



How do we regenerate this generation's view of oil and gas?

An EY poll of US consumers
and oil and gas executives finds
workforce challenges are ahead
for the industry



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A seismic cultural shift is under way that will make it increasingly difficult for oil and gas companies to attract and retain knowledgeable, highly skilled workers – undermining the industry's ability to succeed in a rapidly changing world.

This shift is driven by the attitudes and perceptions of younger generations – some already in the workforce, others rapidly approaching that day – toward the industry and its impact on both the environment and society in general.

EY recently conducted an extensive nationwide consumer survey that provides an in-depth look at how Americans view oil and gas and the companies that produce them. The survey targeted people of all ages, including 16- to 19-year-old members of Generation Z, and millennials between the approximate ages of 20 and 35. We also asked many of the same questions to oil and gas executives, to see how their opinions matched those of consumers'.

The survey results show that younger generations' attitudes toward oil and gas, especially from a career perspective, present a significant obstacle. These generations question the longevity of the industry, as they view natural gas and oil as their parents' fuels. Further, they primarily see the industry's careers as unstable, blue-collar, difficult, dangerous and harmful to society.

These perceptions create a powerful disincentive for younger generations to 1) pursue education that could lead to a job in oil and gas, and 2) consider the industry for career opportunities, especially in staff functions, where employees can choose from a wide range of industries.

While some of these perceptions, especially among teens or college students, may evolve with more real-world experience, they still point to a significant challenge for oil and gas companies competing for high-value talent to lead them into the future. Further, as the industry adapts to the last-cycle challenge, the workforce needs of oil and gas companies will also evolve and require a distinctive innovation skill set not currently accounted for.

The appeal of oil and gas careers



Two out of three teens believe the oil and gas industry causes problems rather than solves them.

The survey found that 62% of Generation Z respondents consider a career in oil and gas unappealing. A surprising 39% ranked it as “very unappealing,” compared with just 4% of young respondents who said it was “very appealing.”

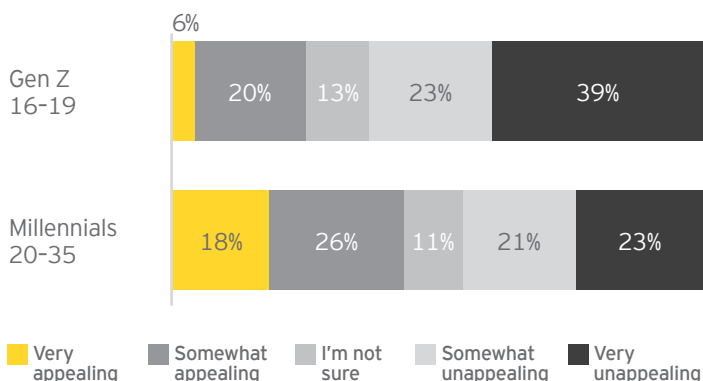
Those numbers were not as dramatic among millennials without a set career path: 45% ranked industry careers as appealing versus 44% unappealing, and 11% were unsure. But, given the economic difficulty and chronic unemployment many millennials face, that’s certainly not a positive sign.

The results disintegrate further when we delve into more detail. Just 46% of teens believe the industry offers opportunities for growth; 39% believe it provides long-term financial stability; 37% say it offers jobs for the future; and just 36% agree that it has a positive impact on local and global communities.

Perhaps most concerning, more than two out of every three teens believe the oil and gas industry causes problems rather than solves them. And teens and millennials are far less likely than older consumers to agree that oil and gas are “good for society.”

Appeal of a career in oil and gas

Q How appealing to you is a career in the oil and gas industry?



By a narrow margin (+3%), executives believe oil and gas careers are appealing to young people. By a wider margin (-11%), the young people surveyed said those jobs are unappealing.

