

Increasing and Enhancing the Supply of Petroleum Industry Talent

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Much has been written about the big crew change. Hiring and retaining the next generation is now a top issue for the industry. Energy supply and demand is one of the critical issues facing this generation. While alternative energies and conservation may mitigate some of the supply and demand challenges, petroleum will play a major role in powering societies for the foreseeable future. To meet this challenge takes people. And not just any people. It takes talented, highly educated, and motivated engineers and scientists to find, develop, and produce hydrocarbons.

Recognizing this people challenge, the SPE Talent Council was formed in 2007 to provide a forum in which industry, academia, and nongovernmental organizations could collaborate on initiatives to increase the quantity and enhance the quality of talent available to our industry. This involves increasing the number of students interested in the energy industry, enhancing the quality of educational programs worldwide, and encouraging graduates to pursue a career in the oil and gas industry.

To better understand what factors are important in the attraction and retention of young people, the SPE Talent Council had SPE Market Research conduct a survey of SPE members below the age of 35, who are not currently students. Invitations to participate in the survey were sent to 8,833 members in February and March 2008 and 1,711 (19.3%) responded. The distribution of the respondents' regions of origin is shown in **Fig. 1**.

More than half of the respondents hold a minimum four-year university degree (52%), while another 40% hold master's

degrees, and 7% have a doctorate. The most common university discipline is petroleum engineering at 46%, followed by mechanical engineering and chemistry/chemical engineering at 15% each. This discipline distribution is not surprising since those polled are all members of SPE. The next most common discipline for those who replied is geology at 5%. A multitude of disciplines make up the remaining 19%. Men are the overwhelming majority at 79% of the total.

Attracting Talent

The top factor in attracting these young people to a career in the petroleum industry was *income-earning potential* with 22% citing that as the key reason (**Fig. 2**). However, there are gender differences, with 15% of women listing this reason in contrast with 24% of men. Even more dramatic are the regional differences, with the high being Asia/Asia Pacific, where 33% list this reason, followed by North America at 26%, Africa at 23%, Middle East at 20%, Australia/New Zealand and Latin America/Caribbean each at 16%, and Europe/Russia at 13%.

Strong personal interest in the field is a significant factor in most regions, coming in second overall at 15%. In Africa, this is tied for top attraction factor with income-earning potential at 23% each. This factor comes in second in Asia/Asia Pacific and North America at 14% and is tied for second in Europe/Russia at 17%. The figure for Latin America/Caribbean is at 16%.

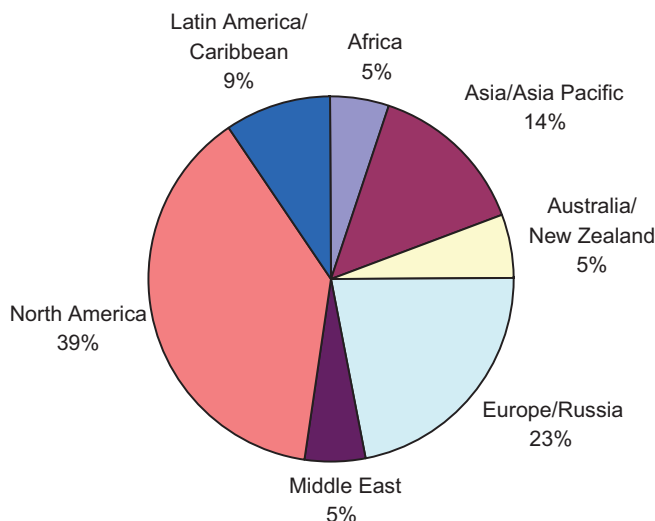


Fig. 1—Respondents to the survey by region.

