



October 2017

Corporate Disclosure of Human Capital Metrics

Aaron Bernstein, Senior Research Fellow
Larry Beeferman, Project Director

Pensions and Capital Stewardship Project
Labor and Worklife Program, Harvard Law School

Acknowledgements

This research was funded by the American Society of Safety Engineers (ASSE) and the American Society of Safety Engineers Foundation (ASSEF) and co-authored by Larry Beeferman and Aaron Bernstein with the Labor and Worklife Program at Harvard Law School. The analysis, opinions and perspectives herein are the sole responsibility of the authors. The copyright for this report is held by the President and Fellow of Harvard College. The material in this report may be reproduced and distributed without advance permission, but only if attributed.

If reproduced substantially or entirely, it should include all copyright and trademark notices.
© Copyright 2017, President and Fellow of Harvard College

American Society of Safety Engineers (ASSE) For more than 100 years, the American Society of Safety Engineers has been at the forefront of helping occupational safety and health professionals protect people and property. The nonprofit society is based in the Chicago suburb of Park Ridge. Its global membership of over 37,000 professionals covers every industry, developing safety and health management plans that prevent deaths, injuries and illnesses. ASSE advances its members and the safety profession through education, advocacy, standards development and a professional community. Its flagship publication, *Professional Safety*, is a longtime leader in the field. Visit www.asse.org and follow us on [Twitter](#) and [Facebook](#).

ASSE Foundation Chartered in 1990 by the ASSE Board of Directors, the ASSE Foundation exists to provide programs and opportunities to advance the occupational safety profession. The ASSE Foundation leads the safety profession by providing educational opportunities, leadership development, and financial resources to benefit safety students and professionals while also providing research initiatives that benefit the global community.

Center for Safety and Health Sustainability (CSHS), a 501(c)3 nonprofit organization committed to advancing the safety, health and sustainability of the global workplace, representing over 100,000 members in 120 countries, has been an advocate for the public reporting of key OHS performance indicators in a way that allows for meaningful analysis of the data and comparison of performance across organizations.

The Labor and Worklife Program (LWP) is Harvard University's forum for research and teaching on the world of work and its implications for society. Located at the Harvard Law School, the LWP brings together scholars and policy experts from a variety of disciplines to analyze critical labor issues in the law, economy, and society.

The Pensions and Capital Stewardship Project was established at the LWP to educate and inform workers, scholars, researchers, and practitioners on issues of retirement security, including employment-based retirement plans, and of pension fund governance, management, investment, and related matters.

We are grateful to **RobecoSAM** for making available to us its data and resources, and particularly for the time and expertise we received from Amara Goeree, who was RobecoSAM's Sustainability Operations Manager when we carried out this work. We also thank Chris Greenwald, former Head of Sustainability Investing research at RobecoSAM, who made this study possible and Mike Wallace, Managing Director at **BrownFlynn**, and his team for their work and support at various critical points in advancing the project.

About the Authors

Larry Beeferman

Report co-author, has served as director of the Pensions and Capital Stewardship Project since its inception in 2004 at the Labor and Worklife Program (LWP) at Harvard Law School. The Project, through conferences, trustee training, research and publications educates and informs workers, scholars, researchers, and practitioners on issues of retirement security, including employment-based retirement plans, and of pension fund governance, management, investment and related matters. As director, Beeferman has written or co-authored papers on infrastructure investment, labor and human rights, investor decision-making, private equity and labor, labor-friendly pension fund investments, capital stewardship and labor voice, the fiduciary duty of pension fund trustees, the Dodd-Frank financial reform legislation, Islamic finance, automatic enrollment in U.S. defined contribution plans and recent changes to Brazilian public sector pension plans and the Indian retirement system. He has given many presentations and taught classes on these and related topics. His career prior to coming to the LWP included service as head of the Asset Development Institute at the Heller School for Social Policy and Management at Brandeis University, Professor of Law at the Massachusetts School of Law, and Associate Counsel to the Special Commission Concerning State and Country Buildings. He was awarded a J.D. from Harvard Law School and a Ph.D. in Applied Physics from Harvard University. He has written books, papers, and articles on law, social policy, and other matters.

