Compiled by David M. Abbott, Jr., CPG-04570, 2266 Forest Street, Denver, CO 80207-3831, 303-394-0321, fax 303-394-0543, dmageol@msn.com

Topical Index-Table of Contents to the Professional Ethics and Practices Columns

A topically based Index-Table of Contents, "pe&p index.xls" covering columns, articles, and letters to the editor that have been referred to in the PE&P columns in Excel format is on the AIPG web site in the Ethics section. This Index-Table of Contents is updated as each issue of the TPG is published. You can use it to find those items addressing a particular area of concern. Suggestions for improvements should be sent to David Abbott, dmageol@msn.com

Students and Job Outlook

Are there jobs for geoscience students who are leaving school? Where are these jobs? I don't have all, or even many of the answers, but I do have some observations that suggest that the job outlook may be pretty good, at least in some fields, because of the age distribution of practicing geoscientists. The current situation is not unlike the situation that existed when I entered the workforce. There were jobs and opportunities because there was an age gap preceding my age cohort.

The following age distribution histograms illustrate this point. Figure 1 presents the age distribution for the American Association of Petroleum Geologists (AAPG) in 2001.

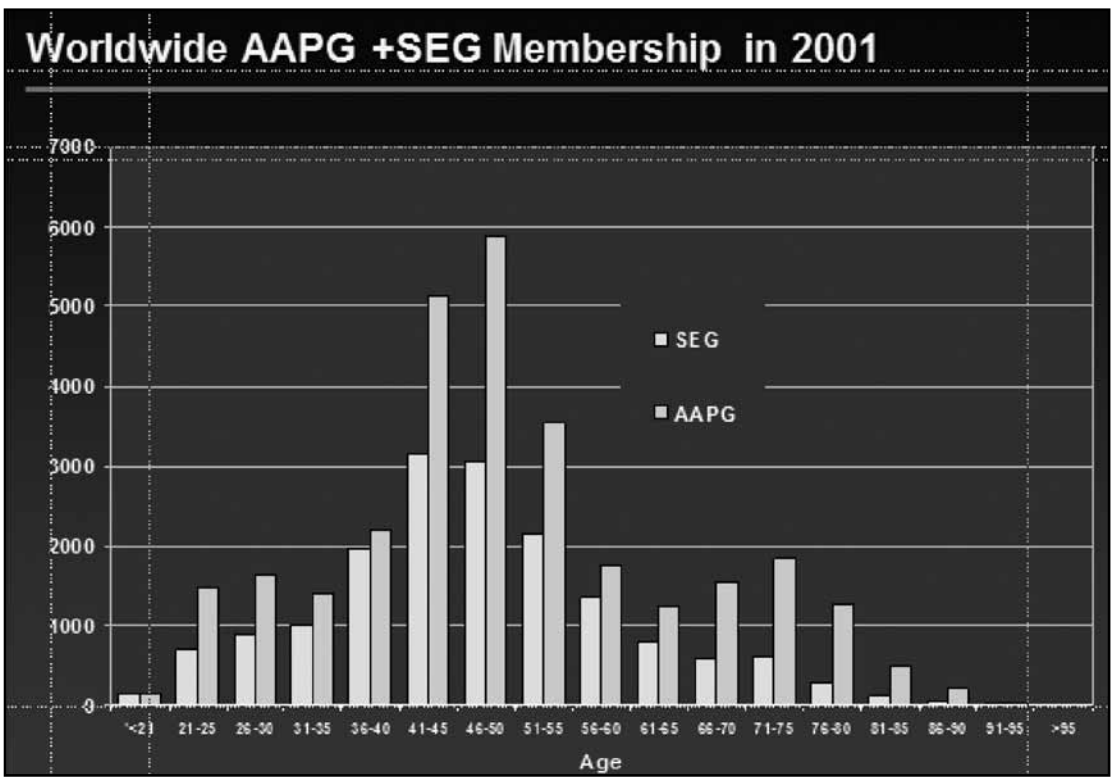

Figure 1. 2001 AAPG age distribution.

Figure 1 shows a prominent high for AAPG members for those between 41 and 55 in 2001, who are 51-65 today. There is a smaller peak for those between 66 and 80, this is the remnant of the more experienced geologists who were 15-25 years older than my cohort and which in the mid-80s resulted in a distinctly bimodal age distribution at that time.

Figure 2 presents AIPG's 2011 age distribution. While there is clearly a high between ages 50 and 69, there is still a minor peak from 80+ and another peak from 25 to 29, primarily composed of our graduate student members and those who've recently joined the profession. Figures 1 and 2 both show multiple highs with intervening lows that reflect periodic decreased job opportunities resulting from general economic swings, which affect the hiring of geoscientists. While neither the AAPG nor the AIPG data represent the whole geoscience profession, these data are consistent with similar, more broadly based analyses I've seen.

