mr. Shand, who turned down offers from

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Dartmouth College, Princeton University, and the Massachusetts Institute of Technology, was one of only two black freshmen in his class of more than 200. Now a junior majoring in applied math, he recalls

a lonely first year.

"I was having trouble fitting in," he says. "I spent a lot of time freshman year in my room. I remember calling home a lot. If my G.P.A. were better, I'm pretty sure I would have at least filled out an application to another college, and I probably would've transferred."

The situation here is even bleaker this year. Not one of the seven black students who were admitted to the 1999-2000 freshman class decided to enroll.

Among the nation's elite universities, Caltech is the only one that has had no black freshmen this academic year, according to a survey by *The Journal of Blacks in Higher Education*. The journal examined black enrollments at 27 top-ranked colleges in *U.S. News & World Report's* college guide, where, for the first time, Caltech hurdled past Harvard, Princeton, Stanford, and Yale Universities to the No. 1 spot last fall.

J. Ernest Nunnally, vice president for institute relations, who is black, calls the dearth of black freshmen an "embarrassment."

David Baltimore, the institute's president, who is white, calls it an "unfortunate accident."

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"We are concerned, and we are redoubling our efforts, but recognize that this is simply a statistical fluctuation, that this has nothing to do with something we did," says Mr. Baltimore, who points out that a routine deviation can seem significant because of Caltech's small student body. "We work with numbers, so we know how to treat the numbers, and the numbers didn't mean very much this year."

Of the roughly 900 undergraduates at Caltech, only 11 are black. Forty-nine others -- 48 Latinos and one American Indian -- are considered "underrepresented" minority students. Asian-American students make up about a quarter of the undergraduate enrollment and are not considered underrepresented minority students at Caltech.

Throughout much of the past decade, black students have made up less than 1 percent of the freshman class.

In 1995, like this year, no black freshmen enrolled. Campus officials seemed more alarmed at that time than they do now.

Mr. Nunnally remembers that Thomas Everhart, the president then, said, "We should not, in this day and time, have no African-Americans in our entering class."

Mr. Everhart helped to create a committee to study the admission and retention of minority students. The panel, which included Mr. Nunnally, found that the enrollment rate of minorities had declined to "an unacceptable level."

"We are close to losing the critical mass necessary for a feeling of community among the underrepresented minority students," the committee wrote in October 1995.

The group offered several reasons for the drought. For one thing, it said the problem was "self-perpetuating." The small -- and declining -- number of underrepresented minority students, the committee wrote, "makes the institute unattractive to potential students, so the number declines further."

Even now, it doesn't help that only two of the 280 faculty members at Caltech are black, some say.

The university acted on a few recommendations from the committee. As part of an effort to improve outreach programs, for example, about 30 faculty members volunteered to contact and meet with minority students who had been accepted by Caltech and were still deciding whether to enroll. A faculty member who was traveling for a science conference

might have taken some extra time to meet with the family of an admitted student who lived in the area.

The effort may have helped Caltech in 1998, one of its strongest recruiting years, when eight black freshmen enrolled. But according to Mr. Baltimore, no one led that faculty-driven outreach program last year, and it fell apart. The program has been revived, he added.

Caltech won't find out its numbers for next year until May, when admitted students must tell the university whether they plan to enroll. Its No. 1 ranking in *U.S. News*, as well as some new steps it is taking to draw minority students, have officials hoping for a big improvement in enrollment figures.

Caltech received 62 applications from black candidates for next year, up from 46 for the class that entered last fall. And this year, three black students were admitted under the university's nonbinding early-action program, in which candidates find out in December whether they have been accepted into the next fall's class. In the previous several years, no black students applied early.

Some say that the university continues to do a mediocre job of recruiting black prospects.

But others blame the low numbers on factors that Caltech cannot, or is unlikely to, change -- its curriculum, for instance.