Aaron Bernstein

Senior research fellow with the Labor and Worklife Program at Harvard Law School co-authored this study. He co-founded the Pensions and Capital Stewardship Project's Investor Initiative in 2008 to help pension funds and other investors analyze the long-term investment risks of social factors such as labor and human rights and human capital. He has written several studies available on the Project's publications page, and he speaks on the subject at conferences, seminars and workshops. He is also the editor of *Global Proxy Watch*, a corporate governance newsletter for institutional investors. Bernstein left *BusinessWeek* magazine in 2006 after a 23-year career as an editor and senior writer covering workplace and social issues. He received numerous journalism awards, including the Overseas Press Club, the Gerald Loeb, the George Polk, the New York Press Club, and the Sidney Hillman. Before joining *BusinessWeek*, he worked at *Forbes* and for United Press in London. He received a BA in Politics and Economics from the University of California at Santa Cruz and did graduate work in Political and Legal Theory for two years at Oxford University. He is the author of a book entitled "Grounded: Frank Lorenzo and the Destruction of Eastern Airlines," and the co-author of "In the Company of Owners: The Truth About Stock Options." Bernstein was a Wertheim fellow for the LWP during 2007–2008.

For more information, please contact:

Larry Beeferman and Aaron Bernstein
Pensions and Capital Stewardship Project,
Labor and Worklife Program, Harvard Law School
8 Mt. Auburn Street, 1st Floor | Cambridge, MA 02138
+1 (617) 496 6253 | lwb@law.harvard.edu | johnaaronbernstein@gmail.com
http://www.law.harvard.edu/programs/lwp/LWPpensions_about.html

Foreword

The recent heightened interest in human capital and human capital reporting is part of a fundamental rethinking of how organizational value and social impact should be understood and evaluated. Traditional measures of organizational value and social impact are no longer valid in the age of Uber, Airbnb, and disruptive thinking. Senior management teams and financial investors want greater clarity about how the organization's people and relationships among them create value for their stakeholders. Increased focus on linking human capital performance indicators to outcomes and impacts allows management teams to make informed decisions on strategic options and tradeoffs and key stakeholders to better evaluate the value of an organization's social efforts.

Understanding and measuring the sources of value for an organization is challenging, and continues to rapidly evolve. Human capital, for example, is not easily assigned a market value. Traditional accounting approaches offer little guidance in measuring the intangible value of people and there is no widely accepted means of benchmarking human capital performance. Thus, more research is needed to identify the drivers of human capital performance and systematic ways for benchmarking this area of performance.

It is for these reasons that the American Society of Safety Engineers (ASSE), the American Society of Safety Engineers Foundation (ASSEF) and the Center for Safety and Health Sustainability (CSHS) has supported the *Corporate Disclosure of Human Capital Metrics* research project at Harvard Law School's Labor and Worklife Program. The long-term goal of the sponsoring organizations is to better quantify the impact of effective management of occupational health and safety (OHS) on human capital and organizational behavior. Towards that end, CSHS has published reports on the analyses of the OHS reporting practices of the Corporate Knights Global 100 Most Sustainable Corporations in the World, and developed a *Best Practices Guide on OHS Metrics in Sustainability Reporting*. CSHS has also taken a leadership role in furthering the discussions around human capital, launching The Human Capital Project, hosting a human capital workshop of key stakeholders from the leading sustainability framework and standards organizations, financial investment organizations, governmental agencies, the corporate world, and sustainability and OHS professionals, and supporting this Harvard research project.

Worker health and safety has been described as a fundamental human right, a core organizational value, an effective platform to change organizational culture, and integral to managing an organization's human capital. Yet, in practice, the value of OHS to an organization is often viewed through a narrow lens focused on accident-related costs and regulatory compliance. This is due in part to the lack of research and data supporting the broader role of OHS in contributing to highly sustainable organization-strengthening core ethical values, increasing employee engagement, morale and organizational culture and enhancing an organization's operational efficiency, competitive advantage and reputation.

