



# A Sea of White Faces

Sending out a posse to find the undiscovered scientists.

By Irving R. Epstein

**W**hite males comprise more than two-thirds of this country's scientific workforce, yet they represent just over one-third of the population, a figure that is expected to shrink to one-fourth by 2050. Anyone who teaches an introductory science course at Brandeis or any other elite university confronts a sea of white faces that whitens further as the semester progresses and as one moves up the ladder of courses.

Is this situation a cause for concern? I believe it is, and my belief is apparently shared by our government, which has poured tens of millions of dollars into studies and programs aimed at increasing the participation of underrepresented minorities in science. Another true believer is the Howard Hughes Medical Institute (HHMI), which recently awarded me a \$1 million professorship to develop a Science Posse at Brandeis.

Science has traditionally been a route to upward mobility for economically disadvantaged groups in this country, and it continues to play that role for some groups—notably Asian and East European immigrants. Some ethnic groups, though, seem to have been bypassed. Considerations of both social justice and economic survival argue that we cannot afford to exclude a sizeable portion of our population from careers in science. This is especially true when the solutions to society's biggest problems—energy, environment, health, and water—require scientific expertise and creativity, and when the brain drain that has brought us so many outstanding scientists from abroad may be on the brink of reversing direction.

The Science Posse is an attempt to weave together the common threads of two of the very few successful underrepresented minority-directed programs. In the late 1970s, Uri Treisman, a graduate stu-

dent at the University of California at Berkeley, wanted to understand why Asian-American students were doing so much better in calculus than their African-American counterparts. Through extensive survey research and careful data analysis, he demonstrated that widely held assumptions about differences in motivation, preparation, family support, and income levels could not explain the situation. After carefully following the activities of twenty African-American and twenty Chinese-American calculus students over a four-month period, he concluded that the major difference was that the black students typically worked alone, while the Chinese students learned from each other. Based on this insight, he constructed what he called an "antiremedial program" that emphasized group learning and a community life, substituting "a challenging yet emotionally supportive environment" for isolating and sometimes demeaning programs of remediation. The results were dramatic, with underrepresented minority participants in Treisman's program outperforming not only their minority peers but their white and Asian-American classmates as well.

The second success story has a distinctly Brandeisian flavor. Working with inner-city youth in New York, Deborah Bial '87 was struck by the fact that, when the brightest of her protégés went off to college, most returned without degrees. When she asked one, who clearly had the intellectual wherewithal to succeed, what had happened, he replied, "I never would have dropped out if I'd had my posse with me."

Enlightened by his comment, Bial started the Posse Foundation, an organization that selects and trains "posses" of inner-city students, largely but not exclusively minorities, chosen for their academic

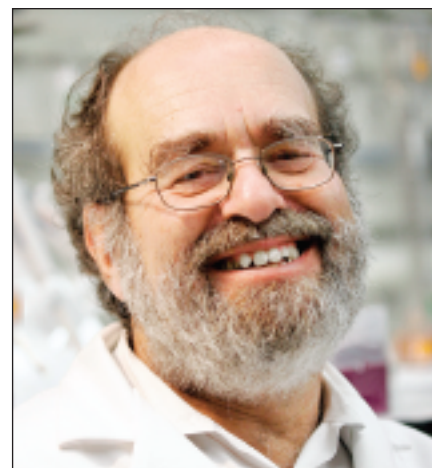


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potential and leadership abilities. The first posse went to Vanderbilt; Brandeis became the third Posse school. Brandeis's Posse experience has vastly exceeded expectations. Students who, from their high school records and standardized test scores alone, would have been expected to graduate at rates well below the Brandeis average of 89 percent have instead achieved a graduation rate exceeding 90 percent. They have not only succeeded in the classroom but have become campus leaders, reaching out to other minorities and to the majority community. We are now hosting our eighth posse.

For all its success, however, Posse does not produce scientists. In a typical Brandeis posse of ten, three or four students may start out in science or premed. In a good year, one will complete that program. What we now seek to do, with help from HHMI and the Posse Foundation, is to develop a program of recruitment, selection, precollege training, and on-campus mentoring and support that will produce a cadre of students who can survive and thrive in our demanding science and premed curriculum.

The first Science Posse is scheduled to arrive at Brandeis in September 2008. If we succeed, we expect the model to spread to other universities, just as the original Posse program has grown from a single partner institution to twenty-three. The contribution to the future of science in this country would be substantial.

*Irving R. Epstein is the Henry F. Fischbach Professor of Chemistry and a Howard Hughes Medical Institute Professor.*



**Brandeis University**

**Public Notice**

Brandeis University will undergo a comprehensive evaluation visit Nov. 12–15, 2006, by a team representing the Commission on Institutions of Higher Education of the New England Association of Schools and Colleges.

The Commission on Institutions of Higher Education is one of eight accrediting commissions in the United States that provide institutional accreditation on a regional basis. Accreditation is voluntary and applies to the institution as a whole. The Commission, which is recognized by the U.S. Department of Education, accredits approximately 200 institutions in the six-state New England region.

Brandeis University has been accredited by the Commission since 1953 and was last reviewed in 1996. Its accreditation by the New England Association encompasses the entire institution.

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