



RESEARCH PROJECT

Human Capital

Preliminary Framework on Human Capital and the SASB Standards

Prepared by the Sustainability Accounting Standards Board®

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Document Structure

The purpose of this document is to provide a review of important trends and evidence on human capital management to inform how SASB may account for various human capital issues within the SASB standards.

This document does not include a discussion of the evidence basis for the existing human capital general issues and associated disclosure topics that are not associated with the evidence identified in the literature review and targeted consultation phases (i.e., those for which the current evidence does not indicate the need for potential revisions).

At this phase of the project, we are soliciting feedback on the body of evidence supporting five preliminary conclusions that relate to how SASB may account for human capital issues across its standards, including through its general issue category taxonomy under SASB's Human Capital sustainability dimension. These conclusions were formulated in response to broad, macroenvironmental trends related to human capital and the associated business implications resulting from those trends. Additionally, we are seeking to identify the industry-specific impacts of the themes outlined in the Framework, including how these impacts affect company strategy and financial performance.

Below, we have outlined key sections of the document to summarize its contents. There are three key sections – Summary of Conclusions, Supporting Evidence, and Areas of Additional Research – for which we are seeking stakeholder input. SASB is seeking feedback on the depth and breadth of underlying evidence as well as its relevance to the manner in which SASB accounts for human capital issues across its standards.

Introduction. This section includes background information on the Human Capital Research Project and outlines critical information on the Public Consultation's purpose, objective, format, and expected outcomes.

Summary of Conclusions. The Summary of Conclusions section consists of SASB's preliminary conclusions regarding how SASB accounts for human capital issues given potential implications of certain macroenvironmental trends and their associated business impacts. Each conclusion provides a brief summary of these implications including a synopsis of our assessment of the supporting evidence based on our literature review and targeted consultation. Stakeholders are encouraged to prepare feedback on these preliminary conclusions based on the engagement questions posed in the "Additional Comments & Feedback" section of each stakeholder-specific survey. The links to the stakeholder-specific surveys are located under the "Public Consultation" section of SASB's Human Capital Research Project website available at:

<https://www.sasb.org/standard-setting-process/active-projects/human-capital/>.

Supporting Evidence. In the Appendix, SASB has included a Supporting Evidence section that provides a more complete evidence-based rationale for each conclusion. This section is intended for readers that are interested in the detailed supporting evidence. Each conclusion is supported by three elements: Macroenvironmental Value Drivers, Business Impacts, and an Analysis and Conclusions section. These elements are defined as follows:

- **Macroenvironmental Value Drivers** are defined as broad, global thematic issues or trends that have implications for the ways in which businesses interact with their workforces and how this interaction drives long-term value creation.
- **Business Impacts** represent the ways in which the macroenvironmental value drivers are affecting how businesses interact with their workforces.
- **Analysis and Conclusions** tie the body of evidence to potential implications for how SASB accounts for human capital issues across its standards, including implications for SASB's general issue taxonomy.

Areas of Additional Research. The final section of the Appendix includes a brief summary of areas noted for additional research by SASB Staff. This section is included to recognize the importance of these issues, but also acknowledge that further investigation is required before we advance these issues to later stages of our standard-setting process.

Next Steps

Following the public consultation phase, SASB will seek to finalize the Framework and develop the set of final deliverables to formally conclude the research phase of the Human Capital project. These deliverables will include the following:

- **The Human Capital Framework:** SASB staff will incorporate feedback on this Preliminary Framework and produce a finalized Framework document. The Framework will help form a foundation for SASB's thinking on human capital issues broadly and inform industry-specific disclosure topics.
- **Industry Heat Map:** SASB staff will prepare an Industry Heat Map which will identify the industries where the human capital themes and sub-themes identified in the Framework may have industry-specific manifestations. This deliverable will, therefore, indicate potential standard-setting activities at the industry-specific level based on SASB's most recent research.
- **General Issue Category recommendations:** This initial recommendation on SASB'S general issue categories will outline SASB staff's view on which relevant human capital themes constitute this sustainability dimension. This recommendation will be based on the body of evidence cited in the Human Capital Framework.
- **Project pipeline recommendations:** These initial recommendations will constitute a set of initial areas that SASB Staff will pursue industry-specific research and/or standard-setting project related to human capital based on the body of evidence cited in the Human Capital Framework and Staff's initial research presented in the Industry Heat Map.

Introduction

The Sustainability Accounting Standards Board

The Sustainability Accounting Standards Board (SASB) is an independent nonprofit organization established in 2011. SASB has established 77 industry-specific sustainability standards that provide decision-useful and financially-material information to investors and a cost-effective means of disclosure for companies on environmental, social and governance (“ESG”) issues.

SASB’s fundamental tenets to approaching sustainability accounting are to establish standards that are industry-specific, evidenced-based, and market-informed. Therefore, SASB’s due process is characterized by evidence-based research; balanced market input from a broad set of stakeholders including corporations, investors, and other subject matter experts; public transparency, and independent oversight. The ability to identify business relevant ESG issues for each industry is driven by the concept of financial materiality, which is defined as factors that are reasonably likely to affect the financial condition or operating performance of a company within a given industry.

SASB’s standard-setting process adheres to two governing documents: The Rules of Procedure and The Conceptual Framework. SASB’s Conceptual Framework establishes the fundamental structure for each of SASB’s 77 industry-specific standards. Generally speaking, SASB organizes the universe of sustainability issues into five sustainability dimensions, of which human capital is one. Each sustainability dimension is comprised of a set of general issue categories (GICs) that identify the most relevant sustainability issues in each dimension. GICs are comprised of a set of disclosure topics, which are intended to address the industry-specific and financially-material impacts of that particular category. Accounting metrics measure the performance of each disclosure topic or an aspect of the topic. The technical protocols provide a detailed information on definitions, scope, accounting guidance, and compilation and presentation of the associated accounting metric and are characterized as being objective, measurable, complete, and relevant. Activity metrics can accompany certain accounting metrics to serve as a measure to scale a company’s business, provide operational context, and facilitate normalization of SASB accounting metrics, which may be critical to the analysis of related disclosures. Through this structure, SASB has established a set of standardized performance metrics for sustainability factors that are most relevant to companies in a given industry.

SASB’s Human Capital Management Research Project

Human capital is a critical element of the SASB standards. As a thematic issue, it is the second most prevalent issue across the SASB standards, second only to climate risk. Despite this robust coverage of human capital issues across the SASB standards, the evolving body of evidence of the financial impacts of human capital management as well as investor interest in the subject, has led to the initiation of SASB’s Human Capital Management Research Project.

SASB initiated the Human Capital Research Project to assess the scope and prevalence of various human capital management (HCM) themes broadly across SASB’s 77 industry standards. This project will enable SASB to further develop its evidenced-based and market-informed view on human capital management themes across our standards through the development of a Human Capital Framework. This framework

will serve as the foundation for SASB’s view on human capital by identifying and analyzing broad, thematic evidence relevant to how SASB accounts for human capital management. This evidence will ultimately provide the opportunity for SASB to more adequately address existing issues in our codified standards and evolving and emerging human capital issues resulting from shifts in the broader macroeconomy and global business landscape.

The Human Capital Research Project consists of 6 key phases:

Project Phase	Phase Description	Status
Literature Review	The literature review phase was a dedicated period of research and evidence-gathering to inform SASB’s initial view on how it defines and accounts for human capital across its standards, including implications for its general issue taxonomy for human capital issues. As described in SASB’s Conceptual Framework, SASB’s general issue categories are foundational to its standard-setting process. As such, the initial phase of SASB’s Human Capital Framework was focused on gathering a wide body of evidence to support potential revisions to its general issue taxonomy.	Complete
Preliminary Framework Development	SASB’s Preliminary Framework presents the body of evidence from the literature review phase and an analysis on how it broadly defines human capital issues across its standards, including implications for its general issue taxonomy for human capital.	Complete
Early Hypothesis Tester Consultation	The Early Hypothesis Tester Consultation phase was designed as a targeted consultation to solicit key stakeholder feedback on the body of evidence presented in the Preliminary Framework to inform potential revisions to the general issue taxonomy for human capital issues.	Complete
Preliminary Framework Revision	SASB used the additional market input from the Early Hypothesis Tester phase and other sourced evidence to further develop our view on how these human capital themes fit into the SASB standard taxonomy. This feedback and additional evidence will further develop the framework to describe the connectivity between this set of relevant industry-agnostic human capital general themes and potential financial impacts by citing relevant evidence.	Complete
Public Consultation Period	SASB will initiate an open consultation period on the revised preliminary Human Capital Framework. SASB will seek feedback from a wide range of stakeholders to develop a more industry-specific view on the impacts of these themes outlined in the Preliminary Framework and further strengthen the evidence basis for its framework.	In Progress
Human Capital Framework Finalization	SASB will finalize and publish its Human Capital Framework and discuss the connections between those issues and potential financial impacts, citing relevant evidence. In addition, SASB will provide their preliminary conclusions on the impacts of these themes on the SASB standard taxonomy; an industry heat map outlining SASB’s current view on the relevant industry-specific impacts of these themes; and an initial proposal on a first set of projects to modify human capital in the industry standards.	Planned

Expected Outcomes for the Public Consultation Phase

In the Public Consultation, SASB seeks to solicit feedback from a wide range of stakeholders – investors, companies, and many forms of subject matter experts such as academics, researchers, consultants, civil society organizations, and others – to help (i) finalize the body of evidence supporting SASB’s human capital project and (ii) identify the industry-specific impacts of the themes outlined in the Framework, including how these impacts affect company strategy and financial performance.

This information gathered through the Public Consultation Period will enable SASB to (i) finalize its analysis and conclusions regarding key industry-agnostic human capital management themes that represent relevant business issues with significant sustainability impacts across industries; (ii) analyze the industry-specific manifestations of these industry-agnostic themes; and (iii) help form the foundation for standard-setting activities across the SASB standards.

The Public Consultation

The Public Consultation consists of a set of questions for stakeholders to provide feedback to SASB as part of its human capital management research project. These questions have been prepared in the form of three stakeholder-specific surveys (for companies, investors, and subject matter experts). SASB requests that stakeholders participating in the Public Consultation refer to the relevant stakeholder survey and follow the associated guidance when preparing their feedback.

Survey respondents will have an option to attach a free-form response in the “Additional Comments & Feedback” section. In the “Additional Comments & Feedback” section, SASB will provide guiding engagement questions that ask the respondent to further elaborate on their responses in the survey.

Stakeholders seeking to participate in the Public Consultation of this research project should review the consultation materials on the [Human Capital Research Project page](#) under the “The Public Consultation” section.

In this section of the project page, SASB has provided a set of consultation materials for open feedback from the public, which include the following:

1. **The Revised Preliminary Framework:** The Revised Preliminary Framework outlines a series of preliminary conclusions regarding how this body of evidence may inform SASB’s taxonomy for human capital issues across its standards. This document is provided to solicit feedback on these preliminary conclusions, which will help guide SASBs thinking around how it defines human capital and incorporates these themes in its standard taxonomy and across its industry standards broadly.
2. **Stakeholder-Specific Stakeholder Surveys:** SASB has prepared stakeholder surveys to solicit feedback on how these themes and sub-themes presented in the Framework may have industry-specific implications for SASB’s future standard-setting activities. Three stakeholder-specific surveys will be provided with a specific version and associated questions for companies, investors, and subject matter experts (*See below note defining subject matter expert*).

Note: A subject matter expert is any individual or organization that is not representing and/or acting in the capacity of a representative of a corporate sustainability reporter nor representing an investment firm that has fiduciary and management responsibilities over a portfolio(s) of companies. Common examples of subject matter experts include academics, consultants, and civil society organizations.

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Summary of Conclusions

Based on an extensive literature review and targeted consultation, SASB has developed the following preliminary conclusions regarding the manner in which SASB accounts for human capital across its standards. These conclusions, which are associated with key thematic areas of research associated with human capital management, have implications both for SASB's taxonomy and in addition may inform future standard-setting work.

1. **Mental health, wellbeing, and health-related benefits.** Several trends highlight the increasing importance of the health and wellbeing of employees, including health impacts related to common mental health issues (e.g. stress, depression, and anxiety), chronic diseases (e.g. musculoskeletal disorders and cardiovascular disease), and broad health benefits for workers (e.g., paid sick leave, medical leave, and flexible arrangements). There may be an opportunity for SASB to more effectively account for these issues within SASB's standards.
2. **Workplace culture.** Evidence highlights the increasing importance of the concept of workplace, or organizational, culture and specifically its embodiment of certain values, processes, and outcomes such as engagement, diversity, and inclusion in the workforce. Values, processes, and outcomes like diversity, inclusion, and engagement drive returns to the company's acquisition, development, and retention strategies and produce a more productive, fair, and respectful work environment. This may have implications for SASB's "Employee Engagement, Diversity, & Inclusion" general issue category relating these themes to the broader concepts associated with workplace culture.
3. **Workforce investment.** Businesses are playing an increasingly critical role in providing employees with career-building opportunities and financial investment in workers, with implications for worker financial wellbeing and job stability. These impacts relate to elements of SASB's "Labor Relations" general issue category, but may have broader implications for SASB's general issue taxonomy.
4. **Alternative workforce¹.** Greater prevalence of the use of alternative workforces has highlighted the potential to more effectively account for this multifaceted issue within the SASB standards and the potential implications of this issue within our standard taxonomy. This trend relates to the growing size of this worker classification and the expansion of the use of alternative workforces by a range of businesses.
5. **Labor conditions in the supply chain.** Globalization, technological advancement and adoption, and related evolving trends in international trade have increased the importance of labor conditions in the supply chain, specifically related to the human capital elements of supply chain management. Emerging regulation and enforcement of existing regulations for supply chain management, specifically related to human rights abuses through forced and compulsory labor, child labor, and other forms of modern slavery, may have implications for how SASB accounts for this issue across its standards.

¹ Alternative workforce (also the contingent workforce) is defined as a provisional group of workers who work for an organization on a nonpermanent basis, which include freelancers, independent professionals, temporary contract workers, independent contractors, or consultants (but excludes workers who form part of an outsourcing arrangement with a third-party as part of the alternative workforce. EY, Is the gig economy a fleeting fad, or an enduring legacy? in 2016 (EYGM Limited, 2016), pdf pg. 5, accessed March 9, 2020, <https://gigeconomy.ey.com/Documents/Gig%20Economy%20Report.pdf>

6. **Workforce composition and workforce costs.** Additional activity metrics² related to workforce composition and workforce costs by type (including salaries and benefits and excluding training costs) may provide fundamental information about a company’s given workforce and normalize these fundamental descriptive data points across different companies.

Conclusion #1: Several trends highlight the increasing importance of the employee wellbeing, including both mental health impacts related to common mental health issues (such as but not limited to stress, depression, and anxiety) and associated physical chronic health issues (such as but not limited to musculoskeletal disorders and cardiovascular disease). Broad health benefits for workers (e.g., paid sick leave, medical leave, family leave, and flexible work arrangements) have been shown to be effective tools in enhancing employee physical and mental wellbeing. There may be an opportunity for SASB to more effectively account for these issues.

Rationale: The existing definition of “Employee Health & Safety” currently incorporates the concept of mental health. However, in practice, the 77 industries standards may not adequately address the topic as the standards currently do not contain topics or metrics that specifically address mental health or physical wellbeing. Current research suggests that certain clinically-recognized conditions like depression and anxiety and more general conditions such as work-related stress are widespread globally. These common conditions are exacerbated by larger macroenvironmental forces that are increasing wage polarization and abetting global income inequality globally, especially for low-income and middle-income workers that may face additional financial stress. Furthermore, as segments of global value chains become increasingly service-oriented, and in some cases knowledge-intensive, the need to address issues such as overall wellbeing (both mental wellbeing and its associated effects on chronic illnesses) for employees and workers are critical, particularly in certain industries where these macroenvironmental shifts have contributed to their increased prevalence and impact.

Supporting evidence: While the evidence concerning the global prevalence of mental health issues and associated chronic health issues are robust, the connectivity to financial performance is less clear. SASB’s literature review identified some studies that make an association between certain prevalent mental health issues to the exacerbation of physical health issues, particularly certain chronic illnesses, that could have an operational impact on organizations. Additionally, some of these studies illustrate that investments in employee mental health initiatives could lead to certain organizational benefits such as increased employee productivity, reduced turnover, improved retention, and in some cases, yield a positive return on investment (ROI) by developing, monitoring, and tracking various key performance indicators (KPI) over time. However, additional evidence demonstrating a clearer connection to financial materiality would add greater clarity to the significance of the mental health, and in some cases, the physical wellbeing angles of this theme.

Conclusion #2: Evidence highlights that certain concepts such as diversity, inclusion, and engagement should be encompassed under the broader concept of organizational culture as values, processes, and outcomes that drive both effective company strategies to acquire, develop, and retain talent and produce a more productive, fair, and respectful work environment. This relates to SASB’s “Employee Engagement, Diversity, & Inclusion” general issue category, but the broader implications of workplace

² SASB defines an activity metric as a metric that quantify the scale of a company’s business and are intended for use in conjunction with accounting metrics to normalize data and facilitate comparison.

culture may not be fully captured by SASB’s industries, especially related to diversity, inclusion, and engagement.

Rationale: SASB’s literature review revealed significant evidence that highlights the importance of a company’s organizational culture in driving the company’s set of values, processes, and outcomes, which include diversity, inclusion, and engagement. This evidence further suggests that a business’s processes and activities in these areas can enhance the basic characteristics and assets of the workforce (such as workforce composition and worker skills and competencies) and ultimately contribute to organizational benefits such as increased employee productivity, reduced turnover, improved retention, and increased innovation. While these three concepts of diversity, inclusion, and engagement are often viewed in isolation from one another, the literature suggests that they are in fact related and should not be considered mutually exclusive ideas. Diversity is often considered in the context of the “what” function of human capital strategy, or in other words, who comprises the workforce. Inclusion is considered in the context of the “how” function in terms of how corporate strategy allows these diverse groups to operate most effectively together. Inclusion³ can work in tandem with the concepts of diversity⁴ and engagement⁵, in the sense that company processes that foster inclusion can produce outcomes where employees value diversity and are more engaged. These values are shaped from the top of the organization and implemented throughout the organizational design, or culture, of the company. Furthermore, engagement is a critical outcome of the processes and strategies deployed by a company to: (i) acquire, develop, and retain its workforce; (ii) measure organizational culture health to help drive long-term value creation through human capital; and (iii) uphold worker job quality.

Supporting evidence: Several publications and existing human capital frameworks link the broader theme of organizational culture to the more specific concepts of diversity, inclusion, and engagement, and note the importance of organizational culture as a conceptual framing device to demonstrate how these disparate ideas translate into financial material impacts for the firm as a key value driver for firm performance. The evidence supporting this connectivity is well-documented with respect to employee engagement, diversity, and inclusion as individual concepts, which are frequently linked to worker productivity, innovation, and retention. On the topic of diversity and inclusion, it is clear that gender and racial/ethnic diversity are demographic diversity characteristics that are prioritized in corporate strategy. However, the studies focused primarily on these aspects of diversity at the board and executive management level rather than the entire workforce population. Other measures that help gauge the company’s talent pipeline could provide greater context to how a company is recruiting, retaining, and developing diverse talent to achieve improved business outcomes. Additionally, with respect to engagement as an aspect of job quality (where employee commitment and employee satisfaction are component parts), there is compelling evidence that supports the relationship between employee engagement and employee satisfaction and further validates the correlation of these concepts and their connectivity to a firm’s financial condition and operating performance. However, continued evaluation of these issues with an industry-specific perspective would provide greater clarity as to which industries these concepts are like to be financially material (if not already included in the applicable SASB standard) and how other metrics could add greater robustness to the company’s

³ Inclusion is defined as the perception of an employee’s sense of uniqueness and belonging which can be fostered through a company’s processes; See “Why Diversity and Inclusion Matter,” Catalyst, last modified August 1, 2018, <https://www.catalyst.org/research/why-diversity-and-inclusion-matter/>; See Footnote 2.

⁴ Diversity is defined as an employee’s perception of uniqueness functioning as a distinct and valuable characteristic of the group.

⁵ Engagement is defined as an employee’s commitment to and satisfaction with the work.

diversity and inclusion strategy such as on priority diverse groups like women and certain races and ethnicities.

Conclusion #3: Businesses are playing an increasingly critical role in providing employees with career-building opportunities and investing in the financial wellbeing and security of their workers. These impacts relate to elements of SASB’s “Labor Relations” general issue category, but may have broader implications for SASB’s general issue taxonomy.

Rationale: Workforce investment can create opportunities to further develop or optimize workforce skills, as well as to ensure greater engagement. Evidence suggests that two key aspects of workforce investment include career-building opportunities for workers and investment in their financial wellbeing.

With respect to career-building, the unique demographic shifts occurring in the workforce today have resulted in evolving perceptions on the employer-employee social contract, and has elevated the importance of career-building as an essential strategy in several industries to maintain worker engagement while also enhancing firm performance and outcomes.

With respect to investment in financial wellbeing, including wealth-building for workers, macroenvironmental trends such as widening global income inequality and the increasing burden on individuals to save for their retirement, are narrowing opportunities for workers to save. While some of this burden is the result of longer life spans and declining individual savings rate that are less within a company’s control, other contributing factors result from company decisions evidenced by shrinking employer contributions and an increasing number of employers transitioning to defined contribution plans from defined benefit plans. Additionally, the global underfunding of traditional government-based social safety nets has further emphasized the importance of employee retirement savings.

Furthermore, low-skilled positions are increasingly being impacted by automation, thereby widening the opportunity divide between low-skilled and high-skilled workers. These effects further raise the importance of benefits such as an employer-sponsored retirement savings plan. Establishing such plans can have several benefits to companies, most notably through enhancing employee retention while also improving employee job quality.

Supporting evidence: Evidence supporting the relevance of workforce training to corporate performance is strong, with several academic studies pointing to such impacts across several industries. With respect to investment in financial wellbeing, specifically wealth-building for workers, macroeconomic trends suggest that an increasing burden is being placed on individuals rather than institutions to save for their retirement. However, given the diversity of retirement saving systems worldwide, further understanding of the importance of the role of employer contributions in retirement savings schemes is required, including global trends including declining permanent employee protections, shifts from defined benefits to defined contributions, and wage polarization.

Conclusion #4: The growing prevalence of alternative workforces in business operating models and its multifaceted impacts on human capital management has led SASB to consider the implications of this issue within our general issue taxonomy and across the SASB standards. This trend relates to the growing size of this worker classification and the expansion of the use of alternative workforces by a range of businesses.

Rationale: The recent acceleration and adoption of the alternative workforce across multiple industries and through various functions within industries have demonstrated the growing prevalence of this issue. Unlike traditional employment relationships, where the employee receives certain rights and benefits in exchange for work, alternative workers are typically considered contracted workers and are not necessarily entitled to those protections. As a result, issues pertaining to the alternative workforce are diverse, spanning worker rights (such as the right to collective bargaining); benefits such as unemployment, health, and disability insurance; and health and safety issues such as the impact of isolating work environments on certain mental health disorders like depression, anxiety, and stress of workers.

The growing presence of alternative work in its many forms raises other questions about a company's responsibility in managing this form of human capital when the work is contracted. The issue of a company's responsibility and management of this issue as a contingent liability share certain characteristics with a company's management of and exposure to risks associated with its supply chain. In the case of supply chain management, while a company may not necessarily directly employ the workers that are involved in the production of its good or services, evidence suggests that firms may be exposed to reputational risk (among others) associated with human capital issues in the supply chain.

As a result, this issue may be better accounted for in SASB's general issue taxonomy within the Business Model & Innovation dimension rather than the Human Capital dimension, due to the analogous consideration for company supply chain management. At the same time, it has implications for several existing human capital general issues as noted above.

Supporting evidence: While there is a growing body of literature focused on the increasing role that alternative workforces play in business activities as well as the potential implications of this trend to long-term financial performance, the body of evidence is less clear as compared to other issues discussed in this paper. Some of the literature reviewed cites the benefits of using alternative work as a cost-saving mechanism to firms as a means of transferring aspects of employment costs and risk to the worker employed in an alternative work arrangement. On the other hand, companies could bear some of the contingent liability and reputational risks associated with contracting these types of workers, especially as it relates to regulatory risk and reputational risk arising from societal expectations of the employee-employer social contract.

Conclusion #5: Increasing regulation around human rights abuses in the supply chain, in addition to a growing body of evidence of these issues across and specific to certain industries, may have implications for how SASB accounts for this issue across its standards.

Rationale: The current shifts in the regulatory environment – such as the EU Taxonomy which is tied to internationally-recognized human rights frameworks developed by the United Nations (UN Guiding Principles on Business in Human Rights), International Labor Organization (ILO), and OECD (Guidelines for Multinational Enterprises) – provide further support of the relevance of these issues and associated financial impacts for certain industries that are identified as having a relatively high exposure to human rights abuses, most notably forced labor in supply chains. While SASB currently addresses the issue of labor conditions in the supply chain as a disclosure topic in various industries, this body of evidence may have further implications for the SASB standards, including how they account for Labor Conditions in the Supply Chain disclosure topic across industries as well as the decision-usefulness of performance metrics associated with the topic.

Supporting evidence: Existing evidence associated with the development of the SASB standards supports the financial materiality of this issue for the industries where the topic has been included. Tightening regulations around human rights as well as associated reputational risks has resulted in investors becoming increasingly interested in evaluating company management of human rights broadly and forced labor issues specifically.

Conclusion #6: Additional activity metrics⁶ related to workforce composition and workforce costs by type (including salaries and benefits and excluding training costs) may provide fundamental information about a company's given workforce and normalize these fundamental descriptive data points across different companies.

Rationale: SASB's review of relevant literature, in addition to investor, company, and other stakeholder-focused disclosure tools and frameworks, have demonstrated the potential for widely-applicable measures of human capital management. This evidence suggests that there is a need in the capital markets to address a basic set of metrics that account for the fundamental components of company's workforce in general terms. Common elements across these frameworks have included workforce composition, workforce costs, and workforce benefits.^{7, 8, 9, 10, 11} Evidence suggests that from a performance perspective such information is highly relevant to understanding the fundamental building blocks of a company's workforce management.

Furthermore, global macroeconomic forces such as shifting labor market demographics, increasing globalization within company value chains, technological development and automation, and growing income inequality are affecting the supply and demand of human capital globally, and is manifesting in the how businesses choose to fundamentally operate with respect to their workforces. These shifts in the nature of work, as well as the composition of the workforce, are of increasing interest to investors, given their relevance to corporate value creation. As a result, data points such as number of full-time, part-time, and potentially contingent workers, and the costs associated with this workforce, may provide useful information for investors in understanding fundamental drivers of performance across companies.

Supporting evidence: Evidence of the relevance of workforce composition and workforce costs to a firms' financial performance is strong. Metrics related to these factors have been supported by academic studies demonstrating their connectivity to financial outcomes and are also supported by investor consensus. Supporting evidence demonstrates that these metrics are key inputs to investor decisions given the significance of their relationship to long-term value creation by companies.

⁶ Workforce costs are intended to reflect direct payments to workers in exchange for their work. Given that training costs represent an investment on behalf of the firm for an employee and not necessarily a direct payment, these costs are excluded.

⁷ Anthony Hesketh, *Valuing Your Talent: Managing the value of your talent, A new framework for human capital measurement in 2014* (Lancaster, United Kingdom: Lancaster University Management School, 2014), accessed March 10, 2020, https://www.cipd.asia/images/managing-the-value-of-your-talent-a-new-framework-for-human-capital-measurement_2014_tcm23-9266.pdf.

⁸ Coalition for Inclusive Capitalism, *Embankment Project for Inclusive Capitalism in 2018*, accessed December 12, 2019, <https://www.epic-value.com/#report>.

⁹ Human Capital Management Coalition, *Rulemaking Petition To Require Issuers To Disclose Information About Their Human Capital Management Policies, Practices and Performance*, July 6, 2017, <https://www.sec.gov/rules/petitions/2017/petn4-711.pdf>

¹⁰ Financial Reporting Lab, *Workforce-related corporate reporting in 2020* (London, United Kingdom: Financial Reporting Council, 2020), accessed January 22, 2020, <https://www.frc.org.uk/getattachment/59871f9b-df44-4af4-ba1c-260e45b2aa3b/LAB-Workforce-v8.pdf>.

¹¹ Aaron Bernstein and Larry Beferman, *The Materiality of Human Capital Disclosure in 2015* (Cambridge, Massachusetts: Labor and Worklife Program at Harvard Law School, 2015, accessed March 10, 2020, https://lwp.law.harvard.edu/files/lwp/files/final_human_capital_materiality_april_23_2015.pdf.

Appendix

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Supporting Evidence

This section provides the evidence basis associated with each conclusion and is intended for readers that are interested in the detailed evidence supporting our conclusions and viewing related sources. In this section, we will review our analytical framework by addressing three key components described below:

- **Macroenvironmental Value Drivers** are defined as broad, global thematic issues or trends that have implications for the ways in which businesses interact with their workforces and how this interaction drives long-term value creation.
- **Business Impacts** represent the ways in which the macroenvironmental value drivers are affecting how businesses interact with their workforces.
- **Analysis and Conclusions** tie the body of evidence to potential implications for how SASB accounts for human capital across its standards, including implications for SASB's general issue taxonomy.

Discussion of Macroenvironmental Value Drivers

Technology and automation¹²

Technology broadly and automation are changing the nature of work and driving an increased reliance on high-skilled work

A major driver of changes in the interaction of companies and their workers is technology, specifically automation. One impact of this trend has been the growth in the knowledge-intensive nature of work. While technological advancement is generating a diverse range of business impacts, the increase in the automation of core business functions, including that of manufacturing and service delivery, are of particular relevance to human capital management. As businesses become more digitalized through technology and automation, enhancing the demand for advanced cognitive, reasoning, and interpersonal skills, the relationship between businesses and workers has increasingly shifted business needs in favor of industries that are service-oriented and knowledge-intensive, the latter being particularly more reliant on high-skilled labor.

This shift toward service-oriented and knowledge-intensive work will result in changes in the supply and demand of associated skillsets. In a related publication, McKinsey's analysis suggests that with increased adoption of automation, there may be a growing misalignment between the mix of activities performed by workers and the skills required to perform jobs, although the specifics will vary by country¹³. This research indicates that a significant portion of the activities currently performed by workers will likely be replaced by automation, with one analysis estimating that about half of the activities performed by

¹² Technology is a broad term to refer to, but not limited to, new technologies, including digital platforms, the internet and its global connectivity, automation, and artificial intelligence (AI).

¹³ McKinsey Global Institute, *Jobs Lost, Jobs Gained: Workforce Transitions in a Time of Automation in 2017* (2017), pdf pg. 87, accessed November 5, 2019, <https://www.mckinsey.com/~media/McKinsey/Featured%20Insights/Future%20of%20Organizations/What%20the%20future%20of%20work%20will%20mean%20for%20jobs%20skills%20and%20wages/MGI-Jobs-Lost-Jobs-Gained-Report-December-6-2017.ashx>.

workers paid globally could theoretically be automated using demonstrated technologies¹⁴, and, in about 60% of occupations, at least one-third of the constituent activities could be automated¹⁵. Depending on different scenarios modeled for transition to automation, approximately 75 million workers globally would need to transition to new occupational categories and learn new skills, with up to 375 million workers (14% of the global workforce) in the most aggressive scenario¹⁶. As a result of these shifts to automation, complex skills that are relatively hard to automate¹⁷ will become increasingly valuable in the labor market. Social skills (influencing, persuasion, emotional intelligence, and teaching others), processing skills (active listening and critical thinking), and cognitive skills (creativity and mathematical reasoning, interpersonal skills, and advanced reasoning)^{18,19}, will be particularly relevant for future jobs (See Exhibit 1 and 2). The shift to jobs requiring more complex skills will also impact the ways in which the workforce is trained, such as favoring guided experiences or apprenticeship²⁰. This will also favor jobs that require additional levels of education, especially in developing economies²¹ (See Exhibit 3).

¹⁴ Demonstrated technology is defined as a technical capability that already exists, although an integrated solution to automate each particular activity might not yet have been developed nor deployed; McKinsey Global Institute, *Jobs Lost, Jobs Gained*, pdf pg. 35.

¹⁵ McKinsey Global Institute, *Jobs Lost, Jobs Gained*, pdf pg. 12.

¹⁶ Ibid.

¹⁷ Ibid, pdf pg. 8.

¹⁸ World Economic Forum, *Global Challenge Insight Report The Future of Jobs: Employment, Skills and Workforce Strategy for the Fourth Industrial Revolution in 2016* (Geneva, Switzerland: World Economic Forum), accessed March 10, 2020, http://www3.weforum.org/docs/WEF_Future_of_Jobs.pdf.

¹⁹ McKinsey Global Institute, *Jobs Lost, Jobs Gained*, pdf pg. 25.

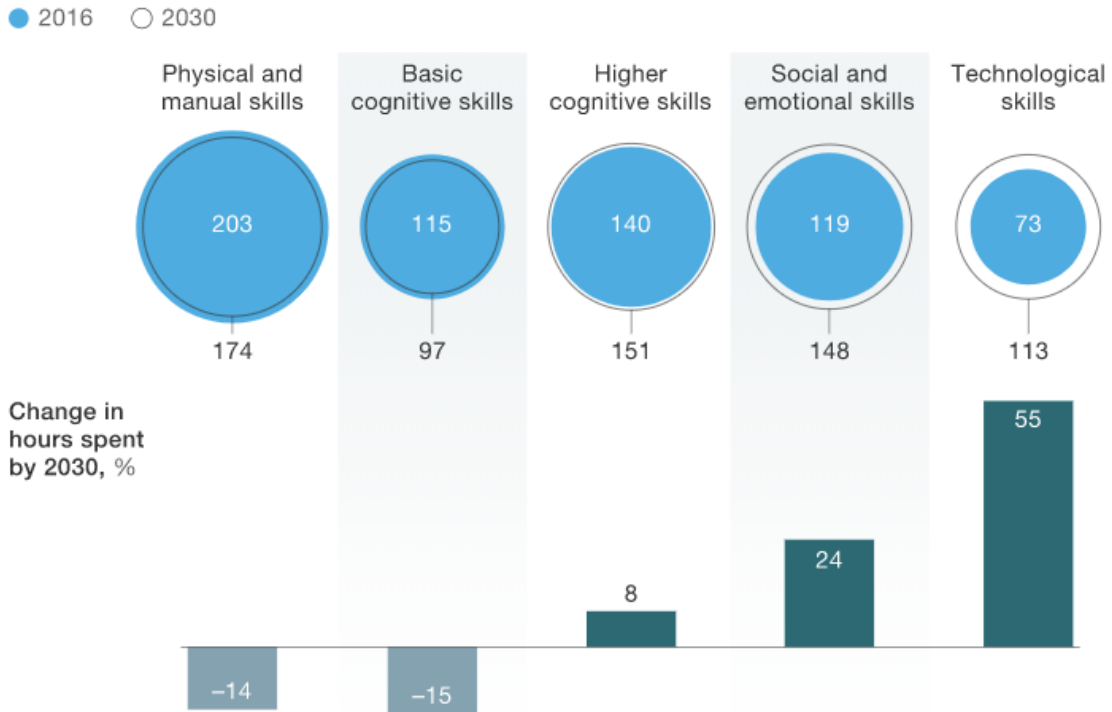
²⁰ Ibid., pdf pg. 90.

²¹ Ibid., pdf pg. 95.

Exhibit 1

Automation and artificial intelligence will accelerate the shift in skills that the workforce needs.

Total hours worked in Europe and United States, 2016 vs 2030 estimate, billion



Source: McKinsey Global Institute Workforce Skills Model; McKinsey Global Institute analysis

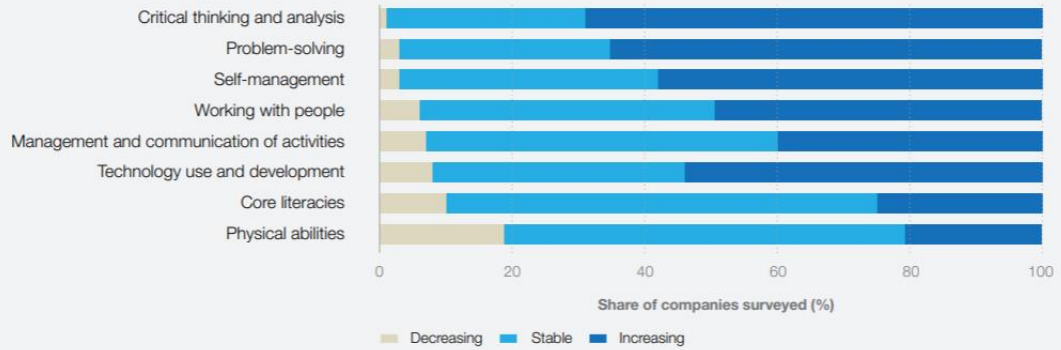
22



²² McKinsey Global Institute, *Skill Shift Automation and The Future of the Workforce in 2018* (McKinsey & Company, 2018), accessed March 10, 2020, <https://www.mckinsey.com/featured-insights/future-of-work/skill-shift-automation-and-the-future-of-the-workforce>; See Exhibit 1, Automation and artificial intelligence will accelerate the shift in skills that the workforce needs; This illustration is based on an analysis of the U.S. and a select group of European countries to illustrate where automation could have the most significant impacts based on skill set.