The *Corporate Disclosure of Human Capital Metrics* research takes an important step towards better understanding the voluntary "sustainability" or "social responsibility" corporate reporting process related to human capital by providing insight into current reporting practices and how they might be improved. Ultimately, improved practices in human capital reporting will enhance the well-being of workers and strengthen their contribution to successful and sustainable businesses.

Corporate Disclosure of Human Capital Metrics

Aaron Bernstein, Senior Research Fellow
Larry Beeferman, Project Director

Pensions and Capital Stewardship Project
Labor and Worklife Program, Harvard Law School

Abstract

We find majorities or significant minorities of the largest global corporations collect a variety of human capital (HC) metrics of increasing interest to institutional investors. These averages mask a sharp dichotomy between metrics disclosed publicly and those reported by respondents to an annual survey of nearly 2,000 of the largest firms traded on global exchanges. For example, about half of these companies report the average hours of training they provided to employees annually. But the figure was dramatically higher for respondents, at 84 percent, versus just 18 percent of firms assessed using public reporting. Similarly, while 52 percent of firms publicly report employee fatalities, 96 percent of survey respondents disclosed the metrics, but only 17 percent of publicly assessed companies. Comparable differentials were found across other measures. The findings suggest that investors could gain access to HC data that is material to financial performance if they request public disclosure of information already gathered by a critical mass of large corporations in major markets. However, the reporting differs among regions and countries such as the United States and Great Britain, as well as between large market cap companies compared with smaller ones.

Introduction

The concept of HC has for more than half century informed discussion about how corporations are managed. The idea is typically associated with the skills, knowledge and abilities employees bring to their work.¹ Over the decades the approaches companies have taken to manage and enhance their workforce's contribution to their success have been characterized in diverse terms, for example, human resources, human relations, and high-performance work systems. In recent years, institutional investors have taken a mounting interest in the subject, in large part due to the increasing awareness that HC policies are material to long-term financial performance and success.² However, investors face significant challenges in the quest for data on the topic that can be used to inform decisions about investments or discussions with boards and executives about corporate strategy and competitiveness. A 2016 report by the International Integrated Reporting Council put it this way:

“Obtaining relevant and reliable data on human capital can be difficult. Regulatory requirements are limited, while demand for this information from investors (at least mainstream ones) has traditionally been muted. There is also a lack of consensus as to how to measure human capital. This has resulted in limited qualitative and quantitative reporting and difficulty in comparing how organizations are maximising the productivity, creativity and general value of their workforce.”³

Still, as our findings show, although there already is some HC data available from public reporting, there is much more that companies could provide from metrics they produce for internal management purposes. Institutional investors that wish to gain access to this data could use the results of this paper as a roadmap to identify metrics already generated by majorities or significant minorities of companies in specific industries and markets. They then could ask that all firms meet those disclosure standards, and make the case that such requests would not put undue burdens on those not now disclosing them given the critical mass of firms that already do. It seems likely that many companies do not generate or disclose many HC metrics primarily because the investment community has not requested them.

The plan of the paper is as follows. The first section describes efforts by investors and others to request more HC disclosure by companies. The second describes the data set we use. The third lays out our findings and analysis. A conclusion offers suggestions for how the findings may be of use to investors, companies and others.

Disclosure Requests

Companies already disclose a substantial volume of HC information. A 2016 analysis by the Sustainable Accounting Standards Board (SASB) of the ten largest firms in 79 major U.S. industries found that 83 percent addressed one or more HC issues in their filings with the Securities and Exchange Commission (SEC).⁴ Some 40 percent of that consisted of what SASB described as “boilerplate” language that “does not provide the reader with sufficient and significant information that would allow for differentiation between the company and most, if not all, of its peers.” However, SASB concluded that “disclosures related to human capital tended to be of the highest quality, with 37 percent of available disclosures using metrics—much more than was found in other dimensions” such as the environment and governance. Even so, the SASB analysis understates the total HC disclosures available to investors because it excludes everything companies publish outside of their SEC filings, such as social responsibility reports that often address ESG issues in considerable detail.⁵ A significant amount of publicly available HC data is collected by research providers specializing in non-financial information, often referred to as sustainability or environmental, social and governance (ESG) data.⁶

Investor Initiatives

Even so, HC disclosure remains insufficient for industry- or market-wide investment analysis. In recent years several groups of investors have launched initiatives to tackle the challenge, primarily in Great Britain and the United States. Here is an overview of some of those efforts.

