

Want To Be a Scientist?

An innovative program ushers minorities into the profession.

by Marilyn Milloy



Photo by Charles Votaw

The dearth of scientists and engineers from minority groups has long been on the radar of academics, but solutions have been elusive. Today African-Americans, Hispanics, and American Indians still account for just 7 percent of science and engineering professionals in the United States, even though they make up 25 percent of the population at large.

What to do? Thomas Windham says the key is long-term mentoring, and his Boulder, Colorado-based program is proving he may be on to something. Housed at the National Center for Atmospheric Research, it is called Significant Opportunities in Atmospheric Research and Science, or SOARS, and its centerpiece mission is to mix hands-on professional guidance for young college students with a bit of love, caring, and boosterism. This

starts from the time the "protégés" join SOARS' 10-week summer program and continues through their years in undergraduate school, through subsequent summers, through graduate school, and, finally, until they snag a job.

Now in its seventh year, SOARS already has a track record to crow about: Of the 72 students it has taken under its wing, 16 have completed master's degrees, 10 are working in the profession, 28 are enrolled in graduate science programs and four are science fellows at prestigious institutions. The program, meanwhile, has racked up a number of kudos, including the 2001 Presidential Award for Excellence in Science, Mathematics and Engineering Mentoring.

Windham says success has come because students have forged a lasting connection with a "learning community" that guides them through everything from their summer research to skill-building in scientific writing and oral communication. Along the way, says Windham, these volunteer mentors regularly celebrate the achievements of their charges. The result: the students begin to believe they can break the mold of the stereotypical "white, male, middle-aged scientist with glasses."

Visualizing themselves in the role can be a hurdle, notes Windham, given minorities' "almost nonexistent access to people in their communities" who make their living as scientists and engineers. To these students, he says, "those kinds of careers aren't 'real,' and the rewards that come with pursuing that educational track aren't obvious." Elementary and secondary school educators can help, he notes, by creatively encouraging an early understanding of the sciences, and a consideration of professions that would ultimately spur interest in essential classes like chemistry, physics, and calculus--classes many minorities have historically avoided or been counseled to avoid.

"For many students, a choice doesn't become real until they see themselves as being eligible to act on it successfully," says Windham. "Mentoring can have tremendous impact, because students gain experiences and insights that help them see themselves as achievers--and in careers outside the NBA."

<http://www.nea.org/neatoday/0305/infocus.html>

For more information, see "SOARS: An overview of the Program and its First 8 Years" at <http://www.soars.ucar.edu/documents/i1520-0477-085-01-0042.pdf>