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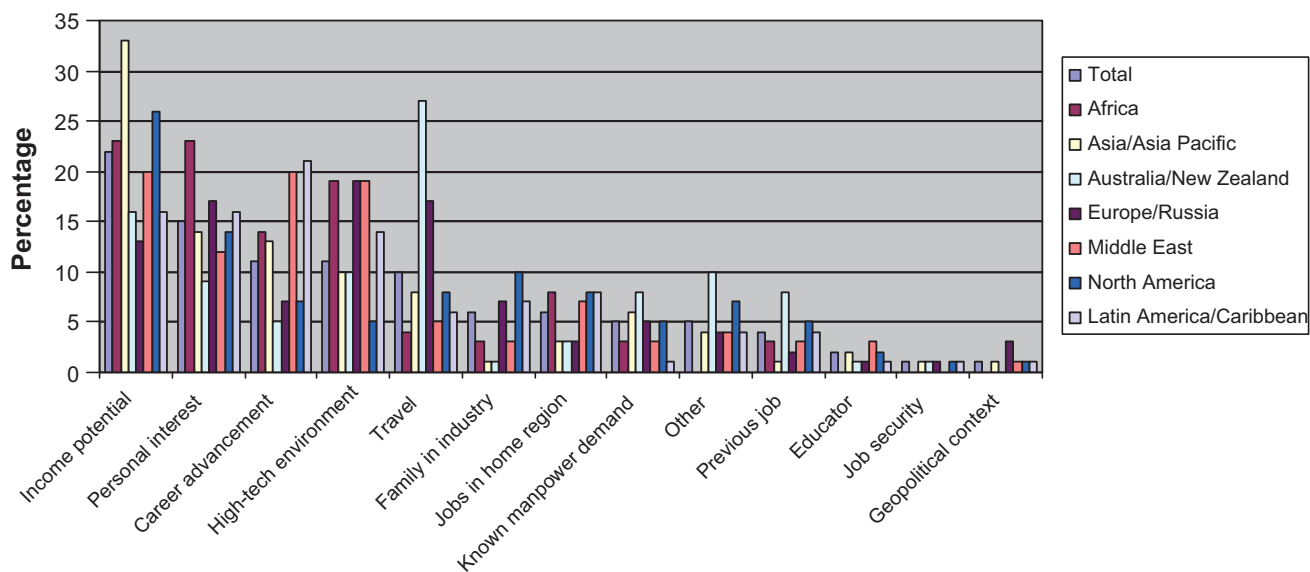


Fig. 2—Attractions to the industry by region.

Tied for third overall as attraction factors at 11% are *opportunity for career advancement* and *opportunity to work in a high-tech environment*. Opportunity for advancement is the top-ranked reason in Latin America/Caribbean and tied for first in the Middle East. Working in a high-tech environment is top ranked at 19% in Europe/Russia, almost in a tie for first in the Middle East at 19%, and third in Africa at 19%. A high-tech environment as an attraction factor in North America stood at only 5%.

The only other attraction factor to break double digits is *opportunity to travel* at 10% overall. This is the top reason at 27% in Australia/New Zealand and tied for second in Europe/Russia at 17%.

Another interesting part of the survey is the validity scores. Respondents were asked whether the initial reason for attraction was still valid. Overall, 84% said yes. For those who selected *earning potential*, the validity dropped to 78%. In contrast, 94% of those who picked the second-ranked reason, *personal interest in the field*, said they felt the reason was still valid. Those who picked *opportunity for career advancement* were the most satisfied at 97% and *opportunity to work in a high-tech environment* respondents were the second most-satisfied at 96%. Those who picked the remaining highly ranked attraction factor, *opportunity to travel*, were 81% satisfied.

This indicates that campaigns to attract people to the petroleum industry should focus on developing strong personal interest in the industry and explaining what types of education they could pursue to secure a fascinating job in the industry with ongoing opportunities for personal growth and advancement. The high-tech nature of the work (particularly in North America, where the high-tech nature of the industry is unappreciated) should be promoted. Numerous respondents recommended that the industry develop stronger advertising focused on improving the image of the industry and emphasizing career opportunities. Many respondents also recommended developing ways to educate teenagers and preteens on the advantages and possibilities gained by

pursuing a science or engineering degree and joining the oil and gas industry.

Of those responding to the survey, 92% said they would recommend a career in the oil and gas industry to high school students. This shows a tremendous reservoir of goodwill that could be tapped by using these members as industry ambassadors to students.

Retention of Young Members

The young members were also asked if they intended to remain in the industry for their entire career. Overall, 67% said yes, while 31% were uncertain, and 2% said no. This ranged from a high of 83% in Latin America/Caribbean to a low of 63% in Australia/New Zealand. While 70% of men said they intend to stay, 61% of women said they did.

The largest differences in intent to stay in the industry were by discipline. Petroleum engineers obviously make a big commitment to the industry when they select their field of study. They are at the high end of the range, with 77% of petroleum engineers planning to stay. Geoscientists have more alternatives and 68% of the geologists, 67% of the Earth scientists, and 63% of the geophysicists intend to stay. Most dissatisfied were those in the computer sciences/software discipline with only 43% intending to stay and safety/security/environmental professionals at 45%. In general, if young professionals have attractive opportunities outside of the petroleum industry, they are less certain that they will restrict their career to just our industry.

Both men (22%) and women (28%) identified *expatriation issues related to dual-career couples* as the greatest challenge they will face in their careers in the oil and gas industry. For men and women there was a second-place tie for their greatest career concern. For men, *keeping up with advances in technology* and *lack of technical career path visibility* were tied at 19%. For women, *keeping up with advances in technology* and *gender barriers* were tied at 16%. For both men and women, *barriers to career advancement* was in third place with 18% of men selecting that issue and 14% of women.

