

The Mathematical Enterprise: A Minority Perspective

William Yslas Vélez
University of Arizona

The role of mathematics in society has changed dramatically in the last 50 years. Mathematics has become an essential component in a large number of academic studies and technical careers. Moreover the associated analytical thinking of mathematical training is a valued commodity in the workforce. An undergraduate degree in mathematics, coupled with computer skills, is marketable, versatile and provides entrance into a variety of careers. Yet academic mathematicians appear not to have adjusted to this fact.

There is no doubt that the research capacity of mathematics departments across the country greatly improved over the past 30 years. Curiously this improvement coincided with a decrease in the number of undergraduate mathematics majors nationwide. Our mathematics departments did not produce undergraduate mathematics majors in sufficient number to populate our graduate programs. Rather than address this domestic pipeline problem, mathematics departments simply imported mathematically trained students from abroad to fill their graduate programs.

The nation's minority communities have finally seen increasing access to higher education these past thirty years. The decrease in attention to the domestic undergraduate mathematics pipeline has seriously limited the opportunities for minority students to obtain advanced mathematics training. The fact is that the mathematical establishment ignored the minority community for decades, and the result is the small percentage of minority participation in academic and industrial mathematics that is evident today. By not addressing this pipeline issue, the mathematics education system is again shortchanging the minority community. As the minority population moves to a majority position, the mathematics educational system must refocus its attention to the task of preparing undergraduate majors for our top graduate programs.

In this presentation, Professor Vélez will describe activities of the minority community that have served to increase minority participation in mathematics/science, as well as his own efforts on that account. It will be evident that efforts aimed to increase the participation of the minority community have an equally positive impact on all students. He will also discuss how the admissions procedures of the top mathematics graduate programs undercut efforts to increase interest in mathematics careers in the minority population.

MONDAY, APRIL 5, 2010

4:30 PM

Building 4, Room 370

Open to the Public

Refreshments will be available at 4:00 PM in the Pappalardo Rm (4-349).