Global

One of the earliest attempts by investors to spur more HC disclosure began in 2012, when the United Nations Principles for Responsible Investment (PRI) formed the Employee Relations Steering Committee, comprised of eleven signatories. “The committee’s aim was to encourage improved company practices and enhanced company disclosure regarding employee relations within the retail industry. They took the view that human capital management (HCM) is a topic that needs to be discussed beyond the downside risks related to investors’ concerns about social issues.”⁷ A 2014 report commissioned by the group examined HC disclosures of 80 large global corporations across eight indicators of training, turnover and employee satisfaction. It concluded that 26 percent of the firms offered strong public evidence that they were measuring and managing the indicators, 20 percent provided some evidence, 26 percent offered minimal evidence and the remaining 28 percent offered none.

A group of PRI signatories followed up with a collaborative effort to improve reporting and practices at 27 global retail companies. The engagement, which ran from 2013 to 2015, resulted in modest improvements, “particularly in the areas of employee training and employee engagement,” according to a summary of the exercise.⁸

An initiative to set global standards for such disclosures was launched in 2017 by the Committee on Workers Capital, a network of labor union responsible investment experts from 25 countries. It published Guidelines for the Evaluation of Workers’ Human Rights and Labour Standards that covered several dozen metrics it urged companies to disclose.⁹ These included workforce composition, unionization, worker participation in decision-making, OHS practices, training and development and employee compensation policies. The guidelines were developed by the Committee’s Taskforce on Workers’ Rights and Labour Standards in the Investment Chain, and were informed by a meeting the year before that it held with eight ESG data providers (including RobecoSAM, whose data is used in this study).¹⁰ The guidelines are part of an ongoing project intended to help standardize HC reporting by the data firms and by the companies from whom they collect information, and to assist union pension funds in their engagements on corporate reporting.

Great Britain

Share Action

In 2017 a London charity called ShareAction, which for over a decade has focused on responsible pension-fund investment practices, started an ambitious multi-year project called the Workforce Disclosure Initiative (WDI) to “push companies for comparable data on the workforces in their operations and supply chain.”¹¹ It plans to create a human-capital disclosure framework by surveying multinational companies on issues such as “workforce composition, worker welfare, investment in skills and worker representation. Both direct employees and those throughout the supply chain will be covered. The initiative will then coordinate investor engagement with these companies to drive up standards.”

ShareAction’s initial WDI survey was sent to companies listed on the FTSE 50 plus about 25 large companies listed on other global stock exchanges.¹² It expects to expand the number of companies significantly in subsequent years, with the goal of creating standardized HC reporting metrics for global companies that aggregate questions from voluntary initiatives such as the Global Reporting Initiative with mandatory reporting requirements in some regions such as the European Union and Great Britain. “The WDI will allow investors to fill a crucial data gap to better understand how companies are structuring and managing their workforces. There is growing investor support for the idea that good employment practices can contribute to long-term financial returns. The WDI will also give them the tools to engage with companies to encourage good practice.”

ShareAction includes both the direct employees addressed in this paper as well as indirect employees hired by company suppliers in part because it receives funding from the British Department for International Development, which addresses global poverty and similar issues.¹³

Pensions and Lifetime Savings Association

In 2016 the London-based Pensions and Lifetime Savings Association (PLSA), which represents British pension funds with an aggregate of £1 trillion in assets, and supporting businesses, wrote to the board chairs of companies in the FTSE 350 to ask them to share more information with investors about the culture and working practices of their workforce.¹⁴ The letter was signed by British Pensions Minister Richard Harrington as well as two large British investment managers, Newton Investment Management and USS Investment Management. Joanne Segars, the PLSA CEO at the time, explained the rationale for the request by saying: “It’s essential that pension funds know more about how the companies in which they invest, manage and engage their employees. We know that engaged workers make for stronger companies and stronger companies make for better investment returns—creating an economy that works for everyone.”