Exhibit 2

A. Relative importance of different skill groups



23

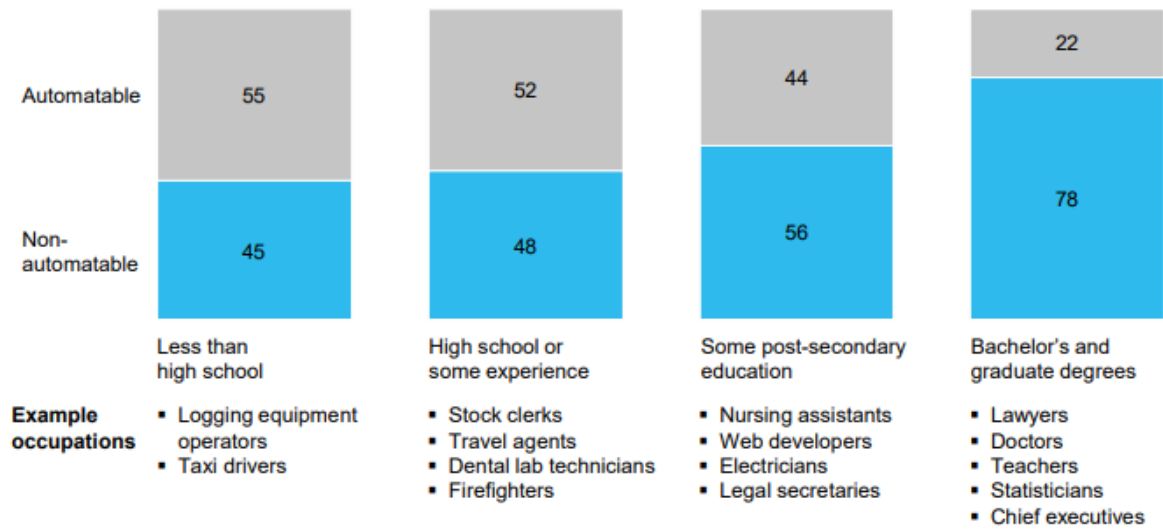
²³ World Economic Forum, The Future of Jobs Report 2020 in 2020, (Geneva, Switzerland: World Economic Forum, pdf pg. 36, October 2020, http://www3.weforum.org/docs/WEF_Future_of_Jobs_2020.pdf; See Figure 27.A Relative importance of different skill groups.

Exhibit 3

Exhibit 4

Occupations requiring higher levels of education and experience have lower automation potential

Technical automation potential of work activities by job zone in the United States
%



NOTE: We define automation potential according to the work activities that can be automated by adapting currently demonstrated technology.

SOURCE: US Bureau of Labor Statistics; O*Net; McKinsey Global Institute analysis

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²⁴ McKinsey Global Institute, *Jobs Lost, Jobs Gained*; Exhibit 4, Occupations requiring higher levels of education and experience have lower automation potential, pdf pg. 40.

An updated report provided by the World Economic Forum – The Future of Jobs Report 2020 – further expands upon the main ideas above, namely, that technological advancement has increased even in the last two years and is accelerating technological adoption across industries broadly. While the report notes that patterns of technological adoption vary by industry, it is clear that broad-based acceleration of technological adoption will increase the demand for new job roles and skill sets. The report notes that workforce disruptions are likely to occur, but will vary by worker occupation and skill set.

More specifically, the report discusses what jobs and which skillsets will emerge or decline as industries broadly work toward enhanced digitalization and technological adoption. As an illustrative example of where this technological transition will have the most significant impact, the report shows which top 20 current job roles will experience demand over the next five years and which jobs will continue to decline (See Exhibit 4) in addition to how certain current skill sets will most likely map to the required skills under technological adoption acceleration (See Exhibit 5).

Exhibit 4

FIGURE 22 | Top 20 job roles in increasing and decreasing demand across industries

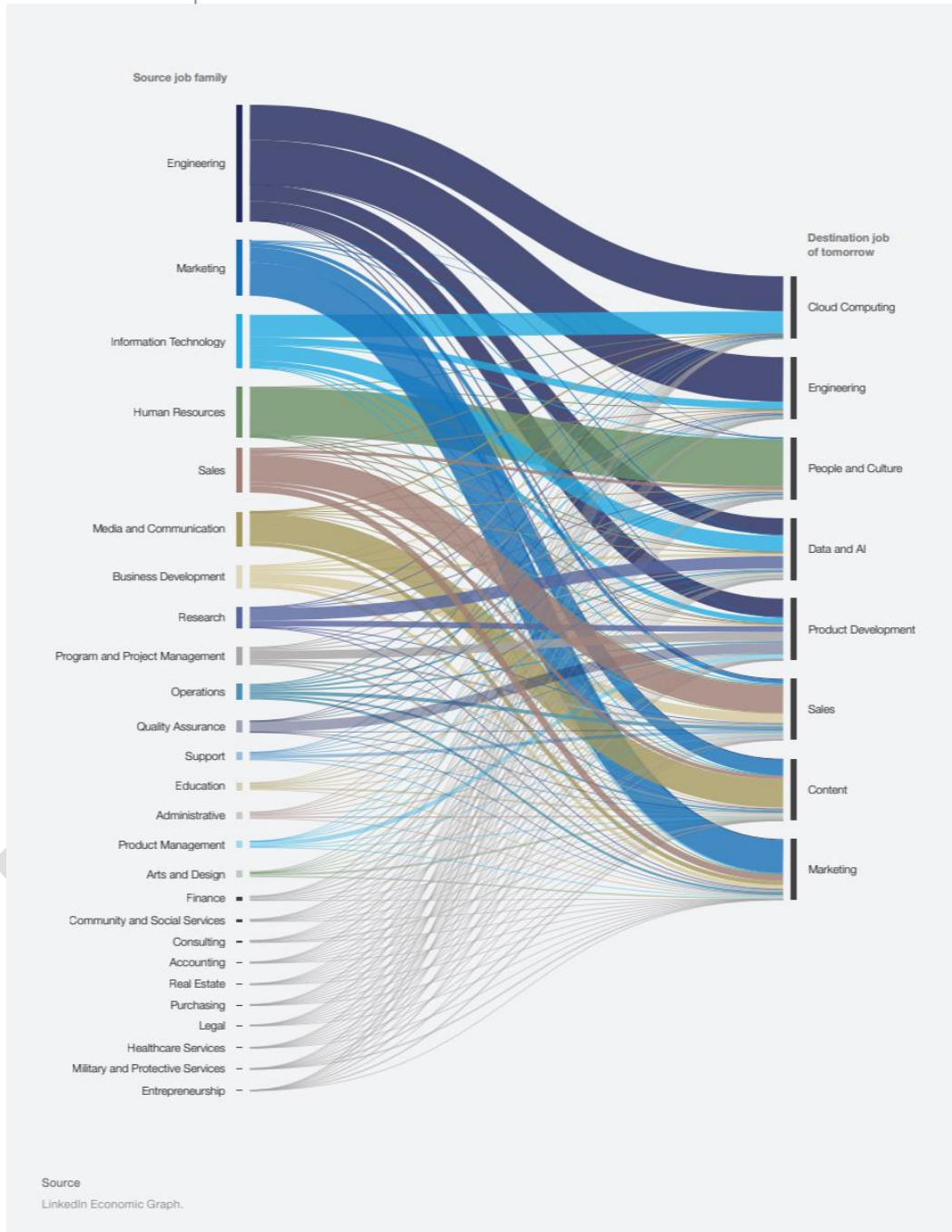


25

²⁵ World Economic Forum, *The Future of Jobs Report 2020*, pdf pg. 30; See Figure 22: Top 20 job roles in increasing and decreasing demand across industries.

Exhibit 5

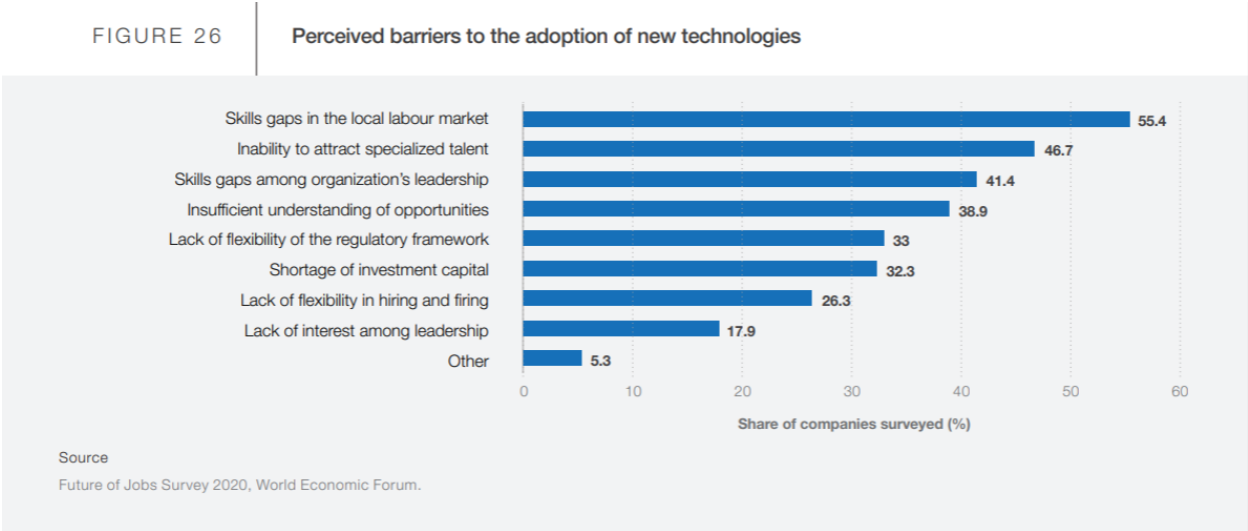
FIGURE 25 | Transitions into the jobs of the future



²⁶ Ibid., pdf pg.34; See Figure 25: Transitions into the jobs of the future.

Lastly, the report shows the perceived barriers to adoption of new technologies, of which the primary barrier is skills gaps in the local labor market, followed by inability to attract specialized talent, and skills gaps among an organization’s leadership shown in Exhibit 6 below:

Exhibit 6



27

²⁷ Ibid., pdf pg.35; See Figure 26: Perceived barriers to the adoption of new technologies.

Quick snapshot on industry-specific impacts:

While the general trends suggest that high-skilled labor has increased in all value chains, sector-specific impacts may vary based on whether the industry is producing goods or services and labor intensity. Based on broad categorizations of industries globally, global innovators that include automotive, computer and electronics, and machinery will face competitive talent markets given that intellectual capital is integral to these businesses' competitive advantage. This is reflected in the fact that spending on R&D and intangible assets averages approximately 30% of revenues and one-third of the workforce in these value chains are high-skilled, second to knowledge-intensive services.

Knowledge-intensive industries such as professional services, financial intermediation, and IT services will also experience a competitive talent market for high-skilled labor given that more than half of the individuals employed in knowledge-intensive services have bachelor's degrees or above. Country participation is highly concentrated in advanced economies. The high concentration of these industries among countries reflects the significant investment in a skilled workforce and intangible assets required to succeed in these value chains.

Service-oriented industries, which are labor-intensive, such as retail and wholesale, transportation and storage, and healthcare, are more insulated from the threats of automation and globalization given the necessary in-person nature of these services. These industries are growing faster than other types of industries reflecting their necessity to economies in all countries. Furthermore, these industries employ several times as many people as labor-intensive manufacturing.

Regional processing, such as fabricated metals, rubber and plastic, glass, cement, and ceramics and food and beverages, in addition to resource-intensive goods such as mining, energy and basic metals, employ a relatively small number of workers given that these industries are largely capital-intensive. However, some industry research suggests that these industries may be integrating automation into their processes to gain efficiencies and may require shifting their labor force toward more knowledge-intensive work to maintain a sustainable business.

Labor-intensive goods such as textiles and apparel, toys, shoes, and furniture are highly-labor intensive and have two-thirds of income going to mostly low-skilled labor. With developing economies shifting toward regionalizing supply chains and reducing global trade intensity in goods, labor-intensive goods industries are shrinking as a contribution of global output and global employment. Human capital that is employed in these industries will experience continuing economic and financial pressure as a low-skilled and low-income labor force and may be most at risk from automation.

Source: McKinsey Global Institute, Globalization in Transition: The Future of Trade and Value Chains in 2019: Executive Summary (2019), pdf pg. 8, accessed November 4, 2019,

<https://www.mckinsey.com/~media/McKinsey/Featured%20Insights/Innovation/Globalization%20in%20transition%20The%20future%20of%20trade%20and%20value%20chains/MGI-Globalization-in-transition-The-future-of-trade-and-value-chains-Executive-summary.ashx>

Growing income inequality

The growth in income inequality has implications for employer-employee relationships

Globally, studies indicate that income inequality is in part exacerbated by advances in technology and automation, which together have contributed to growing wage polarization and lack of income advancement.²⁸ These trends hold between advanced and some developing and emerging economies^{29, 30, 31}, between high-skilled and low-skilled workers. As a result of this growing income disparity, the role and nature of job quality as part of the employer-employee social contract have risen to prominence in both social consciousness and its real impacts on corporate strategies in management of its human capital.

While this phenomenon is most acute in advanced economies, in some developing economies like China and India, poverty is declining and a middle class has emerged, which has had the effect of decreasing overall income inequality in the national economy. Taking into consideration this income effect in China and India, the degree to which income inequality manifests in a particular industry may depend on its global footprint and the underlying socioeconomic factors contributing to changes in wages (For more information see “Large Developing Economies: China and India” grey box).

Employer-employee social contract:

Research conducted by McKinsey defines the employer-employee social contract as “the arrangements and expectations, often implicit, that govern the exchanges between individuals and institutions – including the private, public, and social sectors.” The social contract between the employer and employee is founded on the premise of work, particularly on how individuals contribute to labor, and how they are compensated for it. Furthermore, for many individuals, the labor market is a major component to their satisfaction with life where the labor market is the economy’s main mechanism to share aggregate gains in the population.

Source: McKinsey Global Institute, *The social contract in the 21st century: Outcomes so far for workers, consumers, and savers in advanced economies in 2020* (McKinsey & Company, 2020), pdf pg. 11, accessed March 10, 2020, <https://www.mckinsey.com/~media/mckinsey/industries/social%20sector/our%20insights/the%20social%20contract%20in%20the%2021st%20century/mgi-the-social-contract-in-the-21st-century-full-report-final.ashx>.

From a global perspective, economic convergence between countries has reduced global pay inequality as noted by the ILO’S 2020 World Economic Social Outlook. However, the report notes that within countries, on average, the middle class and the lower earners have barely seen their shares of labor income change. As the figure from the report shows (See Exhibit 7), based on the average GDP-weighted labor income distribution, inequality has been stagnant over the last few decades. On average the middle class has seen its share of labor income change very little from 44.8% in 2004 to 45.1% in 2017. For the lowest earners (the bottom 20%), the change has also been negligible: they earned 4.0% of labor income in 2017, compared with 3.9% in 2004. Consequently, the highest 20% of earners saw little

²⁸ McKinsey Global Institute, *Jobs Lost, Jobs Gained*, pdf pg. 134.

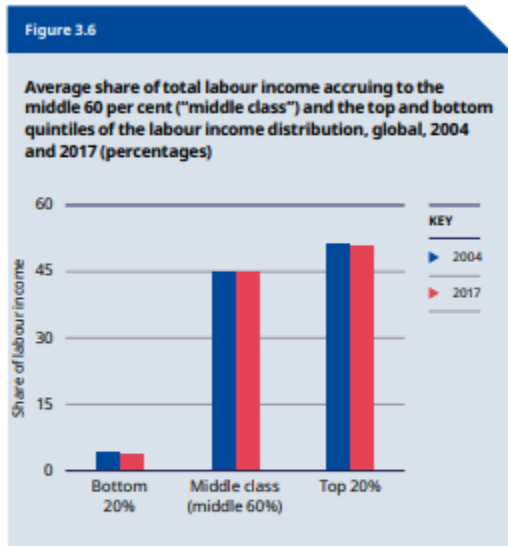
²⁹ Uri Dadush and William Shaw, “Globalization, Labor Markets, and Inequality,” *Carnegie Endowment for International Peace*, February 2, 2012, <https://carnegieendowment.org/2012/02/02/globalization-labor-markets-and-inequality-pub-47028>

³⁰ Organisation of Economic Cooperation and Development (OECD), “Globalization, Jobs and Wages,” OECD policy brief (June 2007), <https://www.oecd.org/els/emp/Globalisation-Jobs-and-Wages-2007.pdf>.

³¹ Matthew Slaughter and Phillip Swagel, “The Effect of Globalization on Wages in Advanced Economies,” International Monetary Fund (IMF) working paper number 97/43 (April 1997), <https://www.imf.org/external/pubs/ft/wp/wp9743.pdf>.

change in their average share of global pay. Nonetheless, labor income inequality has increased in large countries around the world, such as Germany, Indonesia, Italy, Pakistan, the United Kingdom and the United States.³²

Exhibit 7



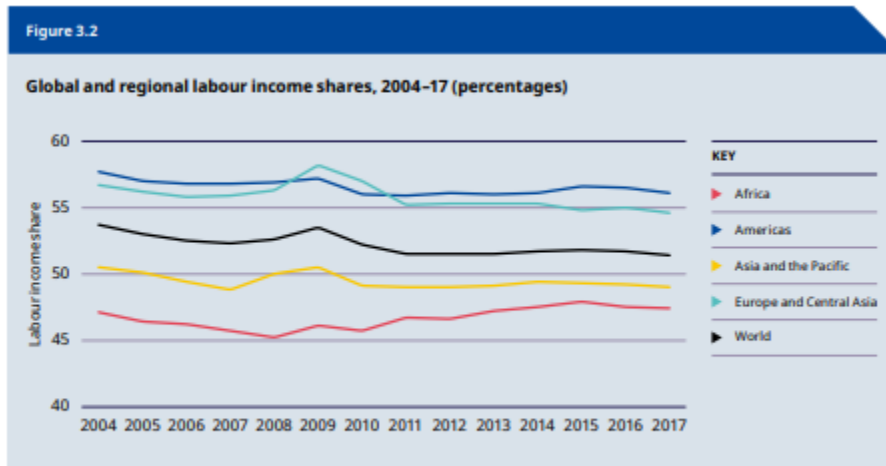
Note: The figure was prepared by dividing workers into three groups on the basis of labour income – the bottom 20 per cent, the middle 60 per cent and the top 20 per cent – for each country and year. The average share of labour income of each of these groups across all countries was then calculated, with the averages weighted by the economic size of each country in 2004.
Source: ILO, 2019k.

The ILO’s 2020 World Economic Social Outlook report shows that, at a global level between countries, income inequality is higher than previously estimated, especially in developing countries, evidenced by the fact that the share of national income going to labor rather than to other factors of production declined substantially between 2004 and 2017 (from 54% to 51%) worldwide with the economically significant fall being most notable in Europe, Central Asia and the Americas (See Exhibit 8).³³

³² International Labour Organization, World Employment and Social Outlook Trends 2020 in 2020 (Geneva, Switzerland: International Labour Organization, pdf pg. 69, accessed March 10, 2020, https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_734455.pdf; See Figure 3.6, Average share of total labour income accruing to the middle 60 per cent (‘middle class’) and the top and bottom quintiles of the labour income distribution, global, 2004 and 2017 (percentages).

³³ International Labor Organization, World Employment and Social Outlook Trends 2020 in 2020 (Geneva, Switzerland: International Labor Organization, pdf pg. 64, accessed March 10, 2020, https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_734455.pdf; See Figure 3.2, Global and regional labor income shares, 2004-17 (percentages).

Exhibit 8



McKinsey’s report on inequality shares similar observations for high-income countries where these countries’ share of global wealth fell from 80% in 2000 to 71% in 2014. Wages have stagnated for many in advanced economies, where real disposable incomes have fallen since 2005 for one in four individuals living in six of the G-7 economies. These effects are particularly acute for middle-income earners and those in medium-skill jobs. In contrast, the share of middle-income countries such as China and India rose from 14 to 22%. In the BRIC economies (Brazil, Russia, India, and China), average real wages increased by 20% to 100% between 2008 and 2017.³⁴

³⁴ International Labor Organization, *Global Wage Report 2018/19: What lies behind gender pay gaps in 2018*, https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_650553.pdf.

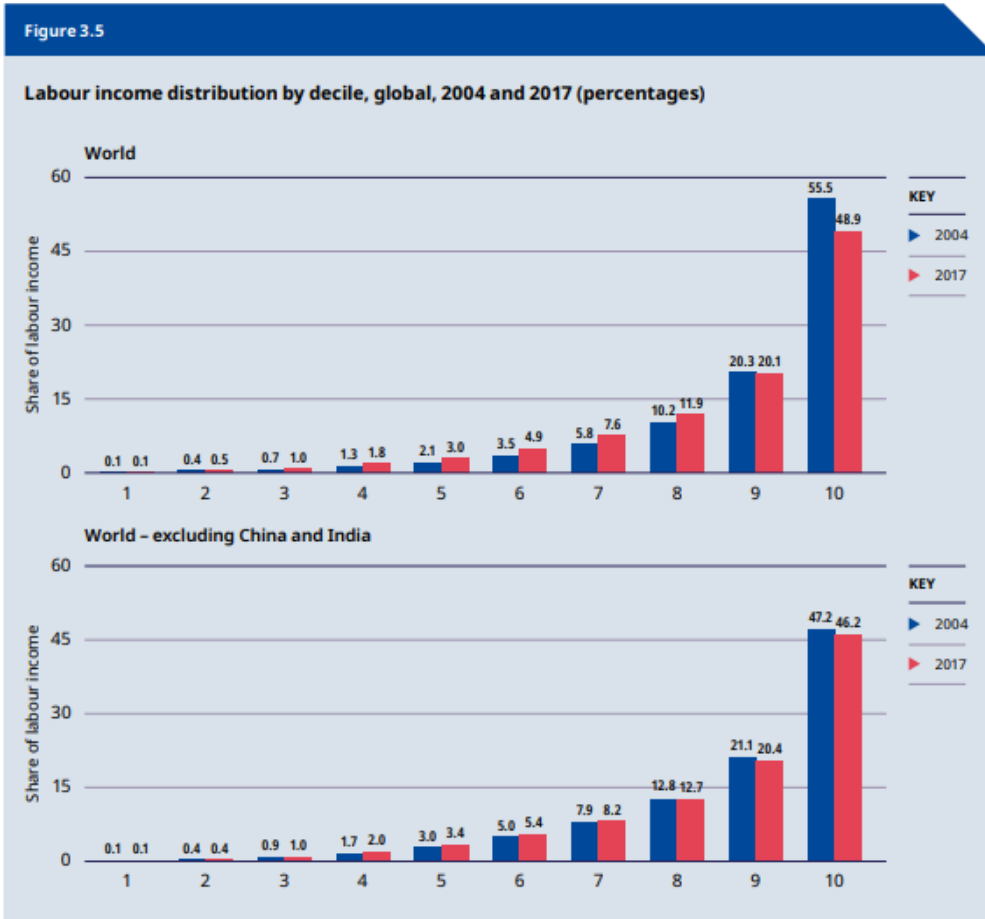
Large Developing Economies: China and India

The trend toward a narrowing wage gap between workers in advanced and developing economies is driven by countries such as China and India (pre-pandemic). On the whole, global inequality over the last several years has grown smaller driven by the fact that developing economies, particularly China and India, have narrowed the global wealth and income gap with richer countries as shown in the exhibit below. This trend is due in part from China and India's economic trajectories as large developing economies, which have experienced transformative structural economic shifts from largely agricultural economies to manufacturing economies. Due to these structural economic shifts, these countries have benefited from rapid growth in their economies, leading to significant job creation, higher wages and an average rise in labor income due to the shift in workers to more productive jobs, and increased consumption.

China and India are examples of how a combination of factors including wage levels, demand growth, demographics, the mix of economic sectors and occupations will determine how regional and national economies are impacted by the broad trends of technology and automation and create different income outcomes that diverge from the path followed by many advanced economies.

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Large Developing Economies: China and India (continued)



Note: These charts have been produced using a procedure analogous to that for figure 3.4, but in this case focusing on the relative share of income per decile rather than the average level.

Source: ILO, 2019k.

Source: International Labour Organization, *World Employment and Social Outlook Trends 2020 in 2020* (Geneva, Switzerland: International Labour Organization, pdf pg. 68, accessed March 10, 2020, https://www.ilo.org/wcmsp5/groups/public/---dareports/---dcomm/---publ/documents/publication/wcms_734455.pdf).

Large Developing Economies: China and India (continued)

However, due to the significant economic impact from the COVID-19 pandemic, these outcomes could be altered in the near-term with changes in employment from economic recession and consumer and worker behavior as a result of the accelerated trend of digitalization, and many other impacts. At this stage, China has already seen a return to economic growth as a result of its ability to quickly tamp down on the virus and embrace digitalization, while India's economy has seen sequential economic contraction as a result of lock-downs and existing struggle to maintain historical economic growth.

As noted by S&P, in suppressing the virus, China has been able to recover economically quicker than others. China is "holding up the world" in terms of GDP after the country achieved an expansion of 4.9% in the third quarter of 2020. According to the IMF, China is likely to be the only country to register positive growth in 2020 and is projected to deliver more than 8% growth in 2021.

In contrast, in India, the economy had already slowed to growth of just 3.1% in the first three months of 2020, but the extensive lockdown meant output in the three months to June plunged 23.9%, the first quarterly contraction since 1997, with steep declines in some sectors including a 50.3% contraction in construction. However, economists posit that favorable demographics, years of growth allowing the Indian middle class to swell to 350 million, competitive unit labor costs, and a stable government are significant factors that will buoy India's economy over the long-term despite current impacts from COVID-19.

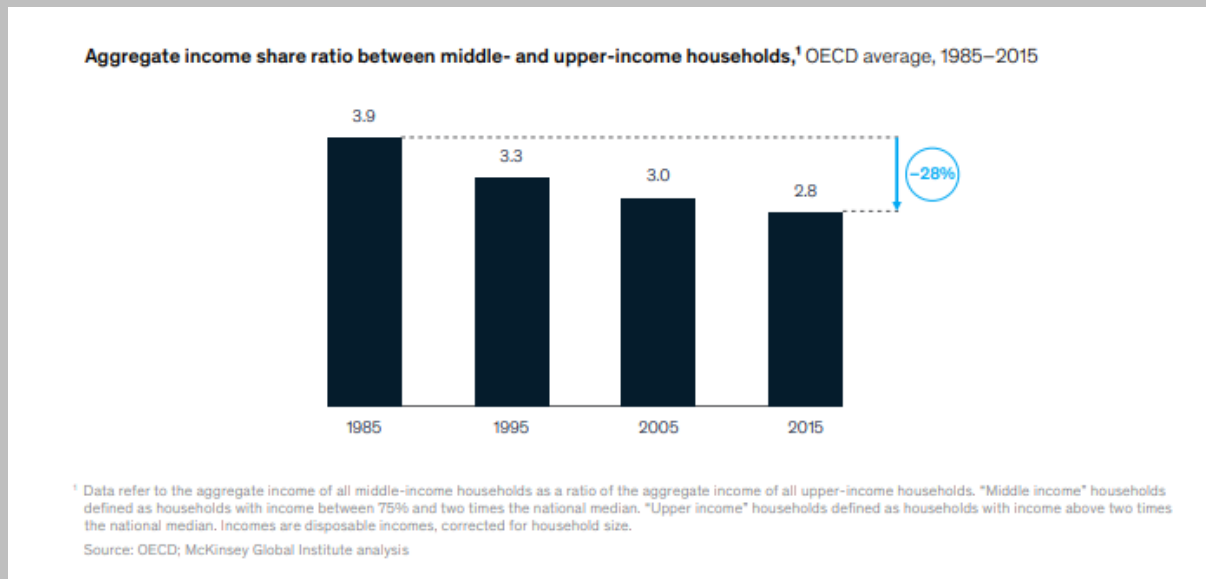
Source: Peter Brennan, "COVID-19 magnifies BRICS divergence as China solidifies lead," *S&P Global Market Intelligence*, last modified November 5, 2020, <https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/covid-19-magnifies-brics-divergence-as-china-solidifies-lead-61053247>.

Growing Wealth Inequality Globally

Within advanced economies, economic outcomes have grown more unequal as well, especially inequalities of wealth and income. Based on the economic analysis conducted by McKinsey, as measured by the mean-to-median wealth ratio, wealth inequality has increased in two-thirds of OECD member economies since 2000. In income, the top 1% of wage-earners in the OECD almost doubled its share of total pretax income from 6% in 1980 to around 11% in 2014. As noted previously, wages have stagnated for many in advanced economies given that real disposable incomes have fallen since 2005 for one in four individuals living in six of the G-7 economies. These effects are particularly acute for middle-income earners and those in medium-skill jobs. Other contributing factors include the rise in education, healthcare, and housing costs, which have over the same time risen faster than overall inflation across the European Union and the United States. Household indebtedness has also risen, albeit with high dispersion across economies, from 87% of net disposable income in 1995 to 123% in 2017, which is putting increasing financial pressure on low- and middle-income individuals.

Source: McKinsey Global Institute, *Inequality: A persisting challenge and its implications in 2019* (McKinsey & Company, 2019), pdf pg. 6, accessed February 12, 2020,

<https://www.mckinsey.com/~/media/mckinsey/industries/public%20sector/our%20insights/inequality%20a%20persisting%20challenge%20and%20its%20implications/inequality-a-persisting-challenge-and-its-implications.ashx>.



Source: McKinsey Global Institute, *Inequality: A persisting challenge and its implications in 2019* (McKinsey & Company, 2019), pdf pg. 44, accessed February 12, 2020,

<https://www.mckinsey.com/~/media/mckinsey/industries/public%20sector/our%20insights/inequality%20a%20persisting%20challenge%20and%20its%20implications/inequality-a-persisting-challenge-and-its-implications.ashx>; See Exhibit 18, *The middle class has been particularly affected, with its economic influence declining by almost one-third since the 1980s.*

Growing Wealth Inequality Globally:(continued):



Source: McKinsey Global Institute, *Inequality: A persisting challenge and its implications in 2019* (McKinsey & Company, 2019), pdf pg. 43, accessed February 12, 2020, <https://www.mckinsey.com/~media/mckinsey/industries/public%20sector/our%20insights/inequality%20a%20persisting%20challenge%20and%20its%20implications/inequality-a-persisting-challenge-and-its-implications.ashx>; See Exhibit 17, Moving beyond average wages, real net income fell for one-quarter of individuals in G-7, and 60 percent experienced slower growth than the next-richest decile.

Over the past 20 years, 70% of GDP and gross surplus gains across G-20 countries have accrued to a handful of economic activities including finance, real estate, tech, pharmaceuticals, and some business services. This drives strong wealth effects in the form of gains to providers of capital, and particularly in those industries where value is largely derived from intangible assets. As these sectors tend to be less labor-intensive, this results in high-skilled workers associated with these activities seeing the majority of the gains associated with these business activities.

Moreover, the search for growth in these sectors has resulted in geographically concentrated searches for talent that further entrench the gains in these locations, contributing to the growth of “superstar” cities that are centers of finance, tech, and innovation activity, and which are pulling away from peer cities in terms of income growth. The impact also contributes to a bifurcation of growth prospects within superstar cities, which have some of the world’s highest levels of urban inequality.³⁵

In summary, the declining labor share of income, which partly is related to pressure on wages, is associated with the increasing prevalence of: (i) technology and associated polarization of job opportunities and incomes between high- and low-skilled workers; and (ii) the growth of “superstar” sectors and cities that are further contributing to wealth concentration and wage disparity.³⁶ This increasing disparity has implications for the manner in which companies will need to attract, retain, compensate, and engage their workforces.

The role of shifting global labor force demographics

Shifting labor force demographics are contributing to changes in the employer-employee social contract

Another contributing factor to the changing employer-employee social contact is related to fundamental shifts in global labor force demographics. Older generations are living longer, and as a result, the average age of the workforce in many markets is increasing as populations globally are aging.³⁷ As noted in the UN’s Department of Economic and Social Affairs, Population Division report “World Population Ageing 2019”, “Population ageing is a global phenomenon”, in which virtually every country in the world is experiencing growth in both size and proportion of older persons (defined as persons aged 65 years or older) in their respective populations.³⁸ On the other end of the spectrum, younger generations such as Millennials and Generation Z are becoming a more significant portion of the global workforce.³⁹

³⁵ McKinsey Global Institute, *Superstars: The dynamics of firms, sectors, and cities leading the global economy in 2018* (McKinsey Institute, 2018), accessed March 10, 2020, https://www.mckinsey.com/~media/McKinsey/Featured%20Insights/Innovation/Superstars%20The%20dynamics%20of%20firms%20sectors%20and%20cities%20leading%20the%20global%20economy/MGI_Superstars_Discussion%20paper_Oct%202018-v2.ashx.

³⁶ McKinsey Global Institute, *Inequality: A persisting challenge and its implications in 2019* (McKinsey & Company, 2019), pdf pg. 6, accessed February 12, 2020, <https://www.mckinsey.com/~media/mckinsey/industries/public%20sector/our%20insights/inequality%20a%20persisting%20challenge%20and%20its%20implications/inequality-a-persisting-challenge-and-its-implications.ashx>.

³⁷ “Generations-Demographic Trends in Population and Workforce: Quick Take,” Catalyst, last modified November 7, 2019, <https://www.catalyst.org/research/generations-demographic-trends-in-population-and-workforce/>; Footnotes 6, 7, 9, 10, 11, 12, 16, 22, 26.

³⁸ United Nations Department of Economic and Social Affairs, *World Population Ageing 2019: Highlights in 2019* (New York City, New York: United Nations, 2019), pdf pg. 7, accessed March 10, 2020, <https://www.un.org/en/development/desa/population/publications/pdf/ageing/WorldPopulationAgeing2019-Highlights.pdf>.

³⁹ Catalyst, “Generations-Demographic Trends,”; See Footnote 1, 3, and 4 - Catalyst defines Baby Boomers as those born between 1943-1960, Millennials as those born between January 1981 through December 1996; and Generation Z or the Post-Millennial generation as those born after 1996 per Pew Research center, “The Generations Defined,” April 11, 2018, https://www.pewresearch.org/fact-tank/2018/04/11/millennials-largest-generation-us-labor-force/ft_18-04-02_generationsdefined2017_working-age/.

According to the ILO's World Employment Social Outlook: Youth report, millennials comprised nearly 20% of the world's population and accounted for more than 15% of the global workforce.⁴⁰ However, in many markets, younger generations are replacing older generations in smaller numbers due to declining birth rates over several decades. The result is an uneven distribution of workers in the labor force, in which a smaller base of younger workers is replacing a larger set of older workers.

Although demographic shifts occur on a continuous basis, several unique attributes associated with the current shift have particular implications related to human capital, specifically in terms of evolving expectations around the employer-employee social contract. Younger workers are increasingly influencing the social contract between employers and employees.⁴¹ A global Deloitte survey assessing both Millennial and Gen Z attitudes toward work found that Millennials generally value meaningful jobs⁴², flexibility, learning opportunities, and opportunities for advancement⁴³ in addition to more traditional incentives such as compensation and benefits^{44,45,46,47}. Consequently, employers are tailoring their recruitment and retention strategies, especially in competitive and/or constrained talent markets, as a key part of their broader business objectives as the workforce demographics becomes largely composed of younger generations.

Globalization

Value chains globally are fundamentally shifting with impacts to the nature of work

Fundamental shifts in value chains are impacting the flow of trade and reallocating growth toward industries that are service-oriented, a subset of which are increasingly knowledge-intensive, and are changing the nature of work globally. Based on a 2017 study conducted by McKinsey⁴⁸, these shifts are a result of several key trends. Most importantly, global value chains are being transformed by cross-border data flows such as new technologies, including digital platforms, the internet and its global

⁴⁰ Ibid; See Footnote 3, 4.

⁴¹ Deloitte, *The Future of the Workforce: Critical drivers and challenges in 2016* (Deloitte Touche Tohmatsu Limited, 2016), pdf pg. 4, accessed March 10, 2020, <https://www2.deloitte.com/content/dam/Deloitte/global/Documents/HumanCapital/gx-hc-future-workforce.pdf>.

⁴² Michal Shinwell, "Measuring the impact of businesses on people's well-being and sustainability Taking stock of existing frameworks and initiatives," OECD, Working Paper No. 95,

[http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=SDD/DOC\(2018\)8&docLanguage=En](http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=SDD/DOC(2018)8&docLanguage=En); Shinwell notes that "millennials, which have been shown to have a stronger social and environmental orientation, are set to represent an increasingly large share of the population (Morgan Stanley, 2015; Schawbel, 2015; Rogers, 2016)...Millennials' and women's preferences (Rogers, 2016) are reflected in each and every economic position they hold: not only as investors, but also as consumers, as engaged citizens, and as employees. Their aspirations for meaningful jobs make them more aware of corporate responsibility when choosing their career paths; thus affecting companies' ability to attract and retain talent."

⁴³ Deloitte, *The Deloitte Global Millennial Survey 2019: Societal discord and technological transformation create a generation disrupted in 2019* (Deloitte Touche Tohmatsu Limited, 2019), pdf pg. 16, accessed March 9, 2020, <https://www2.deloitte.com/global/en/pages/about-deloitte/articles/millennialsurvey.html>; See Figure 6; The 2019 report is based on the views of 13,416 millennials questioned across 42 countries and territories. Millennials included in the study were born between January 1983 and December 1994. This report also includes responses from 3,009 Gen Z respondents in 10 countries. Gen Z respondents were born between January 1995 and December 2002. The overall sample size of 16,425 represents the largest survey of millennials and Gen Zs completed in the eight years Deloitte Global has published this report. The survey was conducted 4 December 2018 through 18 January 2019.

⁴⁴ Deloitte, *The Future of the Workforce*, pdf pg. 4.

⁴⁵ "Infographic: Revealing the Real Millennials: Career Expectations," Catalyst, last modified July 13, 2015, <https://www.catalyst.org/research/infographic-revealing-the-real-millennials-career-expectations/>.