To me, Figure 2 shows that today's students and young professionals have an age gap ahead of them that means that jobs will be available and more rapid advancement will be possible both in the work place and in professional society participation. Take advantage of this. My career has benefited from the fact that AIPG welcomed me as young professional and provided the opportunity for me to participate in various activities starting at the section and then national level.

So where are the jobs? I'm no expert but

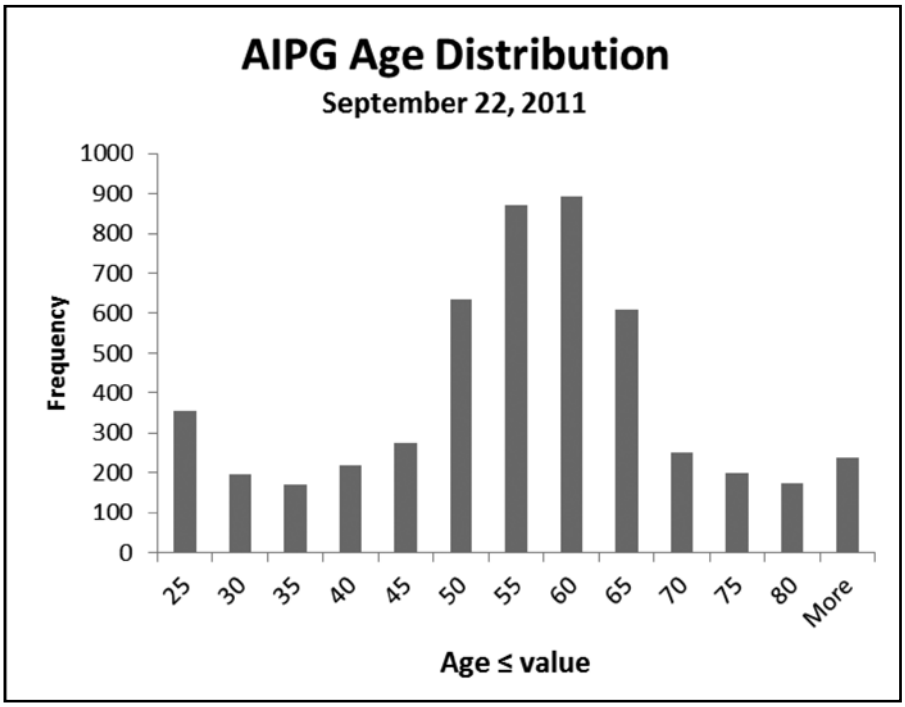

Figure 2. Age distribution of AIPG's 2011 membership.

I do know that the petroleum industry needs geologists to help exploit the shale gas plays and others that will be coming. One colleague who had started in the oil business and transferred to the environmental sector remarked that he'd like to get back in the oil business but at his age and point in his career, he didn't see this as a viable alternative. Likewise there is a need for young professionals in the mining business. The environmental business has changed over the years, but is not going away.

The cyclic nature of geoscience employment has been part of the profession for decades and downturns will happen again. By getting experience in the good times and by being flexible in your interests and abilities, your chances of continuing employment in the profession are good. The need for a broad geoscience background and flexibility during your career are the major messages of *Reflections on a Geologic Career,* which is available for free on the AIPG website under "Publications." Get a copy and read it.

Remember, the lack of a cohort ahead of you is an advantage; use it.

Blowing the Whistle—The Penn State Sex Abuse Scandal

The Penn State sex abuse scandal has been all over the news of late. While the facts are not all in, the fact that various people who knew about the problem and didn't report it to the police widened the scandal beyond the alleged perpetrator. In this case, failure to alert the police has resulted in several firings. Although those fired apparently did comply with Pennsylvania's law, they are viewed as having failed to live up to their moral obligations.

We have the same reporting obligation for violations of professional ethics. AIPG's Ethics Code, Rule 2.1.3 states, "If a Member becomes aware of a decision or action by an employer, client, or colleague which violates any law or regulation, the Member shall advise against such action, and when such violation appears to materially affect the public health, safety, or welfare, shall advise the appropriate public officials responsible for the enforcement of such law or regulation." Reporting up the chain may not be enough. The unethical situation must be corrected one way or the other. While blowing the whistle can have adverse consequences, failing to do so can also have adverse consequences.

A Hiring Question

Raphael Ketani, CPG-9003, sent me the following question. "A thought crossed my mind regarding hiring practices, both in the private sector and in the public sector, and ethics. I know of an environmental office where someone who is a managing geologist was allowed to hire a specific number of personnel without his boss indicating what type of technical specialist he could hire. This individual hired two geologists and eight engineers. Both of the geologists under him and the engineers perform the exact same duties and have the exact same responsibilities. The duties involve environmental project oversight and document review. By New York State law, the work plans and reports must be reviewed by a licensed engineer. However, the work plans and reports for the projects overseen by the geologists are their sole responsibility to review, comment on and approve or disapprove. This also holds true for the projects the engineers oversee. As I stated before, everyone performs the exact same type of work, even though none of the geologists have engineering licenses (and they are not required to get one). I know this geologist personally as I used to work under him. When this person had worked in a different office, he was given favors and opportunities to advance by the administration that he used to work under, which was comprised almost entirely of engineers. The point of all of this is that this same geologist who can hire whomever he wants prefers to hire engineers. Is this an ethics issue or just bad hiring practice?"