The letter built on two PLSA publications that addressed HC materiality. One released earlier that year was entitled *Understanding the Worth of the Workforce: A Stewardship Toolkit for Pension Funds*.¹⁵ It suggests that funds ask portfolio companies to publish “narrative reporting that links the company’s approach to its workers to its underlying purpose and strategy” backed by “consistently reported, concrete, comparable data.” A list of recommended metrics includes: gender diversity; employment type, such as full-time, part-time or agency workers; staff turnover; accidents, injuries and workplace illnesses; investment in training and development; pay ratios between the highest paid and median and lowest quartile workers across the company; and employee engagement scores.

The other paper, published in 2015, was called “Where is the workforce in corporate reporting?”¹⁶ It found that fewer than half of FTSE 100 companies disclosed staff turnover statistics in 2014, while fewer than a quarter reported on their investment in training and development, and just one in ten provided information about the composition of the workforce. The report laid the groundwork for the

PLSA's subsequent actions on the topic by calling on corporate boards to "seek to understand and communicate whether the company is maximizing the long-term value of the human capital it has at its disposal." The PLSA's work on HC also established the basis for ShareAction's disclosure initiative, which drew heavily on its framework.¹⁷

Investment Association

A similar project to spur more HC reporting was initiated in 2015 by the Investment Association (IA), a trade body that represents British investment managers. It was announced at a November event the IA held at the London Stock Exchange with British companies, business leaders and member firms that had formed a working group to advance the topic.¹⁸ The IA followed up in 2016 by setting out a plan to develop HC reporting requirements that would be incorporated into its Long Term Reporting Guidance.¹⁹ The Guidance was published the following year and called on companies to provide a narrative discussion in their strategic reports about current and planned investments in the workforce, as well as the outcomes when possible.²⁰ It suggested companies determine which metrics best support their approach to HC management and advised them at a minimum to disclose total headcount, "broken down by the division between full-time and part-time employees, gender, and diversity; Annual turnover—including both planned and regrettable turnover; Investment in training, skills, and professional development—including the rate of progression and promotion within the business; and Employee engagement score." The IA said it would begin analyzing the quality of HC reporting in corporate assessments offered to asset managers through its Institutional Voting Information Service, known as IVIS.²¹

United States

Human Capital Management Coalition

In 2014 the UAW Retiree Medical Benefits Trust convened a group of about two dozen institutional investors—who currently hold in excess of \$2.8 trillion in assets—to form the Human Capital Management Coalition to address the topic of corporate HC disclosures.²² It began by drawing up questions for investors to ask portfolio companies, such as:

"Does the Company have a philosophy/culture/approach that governs its management of human capital? How does the Board ensure that its expectations on corporate values and culture are met? How does the Board ensure that its expectations on human capital management are reflected throughout the management chain?"²³

The Coalition then began engaging with companies using the questions as a framework. It started with the retail industry, in part because of the attention it had received after fires that killed workers at Western retailers' supplier factories in Bangladesh and Pakistan in 2012. Since then the Coalition has engaged a variety of companies on their HC disclosures and practices regarding both direct employees and those employed indirectly through suppliers.²⁴

In 2017 the Coalition filed a petition with the U.S. Securities and Exchange Commission urging it to adopt "standards that would require listed companies to disclose information on human capital management policies, practices, and performance." It explained the goal as follows: "The petition does not define specific metrics for reporting; instead, the petition offers nine broad categories of information deemed fundamental to human capital analysis as a starting point to dialogue: workforce demographics; workforce stability; workforce composition; workforce skills and capabilities; workforce culture and empowerment; workforce health and safety; workforce productivity; human rights; and workforce compensation and incentives. The HCM Coalition expects that specific data points will be developed as part of the rulemaking process, acknowledging that the relevance and applicability of some metrics may vary between industries and companies in the same industry."²⁵

