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Executive Summary

Overall, a wide range of skills are important for a successful career in the oil and gas industry; therefore employees place great emphasis on training and development opportunities when choosing their employers.

Skills and Preparation

• Ability to learn, teamwork, communication skills, work ethic, and technical skills are some of the most important skills that are required for a career in the industry.

• Universities play an important role in equipping graduates for the start of their career and are seen to be particularly good at providing computer skills, knowledge, technical skills, and analytical skills.

Personal Experience

• Upon starting a career, the majority (86.8%) of employees require training, even if only a little. Most (82.4%) expect their employer to provide them with some of this training, which tends to be a combination of formal and informal. Only a tenth (11.1%) expect the employer to provide all of their training.

Formal Training

• Two-thirds (65.7%) of respondents have received formal training, which consisted of technical training (76.5%), soft skills training (57.8%), and management and finance training (44.3%).

  • Outside companies deliver the greatest share of this formal training.

  • Formal technical training is mostly delivered by a mix of outside companies, workshops, on-the-job training, and internal training programs.

  • Soft-skills training is provided by either outside companies (28%) or internal training programs (24%).

Training and Development Opportunities

• It is important for companies to have good training and development programs, as three-quarters (74.6%) of employees state that it is important in their choice of role, and over half (53.3%) say that a lack of opportunities would be enough for them to consider leaving.
Key Skills for the Future

- Unconventionals, Deepwater, EOR/IOR, and Heavy Oil are expected to be some of the major sources of upstream production growth over the next 5 years. Importantly, there is positive awareness of the skill gaps that the industry faces in these areas, which, if not rectified, could impact production growth.

Preferences by Age Group

- When asked about the skills and attributes required to be successful in the petroleum industry, a few generational differences were noted regarding what respondents' valued most. Some of the differences in age groups were most apparent in motivation and non-technical skills.

- Respondents had different expectations of their need for training required to assume their present role. Expectedly, the amount of training needed decreased with age and experience.

- A few of the noteworthy differences exist in preferences for the mode of training, with younger respondents expecting their employer to be the primary facilitator, providing almost all training, whereas older, more experienced professionals were more self-reliant in procuring their training. Their preferences could influence the types of training companies provide in the future, and how they deliver content.

Demographics

- More than half (56.4%) of those surveyed are responsible for some form of training and development with staff.

- The respondent profile consists of members with a lot of experience in the oil and gas industry (nearly half, 46.8%, working in the industry for 20 years or more). They have been with their current employer on average 8 years and 5 months and spent at least 4 years and 8 months in their current role.

- The greatest proportion of respondents is currently based in the United States (34.5%), with the next largest based in Canada (7.5%), United Kingdom (7.2%), and Australia (4.9%).
Objectives and Methodology

The objectives of this study were to build a current picture of the level of skills needed in the global engineering community and the importance the oil and gas industry places on learning and skills development.

To address the objectives of the study, the first invitations to participate in the 2012 Training and Development Survey were sent to a random selection of SPE members on 12 November 2012.

Screening criteria was applied, which excluded the following respondents:
- Self-employed/contract professional between placements
- Unemployed
- Student
- Retired
- Not working in the oil and gas industry

The survey was open for approximately 3 weeks.

The survey achieved a sample of 773 respondents.

The response rate produced a statistical margin of error of ± 3.45 at a 95% confidence level.
Skills and Preparation
More than two thirds of respondents (69%) regard the ability to learn as a most valued attribute for success in the industry, while just over a quarter (26%) find writing to be an essential skill.

- Majority of respondents think a wide range of skills are important for a successful career in oil and gas.
- However, ability to learn, teamwork, and communication skills are perceived to be the most important skills for success.

Importance of skills for a career in the oil and gas industry
Respondents indicated that they are well prepared in technical knowledge to enter the workforce, which they also regarded as more important overall than “soft skills”

- Universities are perceived to be doing well at equipping graduates with computer skills, knowledge, technical skills, and analytical skills to help them at the beginning of their oil and gas career.