⁴⁶ PWC, *Millennials at work: Reshaping the workplace in 2011* (PWC, 2011), accessed March 10, 2020, <https://www.pwc.com/co/es/publicaciones/assets/millennials-at-work.pdf>.

⁴⁷ Deloitte, *The Deloitte Global Millennial Survey 2019*, pdf pg. 13 and 16.

⁴⁸ This analysis encompassed 23 value chains spanning 43 countries and accounted for 96% of global trade.

connectivity, automation, and artificial intelligence (AI), which are enhancing trades in services and further reducing trade in goods.

Additionally, emerging markets' share of global consumption has risen nearly 50% in the last decade, indicating that value chains globally are shifting to meet this new demand as these markets deepen their participation in global flows of goods, services, human capital, finance, and data⁴⁹. In conjunction with these trends, many emerging economies are building more comprehensive domestic supply chains and reducing their reliance on imported intermediate inputs. China, in particular, produces nearly half of all global output and is a major part of almost every goods-producing global value chain. While other developing countries are at earlier stages of industrial maturity than China, they are exhibiting the same structural shifts.

The consequence of these major shifts in developing markets is a reduction in global trade intensity in goods, indicating convergence with advanced economies and a move toward more service-oriented economies with associated impacts on the role of workforces in delivering these services. An increasing movement toward trade in services has major effects for industries broadly, including reduced labor-arbitrage⁵⁰ and increased knowledge intensity across many value chains and industries (See Exhibit 9). In turn, these trends have significant impacts on human capital globally, specifically related to what skills are demanded in the global labor market to support service-oriented industries, and specifically more knowledge-intensive ones. As the global economy becomes increasingly service-oriented and, in some industries, more knowledge-intensive, the economy is becoming more reliant on higher-skilled labor⁵¹ and simultaneously placing growing economic and financial pressure on lower-skilled workers.

Evidence that value chains are also becoming increasingly knowledge-intensive are visible through the bigger role that intangibles play in global value chains. McKinsey Global Institute research shows that in all value chains, capitalized spending on R&D and intangible assets such as brands, software, and intellectual property (IP) are growing as a share of revenue, particularly in global innovations value chains (See Exhibit 1)⁵². Overall, such spending rose from 5.4% of revenue in 2000 to 13.1% in 2016⁵³. The growing emphasis on intangibles and worker knowledge favors industries with highly skilled labor forces, strong innovation and R&D capabilities, and robust intellectual property protections.⁵⁴

⁴⁹ McKinsey Global Institute, *Globalization in Transition: The Future of Trade and Value Chains in 2019: Executive Summary* (2019), pdf pg. 17, accessed November 4, 2019,

<https://www.mckinsey.com/~media/McKinsey/Featured%20Insights/Innovation/Globalization%20in%20transition%20The%20future%20of%20trade%20and%20value%20chains/MGI-Globalization-in-transition-The-future-of-trade-and-value-chains-Executive-summary.ashx>

⁵⁰ Labor arbitrage can be defined as an economic phenomenon where jobs move to nations where labor and the cost of doing business are less expensive as a result of the removal or reduction of barriers to international trade.

⁵¹ McKinsey Global Institute, *Globalization in Transition*, pdf pg. 4 and 11.

⁵² Jonathan Haskel and Stian Westlake, *Capitalism Without Capital: The Rise of the Intangible Economy in 2017* (Princeton, New Jersey: Princeton University Press, 2017).

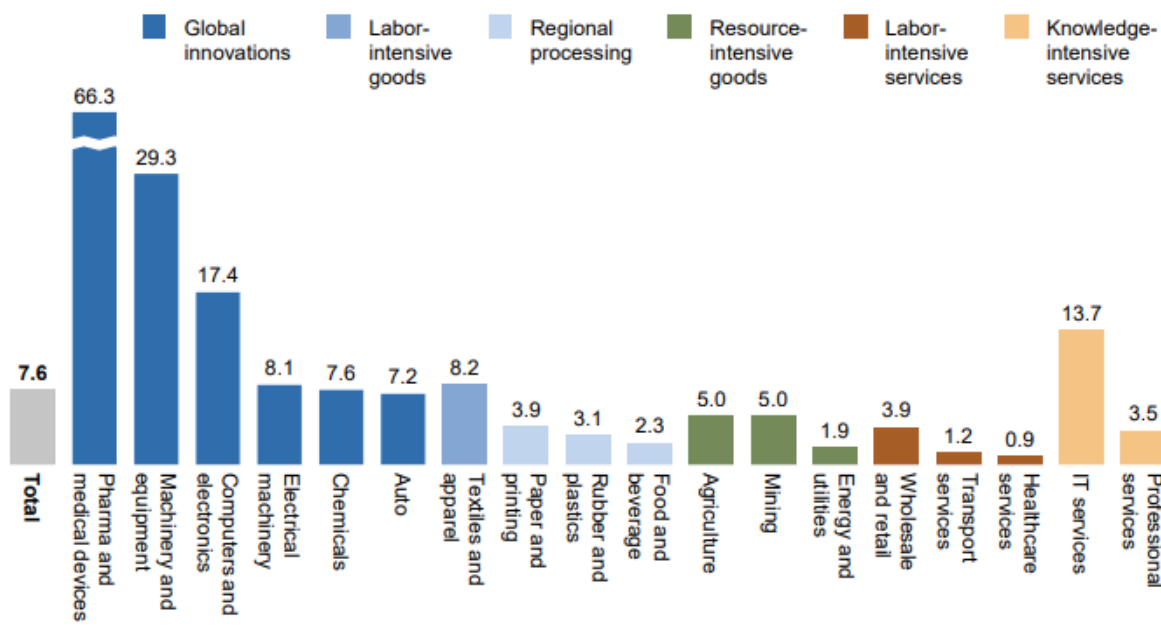
⁵³ McKinsey Global Institute, *Globalization in Transition*, pdf pg. 14.

⁵⁴ Ibid.; Some trade in intangible assets is captured in trade statistics through intellectual property royalties, which are influenced by tax considerations. But the creation (rather than final ownership location) of intangible assets takes place in countries with talent, legal protections, and innovation ecosystems.

Exhibit 9

All global value chains are becoming more knowledge-intensive.

Change in capitalized spending on intangibles as share of revenue¹
Percentage points, 2000–16



Capitalized spending on intangibles as % of revenue, 2016

13.1 80.0 36.4 25.4 16.4 14.9 12.2 16.6 9.8 11.5 7.1 9.1 5.0 3.9 8.9 4.1 4.2 18.9 10.3

¹ Intangibles include brands, software, and other intellectual property, capitalized based on R&D and selling, general, and administrative (SG&A) expenses of ~24,500 nonfinancial companies (assuming depreciation rate of capitalized SG&A at 20% and capitalized R&D at 15%). Capitalized expenses as of 2000 estimated based on multiplier to annual expenses based on Taylor and Peters (2014), which uses different multipliers depending on company age.

SOURCE: McKinsey Corporate Performance Analytics; McKinsey Global Institute analysis

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Additionally, in many value chains, value creation is shifting away from core manufacturing to upstream activities, such as R&D and design, and to downstream activities, such as distribution, marketing, and after-sales services. The share of value generated by the actual production of goods is declining, which is in part because offshoring is increasing the use of global supply chains and access to labor has lowered the price of many goods.⁵⁶ This trend is pronounced in pharmaceuticals and consumer electronics, which have seen the rise of “virtual manufacturing” companies that focus on developing goods and outsource their production to contract manufacturers. As value chains become more knowledge-intensive, they also employ a larger share of highly skilled labor, which is evidenced by the fact that the share of income going to high-skilled labor has increased in all value chains.⁵⁷

⁵⁵ Ibid.; See Exhibit E4, All global value chains are becoming more knowledge-intensive, pdf pg. 15.

⁵⁶ Mary Hallward-Driemeier and Gaurav Nayyar, *Trouble in the making? The future of manufacturing-led development* in 2017 (World Bank, 2017).

⁵⁷ Daron Acemoglu and David Autor, “Skills, tasks, and technologies: Implications for employment and earnings,” in *Handbook of Labor Economics*, Volume 4B, Orley Ashenfelter and David Card, eds., San Diego, CA: Elsevier, 2010.

Evidence suggests that the shift toward service-oriented industries is accelerating as evidenced by the fact that by the relative growth in the global value of trade of services compared to the trade of goods. While gross global trade in services remains smaller than that in goods in services in absolute terms (a total of \$5.1 trillion for services versus \$17.3 trillion for goods), trade in services has grown more than 60% faster than that for goods over the past decade⁵⁸. Some subsectors that are completely service-oriented, including telecom and IT services, business services, and intellectual property charges, are growing two to three times faster⁵⁹. Furthermore, this estimate is most likely undervalued given that the full role of services is obscured in traditional trade statistics. According to the McKinsey report, services create roughly one-third of the value that goes into traded manufactured goods, which include functions like research and development (R&D), engineering, sales and marketing, finance, and human resources that enable goods to go to market⁶⁰, suggesting that human allocation to capital is a critical component to service delivery. Lastly, as manufacturers increasingly introduce new types of services through leasing, subscription, and other “as a service” business models, further blurring the distinction between goods and services; service delivery and the need for human capital to support it are becoming increasingly critical to the value chain.^{61, 62}

The COVID-19 pandemic has changed the global economic landscape. With respect to value chains, the pandemic has introduced the risk of deglobalization. Economists have a wide range of views of how the pandemic will impact globalization and trade, but there are three trends that may have strong potential impacts on how globalization and trade move forward in a post-COVID-19 economy. The Brookings Institute posits in one recent article that there are three potential long-run effects on international trade and global supply chains, which are (i) changes in the structure of demand, (ii) acceleration of Industry 4.0 (also known as the Fourth Industrial Revolution), and (iii) protectionism dressed up as national security⁶³. While the long-term changes in the structure of demand resulting from the pandemic are continuing to become known, the impacts of Industry 4.0 have been well-documented even prior to the pandemic, while the discussion of protectionism is a revival of a legacy debate on global trade which must inevitably be addressed in conjunction with globalization.

A 2018 article in *Foreign Affairs* by Susan Lund and Laura Tyson, while predating the pandemic, most aptly summarizes how the onset of the Industry 4.0 should be framed as not retreat from globalization, but instead an opportunity for globalization to forge new pathways. As Lund and Tyson note, in globalization’s previous incarnation, it was trade-based and Western-led; but in this current version of globalization, it is driven by digital technology and is increasingly led by China and other emerging economies. The authors propose that “[g]lobal value chains, which gave rise to a growing trade in manufactured parts, have reached maturity; most of the efficiency gains have already been realized...Although the location of production will continue to shift among countries in response to

⁵⁸ McKinsey Global Institute, *Globalization in Transition: The Future of Trade and Value Chains in 2019: Executive Summary* (2019), pdf pg. 11, accessed November 4, 2019, <https://www.mckinsey.com/~/media/McKinsey/Featured%20Insights/Innovation/Globalization%20in%20transition%20The%20future%20of%20trade%20and%20value%20chains/MGI-Globalization-in-transition-The-future-of-trade-and-value-chains-Executive-summary.ashx>.

⁵⁹ McKinsey Global Institute, *Globalization in Transition*, pdf pg. 11.

⁶⁰ Ibid.

⁶¹ Sébastien Miroudot and Charles Cadestin, *Services in global value chains: From inputs to value-creating activities*, OECD Trade Policy Papers, number 197, March 2017; Aaditya Mattoo et al., *Trade in value added: Developing new measures of cross-border trade*, World Bank Group, 2013; Cecilia Heuser and Aaditya Mattoo, *Services trade and global value chains*, World Bank policy research working paper WPS8126, 2017.

⁶² “As a service” models replace one-time purchases of physical products with more distributed expenditures. See Elumalai, Irina Starikova, and Sid Tandon, “IT as a service: From build to consume,” McKinsey Quarterly, September 2016.

⁶³ David Dollar, “The future of global supply chains: What are the implications for international trade?,” *The Brookings Institute*, last modified November 17, 2020, <https://www.brookings.edu/research/the-future-of-global-supply-chains-what-are-the-implications-for-international-trade/>.

differences in wages and the prices of other factors of production—from China to Vietnam and Bangladesh, for example—these shifts will merely change the patterns of trade, [but] will not increase its overall volume.”⁶⁴

Furthermore, the authors note that the rise in digital technologies are affecting companies’ decisions about where to locate their factories,

“For most manufactured products, digitally driven automation is making labor costs less relevant, reducing the appeal of global supply chains premised on low-cost foreign workers. Today, when multinational companies choose where to build plants, they more heavily weigh factors other than labor costs, such as the quality of the infrastructure, the distance to consumers, the costs of energy and transportation, the skill level of the labor force, and the regulatory and legal environment. As a result, some types of production are shifting from emerging markets back to advanced economies, where labor costs are considerably higher.”⁶⁵

With respect to human capital, Lund and Tyson offer that in the new era, digital capabilities will serve as “rocket fuel” for a country’s economy, in the sense that companies will require investing in new digital technologies and in human capital, especially given how low productivity growth has stayed. As a society, further steps will be necessary since digital literacy will be even more essential than it is currently, where education will have to rethink their curricula that emphasize digital skills.

As cited by the World Economic Forum, the real threat that is not fully addressed in the Foreign Affairs article is protectionism and isolationism across the globe, which could be the catalyst of a deglobalization trend. In the WEF article⁶⁶, the authors propose that in the post-pandemic climate, the global economy should expect a continued acceleration of deglobalization. This trend will be driven by revisiting older development ideas like the “Big Push”, whereby developing countries are advised to replace successful export-led growth models with inward-oriented strategies. The WEF authors indicate that the countries with the most significant impact from deglobalization will be low- and middle-income economies, where the price is steep in terms of lost trading opportunities, even in a best-case scenario where a few developing countries might seize on new export opportunities as major firms look to diversify production away from China. They posit that the historical growth ladder propped up by globalization and used by Singapore, Taiwan, Hong Kong, South Korea, China, and Vietnam may become inaccessible for countries in South and Central Asia, Latin America, and Sub-Saharan Africa that are earlier on the growth curve. The authors further note that even in key developing countries, such as China and India, the intellectual and policy landscape is tilting sharply toward self-reliance and inwardness. Most importantly, the article notes that the impact of deglobalization will be most acute for the world’s poorer regions, who may not benefit as did other developing countries in the preceding two decades from hyper-globalization and convergence.

While the full impacts of the COVID-19 pandemic on globalization and trade are still unknown at this time, the research and current economic analyses of the impact of Industry 4.0 is well supported in terms of how it is altering the ways in which work is done across and within various industries, and consequently, on the demand and supply of required skills, capabilities, and knowledge to support this economic evolution.

⁶⁴ Susan Lund and Laura Tyson. “Globalization Is Not in Retreat: Digital Technology and the Future of Trade,” *Foreign Affairs* (May/June 2018), <https://www.foreignaffairs.com/articles/world/2018-04-16/globalization-not-retreat>.

⁶⁵ Lund and Tyson “Globalization Is Not in Retreat.”

⁶⁶ Arvind Subramanian and Josh Felman, “How deglobalization is hurting the world’s emerging economies,” *World Economic Forum*, last modified September 29, 2020, <https://www.weforum.org/agenda/2020/09/convergence-threatened-by-deglobalization-covid19/>.

Supporting Evidence for Mental Health, Wellbeing & Health-Related Benefits

Business impact: Mental health and health-related benefits

Global demand shifts in jobs and skill sets across industries are raising the significance of mental and physical wellbeing and other health-related benefits for worker health and safety

With the growing size of knowledge-intensive and service-oriented work in the global value chain, mental health and emotional wellbeing as components of overall worker health and safety are becoming increasingly important. As the global economy collectively shifts toward greater technological advancement and adoption, where jobs and skill sets favor more intellectual and emotional intelligence work, the set of health and safety risks considered are no longer isolated to the physical health and safety of workers, but has increasingly emphasized the importance of mental health and physical wellbeing risk associated with these jobs and tasks.

Mental health and wellbeing cover a wide range of impacts, from diagnosable mental and behavioral disorders to more general conditions of stress or anxiety associated with the workplace. In the World Health Organization's Mental Health Action Plan 2013-2020, the term "mental disorders" is used to denote a range of mental and behavioral disorders that fall within the International Statistical Classification of Diseases and Related Health Problems, Tenth revision (ICD-10). These include disorders that cause a high burden of disease such as depression, bipolar affective disorder, schizophrenia, anxiety disorders, dementia, substance use disorders, intellectual disabilities, and developmental and behavioral disorders with onset usually occurring in childhood and adolescence, including autism.⁶⁷

The 2017 Global Burden of Disease Study⁶⁸, which covers 354 diseases and industries from 195 countries and territories, provides a clear evidence-based assessment of the prevalence of certain health conditions globally, specifically for depression and anxiety disorders. This study concluded that the burden of mental disorders like depression and anxiety are ubiquitous across gender and all age groups. Globally, Years Lived with Disability (YLD) counts, which are a measure of disease burden, are heavily concentrated in working-age males and females (i.e., from 20–54 years), and are particularly evident among conditions such as mental disorders, in addition to neurological disorders and musculoskeletal disorders, which sum to more than 45% of all YLDs in these age groups. The implications of these findings are significant as these age groups have a considerable number of years to live that would otherwise be in full health, emphasizing how conditions at these ages, even if having lower disability

⁶⁷ World Health Organization (WHO), *Mental Health Action Plan: 2013-2020 in 2013* (Switzerland, Geneva: World Health Organization, 2013), pdf pg. 8, accessed March 10, 2020, https://apps.who.int/iris/bitstream/handle/10665/89966/9789241506021_eng.pdf;jsessionid=09CEEDBD1FA304D905572F47AFF8E907?sequence=1.

⁶⁸ "Global, regional, and national incidence, prevalence, and years lived with disability for 354 diseases and injuries for 195 countries and territories, 1990-2017: a systematic analysis for the Global Burden of Disease Study 2017", *The Lancet*, vol. 392 (November 2018), <https://www.thelancet.com/action/showPdf?pii=S0140-6736%2818%2932279-7>

weights, can still contribute substantially to the non-fatal burden and have implications for human capital, broadly-speaking.^{69, 70}

With respect to the prevalence of mental disorders specifically, these conditions have consistently formed more than 14% of age-standardized YLDs for nearly three decades and have greater than 10% prevalence in all 21 Global Burden of Disease (GBD) regions, which substantiate a general global need for increased mental health resources.

Within the broad categorization of mental disorders, depressive disorders have prevailed as leading causes of non-fatal health loss for nearly three decades. “Between 1990 and 2007, the number of all-age YLDs attributed to depressive disorders increased by 33.4% (31.0 to 35.8), becoming the third leading cause of all-age YLDs in 2007... From 2007 to 2017, [it was] observed [that] further increases in the number of all-age YLDs [was] attributable to leading three causes...including depressive disorders (14.3%, 13.1–15.6).”⁷¹ Furthermore, anxiety disorders are a top cause of non-fatal burden, especially for women.⁷²

While based on the previous 2015 WHO Global Health Estimates data, the publication, *Depression and Other Common Mental Disorders: Global Health Estimates*, provides clear evidence of global and regional estimates of prevalence and estimated health loss for depressive orders and anxiety disorders by age, sex, and country income to provide a more regional-specific view (see Exhibit 10 and Exhibit 11).

⁶⁹ The World Bank, “Countries commit to strong action on human capital to drive economic growth,” The World Bank, October 20, 2017, <https://www.worldbank.org/en/news/feature/2017/10/20/countries-commit-to-strong-action-on-human-capital-to-drive-economic-growth>.

⁷⁰ Keith Hansen, Fred Matiang’i, and Lutz Ziob, “Human capital: the greatest asset of economies on the rise,” The World Bank, April 3, 2017, <https://www.worldbank.org/en/news/opinion/2017/04/03/human-capital-the-greatest-asset-of-economies-on-the-rise>.

⁷¹ “Global, regional, and national incidence,” pdf pg. 7.

⁷² Ibid., pdf pg. 40.

Exhibit 10

Depressive disorders	Total YLD (thousands)	YLD per 100,000	% of all YLDs	Rank cause
Low- and middle-income countries				
- African Region	7 229	731	7.9	2
- Eastern Mediterranean Region	4 049	685	6.9	2
- European Region	3 517	859	8.1	2
- Region of the Americas	5 106	844	9.3	1
- South-East Asia Region	13 967	724	7.0	2
- Western Pacific Region	10 525	640	7.2	2
High-income countries	9 608	839	7.9	2
World	54 215	738	7.5	1

Source: WHO Global Health Estimates (http://www.who.int/healthinfo/global_burden_disease)

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⁷³ World Health Organization (WHO), Depression and Other Common Mental Disorders in 2017 (Geneva, Switzerland World Health Organization, 2017), pdf pg. 15, accessed November 12, 2020, <https://apps.who.int/iris/bitstream/handle/10665/254610/WHO-MSD-MER-2017.2-eng.pdf>.

Exhibit 11

Anxiety disorders	Total YLD (thousands)	YLD per 100,000	% of all YLDs	Rank cause
Low- and middle-income countries				
- African Region	2 639	267	2.9	7
- Eastern Mediterranean Region	2 093	354	3.6	7
- European Region	1 239	302	2.9	8
- Region of the Americas	3 433	567	6.2	3
- South-East Asia Region	5 522	286	2.8	9
- Western Pacific Region	4 506	274	3.1	8
High-income countries	5 061	442	4.2	4
World	24 621	335	3.4	6

Source: WHO Global Health Estimates (http://www.who.int/healthinfo/global_burden_disease)

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While addressing prevalent mental health conditions such as depression and anxiety are critical, other conditions such as work-related stress—which can be linked to more serious conditions like depression and anxiety—is equally as important to monitor and manage in the workplace as part of a wider assessment of worker health and safety. Willis Tower Watson expands upon the concept of diagnosable mental disorders by offering a broader definition of integrated wellbeing, of which emotional wellbeing is one distinct component in addition to physical wellbeing, financial wellbeing, and social wellbeing. Emotional wellbeing is characterized by a variety of attributes, but most notably maintenance of good mental health, resilience by managing stress, ability to cope with positive and negative emotional triggers, managing life crises, maintenance of stability through illness and injury, and self-awareness⁷⁵.

Work-related stress has also been increasingly documented by the WHO⁷⁶, ILO⁷⁷, European Agency for Safety and Health at Work (OSHA Europa)⁷⁸, and U.S. Center for Disease Control (CDC)⁷⁹ as a prevalent condition that is commonly linked to mental disorders and chronic diseases⁸⁰. High stress levels can

⁷⁴ World Health Organization (WHO), *Depression and Other Common Mental Disorders*, pdf pg. 16.

⁷⁵ “Solution Integrated Wellbeing,” Willis Towers Watson, accessed February 27, 2020, <https://www.willistowerswatson.com/en-US/Solutions/wellbeing>.

⁷⁶ “Stress at the workplace,” World Health Organization, accessed March 10, 2020, https://www.who.int/occupational_health/topics/stressatwp/en/.

⁷⁷ International Labour Organization (ILO), *Workplace Stress: A Collective Challenge World Day for Safety and Health at Work in 2016* (Geneva, Switzerland: International Labor Organization, 2016), accessed March 10, 2020, https://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---safework/documents/publication/wcms_466547.pdf.

⁷⁸ European Agency for Safety and Health at Work, *European Risk Observatory Report OSH in figures: stress at work – facts and figures in 2009* (Luxembourg: Office for Official Publications of the European Communities, 2009), accessed March 10, 2020, <https://osha.europa.eu/en/publications/osh-figures-stress-work-facts-and-figures>.

⁷⁹ “Workplace Health Promotion: How CDC Supports a Healthy, Competitive Workforce,” Centers for Disease Control and Prevention, accessed March 10, 2020, https://www.cdc.gov/chronicdisease/resources/publications/factsheets/workplace-health.htm?CDC_AA_refVal=https%3A%2F%2Fwww.cdc.gov%2Fchronicdisease%2Fresources%2Fpublications%2Faag%2Fworkplace-health.htm.

⁸⁰ ILO, “Workplace Stress,” pdf pg. 11.

contribute to developing health-related impairments, including mental and behavioral disorders such as exhaustion, burnout, anxiety and depression, as well as other physical impairments such as cardiovascular disease and musculoskeletal disorders, which are also very prevalent chronic health issues. Many high-quality studies have been conducted showing that psychosocial hazards and work-related stress precede the onset of depression.⁸¹ A large number of studies found that poor mental health and depression are associated with workload (including long working hours and high physical, psychological or emotional demands), low decision latitude, low support, effort-reward imbalance, job insecurity, and organizational restructuring.⁸² Other psychosocial factors found to be associated with depression include compromised work-life balance, job dissatisfaction, role conflict and ambiguity, poor relationships at work, over-commitment, low pay, focus on career development, and poor justice at work.⁸³

Furthermore, work-related stress can be linked to other common chronic diseases including cardiovascular disease (CVDs), which is a leading cause of death globally⁸⁴; musculoskeletal disorders (MSDs), which is the most common cause of severe long-term pain and physical disability; and behavioral risks like substance abuse. Several high-quality epidemiological studies demonstrate a positive association between psychosocial risks at work and CVD.⁸⁵ Findings are consistent across regions, indicating a relationship between exposure to a poor psychosocial working environment (also mediated by adverse health behavior) and heart disease. Key psychosocial risk factors include job demands, low job control, low support levels, effort-reward imbalance, job insecurity, and job dissatisfaction⁸⁶ and working time arrangements, such as long working hours and shift work⁸⁷.

Evidence also shows that psychosocial risks (such as job insecurity, low control, high demands, effort-reward imbalance) and work-related stress are associated with health-related behavioral risk, including heavy alcohol consumption, obesity, less frequent exercise, increased cigarette smoking, and sleep disorders.⁸⁸

Based on the prevalence of certain clinical mental disorders globally and the linkage between work-stress and several chronic conditions (including diagnosable mental disorders like depression and anxiety, physical chronic disorders like CVD and MSD, and behavioral problems like substance abuse), it is clear that working-age individuals globally are at risk of these prevalent conditions. This risk could be intensified as work becomes increasingly focused on advanced cognitive, reasoning, and interpersonal skills in support of both service-oriented and knowledge-intensive industries and activities. Global surveys such as Willis Tower Watson's 2017/2018 Global Benefits Attitudes Survey corroborate the prevalence of these issues demonstrating that mental health disorders are common in the workforce globally with three in 10 employees indicating that they suffer from severe stress, anxiety, or depression.

⁸¹ See Source List section for full list of sources.

⁸² See Source List section for full list of sources.

⁸³ See Source List section for full list of sources.

⁸⁴ "Cardiovascular diseases (CVDs)", World Health Organization, last modified May 17, 2017, <http://www.who.int/mediacentre/factsheets/fs317/en/>.

⁸⁵ See Source List section for full list of sources.

⁸⁶ See Source List section for full list of sources.

⁸⁷ See Source List section for full list of sources.

⁸⁸ See Source List section for full list of sources.

However, these effects are not limited to “knowledge” workers that perform more knowledge-intensive or service-oriented work. Additional research performed by the WHO indicates that depending on the local context, certain individuals and groups in society may be placed at a significantly higher risk than others. Rising income inequality globally (discussed elsewhere in this paper) puts increasing pressure on those that have low socioeconomic status and pushes some individuals into financially-constrained situations. Groups that are identified as most at risk include members of households living in poverty, people with chronic health conditions, minority groups, indigenous populations, older people, people experiencing discrimination and human rights violations, lesbian, gay, bisexual, and transgender persons, and prisoners. Events like the global financial crisis can also surface new vulnerable groups such as the young unemployed. In many societies, mental disorders related to marginalization and impoverishment, domestic violence and abuse, overwork, and stress are of growing concern, particularly for women's health. Many risk factors such as low socioeconomic status, alcohol use and stress are common to both mental disorders and other noncommunicable diseases.

Research conducted by the WHO shows that the economic losses resulting from mental health disorders, specifically those related to depression and anxiety, are significant. The study looked across the 36 largest countries in the world and projected that, in the absence of scaled-up treatment, more than 12 billion days of lost productivity (equivalent to more than 50 million years of work) are attributable to depression and anxiety disorders every year at an estimated cost of USD \$925 billion (See Exhibit 12). Assuming the same distribution of costs across lower-income and higher-income countries holds for all other countries (representing 20% of the world’s population), the global cost per year is \$1.15 trillion. Compared with people without these disorders, 4.7 billion extra days are lost at a cost of \$592 billion (36% of the total cost).

Exhibit 12

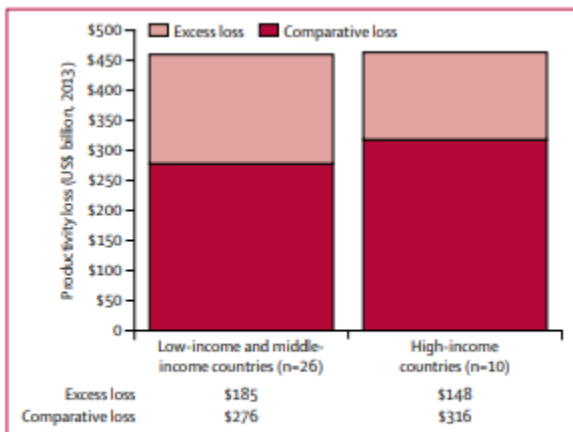


Figure 1: Lost productivity attributable to depression and anxiety disorders at current treatment coverage, by country income level (US\$ billion, 2013)

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If the analysis is extrapolated out until 2030, global economic losses related to mental health disorders between 2011 and 2030 are estimated to total \$16.3 trillion, comparable to those of cardiovascular

⁸⁹ Dan Chisholm, et. al., “Scaling-up treatment of depression and anxiety: a global return on investment analysis,” *Lancet Psychiatry* vol. 3, issue 5 (April 2016), pdf pg. 6, [https://doi.org/10.1016/S2215-0366\(16\)30024-4](https://doi.org/10.1016/S2215-0366(16)30024-4); see Figure 1. Lost productivity attributable to depression and anxiety disorders at current treatment coverage by country income level (US \$ billion, 2013).

diseases and higher than cancer, chronic respiratory diseases, and diabetes.⁹⁰ However, if treatment were to be scaled up, every USD\$1 invested in scaling up treatment for depression and anxiety leads to a return of USD\$4 in better health and ability to work.⁹¹ Limited investment in mental health means that a substantial gap exists between the need for treatment and its availability. This large treatment gap affects not just the health and wellbeing of people with mental disorders and their families, but also has inevitable consequences for employers and governments as a result of diminished productivity at work, reduced rates of labor participation, foregone tax receipts, and increased health and other welfare expenditures.⁹²

The WHO's Mental Health Policies and Programs in the Workplace guidance contextualizes these larger economic impacts into how they manifest into the workplace.⁹³ Mental health problems have an impact on employers and businesses directly through increased absenteeism⁹⁴, reduced production, increased costs, and reduced profits. They also affect employers indirectly through factors such as reduced morale of staff.

Evidence shows that absenteeism is associated with work-related stress and psychosocial hazards such as workload, job control, role conflict, effort-reward imbalance, quality of leadership, shift work, limited career progression, and social relationships at work (including low social support and workplace violence, bullying, and discrimination).⁹⁵ Scientific literature on presenteeism⁹⁶ indicates similar findings, highlighting that an increase in work-related stress is associated with an increase in presenteeism, even greater than that for absenteeism.⁹⁷ Other psychosocial hazards identified as predictors of presenteeism are time pressure, insufficient resources, and unfavorable personal financial situations.⁹⁸, ⁹⁹ Finally, it should be noted that presenteeism can in turn lead to burnout over time. In fact, exhaustion and

⁹⁰ "Psychosocial risks and work-related stress," The International Labour Organization (ILO), https://www.ilo.org/global/topics/safety-and-health-at-work/areasofwork/WCMS_DOC_SAF_ARE_PROM_EN/lang--en/index.htm.

⁹¹ "Mental health in the workplace," World Health Organization, last modified May 2019, https://www.who.int/mental_health/in_the_workplace/en/.

⁹² Chisholm et. al., "Scaling-up treatment," pdf pg. 1.

⁹³ World Health Organization (WHO), *Mental Health Policies and Programmes in the Workplace in 2005* (Geneva, Switzerland: World Health Organization, 2005), pdf pg. 36, accessed March 10, 2020, https://www.who.int/mental_health/policy/workplace_policy_programmes.pdf.

⁹⁴ Absenteeism is defined as to an individual's time lost to work; See Rikke Sjøgaard, Jan Sørensen, Louise Linde, and Merete L Hetland, "The significance of presenteeism for the value of lost production: the case of rheumatoid arthritis," *ClinicoEconomics and Outcomes Research* 2, no. 10 (July 2010): 105-112, <https://doi.org/10.2147/CEOR.S11492>

⁹⁵ See Source List section for full list of sources.

⁹⁶ Presenteeism is defined as an employee's time at work with reduced productivity because of ill health; Presenteeism affects employees' productivity when they come to work with health conditions and feel compelled to continue working because of demands from their employers (Quazi, 2013; Yildiz et al., 2017). As a result, presenteeism not only affects employees' productivity but also causes lack of commitment, poor workplace relationships and work-life conflict (Caverley, Cunningham, & MacGregor, 2007; Johns, 2010). In addition, it worsens employees' health and damages motivation to work, as well as causing an increase in accidents while reducing productivity (Aronsson, Gustafsson, & Dallner, 2000; Hemp, 2004; Johns, 2010). Hence, from an HRM perspective, presenteeism not only negatively affects employees' well-being and productivity, but can negatively affect organisational performance as well (Hemp, 2004; Yildiz et al., 2017); See Amlan Haque, "Strategic Human Resource Management and Presenteeism: A Conceptual Framework to Predict Human Resource Outcomes," *New Zealand Journal of Human Resources Management* 18, issue 2 (December 2018): 5-18, https://www.researchgate.net/publication/330039987_Strategic_Human_Resource_Management_and_Presenteeism_A_Conceptual_Framework_to_Predict_Human_Resource_Outcomes_Published_in_New_Zealand_Journal_of_Human_Resources_Management.

⁹⁷ Jon Ivar Elstad and Mia Vabo, "Job stress, sickness absence and sickness presenteeism in Nordic elderly care," *Scandinavian Journal of Public Health*, vol. 36, no. 5 (July 2008): pg. 467-474, DOI: 10.1177/1403494808089557.

⁹⁸ Gunnar Aronsson and Klas Gustafsson, "Sickness presenteeism: prevalence, attendance pressure factors, and an outline of a model for research," *Journal of Occupational and Environmental Medicine*, vol. 47, no. 9 (September 2005): pg. 958-966, DOI: 10.1097/01.jom.0000177219.75677.17.

⁹⁹ Claus D. Hansen and Johan H. Andersen, "Going ill to work--what personal circumstances, attitudes and work-related factors are associated with sickness presenteeism?," *Social Science and Medicine*, vol. 67, no. 6 (September 2008): pg. 956-964, <https://doi.org/10.1016/j.socscimed.2008.05.022>.

presenteeism were found to be reciprocal, suggesting that when workers experience exhaustion, they mobilize compensation strategies through presenteeism, which ultimately increases their exhaustion.¹⁰⁰

In many developed countries, 35% to 45% of absenteeism from work is due to mental health problems according to a 2005 WHO study.¹⁰¹ In Europe the estimated cost of work-related depression is €617 billion a year, which includes the costs to employers of absenteeism and presenteeism (€272 billion), loss of productivity (€242 billion), healthcare costs (€63 billion) and social welfare costs in the form of disability benefit payments (€39 billion).¹⁰²

In Germany, the estimated annual cost of job strain¹⁰³ in 2008 was €29.2 billion (€9.9 billion in direct costs such as prevention, rehabilitation, maintenance treatment and administration; and €19.3 billion in indirect costs such as lost working years through incapacity, disability and premature death).¹⁰⁴ In Spain, the direct health cost of mental and behavioral disorders attributable to work was estimated at between €150 and €372 million in 2010. In the same year, 2.78 million days were lost to sick leave caused by work-related mental illness, equivalent to a loss of €170.96 million.¹⁰⁵ According to the latest estimates in the United Kingdom (UK), losses due to work-related stress, depression, or anxiety amounted to the equivalent of 9.9 million days, representing 43% of all working days lost due to ill-health during the period 2014/2015.¹⁰⁶ A study conducted in 2007 by the Sainsbury Centre for Mental Health in the UK estimated that the total annual cost to employers of mental health disorders among their staff was nearly £26 billion, equivalent to £1,035 for every worker (£335 due to absenteeism, £605 to presenteeism and £95 to staff turnover).¹⁰⁷

Safe Work Australia estimated in 2008/2009 that work-related stress cost Australian society AU\$5.3 billion annually.¹⁰⁸ This figure includes expenses resulting from disruption of production and medical costs. In addition, depression-related problems cost Australian employers approximately AU \$8 billion

¹⁰⁰ Evangelia Demerouti et. al., "Present but sick: A three-wave study on job demands, presenteeism and burnout," *Career Development International*, vol. 14, no. 1 (February 2009): pg. 50-68, DOI: 10.1108/13620430910933574.

¹⁰¹ WHO, "Mental health policies and programmes," pdf pg. 55-56.

¹⁰² Matrix Knowledge: Executive Agency for Health and Consumer, *Economic analysis of workplace mental health promotion and mental disorder prevention programmes and of their potential contribution to EU health, social and economic policy objectives in 2013*, accessed March 10, 2020, https://ec.europa.eu/health/sites/health/files/mental_health/docs/matrix_economic_analysis_mh_promotion_en.pdf.