Nowhere is math, science, and engineering as heavily emphasized as at Caltech, where even humanities majors are required to take at least five 10-week terms of math and five terms of physics, as well as biology and chemistry courses.

That highly specialized mission is what helped Caltech soar to the top of the *U.S. News* rankings -- factors such as standardized-test scores and per-student spending were weighted differently in the magazine's guide last fall, catapulting Caltech and other universities with strong science and engineering programs to the top of the chart. But the math- and science-intensive curriculum shuts out many minority students who are insufficiently prepared for those fields.

"I would not say this is a Caltech problem. It's a national elementary- and secondary-school problem," says Abigail Thernstrom, a senior fellow at the Manhattan Institute, a conservative New York think tank.

Ms. Thernstrom -- who cowrote *America in Black and White: One Nation, Indivisible* (Simon & Schuster, 1997), with her husband, Stephan Thernstrom, a Harvard historian -- says that it is especially

difficult for Caltech to "cut corners" and make exceptions when admitting students.

"It's not really possible for them to talk about subjective, ill-defined qualities like character and leadership skills," she says. "The questions they ask in the admissions process are simple: Can you do high-level math and science, and do your SAT scores fall within the range that suggests you can keep up at this school?"

The average math SAT score for current freshmen at Caltech is 770. Of the 119,000 black students who graduated last year from high school and took the test, less than 1 percent scored above 700, according to the College Board.

Their abilities notwithstanding, Charlene C. Liebau, director of undergraduate admissions at Caltech, says that black students who choose to enroll at other colleges do so for the same reason that most other students decide to go elsewhere: They are simply not willing to narrow their study options to Caltech's focused curriculum.

"When you go to the kitchen table with all your offers in front of you, that's when the soul-searching takes place," Ms. Liebau says. "You ask, 'Am I really ready to make a commitment to math, science, or engineering at this point?' In many cases, the answer is no."

About 85 percent of all students who are admitted to Caltech but do not enroll end up at M.I.T., Harvard, Stanford, or the University of California at Berkeley.

"Caltech was nearly my first choice," wrote one Stanford-bound student, whom Caltech would only identify as an underrepresented minority student. "But after talking with students, it seemed as if Stanford offered comparable academic opportunities, but with greater opportunities for non-math/science exploration. Additionally, Stanford offers a wider range of extracurricular activities and seems to regard intense academic pressure as a necessary evil, but not something to strive for, as your brochures seem to imply," the student wrote.

Like their classmates, black students both complain about and express pride in their academic workload, citing it as proof of Caltech's academic rigor. But they reveal a bit of unhappiness when they talk about the social life for minority students here. Bridget West, a black sophomore, didn't expect the scarcity of black students to affect her much.

"Education was the most important thing to me, and I would've come here even if I were the only African-American student on the whole campus," says Ms. West, who came to Caltech from a predominantly white neighborhood in Aurora, Ill.

She was initially attracted by Caltech's strong astronomy program, but is now majoring in engineering and applied science. "If I had known I was going into engineering, maybe I'd have gone to M.I.T.," she says.

After picking at some Chinese food during one of a series of informal lunches hosted by the minority-student-affairs office, the shy young woman, who ordinarily eats lunch by herself in one of the campus cafeterias, quietly pondered the drawbacks of life here.

"About 75 percent of the time, I'm happy at Caltech, but 25 percent of the time, I think, 'Well, I could always transfer.' The lack of black people is a big thing."

As a black woman, Ms. West is a minority here on two counts. The institute has traditionally been hard-pressed to recruit female students, who now make up only 30 percent of the undergraduate body.

Ms. West frequently peppers her responses to a reporter's questions with a nervous laugh, seeming to make light of the things that bother her here.

For instance, she prefers to get her hair done at a salon that specializes in African-American hair, but she doesn't know who to ask where she could find one.

Her tastes in music (rhythm and blues and hip-hop) differ from those of her friends (alternative bands, such as Dave Matthews and Blink 182). "I'll say, 'I got the new D'Angelo CD the other day,' and my friends will be like, 'Who's D'Angelo?'"