- Areas where universities are seen to not be doing well include providing graduates with initiative, flexibility, writing skills, and a work ethic – more than a quarter perceive universities as doing not well in these areas.

Performance of universities in equipping graduates for the start of their career in oil and gas

<table>
<thead>
<tr>
<th>Skill</th>
<th>Not very well</th>
<th>Not at all well</th>
<th>Quite well</th>
<th>Very well</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer skills</td>
<td>-1% -6%</td>
<td>52%</td>
<td>20%</td>
<td></td>
</tr>
<tr>
<td>Knowledge</td>
<td>-1% -8%</td>
<td>54%</td>
<td>11%</td>
<td></td>
</tr>
<tr>
<td>Technical skills</td>
<td>-1% -8%</td>
<td>52%</td>
<td>13%</td>
<td></td>
</tr>
<tr>
<td>Analytical skills</td>
<td>1% -8%</td>
<td>52%</td>
<td>11%</td>
<td></td>
</tr>
<tr>
<td>Ability to learn</td>
<td>2% -13%</td>
<td>38%</td>
<td>8%</td>
<td></td>
</tr>
<tr>
<td>Teamwork</td>
<td>-4% -19%</td>
<td>34%</td>
<td>6%</td>
<td></td>
</tr>
<tr>
<td>Communication skills</td>
<td>-4% -19%</td>
<td>32%</td>
<td>6%</td>
<td></td>
</tr>
<tr>
<td>Writing skills</td>
<td>-5% -22%</td>
<td>29%</td>
<td>6%</td>
<td></td>
</tr>
<tr>
<td>Initiative</td>
<td>-4% -21%</td>
<td>26%</td>
<td>3%</td>
<td></td>
</tr>
<tr>
<td>Work ethic</td>
<td>-7% -23%</td>
<td>24%</td>
<td>4%</td>
<td></td>
</tr>
<tr>
<td>Flexibility</td>
<td>-3% -23%</td>
<td>23%</td>
<td>3%</td>
<td></td>
</tr>
</tbody>
</table>
Personal Experience
Professionals required a moderate amount of training to assume their current role in the industry

- Only a tenth (12.8%) of people say they required no training when they started their current role.
- Majority of people (86.8%) required training, if only a little.
- Nearly a fifth (19.2%) required extensive training.

**Level of training required when starting current role**

- No training: 12.8%
- Very little training: 24.5%
- Some training: 43.1%
- Extensive training: 19.2%
- Don't know: 0.5%

Base: n=650 respondents
Most employees in the industry expect their employer to assume a large portion of the responsibility of preparing them for a new position

- The majority (82.4%) of respondents expect their employer to provide some training when starting a new role.
- Only 11.1% expect their employer to provide them with all the necessary training.
- More than a quarter (26.8%) expects to be responsible for their training and development, with the employer providing some.

**Expectations regarding training and development when starting current role**

![](chart.png)
Eight out of ten companies provide at least some formal training as their overall approach to employee development

- Two-thirds (66.5%) of training and development being carried out by organisations is a mix of formal and informal.

**Organisations approach to training and development**

<table>
<thead>
<tr>
<th>Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formal</td>
<td>13.3%</td>
</tr>
<tr>
<td>Combination of formal and informal</td>
<td>66.5%</td>
</tr>
<tr>
<td>Informal</td>
<td>17.1%</td>
</tr>
<tr>
<td>No training and development</td>
<td>2.5%</td>
</tr>
<tr>
<td>Don't know</td>
<td>0.6%</td>
</tr>
</tbody>
</table>

Base: n=645 respondents
Formal Training
Technical training is the most common form of training provided by employers, with almost a fifth having received software training.

- Two-thirds (65.7%) of respondents have received formal training in their current role.