¹⁰³ Job strain is defined as characterized by working conditions in which workers face high demands, but have little control or influence over their work environments (Stansfeld and Candy, 2006); See European Agency for Safety and Health at Work, *Calculating the cost of work-related stress and psychosocial risks: European Risk Observatory Literature Review in 2014* (Luxembourg: Publications Office of the European Union, 2014), pdf pg. 6, accessed March 10, 2020, http://publications.europa.eu/resource/cellar/c8328fa1-519b-4f29-aa7b-fd80cffc18cb.0001.01/DOC_1.

¹⁰⁴ Wolfgang Bodeker and Michael Friedrichs, "Kosten der psychischen Erkrankungen und Belastungen in Deutschland," *Kamp, L.; Pickshaus, K. [Eds.]. Regelungslücke psychische Belastungen schliessen*, Hans Bockler Stiftung, (2011): pg. 69–102.

¹⁰⁵ European Agency for Safety and Health at Work, *Calculating the cost of work-related stress and psychosocial risks: European Risk Observatory Literature Review in 2014* (Luxembourg: Publications Office of the European Union, 2014), accessed March 10, 2020, http://publications.europa.eu/resource/cellar/c8328fa1-519b-4f29-aa7b-fd80cffc18cb.0001.01/DOC_1.

¹⁰⁶ Health and Safety Executive (HSE), *Work related Stress, Anxiety and Depression Statistics in Great Britain in 2015* (Health and Safety Executive, 2015), pdf pg. 2, accessed March 10, 2020, <https://consult-smp.com/wp-content/uploads/2016/06/report-UK-stress-at-work.pdf>.

¹⁰⁷ Sainsbury Centre for Mental Health, "Policy Paper 8: Mental Health at Work: Developing the business case," https://www.centreformentalhealth.org.uk/sites/default/files/2018-09/mental_health_at_work.pdf, (2007).

¹⁰⁸ Safe Work Australia, *Cost of Work-related Injury and Illness for Australian Employers, Workers and the Community: 2008–09 in 2012* (Canberra, Australia: Safe Work Australia, 2012), pdf pg. 33, https://www.safeworkaustralia.gov.au/system/files/documents/1702/cost_of_work-related_injury_and_disease.pdf; See Table 2.3e: Cost (\$ million) of work-related injury and illness, by cause of injury or illness, 2008-09.

per year as a result of sickness absence and presenteeism and, of that figure, AU\$693 million is due to job strain and bullying.¹⁰⁹

In Canada, a study conducted in 2011 estimated that mental health problems cost employers about CA\$20 billion annually.¹¹⁰ In France, the total cost of job strain in 2007 was estimated as between €1.9 and €3 billion, including costs related to healthcare (€124–199 million), absenteeism (€826–1,284 million), loss of activity (€756–1,235 million), and loss of productivity due to premature death (€166–279 million).¹¹¹

Studies investigating the impact of work-related stress on organizational outcomes have revealed a number of associated forms of behavior affecting productivity, competitiveness, and the public image of the enterprise. For example, besides the impact on workers' health and wellbeing, a poor psychosocial working environment contributing to work-related stress can result in increased absenteeism and presenteeism in addition to reduced motivation, satisfaction and commitment, along with a greater rate of staff turnover and intention to quit.¹¹² More broadly, mental health disorders have several indirect costs in the workplace beyond increased absenteeism, decreased productivity, and increased expenses, which include poor work performance, reduced morale, high staff turnover, early retirement, and work complaints and litigation.¹¹³

Company-Specific Study in Canada:

A recent Deloitte publication highlights one particular study of seven Canadian companies at various stages of their mental health investment journey to demonstrate that company mental health investments can yield positive returns. The analysis is based on historical investment and savings data and is complemented by interviews with subject-matter experts and leaders from 10 companies.

At the end of the study, the median yearly ROI among the seven companies able to provide at least three years of data was CA\$1.62. Companies with programs in place for three or more years had a median yearly ROI of CA\$2.18, while most companies with programs implemented in the last three years had not yet achieved a return. These results suggest that while companies may not immediately see a return, they are likely to see a positive return over time as the program matures, which the authors believed was driven by the fact that improvements to individuals' mental health can take time and a time lag may be present before investments translate into improvements to productivity.

Source: Deloitte Insights, *The ROI in workplace mental health programs: Good for people, good for business A blueprint for workplace mental health programs in 2019* (Deloitte Development LLC, 2019), pdf pg. 4, accessed March 10, 2020, <https://www2.deloitte.com/content/dam/Deloitte/ca/Documents/about-deloitte/ca-en-about-blueprint-for-workplace-mental-health-final-aoda.pdf>.

¹⁰⁹ Maureen Dollard et al., *The Australian Workplace Barometer: Report on psychosocial safety climate and worker health in Australia in 2012* (Canberra, Australia: Safe Work Australia, 2012), pdf pg. 10, <https://www.safeworkaustralia.gov.au/system/files/documents/1702/the-australian-workplace-barometer-report.pdf>.

¹¹⁰ Erin Andersson, "Ottawa to fund mental-health strategy: First-ever Canadian-wide standards to tackle problem estimated to cost \$20-billion a year in workplace losses alone," *The Globe and Mail*, June 17, 2011, <https://www.theglobeandmail.com/life/health-and-fitness/ottawa-to-fund-creation-of-national-mental-health-strategy/article586278/>.

¹¹¹ Christian Trontin, et. al., "Le coût du stress professionnel en France en 2007 (Paris, France: Institut National de Recherche et de Sécurité (INRS)), <http://www.inrs.fr/dms/inrs/PDF/cout-stress-professionnel2007/cout-stress-professionnel2007.pdf>; See Tableau 4: Coûts du job strain par pathologie pour une exposition pendant au moins 75% du temps de travail (resp. 50%) en 2007.

¹¹² See Source List section for full list of sources.

¹¹³ WHO, "Mental health policies and programmes," pdf pg. 37; See Box 4: Indirect costs of mental health problems in the workplace.

Jeffrey Pfeffer of the Stanford Graduate School of Business further emphasizes the importance in mental health and wellbeing of workers by connecting mental and emotional wellbeing to the associated impacts to physical wellbeing. In his multiple publications on human capital management practices, he extensively discusses the connection between worker mental health and physical wellbeing and its impact on corporate management strategies. In his 2010 *Building Sustainable Organizations: The Human Factor* research paper, Pfeffer discusses five dependent variables that represent organizational effects on employee mortality and morbidity and finds that mental health, wellbeing, and health-related benefits are most impacted by job design, work stress, and to some extent, the provision of health insurance and work hours¹¹⁴. His most recent book “Dying for a Paycheck”, Pfeffer provides an in-depth view on how modern management practices such as long work hours, work-family conflict, and economic insecurity are toxic to employees, which reduces engagement, increases turnover, and can severely impact workers’ physical and emotional health while also being harmful to company performance. Further, the book argues that work no longer needs to be a physically dangerous job to have effects on worker health (morbidity and mortality) and wellbeing.

Pfeffer notes that stress-causing aspects of work environments include low wages, shift work, and absence of job control. Additionally, a number of research studies find that low wages predict obesity, anxiety and depression, low birth weights, and hypertension¹¹⁵. Pfeffer notes that many of these problematic job attributes affect primarily lower-level employees. However, professional and C-suite executives are scarcely immune to the effects of poor working conditions on their health and wellbeing.¹¹⁶

Research by Harvard Business School’s Impact Weighted Accounts Project provides a possible view on how to feasibly measure the concept of mental and physical wellbeing leveraging, to some extent, information provided through health-related benefits. In the publication, the researchers posit that an “expanded understanding of the connection between work and wellbeing is codified in the ‘Culture of Health’ framework (COH), which argues that organizations impact health in four ways, which are through environmental health, community health, consumer health, and employee health.”^{117,118} The publication acknowledges that job strain, which is measured by the OECD (defined as the combination of excessive demands combined with insufficient resources)¹¹⁹ as a risk factor for worker well-being. Furthermore, the authors state:

“Although it is widely agreed that employers have a responsibility to protect employees’ health and safety, many workers are forced to make decisions that prioritize their economic livelihoods over their wellbeing... Many argue that companies are not only responsible for protecting employee safety but also have a critical role to play in proactively managing and

¹¹⁴ Jeffrey Pfeffer, “Building Sustainable Organizations: The Human Factor,” (Research Paper no. 2017 (R), Stanford Graduate School of Business, 2010).

¹¹⁵ See for instance, the studies summarized in J. Paul Leigh, “Raising the Minimum Wage Could Improve Public Health,” *Economic Policy Institute*, July 28, 2016, www.epi.org/blog/raising-the-minimum-wage-could-improve-public-health/; Jeffrey Pfeffer, *Dying for a Paycheck: How Modern Management Harms Employee Health and Company Performance – and What We Can Do About It* (Harper Business, 2018), pg. 10.

¹¹⁶ Pfeffer, “Dying for a Paycheck,” pg. 10.

¹¹⁷ John A. Quelch, J., A., and Emily C. Boudreau, “Building a Culture of Health: A New Imperative for Business,” in *SpringerBriefs in Public Health* (Springer, 2016).

¹¹⁸ David Freiberg, Katie Panella, George Serafeim, and Rob Zochowski, “Accounting for Organizational Employment Impact” (Accounting & Management Unit Working Group Paper No. 21-050, Harvard Business School, 2020), pdf pg. 27, https://www.hbs.edu/impact-weighted-accounts/Documents/Accounting%20for%20Organizational%20Impact_HBS%20Working%20Paper.pdf.

¹¹⁹ Sandrine Cazes, Alexander Hijzen, and Anne Saint-Martin, “Measuring and assessing job quality: the OECD Job Quality Framework” (OECD Social, Employment and Migration Working Papers No. 174, OECD, 2015), <https://doi.org/10.1787/5jrp02k1w1mr-en>.

improving worker wellbeing through access to health services, and lifestyle and chronic disease management.”^{120,121,122}

As an aspect of wellbeing management, the authors note that lifestyle and chronic disease management programs are highly regarded not only for providing cost-savings to employers and improving business performance metrics (such as productivity), but for directly improving employee health outcomes.¹²³ Research shows that organizations that improve their internal COH scores have significant positive influence on employee health outcomes, including decreased risk for high body-mass index (BMI), high blood pressure, and improvements in alcohol use and nutrition habits.¹²⁴

Lastly, the authors from the Impact Weighted Accounts Project note that workplace health and safety risks are disproportionately high for low-income workers and minorities, and that women suffer greater work-related physical and mental health outcomes^{125, 126}.

The Impact Weighted Accounts Project publication suggests that better standardization and quality of metrics is critical to avoid what many have termed “health-washing” (promoting health without actually improving health), according to many experts working at the intersection of business and health¹²⁷. As a result, the authors propose reviewing several key inputs in addition to worker physical safety (e.g. injury and illness through total recordable incident rate (TRIR)), which include:

- Healthcare through company health insurance plan and customer satisfaction ratings;
- Chronic disease and lifestyle management through percentage of employees participating in a health and wellbeing program, including lifestyle management / chronic disease management;
- Paid sick leave through number of sick days provided; and
- Family-friendly workplace through weeks of paid family leave.

While these metrics are largely illustrative, they provide a feasible path forward to evaluate the broader concept of worker wellbeing (both physical and emotional) and the connectivity between the two through certain health-related benefits and policies. Furthermore, this research illustrates how worker mental and physical wellbeing have a direct line of impact to worker productivity, which ultimately could materialize as enterprise value-creating impacts to the firm and serve as critical pieces of information for disclosure on a company’s human capital management strategy, especially for companies that employ populations that can be disproportionately affected by these issues or have toxic cultures that embody an “always-on” mentality¹²⁸.

¹²⁰ Quelch and Boudreau, “Building a Culture of Health”.

¹²¹ Coalition for Inclusive Capitalism, *Embankment Project for Inclusive Capitalism*.

¹²² Freiberg, et. al., “Accounting for Organizational Employment Impact,” pdf pg. 28.

¹²³ Ron Goetzel, Rachel Mosher Henke, Maryam J. Tabrizi, Kenneth P. Pelletier, Ron Loeppke, David W. Ballard, Jessica Grossmeier, et. al., “Do Workplace Health Promotion (Wellness) Programs Work?,” *Journal of Occupational and Environmental Medicine*, 56, No. 9 (September 2014), DOI: 10.1097/JOM.0000000000000276.

¹²⁴ Rachel Moser Henke, Michael A. Head, Karen B. Bent, Ron Z. Goetzel, Enid Chung Roemer, and Katherine McCleary, “Improvements in an organization’s culture of health reduces workers’ health risk profile and health care utilization,” *Journal of Occupational and Environmental Medicine*, 61, No. 2 (February 2019), doi: 10.1097/JOM.0000000000001479.

¹²⁵ Seth A. Seabury, Sophie Terp, and Leslie I. Boden, “Racial And Ethnic Differences In The Frequency Of Workplace Injuries And Prevalence Of Work-Related Disability,” *Health Affairs* (Project HOPE – The People-to-People Health Foundation, Inc.), 36, No. 2, pg. 266–273 (February 2017), <https://doi.org/10.1377/hlthaff.2016.1185>.

¹²⁶ Javier Campos-Serna, Elena Ronda-Pérez, Lucia Artazcoz, Bente E. Moen, and Fernando G. Benavides, “Gender inequalities in occupational health related to the unequal distribution of working and employment conditions: a systematic review,” *International Journal for Equity in Health*, 12, No. 1, pg. 1-18 (August 2013), <https://doi.org/10.1377/hlthaff.2016.1185>.

¹²⁷ George Serafeim, Amanda M. Rischbieth, and Howard K. Koh, “Sustainability, Business, and Health,” *JAMA*, 324, No. 2 (June 17, 2020), doi:10.1001/jama.2020.8714.

¹²⁸ “Always-on” work culture of 24/7 work culture is a term to describe a culture at work, in which employees feel an expectation to be available for work at any time of the day. This type of work culture is abetted by technology that fosters instant, location-independent

Global studies conducted by the World Policy Center illustrate that the financial and operational burdens to businesses could be reduced if social security systems provide funding for certain health-related benefits. One example is a study on paid sick leave, which is one of the numerous health-related benefits studied by on World Policy Center and whose findings show that, of the 192 countries assessed, nearly all countries (91%) guarantee workers at least two weeks of paid sick leave, and the majority (76%) guarantee at least six weeks of paid sick leave. Of the high-income countries assessed, 64% reduce the burden on businesses by financing the first six weeks of paid sick leave in full or part through social security systems.¹²⁹ Furthermore, another study conducted by the World Policy Center shows that the majority of the ten most competitive economies as ranked by the World Economic Forum¹³⁰ have six months or more for guaranteed paid sick leave for serious illness¹³¹, which allow individuals and families to fare better economically when they encounter a more chronic health situation.

When comparing how pervasive an employer-sponsored paid sick leave benefit is globally, the same study shows that more than a quarter of countries (26%) provided paid leave benefits during the first six weeks of illness solely through social security and an additional 22% shared the responsibility between employers and government. Most importantly, in nearly half of countries (46%), paid sick leave was provided solely by employers, placing the burden of providing income support solely on employers. When comparing a paid sick leave policy across low-, middle- and high-income countries, low-income countries were more likely than middle-income or high-income countries to rely solely on employers for paid leave benefits (86% compared to 43%, and 31% respectively).¹³²

While Pfeffer and the Harvard Business School's Impact Weighted Accounts Project largely reference U.S. corporate views and practices, the work does not detract from the fact that health-related benefits are fundamental in supporting worker physical and mental wellbeing, and ultimately, worker productivity. In fact, based on many of the World Policy Center studies on various health-related benefits, the United States was a consistent outlier in the data sets as a high-income country, due to the fact that that it does not have national policies on certain health-related benefits, notably paid sick leave policy (pre-pandemic). As an outlier of these policies, the United States is an example of how employer-based health-related benefits and associated policies are critical to worker mental and physical wellbeing to organizational performance, particularly given that the majority of countries globally rely on employer-sponsored policies like paid sick leave, and highlights the risks associated to organizational performance when implementation of these policies is lacking.

One study that compared paid sick day policies across 22 countries, highlighted the United States as unlike the rest of the world's rich economies and relied on voluntary employer policies to provide paid

connectivity. For more information, please refer to the following article: "Always-On Work Cultures," The Economist Intelligence Unit, <https://peoplepowered.economist.com/always-on-always-working>.

¹²⁹ "World Policy Fact Sheet: Protecting Health During COVID-19 and Beyond: Where Does the U.S. Stand Compared to the Rest of the World on Paid Sick Leave?," World Policy Center, last modified May 2020, <https://worldpolicycenter.org/sites/default/files/Fact%20Sheet%20-%20Protecting%20Health%20During%20COVID-19%20and%20Beyond%20-%2011May2020.pdf>.

¹³⁰ Thierry Geiger and Roberto Crotti, "Here the top 10 most competitive economies in the world," World Economic Forum, last modified October 9, 2019, <https://www.weforum.org/agenda/2019/10/competitive-economies-world/>.

¹³¹ "For how long are workers guaranteed paid sick leave?," World Policy Center, last modified 2020, <https://www.worldpolicycenter.org/data-tables/policy/for-how-long-are-workers-guaranteed-paid-sick-leave>.

¹³² "World Policy Fact Sheet: Protecting Health," World Policy Center; Also refer to Jody Heymann, Amy Raub, Willetta Waisath, Michael McCormack, Ross Weistroffer, Gonzalo Moreno, Elizabeth Wong, and Alison Earle, "Protecting health during COVID-19 and beyond: A global examination of paid sick leave design in 193 countries," *Global Public Health*, 15, No. 7, pg. 925-934 (May 12, 2020), <https://doi.org/10.1080/17441692.2020.1764076>.

sick days to employees with short-term illnesses^{133,134,135}. As a result, at least 40% of the private-sector workforce in the United States at the time of the study did not have paid sick days or leave.¹³⁶ Each year millions of American workers go to work sick, lowering their own productivity and that of their coworkers. Other sick workers lose pay and risk job loss when they miss work to address personal and family health needs, whether physical or mental. However, other countries, particularly high-income countries, have taken a different approach than the United States by using legislative means to ensure paid sick days or paid sick leave for workers.

Paid sick leave, among many other health-related benefits, has been noted as one way to help reduce the incidences of absenteeism and presenteeism that could be related to either physical illness, management of chronic diseases, or the management of mental health disorders. While companies incur some costs from providing health-related benefits such as paid sick days and supporting paid leave, they also accrue financial benefits. Firms that provide paid sick leave tend to have lower job turnover rates, lower recruitment and training costs, lower unnecessary absenteeism, and a higher level of productivity than firms that do not offer these kinds of benefits.^{137,138,139,140}

As industries become more knowledge-intensive and progressively focused on delivering services rather than goods, workloads will likely shift toward work that increasingly involves more interpersonal skills and advanced reasoning and work products will rely more heavily on intellectual capital and intangibles derived from human capital. As a result, mental health and physical wellbeing will have growing importance within the broader issue of worker health and safety through the evaluation of health-related benefits like paid sick leave and medical leave and can provide decision-useful and comparable information for disclosure on corporate human capital management strategies that could materially impact long-term value creation.

Analysis and conclusion: Expansion of Employee Health & Safety concepts

Prevalence of common mental health issues and connection to chronic health conditions highlight the importance of mental and physical wellbeing as an expansion of workforce health and safety concepts

Mental health issues (most commonly depression, anxiety and work-related stress) are prevalent conditions in the general population and are becoming an increasing risk to workers as the global economy shifts toward a more service-oriented economy, and in some industries, becoming increasingly

¹³³ Jody Heymann, Hye Jin Rho, John Schmitt, and Alison Earle, "Contagion Nation: A Comparison of Paid Sick Day Policies in 22 Countries," (Center for Economic and Policy Research, 2009), pdf pg. 18.

¹³⁴ Hye Jin Rho and Shawn Fremstad, "Center for Economic Policy and Research," *Center for Economic and Policy Research (CEPR)*, March 19, 2020, <https://www.cepr.net/report/contagion-nation-2020-united-states-still-the-only-wealthy-nation-without-paid-sick-leave/>.

¹³⁵ Amy Raub et. al., *Paid Leave for Personal Illness: A Detailed Look at Approaches Across OECD Countries in 2018* (Los Angeles, California: World Policy Analysis Center, UCLA Fielding School of Public Health): pdf pg. 4, https://www.worldpolicycenter.org/sites/default/files/WORLD%20Report%20-%20Personal%20Medical%20Leave%20OECD%20Country%20Approaches_0.pdf

¹³⁶ Heymann, *Contagion Nation*, pdf pg. 18.

¹³⁷ Vicky Lovell, Vicky, *Valuing Good Health: An Estimate of Costs and Savings for the Healthy Families Act in 2005* (Washington, District of Columbia: Institute for Women's Policy Research, 2005), <https://iwpr.org/publications/valuing-good-health-an-estimate-of-costs-and-savings-for-the-healthy-families-act/>.

¹³⁸ Jodie Levin-Epstein, *Responsive Workplaces: The Business Case For Employment That Values Fairness and Families in 2007* (Washington, District of Columbia: Center for Law and Social Policy, 2007), pdf pg. 3, <https://www.policyarchive.org/handle/10207/17967>.

¹³⁹ CCH Incorporated, "Unscheduled Employee Absenteeism Hits Lowest Point in CCH Survey History," *CCH Human Resources Management and Trends Special Issue*, vol. 569 (October): pg. 155-164.

knowledge-intensive, as a result of advancing technology and automation. Technology and automation broadly have affected global trade patterns and intensity, which in turn have had impacts on human capital with differing effects on high-skilled versus low-skilled workers. With respect to high-skilled workers, as industries increasingly rely on high-skilled labor in order to innovate and support goods and products based on intellectual capital, these industries will face a shift in managing health and safety risks associated with mental and emotional wellbeing in addition to the risks to physical wellbeing of labor. Low-skilled workers, who face a combination of challenges from weaker demand for their skill sets, stagnating and low wages, and growing financial pressure, are at higher risk of mental health conditions like depression, anxiety, and work-related stress; these conditions are correlated with an increased likelihood of chronic diseases, suicide, and abusive behaviors such as alcoholism and substance abuse.

This literature review identified several economic studies that tie depression, anxiety, and work-related stress to business outcomes that impact employee productivity, employee satisfaction, and organizational job stability. These mental or emotional wellbeing conditions can be further exacerbated by the onset or lack of management of chronic illnesses.

Frameworks like the Embankment Project for Inclusive Capitalism (EPIC), formulated by the Coalition for Inclusive Capitalism, note that employee health is an important driver for long-term value, where the health and wellbeing of a company's workforce is clearly linked to increased engagement, job satisfaction, productivity, as well as its contribution to a decrease in absenteeism, turnover and workplace injuries¹⁴¹. The report further discusses the importance of recognizing mental health as part of the broader concept of overall employee health and safety as acknowledged in frameworks like the Culture of Health framework¹⁴² and Harvard Business School Impact Weighted Accounts Project, which examines health more holistically, and outside of traditional occupational safety metrics. The EPIC report cites critical areas of focus notably lifestyle management to support employee psychological safety, stress management, and physical and emotional health; chronic disease management including chronic non-communication diseases including mental health; and access to healthcare and insurance.¹⁴³

Furthermore, mental and physical wellbeing as a part of worker health and safety broadly could be addressed in the SASB standards to some extent by understanding employer-provided health benefits and policies. While most countries globally offer these benefits as a part of national or regional labor laws, some do not, which can have significant impacts on worker productivity and availability of the workforce. While the concept of paid sick leave or paid leave are not new human capital management issues, the significance of these benefits has been elevated as a result of the current COVID-19 pandemic, which has reinforced the importance of using them to manage physical or mental health and wellbeing within the workforce and as a measurement to assess workforce health broadly.

While SASB's current definition of the Employee Health & Safety general issue category does address the mental health and safety of direct employees and individual contractors by "captur[ing] how

¹⁴¹ Coalition for Inclusive Capitalism, *Embankment Project for Inclusive Capitalism (EPIC) in 2018*, pdf pg. 45-46, accessed November 4, 2019, <https://www.epic-value.com/#report>.

¹⁴² Coalition for Inclusive Capitalism, *Embankment Project*, pdf pg. 45; See "Harvard University: Culture of Health, a business leadership imperative, Harvard COH The President and Fellows of Harvard College, accessed November 4, 2019, <https://cultureofhealth.harvard.edu/resources>.

¹⁴³ *Ibid.*, pdf pg. 46.

companies ensure physical and mental health of workforce through technology, training, corporate culture, regulatory compliance, monitoring and testing, and personal protective equipment”, continued research on this topic of mental health since codification suggests that there could be a clearer tie between the impact of mental health conditions and lifestyle management of employees and financially-material impacts to the business. Consideration of the role of mental and physical wellbeing through the evaluation of certain health-related benefits like paid sick leave or medical leave could benefit the decision-usefulness of the SASB industry standards, where this issue is deemed relevant and likely to be financially material in a given industry.

Supporting Evidence for Workforce Investment

Business impact: Changing employer-employee social contract

Evolving views on the employer-employee social contract raises the issue of job quality

Fundamental changes to the global labor force demographics and growing income inequality have had impacts on the employer-employee social contract. Widening income inequality, particularly between high-skilled and low-skilled workers, has raised critical questions on this contract, specifically on how employers provide quality jobs, or jobs that create a financially sustainable, fair, and engaging livelihood for workers.¹⁴⁴ Furthermore, as younger generations become a growing portion of the global labor force, they are bringing a unique set of values, such as the concept of increased flexibility in working arrangements, and new evaluative criteria for what constitutes meaningful work. This has changed the way in which some workers, particularly some high-skilled workers, engage in and productively contribute to firm performance.

Businesses are seeking to respond to these trends related to the ways in which workers want to work and how they wish to be rewarded for such work, whether it is accessing certain worker benefits or gaining greater autonomy on how work is done. Companies have sharpened their focus of their acquisition, development, and retention strategies with the objective of increasing worker engagement, and specifically worker satisfaction. While the specific strategies and drivers vary by industry, companies are increasingly employing a myriad of engagement strategies with a focus on engaging their workforces in sustainable work to align with evolving views on the employee-employer contract¹⁴⁵. However, strategies implemented by employers to attain, develop, and retain high-skilled versus low-skilled workers can manifest differently.

For low-skilled workers, engaging and sustainable work may be related to worker protections and rights, such as paid leave benefits and employer-sponsored retirement savings. Institutional and macroeconomic factors affecting the supply and demand of human capital for low-skilled labor can have compounding effects on low wages, placing additional financial and emotional burden on these workers. Employers that invest in the financial stability of their workers may benefit from positive returns

¹⁴⁴ McKinsey Global Institute, *The social contract in the 21st century: Outcomes so far for workers, consumers, and savers in advanced economies in 2020* (McKinsey & Company, 2020), pdf pg. 129-130, accessed March 10, 2020, <https://www.mckinsey.com/~media/mckinsey/industries/social%20sector/our%20insights/the%20social%20contract%20in%20the%2021st%20century/mgi-the-social-contract-in-the-21st-century-full-report-final.ashx>.

¹⁴⁵ McKinsey Global Institute, *The social contract in the 21st century*, pdf pg. 13; See Box E1: Assessing shifts in the social contract.

including enhanced workforce stability and improved workforce retention. Furthermore, offering these benefits can serve as a critical tool for increased employee engagement.

The McKinsey Global Institute's study of more than 350 initiatives being proposed and piloted in G-7 countries surfaces eight fundamental solutions as a means to broadly address rising wealth and income globally, including elements that pertain to human capital such as rethinking work and skills.¹⁴⁶ The outcomes of this study suggest that these identified solutions could provide potentially viable pathways to creating a more sustainable workforce.

As noted elsewhere in this paper, a shift towards service-oriented work, including those industries that are increasingly knowledge-intensive, are contributing to a growing reliance on high-skilled labor and will continue to favor certain skillsets, including cognitive, reasoning, and interpersonal skills. As a result, the tools for engaging these elements of the workforce may similarly require novel approaches. Non-traditional incentives such as flexible, self-directed work arrangements, or certain indirect financial incentives such as commissions and bonuses, may be effective additions to traditional employment benefits such as paid sick leave and employer-sponsored defined contributions plans.

Common motivators for performance like career-building opportunities and investment in worker financial wellbeing will likely remain important strategies for employers to fulfill this evolving employer-employee social contract, but additional factors to retain an engaged and productive workforce may include expanding the ways in which companies invest in their workforce beyond traditional compensation as well creating a strong and inclusive corporate culture through meaningful work, learning opportunities, advancement opportunities, and flexible work arrangements.

Analysis and conclusion: Workforce investment

Workforce investment is a key business strategy to enhance job quality through worker engagement

Given broader trends in global trade, technology and automation, and labor force demographics, a company's investment in its workforce is increasingly becoming a key factor in enhancing job quality and increasing worker engagement. The evidence cited here suggests such investment can contribute to business performance. An assessment of broad human capital management strategies identified common themes that broadly address employee engagement, including investment in the workforce. Specifically, workforce investment is linked to employee engagement, which can manifest in a variety of forms depending on the industry. Common themes such as career advancement opportunities and investment in worker financial wellbeing have emerged as a general means to promote employee engagement across industries with the ultimate objective of enhancing employee commitment and satisfaction, resulting in overall improved job quality.

Notably, there are several forms of training that are available in the workplace – trainings that relate to safety where health and safety are critical aspects of culture; regulatory and compliance trainings that are mandated by law or as risk mitigation measures or both; and culture-related trainings that address

¹⁴⁶ McKinsey Global Institute, *Inequality: A persisting challenge*, pdf pg. 17-18; McKinsey conducted an extensive literature review to compile the ideas proposed or piloted by academics, business leaders, civil society organizations, grassroots movements, and policy makers at the national, state, and city levels. McKinsey categorized these initiatives based on whether they seek to address economic growth, inequalities of opportunity, and inequalities of outcomes.

topics such as bias, microaggressions, bullying, and harassment. While all of these types of training are important, their respective levels of materiality to business performance and organizational long-term value creation are dependent on general industry characteristics and organizational objectives and strategies. Furthermore, the sustainability outcome associated from these different types of training are different. For example, while trainings on safety can contribute to a culture of employee health and safety in some industries, such as those in Oil & Gas, on-the-job training to retrain or upskill an employees in a different skill or function could be perceived as a contributing factor to worker financial wellbeing and part of a firm's engagement strategy of its workforce. Therefore, the following sections focus on the importance of the latter, which is training intended to contribute to worker financial and economic viability and/or serve as an engagement strategy for the workforce in addition to general career advancement strategies.

Career advancement opportunities

Career advancement opportunities such as reskilling and upskilling can be a critical tool in certain industries, particularly those that have the following industry characteristics:

- Industries facing labor supply shortages and/or highly competitive labor markets due to a high demand for certain skill sets, such as STEM-trained employees^{147,148};
- Industries where automation is a material threat in replacing labor-related tasks and displacing a large majority of the workforce, such as in the automobile industry;
- Industries that employ a significant portion of front-line workers¹⁴⁹; and/or
- Industries that where career advancement is critical to developing the talent pipeline to create a diverse and inclusive workforce¹⁵⁰.

Specifically, training with the purpose of enhancing on-the-job skills and enabling career advancement, such as providing tuition for employees to receive job-critical certifications or investments in reskilling the workforce, are important tools that can be leveraged to achieve the dual objectives of reshaping the skills of the workforce for the future and for ensuring employees remain engaged. Employee training and education can deliver a wide range of positive impacts for firms, including increasing employee capabilities and improving employee satisfaction, engagement, and retention.

Several academic studies suggest that investments in workforce training can result in significant financial impacts to companies. As outlined the Human Capital Management Coalition's letter to the SEC, studies by Laurie Bassi, former director of research at the American Society for Training and Development, show that stock selection using training and other human capital management practices can produce superior investment outcomes. The study showed that two portfolios of large capitalization companies launched

¹⁴⁷ Science, Technology, Engineering, and Math (STEM)

¹⁴⁸ Deloitte, *The Future of the Workforce*, pdf pg. 9.

¹⁴⁹ Examples of frontline workers in specific industries include, but are not limited to: (i) Transportation – Long-haul truck driver; (ii) Manufacturing – Assembly line worker; (iii) Construction – Day laborer; (iv) Health Care – Orderly; (v) Retail – Cashier, shelf-stocker; (vi) Financial Services – Bank teller; (vii) Multiple industries – Call Center Worker; For more information, please reference: Deloitte and The Aspen Institute, *A Guide to Upskilling America's Frontline Workers: A Handbook for Employers in 2015* (Deloitte and The Aspen Institute, pdf pg. 6, 2015), https://assets.aspeninstitute.org/content/uploads/2018/03/Upskilling_Employer_Handbook_042015.pdf.

¹⁵⁰ Please note that these are general characteristics and are not mutually exclusive.

in 2001 and 2003 using criteria related to training and employee development outperformed the S&P 500 on an annualized basis by 3.1% and 4.4%, respectively, through May 25, 2010.¹⁵¹

Aaron Bernstein and Larry Beeferman in their publication “The Materiality of Human Capital to Corporate Financial Performance,” show that there is evidence that training can positively affect corporate performance. The meta-analysis reviewed 36 studies, of which 22 found that training was associated only with superior investment outcomes¹⁵². The studies reviewed used a variety of measures of profitability, including return on assets, return on investment, return on equity, and profit margins to assess the impact of training on firm financial performance. The majority of these studies found positive correlations to training. As an example, one of the most comprehensive was a study of Australian companies that examined training expenditure per firm and profitability at 3,569 firms with fewer than 200 employees. It had a large sample size as well as access to data between 1994 and 1998, allowing it to track unit performance across time (i.e. longitudinal study) instead of just taking a one-time snapshot that most studies do (i.e., cross-sectional study). It found that firms that had increased training in one year reported significantly higher profitability the following year.¹⁵³

Beeferman and Bernstein also identify that training could be important in the context of competitive strategy, specifically whether it can make effective use of the employees it trains and whether they factor in the national training and education policies of the countries in which they operate¹⁵⁴. They expand upon this concept by noting that several researchers have made this point, arguing, for example, that companies should align training objectives to target skill development in the areas that are aligned with their strategic needs¹⁵⁵. Furthermore, this meta-analysis suggests that companies can reap the most benefit if they develop formal plans to align training with their strategic needs.

The most recent publications to date are presented by Harvard Business School’s Impact-Weighted Accounts Project Research report, “Accounting for Organizational Employment Impact” and George Serafeim and Sakis Kotsantonis’s “Human Capital and the Future of Work: Implications for Investors and ESG Integration”. The Impact-Weighted Accounts Research report puts a finer point on the importance of career advancement opportunities, particularly employee learning and development training, against the macroenvironmental backdrop of technology, automation, and growing income inequality discussed in the previous sections:

“The need for investment in skill development is amplified by the rapid changes underway in the global economy. McKinsey Global Institute estimates that automation could displace 400 million workers (or 15% of global FTEs) by 2030, with up to 800 million workers at risk if the

¹⁵¹ Laurie Bassi and Dan McMurrer, “Human Capital Management Predicts Stock Prices,” *Association for Talent Development*, April 12, 2012, <https://www.td.org/insights/human-capital-management-predicts-stock-prices>.

¹⁵² Aaron Bernstein and Larry Beeferman, *The Materiality of Human Capital to Corporate Financial Performance in 2015* (Harvard Law School Labor and Worklife Program, 2015), pdf pg. 12, <https://poseidon01.ssrn.com/delivery.php?ID=906003110081094003089068079086092066060078093038088005118066120066007076095016122065018054125121048100034098100124098093095072047019027054010121021105100085013031070081000092102001126072070002106107122000104126091127088031106017068106064115101082001&EXT=pdf>.

¹⁵³ Derek Bosworth and Joanne Loundes, *The Dynamic Performance of Australian Enterprises Working Paper No. 3/02 in 2002* (Melbourne, Australia: The University of Melbourne - Melbourne Institute of Applied Economic and Social Research, 2002); The study used data from Australian government surveys of “business units,” which are primarily entire companies except for some large firms that report financial details for divisions. Although the surveys did not name companies and did not use public financial reports, they asked firms to report profitability defined as “the sum of accounting profit, interest expense, depreciation, investment expenditure, leasing capital and R&D expenditure.

¹⁵⁴ Bernstein and Beeferman, *The Materiality of Human Capital*, pdf pg. 21.

¹⁵⁵ Ibid.

adoption of automation is accelerated. These workers will require re-skilling, and in some cases will need to change occupational categories altogether, to avoid the risk of unemployment and/or underemployment¹⁵⁶. In the United States, a recent study suggests up to 25% of jobs are at risk of automation¹⁵⁷. This trend is likely to exacerbate existing inequalities, with the risk of automation disproportionately affecting low-wage, low-skilled workers.¹⁵⁸

“In the US, skill needs are growing in traditionally low and middle-skills jobs¹⁵⁹, with the latter expected to increase as baby boomers transition into retirement¹⁶⁰. Simultaneously, employers report difficulty filling middle-skills positions while reported on-the-job training is in decline in the US¹⁶¹, and globally up to 40% of employers report challenges filling jobs due to job shortages¹⁶². Companies not only have the ability to address their own skills shortages directly through on-the-job training and development opportunities¹⁶³, they are also best positioned to fill middle-skills gaps by promoting career pathways rather than developing isolated skill-sets¹⁶⁴. Firms also have an important role to play in enabling adult learning through interaction with colleagues, promoting individual agency and decision-making, and fostering a culture of learning and development...¹⁶⁵

Furthermore, there is significant disparity in access to career advancement opportunities. Across OECD countries, 60% of high-skill workers participate in some form of training, compared to only 20% of low-skill workers^{166,167,168}

¹⁵⁶ McKinsey Global Institute, *Jobs Lost, Jobs Gained*.

¹⁵⁷ Mark Muro, Robert Maxim, and Jacob Whiton, *Automation and Artificial Intelligence: How machines are affecting people and places in 2019* (Metropolitan Policy Program Brookings Institute, January 2019), https://www.brookings.edu/wp-content/uploads/2019/01/2019.01_BrookingsMetro_Automation-AI_Report_Muro-Maxim-Whiton-FINAL-version.pdf.