One person voiced a common perception: “Some companies make employees feel that they will not progress in the company unless they are mobile, which can be difficult especially with dual-career couples.” Another comment elaborated, “Expatriate assignments are great and almost necessary for career growth but do not account for the loss of a second income.”

For dual-career couples looking at international relocation for one of the partners, the biggest challenge may be getting a work permit for the trailing spouse. In international transfers, permission to work is determined by the government. Companies may be more effective if they work together. Permits Foundation (www.permitsfoundation.com) is an international nonprofit corporate initiative to promote access of accompanying spouses and partners of international staff to employment through an improvement of work permit regulations. More than 40 major international companies and organizations worldwide have joined the foundation to encourage governments to relax work permit regulations that currently make it difficult for spouses to work in many countries.

Dual-career couples are not exclusively a problem of the oil industry. Often both spouses do not work for the same company or even in the same industry. Again, intercompany cooperation may be beneficial. Partnerjob.com is a nonprofit that offers a worldwide database where members can post their job openings and their employee's spouse or partner can post their resumes, consult, and apply for jobs.

The perception that relocation is an important part of career advancement can be a negative, even in the absence of dual-career issues. Here are some other perspectives from survey respondents.

- “A large percentage of people do not want to move geographic locations, so they leave the company.”
- “Allow people to work in locations that they enjoy, and do not expect employees to relocate every time the wind changes direction.”

The technical career ladder is a key concern for 19% of the men and 11% of the women. One person commented, “Not everyone wants to be a manager and a lot of the brightest employees want to be a technical expert. It gets frustrating watching young inexperienced supervisors make more money than you ... just because they are climbing the managerial ladder. ... It is not fair that the supervisors who sit in meetings all day get paid better than the technical engineers who do all the work and get the oil out of the ground.”

Gender barriers continue to be a major issue for women.

- “I was initially encouraged to pursue petroleum engineering because of all the opportunities it provided, especially for women. I have found the opposite to be true.”
- “I plan to stay in the industry, but I might have children and hope that I will be able to maintain a strong career and have not seen it done in this industry yet.”
- “I am about to start a family and the industry may be too unpredictable and/or demanding for me to spend time with my family.”

Old career models are just not acceptable to the new generation of women. The word “flexibility” was frequently used by women in their proposed solutions. Female role models should be showcased to demonstrate to young women that

they can succeed in the petroleum industry. These role models should provide examples of different ways to solve work/life balance issues.

Work/life balance is important for all young professionals, and is especially difficult for those working in the field. The comments on key concerns below were from men, but could just as easily have come from women.

- “Family and/or personal situation may change. There might be career opportunities in other industries.”
- “Do not enjoy demanding work schedule (on call 24 hours). It is hard to balance work with family.”
- “This industry keeps me working late and on the weekends too.”

We are competing not just with each other, but with other industries for talent. To retain people, we need to make use of the latest technology to create flexible work arrangements.

Another concern for both men and women is *glass ceiling: barriers to career advancement*. This highlights the need for the industry to broaden its view of talent and embrace the skills and capabilities of all people. Eliminating subtle discrimination is much more difficult than eliminating blatant discrimination. There is a subconscious tendency to hire, promote, and mentor people who you see as being in your own image. Many companies have made good progress, but there is work that remains to be done.

Highlighting role models can be effective in demonstrating not only that people from diverse backgrounds have succeeded, but also how they achieved their goals. Role models can provide many people with the motivation and information they need to advance.

Conclusions

SPE young professionals have shared with us their view of the important areas to focus on to improve attraction and retention in the oil and gas industry. The very elements of the industry that can attract some people can repulse others. The study has shown strong regional differences in attraction factors and also in perceptions of the industry. Great technology, strong income potential, travel, challenge, and the ability to learn and develop a rewarding lifelong career are all attractors that could be emphasized with approaches adapted to individual regions.

This industry needs to explain to people, especially in North America, that working in the oil industry involves developing and using advanced technologies. Resources that can assist in student and teacher outreach are available at SPE's educational resource www.Energy4me.org.

Oil and gas companies, both operators and service companies, need to address the issues of diversity and inclusion, work/life balance, technical career ladders, trailing spouses, and dual-career couples. These are some of the prime reasons our young professionals listed as problems that, if not addressed, may lead them to leave the industry.

There is a common denominator in work/life balance. Smart companies will respond to this growing generational issue by creating an environment that allows everyone to devote time to their families (e.g., paternity and maternity leave, flex time, telecommuting). Overcoming the technical hurdles involved in supplying energy to meet future demand requires new insights and unconventional ideas. **JPT**