My initial reply to Ketani asked if the geologists and engineers were paid the same, or at least on the same scale adjusting for experience, etc.? Ketani replied that those at the same grade level were paid the same although there was an experience differential. I then sent Ketani's original question and reply to the Ethics Committee for their comments.

John Gustavson, CPG-2637, and **Larry Davis**, CPG-7105, both commented that they saw no ethics issue. There may be bad hiring practices, which is a policy matter, and may be disappointing and foolish, but such issues are not a professional ethics issue.

Rima Petrossian, CPG-10036, wrote, "No ethics issue here, but this premise that engineers are preferable over geologists is deeply held by management in the places I have worked and where my colleagues work. If they are just hired for their seal, it would be an equally acceptable practice to reverse the ratio of 2 geologists to 8 engineers to 8:2. However, as it is presented, I do not see it as a bad or good practice just a personal

preference, which you cannot legislate or dictate through professional licensing."

Perry Rahn, CPG-3724, opined, "Raphael Ketani describes an office where the managing geologist hires 2 geologists and 8 engineers. Since the New York state law requires that reports must be reviewed by a licensed engineer, and it looks like the hiring was done with this in mind. I don't see this as an ethics issue."

Fred Fox, CPG-1273, noted, "That [the supervisor] prefers to hire engineers is not an issue beyond the fact that he might not be hiring the best people. However, by hiring engineers he is hiring people who have more responsibility (by law) than the geologists, regardless of pay equity. These two facts are in opposition, but that's the way government works." Fox didn't see an ethical issue and wasn't even sure if it was bad hiring practice based on the information presented. Fox did note that this isn't the way he would have done the hiring.

Michael Ruddy, CPG-9741, responded, "There is nothing unethical that I can determine. Salary level is completely based upon years of experience. Isn't that what we all strive for? Even if a geologist is doing the same work as an engineer, in a supervisor position, then the one in the supervisor position should most definitely be paid more than one that is not in a supervisor position. Taking on a position of a supervisor brings on a higher degree of technical complexity along with a 'Human Resources' role as well. This is no different than hiring one with a B.S. degree in Geology versus one with an M.S. degree in Geology. Higher education should mean higher starting pay. Keep in mind that to date, geologist's and engineer's still have to diversify with the profession. Engineers are needed to sign off, and stamp, engineering documents that a geologist would not qualify for. The same goes for a geologist signing off, and stamping geological documents.

"If the person referenced, is a licensed geologist and is given the flexibility to hire geologist's and engineer's to fill these positions, what difference does it make? Geologist or Engineer....I would go with the ones that have more experience in the profession and whom can bring more to the table for the company that is doing the hiring. I also negate the comment of 'bad hiring practice.' You hire the person with more experience, if allowed by the company. The company is ultimately responsible for each individual they hire. The more experience, the less in liability.

"A good comparison to this is National Incident Management System (NIMS). This is a comprehensive, national approach to incident management that is applicable to all jurisdictional levels and across functional disciplines. What it boils down to is to put the individual that is most qualified into the position that best reflects the individuals experience and expertise. Within the NIMS structure, there is no tolerance for 'bruised' egos. This is not an unethical situation."

Ron Yarbrough, CPG-6545, replied, "In Illinois, the State EPA has hired geologists as supervisors because most engineers look at soils in a different way than a geologist who receives a different education as to the surface soils that can get polluted. Also, most engineers do not take organic chemistry as do most geologists. The gentlemen to whom I reported at the state concerning the clean-up of a brown field is a registered geologist. I was somewhat set back that I did not work with a state engineer. At least [Illinois] has learned that engineers cannot do everything concerning the environment."

This is clearly a case in which more detailed information would be helpful although it appears that a professional ethical issue is not involved. Evaluation of hiring decisions requires access to the detailed job description and the applications filed for the positions, which we don't have, and so we can't really determine whether or not the best qualified applicants were hired. Yarbrough's comments on the differences in outlook and training between geologists and engineers are pertinent. But these differences can be reduced by work experience. My education in economic geology did not include any mining engineering or minerals processing courses (although it did involve field trips to mines that included tours through concentrators). In working with mining engineers and mineral processing engineers I've learned more about their fields and the important contributions each profession brings to the evaluation of a mining property.

Ethics Committee Membership

AIPG's Ethics Committee is composed of AIPG members who are interested in professional ethics. I periodically send the Committee members questions, such as the one above, asking for their thoughts. Even in cases, such as the one above, where all respondents agreed that there was no ethical issue, their discussions provide a variety of useful views on the topic. Anyone interested in joining the Ethics Committee should send me an e-mail stating willingness to participate and I'll add you to the Committee.