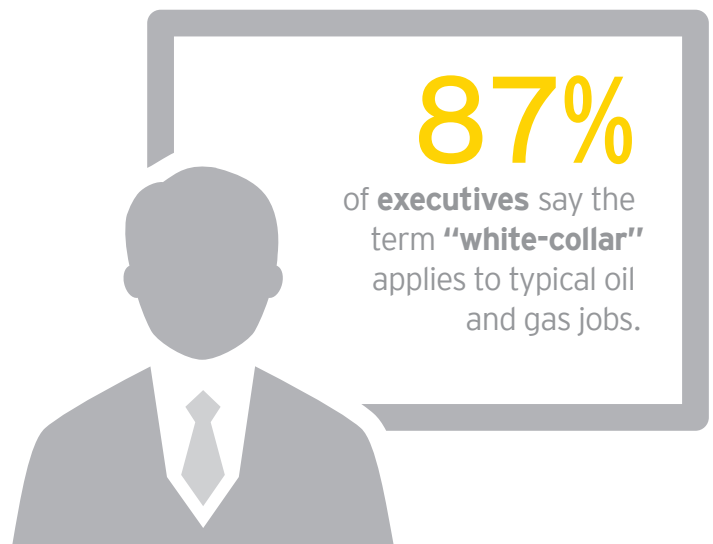
A skewed definition

Younger generations also lack awareness of the variety of jobs available in the industry. The majority see oil and gas as a blue-collar profession; only 10% of Gen Z respondents and 13% of millennials mentioned “engineer” when asked for a typical oil and gas job that comes to mind, and only 22% of Gen Z and 26% of millennials responded with a specific white-collar position. In fact, the new wave of innovation in the industry means the array of career opportunities is far more progressive than was previously the case.

What else is behind these numbers? When asked why they found an oil and gas career unappealing, more than 40% of the Gen Z respondents said it simply did not interest them.

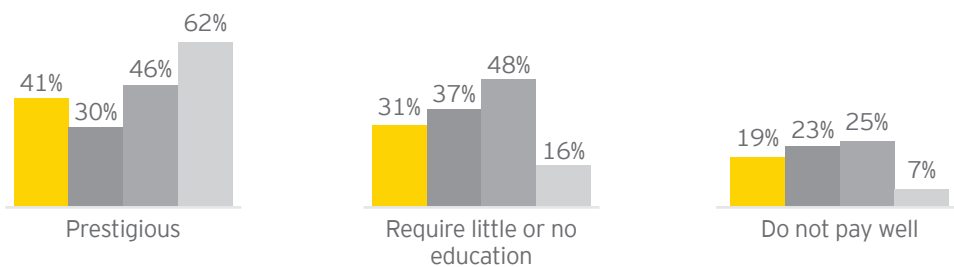
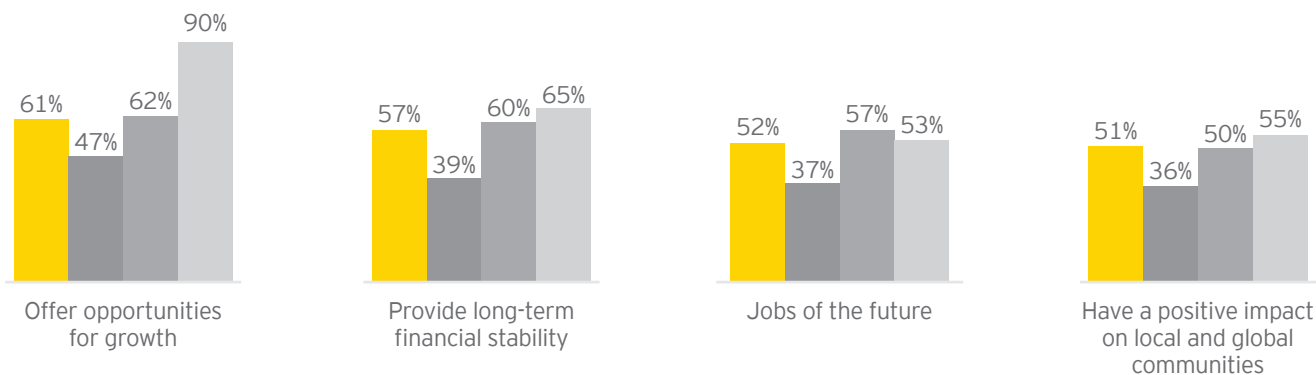
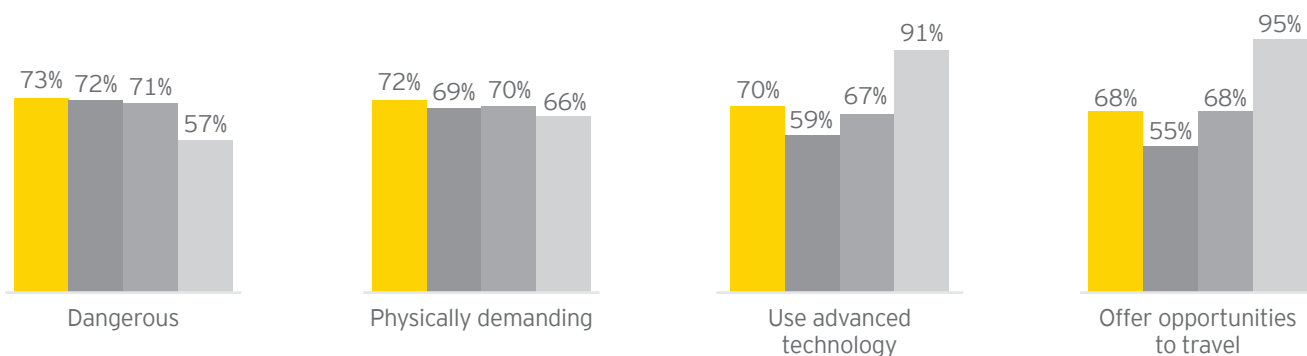
But another major reason was their awareness of environmental issues, with 23% saying the industry was bad for the environment in some way. Teens, in particular, believe strongly that oil companies do not care about what’s best for their generation, even though teens say they have the most significant stake in long-term environmental outcomes due to their age. Conversely, 66% of teens said they found a job working in green energy appealing.