¹⁵⁸ United States Department of Labor, Bureau of Labor Statistics, <https://www.bls.gov/>; Please also reference: Sakis Kotsantonis and George Serafeim, *Human Capital and the Future of Work: Implications for Investors and ESG Integration in 2019* (Capco Institute Journal of Financial Transformation, 2019), <https://www.fiduciaryinvestors.com/wp-content/uploads/sites/61/2019/09/Human-capital-and-the-future-of-work.pdf>.

¹⁵⁹ Harry Holzer, *Job market polarization and U.S. worker skills: A tale of two middles in 2015* (Economic Studies Brookings Institution, April 2015), https://www.brookings.edu/wp-content/uploads/2016/06/polarization_jobs_policy_holzer.pdf.

¹⁶⁰ Thomas Kochan, David Finegold, and Paul Osterman, “Who Can Fix the ‘Middle-Skills’ Gap,” *Harvard Business Review*, December 2012, <https://hbr.org/2012/12/who-can-fix-the-middle-skills-gap>.

¹⁶¹ Holzer, *Job market polarization*.

¹⁶² Hasan Bakhshi, Jonathan M. Downing, Michael A. Osborne, and Philippe Schneider, *The Future of Skills: Employment in 2030 in 2017* (London: Pearson and Nesta, 2017), <https://futureskills.pearson.com/research/assets/pdfs/technical-report.pdf>.

¹⁶³ McKinsey Global Institute, *Jobs Lost, Jobs Gained*.

¹⁶⁴ Kochan et. al., “Who Can Fix”.

¹⁶⁵ World Economic Forum, *Accelerating workforce reskilling for the fourth industrial revolution: An agenda for leaders to shape the future of education, gender and work in 2017* (Geneva, Switzerland: World Economic Forum, July 2017), http://www3.weforum.org/docs/WEF_EGW_White_Paper_Reskilling.pdf.

¹⁶⁶ “What’s Better Life Index?,” OECD Better Life Index, OECD, last modified in 2020, <http://www.oecdbetterlifeindex.org/about/better-life-initiative/>.

¹⁶⁷ OECD, *OECD Employment Outlook 2019: The Future of Work in 2019* (Paris, France: OECD Publishing, 2019), <https://doi.org/10.1787/9ee00155-en>.

¹⁶⁸ David Freiberg, et. al., *Account for Organization Employment Impact: Impact-Weighted Accounts Project Research Report*, pdf pg. 17, Harvard Business School, 2020.

Serafeim and Kotsantonis’s research addressing the future of work further expands upon the importance specifically of reskilling¹⁶⁹ and upskilling¹⁷⁰ training in industries that face a high degree of automation, which could disproportionately affect low-paid and low-skilled workers:

“For example, large-scale automation could lead to increasing inequality between highly skilled high-paid workers and low skilled low-paid workers.¹⁷¹ Research also indicates that technology enabled changes to work tend to affect lower-paid and less qualified workers more than others.¹⁷² These challenges can provide opportunities for impact investments, both in businesses that manage the transition better but also in supply chain solutions and initiatives that offer support through training and education programs.”

Notably, the article argues that in addition to the fact that human capital is likely to be magnified in an environment of rapid technological change where the future of work is uncertain, equally as important is to acknowledge that existing frameworks to measure and evaluate human capital development might not be fit for purpose. Under this view, Serafeim and Kotsantonis propose a more effective alternative to measuring human capital development through workforce investment that focuses on outcomes rather than inputs. The human capital development metric, which is comprised of three key data inputs – employee wage change, training dollars, and employee turnover – is intended to serve as key indicator that ultimately reflects the ability of management to train employees on issues that improve their earnings potential and livelihoods, while at the same time creating a work environment where employees want to stay.

When this metric was applied to multiple firms across several industries and countries to assess the relationship between the metric and changes in revenue and earnings productivity (i.e. revenue or EBITDA per employee), the study observed a positive relationship between the human capital development (HCD) metric and the productivity metrics, both for revenue and earnings productivity.¹⁷³ Consequently, the study concludes that the human capital metric and its three data points exhibit meaningful relations to key measures such as productivity, raising the possibility that it could be relevant to business valuation and investment analyses.

One of the most attractive features of this human capital development metric designed by Serafeim and Kotsantonis is that the primary data inputs are inherently verifiable, and therefore, auditable. When these three data points are used conjointly in the proposed human capital development metric, Kotsantonis and Serafeim use the median instead of average change to avoid the metric reflecting the impact of a few outlier observations. While this metric is theoretical, it is intended to illustrate that even in the current disclosure landscape it is feasible to measure with reasonable accuracy workforce

¹⁶⁹ Reskilling works involves targeted training in new skills that enable employees to take on new roles in high-demand fields; Please reference: Brad Duncan, Kasia Lundy, and Chris Estes, “How to fill the skills gap,” *EY*, last modified February 21, 2020, https://www.ey.com/en_us/workforce/how-to-fill-the-skills-gap.

¹⁷⁰ Upskilling refers to the skills development and training of employees with the purpose of: (i) enhancing skill sets of employees to provide better performance in their current positions; (ii) equipping employees with the skills and opportunities required to advance to higher paying positions; (iii) meeting the increased need for higher level skills to support high value-added activities in the economy; and (iv) providing opportunities to “backfill” vacant slots with other employees positioned to move up in the organization; Please reference: Deloitte and The Aspen Institute, *A Guide to Upskilling America’s Frontline Workers*, pdf pg. 3.

¹⁷¹ McKinsey Global Institute, *Jobs Lost, Jobs Gained*.

¹⁷² British Academy and the Royal Society, *The impact of artificial intelligence on work – An evidence synthesis on implications for individuals, communities and societies in 2018* (London, United Kingdom: The British Academy and The Royal Society, September 2018), <https://royalsociety.org/-/media/policy/projects/ai-and-work/summary-the-impact-of-AI-on-work.PDF>.

¹⁷³ Kotsantonis and Serafeim, *Human Capital and the Future of Work*.

investment for thousands of companies leveraging the human capital development metric and can provide exploratory evidence on its relationship with employee productivity.

Moreover, the study also uses the human capital development metric to estimate the probability of automation of job tasks for each sub-industry and show the relationship between this probability to elements of the HCD metric and other human capital characteristics. Using this table, the authors developed a more industry-specific view on which industries may face a high risk of automation.

The findings of these studies support the concept that macroenvironmental trends favoring higher cognitive, processing, and emotional intelligence skills, which are becoming largely concentrated in service-oriented and knowledge-intensive work, increase the strategic value of training and can, in turn, increase employee engagement. As a result, employee training as a form of workforce investment are increasingly important facets of firm human capital management that could become critical components of long-term value creation.

Worker financial investment opportunities

Another form of workforce investment that can enhance employee engagement is the opportunity for workers to build financial and economic stability through employment benefits. While these opportunities for financial security and wealth-building can vary depending on regional and national labor laws and culture in addition to a variety of other factors, the concept of providing a financial incentive (excluding salaries and wages) to enhance employee productivity and improve employee satisfaction is commonplace. In the face of growing income and wealth inequality and wage polarization, a worker's ability to build wealth through employment opportunities is critical, particularly for middle-income and low-income workers.^{174,175}

A survey conducted by McKinsey found that many individuals are not yet meeting or are unable to meet the challenge of taking on greater responsibility for their own retirement savings in the face of declining institutional saving on their behalf. Based on a sample of 22 countries,¹⁷⁶ the study shows that institutional savings on behalf of individuals have declined in 16 out of the 22. A primary driver behind the decline is the broad shift from defined-benefit pensions to defined-contribution pensions, in addition to other changes in public-sector pension plans in many countries to make them more sustainable. According to the study, the proportion of pension assets under management that are defined contribution (in which market risk is borne by the individual) rather than a defined benefit (in which institutions bear the market risk) increased between 2007 and 2018.¹⁷⁷ In 16 countries, the average increase was two percentage points. On a weighted-average basis, the increase was six percentage points, primarily due to the size of pension assets under management in the United States.¹⁷⁸

¹⁷⁴ International Labour Organization (ILO), *What Works: Promoting Pathways to Decent Work in 2019* (Geneva, Switzerland: International Labour Organization, 2019), pdf pg. 77, https://www.ilo.org/wcmsp5/groups/public/---dgreports/---inst/documents/publication/wcms_724049.pdf.

¹⁷⁵ McKinsey Global Institute, *The social contract in the 21st century*, pdf pg. 13; See Box E1, Assessing shifts in the social contract.

¹⁷⁶ Study comprised 22 advanced economies in Asia, Europe, and North America, covering 57% of global GDP.

¹⁷⁷ Defined-benefit pensions are pensions that provide a specific financial amount in retirement, typically based on an employee's salary and the length of time they worked for their employer. Defined-contribution pensions are pension schemes that depend on the amount of money paid into the scheme by an employee or employer. See Jacob S. Hacker, *The Great Risk Shift: The New Economic Insecurity and the Decline of the American Dream*, second edition (New York, New York: Oxford University Press, 2019); Types of private pensions, GOV.UK, December 2019; McKinsey Global Institute, *The social contract in the 21st century*, pdf pg. 91.

¹⁷⁸ McKinsey & Company, Performance Lens database.

Net replacement rates from mandatory pensions, which is the percentage of an individual's annual employment income that is replaced by retirement income, have been declining in most countries due to changes in public and corporate pension entitlements. Furthermore, pressure on pensions has grown partly as a result of individuals living longer, which translates into increased retirement years. Out of the 22 sample countries, expected years of retirement increased from 16 years in 1980 to 20 years in 2018.¹⁷⁹

Additionally, the ratio of working-age population to the population aged 65 and over has been decreasing due to lower birth rates relative to the Baby Boomer generation.¹⁸⁰

The confluence of these events has increased the burden on individual households to build wealth for retirement. However, household saving rates have fallen across the study's 22 sample countries on average. Furthermore, across a broad range of sample countries, the surveys show that more than half of individuals did not save for old age in 2017, and a quarter did not save any money at all.¹⁸¹ The lack of retirement saving is in part related to the fact that some residents of certain countries benefit from traditionally generous social welfare systems such as in France, Italy, and Spain, where an estimated two-thirds of adults did not save for old age in 2017. Furthermore, reasons for low saving rates vary by country and by socioeconomic group. In addition to differing levels of guaranteed pensions, a low ability to save, low rates of access to appropriate saving vehicles, and low levels of financial literacy are critical factors that impact an individual's ability to save for retirement.

Lastly, both permanent and temporary workers are generally receiving decreasing levels of employment protection. According to the OECD, collective agreements, which primarily cover wage levels and increases as well as nonworking conditions such as vacation arrangements, training, and employment protections, are declining. Based on the McKinsey survey results, on average for the 22 countries analyzed, the share of workers covered by collective agreements declined from 44% in 2000 to 38% in 2017¹⁸². Given that collective agreements primarily aim to increase wages and other forms of compensation for workers, numerous academics suggest that this decline may have contributed to wage stagnation and polarization in the labor market.^{183,184,185} These changes have been linked to increasing employment rates by decreasing the risk of hiring as well as increasing polarization of wage development. Less coverage of collective agreements also translates into wages being linked more closely to individual negotiations, rather than pooling and sharing of risks.¹⁸⁶

Declining collective bargaining agreement coverage, shifts from defined benefit to defined contribution plans, longer life spans, increasing household debt, and increasing costs of living are all impacting individual savings rates. The question of the role that companies should play in aiding workers to build

¹⁷⁹ Expected number of years in retirement, OECD Employment database, 2019; See McKinsey Global Institute, *The social contract in the 21st century*, pdf pg. 89.

¹⁸⁰ Generally, individuals born between 1946-1964; See Catalyst, "Generations-Demographic Trends,".

¹⁸¹ Global financial inclusion database, World Bank, 2017; See also McKinsey Global Institute, *The social contract in the 21st century* pdf pg. 93.

¹⁸² McKinsey Global Institute, *The social contract in the 21st century* pdf pg. 70-71.

¹⁸³ Ryan Nunn, Jimmy O'Donnell, and Jay Shambaugh, *The shift in private sector union participation: Explanation and effects in 2019* (Washington, District of Columbia: The Hamilton Project, August 2019), accessed March 10, 2020, https://www.hamiltonproject.org/assets/files/UnionsEA_Web_8.19.pdf.

¹⁸⁴ "If wages are to rise, workers need more bargaining power," *The Economist*, May 31, 2018, <https://www.economist.com/finance-and-economics/2018/05/31/if-wages-are-to-rise-workers-need-more-bargaining-power>.

¹⁸⁵ McKinsey Global Institute, *The social contract in the 21st century* pdf pg. 71.

¹⁸⁶ *Ibid*, pdf pg. 107.

wealth—and how this responsibility fits into the employer-employee social contract—is therefore becoming of critical importance, particularly for low-skilled and low-income workers.

In the context of broader macroenvironmental value drivers, including the impact of automation on supply and demand of certain skills sets and opportunities for high-skilled and low-skilled workers, workforce investment has become an increasingly important component of overall worker engagement. Critical engagement strategies implemented by businesses that address job quality, including career-building opportunities and financial investment in workers, can generate clear financial impacts to the firm. Specifically, the role of training as well as employer-sponsored retirement savings and other similar financial incentives are increasingly important. While the specific characteristics of what constitutes a quality job and incentives for workers to remain engaged may differ by industry, evidence supporting these two engagement strategies of career-building opportunities and financial investment in workers suggest their broad applicability across multiple industries and their connectivity to long-term value creation for the firm.

Supporting Evidence for Workplace Culture

Analysis and conclusion: Workplace culture

Workplace culture is critical to aligning fundamental values throughout the company and upholding job quality for workers

Workplace culture has been commonly cited as a foundational driver of employee engagement by both companies and investors. In the Valuing Your Talent framework, organizational culture is defined as “the extent to which an organization’s leaders and employees are aligned to its purpose and values.”¹⁸⁷ Using this definition as a foundation, workplace culture can be viewed as the means by which company values as established by company leadership are disseminated, practiced, and maintained throughout the broader workforce in order to produce organizational outcomes that create engaging and meaningful jobs to workers and meet the company’s purpose to, ultimately, create long-term value. Concepts like diversity, inclusion, and engagement, which form the component parts of workplace culture, can be instrumental in producing organizational outcomes related to productivity, innovation, and employee turnover that can impact enterprise value creation.

Several business publications, including from Deloitte and EY¹⁸⁸ and existing human capital frameworks such as the EPIC framework¹⁸⁹ and the Valuing your Talent Framework,¹⁹⁰ help support the case that a company’s organizational culture drives the company’s set of values, processes, and outcomes. As the EPIC framework acknowledges in its full report, companies and investors both recognize the relevance of corporate culture in creating long-term firm value. Moreover, the report mentions that several

¹⁸⁷ Anthony Hesketh, *Valuing Your Talent: Managing the value of your talent, a new framework for human capital measurement in 2014* (London, United Kingdom: Chartered Institute of Personnel and Development, July 2014), pdf pg. 70, accessed February 24, 2020, https://www.cipd.asia/images/managing-the-value-of-your-talent-a-new-framework-for-human-capital-measurement-2014_tcm23-9266.pdf.

¹⁸⁸ EY Center for Board Matters, *How and why human capital disclosures are evolving in 2019* (Ernst & Young, LLP, 2019), pdf pg. 2, accessed February 24, 2020, https://assets.ey.com/content/dam/ey-sites/ey-com/en_us/topics/cbm/ey-how-and-why-human-capital-disclosures-are-evolving.pdf.

¹⁸⁹ Coalition for Inclusive Capitalism, *Embankment Project for Inclusive Capitalism*, pdf pg. 47-50.

¹⁹⁰ Hesketh, *Valuing Your Talent*, pdf pg. 69-70; See Appendix 1: The Valuing your Talent Framework – indicative metrics.

articles and books chronicle how CEOs have turned around failing businesses by focusing not just on strategy and new operating models, but also on culture and that certain cultural attributes are often considered to be necessary ingredients for high performance, and in turn, long-term value creation.^{191,192,193} Conversely, they note that the literature also points to culture being frequently cited as a significant underlying factor in corporate failings¹⁹⁴, which suggests that culture, if not designed and implemented well, can destroy value.

These publications suggest that a business's ability to effectively promote diversity, inclusion, and engagement can enhance value-relevant characteristics of the workforce (such as workforce composition and worker skills and competencies), thereby ultimately leading to organizational benefits such as increased employee productivity, reduced turnover, improved retention, and increased innovation. While these three concepts are often viewed in isolation from one another, these publications suggest that they are in fact interrelated and should not be considered mutually exclusive ideas. To that effect, inclusion¹⁹⁵ can work in tandem with the concepts of diversity¹⁹⁶ and engagement¹⁹⁷, in the sense that company processes that foster inclusion can produce outcomes of its workforce valuing diversity and becoming more engaged. These values are shaped from the top of the organization and implemented throughout the organizational design, or culture, of the company as noted in the Value Your Talent framework. Furthermore, engagement is a critical outcome of the processes and strategies deployed by a company to acquire, develop, and retain its workforce; can be utilized as a measure of the health of workplace culture; and help drive long-term value creation through human capital.

Diversity and inclusion

ADP, a global payroll and outsourcing service, defines diversity and inclusion in an article titled "Diversity And Inclusion: What's The Difference, and How Can We Ensure Both?"¹⁹⁸. Under ADP's definition, diversity is the "what" part of the workforce equation, or in other words, it is workforce composition including demographics such as gender, race/ethnicity, age, sexual orientation. In contrast, inclusion is the "how" component in that it can be a measure of culture, which enables diversity, or workforce composition, to thrive. As the article notes from ADP's Chief Diversity and Social Responsibility Officer, "You can certainly hire in diversity...but if your culture does not embrace different perspectives, you will not be able to retain diversity. Inclusion requires that everyone's contributions be valued, that individuals, regardless of the diversity dimension, have the opportunity to do their best work and advance."

Diversity can manifest in a myriad of ways, from external indicators (i.e. gender, race/ethnicity) to internal difference (i.e. personality, family background, education, personal style), which can be categorized into three forms of demographic diversity, organizational diversity, and socio-cognitive

¹⁹¹ Jim Collins, *Good to Great: Why Some Companies Make the Leap And Others Don't* (United States: Random House Business, 2001).

¹⁹² Bill Taylor, "How One Company's Turnaround Came from the Heart," *Harvard Business Review*, March 30, 2010, <https://hbr.org/2010/03/how-one-copmanys-turnaround>.

¹⁹³ Brook Shatles, "How Workplace Culture Leads to Business Success," *Forbes*, January 9, 2018, <https://www.forbes.com/sites/forbesagencycouncil/2018/01/09/how-workplace-culture-leads-to-business-success/#4a7b83ab513e>.

¹⁹⁴ Jim Collins, *How the Mighty Fall: And Why Some Companies Never Give In* (United States: Random House Business, 2009).

¹⁹⁵ Inclusion is defined as the perception of an employee's sense of belonging which can be fostered through a company's processes.

¹⁹⁶ Diversity is defined as an employee's perception of uniqueness functioning as a distinct and valuable characteristic of the group.

¹⁹⁷ Engagement is defined as an employee's commitment to and satisfaction with the work.

¹⁹⁸ "Diversity And Inclusion: What's The Difference, And How Can We Ensure Both?," ADP The Spark Team, last modified June 25, 2018, <https://www.adp.com/spark/articles/2019/03/diversity-and-inclusion-whats-the-difference-and-how-can-we-ensure-both.aspx>.

diversity¹⁹⁹. As Catalyst notes, these various dimensions of diversity mean it can be interpreted very broadly and can change meaning based on context. Of these multiple facets of diversity, the ones that have consistently received notable focus from both companies and investors are gender, race/ethnicity, age, and disability (both physical and mental). While all forms of diversity are normatively important, evidence cited below suggests that tangible links to company long-term value creation are most prominently related to gender and racial/ethnicity diversity.

Evidence supporting the relevance of gender diversity is clear. In the global population, men and women are more or less equally represented in the population regardless of regional differences²⁰⁰. However, it is well-documented that the economic opportunities afforded to men and women are not equal across industries and regions. As a result, gender diversity can play an important role within corporate human capital strategy for firms that seek to cast a wider net in developing their talent pipeline that will have subsequent impacts on the company's diversity, ability to innovate, and, ultimately, creation of long-term value²⁰¹.

On the other hand, the case supporting the relevance of ethnic and racial diversity can be considered less clear, largely due to the fact that the concepts of race and ethnicity are considered social constructs, or ideas that are largely accepted by people of a given society, which can create inconsistency in defining them across countries. Additionally, these definitions are also subject to change over time as social perceptions of how a certain ethnicity is defined evolves²⁰². Furthermore, since there are numerous dimensions of diversity that constitute a particular subnation or nation, there can be much regional variation on which of these dimensions becomes most salient in a localized context. For example, a study performed by Harvard Institute of Economic Research highlights an example of how linguistic fractionalization and ethnic fractionalization (not including religious fractionalization) are elements that complicate creating a universal standardized method for disclosing racial and ethnic diversity more consistently:

“While existing measure of racial (or ethnic) fragmentation for the U.S. are reasonably well accepted, since they are based upon detailed and reliable census data, cross-country measures have been widely debated. Easterly and Levine (1997) use indices based on ethnolinguistic classification provided by sources from the former Soviet Union, the Atlas Narodov Mira of 1964. These data rely largely on linguistic distinctions, which may obscure other aspect of

¹⁹⁹ Demographic diversity is characterized by such attributes as age, gender, ethnicity, and nationality and are considered to be easily detectable attributes that can be ascribed to certain individuals. For more information, please reference: Taylor H. Cox and Stacy Blake, “Managing Cultural Diversity: Implications for Organizational Competitiveness,” *The Academy of Management* 5, No. 3, (August 1991): pg. 45 – 56. Accessed December 11, 2020. <http://www.istor.org/stable/4165021>; Susan E. Jackson, and Marian N. Ruderman (Eds), “Diversity in work teams: Research paradigms for a changing workplace,” *American Psychological Association*, <https://doi.org/10.1037/10189-000>. Organizational diversity involves diverse perspectives of the group dynamism such as occupations and functions of the employees, seniority in the firm, and hierarchical ranking within the organization. For more information, please reference: Jackson and Ruderman, “Diversity in work teams”. Socio-cognitive diversity is characterized by certain attributes such as cultural and religious values, beliefs, knowledge level, and personality characteristics. For the source of these definitions, please reference: Hae Young Shin and Hye Joon Park, “What are the Key Factors in Managing Diversity and Inclusion Successfully in Large International Organizations? (Student Papers, Cornell University ILR School, Spring 2013), pdf pg. 3, <https://digitalcommons.ilr.cornell.edu/cgi/viewcontent.cgi?referer=https://www.google.com/&httpsredir=1&article=1044&context=student>.

²⁰⁰ “Population, female (% of total population),” *The World Bank*, last modified in 2019, <https://data.worldbank.org/indicator/SP.POP.TOTL.FE.ZS>.

²⁰¹ Rocío Lorenzo, Nicole Voigt, Karin Schetelig, Annika Zawadzki, Isabell M. Welp, and Prisca Brosi, “The Mix That Matters: Innovation Through Diversity,” *The Boston Consulting Group*, April 26, 2017, <https://www.bcg.com/publications/2017/people-organization-leadership-talent-innovation-through-diversity-mix-that-matters>.

²⁰² Max Fisher, “A revealing map of the world’s most and least ethnically diverse countries,” *The Washington Post*, May 16, 2013, <https://www.washingtonpost.com/news/worldviews/wp/2013/05/16/a-revealing-map-of-the-worlds-most-and-least-ethnically-diverse-countries/?arc404=true>.

ethnicity like racial origin, skin color, etc. Interestingly, studies within the United States do not look at language in the racial classification. If they did, blacks and whites would be classified in the same language group. As we discuss below, this example shows that although useful, language is not the only way to look at ethnicity.²⁰³ In Latin America several countries are relatively homogeneous in terms of language spoken, often the one of former colonizers, but much less so if skin color or racial origin is taken into account.”²⁰⁴

While the methodology is imperfect, data compiler websites such as World Population Review illustrate how to combine all three elements of linguistic fractionalization, ethnic fractionalization, and religious fractionalization based on the Pew Research Center’s research on cultural diversity²⁰⁵ and broad global views on diversity²⁰⁶ in addition to Harvard Institute of Economic Research study²⁰⁷ to create a numeric score on how diverse racially and ethnically a country is compared to others²⁰⁸. These scores offer a broad sense based on the amalgamation of these three indicators – linguistic fractionalization, ethnic fractionalization, and religious fractionalization – of what racial and ethnic diversity means in a more localized context at the general population level, which provides some insight for companies on which diversity issues are the most salient in a given region and how that can be leveraged to develop and manage a diverse talent pool under those conditions.

One of the most comprehensive studies conducted on corporate perceptions on diversity and inclusion at a global scale was conducted by SHRM in 2009²⁰⁹, which provides further clarity on how companies in various regions of the world define and view different aspects of diversity and how those aspects of diversity are prioritized and reflected in their corporate strategies. While the study is nearly a decade old, many of the insights and conclusions remain salient in current workforce management views and practices.

The report establishes some basic facts about the state of diversity and inclusion globally from a corporate strategy perspective, including that diversity and inclusion have come to be accepted worldwide as relevant business issues. The major drivers for that acceptance are talent shortages and diverse marketplaces. However, the business rationales for supporting diversity and inclusion as a part of the corporate strategy varies.

²⁰³ This paper notes the following: Racial classification follows the U.S. Census which divides American into five groups: White, Blacks, America Indians, Pacific Islander, and Hispanics. As for ethnicity country of origin like Ireland, Italy, Japan etc. is also available.

²⁰⁴ Alberto Alesina, Arnaud Devleeschauwer, William Easterly, Sergio Kurlat and Romain Wacziarg, “Fractionalization,” (Discussion Paper Number 1959, Harvard Institute of Economic Research, June 2002), pdf pg. 3-4, Alesina, Alberto F. and Easterly, William and Devleeschauwer, Arnaud and Kurlat, Sergio and Wacziarg, Romain T., Fractionalization (June 2002), <http://dx.doi.org/10.2139/ssrn.319762>.

²⁰⁵ Rich Morin, “The most (and least) culturally diverse countries in the world,” Pew Research Center, July 18, 2013, <https://www.pewresearch.org/fact-tank/2013/07/18/the-most-and-least-culturally-diverse-countries-in-the-world/>.

²⁰⁶ Jacob Poushter and Janell Fetterolf, “A Changing World: Global Views on Diversity, Gender Equality, Family Life, and the Importance of Religion,” Pew Research Center Global Attitudes and Trends, April 22, 2019, <https://www.pewresearch.org/global/2019/04/22/how-people-around-the-world-view-diversity-in-their-countries/>.

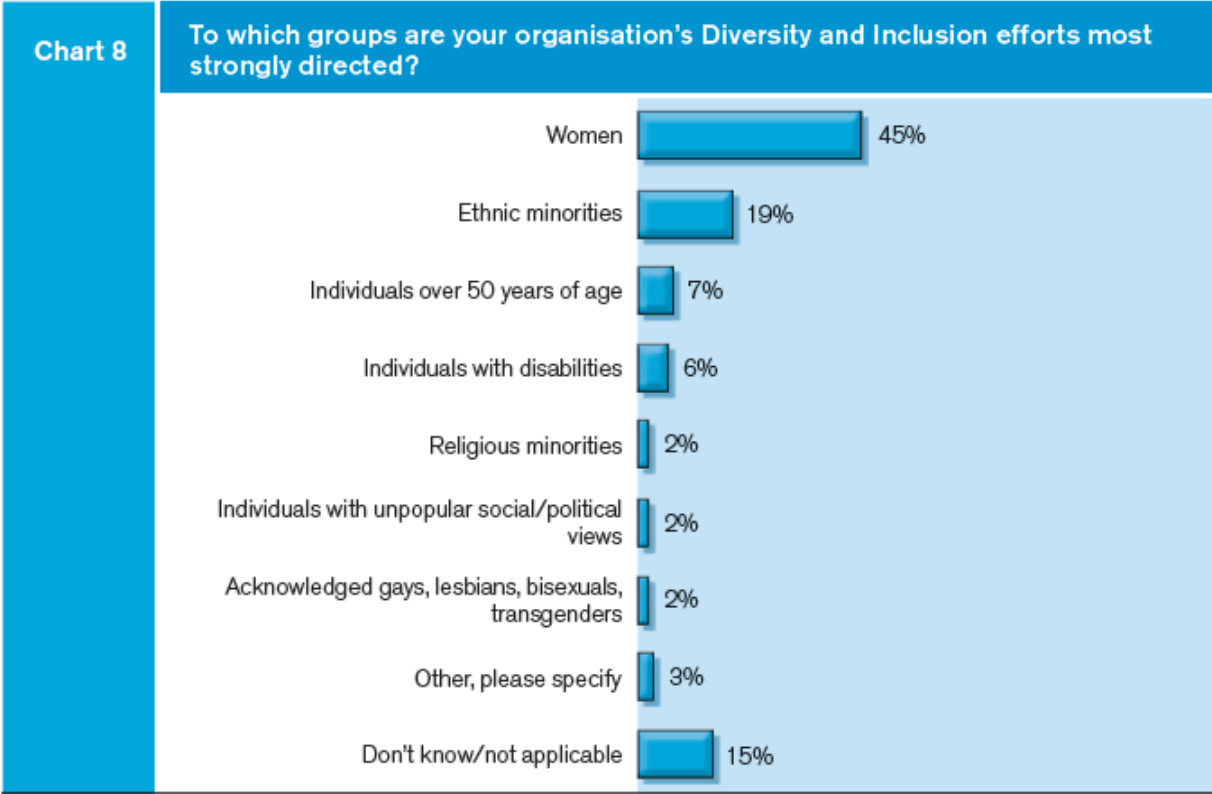
²⁰⁷ Alesina, et. al., “Fractionalization”.

²⁰⁸ “Most Racially Diverse Countries 2020,” World Population Review, last modified in 2020, <https://worldpopulationreview.com/country-rankings/most-racially-diverse-countries>.

²⁰⁹ For the SHRM study, a total of 546 senior executives participated in the Diversity and Inclusion the Workforce survey which was conducted in July 2008. Of those who responded, 257 were C-level executives (such as CEOs, CFOs, CIOs, and CDOs) and the remaining consisted of senior vice presidents, heads of business units, and other senior managers. With respect to the companies, many of them are considered mid-size to large in size based on annual total revenues. 269 of the companies had annual revenues of at least \$500 million USD. For additional details about the study, please see Appendix I of the SHRM’s Diversity and Inclusion the Workforce survey. For more information, please reference: Society for Human Resource Management (SHRM) and The Economist Intelligence Unit, Global Diversity and Inclusion: Perceptions, Practices and Attitudes in 2009 (Alexandria, Virginia: SHRM Office of Diversity & Inclusion Initiatives, pdf pg. 9, 2009), https://www.shrm.org/hr-today/trends-and-forecasting/research-and-surveys/Documents/09-Diversity_and_Inclusion_Report.pdf.

While the focus groups for diversity efforts vary by region, in most regions there is a strong emphasis on attracting, retaining, and promoting women, particularly in North America and Western Europe, followed by ethnic minorities and individuals over 50 years of age (see Exhibit 13 and 14).

Exhibit 13

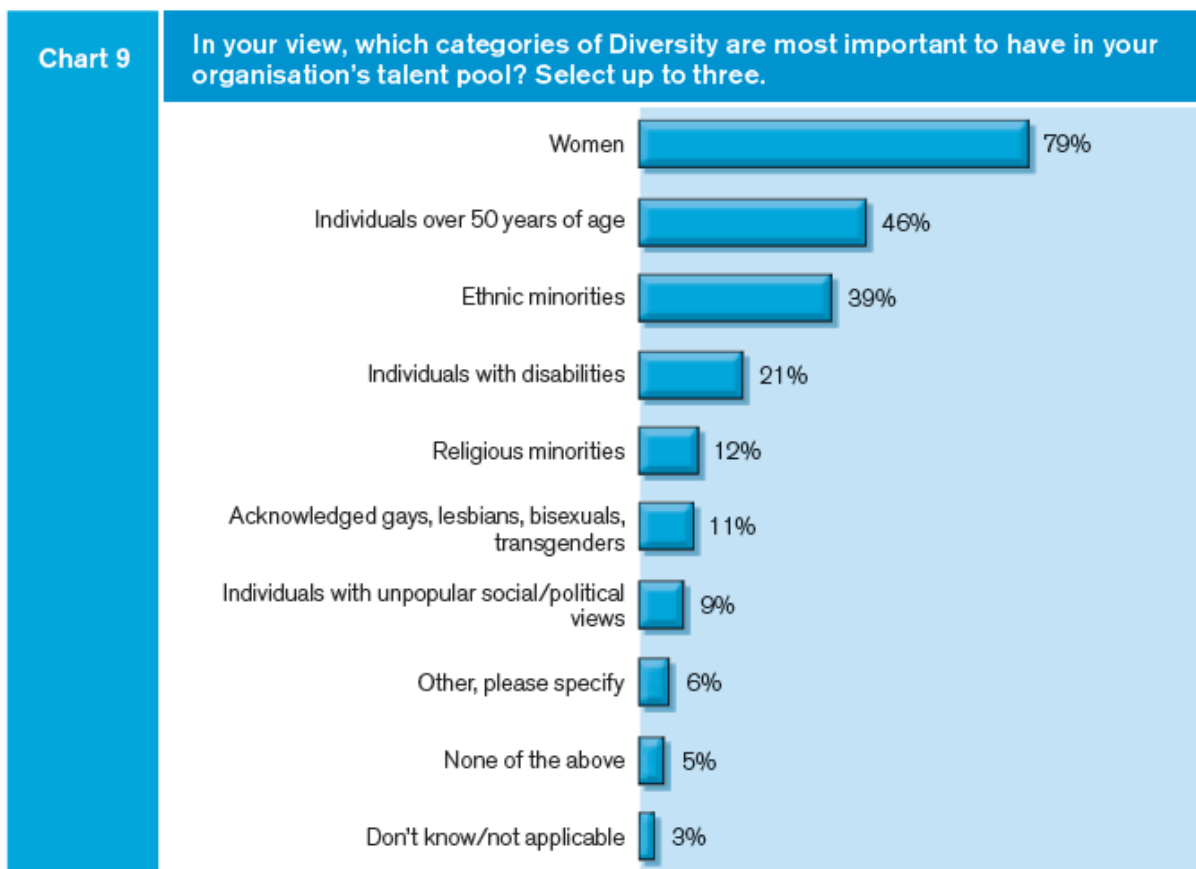


Source: Global Diversity and Inclusion, the Society for Human Resource Management

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²¹⁰ SHRM and The Economist Intelligence Unit, *Global Diversity and Inclusion*, pdf pg. 15.

Exhibit 14



Source: Global Diversity and Inclusion, the Society for Human Resource Management

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In terms of how companies execute on diversity and inclusion as part of their corporate strategies, SHRM found that the primary proponent for workplace diversity and inclusion policies were Chief Executive Offices (CEOs) and top management, followed by heads of human resources²¹². However, the primary responsibility for diversity and inclusion efforts in the organization was more likely to fall on a human resources/talent director versus chief diversity officer or corporate social responsibility head²¹³. Given these two trends, diversity and inclusion efforts tend to originate at the top of the organization and are driven by a leadership team member, but are generally decentralized. As a result, the lion's share of the work is placed on middle managers to execute the on-the-ground work.

The survey also addressed disparities for the business case for diversity and inclusion as part of overall corporate strategies, which ranged from being a moral imperative to a strategy to enhance corporate profitability. Companies generally fall into four categories for rationalizing the business case for diversity and inclusion, which are outlined below (see Exhibit 15):

²¹¹ Ibid., pdf pg. 15.

