

UNIVERSITY of **HOUSTON** | UH ENERGY

The Energy Workforce and COVID-19: Data-Driven Policy Recommendations

Authored by UH Energy in collaboration with the
Center for Applied Psychological Research

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Her research has been published in top journals in her field, and her research on topics such as the work-family interface, mentoring and diversity has been cited more than 3000 times. Her work has been funded by NIH and NSF and she currently serves as the principal investigator on a National Academies of Sciences, Engineering and Medicine grant that examines mindfulness interventions as mechanisms to enhance the health, well-being and safety of offshore workers in the Gulf of Mexico. Her recently published book "Research Perspectives on Work and the Transition to Motherhood" examines work-family interface issues facing parents who attempt to reconcile work, family demands and their own health and well-being. Dr. Spitzmueller has worked on joint research projects with energy companies for more than 15 years, including projects with BP, Saudi Aramco, Baker Hughes, ExxonMobil and Diamond Offshore Drilling.

She served as the Managing Director for the NSF funded Center for ADVANCING UH Faculty Success (ADVANCE) from 2017-2019. The UH Center for ADVANCING Faculty success has contributed to UH benefitting from a highly diverse faculty workforce that aims to represent the diversity of the UH student body.

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The Petroleum Equipment & Services Association (PESA) is the unified voice for the energy industry's services and equipment organizations, advocating for and supporting this sector's achievements in job creation, technological innovation and economic stability. PESA is a trusted resource, advancing member priorities on key industry issues.



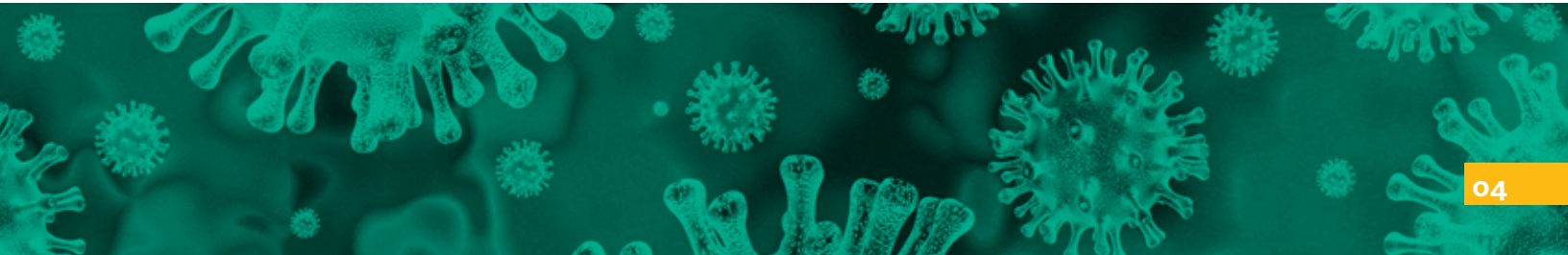
The Independent Petroleum Association of America is the national trade association representing the thousands of independent crude oil and natural gas explorers and producers across the United States of America. It also operates in close cooperation with 44 unaffiliated independent national, state and regional associations, which together represent thousands of royalty owners and the companies that provide services and supplies to the domestic industry.



Pink Petro™ is the leading resource and community creating an inclusive energy workforce for the future. The global community has a presence in 120 countries in nearly 1000 companies across energy in oil and natural gas, utilities and renewables. Our Global Corporate Council connects the energy industry to resources and best practices and is a neutral platform for dialogue and actions to address equality and inclusive culture.

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EXECUTIVE SUMMARY

Background and Methodology

The global COVID-19 pandemic, the abrupt vanishing of energy demand in response to social distancing, and the rapid drop in oil prices have combined to create unprecedented challenges for the energy industry. A University of Houston-led team of researchers examined how energy companies and energy workers are handling the crisis, and what practices and policies are helping employees effectively deal with COVID-19 imposed challenges.

UH Energy worked with two industry associations – PESA, the Petroleum Equipment and Services Association; and IPAA, the Independent Petroleum Association of America – and Pink Petro, a community which focuses on advancing women and environmental challenges facing the energy industry, to gather data from a cross-section of energy workers. Data were collected from 408 energy workers via an online survey between March 25 and April 1. On average, participants had 16 years of work experience in the industry; 83% worked in the oil and gas sectors, with the remainder split between alternative energy and the power and utility sectors.

Project Results

The UH Energy team found that workers give their employers high marks for how they have handled the crisis. However, they are far less optimistic about their job security and the future of the industry as a whole.

More than half – 53% – said the pandemic had caused them to worry about job security. Almost four out of 10 are worried about paying their mortgages and other bills. And only 47% said they are optimistic about the long-term health of the energy industry.

Overall, almost 90% of employees said their companies have responded to the pandemic effectively, with employees basing that on three issues: (1) whether the company had provided clear and honest information about the issue; (2) whether it had provided support to help workers juggle work responsibilities with those for children who were suddenly out of school and for their aging parents; and (3) the extent to which the company had been prepared for the prospect of a global viral pandemic.

Interestingly, even though the research team expected differences between energy workers who had weathered previous boom and bust cycles, there were no differences in the current study – energy workers found the current events equally unsettling, whether or not they had previously experienced boom and bust cycles.

The pandemic has not slowed the importance of Environmental, Social, and Corporate Governance (ESG) initiatives to the current workforce of the industry. The employees indicated that the companies must invest even more in employee health and well-being. Further, they said that the companies should continue growing projects supporting their local communities.

The results shed valuable light on what companies are doing right and what they can do to better manage their workforce. That's especially important because energy workers – in Texas and across the United States, as well as in many other countries – have been classified during this pandemic as essential employees and are expected to continue working even as other businesses shut down.

EXECUTIVE SUMMARY

Highlights by the Numbers

- **53%** said they felt insecure about their jobs due to the pandemic; **39%** said they worried about paying their mortgage and other bills during the coming year.
- **46%** said they are optimistic about the industry's future; age or years of experience did not affect that, although people with children at home were slightly less likely to be optimistic about the industry.
- **83%** of workers said their company had provided “fast and efficient technology” for working remotely. **71%** said their supervisor worked effectively with employees to resolve conflicts between work and family life due to COVID-19.
- **37%** reported that concerns about the virus were affecting their sleep. That was especially true for people whose workload has increased due to the virus; people who struggled more with conflicts between work and family responsibilities and those worried about job security also reported problems sleeping. Poor sleep carries implications for workplace safety.
- About **27%** said they had trouble remembering instructions, and **21%** said they had trouble paying attention to details since the outbreak began, also suggesting safety risks.
- **5.4%** of workers reported symptoms consistent with COVID-19 but said they had been unable to get tested. **0.2%** said they had tested positive. The researchers recommended that industry advocate for widespread testing of energy workers, along with strict guidelines prohibiting reporting to work when employees are sick and paying all workers who experience symptoms.
- **55%** of respondents believe that the current pandemic indicates that the energy industry should invest even more in employee health and well-being. Similarly, **51%** agreed that COVID-19 crisis shows that energy companies should invest even more in projects supporting their local communities.

Policy Implications

The report includes recommendations of how industry leaders can best navigate the crisis in terms of managing their workforce. The study further provides evidence for the type of data-driven policy solutions companies will need to start discussions about building the future of the energy industry and its workforce in a fundamentally different context.

