

The Beginnings of BEAM

by George Lee

When I first became Dean of Engineering in 1978, I wanted to do something for educationally disadvantaged students. Students should be encouraged to go into engineering, but often high schools don't teach it – auto mechanics isn't really engineering. There is, still today, great confusion about the differences among engineering, engineering technology, and technology degree programs – as well as about the differences between science and engineering.

I tried a few approaches. First I implemented a Saturday program for teachers and counselors with a science and/or math background to explain the different aspects of engineering. But we ran out of money – most of the participants were coming because they were paid. So that wasn't too successful.

I decided that we needed industry's involvement. Students wanted to know what kinds of jobs they could get with an engineering degree. So we tried a one shot deal with funding from a few companies that already funded summer programs; they sent their engineers to meet with the students. Linde, now Praxair, was especially involved. Donald White, an African-American engineer from Linde, came on board and expanded the program to about 30 or 40 corporations in Western New York. He took the lead and requested them to go back to their companies to see if they would be interested in a bigger program. Most came back supportive.

So that was the beginning of Buffalo Engineering Awareness for Minorities, BEAM, which is, of course, an engineering term. The home base was in the Engineering Dean's office, but Donald White did most of the work. He was a good role model for students.

In the first few years I was disappointed. Students who came into our program would end up going to RIT, RPI or Cornell because UB didn't have scholarships. So I tried to provide scholarships for juniors in high school. Charlie Fogel helped me. We would give juniors advance admission to UB so that we maintained contact and the student received college credit as a senior. Three or four took that option, and one of them got a Ph.D. in mechanical and aerospace engineering at UB.

There is outreach now by BEAM to high schools, junior highs, and even lower grades, so it's K-12! Our Earthquake Engineering Research Center sponsors several laboratory interns every summer. I am happy to see that BEAM is well established in Western New York. It is now an entity in the SEFA organizations that one can make contributions to for a very good cause.

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