Executives recognize this factor. When asked why jobs in oil and gas are unappealing to younger generations, 53% of executives said the industry is viewed as old or dirty and 21% cited environmental impact.



Describing the typical oil and gas job

Q When you think of jobs in the oil and gas industry, how well do the following phrases apply to the typical jobs that come to mind?



■ Total 16+
 ■ Gen Z 16-19
 ■ Millennials 20-35
 ■ Executives

The consumer perception is that oil and gas jobs are laborious and dangerous. Teens and adults diverge starkly on job attributes relating to the future and positive impact, with teens seeing less of both. Adults and executives hold similar views on those same traits.

The “want disconnect”

There is a significant disconnect between what oil and gas companies believe younger generations want from a job and what young people themselves say. Further, there is a gap between what executives name as the industry's strengths or weaknesses and expectations from these generations.

For instance, the industry has long believed that the general public does not understand its high-tech nature and the role that innovation plays in finding and producing oil and natural gas. But EY's survey showed the opposite: 70% of respondents recognize that oil and gas workers use advanced technology, but it does not change their perceptions of the industry or enhance job appeal.

In fact, oil and gas executives dramatically overstate the importance of innovative technology in attracting employees. The survey showed that 43% of executives believe the opportunity to use leading-edge technology is important to younger generations; but just 10% of our Gen Z and millennial respondents consider that important. Instead, the younger generations seem to view technology as a given rather than an incentive.

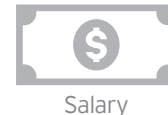
On the other hand, executives underestimate the importance of work-life balance to younger generations. Thirty-eight percent of executives think it is among the top three most effective considerations for attracting young people to jobs in oil and gas, compared with 49% of young people placing it among their top three career considerations. Further, executives seem to recognize the industry's weakness in work-life balance; only 10% said it is a strength of the industry.

Survey respondents also rated salary, stability and on-the-job happiness as important, and while executives agreed salary was a central motivator, they did not rank stability or on-the-job happiness as highly as the young respondents did. While executives agreed the industry excels with regard to salary, 61% believe job stability is an industry weakness.

What executives think young people want

Q Which of the following three considerations do you think will be most effective in attracting young people to jobs in the oil and gas industry?

72%



Salary

43%



Opportunity to use newest and most innovative technology

38%



Good work-life balance

26%



Job stability

18%



On-the-job happiness

10%



Agree with the work they would do

What young people actually want

Q When you think about selecting your future career, which of the following three considerations are the most important to you?

