



## Students: The Future Geosciences Job Market

As a student getting ready to graduate in the near future with your geoscience degree, you might be wondering what type of job market you are going to enter into. What sectors will be most promising to recent graduates? Are there sectors that you have not considered that you should?

At the GSA South-Central Section Meeting held 13 March 2017, the career-focused session, “The Future of the Geosciences Job Market: A Faculty and K–12 Mentor Lunch,” aimed to answer these questions. Organized by GSA’s Academic and Applied Geoscience Relations Committee past chair, Robert Finkleman, the event featured a panel of professionals from a variety of sectors to discuss these issues. Featured panelists included Ches Blevins, Executive Director, Texas Mining and Reclamation Association; Tonya Brami, Global Geoscience Recruiting Supervisor, ExxonMobil; Sharon Mosher, Dean, Jackson School of Geosciences at The University of Texas at Austin; Douglas Schnoebelen, Supervisory Hydrologist, USGS; Lowell White, Geological Specialist, Pioneer Natural Resources; and Michael Young, Associate Director, Environmental Division, the Texas Bureau of Economic Geology.

According to Mosher, the Bureau of Labor Statistics predicts that in the next decade there will be 32,000 new geoscience jobs added to the workforce. In addition, 150,000 geoscience professionals will retire. Combined with the number of students currently pursuing geoscience degrees, there is an expected gap in trained geoscientists of 90,000. This number is slightly lower than earlier predictions as a result of the decline in the oil and gas industry, which has seen a drop in the number of new hires.

Despite the downturn in oil and gas hiring, large and small companies are still recruiting, though they may be hiring in smaller numbers. Other sectors have seen an increase in hiring, including environmental consulting, government laboratories, insurance agencies, and mining. Brami at ExxonMobil emphasized that if your end goal is to work in oil and gas, remember that there is a cycle to the industry and that the outlook *is* promising.

White at Pioneer Natural Resources suggested that the unconventional resources development industry is doing well.

Working at a state geologic survey can be a worthy alternative, according to Young. With a survey in almost every state, and if you seek an employer that is mission-based and focused on outreach to stakeholders and legislators, with an emphasis on geologic hazards, you may enjoy a state geologic survey. Housed partly at universities and partly at government institutions, state surveys employ nationally 1,900 full-time staff, with many being solely government funded. The five largest state surveys include Kansas, Oregon, California, Illinois, and Texas.

At the federal level, the U.S. Geological Survey is a service-oriented pathway that involves geohazards, mapping, geospatial, and hydrogeological fields, according to Schnoebelen. There is job potential as a result of an age gap that the agency is trying to fill; however, finding a job with the USGS can be a slow and frustrating process.

The mining sector may be another alternative to research. Blevins suggested that mining is progressive in that they understand they are a competing energy source and look toward ways to make mining cleaner and more efficient than other options in order to be competitive. While there have been some cutbacks in retaining geoscientists on staff, some companies have turned to hiring consulting firms to provide expertise for short-term help, which has opened up more opportunities in consulting.

As sectors evolve in the future, the panelists had some advice to give to students, including (1) keep up good grades; (2) make meaningful contacts at conferences and meetings; (3) talk with your professors and advisors about careers; (4) learn how to communicate complex subjects to non-scientists; (5) be a good presenter; (6) learn how to work on a team and be comfortable in different roles in a team; and (7) always be passionate about your career.

—This summary was compiled through notes taken by Ryan O’Connell of The University of Texas at Dallas.