Anything else?

"Men," she giggles. "More black men would be nice."

Some students and administrators say that Caltech falls short on the kind of aggressive recruiting tactics other selective colleges take in reaching out to black candidates.

"Caltech is treading a fine line here. They don't want to give the impression that they're showing preference for certain people and giving someone an advantage," says Richard Bowman, a black sophomore from nearby Los Angeles. He says he heard about Caltech in high school only because his computer teacher was an alumnus.

Mr. Shand, the applied-mathematics major, says that M.I.T. "tried really hard to get their hands on me" in high school. He received two or three phone calls from a student and several more from a recruiter who offered

help in completing the application. He chose Caltech instead because he sensed that the students here competed less with each other.

"But if I had checked out the community more," he says, "I'd be at M.I.T."

At M.I.T. -- which is often compared to Caltech even though it is larger and has fewer science requirements -- 71 black freshmen enrolled last fall, making up 7 percent of the class. M.I.T. accepted 131 of its 300 black applicants.

As at many other highly selective institutions, the acceptance rate for black students at M.I.T. (44 percent) is higher than that for all students (19 percent). At Caltech, however, the admissions rate for black students who applied for last fall's entering class was actually lower than the rate for all students. Only 7 of the 46 black applicants, or 15 percent, were accepted, compared with 18 percent of all candidates.

Some observers wonder whether the institution may inadvertently weed out black students by putting excessive focus on applicants' standardized-test scores (black students tend to score lower, on average, than white and Asian students).

A 1995 report on minority recruitment called for Caltech to reach out to the small pool of black students who score 750 or higher on the math SAT, but added, "we wish to emphasize that our focus on SAT scores does not imply that we believe that this alone is a good measure of admissability to Caltech."

Among black students, M.I.T.'s yield (the proportion of admitted students who enroll) last fall was also higher than Caltech's. More than half of the black students who were admitted to M.I.T. went on to enroll there, while all seven of those admitted to Caltech went elsewhere.

"At M.I.T., you just have to be good at math and science. At Caltech, you have to love it," says Zaragoza A. Guerra, associate director of admissions at M.I.T., who has also worked in admissions at Caltech.

Money, he says, is unlikely to be a major reason for students to choose M.I.T. over Caltech. Both institutions offer need-based aid. M.I.T. does not give merit-based scholarships; Caltech started offering them in 1997 and has since expanded the number and amount awarded to underrepresented minority students.

M.I.T. also has more students and alumni to help with nationwide recruitment, Mr. Guerra says, and M.I.T. has 12 admissions officers to Caltech's four.

"The year I was there, eight students enrolled, and the next year they had none," Mr. Guerra, who worked at Caltech from 1996 to 1998, points out. "Eight students doesn't make a big difference here at M.I.T., but it does make a big difference at Caltech because it's a tiny class."

Faculty members at Caltech, who play a major role in deciding which students to admit, say the admissions committees actually look for ways to give second chances to underrepresented minority students who are initially rejected. Each committee, whose members read applications and accept or reject them, is made up of one admissions officer, at least one and often two faculty members, and sometimes a student.

James Z. Lee, a professor in humanities and social sciences, who sits on one admissions panel, says that the process is designed to "broaden the pool and get as many underrepresented minority students as possible to get accepted."

He cites a black applicant from the rural South as an example. The student was rejected by Mr. Lee's committee because he didn't list any independent research activities on his application. As part of a second review by a larger committee, "we called his high school and found out it was even more rural than we expected, and they had no research opportunities," Mr. Lee says. The student was admitted.

Mr. Baltimore says he would like to see Caltech "mirror the population of the society around us."

"We view minority students at Caltech through a somewhat different prism than people do in the East," he says.