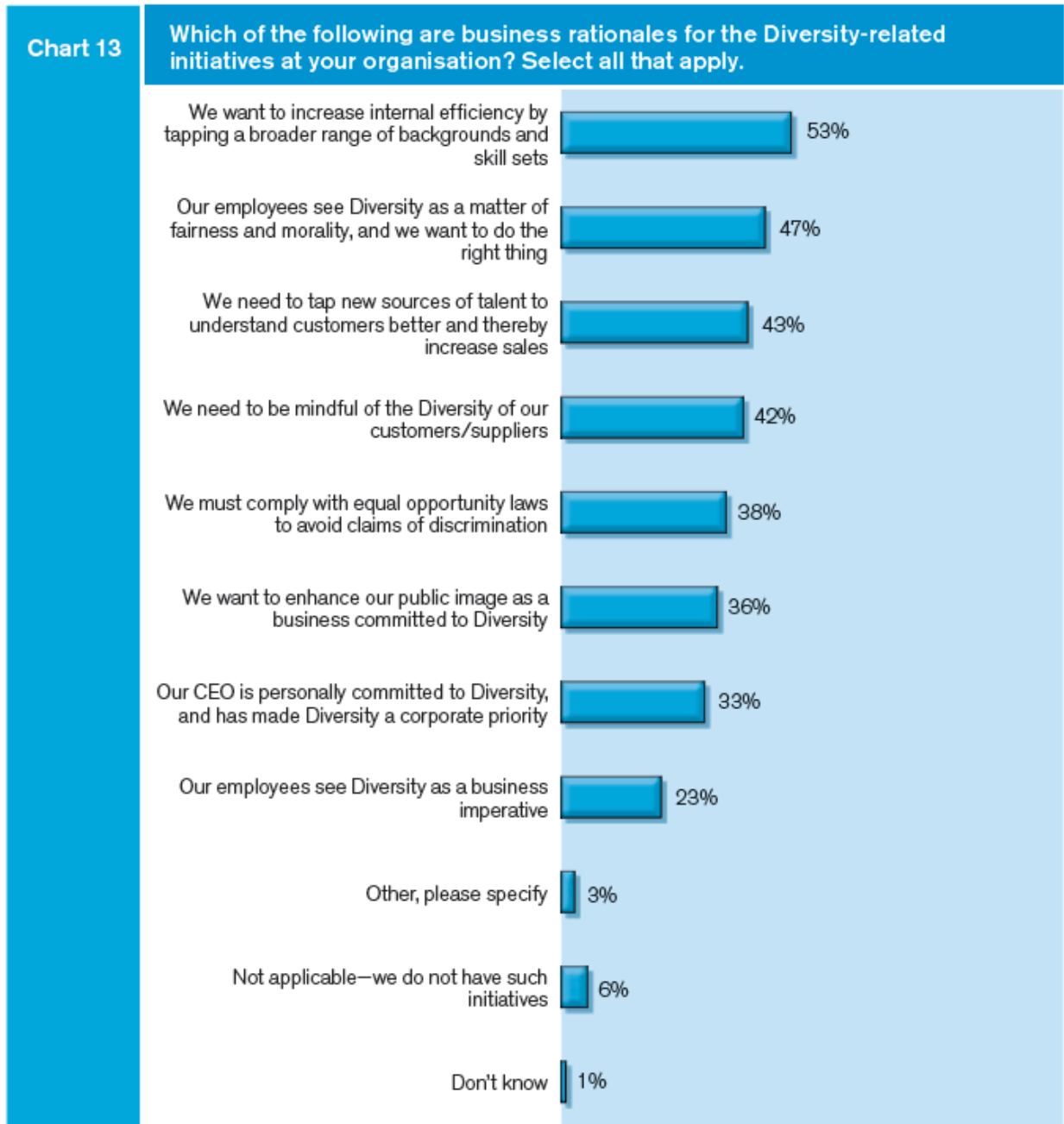
²¹² Ibid., pdf pg. 12.

²¹³ Ibid., pdf pg. 13.

- **The talent pool argument:** Diversity programs broaden the talent pool available to the company now and in the future. Companies that support this argument believe that diversity and inclusion broaden the range of skills within the organization to promote efficiency and new talent sources to understand customers and increase sales. Notably, this trend is significantly impacted by labor force demographics.
- **The business outcomes argument:** Diversity within the workforce not only broadens the talent pool, but also is an important driver of improved business outcomes. Diversity allows for improved decision-making given that a broader range of views and backgrounds are included to create diversity of thought. Furthermore, diversity is viewed as a means to improve a company's reputation and brand image. Companies' perception that their customer bases are becoming more diverse through immigration and cultural changes makes diversity even more important in order for these companies to capture the wide range of tastes, sensibilities, and interest of this increasingly diverse customer base.²¹⁴
- **The regulatory compliance argument:** Diversity is important to meet legal requirements and avoid discriminatory and exclusionary practices.
- **The moral argument:** Diversity and inclusion is an issue of fairness and morality. This argument is often supported by executives in developing countries.

²¹⁴ Ibid., pdf pg. 18.

Exhibit 15



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With regard to the relationship between diversity and inclusion, it was clear from the survey results that companies viewed these concepts as complementary and interlinked.

The study also addressed some of the ongoing challenges associated with corporate strategies around diversity. Most notably, the survey highlighted that, although companies worldwide generally are in

²¹⁵ Ibid., pdf pg. 18.

consensus on seeking to achieve a diverse workforce, their commitment and methods for doing so vary widely.

To some extent, corporate strategies followed regional patterns. For example, while U.S. companies tend to seek racial and ethnic balance, European and Canadian companies tended to be more focused on immigration and nationality.

A separate issue is related to data collection. While U.S. companies make race and ethnicity a significant aspect of diversity programs, companies located in Europe may be prohibited from collecting racial data on employees and racial discussions tend to be avoided, such as in Germany²¹⁶. Furthermore, how diversity and inclusion are measured to determine the success of a company's diversity and inclusion strategies are assessed differently by region. For instance, while European companies generally emphasize setting up procedures that ensure underrepresented groups are considered for hiring and promotion, U.S. companies tend to focus on results with the most extreme example being when management incentives are tied to certain goals and targets. Lastly, the survey made clear that companies believe that diversity strategies and programs should be tailored to the local context. While gender appears to be a universal issue, management needs to identify which diversity dimensions are the most important and relevant in each specific country²¹⁷. McKinsey's *Delivering through Diversity* report offers a similar proposition to tailor the diversity and inclusion strategy to maximize the local impact, ensuring that the corporate strategy adapts its approach to different parts of the business, various geographies, and sociocultural contexts (see Exhibit 16):

²¹⁶ Ibid., pdf pg. 23.

²¹⁷ Ibid.

Exhibit 16

Exhibit 6

Diversity leaders bring fresh perspectives on how to build an effective strategy by drawing on the stories of leading global companies.



McKinsey&Company

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Gender diversity

The importance of gender diversity is supported by a significant body of evidence. From a broad economic perspective, it is a common argument that if women—who account for half the world’s working-age population—do not achieve their full economic potential, the global economy will suffer.²¹⁹ A report by McKinsey Global Institute estimates that, in a “best in region” scenario in which all countries

²¹⁸ Vivian Hunt, Sara Prince, Sundiatu Dixon-Fyle, and Lareina Yee, *Delivering through Diversity: Delivering impact through I&D in 2018* (McKinsey & Company, pdf pg. 29, January 2018), <https://www.mckinsey.com/business-functions/organization/our-insights/delivering-through-diversity>.

²¹⁹ Jonathan Woetzel, Anu Madgavkar, Kweilin Ellingrud, Eric Labaye, Sandrine Devillard, Eric Kutcher, James Manyika, Richard Dobbs, and Mekala Krishnan, *The Power of Parity: How Advancing Women’s Equality Can Add \$12 Trillion to Global Growth* in 2015, (McKinsey & Company, pdf pg. 11, September 2015), <https://www.mckinsey.com/featured-insights/employment-and-growth/how-advancing-womens-equality-can-add-12-trillion-to-global-growth#:~:text=A%20McKinsey%20Global%20Institute%20report,gaps%20in%20work%20and%20society>.

match the rate of improvement of the fastest-improving country in their region, countries could add as much as \$12 trillion, or 1%, in annual 2025 GDP.²²⁰

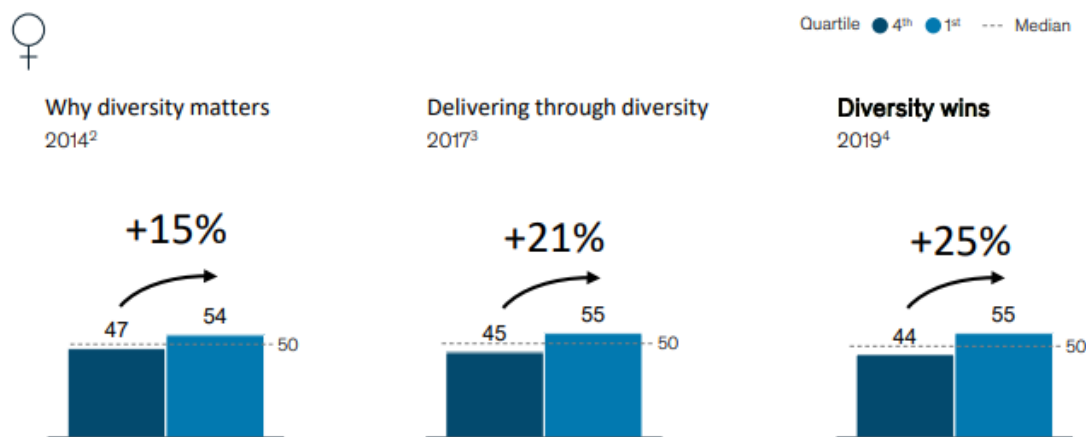
At the corporate level, recent studies performed by McKinsey make a compelling case that including women at the executive level has clear financial impacts (see Exhibit 17).²²¹

Exhibit 17

Exhibit 2

The business case for gender diversity on executive teams is stronger than ever

Likelihood of financial outperformance¹, %



1. Likelihood of financial outperformance vs the national industry median. p-value <0.05, except 2014 data where p-value <0.1.

2. n = 383; US, UK, and Latin America; EBIT margin 2010-2013.

3. n = 991; US, UK, Brazil, Mexico, Australia, Japan, India, Singapore, Germany, France, South Africa, and Nigeria; EBIT margin 2011-2015.

4. n = 1,039; 2017 companies for which gender data available in 2019 plus Denmark, Norway, and Sweden; EBIT margin 2014-2018.

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McKinsey's longitudinal study, conducted since 2014,^{223,224} found that companies in the top quartile for gender diversity in their executive teams were 15% more likely to experience above-peer average

²²⁰ Woetzel et. al., *The Power of Parity*, pdf pg. 11.

²²¹ Vivian Hunt, Sara Prince, Sundiatu Dixon-Fyle, and Kevin Dolan, *Diversity wins: How inclusion matters in 2020*, (McKinsey & Company, pdf pg. 17, May 2020), <https://www.mckinsey.com/featured-insights/diversity-and-inclusion/diversity-wins-how-inclusion-matters>.

²²² Hunt et. al., "Exhibit 2: The business case for gender diversity on executive teams is stronger than ever," in *Diversity wins*, pdf pg. 17.

²²³ Methodology: McKinsey's Diversity Matters series is intended to explore the link between gender and ethnic diversity in companies' top teams and those companies' business performance. Over the past five years, McKinsey has tracked the progress of hundreds of companies with annual total revenues exceeding \$1.5 billion USD in countries worldwide. For its most recent report, McKinsey expanded its data set to include 1,039 companies in 15 countries, which included Australia, Brazil, France, Germany, Norway, Denmark, India, Japan, Mexico, Nigeria, Singapore, South Africa, Sweden, the United Kingdom, and the United States. The industries represented in that data set include the following: Consumer goods and retail (24%); Energy, basic materials, and environment (22%); Heavy industry (15%); Telecom, media, and technology (13%); Finance, insurance, and professional services (11%); Healthcare and pharmaceuticals (9%); and Transportation, logistics, and tourism (7%). For more information, please reference: Hunt et. al., "Box 1: Expanded data set, updated methodology" in *Diversity wins*, pdf pg. 13.

²²⁴ Hunt et. al., "Exhibit 1: Our data set spans over 1,000 companies in 15 countries – Distribution of sample by country and industry group, %" in *Diversity wins*, pdf pg. 14.

profitability than companies in the fourth quartile. Three years later, the percentage had increased to 21%. In the most recent study in 2019, this percentage had increased again to 25%. Despite these favorable numbers, the McKinsey study also found that improvements in gender diversity on both boards and executive teams have been slow, although there has been an uptick in the past two years. When examining these numbers through a country-specific lens, there are extremes in representation. For example, the study found that all of the companies reviewed that were located in Norway had at least one female executive. However, at the other end of the spectrum, 83% of companies reviewed from major economies, including Brazil, India, Germany, and Japan, had zero women on their executive teams. Notably, developed countries, on average, had higher rates of diversity representation than emerging economies.

The McKinsey study also found that diversity was more closely linked to financial performance in advanced economies than in emerging economies, which it attributed to the fact that markets in advanced economies are typically more efficient and the diversity and inclusion agenda often being more mature at the national level in those advanced economies relative to their emerging market counterparts. The probability of financial outperformance by companies with gender-diverse executive teams is highest at 47% in advanced economies that have high gender parity²²⁵, such as the United States, the United Kingdom, Finland, and Sweden. In contrast, the likelihood of financial outperformance by companies that are more gender diverse in lower gender-parity emerging economies, such as Brazil, India, and Nigeria, averaged approximately 17%. The study concludes that this difference in performance between advanced and emerging economies is an indication that these emerging economies have an opportunity to improve by adopting practices from some of these advanced economies, replicating what works, and discarding what does not²²⁶.

Furthermore, the McKinsey study shows that there is a widening financial performance gap between leading diversity and inclusion practitioners and companies that have yet to embrace a diversity and inclusion strategy²²⁷. As noted in the McKinsey findings, in 2019, fourth-quartile companies for executive-team gender diversity were 19% more likely than companies in the other three quartiles to underperform on profitability. This is up from 15% in 2017 and 9% in 2015 (see Exhibit 18):

²²⁵ Gender parity as a general term refers to equal opportunity between men and women.

²²⁶ Hunt et. al., "Box 3: Comparing gender diversity in developed and emerging economies" in *Diversity wins*, pdf pg. 20.

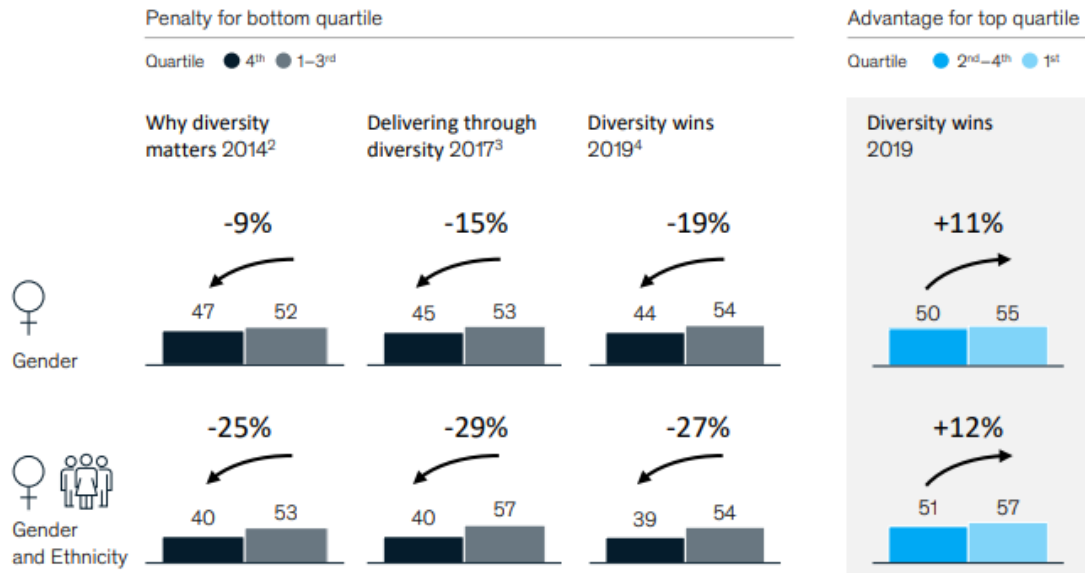
²²⁷ *Ibid.*, pdf pg. 7.

Exhibit 18

Exhibit 8

The penalty for lagging on diversity is growing, while top-quartile companies are more likely to outperform all their peers

Likelihood of financial outperformance¹, %



1. Likelihood of financial outperformance vs the national industry median. p-value <0.05, except 2014 data where p-value <0.1.
 2. n = 383 for Gender; n = 364 for Gender and Ethnicity; US, UK, Brazil, and Mexico; EBIT 2010-13.
 3. n = 991 for Gender; n = 589 for Gender and Ethnicity; US, UK, Brazil, Mexico, Australia, India, Japan, Singapore, France, Germany, Nigeria, and South Africa; EBIT 2011-2015.
 4. n = 1,039 for Gender; n = 533 for Gender and Ethnicity; US, UK, Brazil, Mexico, Australia, India, Japan, Singapore, France, Germany, Nigeria, South Africa, Denmark, Norway, and Sweden; EBIT 2014-18.
- Source: Diversity Matters data set

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While these numbers are favorable, McKinsey's Women in the Workplace 2020 report²²⁹ notes that there still exists a "broken rung" in the corporate ladder for women and that this remains a major barrier to progress. To exemplify this point, the study noted that for every 100 men promoted to manager, only 85 women were promoted based on a set of U.S. and Canadian companies. When adding the lens of race and ethnicity, this gap was even larger for some women with only 58 Black women and 71 Latinas being promoted²³⁰. As a result, women remained significantly outnumbered in entry-level

²²⁸ Ibid., pdf pg. 28.

²²⁹ Rachel Thomas, Marianne Cooper, Ph.D., Gina Cardazone Ph.D., Kate Urban, Ali Bohrer, Lareina Yee, Jess Huang, Sara Prince, Ankur Kumar, Sarah Coury et. al., *Women in the Workplace in 2020* (McKinsey & Company and LeanIn.org, pdf pg. 58, September 30, 2020), <https://www.mckinsey.com/featured-insights/diversity-and-inclusion/women-in-the-workplace>; Methodology: This report is based on research from 317 companies across the United States and Canada, building on similar research conducted annually by McKinsey & Company and LeanIn.Org since 2015, as well as research from McKinsey & Company in 2012. Participating companies from the private, public, and social sectors submitted talent pipeline and/or policies and programs data. In addition, more than 40,000 employees from 47 companies were surveyed on their workplace experiences, and we interviewed 49 women and men of different races and ethnicities, LGBTQ+36 women, and women with disabilities at all levels in their organizations. Additional in-depth interviews with seven interviews with HR leaders.

²³⁰ Thomas et. al., *Women in the Workplace*, pdf pg. 9.

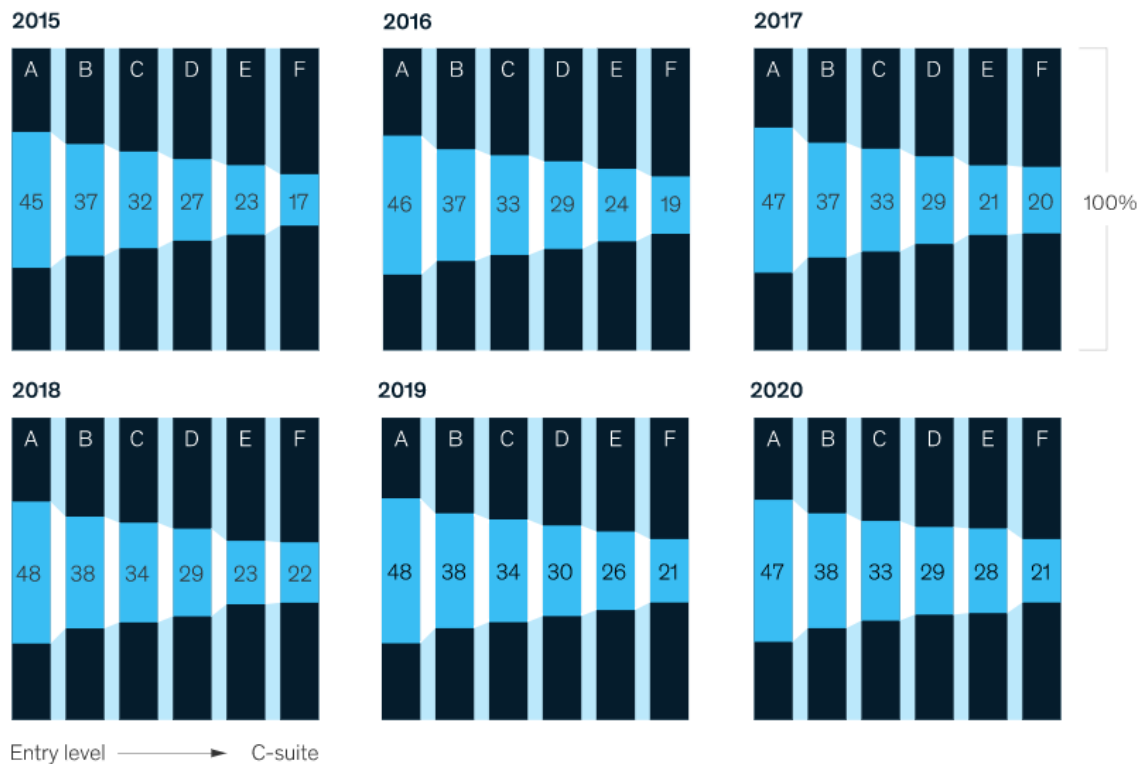
management at the beginning of 2020 where women held just 38% of manager-level positions, while men held 62%. Furthermore, while at the beginning of 2020, the representation of women in corporate America was improving with representation of women in senior-vice-president positions growing from 23% to 28% between January 2015 and January 2020 and representation in the C-suite grew from 17% to 21%; women still remained dramatically underrepresented, particularly women of color (see Exhibit 19):

Exhibit 19

Since 2015, we've seen only modest signs of progress in the representation of women in the corporate pipeline.

Representation of women by level, % of employees

A = entry level B = manager C = senior manager/director D = vice president E = senior vice president F = C-suite



Source: *Women in the Workplace 2020*, LeanIn.Org and McKinsey, 2020

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In conjunction with these trends, corporate disclosure around gender diversity has been evolving. Gender pay gap ratios, for example, have been an area of recent legislative focus in numerous countries as well as the subject of shareholder resolutions seeking enhanced disclosure. Many of the companies targeted with such resolutions have since expanded their disclosures, which generally identify pay gaps

²³¹ Sarah Coury, Jess Huang, Ankur Kumar, Sara Prince, Alexis Krivkovich, Lareina Yee, "Progress toward gender parity remains slow" in *Women in the Workplace*, McKinsey & Company, September 30, 2020, <https://www.mckinsey.com/featured-insights/diversity-and-inclusion/women-in-the-workplace>.

adjusted for similarity in role, seniority, and geography. However, proponents have continued to push for disclosure of the unadjusted gap in median pay between men and women, which according to one prominent proponent “is crucial in identifying the lack of women in high-paying leadership positions and the lack of opportunity for advancement and higher pay”²³². The UK and Denmark, among others, mandate this type of unadjusted or “raw” pay gap reporting by law.

In addition to gender pay gap ratios, other metrics have begun to emerge as well, including, for example, measures of promotion velocity within companies. Again, such trends in disclosure are supportive of the larger trend emphasizing the business relevance of gender diversity discussed above.

Racial, ethnic, and cultural diversity

Evidence also supports the importance of racial and ethnic diversity globally. For example, recent studies by both McKinsey and Citi in the United States show that financial institutions could have realized approximately \$2 billion USD in incremental annual revenue by affording the same access to financial products to black Americans as white Americans. Upon further extrapolation, the McKinsey study indicates that if black Americans reached full parity in terms of wealth with white Americans, financial services companies could realize up to \$60 billion in additional revenue from black customers each year.²³³ Another study by Citi estimates that by *not* addressing the racial gaps between black and white Americans, the U.S. economy has experienced up to \$16 trillion in economic costs over the past 20 years.²³⁴ On a disaggregated basis, this figure would equate to \$2.7 trillion in income (or 0.2% added to GDP per year) to close the black wage gap; \$13 trillion in additional business revenue by providing fair and equitable lending to black entrepreneurs; \$218 billion in sales for improving access to housing credit to black homeowners; and \$90 – 113 billion in increase lifetime incomes for black students that had easy access to higher education.²³⁵

Recent studies performed by McKinsey also make a strong business case for ethnic and racial diversity as part of corporate human capital strategy. The results of the study indicate that companies in the top quartile for ethnic and cultural diversity on executive teams were 35% more likely to outperform on EBIT margin in 2014, 33% in 2017, and 36% in 2019²³⁶. Although this outperformance was greater in magnitude when compared to gender diversity, progress on this dimension of diversity was equally as slow as gender diversity (see Exhibit 20). Similar results apply to ethnic and cultural diversity on boards. Most importantly, this study used a consistent definition of ethnic and cultural diversity in the analysis across the countries in the data set, which ensures that the data is reliable and the results comparable.

²³² Natasha Lamb and Michael Passoff, *Arjuna Gender Pay Scorecard 2020, Third Edition in 2020* (Arjuna Capital, 2020), accessed March 10, 2020, <https://arjuna-capital.com/wp-content/uploads/2020/04/Gender-Pay-Scorecard-Report-2020.pdf>.

²³³ McKinsey Global Institute, <https://www.mckinsey.com/industries/public-and-social-sector/our-insights/the-case-for-accelerating-financial-inclusion-in-black-communities>

²³⁴ Citi, pdf pg. 4, https://ir.citi.com/NvIUklHPilz14Hwd3oxqZBLMn1_XPqo5FrxsZD0x6hhil84ZxaxEuJUWmak51UHvYk75VKeHCMI%3D

²³⁵ Citi, pdf pg. 4, https://ir.citi.com/NvIUklHPilz14Hwd3oxqZBLMn1_XPqo5FrxsZD0x6hhil84ZxaxEuJUWmak51UHvYk75VKeHCMI%3D

²³⁶ Hunt et. al., *Diversity wins*, pdf pg. 23; Note: The countries included in this analysis included the United States, the United Kingdom, Brazil, Mexico, and Singapore.

Exhibit 20

Exhibit 7

The business case for ethnic diversity on executive teams remains strong

Likelihood of financial outperformance¹, %

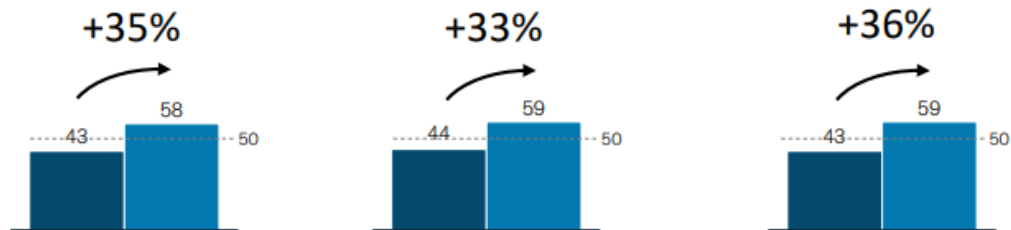


Quartile ● 4th ● 1st --- Median

Why diversity matters
2014²

Delivering through diversity
2017³

Diversity wins
2019⁴



1. Likelihood of financial outperformance vs the national industry median. p-value <0.05, except 2014 data where p-value <0.1.

2. n = 364; US, UK, and Latin America; EBIT margin 2010-2013.

3. n = 589; US, UK, Brazil, Mexico, Singapore, and South Africa; EBIT margin 2011-2015.

4. n = 533; US, UK, Brazil, Mexico, Singapore, Nigeria, and South Africa where ethnicity data available in 2019; EBIT margin 2014-2018.

Source: Diversity Matters data set

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Similar to gender diversity, there is a widening gap between leading diversity and inclusion practitioners and laggards. For companies in the fourth quartile of both gender and ethnic diversity, the financial performance effect is even steeper in 2019, in which this cohort is 27% more likely to underperform on profitability relative to all other companies in data set²³⁸ (see Exhibit 18).

While gender, racial and ethnic diversity representation at the board and executive management levels are important, these statistics only account for a small piece of the broader talent pipeline. As shown in Exhibit 21 below, when reviewing the complete talent pipeline, it is clear that people of color, whether male or female, have a much narrower pathway to career advancement than their white counterparts. This suggests the importance of disclosures that provide visibility into the pipeline at all stages to have a more complete understanding of the robustness of a company's diversity and inclusion strategy. Other metrics such as promotion velocity can help support these diversity representation metrics.

²³⁷ Ibid.

²³⁸ Ibid., pdf pg. 7.

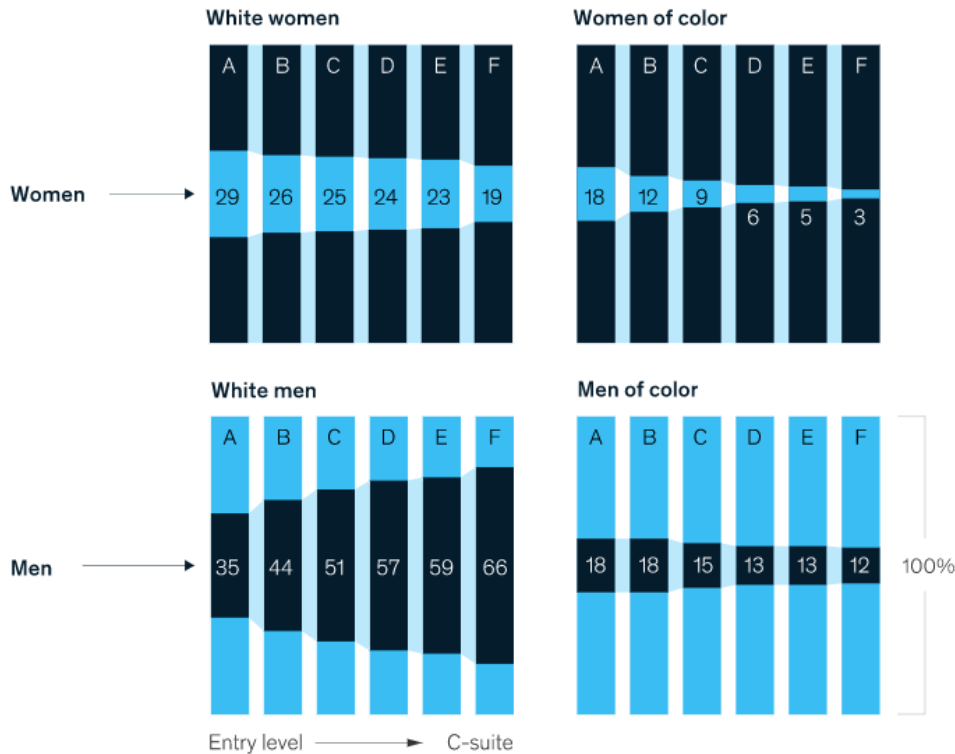
Exhibit 21

Exhibit 2

For the sixth year in a row, the underrepresentation of women and women of color in senior management cannot be explained by attrition alone.

Representation by corporate role, by gender and race in 2020, % of employees

A = entry level B = manager C = senior manager/director D = vice president E = senior vice president F = C-suite



Source: *Women in the Workplace 2020*, LeanIn.Org and McKinsey, 2020

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Evidence supporting the prevalence and financial materiality of gender and racial and ethnic diversity suggests its broad financial relevance across industries. However, as noted in previous sections, there are several challenges associated with disclosure of the racial and ethnic diversity dimensions given that local context of this issue is critical to executing an effective diversity and inclusion strategy, especially for multinational companies. Another key challenge is the fact that some jurisdictions like Germany will not allow racial and ethnic data to be collected.

²³⁹ Sarah Coury et. al., “The ‘broken rung’ is still holding women back” in *Women in the Workplace*, <https://www.mckinsey.com/featured-insights/diversity-and-inclusion/women-in-the-workplace>.

Given this reporting challenge, a likely path forward is first relying on existing, widely-used measures, such as the U.S. Equal Employment Opportunity Commission’s (EEOC) EEO-1 survey²⁴⁰, as a foundation for gender and racial and ethnic disclosure in the near-term as research on diversity and inclusion progresses and regulations emerge. Even with this approach, additional specificity may be needed to appropriately localize disclosure to capture the most significant and relevant dimensions of diversity at the regional, or even, country level.

Inclusion

As noted previously, inclusion is closely linked with and complementary to diversity. As the most recent McKinsey study demonstrates, the perception of inclusion in addition to other sentiments, such as workers’ perception of belonging, openness, and equality, are critical components to address in human capital management strategies for companies. Another key insight from the McKinsey study is the observation that even relatively diverse companies face significant challenges in creating work environments characterized by inclusive leadership, accountability among managers, equality and fairness of opportunity, and openness and freedom from bias and discrimination (see Exhibit 22). This challenge to incorporate both diversity and inclusion in corporate management strategies indicates that companies on the whole still have much latitude for improvement, but can capture a competitive advantage by addressing these underlying components of inclusion as part of their corporate strategies.

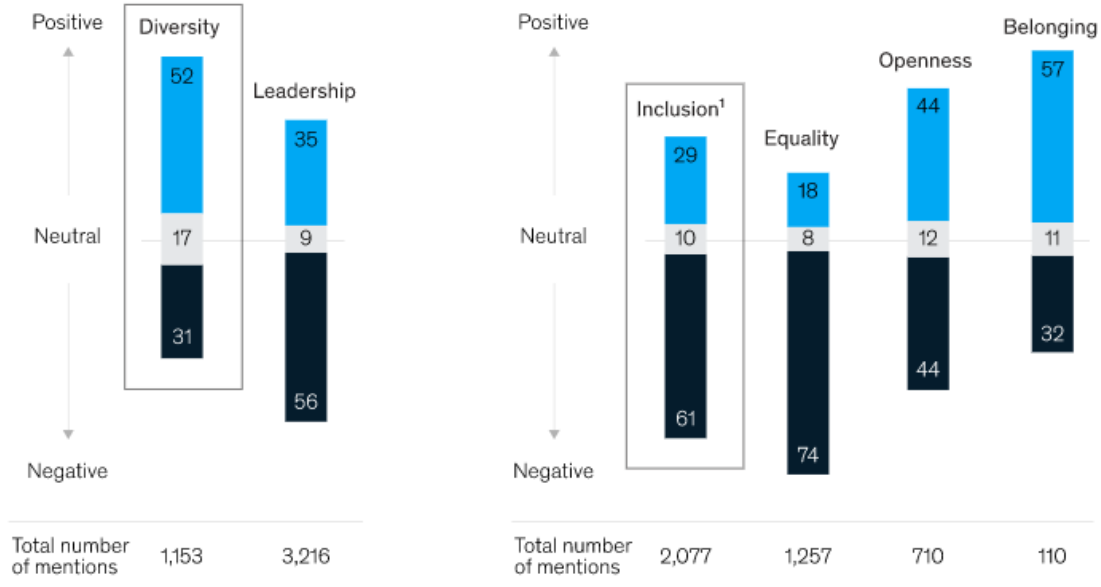
²⁴⁰ For more information on the EEOC EEO-1 survey, please visit the EEOC’s FAQ page: “EEO-1 Frequently Asked Questions and Answers,” U.S. Equal Employment Opportunity Commission, <https://www.eeoc.gov/employers/eo-1-survey/eo-1-frequently-asked-questions-and-answers>.

Exhibit 22

Exhibit 4

Overall sentiment on diversity was more positive than negative, but sentiment on inclusion was markedly worse.

Sentiment on diversity and inclusion, %



¹Weighted average of equality, openness, and belonging. Source: Glassdoor and Indeed user-generated reviews



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Conclusions on gender diversity, racial ethnic and cultural diversity, and inclusion

Based on the existing body of research, it is clear that diversity and inclusion are important elements in workplace culture. While gender, racial/ethnic, and age diversity, on the whole, continue to be the primary diversity issues of importance to companies, prioritization of those issues differs by region based on social and cultural norms, which can result in the need for localized diversity and inclusion strategies. The motivations for companies pursuing diversity and inclusion efforts vary as well, from a moral imperative to a clear business case, which adds complexity to evaluating the financial materiality of diversity and inclusion broadly.

²⁴¹ Sundiatu Dixon-Fyle, Kevin Dolan, Vivian Hunt, and Sara Prince, "Diversity wins: How inclusion matters," *McKinsey & Company: Featured Insights*, May 19, 2020, <https://www.mckinsey.com/featured-insights/diversity-and-inclusion/diversity-wins-how-inclusion-matters>.

However, the case for financial materiality has been broadly suggested at the board and executive management levels, most recently by comprehensive studies performed by McKinsey and LeadIn.Org focusing on gender and racial/ethnic diversity across a wide variety of industries and multiple regions. While boards and executive management teams are critical to executing on corporate strategy, the development of the talent pipeline, which supports these positions, is an important issue and provides a more robust understanding of how a company is fully integrating the concepts of diversity throughout the entire company or organization. Therefore, disclosure of gender, racial/ethnic, and even age diversity at various job levels may help provide a foundational understanding of the composition of an organization's workforce.

Detailed disclosure of workforce by gender and age may be decision-useful given that it provides a basic understanding of an entity's workforce diversity on globally pervasive population characteristics. However, with respect to racial and ethnic diversity, a more customized approach may be required given the logistical challenges presented by regional nuances of these issues and regulatory challenges related to the collection and reporting of this type of data in certain jurisdictions. As a result, when disclosing on diversity and ethnic diversity as part of the corporate strategy, a more customized approach may be required by the company as suggested in the studies mentioned previously. For regions of the world where greater emphasis is placed on racial and ethnic diversity, it is reasonable for entities to report to existing standardized regulatory requirements, such as the U.S. Equal Employment Opportunity Commission's EEO-1 survey.

Employee engagement

As noted by Aon Hewitt in their 2015 Trends in Global Employee Engagement report, employee engagement can be defined in the context of company culture:

"[T]he reciprocal nature of employee engagement—its dependence on employer as well as employee commitment— differentiates it from employee satisfaction...[there is an emphasis on] the need for senior leaders to create a 'culture of engagement.'"²⁴²

As one author put it, "[t]he degree to which employee engagement technology translates into a happier, more productive workforce, however, may depend on company culture and management's willingness to examine and act on its own shortcomings."²⁴³

Deloitte provides further connection and differentiation between engagement and culture by noting that:

"[C]ulture is the sense of 'how things are done around here'; engagement is 'how employees feel about how things are done around here'...Engagement is an aspect of workplace life that can—indeed, should—be continuously monitored in a proactive way. It is about the future of an organization; it is a measure of corporate health and a key window into the potential for

²⁴² Aon Hewitt, *2015 Trends in Global Employee Engagement* in 2015, pg. 4; also see Human Capital Management Coalition, Human Capital Management petition to the U.S. SEC 2017, July 6, 2017, pdf pg. 7, <https://www.sec.gov/rules/petitions/2017/petrn4-711.pdf>.