56%

10%

49%

37%

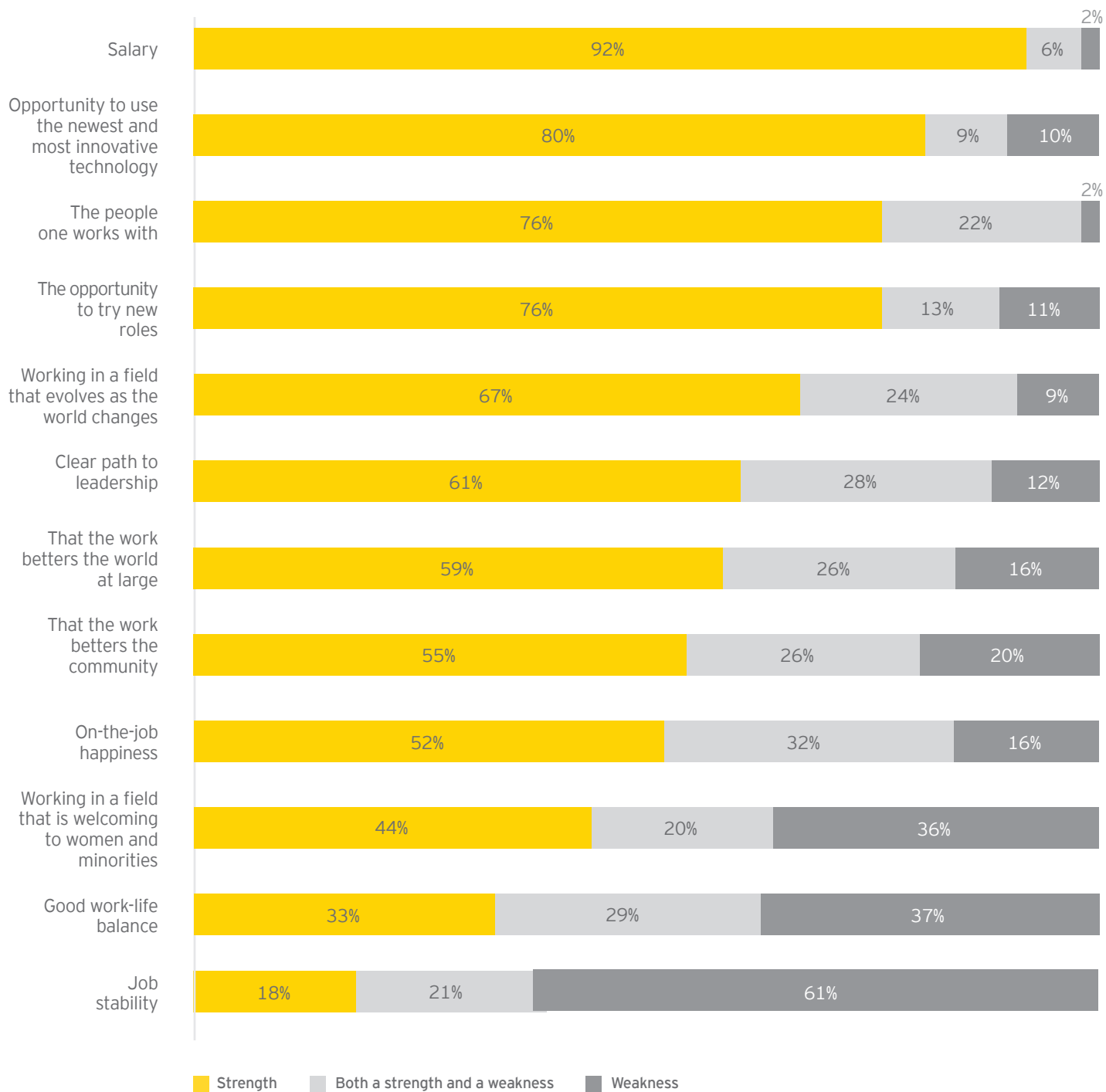
37%

24%

Young people most desire salary, good work-life balance and job stability. In executives' eyes, only one of those is a strength of the industry – salary.

Executives' views on strengths of oil and gas employment

Q For each of the following, please indicate if it is a strength or weakness of careers in the oil and gas industry.



A gender divide

In total, younger generations have an unfavorable view of oil and gas careers. But are those perceptions shared equally among young men and women?

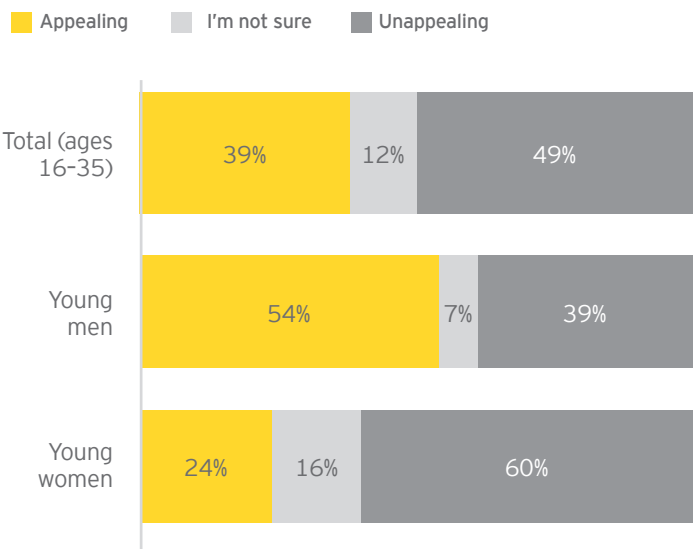
The answer – perhaps not surprisingly – is no. The overall negative appeal of oil and gas jobs among younger generations (ages 16 to 21 and 22 to 35 without a specific career path) is driven by a significant gender gap. Young women's views disproportionately impact the appeal of oil and gas jobs among all young people. In fact, the degree to which young women find oil and gas careers unappealing drives net appeal among the younger generations as a whole below zero.