- Of those having formal training, three quarters (76.5%) are receiving technical training, while a further 57.8% are getting soft-skills training and 44.3% management and finance training.

- Software training (17.6%) and technical courses/programs (12.6%) are the main types of formal technical training being received in their current role.

Formal training received in Current Role
(Base n=645) 66%

- 76.5% Technical training
- 57.8% Soft-skills development training
- 44.3% Management and finance training
- 10.0% Other

Formal ‘technical’ training received in Current Role
(Base n=278)

- Software training 17.6% (n=49)
- Attended technical courses/programs 12.6% (n=35)
- Management Skills 8.3% (n=23)
- Economics/Sales/Business 5.4% (n=15)
- HSE/Emergency 5.4% (n=15)
- Internal/Company-specific training 5.4% (n=15)
- Reservoir Engineering 4.3% (n=12)
- Training related to my job/position 4.0% (n=11)
- University training 4.0% (n=11)
Companies most often rely on firms that provide industry training to deliver their technical training, with workshops and courses by industry associations and on-the-job training each accounting for about a third of technical training.

- Outside companies are being used to provide the greatest proportion of formal technical training (39%), management and finance training (19%), and soft-skills development training (28%) to employees.
- More than half of all soft-skills training is provided by either outside companies (28%) or internal training programs (24%).
- University or technical college training programs are the least used to provide employees with formal training.

**Delivery of formal training in current role**
Technical training is valued most in preparing them for their job by those who indicated that they have received formal training

- All three types of formal training offered are seen to be useful in equipping respondents with skills required to meet the day to day responsibilities of their current role.

- Formal technical training has been the most useful in equipping respondents to meet the day to day responsibilities of their current role, with 60.8% saying it has been very useful to them in their current role.

**Usefulness of formal training to meet the day to day responsibilities in current role**

![Bar chart showing usefulness of formal training](chart.png)

<table>
<thead>
<tr>
<th>Training Type</th>
<th>Somewhat Useful</th>
<th>Very Useful</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical training</td>
<td>37.9%</td>
<td>60.8%</td>
</tr>
<tr>
<td>Management and finance training</td>
<td>45.8%</td>
<td></td>
</tr>
<tr>
<td>Soft-skills development</td>
<td>47.7%</td>
<td>41.3%</td>
</tr>
</tbody>
</table>
Training that professionals currently receive seems to meet or exceed their perceived need for formal training

- Most people are satisfied with the formal training they have received in their current role.
- Quality (81.5%) and content (78.6%) of training are the areas that people were most satisfied with.
- Some improvement could be made to the amount of training provided, which received the lowest rating.

Level of satisfaction with aspects of formal training received in current role

- Quality of training received: Not at all satisfied = 4.5%, Not very satisfied = 13.5%, Neither = 58.1%, Quite satisfied = 23.4%
- Content of training received: Not at all satisfied = 4.7%, Not very satisfied = 16.5%, Neither = 59.1%, Quite satisfied = 19.5%
- Met the identified training needs: Not at all satisfied = 4.7%, Not very satisfied = 21.2%, Neither = 53.4%, Quite satisfied = 19.7%
- Time made available for training: Not at all satisfied = 9.2%, Not very satisfied = 20.9%, Neither = 47.9%, Quite satisfied = 20.4%
- Budget available for training: Not at all satisfied = 3.3%, Not very satisfied = 10.8%, Neither = 20.8%, Quite satisfied = 41.6%, Very satisfied = 23.6%
- Amount of training received: Not at all satisfied = 1.0%, Not very satisfied = 12.2%, Neither = 22.4%, Quite satisfied = 48.5%, Very satisfied = 15.9%

Base: Varies by selection
Overall satisfaction with formal training is high, although three out of four felt that it can be improved

- Majority of respondents (76.8%) are satisfied with the formal training they have received in their current role.
- A fifth (20.9%) are very satisfied with the formal training they have received.