²⁴³ Human Capital Management Coalition, Human Capital Management petition, pdf pg. 7; See Footnote 24 -Gemma Richardson-Smith and Walter Bappert, "Employee Engagement: A Review of Current Thinking," *Institute for Employment Studies*, 2009, pg. 14; Dinah Wisenberg Brin, "Technology for Employee Engagement on the Rise," *Society for Human Resource Management*, February 9, 2016, <https://www.shrm.org/resourcesandtools/hr-topics/technology/pages/technology-for-employee-engagement-rising.aspx>.

future issues and workers' support for change... Three factors stand out as driving this focus on engagement. First, there is intense competition for talented Millennials, many of whom are less loyal to organizations than ever before. Second, companies face a continued need to attract workers with technological and other specialized skills, as every company digitizes its business. And third, an organization's employment brand is now open and transparent, so job candidates can easily see if a company is a great place to work."²⁴⁴

As a result of this prevailing mentality, concepts of how to develop culture and thereby enhance employee engagement have surfaced. Deloitte's research attempts to pinpoint the key drivers of employee engagement in the modern workplace, including: (i) how employees are coached and evaluated; (ii) the work environment and the tools with which they work; (iii) their opportunities to grow and develop; and (iv) their relationships with managers and peers. These concepts are also reflected in recommendations by the WHO's Mental Health Policies and Programs in the Workplace as a means to develop increased employee engagement and satisfaction.²⁴⁵ As a result, Deloitte argues that the traditional definition of engagement needs to be expanded to include the five key elements that drive it, which are meaningful work, hands-on management, a positive work environment, opportunities for growth, and trust in organizational leadership.²⁴⁶

Research from Alex Edmans draws an explicit link from employee satisfaction, which is a measure of employee engagement, to company financial performance, demonstrating a clear case for the role of engagement in corporate strategy and enterprise value creation. Edmans' extensive research clearly illustrates the relationship between employee satisfaction and long-run stock returns using a value-weighted portfolio of the "100 Best Companies to Work For in America". The results of the study showed that returns generated an annual four-factor alpha of 3.5% from 1984 to 2009 and was 2.1% above industry benchmarks²⁴⁷. Furthermore, the Best Companies also exhibited significantly more positive earnings surprises and announcement returns. The results were robust to control for firm characteristics, different weighting methodologies, and the removal of outliers. The results also held across multiple industries. The author further concludes that the stock market may not fully value intangibles, even when independently verified by a highly public survey on large firms.

While some of these frameworks and studies suggest that the concept of workplace culture can be nebulous and difficult to quantify, the importance of organizational culture that connects inputs, outputs, and outcomes through processes are of critical importance to considering how diversity, inclusion, and particularly engagement contribute to firm performance. Furthermore, the deconstruction of some of these concepts into component parts will be critical in designing key performance indicators and determine quantifiable measures of these concepts. This is of particular importance for the issue of employee engagement measured through employee satisfaction to some extent, where academic evidence can clearly demonstrate the financial material impacts of employee satisfaction on firm performance.

²⁴⁴ David Brown et. al, "Engagement: Always On," *Deloitte*, February 29, 2016, <https://www2.deloitte.com/us/en/insights/focus/human-capital-trends/2016/employee-engagement-and-retention.html>.

²⁴⁵ World Health Organization (WHO), *Mental Health Policies and Programmes*, pdf pg. 40; See Box 5 Improving the motivation of employees.

²⁴⁶ Brown et. al, "Engagement: Always On."

²⁴⁷ Alex Edmans, Lucius Li, and Chendi Zhang, "Employee Satisfaction, Labor Market Flexibility, and Stock Returns Around the World," European Corporate Governance Institute (ECGI) - Finance Research Paper Series, <https://dx.doi.org/10.2139/ssrn.2461003>.

Given the highly interrelated nature of workplace culture with employee diversity, inclusion, and engagement, better accounting for the concept of workplace culture across the SASB standards may allow for more complete and ultimately decision-useful corporate reporting on human capital management.

Supporting Evidence for Alternative Workforce

Work opportunities and employment participation have risen to record levels since the Great Recession. However, wage stagnation and growing wage polarization from automation, particularly for low- and middle-income workers in advanced economies, has put pressure on individual households to earn and save. As a result, alternative work, most notably part-time work, has grown as a relative share of the overall workforce. Additionally, the increasing use of alternative work has created new risks and opportunities for companies with respect to their human capital management.

Business impact: The alternative workforce

The alternative workforce is not a monolith

One key challenge in understanding the alternative workforce's related impacts to corporate strategy and enterprise value creation is first and foremost identifying a standardized definition of the alternative workforce. EY's 2016 Contingent Workforce study²⁴⁸ defines the contingent workforce as "a provisional group of workers who work for an organization on a nonpermanent basis, which include freelancers, independent professionals, temporary contract workers, independent contractors, or consultants (but excludes workers who form part of an outsourcing arrangement with a third-party)."²⁴⁹ Further research performed by Deloitte on the broader term of alternative workforce helps to further make the distinction between contingent work and alternative work by first broadly classifying work performed by this group as contract work, then offering distinct categories of alternative work, which include outsourced teams, contractors, freelancers, gig workers who are paid by task, and crowd workers who are outsourced networks.²⁵⁰ Based on this definition, a key finding from the Deloitte Insights' 2019 Global Human Capital Survey shows that alternative labor is becoming increasingly more mainstream and its acceleration in adoption could be driven by its growing prevalence across a variety of business functions, including IT, operations, marketing, and innovation and R&D (See Exhibit 23).

²⁴⁸ David Storey, Tony Steadman, and Charles Davis, *Is the gig economy a fleeting fad or an enduring legacy in 2016* (EYGM Limited, 2016), accessed March 10, 2020, <https://gigeconomy.ey.com/Documents/Gig%20Economy%20Report.pdf>.

²⁴⁹ Storey, Steadman, and Davis, *Is the gig economy*, pdf pg. 5.

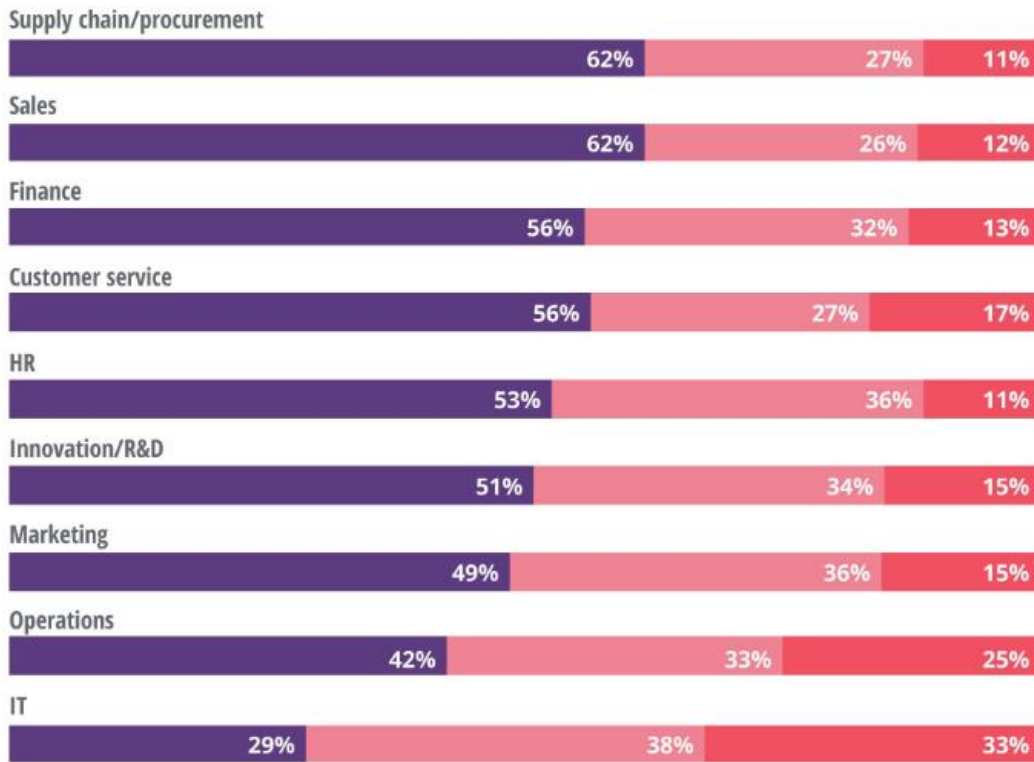
²⁵⁰ Erica Volini, Indranil Roy, and Jeff Schwartz, "The alternative workforce: It's now mainstream – 2019 Global Human Capital Trends," Deloitte, 2019, accessed November 4, 2019, <https://www2.deloitte.com/us/en/insights/focus/human-capital-trends/2019/alternative-workforce-gig-economy.html>.

Exhibit 23

The use of alternative labor is spreading beyond the IT function

Please select the extent to which you use alternative workforce in each of the following functional areas.

- We do not use alternative labor in this function
- Our use of alternative labor in this function is limited/rare
- We use this labor type extensively in this function



Note: Percentages may not total 100 percent due to rounding.
 Source: Deloitte Global Human Capital Trends survey, 2019.

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To provide more regional-specific context on the definitions and characteristics of contingent work, the 2015 U.S. Government Accountability Office (GAO) report describes how measuring the contingent workforce and alternative workforce can vary based on which definition is used, which has subsequent effects, on which types of individuals comprise the U.S. alternative workforce based on that definition.²⁵² In the report, the GAO considers contingent work as temporary, contracted work or other forms of non-standard employment arrangements in which an individual may not receive employer-provided retirement and health benefits, or have safeguards such as job-protected leave under the Family Medical Leave Act, even if s/he has a traditional employer-employee relationship.

²⁵¹ Volini, Roy, and Schwartz, “The alternative workforce”; See Figure 3, The use of alternative labor is spreading beyond the IT function.

²⁵² “Contingent Workforce: Size, Characteristics, Earnings, and Benefits” (GAO-15-168R Contingent Workforce, U.S. Government Accountability Office, 2015), pdf pg. 3.

The report acknowledges the fact that labor experts have not reached consensus on which arrangements represent contingent work. However, many agree that workers who lack job security and those with variable or unpredictable work schedules should be included in the definition of “core contingent workers”. For the purposes of the GAO report, core contingent workers consist of alternative arrangements such as agency temps, direct-hire temps, contract company workers, on-call workers and day laborers.²⁵³

Ultimately, these distinctions are important as they highlight the fact that alternative work is not a monolith; rather, it is utilized in a variety of ways and through a variety of structures to achieve a myriad of corporate goals, most commonly operational efficiencies. The associated benefits and risks manifest very differently based on the various regulations and legalities surrounding contracted work.

²⁵³ “Contingent Workforce,” pdf pg. 11. In the GAO report, alternative arrangements include such categories as agency temps, contract company workers, day laborers, direct-hire temps, independent contractors, on-call workers, self-employed workers, and standard part-time workers. In footnote 16, the report notes that there is less agreement about independent contractors, the self-employed, and the standard part-time workers as alternative arrangements since many of these worker types choose these arrangements and may have long-term employment stability. *Definitions:* (1) Agency temps: Work for agencies who assign them to work for other companies; (2) Contract company workers: Work for companies providing services to firms under contract; (3) Day laborers: Picked up by employers to work for the day; (4) Direct-hire temps: Hired directly by companies to work for a specified period of time; (5) Independent contractors: Obtain customers on their own to provide a product or a service; (6) On-call workers: Called to work on an as-needed basis; (7) Self-employed workers: Non-wage and salary workers who are not self-identified as independent contractors (e.g. restaurant or shop owners); and (8) Standard part-time workers: Regularly work fewer than 35 hours a week and not already included in one of the aforementioned groups.

A U.S. Perspective on the Contingent Workforce: Definitions and General Characteristics

The U.S. Government Accounting Office (GAO) produced a report in 2015 to examine issues related to the contingent workforce, specifically addressing (i) the size of the contingent workforce; (ii) the characteristics and employment experiences of contingent versus standard workers; and (iii) any differences in earnings, benefits, and measures of poverty between contingent and standard workers.

The size of the contingent workforce varies by definition and data source. For example, depending on the definition of contingent work, the data source, and the range and detail of the survey instrument; the size of the contingent workforce can range from less than 5% to more than one-third of the total employed labor force. For example, the Bureau of Labor Statistics (BLS), which introduced the Contingent Work Supplement (CWS) and the Current Population Survey (CPS), has two methods that count those who have temporary employment as contingent workers regardless of their work arrangement, the first excluding self-employed workers, the second including self-employed workers. Using the 2005 CWS data, these estimates range from 1.8% to 4.1% of the total employed US labor force. In contrast, broader definitions of contingent work that focus on whether individuals are employed in alternative work arrangements of various types, regardless of how long their jobs may last, can include agency temps and day laborers, although most are standard part-time workers or independent contractors. Applying the 2005 CWS data, estimates of the size of the contingent workforce based on this broad definition increase to 35.3% of employed workers in 2006 and 40.4% in 2010. These two examples illustrate the important point of who to include in the definition of contingent work. Whereas one more narrow definition of contingent work is a term associated with those individuals who have temporary employment; the broadest forms of the definition, can refer to all individuals who maintain work arrangements without traditional employers or regular, full-time schedule, regardless of how long their jobs may last, which include agency temps and day laborers, although most are standard part-time workers or independent contractors.

Source: "Contingent Workforce: Size, Characteristics, Earnings, and Benefits" (GAO-15-168R Contingent Workforce, U.S. Government Accountability Office, 2015), pdf pg. 4.

***A U.S. Perspective on the Contingent Workforce: Definitions and General Characteristics
(continued)***

With respect to the characteristic and employment experiences of contingent workers, the analysis found that the profile of contingent workers differs from those of standard workers. Key characteristics included the following:

- Core contingent workers appeared to be younger and more often Hispanic and were more likely to have no high school degree and have low family income.
- Contingent workers are more likely than standard workers to experience job instability. Based on data from a Census working paper, the GAO estimated that in 2004 about 11.7% to 16.2% of workers categorized as contingent in a given month either left the labor force or became unemployed in the following month. *(Note: Percentage estimates have 95 percent confidence intervals of +/- 2.0 and +/- 2.3 percentage points.)*
- The GAO analysis also found in the 2010 General Social Survey (GSS) data that core contingent workers were less satisfied with their fringe benefits and with their jobs overall than standard full-time workers.

The GAO concludes that contingent work may have these general characteristics since contingent work can be unstable or may afford fewer worker protections depending on a worker's particular employment arrangement, which tends to lead to lower earnings, fewer benefits, and a greater reliance on public assistance than standard work.

In regard to earnings and benefits, the GAO analysis found that contingent workers earn less and are less likely to have work-provided benefits than standard workers. Some key findings from the analysis included:

- Accounting for other factors that affect earnings, contingent workers earn less than standard workers on an hourly, weekly, and annual basis.
- Contingent workers earn about 10.6% less per hour than standard workers.
- Contingent workers have lower weekly and annual earnings than standard workers. When not controlling for hours worked, contingent workers, on average, earn 27.5% less per week and 47.9% less per year than standard workers. Controlling for the earnings effects of working part-time or only part of a year, contingent workers earn 16.7% less per week and 12.9% less per year than standard workers on average.

Source: "Contingent Workforce: Size, Characteristics, Earnings, and Benefits" (GAO-15-168R Contingent Workforce, U.S. Government Accountability Office, 2015), pdf pg. 4-6.

***A U.S. Perspective on the Contingent Workforce: Definitions and General Characteristics
(continued)***

- Differences in earnings vary by industry and occupation - Within some industries and occupations, contingent workers earned significantly less than standard workers regardless of the earnings measure (annual, weekly, or hourly), while other industries and occupations had fewer significant differences between contingent and standard workers. For example, contingent workers in the education industry and the transportation and material moving occupation earned significantly less annually, weekly, and hourly than similar standard workers. In contrast, in the construction industry and the construction and extraction occupation, the difference in annual earnings was the only significant factor.
- In addition to lower earnings, contingent workers are also less likely to have work-provided benefits, such as retirement plans and health insurance. For example, contingent workers are about two-thirds less likely than standard workers to have a work-provided retirement plan.
- While measures of poverty depend on a worker's earnings as well as the earnings of other members of his or her family, contingent workers are more likely to report living in poverty and receiving public assistance than standard workers.

Note: To collect information about contingent workers, the Department of Labor's Bureau of Labor Statistics (BLS) has previously supplemented its monthly Current Population Survey (CPS) with a survey on contingent work, known as the Contingent Work Supplement (CWS). (Note: In recent communications, Department of Labor officials have referred to this supplement as the "Contingent Worker and Alternative Work Arrangement Supplement." To be consistent with the survey's technical documentation, recent agency budget justifications, and prior work, we refer to the supplement as the Contingent Work Supplement (CWS) throughout this report.) While the CWS is a comprehensive source of information on contingent workers, the BLS has not conducted this supplement since 2005. For this analysis, the GAO analyzed population counts of contingent workers identified in various national survey data sources, such as the CWS, CPS, the General Social Survey (GSS), and the Survey of Income and Program Participation (SIPP). (Note: The GSS is administered by NORC at the University of Chicago and SIPP is administered by the Census Bureau. The extent to which our analyses are representative of the U.S. contingent worker population varies. For more information about the data sources used and the generalizability of our analyses, see enclosure II.)

Source: "Contingent Workforce: Size, Characteristics, Earnings, and Benefits" (GAO-15-168R Contingent Workforce, U.S. Government Accountability Office, 2015), pdf pg. 4-6.

In the last two decades, many employers evolved their operating models to involve an increasing portion of alternative workers. This trend reflects those in the broader economy, where opportunities for work have expanded and employment rates have risen to record levels in many countries²⁵⁴. One McKinsey study²⁵⁵ found that these trends are related to the fact that employment protection for both permanent and temporary workers has decreased over the past two decades. The reduction of employment protections for workers has benefited both employers and workers to some degree by helping make the labor market more flexible and dynamic, which enables businesses to respond quickly to changes in the business environment and enable workers to find the jobs that best match their skills.

In a presentation by EY, key perceived benefits to employing the alternative workforce include: (i) specialized or key talent on as-needed basis; (ii) no social security contributions; (iii) no employee protection laws; (iv) no continued remuneration; (v) business continuity while reducing employee headcount/fixed human resources costs; and (vi) increased flexibility and competitiveness.^{256,257} With these benefits, there are also equal amounts of risk related to these issues, which can include human resources issues such as (i) civil and criminal liabilities associated with applicable employment law, (ii) employment status issues that would cause a loss of the benefits from a non-employee status, (iii) severance costs, and (iv) illegal leasing of employees and criminal offense of subcontracting employees.²⁵⁸ It could also include other risks such as (i) third-party liability and/or null and void decisions/act; (ii) bribery, (iii) reputational damage, (iv) data privacy issues, (v) loss of confidentiality and disclosure of trade secrets; and (vi) unfair competition and non-compete obligations.²⁵⁹ These risks can be further exacerbated for global companies that have complex operations spanning across multiple geographies.²⁶⁰

One challenge applicable to both companies and workers is the considerable legal ambiguity around employer responsibility for contingent workers, especially with growing labor trends toward lower employment protections, which are likely to increase the economic risks for workers that are more vulnerable to job displacement during difficult economic times,²⁶¹ and as individuals generally have had to assume greater responsibility for their economic outcomes. Areas of concern include workers' limited access to income security protections, such as unemployment insurance, workers' compensation insurance, disability insurance, and retirement security. Additionally, minimum wage and antidiscrimination laws may not apply to the contingent workers, which could present additional risks to companies.²⁶² The provision of benefits for the alternative workforce is an area of considerable debate, with fundamental issues focused on who would pay for such benefits and how they would be earned and tracked for workers with multiple clients and employers.

²⁵⁴ McKinsey Global Institute, *The social contract in the 21st century*, pdf pg. 61.

²⁵⁵ This study analyzed 22 advanced economies in Asia, Europe, and North America, which covered 57% of global GDP.

²⁵⁶ Roselyn Sands and Karsten UmnuB, "The contingent workforce: Are you aware of the traps to avoid?," EY, pdf pg. 10, [https://www.ey.com/Publication/vwLUAssets/ey-the-contingent-workforce/\\$File/ey-the-contingent-workforce.pdf](https://www.ey.com/Publication/vwLUAssets/ey-the-contingent-workforce/$File/ey-the-contingent-workforce.pdf).

²⁵⁷ "Getting the Most from the 'Alternative Workforce'," SHRM, accessed March 10, 2020, <https://www.shrm.org/resourcesandtools/hr-topics/talent-acquisition/pages/getting-the-most-from-the-alternative-workforce.aspx>; See Realized Benefits to Hiring Independent Workers.

²⁵⁸ Sands and UmnuB, "The contingent workforce," pdf pg. 15.

²⁵⁹ Ibid., pdf pg. 16.

²⁶⁰ Ibid., pdf pg. 15-16.

²⁶¹ Organisation for Economic Cooperation and Development (OECD), *OECD Employment Outlook 2013: Protecting jobs, enhancing flexibility: A new look at employment protection legislation* in 2013 (Paris, France: OECD, 2013).

²⁶² James Manika, Susan Lund, Kelsey Robinson, Jan Mischke, and Deepa Mahajan, *Independent Work: Choice, Necessity, and the Gig Economy in 2016* (McKinsey & Company, October 2016), pdf pg. 26, accessed February, 24, 2020, <https://www.mckinsey.com/~media/McKinsey/Featured%20Insights/Employment%20and%20Growth/Independent%20work%20Choice%20Necessity%20and%20the%20gig%20economy/Independent-Work-Choice-necessity-and-the-gig-economy-Full-report.ashx>.

While businesses are considering the benefits and challenges of the incorporation of the alternative work into their corporate strategies, a myriad of other benefits and risks have been identified in relation to this form of contracted work for workers as well.

Key advantages for workers include flexibility and variety, although there remains a question over whether workers are motivated by necessity or choice. Academic studies and research surveys suggest that the alternative workforce is largely composed of workers that enter this work by choice either as casual income earners (choose independent work as a supplemental source of income) or free agents (choose independent work as a primary source of income)²⁶³, rather than by necessity.

With respect to one specific sub-set of alternative work of the gig economy, some empirical studies show that gig work is experienced very differently between platforms and across regional and demographic lines.²⁶⁴ For instance, workers living in low- and middle-income countries may have access to higher wages through online global labor markets than in their countries of residence.²⁶⁵ Some groups, like students or caregivers, may be attracted to the flexibility and independence of gig work as it allows them to work around unpredictable schedules.²⁶⁶

Potential hurdles for workers include reduced access to credit, the risk of not being paid for work that is already performed, and complex tax filing, licensing, and regulatory compliance requirements.²⁶⁷ While alternative structures exist that may meet some of these needs (such as independent pools, marketplaces, and benefits for those in the construction industry and the entertainment industry in Hollywood^{268, 269}), there is limited evidence to demonstrate their efficacy in creating more equitable outcomes for alternative workers.

The EY survey pointedly notes that contract work characteristic of the “gig economy” has been present for as many as three decades in industries such as oil and gas, engineering, technology and scientific research. However, the recent rise of on-demand apps like Uber, Lyft, Handy, DoorDash, Task Rabbit and Deliveroo has highlighted the rapid expansion of the gig economy as a component of the overall workforce. The primary difference between historic and current trends within the alternative workforce is the accelerated, wide-spread adoption of the alternative workforce model across blue-chip and midmarket companies and governments, which encompasses a much larger proportion of the total workforce.²⁷⁰

²⁶³ McKinsey Global Institute, “Independent work: Choice, necessity, and the gig economy,” last modified October 10, 2016, <https://www.mckinsey.com/featured-insights/employment-and-growth/independent-work-choice-necessity-and-the-gig-economy>; See Exhibit *Independent workers generally fit into four segments*.

²⁶⁴ Uttam Bajwa, Lilian Knorr, Erica Di Ruggiero, Denise Gastaldo, and Adam Zendel, *Towards an understanding of workers in the global gig economy in 2018* (Global Migration and Health Initiative, 2018), accessed March 10, 2020, <https://www.giomhi.org/gigs>.

²⁶⁵ Mark Graham, Isis Hjorth, Vili Lehdonvirta, “Digital labour and development: Impacts of global digital labour platforms and the gig economy on worker livelihoods,” *Transfer: European Review of Labour and Research*, vol. 23, no. 2 (2017): 125-162, doi 10.1177/1024258916687250.

²⁶⁶ James Manika, Susan Lund, Kelsey Robinson, Jan Mischke, and Deepa Mahajan, “Independent work: choice, necessity, and the gig economy,” McKinsey Global Institute, October 2016, accessed February, 24, 2020, <https://www.mckinsey.com/featured-insights/employment-and-growth/independent-work-choice-necessity-and-the-gig-economy>.

²⁶⁷ Manika et. al., *Independent Work*, pdf pg. 26.

²⁶⁸ Uttam Bajwa et. al., “The health of workers in the global gig economy,” *Global Health*, vol. 14, issue 124 (December 2018), doi: 10.1186/s12992-018-0444-8.

²⁶⁹ McKinsey Global Institute, *The social contract in the 21st century*, pdf pg. 129.

²⁷⁰ Storey, Steadman, and Davis, *Is the gig economy*, pdf pg. 6.

Research published by the OECD²⁷¹ indicates that the gig economy workforce, although a relatively modest percentage of overall employment at 1-3%, is growing quickly.²⁷² The report suggests this is a reflection of innovation in business models that facilitates direct transactions between platform participants, as well as reductions in barriers to work in regulated services industries. Additionally, technology has a particularly important role in the proliferation of the gig economy as the key enabler of linking labor supply and demand where available talent meets organizational need.²⁷³

For sourcing labor, these platforms draw from a local pool of workers when physical service is required, whereas online services that do not require the need for in-person service can draw on a global pool of workers, with different implications for employment and wages.

One meta-literature analysis finds that there are certain economically vulnerable groups that appear to be overrepresented in the gig economy, namely young people, who experience greater unemployment rates in many countries, and people with lower incomes, who may already be working multiple jobs. Based on this finding, the analysis argues that gig work is precarious in the sense that it is often low-paid, temporary, provides no training, health, or retirement benefits, and shifts more of the risk of doing business from the employer to the worker. While the platform labor economy has generated opportunities for flexible work, entrepreneurship, and business innovation²⁷⁴, it has also generated precarious work and working conditions and reproduced health inequities within and between countries.²⁷⁵ This study identified three fundamental human capital-related risks associated with the gig worker economy that have implications for policy and programs supporting workers, which are occupational vulnerabilities, precarity, and platform-based vulnerabilities.²⁷⁶

With respect to vulnerabilities of gig work, occupational health risks can range from increased fatality and severe injury risk, such as traffic accidents for Uber drivers and bike couriers, to chronic musculoskeletal injuries associated with repetitive tasks like typing. Other examples include the potential danger of entering an unfamiliar home to provide cleaning or care-giving services, which can be exacerbated in jurisdictions without appropriate occupational health regulations and enforcement.²⁷⁷

The short-term, contingent nature of the alternative workforce and the erasure of the employer-employee relationship created by platform-mediated contracts can also create precarity vulnerabilities

²⁷¹ The OECD's paper establishes a number of stylized facts and provides empirical evidence based on a review of emerging literature and new analysis on the gig economy. The paper also offers some key conclusions on the gig economy based on a global analysis. Workers may be classified differently across countries, where classification depends on established labour law or, in the absence of clear labour law categories, on civil law rulings (Abi Adams-Prassi, Judith Freedman, and Jermias Adams-Prassi, "Rethinking Legal Taxonomies for the Gig Economy: Tax Law, Employment Law, and Economic Incentives," *Oxford Review of Economic Policy*, Oxford Legal Studies Research Paper No. 12 (2018): pg. 5, <https://ssrn.com/abstract=3177075>; See also Cyrille Schweltnus, Assaf Geva, Mathilde Pak, and Rafael Veiel, "Gig Economy Platforms: Boon or Bane?," Organisation for Economic Cooperation and Development (OECD), Economics Department Working Papers No. 1550, May 15, 2019, [https://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=ECO/WKP\(2019\)19&docLanguage=En](https://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=ECO/WKP(2019)19&docLanguage=En).

²⁷² For this literature review, the OECD defines gig economy platforms as two-sided digital platforms that match workers on one side of the market to customers (final consumers or businesses) on the other side on a per-service ("gig") basis. This definition excludes one-sided business-to-consumer platforms such as Amazon (trading of goods) and two-sided platforms that do not intermediate labour such as Airbnb (intermediation of accommodation services). As such, gig economy platforms are a subset of the "platform economy" (encompassing any type of one-sided or multi-sided digital platform) and the "sharing economy" (encompassing any type of multi-sided peer-to-peer platform); See Schweltnus, et. al., "Gig Economy Platforms," pdf pg. 6.

²⁷³ Manika et. al., *Independent Work*, pdf pg. 26.

²⁷⁴ Manika et. al., "Independent Work."

²⁷⁵ Michael Marmot and Ruth Bell, "Health inequities in a globalising world of work: Commission on Social Determinants of Health," *Occupational Health South Africa* (2009), accessed march 10, 2020, <http://www.occhealth.co.za/?/viewArticle/1036>.

²⁷⁶ Uttam Bajwa et. al., "The health of workers."

²⁷⁷ Molly Tran and Rosemary K. Sokas, "The Gig Economy and Contingent Work: An Occupational Health Assessment," *Journal of Occupational and Environmental Medicine*, vol. 59, issue 4 (April 2017):63–66, doi: 10.1097/JOM.0000000000000977.

for workers.²⁷⁸ As cited in several other pieces of literature, these workers are vulnerable to the economic and social demands of being designated as an independent contractor, including providing their own tools and equipment, limited opportunities for training and career growth, low wages, no job or income security, and wage discrimination against certain groups, particularly women.^{279,280} Gig workers also share health risks associated with the psychological distress of precarious work and a lack of health and social insurance coverage in countries without publicly-funded health systems. The United States is an example of how the lack of comprehensive access to universal health coverage and social benefits can compound the harmful effects of precarious work. With respect to the online labor market in which work does not require providing services in-person, businesses can contract workers anywhere in the world, which creates a downward pressure on wages²⁸¹. It also means that businesses may be contracting workers in countries where labor laws and access to health care are relatively weak.

Globally, the debate around whether gig workers are being misclassified as contractors, rather than employees, is a key issue.²⁸² For example, algorithms created by platform businesses determine pricing and access to work, which means workers are unable to negotiate prices, which is generally a part of contracted work, or are required to agree to a price before knowing the full extent of the work.

Another consequence of this type of work is its impact on mental health and emotional wellbeing. As individual contractors, workers may operate in social isolation. Workers who engage through online platforms as self-employed contractors are generally performing independent work and have few mechanisms for connecting with other workers using the same platform. Platforms also create a disconnect between workers and the work itself because digital work is sometimes organized into “microtasks” that are tedious, short-term, or detached from a broader goal that might bring meaning to the work or promote a worker’s professional development. Given that some of these technological services and platforms allow for work to be performed without the constraint of geography, workers can develop feelings of greater loneliness and anonymity, especially if working multiple jobs in isolation and lacking the opportunity for social integration and a sense of belonging through an identified profession or form of employment. These isolating working conditions can impact worker mental health and wellbeing, negatively affecting productivity and job satisfaction.

Furthermore, this platform-based work has considerable psychosocial effects resulting from platform surveillance and evaluation of workers.²⁸³ With modern technology, businesses are able to monitor workers through apps, which include location data and information about when workers are logged into the system. In addition, the rating systems used in virtually all platform businesses to establish trust between workers and clients are frequently cited as a key source of concern for workers, who may feel punished and lose revenue for factors outside of their control. For example, in the case of Uber drivers, factors might include bad traffic or customer racial or gender prejudices in response to online profiles.²⁸⁴ Low ratings mean workers can be “deactivated”, or essentially fired, from a platform business with no recourse. As a result, workers feel pressured to perform emotional labor to please customers, which can

²⁷⁸ Bajwa et. al., *Towards an understanding of workers*, <https://www.glomhi.org/gigs>.

²⁷⁹ Tran and Sokas, “The Gig Economy and Contingent Work.”

²⁸⁰ Joan Benach and Carles Muntaner, “Precarious employment and health: developing a research agenda,” *Journal of Epidemiology & Community Health*, vol. 61, issue 4, (2007): 276–277, <http://dx.doi.org/10.1136/jech.2005.045237>.

²⁸¹ Marmot and Bell, “Health inequities.”

²⁸² Tran and Sokas, “The Gig Economy and Contingent Work.”

²⁸³ Donald Nathan Anderson, “Wheels in the Head: Ridesharing as Monitored Performance.” *Surveillance and Society*, vol. 14, no. 2 (2016): 240–258. doi: 10.24908/ss.v14i2.6018.

²⁸⁴ Valerio De Stefano, “The rise of the just-in-time workforce: On-demand work, crowd work and labor protection in the gig-economy,” *Comparative Labor Law & Policy Journal* (November 2015), 10.2139/ssrn.2682602.

range from exceptionally affable to tolerating inappropriate behavior from users, which can be mentally exhausting and cause stress. Despite being digitally surveilled, workers do not have access to the big data on platforms the associated businesses generate, allowing for data to be asymmetrically used to exercise power over workers. The analysis concludes that while the psychosocial effects on workers' interactions with the platform are beginning to be understood, the potential to harm workers is clear.

Ultimately, the literature like that from the OECD recommends that in order to facilitate strong product market competition for gig economy platforms, movement toward improving working conditions for platform workers will require adapting labor market regulation, rules on collective bargaining, and social protection and training, which include facilitating access to social protection and training.

Analysis and conclusion: Alternative workforce in Business Model & Innovation

Alternative workforce as a complex business model innovation that embeds multiple labor issues

While contract work through the alternative workforce is not a new phenomenon within human capital management, the acceleration of the trend to incorporate alternative workers, whether out of choice or necessity, is unprecedented. Furthermore, the issues pertaining to the alternative workforce are broad, spanning worker rights such as right to collective bargaining and other benefits (such as unemployment, health, and disability insurance) to health and safety (such as the impact of isolation on workers and certain mental health conditions like depression, anxiety, and stress).

While the evidence of financial implications to firms is growing yet still limited, the increasing presence of alternative work in its many forms raises other questions about a company's responsibility in managing this form of human capital when the work is contracted. In many ways, the issue of a company's responsibility and management of this issue as a contingent liability reflects similar issues that are raised with respect to a company's relationship with its supply chain. In the case of supply chain management, while a company may not necessarily directly employ the workers that are involved in its supply chain, the firm could bear some, if not all, of the reputational risk and liability associated with mismanagement of any supply chain management issues, including human capital issues within those supply chains.

As a result, due to the complexities related to employing the alternative workforce and the company's legal responsibilities related to contracted work, the issue of the alternative workforce could have impacts to SASB's general issue taxonomy potentially outside of the human capital sustainability dimension. Given the alternative workforce's role in company decision-making around its business model, the alternative workforce can be plausibly viewed as a business model strategy with a human capital component which could be more appropriately positioned as a business model and innovation issue.

Supporting Evidence for Labor Conditions in the Supply Chain

Globalization, technological advancement and adoption, and related evolving trends in international trade have increased the importance of labor conditions in the supply chain. Disclosure regarding human rights, especially around issues of modern-day slavery in the supply chain, is becoming embedded into the regulatory landscape, particularly for those companies doing in business in the European Union. Generally speaking, such regulations are tied to internationally-recognized human rights frameworks like the United Nations (UN) Guiding Principles on Business in Human Rights (UNGPs), the conventions set out by the International Labor Organization (ILO), and OECD Guidelines for Multinational Enterprises. As a result, companies that operate in or source inputs from economies with a high-prevalence of forced labor face increasing regulatory and reputational risk, in addition to enhanced scrutiny from investors and consumers.

Business impact: Expansion of the regulatory landscape

The ILO, in partnership with the Walk Free Foundation and International Organization for Migration (IOM), provide an estimate of the prevalence of modern-day slavery globally, specifically addressing two main issues of forced labor and forced marriage in their 2017 Global Estimates of Modern Slavery report.²⁸⁵ Based on their estimation, nearly 40.3 million people globally were victims of modern-day slavery in 2016, of which 24.9 million people were victims of forced labor, which includes forced labor exploitation (16 million), forced sexual exploitation (4.8 million), and state-imposed forced labor (4.1 million) respectively (see Exhibit 24).²⁸⁶

²⁸⁵ International Labour Organization, Walk Free Foundation, and International Organization for Migration (IOM), *Global Estimates of Modern Slavery: Force Labour and Forced Marriage in 2017* (Geneva, Switzerland: International Labour Office, pdf pg. 29, 2017), https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/publication/wcms_575479.pdf

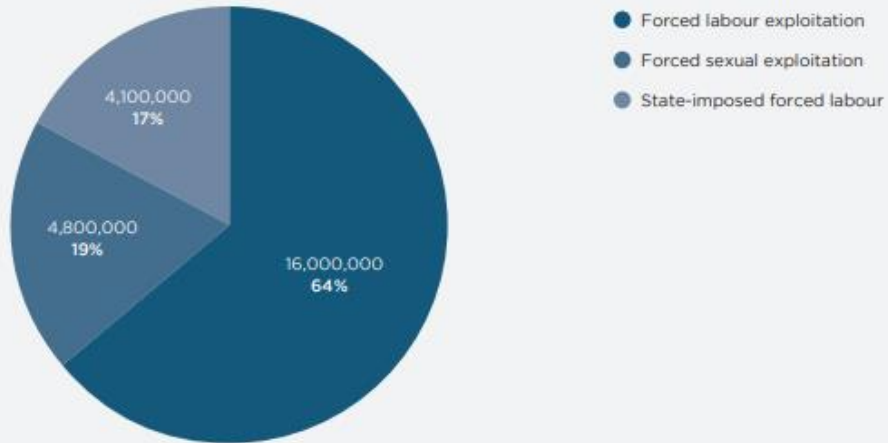
²⁸⁶ International Labour Organization et. al., *Global Estimates of Modern Slavery*, pdf pg. 29.