California Public Employees' Retirement System

One of the most extensive efforts by an individual fund to integrate HC into ESG investment risk analysis has been undertaken by the California Public Employees' Retirement System (CalPERS), the largest U.S. public sector pension fund with about \$300 billion in assets. In 2014, it adopted a set of investment beliefs that state: "Long-term value creation requires effective management of three forms of capital: financial, physical and human."²⁶ The beliefs then explain what is meant by each, saying: "Human capital practices, includ[e] but [are] not limited to fair labor practices, health and safety, responsible contracting and diversity."

CalPERS has been fleshing out the concept and how to operationalize it ever since. In 2016, the fund's investment committee proposed a four-pronged strategy similar to its plan for the other two capitals. One approach was to develop HC key performance indicators that could be used to integrate HC risk into investment decisions. A second was to open discussions with companies on how they report on HC factors and the policies they put in place to manage their workforce. The proposal also envisioned discussions with the fund's investment managers about the use of HC factors. A third was to advocate for rule-making and standards to improve HC reporting with entities such as the SEC. The fourth entailed partnering with others on these efforts, such as with the HCM Coalition to which CalPERS belongs.²⁷ Later that year the plan's board of administration incorporated these ideas into a five-year strategic plan for ESG integration.²⁸

The fund spelled out its rationale for detailed reporting on HC as well as other ESG factors in a 2016 comment to a SEC consultation on financial disclosure regulations. It said: "Enhanced human capital disclosures by registrants are essential to investors' ability to effectively hold boards accountable in their role to oversee management's performance on human capital risk and opportunity."²⁹

Other Initiatives

Occupational Health and Safety

Occupational Health & Safety (OHS) has a long history as a distinct subset of human capital concerns that companies should consider.³⁰ Many countries have government agencies mandated to address the issue, such as the European Agency for Safety and Health at Work, the British Health and Safety Executive and the U.S. Occupational Safety and Health Administration (OSHA). Similarly, most large companies have OHS departments staffed by professionals tasked with overseeing policies in this area.

Regulations requiring corporate OHS record-keeping and reporting vary widely by country. In the United States, most employers are required to track illness and injury rates at every work location using so-called OSHA logs that were not generally public. In 2017, a new OSHA rule was due to take effect requiring these records, with some exceptions, to be submitted electronically to OSHA for public disclosure on its website.³¹ However, the rule was nullified in legislation signed shortly beforehand.³²

OSHA took a separate step in 2016 that could offer broader standardized OHS reporting. That year it issued a wholesale overhaul of voluntary guidelines issued in the 1980s to help companies develop OHS programs.³³ The guidelines call on employers to set up reporting systems with goals and leading and lagging indicators to track OHS performance and progress. Most large companies already do a lot of this as the results of this study indicate. But the new guidelines may spur more firms to follow suit and may prompt more standardized approaches that would be useful for cross-company and cross-industry comparisons—assuming companies can be persuaded to disclose such information publicly.

A growing body of experts argue that OHS concerns should be integrated more fully into the broader corporate sustainability movement. A 2013 study by the Center for Safety and Health Sustainability found poor public disclosure on several key OHS indicators among Corporate Knights' 2011 *Global 100 Most Sustainable Corporations in the World*.³⁴ A second Center report two years later located OHS in the context of integrated reporting and urged OHS professionals to develop OHS key performance indicators (KPIs) for their company or industry that adhere to a uniform format suitable for investor needs.³⁵ It offered a model comprised of five KPIs:

1. Lost-time injury and illness frequency rate, lost-time injury and illness severity rate, and number of fatalities (all employees/workers—5-year period).
2. Lost-time injury and illness frequency rate, lost-time injury and illness severity rate, and number of fatalities (all contractors—5-year period).
3. Percent of owned or leased manufacturing, production, or warehousing facilities that have implemented an occupational safety health management system that meets nationally or internationally recognized standard or guideline.
4. Percent of owned or leased manufacturing, production, or warehousing facilities that have had their occupational safety health management systems audited.
5. Percent of direct/first tier suppliers' facilities that were audited for compliance with safety and health standards.