**Level of satisfaction with formal training received in current role**

<table>
<thead>
<tr>
<th>Level of Satisfaction</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all satisfied</td>
<td>0.5%</td>
</tr>
<tr>
<td>Not very satisfied</td>
<td>5.3%</td>
</tr>
<tr>
<td>Neither</td>
<td>17.4%</td>
</tr>
<tr>
<td>Somewhat satisfied</td>
<td>55.9%</td>
</tr>
<tr>
<td>Very satisfied</td>
<td>20.9%</td>
</tr>
</tbody>
</table>

Base: n=397 respondents
Training and Development Opportunities
Clearly training and development is an important consideration to most employees in planning their career progression

- Training and development opportunities are one of the most important factors employees look for when choosing their role – three quarters (75%) of respondents agree that these opportunities are important.

- Importantly, lack of opportunities would force some to consider leaving for an employer that provided opportunities in training and development.

- However, a quarter (25%) believe that a lack of training and development holds them back in their career.

**Level of agreement with statements made about training**

- **Disagree strongly = 1**
- **Disagree Slightly**
- **Neither**
- **Agree slightly**
- **Agree strongly = 5**

<table>
<thead>
<tr>
<th>Statement</th>
<th>Top 2 Box</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training and development opportunities are important to me in my choice of role</td>
<td>74.6%</td>
<td>4.0</td>
</tr>
<tr>
<td>Lack of training and development opportunities would be enough for me to consider leaving an employer</td>
<td>53.3%</td>
<td>3.4</td>
</tr>
<tr>
<td>Areas of training that I believe I should have received by now but have not</td>
<td>46.6%</td>
<td>3.2</td>
</tr>
<tr>
<td>In the past, a lack of training and development has held me back in my career</td>
<td>36.9%</td>
<td>2.9</td>
</tr>
<tr>
<td>Lack of training and development is currently holding me back in my career</td>
<td>25.4%</td>
<td>2.5</td>
</tr>
</tbody>
</table>
Some employees expressed concern that there are gaps in their receiving the appropriate training

• The majority of respondents (62.1%) are waiting to receive technical training, which they feel they should have already received.

• A significant proportion feel that they should have received management and finance training (46.4%) and soft-skills training (34.6%).

• The main barriers to receiving this training are budget and time constraints.

• However, there is hope, as nearly three quarters (64.7%) anticipate that this training will eventually be provided by their employer.

Types of training needed, but not received

[Bar chart showing the percentages of respondents needing different types of training]

Main barriers to receiving training Base: n=220

• Budget 29.6% (n=65)
• Time constraints 28.2% (n=62)
• Company lack of interest/not considered necessary 13.2% (n=29)
• Lack of organisation/plan 9.1% (n=20)
• Availability of classes 8.2% (n=18)
• Workload 5.9% (n=13)
• Job responsibilities 2.7% (n=6)
• Emphasis on new hires 2.7% (n=6)
Key Skills for the Future
Training in specific technical areas such as unconventional resources is a highly valued area of development

- Unconventionals, Deepwater, and EOR/IOR are expected to be the major sources of upstream production growth over the next 5 years.

- Other areas expected to be major sources of upstream production growth are Shale Gas and extension of well use.

- Interestingly, awareness of skill gaps is high and is highest among those that predict unconventionals to be the main source of upstream growth in the next 5 years, with a ratio of 1.46.

Base: n=612 respondents
Skill gaps can be potentially mitigated by developing training alongside developing resources

- Lack of technical skills and limited experience/knowledge are some of the main skill gaps faced within each of the areas that are expected to be major sources of upstream production growth over the next 5 years. It is important to address these gaps so that growth in these channels is not hampered.

- Improving knowledge of fracking will help to improve growth within the area of unconventional, which is expected to be one of the major sources of upstream production growth over the next 5 years.