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ENERGY WORKFORCE COVID-19 OUTLOOK

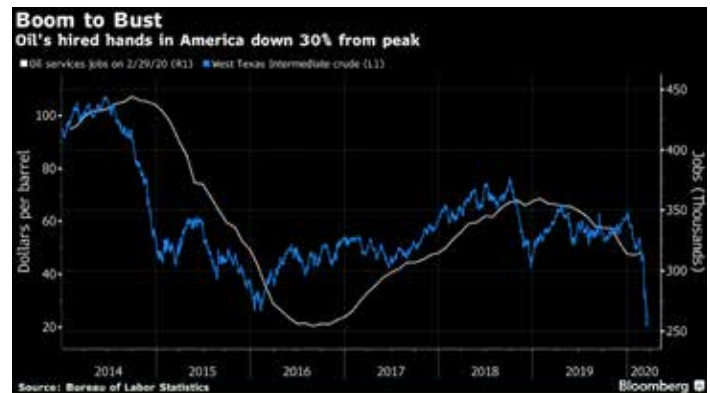
Situation Overview: Economics and Workforce

Despite its cyclical nature, the energy industry, specifically the oil and gas sector, is currently in a state of turmoil not seen in several generations. National newspaper coverage captures how the overall energy workforce and communities like Midland, TX, are affected by the unprecedented perfect storm of COVID-19, reduced demand for energy, and the OPEC-influenced low in oil prices. Similarly, impacts of the breakdown in supply chain as well as reduced industrial demand have also disrupted the renewable energy sectors and the electrical energy industry, respectively.



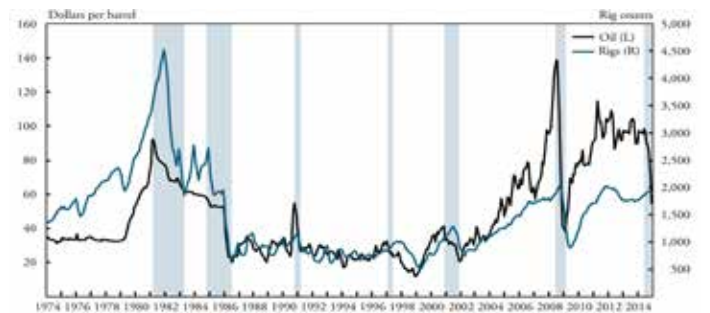
Focusing on the issues of the oil and gas industry, predictions about the energy industry's future, and the future of its workforce vary, but many paint a dire picture for short-term prospects and reach more optimistic conclusions for the industry's long-term outlook. The loss of demand and the continued geopolitical tensions leading to a vast surplus of oil and gas suggest a highly depressed price structure for crude oil and refined products for a period well after the conclusion of the COVID-19 related economic pause. Recent models suggest a significant drop in the size of the energy workforce will occur in the next year, with contractors likely to be hardest hit as low oil prices and demand reductions caused by COVID-19 interact and create lower labor demand. At the same time, the energy industry and its workforce has proven highly resilient and adaptable to prior downturns² and have successfully leveraged technological opportunities to drive innovation and efficiency when energy prices are low.

Figure 1: Oil Price Trends since 2014 to 2020

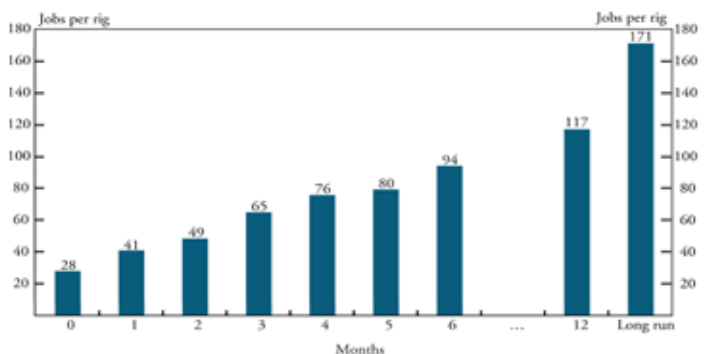


Source: Bloomberg.

Figure 2: Oil Price Trends 1974 to 2014 and the Employment Associated with Each Additional Rig Deployed



Note: Blue bars denote periods of oil price declines of 30 percent or higher.



Source: Kansas City Fed

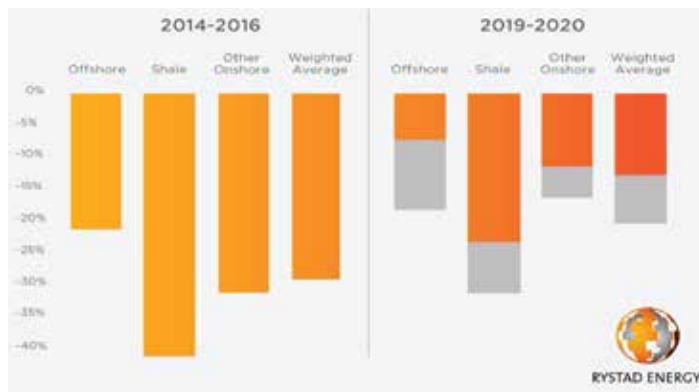


Anticipated Workforce Impacts of COVID-19 and Low Energy Prices

For energy industry workers, these are stressful times – uncertainty about the future of the industry; job security, and concerns about COVID-19's impact on the industry and on personal lives are substantial. In the United States alone, reductions in force are likely to affect 19% of offshore workers in 2020, and contractors by over 20%.³ Research on the lower oil prices in 2015 can be used to estimate anticipated job losses as a result of lower demand and energy prices in 2020.²

These analyses show that job losses per drilling rig transitioned from active to inactive can amount to the mid-term loss of approximately 171 jobs.³ In other words, the economic impact of lower demand translates into ripple effects for economic sectors beyond energy.

Figure 3: Predicted Employment Reductions



Source: Rystad Energy

Current Study: Energy Workforce COVID-19 Experiences and Challenges

What motivated UH Energy and three of our long-term strategic partner organizations to conduct this study? In conversations with industry experts and employees, it became clear that energy companies are utilizing innovative technological advances and policy changes to address workforce challenges that arise on the basis of the combination of COVID-19 and low energy prices. At the same time, employers, managers, and HR professionals have developed a myriad of questions surrounding the handling of the current crisis in a data-driven and evidence-based fashion. This was deemed relevant because only evidence and data-driven policy solutions are likely to achieve the desired impact effectively and efficiently, minimizing the need for trial and error approaches to policy development and implementation. Through conversations with our strategic industry partners, and based on our team of faculty experts (Dr. Christiane Spitzmueller, an Industrial/Organizational Psychologist who focuses on workforce development and safety in the energy industry; Dr. Ramanan Krishnamoorti, UH Chief Energy Officer and Professor of Chemical

and Biomolecular Engineering; and Dr. Rhona Flin, Professor of Industrial Psychology at Robert Gordon University in the UK who studies safety in the energy industry), we determined three key questions that need to be addressed to provide energy industry employers, managers, HR professionals, and employees with answers that can guide policy development and decision making.

