

A black and white close-up portrait of Freeman Hrabowski, a man with short dark hair and glasses, wearing a suit and tie. He is looking slightly to the right with a thoughtful expression, and his hands are raised in front of him, palms facing forward, as if gesturing during a speech or presentation. The background is dark and out of focus.

PERSPECTIVES & OPINIONS

Freeman Hrabowski

TO RESHAPE A CULTURE

CREATING A BROAD MODEL
FOR ACADEMIA

In 1988, Freeman Hrabowski partnered with Baltimore philanthropists Robert and Jane Meyerhoff to launch the Meyerhoff Scholars Program at the University of Maryland, Baltimore County (UMBC). The program's goal was to create a pipeline of students of color, particularly African Americans, excelling in science and engineering and going on to pursue research careers. As President of UMBC since 1992, Hrabowski has helped advance students of color—both at his university and nationwide.

When we started the Meyerhoff Scholars Program nearly 20 years ago, we faced a major challenge—helping students of color achieve at the highest levels academically in science and engineering (S&E). Minority students at the time, even at institutions with relatively large numbers majoring in the sciences, were not excelling; even among those who were making it, far too many were barely doing so.

UMBC, with an underrepresented minority enrollment of approximately 20 percent, was no different. Today, however, we are among the nation's leaders in producing African American graduates with bachelor's degrees in such areas as biochemistry.

I'm deeply proud of our numbers. The Meyerhoff Program has enrolled more than 800 high-achieving students; we have approximately 230 current scholars on campus. More than 85 percent of the program's nearly 550 graduates have completed undergraduate degrees in S&E fields, and nearly 90 percent of those graduates have gone on to S&E graduate and professional programs. Every month, at least one former Meyerhoff Scholar earns a science-related Ph.D.

To bring about the kinds of institutional changes needed to produce many more minority S&E graduates, academic leaders must willingly engage the campus community—faculty, students, and staff—in wide-ranging conversations about minority participation and performance. Administrators cannot simply dictate such change. Instead, they must help people to open their minds, determine weaknesses in the current system, and consider how things might be different.

These conversations must be informed by institutional data on the performance of *all* students—those who succeed and those who don't—and by evaluating the effectiveness of instructional methods, including whether students have opportunities to engage in productive research with faculty mentors. We have learned that it takes experienced researchers to produce aspiring researchers.

UMBC faculty have thought long and hard about these issues, and the campus has benefited enormously from their experimentation, assessment, and analysis. By involving all parties in the process, we have gained the broad buy-in needed to achieve substantive, durable change.

We also are working to apply the "Meyerhoff model" throughout the university. One example is our effort to

increase the number of women S&E faculty and to bolster their professional development. Supported by an ADVANCE grant from the National Science Foundation, we have listened to the voices of women (and men) faculty and department chairs, all of whom are working to make a difference. They are learning from one another about best practices, such as the critical role mentoring plays in the development of women faculty in scientific and technical fields. The data reflect our success. Since 1999, UMBC has increased the number of women faculty in S&E tenure-track positions from 20 to 39, while the number of men in these positions has remained unchanged. Women now occupy nearly a quarter of all S&E tenure-track positions compared with only 13 percent in 1999.

Lessons learned from the undergraduate Meyerhoff Program also have been helpful as we build graduate initiatives focused on producing S&E doctorates among underrepresented groups. Of all the factors, perhaps the most important has been the idea of building community: providing opportunities for graduate students to interact regularly among themselves and with faculty mentors.

As the Meyerhoff Program has gained national visibility, we have worked with other institutions interested in replicating the model. In addition, I have had the pleasure each year of leading a Harvard seminar on academic leadership for dozens of college presidents. We discuss the opportunity to provide moral leadership and effect institutional change, helping our campuses identify and address critical issues and challenges. We also discuss the presidential role in creating a campus environment where people can openly and honestly focus on the sticky issues of the day. We have found that only in such a climate—one that includes a truly diverse community of scholars—can we talk generally about race in relation to academic achievement and, more specifically, about minority student success in science.

INTERVIEW BY RUTH POLK. *Freeman Hrabowski was the keynote speaker at each of the three Symposia on Diversity in the Sciences, a series of HHMI-sponsored meetings held at universities across the country in 2005-06 (see "Diversifying Science," page 12).*