<table>
<thead>
<tr>
<th>Channel</th>
<th>Top 5 Skill Gaps</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unconventionals (n=269)</td>
<td>Fracking 7.8% (n=21), General Lack of Experience 7.4% (n=20), General Lack of Knowledge 7.1% (n=19), Limited Experienced Personnel 5.6% (n=15), Drilling 4.5% (n=12)</td>
</tr>
<tr>
<td>Deepwater (n=200)</td>
<td>Technology 14% (n=28), Limited Experienced Personnel 13.5% (n=27), General Lack of Knowledge 10% (n=20), Safety/Risk Management/ HSE 8% (n=16), General Lack of Experience 7.5% (n=15)</td>
</tr>
<tr>
<td>EOR/IOR (n=148)</td>
<td>Technology 12.8% (n=19), General Lack of Knowledge/Understanding 11.5% (n=17), Limited Experienced Personnel 9.5% (n=14), Reservoirs 7.4% (n=11), General Lack of Training 6.8% (n=9)</td>
</tr>
<tr>
<td>Heavy Oil (n=103)</td>
<td>Heavy Oil 13.6% (n=14), General Lack of Knowledge 10.7% (n=11), Reservoirs 8.7% (n=9), Technical Skills/Knowledge 7.8% (n=8), Production 6.8% (n=7)</td>
</tr>
<tr>
<td>Water Management (n=101)</td>
<td>Technology 11.9% (n=12), Water Disposal 9.9% (n=10), General Lack of Knowledge 8.9% (n=9), Water Recycling 8.9% (n=9), Water Treatment 5.9% (n=6)</td>
</tr>
<tr>
<td>Intelligent Completions (n=84)</td>
<td>Technology 14.3% (n=12), Tools 13.1% (n=11), General Lack of Knowledge/Skills 11.9% (n=10), Limited Experienced Personnel 8.3% (n=7), General Lack of Training 7.1% (n=6)</td>
</tr>
<tr>
<td>Well Integrity (n=83)</td>
<td>Well Integrity Issues/Assessment 14.5% (n=12), Limited Experienced Personnel 8.4% (n=7), Technology 7.2% (n=7.2), General Lack of Experience 7.2% (n=6), General Lack of Training 6% (n=5)</td>
</tr>
<tr>
<td>Production and Operations (n=75)</td>
<td>Operations 12% (n=9), General Lack of Training 10.7% (n=8), Limited Experienced Personnel 6.7% (n=5), Production 6.7% (n=5), Technology 5.3% (n=4)</td>
</tr>
<tr>
<td>Arctic (n=63)</td>
<td>Environment/Conditions 23.8% (n=15), General Lack of Knowledge 11.1% (n=7), Technology 9.5% (n=6), Drilling Challenges 7.9% (n=5), Oil Spill Response 6.4% (n=4)</td>
</tr>
<tr>
<td>CO2 Capture and Storage (n=57)</td>
<td>CO2 Capture and Storage 17.5% (n=10), General Lack of Knowledge/Training 17.5% (n=10), Generation Gap 8.8% (n=5), Technology 8.8% (n=5), Legislation/Regulatory 8.8% (n=5)</td>
</tr>
<tr>
<td>Projects Facilities and Construction (n=46)</td>
<td>Facilities/Construction 15.2% (n=7), Limited Experienced Personnel 8.7% (n=4), Project Management 6.5% (n=3), Generation Gap 6.5% (n=3), General Lack of Knowledge 6.5% (n=3)</td>
</tr>
</tbody>
</table>
Preferences by Age Group
Expectations and preferences for skills development and training vary by audience

- When asked about the skills and attributes required to be successful in the petroleum industry, a few generational differences were noted regarding what respondents valued most. Some of the differences in age groups were most apparent in motivation and non-technical skills.