1. What determines if energy employees view their companies as effective in reacting to low energy prices and COVID-19?
2. What are best practices for mitigating the impact of COVID-19 and low energy prices on safety and energy employees' health?
3. What are implications of the downturn for Health, Safety and Environment, as well as Environmental, Societal, and

Method 1: Energy Workforce COVID 19 Outlook – Industry Partner Associations

In order to provide a timely perspective and gather early-stage data (i.e. the first week of the lockdown period in parts of Texas, and the week preceding the end of the OPEC agreement on April 1, 2020) on these important questions, UH Energy and three of UH Energy's long-term strategic partners developed this study. UH Energy constitutes an umbrella organization within the University of Houston dedicated to generating independent, cutting edge, third party knowledge to inform policies, research, and innovation in the energy industry. Altogether, in partnership with three industry associations, we gathered data from a broad cross section of energy workers, resulting in responses from 408 energy workers. The partners for the current study were (1) IPAA, the Independent Petroleum Association of America; (2) PESA, the Petroleum Equipment and Services Association, and (3) Pink Petro, an energy industry association focused on advancing women and environmental challenges facing the industry. These organizations sent out email invitations to their members giving them the opportunity to participate in the study. Responses were anonymous. We obtained approval for this study by the University of Houston's Institutional Review Board, an ethics board governed by federal regulations for protecting human participants in research. Note that Institutional Review Board approval results in data collected for this study to not be subject to Freedom of Information Act requests, further protecting respondent anonymity and confidentiality.

Method II: Survey Development Using Published Scales and SME-Derived Content

With input from our industry partners, UH Energy developed a web-based survey tool administered through the Qualtrics platform that was launched March 25 and closed on April 1, 2020. Completion time for the survey ranged between five and ten minutes. Participants were entered into raffle drawings for Amazon gift cards. Raffle incentives used for data collection for this study are consistent with survey industry standards and best practices for obtaining high survey response rates^{4,5} and data quality, with comparable incentives being used for surveys across industries if participants are requested to complete surveys during non-work hours.⁶⁻⁸

Survey questions consisted of items from three sources: We gathered validated items published in peer-reviewed journals to assess the majority of constructs in the current study. Overall, the survey captured company workforce policies during the pandemic, assessed work-family interface issues, safety critical domains and COVID-19 specific issues as well as corporate social responsibility initiatives. Where validated scales were not available, we used subject matter experts at the University of Houston and our industry partner associations to develop question content, and to pilot test the instrument to ascertain appropriate reading levels and brevity. Last, Pink Petro added survey items specific to the needs of the Pink Petro membership (analyzed separately and not included in this report) and consistent with Pink Petro's focus on advancing women's careers in energy.

Method III: Study Participants – Work Experiences and Demographics

Study participants were currently active across the energy industry. Sample job titles are listed in Table 1. On average, participants had 16 years of work experience in the energy industry (range: 1 to 55 years). The largest proportion of the surveyed energy industry employees worked in technical or engineering roles. 83% of the sample reported working in Oil and Gas, with the remainder working in other sectors of the energy industry (i.e. power and utilities, alternatives). On average, participants were 43 years old (sd=12 years), and 64.1% of the sample were female. Note that we oversampled women and energy workers from racial minorities in order to be able to examine the effects of organizational policies and practices on the parts of the energy industry that are expected to grow in the future. Further, we note that offshore and field workers are probably under-represented but the urgency of the issue and the importance to industry of having answers about best practices as the crisis is unfolding, overrode those concerns. We expect to overcome these limitations in future surveys to understand the full impact of this global pandemic on the energy industry.

73% of the sample had their primary residence in Texas, followed by approximately 8% who lived in California, 5% who lived in Colorado, 2% in Pennsylvania and less than 2% lived in other states respectively. Majority of participants self-identified as White/Caucasian (62.2%), followed by Asian (12.1%) and Hispanic/Latino (11.1%) and African American (6.2%).

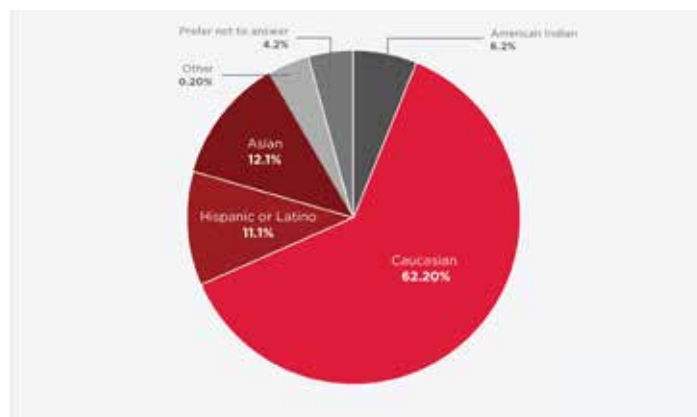
Table 1: Sample Job Titles for Survey Participants

Mechanical Engineer	Engineering Manager
VP Sales & Marketing	Information Technology Manager
Director Global Offshore	Administration/ Support Executives
Advisor	Procurement & Supply Chain Executives
Sales & Marketing Manager	Health, Safety & Environment Supervisor
Field Engineer	Human Resources Manager
Manager	Communications Manager
Process Engineer	Business/ Accounts/ Finance Analysts
Application Chemist	
Senior Associate	
Technical Safety Engineer	

Figure 4: Participant Disciplinary Backgrounds (in %)



Figure 5: Ethnicity of Survey Participants (in %)



Method IV: Study Participants – COVID-19 Infection Status

Finding: 5.4% of surveyed energy workers reported COVID-19 consistent symptoms, but inability to obtain testing.

Implications & Recommendation: We recommend industry groups consider continued advocacy for widespread access to COVID-19 testing for energy workers, strict guidelines to not report to work when ill, and payment of wages to workers experiencing symptoms.

We asked participants if they had experienced a COVID-19 infection. One of our participants had tested positive for COVID-19. Interestingly, 5.4% of the participants had experienced symptoms consistent with COVID-19 but were not able to get tested. We conducted follow-up analyses comparing those who had experienced symptoms to those who did not, and identified significant differences between the groups. Consistent with research on stigmatized health conditions such as COVID-19⁹, those who reported experiencing symptoms were more likely to report lower levels of support from coworkers and supervisors than those who had not experienced any symptoms. A rate of 5.4% of individuals who experienced symptoms but were unable to obtain testing suggests that prior to and during our data collection, access to widespread testing was not available to energy workers. It is thus possible that some of those who had not been able to obtain testing might have been more likely to expose others than individuals who were able to confirm a diagnosis and then receive appropriate treatment. Given the prevalence of offshore facilities and proximity between energy workers while at operational sites and the associated inherent public health risks, we recommend industry groups consider continued advocacy for widespread access to COVID-19 testing for energy workers, particularly those in key operational roles, along with strict guidelines to not report to work when ill, and robust sickness and family leave policies for workers or their families experiencing symptoms to increase the likelihood that employees with symptoms or potential exposure are able to stay home.

Consistent with media reports^{10,11} indicating that young and middle-aged individuals are unlikely to be strongly concerned about contracting COVID-19, we found that participants (who were on average in their early 40s) expressed strong concerns over possible infections of family members and coworkers but fewer worries about being infected themselves.

Results: How do energy employees view their company's policies and practices in reaction to COVID-19? What determines whether they view their company as effective in managing its reaction to low energy prices and COVID-19?