The gender gap extends to individual jobs within the oil and gas sector. Young men found every single category of job more appealing than young women, and the gap was especially large in earth sciences, IT, physical sciences and engineering. The gap was less pronounced in two categories – green energy (78% to 69%) and corporate (65% to 56%).

When asked about the factors that are most important in their career considerations, both young men and women place about the same emphasis on salary and work-life balance. While executives ranked salary as an industry strength, they characterized work-life balance as an industry weakness.

Appeal of a career in oil and gas – gender differences

Q How appealing to you is a career in the oil and gas industry?



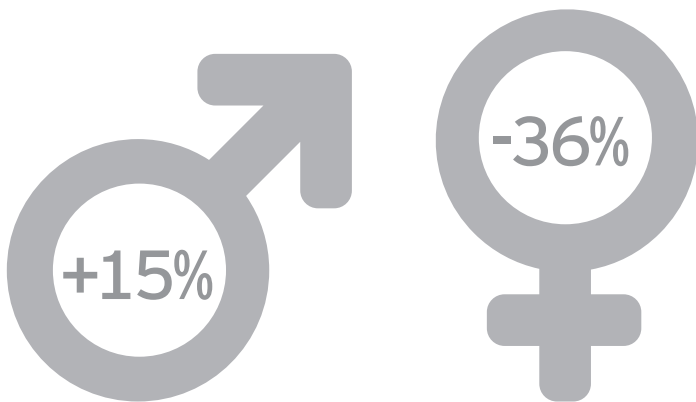
Why the interest gap matters

In the US, more women earn bachelor's degrees than men every year – a development that began in 1982 and remains unchanged today. Yet only about 20% of engineering graduates are women.

These trends create a major issue for oil and gas companies. Women, who represent a major share of the non-engineering talent pool, don't see the industry as a viable career choice, in part because it is male-dominated.

And perhaps also because the majority of the public thinks the industry primarily consists of blue-collar jobs.

The industry has taken steps to inspire girls to pursue science, technology, engineering and math (STEM) education, but those efforts have not yet paid off. In the meantime, how can companies change the perception that many young women have about the industry?

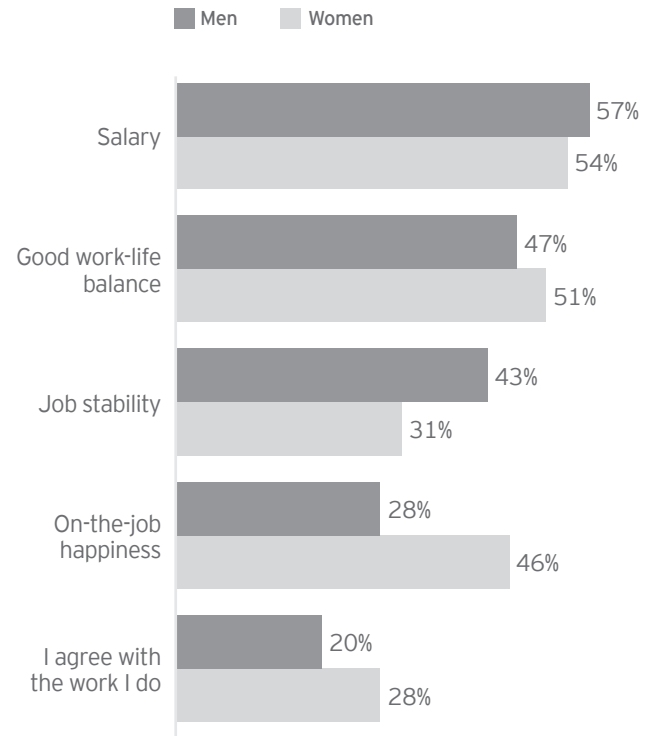


While young men are more likely to find jobs in the industry appealing than unappealing, young women are more likely to find them unappealing.



Career considerations – gender differences

Q When you think about selecting your future career, which of the following three considerations are the most important to you?



Young men value job stability more than young women, while women ranked on-the-job happiness higher.

Commit to identifying, recruiting and hiring women.

Diversity requires effort, and companies must be proactive in seeking out talented women.