### Importance of Skills to Success in the Industry by Age

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Initiative</th>
<th>Work Ethic</th>
<th>Writing Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;26</td>
<td>41.4%</td>
<td>55.2%</td>
<td>13.8%</td>
</tr>
<tr>
<td>26-35</td>
<td>46.4%</td>
<td>55.6%</td>
<td>25.0%</td>
</tr>
<tr>
<td>36-45</td>
<td>43.9%</td>
<td>54.5%</td>
<td>19.5%</td>
</tr>
<tr>
<td>46-55</td>
<td>59.2%</td>
<td>59.4%</td>
<td>27.1%</td>
</tr>
<tr>
<td>56-65</td>
<td>40.5%</td>
<td>59.1%</td>
<td>30.5%</td>
</tr>
<tr>
<td>66+</td>
<td>79.2%</td>
<td>70.8%</td>
<td>41.7%</td>
</tr>
</tbody>
</table>
Expectations of training required to do their job vary with age

- Respondents had different expectations of their need for training required to assume their present role. Expectedly, the amount of training needed decreased with age and experience.

Level of Training required for current role

Perceived need for training to perform their current role

- I needed no training to prepare me for the challenges of the role
- I needed very little training to prepare me for the challenges of the role
- I needed some training to prepare me for the challenges of the role
- I needed some training to prepare me for the challenges of the role

Base: Varies by selection
The mode and method of delivery also varied by age and experience

- A few of the noteworthy differences exist in preferences for the mode of training, with younger respondents expecting their employer to be the primary facilitator, providing almost all training, whereas older, more experienced professionals were more self-reliant in procuring their training. Their preferences could influence the types of training companies provide in the future, and how they deliver content.

Technical Training

- Most age groups prefer combined structured and on the job training, but older professionals still prefer traditional academics over mentoring and online training, which younger professionals prefer.

Preferred type of training
Management and Finance

- More experienced professionals rely on hands-on methods for Management and Finance training.

Base: Varies by selection
Soft Skills

- While most age groups prefer soft-skills training internally, on-the-job, or by an outside company, older professionals are still more likely to attend a professional association workshop or training course. Younger prefer online soft skills training.

Base: Varies by selection
Other Training

- Most age groups preferred to have in-house or professional training companies provide other types of training, or engage in training online.

![Bar chart showing various types of training preferred by different age groups, with the y-axis labeled as 'Other' and the x-axis labeled as 'Base: Varies by selection'. The chart includes categories such as Online training, University or technical college training, Mentoring programs, Internal training program (like corporate university), On-the-job training (formal program), Outside companies that provide industry training, and Training workshops and training courses provided by professional industry associations (like SPE). The chart uses different colors to represent different age groups: 66+, 56-65, 46-55, 36-45, 26-35, <26.]
Satisfaction with the level of training received in their current role

- Differences in satisfaction with training they currently receive were greatest in the quality of the training they receive in their current roles, time allowed for training, and getting training that meets their needs.

- While more than half (52.2%) of those under age 26 indicate that their current training meets their needs, over half (51.7%) also indicated that lack of training and development opportunities would cause them to consider leaving an employer. This could be an indication that companies are recognizing that training and development is valued by young employees and factors in their retention. Only about a quarter of the highest age groups would consider changing jobs for lack of training and development opportunities.

Satisfaction
Demographics
The greatest proportion of respondents is currently based in the United States (34.5%). The next largest representation comes from Canada (7.5%) and the United Kingdom (7.2%).