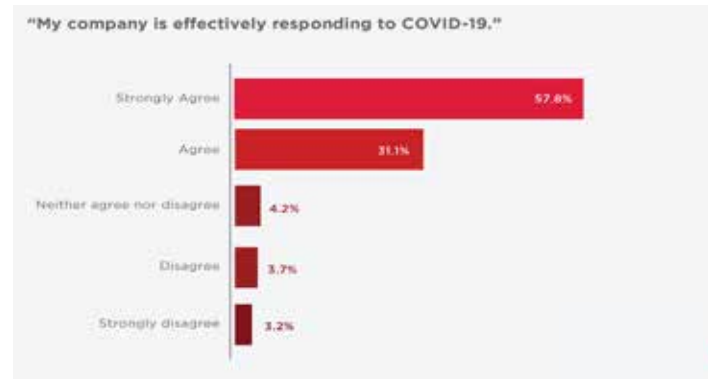
Next, we analyzed how prevalent specific COVID-19 workforce policies were across the energy industry. The graph below shows that while some policies have been almost uniformly adopted (e.g. providing flexibility to work from home, implementing social distancing requirements and efficient technology for remote work), others were only adopted by a small number of organizations (e.g. provision of backup care solutions for child and elder care during COVID-19).

Finding: Overall, the energy industry is dealing very effectively with the challenges posed by COVID-19.

Implications & Recommendation: Companies were perceived as effective if they pursued three strategies – (1) High quality communications, the provision of transparent, sincere, timely information to employees, (2) work-life interface support to help employees navigate challenges to meet work and personal life demands during COVID-19, and (3) pandemic preparedness.

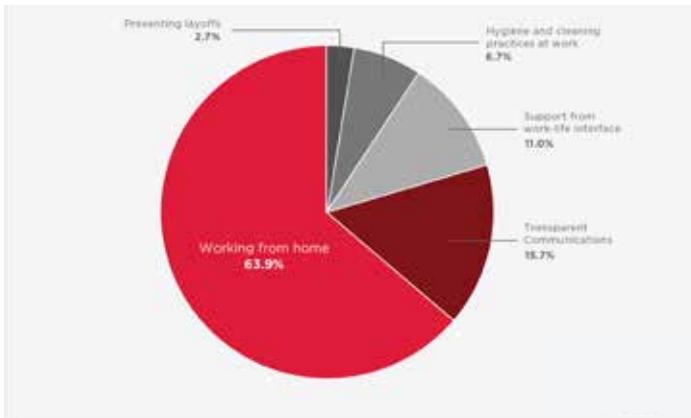
Overall, close to 90% of energy company employees agreed or strongly agreed that their company's response to COVID-19 was effective.

Figure 6: Participants' Opinion on Effective Company Response to COVID-19 (in %)



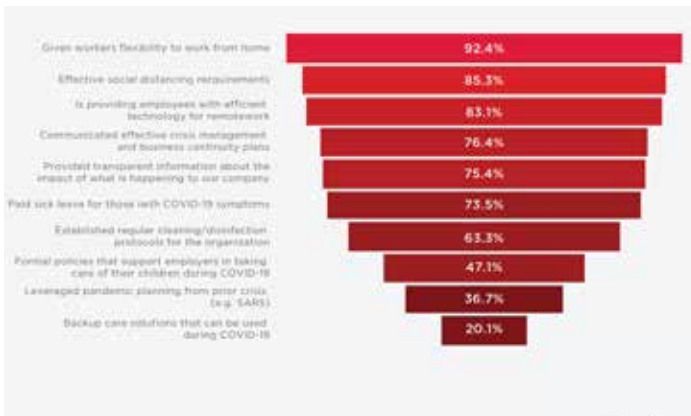
To further our understanding of the most efficient and valuable best practices, respondents were asked to list a single measure taken by their company that helped them deal with the COVID-19 crisis most effectively. Broadly, the qualitative responses can be categorized as: support for working from home or remote work, preventing layoffs, support for work-life interface, hygiene and cleaning practices at work, and transparent communication.

Figure 7: Best Practices and Policies Adopted by Companies in Response to COVID-19 Considered the most Effective (in %)



Next, we analyzed how prevalent specific COVID-19 workforce policies were across the energy industry. The graph below shows that while some policies have been almost uniformly adopted (e.g. providing flexibility to work from home, implementing social distancing requirements and efficient technology for remote work), others were only adopted by a small number of organizations (e.g. provision of backup care solutions for child and elder care during COVID-19).

Figure 8: Identified and Implemented Practices by Companies



Employees viewed their company's COVID-19 response as effective if they addressed three key areas:

1. Transparent information and clear communication:
 - Had developed and shared crisis management and business continuity plans with employees.
 - Had managers who provided workers with supportive and strong messaging on what was happening with their company.
 - If they were effectively using a variety of communication channels (e.g., email, social media, daily texts, intranet communications) to keep employees abreast of developments.

- Provided workers with transparent information on what was happening to their company.
- Pledge continued support to employees and expressed sincere intent to mitigate downsizing.

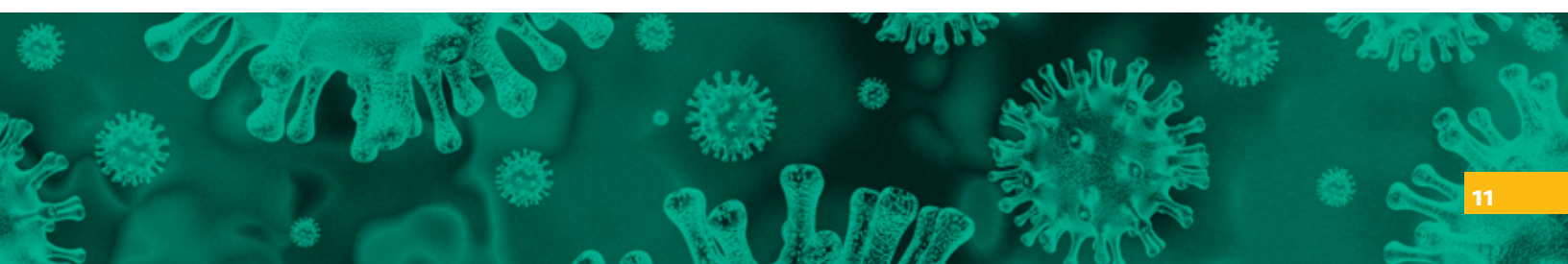
2. Work-life interface support:

- Provide employees with fast and efficient technology for remote work.
- Gave workers significant flexibility in working from home during COVID-19.
- Had formal support policies for dealing with child care challenges during COVID-19.
- Had formal backup care for children that could be used during COVID-19.
- Provided paid sick leave to individuals with COVID-19 symptoms.
- Provided financial support for individuals affected by COVID-19.
- Had supervisors who were effective in helping their employees deal with work-life interface challenges during COVID-19.

3. Pandemic preparedness:

- Effectively leveraged prior pandemic planning (SARS, MERS) to address COVID-19.
- Effectively implemented social distancing requirements.

Figure 9: Studied COVID-19 Experiences and Stressors on Energy Employees' Health and Safety



Results: What are best practices for mitigating the impact of COVID-19 and low energy prices on safety and energy employees' health?

Overall, consistent with the industry's strong focus on safety, employees reported that their companies continued to emphasize safety above all else.