Support mentoring programs and professional development. Companies that invest in networking and mentorship programs aimed at women find that employees are happier and retention improves.

A recent EY survey found that 73% of oil and gas executives believe their companies need to do more to attract, retain and promote women into leadership. The “interest gap” proves there is still much to be done.

Promote qualified women to leadership positions, especially in technical fields. Doing so sends a clear message that the company supports gender equality.

Improve visibility. Use social media and other forums to reach young people with stories of women making a difference in your company.

Other factors impacting hiring

In our experience, there are other considerations at play that make it increasingly difficult for oil and gas companies to recruit top candidates successfully.



The growing trend among large oil and gas companies to recruit only at highly selective, top-tier universities, where graduates have a wealth of job opportunities in industries that are more attractive to younger generations



The unwillingness of many candidates to move to Houston or other oil and gas-producing regions for lifestyle reasons



The industry's traditional focus on long-term benefits such as retirement plans, rather than the short-term benefits sought by younger generations, such as paid sabbaticals to advance personal interests relative to professional development



The perception that the industry is "for men" or that companies aren't open to diversity

Some of these issues cannot be easily overcome. And when added to younger generations' already negative views of the industry, they present a formidable challenge that will require companies to rethink much of their current approach to talent.

What needs to be done?

The trends that are shaping younger generations' perceptions of oil and gas are just the tip of the iceberg.

Energy abundance, thanks to technology, threatens permanent oversupply and low prices. As a result, oil and gas companies are under tremendous pressure to improve margins and optimize for the long term.

Each company's workforce, and its strategy to deploy that workforce efficiently, is a differentiator. So how do oil and gas companies transition from simply sustaining their business to creating employees, teams and organizations that innovate and execute in powerful new ways? And how do they accomplish this while addressing the evolving expectations of existing employees and the industry's lack of job appeal among younger generations?

Overcoming these challenges will require substantial change. Companies need to re-evaluate their current workforce strategies, including the adoption of technology, and plan for future workforce needs, such as the expectations of younger generations.

Break the volatility cycle

Price volatility and the industry's historical reaction to it – reducing staff and cutting pay during downturns – is well known. Even among younger generations, this reactive strategy contributes to the perception that the industry is not a stable choice for long-term employment.

Oil and gas companies' hire-and-fire strategy is especially damaging, considering that prospective employees in oil-producing locales no doubt know at least one person – perhaps even a family member – who has been laid off by an energy company. That makes individuals especially wary of careers in the industry, and it adds extra complexity when recruiting a prospective employee whose spouse also works in the industry, since two-career oil and gas families are at significant risk during a downturn.

This mentality around the industry's boom-bust cycles, partnered with younger generations' views toward oil and gas careers, poses a significant hurdle for the industry's workforce.

However, companies can minimize that staffing volatility and narrow their future talent pool needs by adopting technology.

As an example, digital automation or robotic process automation handles a range of repetitive tasks – across nearly every single function in the modern oil and gas company – that currently require staff time.

By leveraging automation to drive efficiency, companies can eliminate the need either to constantly fill new positions or cut back on positions during volatile times. The adoption of technology will also improve a company's ability to retain institutional knowledge – a tremendously important factor in light of the industry's rapidly aging workforce.

Change the face of the industry's talent

The integration of digital technology in oil and gas will dramatically change the skills needed in the industry to be successful. It will also allow companies to focus their recruiting and hiring efforts on a smaller pool of qualified individuals for key roles.

Oil and gas executives are already – somewhat – adapting to this mindset. Of executives surveyed, 81% agree the industry will need to develop an educated, highly skilled workforce over the next 10 years, in contrast to a mass workforce.

Finding, attracting and retaining that workforce may prove challenging given the younger generations' perceptions of the industry. Oil and gas companies should retool their approach with a strategic focus on their workforce needs and what makes those future employees tick.

For example, adjusting compensation and benefits strategy to align with younger generations is integral.

These generations are entering the workforce with significant college debt, and housing, transportation, insurance, etc., are all more expensive than ever before.

That means younger employees are far more focused on compensation that allows them to live better today, compared with older employees who are more focused on retirement. Thus, developing agile compensation and benefit plans that can flex to meet the needs of both sets of workers is crucial.

For example, receiving stock as a bonus is not always attractive to young employees, who tend to be skeptical of its value after vesting due to market fluctuations and the long-term stability of the

company. They prefer cash that can be used today. In other words, the type of compensation is just as important as the amount, maybe even more so.

