

## STUDENT INVOLVEMENT, RECRUITMENT, AND RETENTION IN THE SCIENCES

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Student involvement, university recruitment and retention in the sciences are well below informed expectations and also below projected needs for a progressive nation. This situation is even more pressing for minority students. We, as facilitators and instructors, know that participation in the sciences and engineering is important and actually, quite fun. These messages and attitudes are not being communicated effectively to our younger generation. And to make matters worse, there are many misconceptions and negative attitudes about the sciences.

One avenue to change this trend is to expose younger students to science through captivating demonstrations and opportunities to interact with actual role models. An organization at NMSU which contributes in this respect is the Mexican American Engineers and Scientists, MAES. The MAES chapter was started three semesters ago and one of its missions is science outreach. The outreach consists of visiting New Mexico and West Texas public schools to share science and engineering demonstrations and foster a link with scientists, engineers, and science affiliated programs and organizations. Science concepts are demonstrated in a fun and exciting fashion. Quite often, demonstrations are shown that would be impossible due to a school's lack of appropriate resources. At the same time, themes are interwoven, links to the real world are emphasized, and as much "hands-on" participation as possible is the rule. MAES students are invited to outlying schools; therefore, they take advantage of the opportunity and have started a data bank to track all the students who are visited. This Fall '99 semester alone, 2,500 public school students have participated in the demonstrations. Secondly, MAES emphasizes and re-affirms the importance of their schoolwork. The younger students also benefit from handouts that MAES has gathered from various science agencies such as the New Mexico Space Grant Consortium. Special follow-up experiment guides and supplemental information are left with the teachers.

MAES attempts to present demonstrations that the schools can't provide, and as such, MAES would like to expand the scope of its presentations. MAES has the personnel, NMSU science and engineering students; what is needed are more "high tech" demonstrations. Finally, to increase the boundaries of our outreach program, MAES is trying to procure a large step-van so our program "on wheels" can affect more students with this added mobility.