However, even with continued safety priority at all levels, safety and health can be affected by COVID-19 related experiences and stressors. We thus analyzed the impact of the COVID-19 pandemic on four key outcomes:

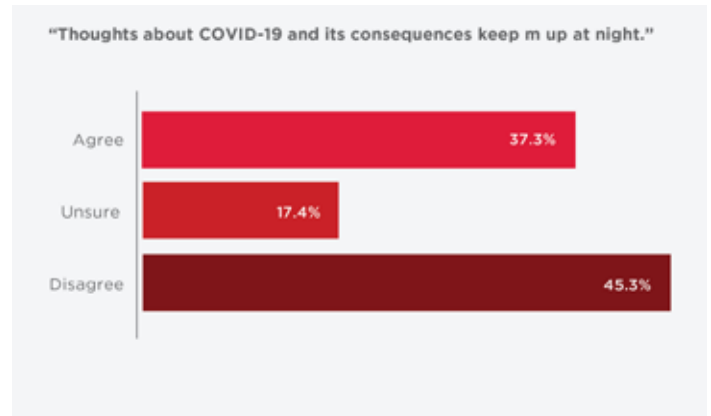
- Stress that interferes with individuals' sleep – an important factor since fatigue is related to a host of deleterious outcomes in safety-critical positions¹² and is an antecedent of psychological and physiological health outcomes¹³;
- Situational awareness, the extent to which employees felt fully focused or distracted and unable to focus at work, a factor linked to individual and process safety outcomes¹⁴,
- Work-family interference during COVID-19, an indicator of whether work and COVID-19 stressors affect an individual's personal and family life¹⁵, and
- Job Insecurity, an antecedent of depression and negative physical health outcomes.¹⁶

Stress Interfering with Sleep: Prevalence and Best Practices

Finding: Thoughts about COVID-19 affected sleep in a large percentage of participants. Individuals with more COVID-19 related increases in workload or COVID-19 projects were more likely to report sleep issues. Family-to-work conflict and job insecurity are also linked to sleep problems and potentially to at-work fatigue.

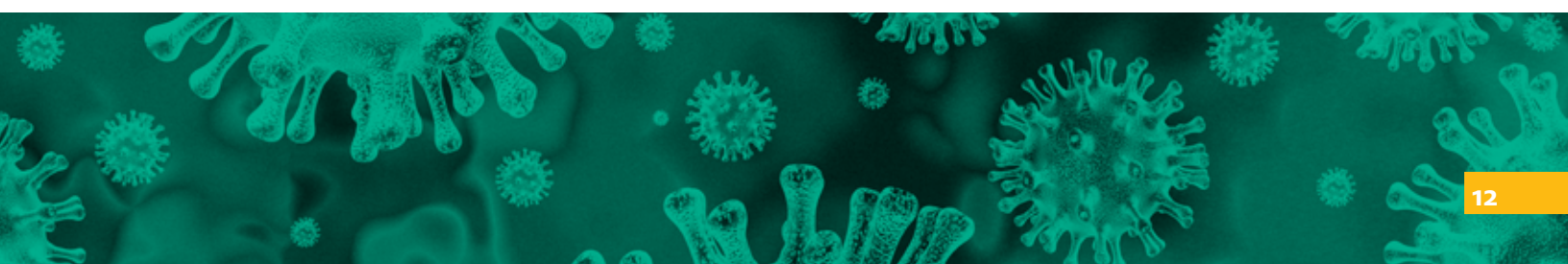
Implications & Recommendation: We recommend energy companies consider reallocating routine workloads for individuals heavily involved in crisis planning to mitigate the risk of fatigue. Low-cost organizational interventions geared towards improved sleep hygiene (such as mindfulness, physical exercise) may also be useful. Job insecurity may be addressed through continued transparent communication about organizational prospects and next steps.

Figure 10: COVID-19 Related Thoughts Affecting Energy Employees' Sleep



Regression analyses show that sleep issues are positively linked to COVID-19 specific workload added to routine tasks. They are further positively related to individuals experiencing family demands that interfere with their ability to complete work, or that distract them during work. Last, they are negatively related to financial support provided by employers to address COVID-19 challenges, while also being positively related to higher amounts of job insecurity.

Figure 11: Interaction between Family, Job, and Financial Insecurity Impacts from COVID-19



Finding: COVID-19 has resulted in situational awareness challenges for over 20% of workers, posing potential safety risks. Work-family interface problems and job insecurity were linked to lower situational awareness.

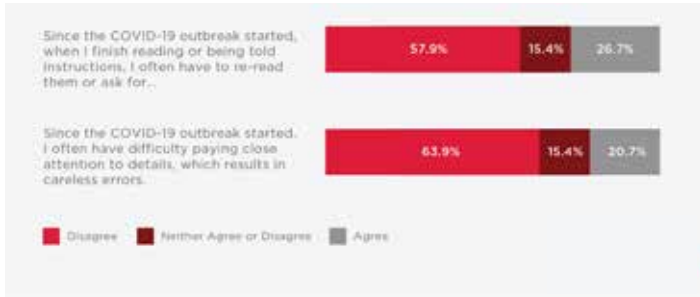
Implications & Recommendation: Continued focus on training supervisors to effectively address work-life interface issues will likely contribute to higher situational awareness. Roll-out of low-cost mindfulness interventions are also likely to benefit energy employees who are struggling to retain situational awareness.

Situational awareness is a key indicator of employees’ readiness to perform job duties. In safety-critical positions, lack of situational awareness is often linked with accidents¹², injuries and process safety challenges. Our analyses show that currently situational awareness is affected in 20%-28% of energy workers, posing potential safety risks.

Factors that relate positively and negatively to situational awareness include:

- Work-family interface challenges contribute to situational awareness. Employees who experienced more work-family or family-work interface problems were less likely to be situationally aware.
- Job insecurity also related to situational awareness. Employees concerned about job insecurity were more likely to report lower levels of situational awareness.
- Mindfulness at work was strongly related to reported levels of situational awareness. Employees with higher levels of mindfulness and focus in the moment were less likely to report lapses in situational awareness.

Figure 12: COVID-19 Related Thoughts Affecting Energy Employees’ Sleep



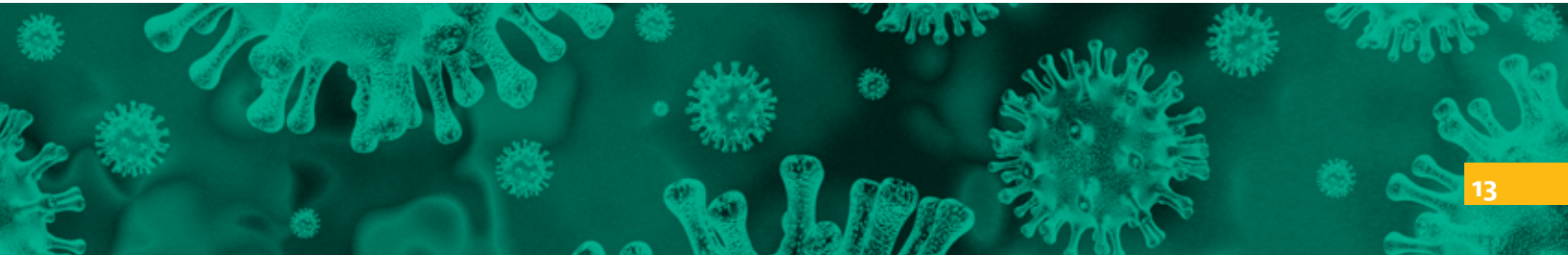
Finding: Work-family and family-to-work conflict was prevalent in our sample. Employees who had supervisors supportive of their needs to navigate their home and work lives simultaneously contributed to reduced family-to-work and work-to-family conflict amongst their employees. Job insecurity was linked to higher levels of family-to-work and work-to family conflict.