Companies also need to change their recruiting approach and move beyond the traditional hot spots or top-tier universities. There is a great deal of talent to be found at smaller schools or those not considered elite, and those graduates may be more likely to consider a position in oil and gas than individuals with numerous high-prestige options. Finally, increased adoption of technology will necessitate that oil and gas companies recruit employees with skills in data science, analytics and digital technology.

Instill the workforce of the future today

The next generation of employees, and leaders, has different interests and expectations than most current workers. To extract the best work from their employees, oil and gas companies will need to engage and inspire their people.

This may mean identifying a collective purpose and strategic vision, integrating digital competencies and leadership, or even integrating mindfulness programs that boost each individual's contributions. Further, companies may integrate new collaboration and communication technologies to enhance employee experience, assess and coach employee teams to improve performance, or even reconfigure the physical workforce environment to heighten teaming ability.

Each of these levers can enrich a company's workforce – with the aim of improving overall company performance.

Utilizing technology to address workforce issues

Technology advances have pushed the oil and gas industry to new heights at every turn. It's no surprise that 83% of oil and gas executives surveyed think the industry is excellent or good at leveraging innovative technology.

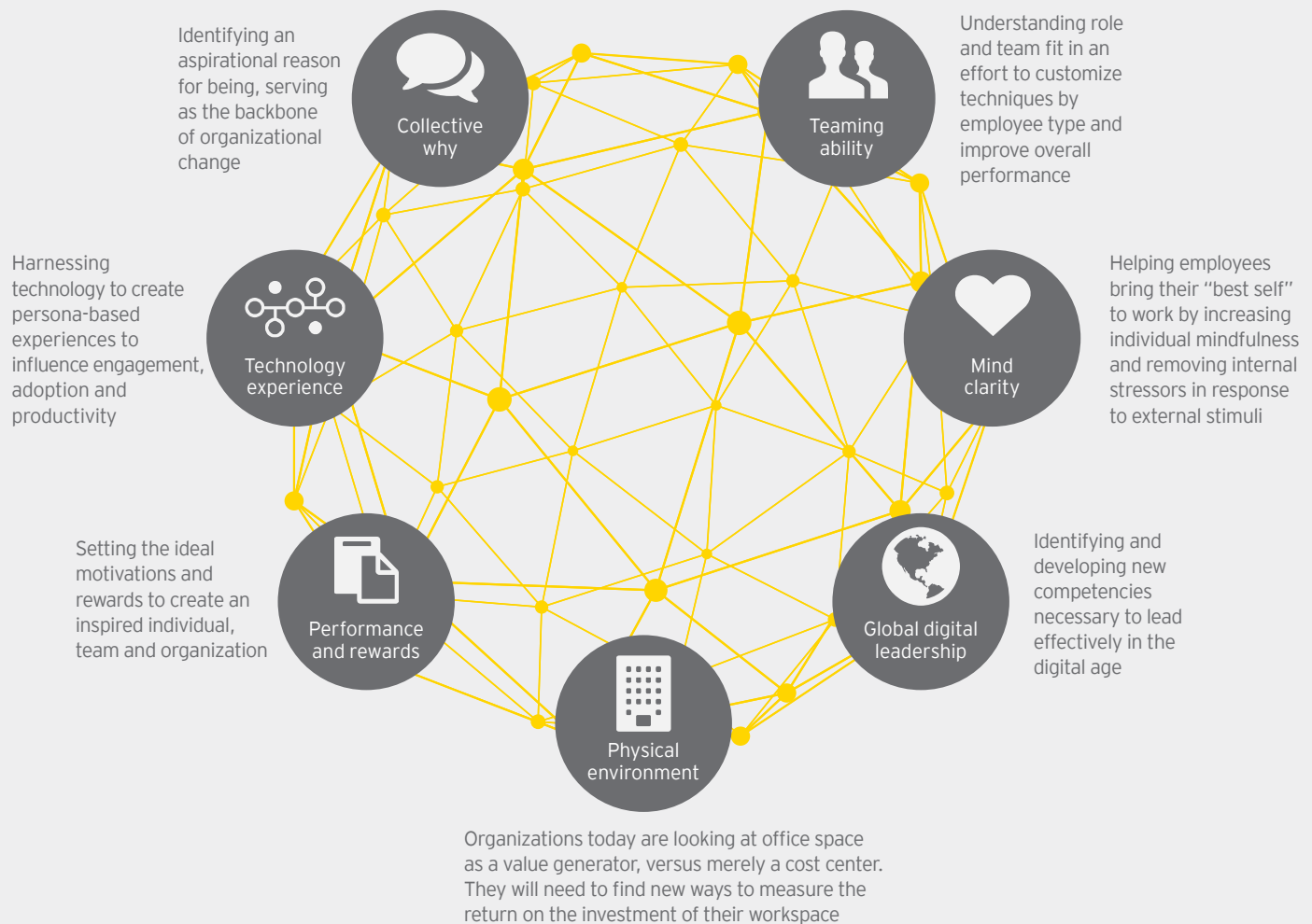
And as the industry faces abundant supply and low oil prices, it makes sense that companies would leverage technology to boost their margin. Of executives surveyed,

77% said technology adoption is driven by the desire to reduce costs, improve effectiveness and better economics.

