

Addressing Shortages-Building Careers

To address the current shortage of educated and trained geologists, geophysicists and engineers, AAPG President and independent geologist, Willard Green sees the need to get students interested in the sciences at a young age and foster programs throughout the education experience.

The shortage of petroleum geoscientists is certainly no secret and has been brewing for years. Did the industry downturns keep students from pursuing petroleum industry careers?

The layoffs in and around 1986, and to a lesser extent in the late 1990's, were a natural negative influence on the sons and daughters of those laid off and forced into non-petroleum areas of employment. Until recently, geoscience enrollment has been sharply lower and with many of those enrolled are planning careers in environmental geoscience, teaching or government service.

You have stated that we need to develop a student's interest in the geosciences well before college. How do you propose to do this?

AAPG, through the local affiliated societies, encourages students in elementary through high school to take scientific and technical classes. An example is my home society, the West Texas Geological Society. We send volunteers into 50 elementary schools to give geoscience talks to fourth- to sixth-grade students. Interaction with students gets them excited about the sciences by listening to professionals that work in the field. The young students can see an oil stained core, interesting rocks, and hear first hand experiences from people that have "been there." AAPG Sections also offer elementary and middle school science teachers training in geology with partial funding from the AAPG Foundation. The "More! Rocks in Your Head" seminars provide a valuable link to the petroleum industry.

The petroleum industry needs people that can step right in and start contributing. What programs are in place to help college students accomplish this?

There are many programs, including our Grants-in-Aid program. For the 51 years ending with 2007, over \$2.6 million has been granted to 2,300 high quality Master's and Ph.D. student research projects



Will Green's enthusiasm bring smiles to these students while addressing the importance and opportunities the geosciences can offer. San Angelo, Texas native Willard R. "Will" Green holds bachelor's degrees from Texas A&M University in geological engineering and petroleum engineering and a master's in geology from the University of Texas at Austin. After working for Shell Oil, GeoQuest International, BHP Petroleum and Forest Oil, he formed Green Energy Resources of Midland Texas in 1989.

throughout the world. A new program in 2007 was the Imperial Barrel Award contest that originated at Imperial College in London. Student teams used seismic and a well data set to interpret and predict exploration potential in a designated basin. The winning university received a \$20,000 gift from AAPG. The program has been expanded for 2008 to include worldwide Section and Region competitions with the final twelve to fourteen teams competing at the AAPG annual convention in San Antonio in April 2008.

The American Association of Petroleum Geologists now has close to one-third of its members living outside the U.S in nearly 120 countries. Do you see any changes or new programs for AAPG to attract even more people both here and abroad into this business and become members?

In April 2007 AAPG adopted a "Graduated Dues" structure, which allows geologists who earn less than US\$50,000 per year to

pay reduced dues. This program should attract a large number of geoscientists outside of North America to apply for membership. We are starting a new program that is to have a long-lasting impact on petroleum-related teaching and research. The Petroleum Education and Research Consortium will provide petroleum-related grants to both graduate students and professors in selected universities worldwide.

Are these programs working?

Most certainly. We have seen recent sharp increases in AAPG and student chapter membership. These programs and the current and expected continuing future shortage of energy professionals have fueled a significant university enrollment increase in the geosciences. Texas A&M, one of the largest petroleum engineering schools in the U.S., has seen an increase in enrollment from 191 in 2001 to 507 in 2006. Generally, I think half or more of these current students are headed for the petroleum industry.

Tom Smith