Implications & Recommendation: First line supervisors can mitigate work-family interference. In the short term, first-line supervisors should receive brief trainings to facilitate the development of skill sets that facilitate supporting the work and life needs of their direct reports. While job insecurity is hard to mitigate in the current situation, clear and transparent two-way communication between and top management, managers, supervisors and employees should be continued.

The research literature on the work-family interface delineates two factors¹⁵: Work-to-family conflict constitutes an interference where work interferes with family responsibility. Family-to-work interferences refers to situations where family demands interfere with work or distract workers while at work. Both work-family conflict and family-work conflict were pertinent during the current crisis, with between 30% and 40% of respondents agreeing that their work life was affecting their home life during the COVID-19 pandemic and vice versa. Note that approximately 60% of the sample were female to allow for detailed analyses of gender and work experiences. However, the strong representation of women in our sample may have led to a stronger emphasis on work-life interface issues in our study than what might have been seen if the sample was predominantly male.

A host of organizational and work factors impacted the work-family interface problems individuals experienced. Employees working on COVID-19 related projects and additional tasks were more likely to experience work-family interface issues. Similarly, higher levels of job insecurity also spilled over to the work-family interface issues. Interestingly, fast and efficient technology for remote work, supervisor support for navigating work-home interface issues and strong, consistent, transparent messaging from leadership regarding the current situation were all helpful in reducing work-family interface issues.

In follow-up analyses, we examined the prevalence of factors that can facilitate effective work-family interface management, namely technology for remote work, supervisor support for managing the work-life interface during the COVID-19 crisis, and messaging from



management. Overall, from the perspective of energy workers, the industry reacted well and efficiently to the crisis. Over 70% felt their supervisors were effective in helping employees solve work-family interface issues, and 83% felt their organization's remote connectivity technology was fast and efficient. Similarly, almost 75% of employees felt their company was providing supportive and strong messaging.

Figure 13: COVID-19 Related Interfere Challenges

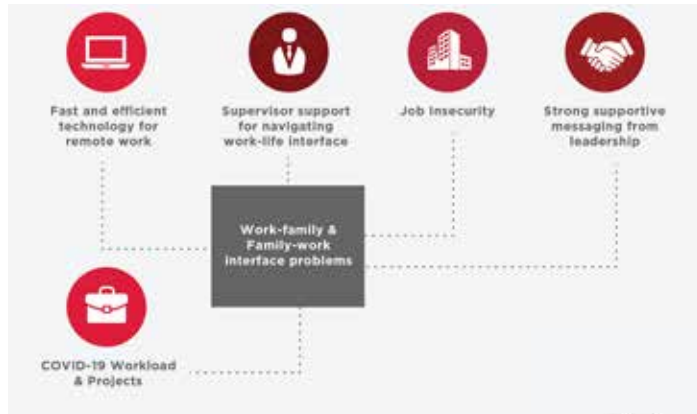
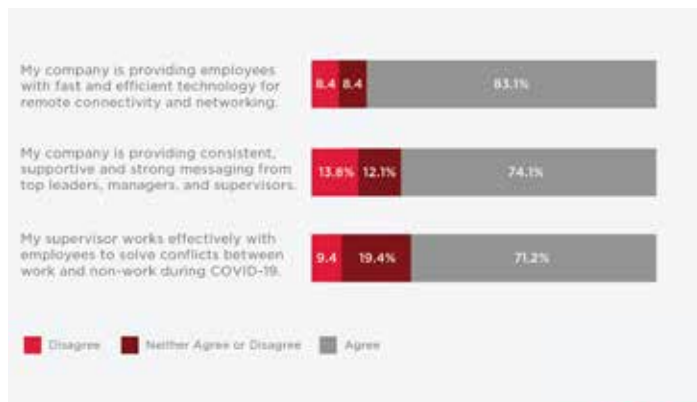


Figure 14: Company Response to COVID-19 Considered Supportive and Effective for Work-Family Interface Issues



Job Insecurity Among Energy Workers

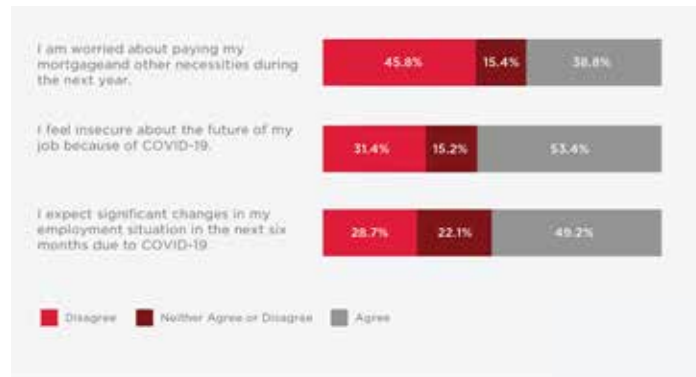
Finding: Job insecurity is prevalent among energy workers in the current environment. Job insecurity can also be harmful to employee health and for organizational outcomes (in part due to its link to lower situational awareness and its impact on sleep).

Implications & Recommendation: Organizational communication can mitigate job insecurity. Clear, transparent, and consistent information about an

organization's path forward provides employees with coping tools to deal with job insecurity. The same clear and consistent information is also beneficial for organizationally relevant outcomes.¹⁷

Job insecurity is highly prevalent among energy workers, with 53% indicating they feel their job is in jeopardy due to COVID-19, and close to 50% expecting significant changes to their work arrangements in the foreseeable future.

Figure 15: Job insecurity amongst Energy Employees



Which organizational practices and policies related to job insecurity perceptions during COVID-19?

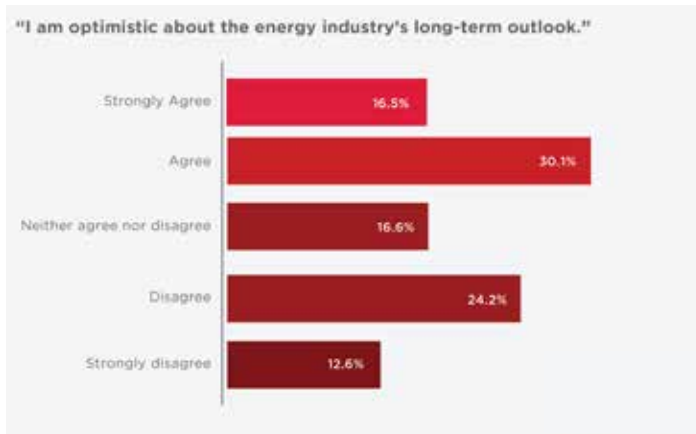
Note that since this study is correlational in nature, the direction of relationships can be inferred based on prior research or theory. For job insecurity, we can only provide correlates. The following organizational policies and practices correlate with job insecurity:

- Job insecurity was lower for employees who worked for companies that provide paid sick leave to employees who are experiencing COVID-19 symptoms or who tested positive.
- Companies that pledged continued support for employees to minimize the likelihood of layoffs had employees with lower perceptions of job insecurity.
- Employees working for companies that provide their employees with backup care solutions for child and elder care during COVID-19 had a lower likelihood of experiencing job insecurity.
- Employees who were heavily involved in COVID-19 planning activities for their company felt less likely to perceive job insecurity than employees who continued to execute their regular job tasks.