Below the surface, the industry is a role model for creating and adapting new technology. However, those advances are not streamlined throughout the value chain.

In fact, 64% of oil and gas executives surveyed think first about front-end (in the field) processes when asked about

EY's Future Work Now offers business leaders a clear road map to organizational transition. Our framework consists of seven interconnected levers that, when orchestrated in harmony, unleash the dynamics necessary to address change fully.



new technology. Yet only 6% think first about back-office processes. Robotic process automation is a technology to improve back-office processes, and it can be implemented throughout an organization. Using customized software designed to execute business processes, robotic process automation improves methods for accessing and gathering data from different sources, moving it from one system to another and checking data consistency. It also enables companies to realize cost savings and efficiency improvements in a matter of weeks.

While better margins or lower costs are often the first reason for an oil and gas company to implement robotic process automation, digital technologies can also solve some of the perception issues among the industry's future talent pool. Oil and gas companies risk falling further behind in obtaining these skills the longer they delay implementation.

How EY can help

As the oil and gas industry faces constant and unprecedented change, EY member firms can help solve complex issues and capitalize on opportunities to grow, optimize and protect their businesses now and in the future. EY oil and gas teams combines an appropriate set of skills, insight and experience to provide strategic advice and long-lasting results.

EY can help oil and gas companies overcome the challenges of attracting talented young employees and help deliver a workforce that is skilled, committed and ready for tomorrow's challenges. We can also develop and execute an agile business strategy that supports oil and gas companies to leverage digital to seize opportunities and manage risks at every stage of the value chain. We are focused on leveraging the power of digital technology to drive efficiency across an organization, from strategy to execution.

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About the survey

The *EY Oil and Gas US Perceptions Study* was developed by subject-matter resources within EY member firms in the US Oil & Gas practice. In developing the survey, EY sought to unearth new and valuable insights not available through any other existing research.

The *EY Oil and Gas US Perceptions Study* involved two surveys:

Consumer survey

This survey was conducted online, by FleishmanHillard on behalf of EY, between 25 January and 3 February 2017. A total of 1,204 American consumers aged 16 and older were interviewed nationwide, including 1,004 Americans aged 19 and older and 200 Americans aged 16 to 18.

The data has been weighted to reflect the composition of this population according to figures obtained from the United States Census Bureau in terms of gender, age, region, ethnicity and race. Because the sample is based on those who initially self-selected for participation, no estimates of sampling error can be calculated. Answers may not sum to 100% due to rounding.

Oil and gas executive survey

EY also conducted a second survey of 109 oil and gas executives based in North America. This survey was conducted online, by FleishmanHillard on behalf of EY, between 28 February and 5 March 2017. Of the respondents surveyed, 98% currently work in the oil and gas industry while 2% worked in the industry within the past two years. More than half (55%) of respondents are C-suite members, chairmans, owners or partners in their companies; 19% are presidents or directors; and 26% are vice presidents, deputy directors, general managers or department heads. Of the respondents, 19% have more than 40 years of oil and gas experience, 36% have 30 to 39 years, 19% have 20 to 29 years, 17% have 11 to 19 years and 9% have 10 years or less.

Because the sample is based on those who initially self-selected for participation, no estimates of sampling error can be calculated. Answers may not sum to 100% due to rounding.

Note: in the survey, net responses were calculated by subtracting the percentage of negative responses from the percentage of positive responses.

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How EY's Global Oil & Gas Sector can help your business

The oil and gas sector is constantly changing. Increasingly uncertain energy policies, geopolitical complexities, cost management and climate change all present significant challenges. EY's Global Oil & Gas Sector supports a global network of more than 10,000 oil and gas professionals with extensive experience in providing assurance, tax, transaction and advisory services across the upstream, midstream, downstream and oil field subsectors. The Sector team works to anticipate market trends, execute the mobility of our global resources and articulate points of view on relevant sector issues. With our deep sector focus, we can help your organization drive down costs and compete more effectively.

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