Exhibit 24

Figure 7

Forced labour

Number and percentage distribution of victims of forced labour, by sub-category



As the next set of exhibits from the 2017 ILO report show, regionally, forced labor is most prominent in Asia and the Pacific, followed by Europe and Central Asia and Africa, and then Arab States (see Exhibit 25)²⁸⁷. Victims of forced labor are predominantly adults with 81.3% of forced labor exploitation being adults and the remaining 18.7% of cases being children (see Exhibit 26)²⁸⁸. Furthermore, dissecting the issue of forced labor exploitation at the industry-level, forced labor exploitation is most common in manufacturing (18%), followed by construction (15%), and then agricultural, forestry, and fishing (11%) (see Exhibit 27)²⁸⁹. Industry-specific characteristics of forced labor in those particular industries are highlighted in the report.

²⁸⁷ Ibid., pdf pg. 26.

²⁸⁸ Ibid., pdf pg. 24.

²⁸⁹ Ibid., pdf pg. 32, 33 – 35.

Exhibit 25

Figure 5

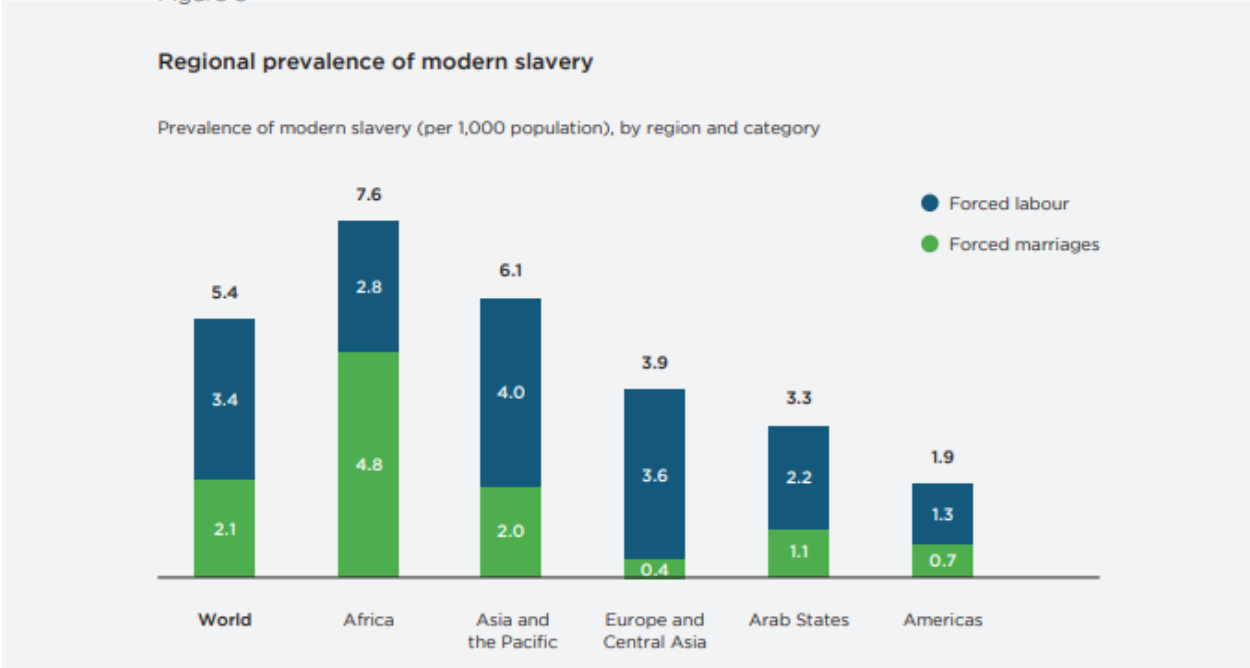


Exhibit 26

Figure 3

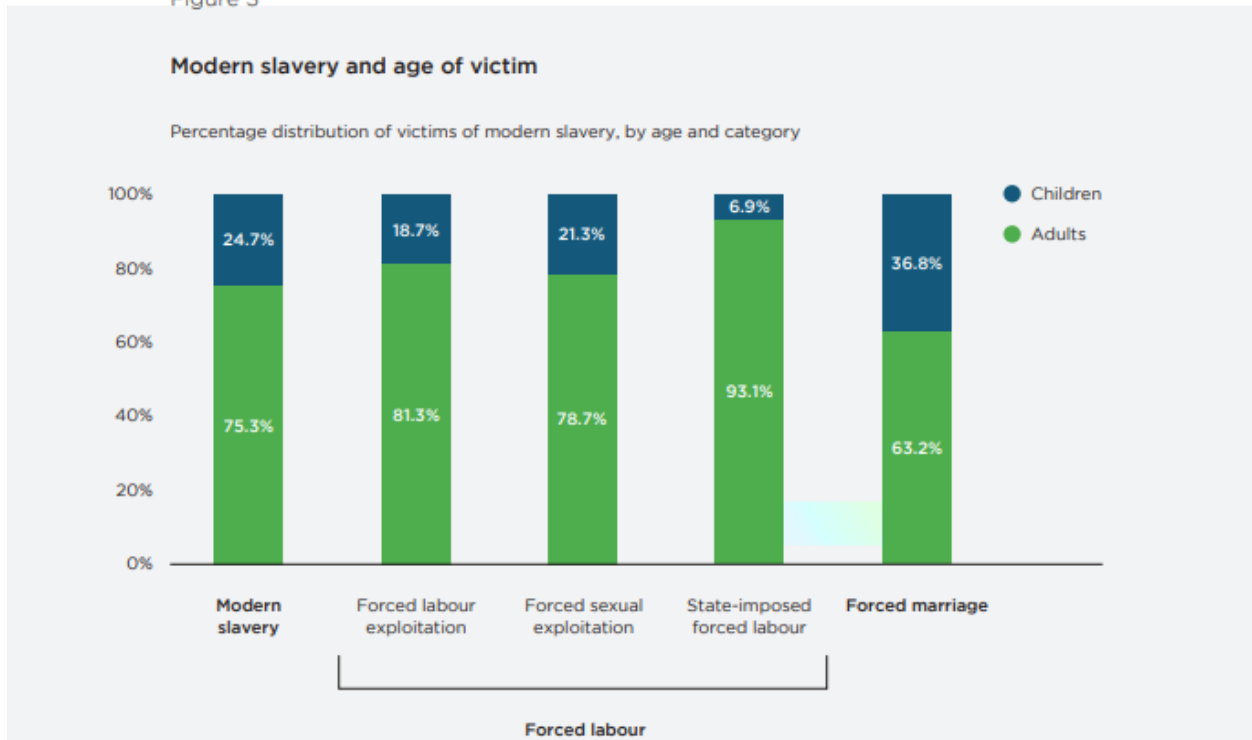
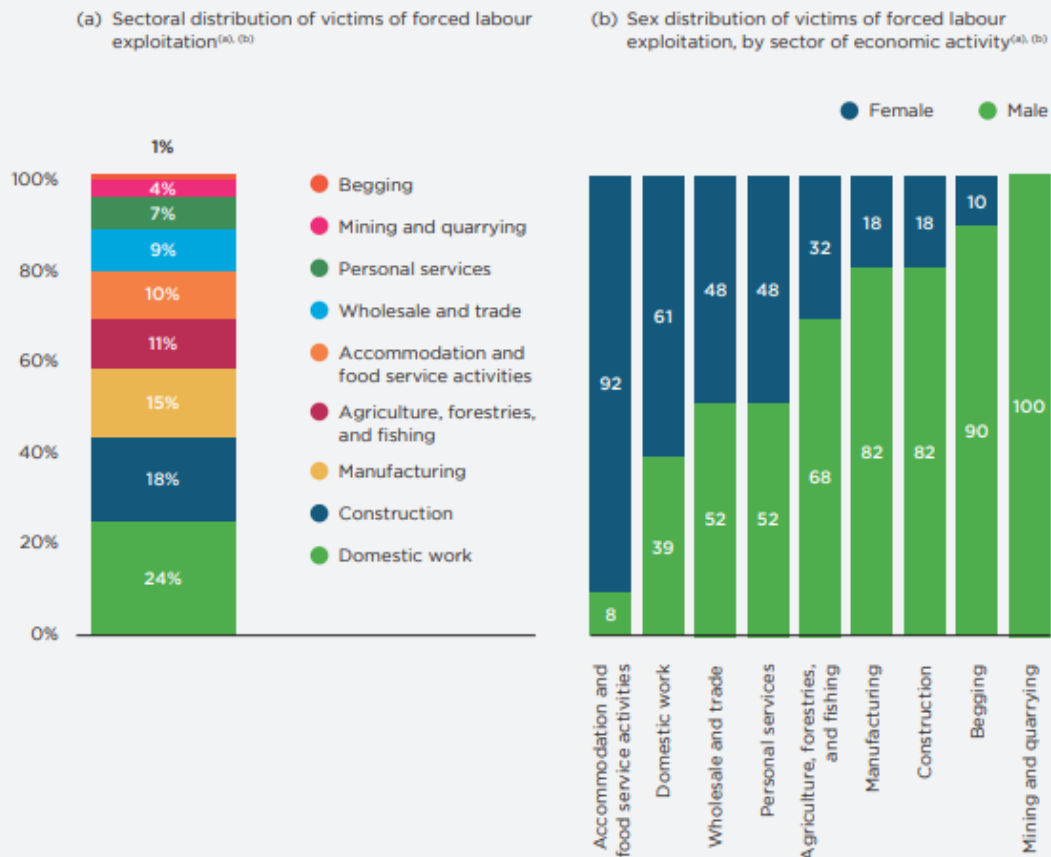


Exhibit 27

Figure 9

Sector of forced labour exploitation



Note: (a) These figures are based on cases of forced labour exploitation where industry was reported. Information on the industry was available for 65 per cent of total cases of forced labour exploitation; and (b) with the exception of begging, categories are based on the International Standard Industrial Classification of All Economic Activities, Rev.4 (1-digit level). For further detail and explanation see United Nations Statistics Division (<https://unstats.un.org/unsd/cr/registry/regcst.asp?Cl=27>).

Another ILO report from 2014 found that forced labor is more likely to exist in conditions of poverty, households that are vulnerable to sudden income shocks, and areas with low levels of education and literacy and/or high levels of migration, among other factors. Based on numerous studies, forced labor is therefore common in sectors and industries that attract low- or unskilled workers, where labor demand fluctuates and where working conditions are poor²⁹⁰. The report also estimated (although predating the 2017 ILO report) that the private economy generated USD \$150.2 billion in illegal profits per year from

²⁹⁰ Special Action Programme to Combat Forced Labour (SAP-FL) and Fundamental Principles and Rights at Work Branch (FPRW), *Profits and poverty: The economics of forced labor in 2014* (Geneva, Switzerland: International Labour Office, pdf pg. 6-7, 2014), https://www.ilo.org/wcmsp5/groups/public/@ed_norm/@declaration/documents/publication/wcms_243027.pdf.

forced labor²⁹¹. The ILO report then breaks down the economic profits gained by each type of forced labor and by region²⁹² (see Exhibit 28 and 29).

Exhibit 28

Table 2.1. Estimated annual profits from forced labour (US\$ billion)

Region	Forced Sexual Exploitation	Domestic work	Non Domestic labour	Total
Asia-Pacific	31.70	6.30	13.80	51.80
Latin America and the Caribbean	10.40	0.50	1.00	12.00
Africa	8.90	0.30	3.90	13.10
Middle East	7.50	0.40	0.60	8.50
Central and South-Eastern Europe and CIS	14.30	0.10	3.60	18.00
Developed Economies and EU	26.20	0.20	20.50	46.90
World	99.00	7.90	43.40	150.20

Source: ILO

Components may not add up to the total because of rounding

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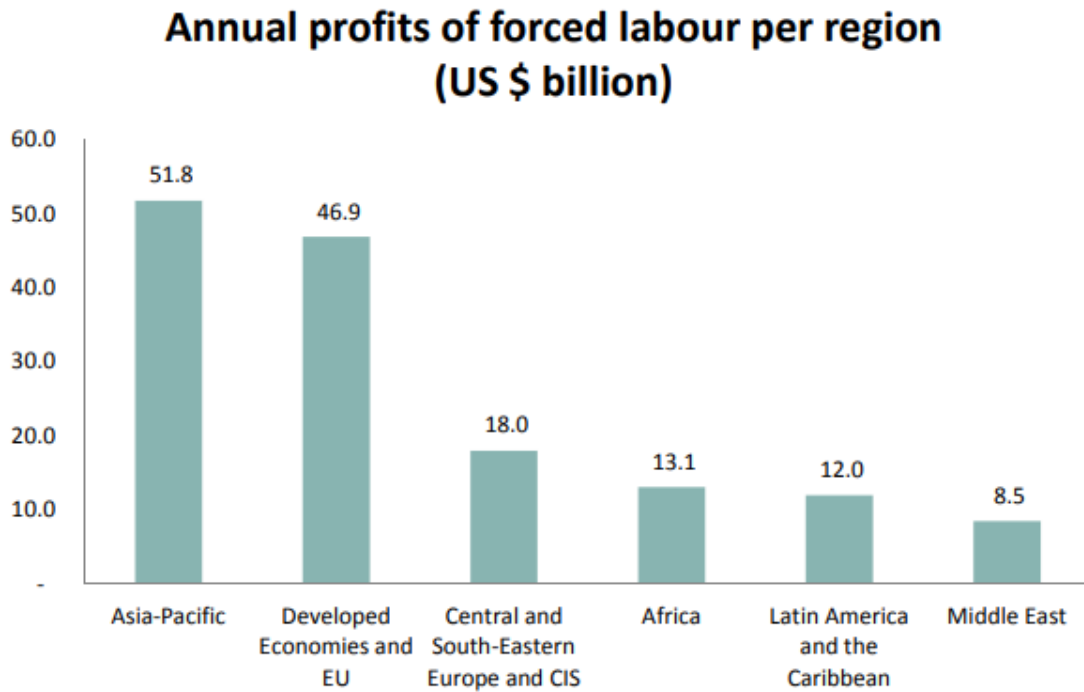
²⁹¹ Special Action Programme to Combat Forced Labour (SAP-FL) and Fundamental Principles and Rights at Work Branch (FPRW), *Profits and poverty: The economics of forced labor in 2014* (Geneva, Switzerland: International Labour Office, pdf pg. 22, 2014), https://www.ilo.org/global/publications/ilo-bookstore/order-online/books/WCMS_243391/lang--en/index.htm

²⁹² Special Action Programme to Combat Forced Labour (SAP-FL) et. al., *Profits and poverty*, pdf pg. 22.

²⁹³ Ibid., pdf pg. 22.

Exhibit 29

Figure 3. Annual profits of forced labour by region (US\$ billion)



Source: ILO

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Furthermore, the report provides an indication of the economic cost of forced labor exploitation on an industry-specific basis, which again highlights that construction, manufacturing, mining, and utilities benefit from these human rights abuses. (see Exhibit 30).

²⁹⁴ Ibid., pdf pg. 23.

Exhibit 30

Table 2.3. Estimated number of victims of forced labour exploitation in the private economy by sector and region

Region	Sectors			Total
	Domestic work	Agriculture, forestry and fishing	Construction manufacturing, mining and utilities	
Asia-Pacific	1,900,000	1,040,000	4,970,000	7,900,000
Latin America and the Caribbean	650,000	360,000	190,000	1,200,000
Africa	570,000	1,130,000	840,000	2,500,000
Middle East	270,000	10,000	160,000	400,000
Central and South-Eastern Europe and CIS	30,000	470,000	550,000	1,100,000
Developed Economies and EU	30,000	530,000	460,000	1,000,000
Total	3,440,000	3,530,000	7,170,000	14,200,000

Source: ILO

Components may not add up to the total because of rounding

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One of the most comprehensive tools that evaluated the prevalence of modern-day slavery²⁹⁶ today is the Global Slavery Index (GSI) produced by The Walk Free Foundation. The 2018 GSI was developed through a sophisticated methodology using global surveys and statistical extrapolation.²⁹⁷ One of the key insights from this methodology is the estimated prevalence of modern-day slavery²⁹⁸ on a country-by-country basis, which provides a foundation for assessing a company or industry's exposure to modern-day slavery.

²⁹⁵ Ibid., pdf pg. 27.

²⁹⁶ According to the UN, modern-day slavery refers to situations of exploitation that a person cannot refuse or leave because of threats, violence, coercion, deception, and/or abuse of power. Modern-day slavery is considered an umbrella term for practices such as forced labor, debt bondage, forced marriage, and human trafficking; Please reference: "Slavery is not merely a historical relic," International Day for the Abolition of Slavery, 2 December, United Nations, <https://www.un.org/en/observances/slavery-abolition-day#:~:text=Although%20modern%20slavery%20is%20not,forced%20marriage%2C%20and%20human%20trafficking.>

²⁹⁷ "2018 Methodology: Prevalence," Walk Free Foundation and Minderoo Foundation 2018 Global Slavery Index (GSI), <https://www.globallslaveryindex.org/2018/methodology/prevalence/>.

²⁹⁸ "Prevalence," Walk Free Foundation and Minderoo Foundation 2018 Global Slavery Index (GSI), <https://www.globallslaveryindex.org/2018/data/maps/#prevalence.>

Most importantly, the index performed an analysis on the G-20 countries given that they rank among the largest importers and exporters in the world, accounting for three-quarters of global trade and taking 80% of developing country exports.²⁹⁹

The G-20 analysis showed the top 15 products that were at risk of modern-day slavery based on product and source country as shown below (see Exhibit 31)³⁰⁰:

Exhibit 31

Initial list of goods at risk of being produced by modern slavery

Ranking	Product at risk of modern slavery	Source countries
1	Cotton	Benin, Burkina Faso, China, Kazakhstan, Pakistan, Tajikistan, Turkmenistan, Uzbekistan
2	Bricks	Afghanistan, China, India, Myanmar, Nepal, Korea, Democratic People's Republic of (North Korea), Pakistan
3	Garments (Apparel and clothing accessories)	Argentina, Brazil, China, India, Malaysia, Thailand, Vietnam
4	Cattle	Bolivia, Brazil, Niger, Paraguay, South Sudan
5	Sugarcane	Bolivia, Brazil, Dominican Republic, Myanmar, Pakistan
6	Gold	Burkina Faso, Democratic Republic of the Congo, Korea, Democratic People's Republic of (North Korea), Peru
7	Carpets	India, Nepal, Pakistan
8	Coal	China, Korea, Democratic People's Republic of (North Korea), Pakistan
9	Fish	Ghana, Indonesia, Thailand
10	Rice	India, Mali, Myanmar
11	Timber	Brazil, North Korea, Peru
12	Brazil nuts/chestnuts	Bolivia, Peru
13	Cocoa	Côte d'Ivoire, Nigeria
14	Diamonds	Angola, Sierra Leone
15	Electronics (Laptops, computers, and mobile phones)	China, Malaysia

Given the estimated prevalence of forced labor alone (excluding sex trafficking and state-imposed labor) and the economic “loss” resulting from illegitimate profits from this practice, it is clear that forced labor

²⁹⁹ Marcus Bartley Johns and Michele Ruta, “Putting trade and investment at the center of the G20,” World Bank Blogs – The Trade Post, February 17, 2016, <http://blogs.worldbank.org/trade/putting-trade-and-investment-center-g20>.

³⁰⁰ “Identifying a List of Products At Risk of Modern Slavery,” 2018 Methodology: G20 Analysis, Walk Free Foundation and Minderoo Foundation, <https://www.globallslaveryindex.org/2018/methodology/g20-analysis/#footnote:marker:1>.

as part of the supply chain is not only a question about moral imperative, but also financial materiality resulting from shifts in the regulatory landscape around this issue.

Galit Sarfaty, former Joint Fellow at the Harvard Law School Human Rights program and current Assistant Professor and Canada Research Chair in Global Economic Governance Faculty of Law at the University of British Columbia, clearly articulates how the state of disclosure around human rights issues in the supply chain is evolving as a result of this continuing global shift in the regulatory landscape:

“Until recently, whether a company prevents human rights violations in its supply chain has largely been left to the company itself.³⁰¹ While consumer and investor pressure has led some companies to prioritize responsible sourcing, the standards in this area have remained mostly voluntary. The lack of mandatory regulation has led to inconsistent practice among firms, standards that are implemented in an ad hoc fashion, and weak incentives for changing behavior.³⁰²

Governments are increasingly demanding more information on the origins of a company’s products and adherence to regulations associated with these supply chains. In the United States, for instance, an ever-growing body of federal and state regulations reflects the growing trend toward supply chain transparency. While existing legislation has addressed such issues as anti-corruption (Foreign Corrupt Practices Act) and wildlife protection (Lacey Act), new laws mandate disclosure on human rights-related risks in global supply chains such as the use of conflict minerals (section 1502 of the Dodd-Frank Financial Reform Act) and human trafficking (California Transparency in Supply Chains Act).³⁰³ Supply chain-related laws represent a shift in international regulation from the prevailing model of ‘transnational new governance,’ which is dependent on voluntary standards by private actors and international institutions, toward the use of domestic law.³⁰⁴ This shift is particularly notable with regard to the field of business and human rights, which has traditionally operated through international soft law.^{305,306}

³⁰¹ Virginia Haufler, *A Public Role for the Private Sector: Industry Self Regulation in a Global Economy* (2001); Christine Parker, *The Open Corporation: Effective Self-Regulation and Democracy* (2002); David Kinley & Junko Tadaki, *From Talk to Walk: The Emergence of Human Rights Responsibilities for Corporations at International Law*, 44 *Va. J. Int’l L.* 931 (2004); Steven R. Ratner, *Corporations and Human Rights: A Theory of Legal Responsibility*, 111 *Yale L.J.* 443, 526–30 (2001); John Gerard Ruggie, *Business and Human Rights: The Evolving International Agenda*, 101 *Am. J. Int’l L.* 819 (2007); For more information, please reference: Galit A. Sarfaty, “Shining Light on Global Supply Chains,” *Harvard International Law Journal* 56, No. 2 (Summer 2015): pdf pg. 1, available at <https://harvardilj.org/wp-content/uploads/sites/15/562Sarfaty.pdf>.

³⁰² See, e.g., Eric Engle, *Corporate Social Responsibility (CSR): Market-Based Remedies for International Human Rights Violations?*, 40 *Williamette L. Rev.* 103 (2004); Kinley & Tadaki, *supra* note 2, at 952–58; Ronen Shamir, *Between Self-Regulation and the Alien Tort Claims Act: On the Contested Concept of Corporate Social Responsibility*, 38 *Law & Soc’y Rev.* 635 (2004); For more information, please reference: Sarfaty, “Shining Light on Global Supply Chains,” pdf pg. 2, available at <https://harvardilj.org/wp-content/uploads/sites/15/562Sarfaty.pdf>.

³⁰³ See Foreign Corrupt Practices Act of 1977, 15 U.S.C. § 78dd-1(a) (2012); Lacey Act of 1990, 16 U.S.C. § 3372(a)(2)(A) (2006); Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, § 1502, 124 Stat. 1376, 2213-18 (codified as amended at 15 U.S.C. § 78m (2012)) [hereinafter Dodd-Frank Act § 1502]; California Transparency in Supply Chains Act, Cal. Civ. Code § 1714.43(a)(1) (West 2012); Sarfaty, “Shining Light on Global Supply Chains,” pdf pg. 2, available at <https://harvardilj.org/wp-content/uploads/sites/15/562Sarfaty.pdf>.

³⁰⁴ Kenneth W. Abbott & Duncan Snidal, *Strengthening International Regulation Through Transnational New Governance: Overcoming the Orchestration Deficit*, 42 *Vand. J. Transnat’l L.* 501, 541 (2009); see also John Braithwaite & Peter Drahos, *Global Business Regulation* (2000); Burkard Eberlein et al., *Transnational Business Governance Interactions: Conceptualization and Framework for Analysis*, 8 *Reg. & Governance* 1 (2014); Sarfaty, “Shining Light on Global Supply Chains,” pdf pg. 2, available at <https://harvardilj.org/wp-content/uploads/sites/15/562Sarfaty.pdf>.

³⁰⁵ These soft law instruments include the U.N. Guiding Principles on Business and Human Rights, U.N. Global Compact, OECD Guidelines for Multinational Enterprises, and Global Reporting Initiative. One exception is the Alien Tort Statute, but the U.S. Supreme Court recently limited its extraterritorial application. *Kiobel v. Royal Dutch Petroleum*, 133 S.Ct. 1659 (2013); Sarfaty, “Shining Light on Global Supply Chains,” pdf pg. 2, available at <https://harvardilj.org/wp-content/uploads/sites/15/562Sarfaty.pdf>.

³⁰⁶ Galit A. Sarfaty, “Shining Light on Global Supply Chains,” *Harvard International Law Journal* 56, No. 2 (Summer 2015), <https://harvardilj.org/wp-content/uploads/sites/15/562Sarfaty.pdf>.

As noted by the Investor Alliance for Human Rights³⁰⁷ Investor Toolkit on Human Rights publication, “a wave of legal requirements and normative expectations is impacting financial markets across the world, with responsible business regulations already in place or quickly coming down the pike.”³⁰⁸ In particular, the European Union (EU) has taken on a global leadership role in redefining the roles and responsibilities of institutional investors as financial actors by seeking to embed environmental, social, and governance (ESG) considerations at the center of the region’s financial system. In 2019, the European Parliament and Council adopted a new set of rules requiring European investors to disclose the steps they have taken to address the adverse impact of their investment decisions on people and the planet. Under this regulation, which was enforced in December of 2019, EU member states will have until May 2021 to fully implement these rules, which will apply to all investment advisors who sell products in Europe and thereby cover all large investment advisers worldwide. As of March 2020, the minimum safeguards under the EU Taxonomy, which set performance thresholds under new legal obligations for European financial market participants, are based in internationally-recognized human rights standards, specially OECD Guidelines for Multinational Enterprises and the UN Guiding Principles on Business and Human Rights.³⁰⁹

In addition to region-specific regulation, global frameworks addressing human rights such the International Labor Organization’s (ILO) International Bill of Human Rights provide a baseline for human rights assessment for countries, companies, and investors.

Under the new regulation, specifically under the European Union’s Taxonomy Regulation, business actors, including institutional investors, have a responsibility to respect human rights in line with the UN Guiding Principles on Business in Human Rights even when countries and their respective governments fail to do so. Unanimously endorsed by the United Nations (UN) Human Rights Council in 2011, the UN Guiding Principles represent the authoritative global framework for addressing business impacts on human rights. The framework clarifies the respective duties and responsibilities of governments and businesses in tackling human rights risks related to business activities.

More specifically, the responsibility to respect human rights implies that business enterprises are expected to make a formal commitment, have in place human rights due diligence processes, and, where appropriate, ensure that victims of human rights abuses have access to remedy. This responsibility exists independently of whether or not governments implement laws focused on guaranteeing human rights. Where laws do exist, businesses would need to comply with such laws while at the same time seeking to honor the principles of internationally-recognized human rights when faced with conflicting requirements. The scope of this business responsibility extends to all internationally-recognized human rights, which, at a minimum, are those expressed in the International Bill of Human Rights, the core conventions set out by the International Labor Organization (ILO), and the OECD Guidelines for Multinational Enterprises.

³⁰⁷ The Investor Alliance for Human Rights is an initiative of the Interfaith Center on Corporate Responsibility (ICCR). The Investor Alliance’s membership is currently comprised of over 170 institutional investors, including asset management firms, trade union funds, public pension funds, foundations, endowments, faith-based organizations, and family funds. Members currently represent a total of over USD \$4 trillion in assets under management and 19 countries.

³⁰⁸ Sarah Blackwell, Paloma Munoz quick, Rebecca DeWinter-Schmitt, Sune Skadegard Thorsen, and Tara Skadegard Thorsen, Toolkit on Human Rights in 2020 (Interfaith Center on Corporate Responsibility, pdf pg. 4, May 2020).

³⁰⁹ Blackwell et. al., *Toolkit on Human Rights*, pdf pg. 4.

With the emergence of new regulation, there is an opportunity for increased and improved disclosure around human rights abuses, specifically related to forced labor in supply chains. Historically, despite there being an estimated 16 million people in forced labor exploitation in the private economy worldwide, engagement with business has been limited. Only 40 countries have investigated public or business supply chains to tackle labor exploitation. This includes mandatory reporting legislation in Australia, the UK, and the US, as well as the establishment of guidelines for public procurement specialists across the EU. Furthermore, based on the analysis of the Walk Free Foundation in 2018, of the 183 countries assessed in the Foundation's study, only 31 have ratified the ILO's 2014 Forced Labor Protocol. Forty-seven countries have not criminalized human trafficking in accordance with the definitions outlined in the UN Trafficking Protocol and a further 96 countries have not criminalized forced labor. Given these statistics, although ratifying the Forced Labor Protocol and criminalizing all forms of modern slavery are the most basic steps a country can take, many countries have failed to take these actions.³¹⁰

However, the current situation may mark a new era of socially responsible and sustainable business, which has taken shape and continues to build momentum. From the investor perspective, respect for human rights is strongly associated with value chain resilience and a stable business operating environment. Investors are increasingly aware of and concerned about the significant operational, financial, legal, and reputational risks portfolio companies might face when they fail to manage human rights risks. These business risks include potential project delays and cancellations, lawsuits and other legal risks such as noncompliance with emerging human rights-related regulations, scrutiny from national-level grievance mechanisms such as OECD National Contact Points (NCPs), significant fines, productivity and recruitment challenges, and negative press coverage. Investors also have increasingly recognized fiduciary duties to assess and act upon longer-term risks such as human rights risks in making and managing investments.³¹¹

Sarfaty's research³¹², while predating the recent regulation tied to human rights and supply chain management, further articulates the long-term financial consequences that companies bear from not reporting human rights risks and taking steps to mitigate human rights abuses, particularly in conflict-affected areas. She notes that these costs range from reputational damage that can affect a company's share price to the denial of a "social license"³¹³ to operate by local communities and civil society groups.³¹⁴ Sarfaty continues to note that companies, who are increasingly dependent on third-party suppliers or local subsidiaries, have the potential to contribute to human rights violations, and if undetected or unresolved, could significantly impact a company's reputation, brand image, and sales.

Additionally, her research demonstrates that if companies fail to disclose their social performance and do not take steps to comply with human rights and environmental norms, they may be denied a social

³¹⁰ "2019 Findings Executive Summary," 2019 MAF, Walk Free Foundation and Minderoo Foundation, last modified in 2019, <https://www.globalslaveryindex.org/2019/findings/executive-summary/>.

³¹¹ Ibid., pdf pg. 5.

³¹² Galit A. Sarfaty, "Human Rights Meets Securities Regulation," Virginia Journal of International Law, 54, no. 1: 97, available at <https://core.ac.uk/download/pdf/228422158.pdf>.

³¹³ A "social license" means that companies "are constrained to meet the expectations of society and avoid activities that societies (or influential elements within them) deem unacceptable." (Cunningham, Kagan & Thornton, supra note 126, at 308); For more information, please reference Galit A. Sarfaty, "Human Rights Meets Securities Regulation," pdf pg. 29, available at <https://core.ac.uk/download/pdf/228422158.pdf>.

³¹⁴ See, e.g., Neil Cunningham, Robert A. Kagan & Dorothy Thornton, Social License and Environmental Protection: Why Businesses Go Beyond Compliance, 29 LAW & SOC. INQUIRY 307, 308 (2004); For more information, please reference Galit A. Sarfaty, "Human Rights Meets Securities Regulation," pdf pg. 29, available at <https://core.ac.uk/download/pdf/228422158.pdf>.

license to operate by civil society groups and community members in host country governments, resulting in adverse financial impacts.³¹⁵ As Sarfaty notes, “Obtaining a social license to operate from a community means engaging in meaningful consultation and getting community buy-in prior to the commencement of a project. Without community support, “informal economic sanctions” (e.g., demonstrations, blockades, civil unrest, and political opposition) can transpire, which significantly slow a project down or even threaten its continued operations.³¹⁶ Therefore, it is necessary for a company to manage possible human rights risks in order to maintain its long-term competitive advantage and reputation, and thereby minimize its economic costs.”³¹⁷ As an example, Sarfaty discusses the impact contractor Foxconn had on Apple’s reputation, which further demonstrates the point of the financial materiality of human rights and labor conditions in the supply chain:

“Take the case of Apple Inc., which was subject to harsh criticism beginning in 2010 for labor rights violations and a string of suicides at its Chinese contractor Foxconn.³¹⁸ Because of the damage to its reputation (and therefore a likely concern about its share price), Apple hired the non-profit Fair Labor Association to audit working conditions at Foxconn with the goal of improving working conditions.”³¹⁹

More recent and additional evidence sourced by Rights CoLab corroborate the findings on the financial materiality of labor conditions in the supply chain above and further exemplify in specific industries where this issue of labor conditions in the supply chain, particularly forced labor, has been a significant risk (see Exhibit 32).³²⁰

³¹⁵ See generally Cunningham, Kagan & Thornton, *supra* note 126; Gary Lynch-Wood & David Williamson, *The Social License as a Form of Regulation for Small and Medium Enterprises*, 34 J.L. & SOC’Y 321 (2007); Jennifer A. Howard-Grenville, Jennifer Nash & Cary Coglianese, *Constructing the License to Operate: Internal Factors and Their Influence on Corporate Environmental Decisions*, 30 LAW & POL’Y 73 (2008); For more information, please reference Galit A. Sarfaty, “Human Rights Meets Securities Regulation,” pdf pg. 29, available at <https://core.ac.uk/download/pdf/228422158.pdf>.

³¹⁶ *Id.* at 323; For more information, please reference Galit A. Sarfaty, “Human Rights Meets Securities Regulation,” pdf pg. 29, <https://core.ac.uk/download/pdf/228422158.pdf>.

³¹⁷ Sarfaty, “Human Rights Meets Securities Regulation,” pdf pg. 30.

³¹⁸ Charles Duhigg and David Barboza, “In China, Human Costs Are Built into an iPad,” *The New York Times*, January 25, 2012, <https://www.nytimes.com/2012/01/26/business/ieconomy-apples-ipad-and-the-human-costs-for-workers-in-china.html>; For more information, please reference Galit A. Sarfaty, “Human Rights Meets Securities Regulation,” pdf pg. 29, <https://core.ac.uk/download/pdf/228422158.pdf>.

³¹⁹ Keith Bradsher and Charles Duhigg, “Signs of Changes Taking Hold in Electronics Factories in China,” *The New York Times*, December 26, 2012, <https://www.nytimes.com/2012/12/27/business/signs-of-changes-taking-hold-in-electronics-factories-in-china.html>.

³²⁰ “Evidence of Corporate Risk of Harms to Workers in their Value Chains,” Rights CoLab, last modified September 30, 2020, <https://rightscolab.org/evidence-of-corporate-risk-of-harms-to-workers-in-their-value-chains/>.

Exhibit 32

Sector	Industry
Consumer Goods	<ul style="list-style-type: none">• Apparel, accessories, and footwear• E-commerce
Food & Beverage	<ul style="list-style-type: none">• Agricultural products• Alcoholic beverages• Processed foods• Tobacco
Technology & Communications	<ul style="list-style-type: none">• Electronic manufacturing services & original design manufacturing (EMS & ODM)
Health Care	<ul style="list-style-type: none">• Medical equipment & supplies
Extractives & Minerals Processing	<ul style="list-style-type: none">• Metals & mining

This repository of evidence additionally addresses the case for financial materiality on an industry-specific basis by showing how the issue of labor conditions in the value chain in these industries are connected to financial impacts through operating costs and contingent liabilities from regulatory and reputational damage.

Analysis & Conclusions: Expansion of Labor Conditions in the Supply Chain Disclosure Topic Across and Within SASB Industries

Within the broad issue of labor conditions in the supply chain, the evidence above points to the importance of issues specifically related to modern-day slavery, including various types of forced labor. These specific forms of forced labor are present globally, but are particularly concentrated in certain regions of the world as a result of exploitation of vulnerable groups, particularly in economies and societies that exacerbate the pervasiveness of poverty, low levels of education and literacy, and migration in the general population (among other factors).

How SASB Addresses Supply Chain Issues:

SASB currently addresses labor conditions in the supply chain issue specifically in the Supply Chain Management general issue category in the Business Model and Innovation sustainability dimension to capture the complex nature of supply chains in relation to parent companies. Within the standards codified in October 2018, SASB defines the Supply Chain Management general issue category as follows:

“[This] category addresses management of environmental, social, and governance (ESG) risks within a company’s supply chain. It addresses issues associated with environmental and social externalities created by suppliers through their operational activities. Such issues include, but are not limited to, environmental responsibility, human rights, labor practices, and ethics and corruption. Management may involve screening, selection, monitoring, and engagement with suppliers on their environmental and social impacts. The category does not address the impacts of external factors – such as climate change and other environmental and social factors – on suppliers’ operations and/or on the availability and pricing of key resources, which is covered in a separate category.”

This definition is intended to encapsulate all three elements of sustainability - environmental, social, and governance risks – as related to supply chain management. With respect to the social elements of the supply chain, which includes human capital related impacts, this concept is addressed specifically in the Labor Conditions in the Supply Chain disclosure topic of many industries, which are explicitly outlined in our [2020 Human Capital Bulletin](#) under the section “Supply Chain Management”.

For further explanation of how SASB addresses the issue of Labor Conditions in the Supply Chain, please review our earlier briefing document, “[Understanding How SASB Addresses Human Capital in the Codified Standards, May 2020](#)”.

Given the growing evidence and emerging regulation globally on the theme of human rights, particularly modern-day slavery in supply chains, SASB should consider the following:

- (i) Assess the need to expand the concept of labor conditions in the supply chain to other industries where it may not be addressed but could have financial material channels of impact on companies within that industry; and
- (ii) Evaluate modifications to the existing labor conditions in the supply chain disclosure topic and associated metrics based on evolving corporate and investor management of and interest in human rights issues, particularly related to forced labor, including debt bondage, and child labor.

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