Results: What are implications of the downturn for the industry, employee health and safety, ESG, and Sustainability?

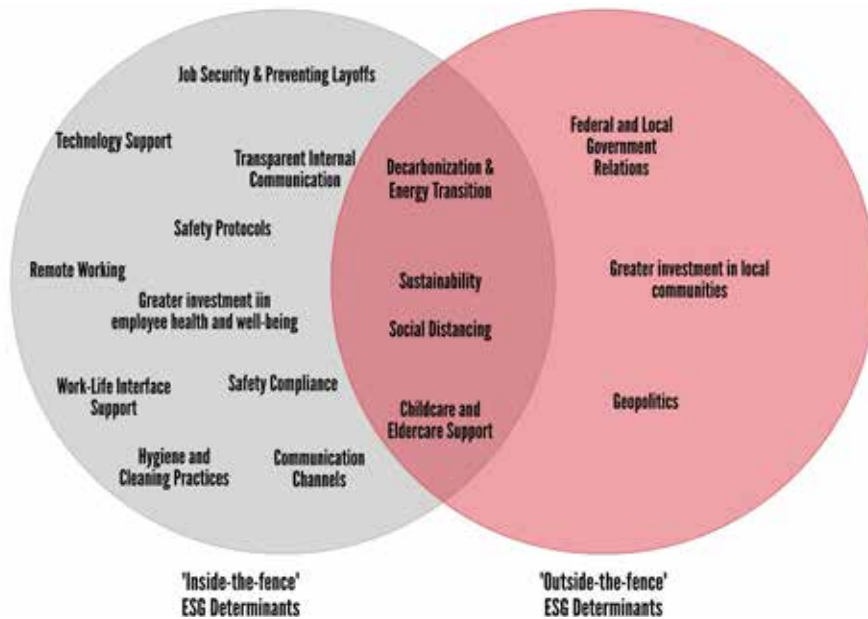
A substantial portion of the respondents (84%) were concerned about the future of the energy industry caused by the combination of low oil prices and COVID-19. Nevertheless, 46% of the overall respondents are optimistic (strongly agree and agree) about the long-term outlook of the energy industry while 37% are worried (strongly agree and agree).

Figure 16: Energy Employees’ Long-term Outlook for the Industry



We tested whether demographic background variables explained an individual’s outlook on the industry’s future, but neither employee age, tenure in the energy industry, or gender mattered. The only weak but statistically significant relationship between optimism about the future of the industry and demographic

Figure 17: Relationship between ESG Determinants



variables was with the number of children under 18 in one’s household: workers with more children under 18 in the house were less optimistic about the future of the industry than workers with no or fewer children.

ESG, Employee Well-Being and Health, Community Development, and Crisis Management

The emphasis placed by the industry on Environmental, Social, and Corporate Governance (ESG) determinants, and its relevance for the future of the industry were measured through a number of survey questions.

Specifically, we examined the responses to the issues of (i) increasing investment on employee health and well-being, and (ii) investment by energy companies in support of their local community as issues viewed as under an organization’s purview (“inside-the-fence”) or outside of its domain of responsibility (“outside-the-fence”)18..20. 55% of respondents believe that the current pandemic indicates that the energy industry should invest even more in employee health and well-being, while 28% neither agree nor disagree. Similarly, 51% agreed that the COVID-19 crisis shows that energy companies should invest even more in projects supporting their local communities, while 30% neither agree nor disagree.

As per age demographics, new employees aged between 21 and 30 displayed greater support for increased investment in employee well-being and health and in community development projects. This supports many recent findings that suggest younger employees display a preference for greater commitment towards ESG initiatives and socially responsible companies21..23.

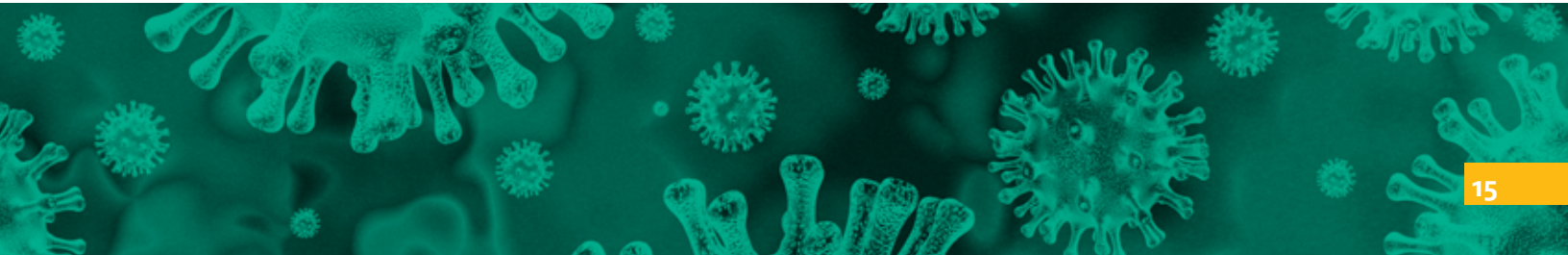


Figure 18: Participants aged 21-30 displayed higher levels of agreement for companies to invest even more in employee health and well-being than older participants

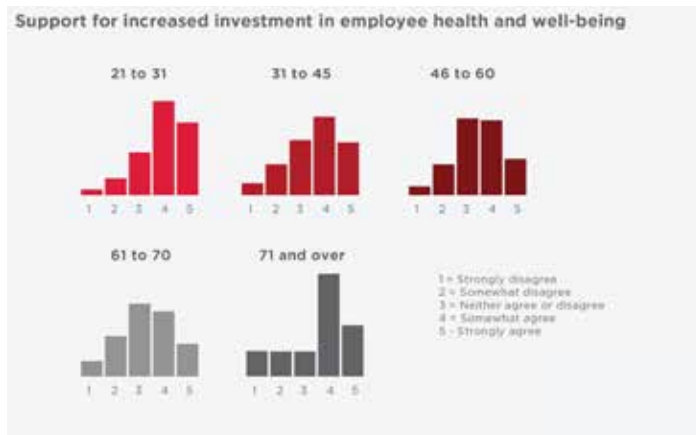


Figure 19: Participants aged 21-30 displayed higher levels of agreement for companies to invest even more in community development projects than older participants

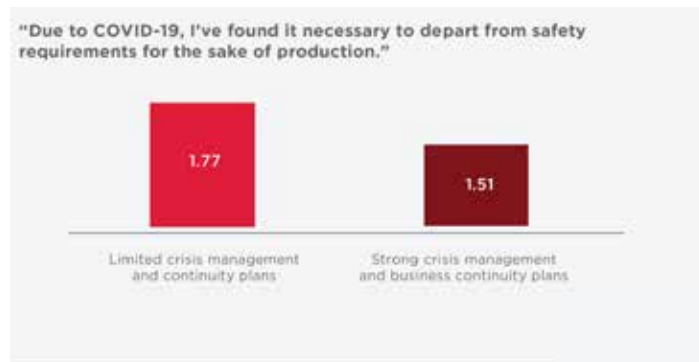


Current industry guidelines for pandemic planning are comprehensively built around limiting the spread of a disease, changes in operation during an outbreak, addressing individual employee challenges, and ensuring business continuity. Significant emphasis is given to various factors including: understanding the mobility of energy workers; the overlap between the regional impact of a pandemic disease; global and local impacts of disrupted supply chains; access to reliable and timely information from international agencies such as the World Health Organization; infectious disease planning processes; standardization of efforts for all joint ventures, contractors and partners; dissemination of best health practices; and continued communications and follow up.²⁴

Our survey indicates that even though almost 90% of respondents believe their companies are responding effectively to COVID-19 through these best practices, 53% of them agreed that the COVID-19 crisis indicates that industry needs to invest even more in employee health and well-being.