Because of the makeup of the general population in both regions, Mr. Baltimore explains that Caltech and other institutions on the West Coast are more concerned about maintaining a solid number of Latino students, while East Coast colleges focus more on black students.

"I have been heartened by the fact that Latino students have remained at a constant level here, just like M.I.T. has had a constant level of black students," he says.

Although Mr. Baltimore says he would like to see more black undergraduates, he maintains, "We have enormous racial diversity on this campus. Caltech is as diverse a setting as you can imagine."

Try telling that to J. Morgan Kousser, a professor of history and social sciences at Caltech and an expert on race relations. Diversity in the classroom may not seem important when students are discussing

differential equations and vector fields. But in Mr. Kousser's freshman courses, where slavery in the United States and U.S. Supreme Court cases on civil rights are regular topics, the impact is obvious.

In this term's course on the Supreme Court, he says, the discussions on affirmative action, voting rights, and desegregation of schools might be livelier if the class wasn't made up of only white and Asian-American students.

"You do miss an emotional resonance and some sense of the continuing problems of race relations in the United States, if you have no one who's been subjected to them," says Mr. Kousser, who is white. "I have to tell stories about other people, rather than have a student in the class say, 'I've been called a nigger on the street' or 'I've been stopped by the cops just because I was driving in a mostly white area.'"

Caltech officials say they have stepped up efforts to reach out to minority students, including black students.

In February, seven minority applicants -- including three black candidates -- who had been admitted to the 2000-1 class under the early-action program were brought to the campus for four days. They toured the campus, visited classes, ate dinner with administrators, and took a day trip to Santa Monica.

It was the first time the program had been offered to minority students who were notified early that they'd been admitted. (All admitted students attended their own "pre-frosh weekend" this month; for minority students accepted during the regular admissions round, that program included an extra day.)

The university pays the travel expenses of women and minority students who attend the "pre-frosh" programs. Asian-American and white men must pick up the tab themselves.

Some administrators say that the special "pre-frosh weekend" for early-action minority students is a positive step, but that the university is missing other opportunities to recruit black students.

Susan E. Borrego, associate dean and director of minority-student affairs, points out that the university and some departments sponsor science programs throughout the year that bring minority high-school students to the campus, but that admissions officials fail to aggressively recruit the students who attend.

"I feel like I'm standing on a rooftop shouting, 'Hey, look, these guys are already here!'"

For example, Caltech hosts an annual summer science-and-engineering program for about 40 minority students in their sophomore and junior years of high school. But only about one or two of them apply to Caltech, Ms. Borrego says.

"Someone decided early on that we didn't want to hold the program for a self-serving purpose, just to bring them here to go to college here," Ms. Borrego says. She plans to put the program on hold this year and decide whether it would be better to bring in high-school freshmen, as well as sophomores, before they've given much thought to their college plans.

Part of the problem, she says, is that she is not always notified of programs that are held for minority high-school students. For example, she only found out this year about Caltech's Computational Sciences Awareness Program, which has been held for the past eight years for more than 100 high-school students in Los Angeles.

In fact, she and other campus officials and faculty members say that various efforts to reach out to minority students seem scattered among the admissions staff, the minority-affairs office, and faculty members. "For a place that's so small, how are we so not connected?" Ms. Borrego says.

Even as Caltech searches for a way to raise black enrollment, few people here think its persistent troubles should affect its academic reputation.

"We do have weaknesses," Mr. Baltimore says. "It's not the perfect school, but it is the best school."

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## Black Freshmen at Caltech

	Number of black freshmen	Black freshmen as percentage of class	Percentage of admitted black applicants who enrolled
1989	2	0.9%	100%
1990	10	5.0%	100%
1991	8	3.4%	40%
1992	2	0.9%	22%
1993	2	1.0%	20%
1994	2	0.9%	28%

1995	0	0.0%	0%
1996	2	0.9%	33%
1997	2	0.9%	22%
1998	8	3.1%	61%
1999	0	0.0%	0%

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