<table>
<thead>
<tr>
<th>Country</th>
<th>Currently based</th>
<th>Country of origin</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>34.5%</td>
<td>30.4%</td>
</tr>
<tr>
<td>Canada</td>
<td>7.5%</td>
<td>6.5%</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>7.2%</td>
<td>7.5%</td>
</tr>
<tr>
<td>Australia</td>
<td>4.9%</td>
<td>3.5%</td>
</tr>
<tr>
<td>Nigeria</td>
<td>4.8%</td>
<td>7.0%</td>
</tr>
<tr>
<td>Norway</td>
<td>3.8%</td>
<td>3.2%</td>
</tr>
<tr>
<td>Malaysia</td>
<td>3.6%</td>
<td>2.3%</td>
</tr>
<tr>
<td>UAE</td>
<td>2.6%</td>
<td>0.3%</td>
</tr>
<tr>
<td>Russia</td>
<td>1.9%</td>
<td>1.8%</td>
</tr>
<tr>
<td>Brazil</td>
<td>1.8%</td>
<td>1.4%</td>
</tr>
<tr>
<td>Oman</td>
<td>1.6%</td>
<td>0.5%</td>
</tr>
<tr>
<td>Romania</td>
<td>1.4%</td>
<td>1.3%</td>
</tr>
<tr>
<td>Saudi Arabia</td>
<td>1.4%</td>
<td>0.5%</td>
</tr>
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<td>Venezuela</td>
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Base: n=773 respondents
Majority of respondents have a great deal of experience of working in the oil and gas industry, with nearly half (46.8%) working in the industry for 20 years or more.

Length of time working in the Oil and Gas industry

- 1.1% Less than 6 months
- 1.0% 6 months - less than 1 year
- 2.8% 1 year to less than 2 years
- 8.7% 2 years to less than 5 years
- 14.2% 5 years to less than 10 years
- 14.7% 10 years to less than 15 years
- 9.4% 15 years to less than 20 years
- 46.8% 20 years or more
- 1.1% Not working in oil & gas

Base: n=709 respondents
On average, respondents have been with their current employer for 8 years and 5 months.

Base: n=697 respondents
More than a quarter (27%) of respondents have been in their current role between 2 years to less than 5 years. The average amount of time spent in a role is 4 years and 8 months.

Length of time working in current role

- 10.8% Less than 6 months
- 12.2% 6 months - less than 1 year
- 22.2% 1 year to less than 2 years
- 27.0% 2 years to less than 5 years
- 14.5% 5 years to less than 10 years
- 7.2% 10 years to less than 15 years
- 2.2% 15 years to less than 20 years
- 4.0% 20 years or more

Base: n=697 respondents
The age profile of respondents is fairly evenly split between 26 and 65 years. The average age of respondents is 45 years.
More than a third of respondents have been a member of SPE for more than 15 years. The average SPE membership length is 11 years.

Base: n=605 respondents
Majority of respondents are either Engineers (47.1%) or Managers (24.5%).

**Job Classification**

- Engineer: 47.1%
- Manager: 24.5%
- Consultant: 7.9%
- Executive: 7.6%
- Geologist: 5.0%
- Educator: 2.8%
- Foreman: 1.3%
- Other: 3.8%

Base: n=605 respondents
Respondents are mostly represented by three types of companies. Service/Manufacturing, Integrated oil and gas, and Integrated (Major) oil and gas companies make up two thirds (66.8%) of respondents.

Company category:

- Integrated Oil and Gas Company: 25.3%
- Service/Manufacturing: 23.8%
- Integrated (Major) oil and gas company: 21.5%
- Consultant: 11.9%
- National oil and gas company: 10.1%
- Government: 2.3%
- Academia: 2.1%
- Other: 3.0%

Base: n=605 respondents
Drilling and Completions (29.9%), Reservoir Description and Dynamics (26.4%), and Production and Operations make up the main primary technical disciplines of respondents.

- Drilling and Completions: 29.9%
- Reservoir Description and Dynamics: 26.4%
- Product and Operations: 20.5%
- Projects, Facilities and Construction: 12.2%
- Management and Information: 7.4%
- Health, Safety, Security Environment and Social Responsibility: 3.5%

Base: n=605 respondents
More than half (56.4%) of respondents are responsible for some form of training and development program with staff

Responsibility for training

- Implementing training or development programs with staff: 32.1%
- Directly training staff: 31.9%
- Developing or planning training and development programs: 31.6%
- Selecting training and development methods from external sources: 28.4%
- None: 43.6%

Base: n=605 respondents