As with other emergency situations, including natural disasters, adequate, appropriate, strong and consistent communication from top leadership and managers that is disseminated in a timely and transparent manner contributes to employee health and well-being²⁵⁻²⁹. This study found that those who believed their company has developed and communicated effective crisis management and business continuity plans were less likely to feel they had to compromise safety goals during COVID-19 (even though effect sizes are small, results are statistically significant).

Figure 20: Impact of Strong Crisis Management and Business Continuity Plans on Compliance with Safety Goals



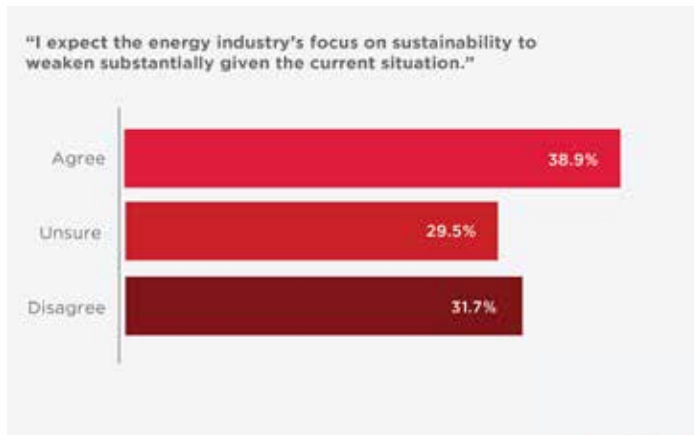
Similarly, employees working for companies who are providing employees with transparent information about the impact on their company with consistent, supportive and strong messaging from top leaders, managers, and supervisors were less likely to depart from safety requirements to meet production goals.

Companies that have supported and prioritized employee well-being and job security in these uncertain times have positively impacted the latter's outlook of the industry's prospects. Employees who believe their companies have pledged continued support to minimize downsizings due to the outbreak and low oil prices are more likely to be optimistic about the future of the industry.

Impact on Alternative Energy Production and Decarbonization Objectives @ Sustainability

The economic downturn, lowered productivity, disrupted supply chains, and the ongoing geopolitics amidst and apart from the COVID-19 outbreak are redefining energy supply and demand, decarbonization objectives, and the energy industry's commitment to increased sustainable development. Increased uncertainty around what lies ahead has led to heterogeneity of opinions around the future of each of these, which warrants a closer look at what industry employees believe the future holds. Almost half of the respondents (47%) believe alternative energy production would be less disrupted by the COVID-19 crisis than oil and gas production and processing.

Figure 21: Energy Employees' Perspective on the Future of Sustainability for the Energy Industry



No significant trends emerged when respondents were asked to comment on whether they believe the current situation will substantially weaken the energy industry's focus on sustainability. Respondents were mostly split in terms of their perspective on the impact of the crisis on sustainability initiatives. This absence of clarity is perhaps reflective of the overall uncertainties facing the energy industry as a whole, especially in the first phase of this global pandemic

Our analysis supports the growing concerns around the COVID-19 outbreak and low oil prices, the effects of which may last for many years.³⁰ While quantifying the impact on hydrocarbon-based and alternative energy production is challenging at this point, industry employees seem to believe that oil and gas production and processing will take a greater hit from the ongoing crisis. As companies focus and devote resources toward immediate operational, financial, and legal needs, and with federal and state regulatory agencies announcing enforcement discretion policies, decarbonization and sustainability goals are likely to suffer setbacks. ESG initiatives, decarbonization, and the energy transition are intricately linked, and ultimately geared toward one common objective: affordable, reliable and sustainable energy for all. Therefore, ESG determinants can drive successful and sustainable outcomes if companies continue to invest in creative and dynamic solutions for long-term recovery and resilience, engage proactively with internal and external stakeholders, and continue to deliver on operational safety. With the ongoing COVID-19 outbreak and low oil prices, it may in fact be too early to predict ESG and sustainability priorities for the energy industry or the direction in which they may shift in the next few months. Nonetheless, it is increasingly evident that even in times of turmoil, the energy industry possesses enough experience and resilience to pursue inside the fence and outside the fence ESG issues. Finally, established best practices have been able to appropriately and adequately address the bulk of the challenges faced by employees, and the industry must continue to safeguard and strengthen them.

Conclusion

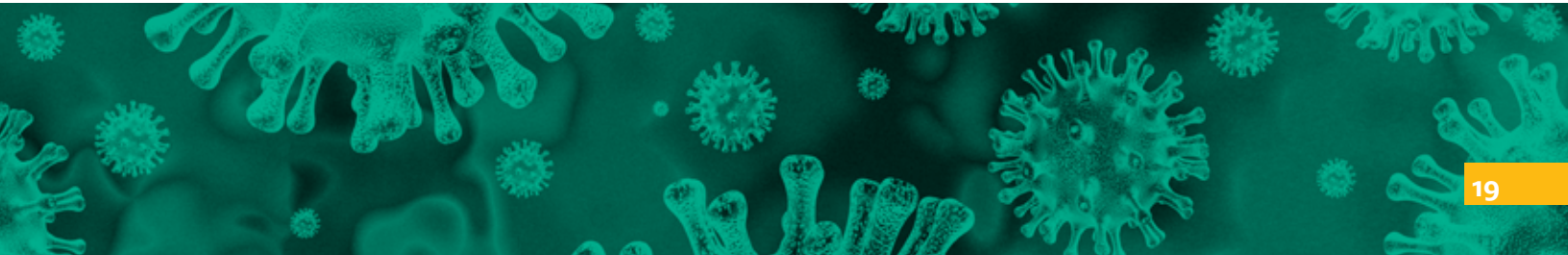
This study is the product of collaboration between academia and industry associations. Through the use of survey data, we present evidence-based policy guidelines and recommendations for energy leaders. Ultimately, we hope and expect this report to contribute to the industry's ability to capitalize on its driven and committed workforce to weather the current economic and public health challenges and to do what the energy industry has done in prior economic downturns: innovate, learn, and use technology to create even more efficient systems that serve the industry and the public. We invite dialogue with companies, regulators, and the public and anticipate that this study will stimulate discussions on how policy decisions can balance the energy industry's short and long-term goals during and beyond these unprecedented times.

FOOTNOTES

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