The next year the Center followed up with an initiative to standardize OHS reporting worldwide that started with a best-practice guide for companies and other employers, such as governments, nonprofits and NGOs.³⁶ It defined the five KPIs as “essential” reporting elements and complemented them with optional ones such as OHS improvement targets, training and risk management.

A 2016 OSHA paper made a similar case for linking OHS to broader ESG risk assessments and the need for more public disclosure of corporate OHS records. It pointed out that while investors generally see a company's OHS performance as important, “particularly as it relates to governance and leadership performance, metrics used to assess OHS performance are not consistent in use or application. This information gap makes it challenging, if not impossible, for OHS to be considered material to an investor's decision-making process. Information about safety and health performance is only required in quarterly and annual reports to the U.S. Securities and Exchange Commission (SEC) from mining companies.”³⁷

In 2017 the Center for Safety and Health Sustainability did a new analysis of the Corporate Knights 100 Most Sustainable Corporations in the World using the 2016 edition.³⁸ It found only modest improvement in OHS reporting since the 2011 edition. The Center also found that the 100 companies used a variety of definitions for even basic OHS metrics. For example, there were 14 different definitions for workers, 12 different definitions of absentee or explanations of the scope of absenteeism-related information, and 11 different formulas to calculate the absentee rate.

The Center concluded that “voluntary sustainability reporting on OHS lacks the degree of rigor necessary to allow key stakeholders to effectively evaluate corporate performance or compare performance across organizations. To address this concern, new levels of collaboration and compromise are needed among the leading sustainability reporting frameworks and standards development organizations ([Global Report Initiative (GRI), United Nations Global Compact (UNGC), International Integrated Reporting Council (IIRC),] and SASB). Standardized terms, definitions, and data collection methodology and reporting formats must be agreed upon and adopted by these groups.”

Vitality Institute

Another effort to develop OHS metrics has been initiated by the Vitality Institute, a nonprofit founded in 2013 to promote health by Discovery Limited, South Africa's largest health insurance company. It convened a group of experts and global corporations that year to draw up a set of metrics to help companies publicly report on the health of their employees. Participants also included the Global Reporting Initiative, the World Economic Forum and the United Nations Global Compact.³⁹

The project's stated a goal: "By 2020, workforce health metrics will be an integral indicator of overall organizational performance within the broader corporate accountability framework. They will be core to existing corporate social responsibility, sustainability and integrated reporting, and critical for consideration by all shareholders as well as potential investors."

The metrics were published in 2016 as a set of two scorecards. The first scorecard consisted of ten high-level indicators covering a company's governance and management of employee health issues, along with outcomes. The second expanded those core questions with more detail on each of the ten. The paper called on companies to include these metrics in their standard reporting and suggested that "investors should understand, request, and exert pressure on companies to include health metrics as part of reporting, rewarding positive actions and penalizing inaction (or negative actions)."

Stock Exchanges

In 2015, the World Federation of Exchanges (WFE) issued voluntary recommendations to its member stock exchanges on material ESG metrics they could incorporate into disclosure guidelines for the companies listed in their respective markets.⁴⁰ The 33 metrics included eight relating to HC:

- The ratio of CEO compensation to the average pay of full-time employees
- The ratio of pay between male and female employees
- The turnover rate
- The percent of jobs held by women
- The ratio of full-time workers to part-timers
- The publication of a non-discrimination policy
- The number of injuries and fatalities
- The publication of an OHS policy

The WFE said its choice of metrics was "not meant to be a complete or prescriptive list" and urged exchanges to adapt or amend them to suit the needs of the companies they list.

The same year the United Nations Sustainable Stock Exchanges initiative published a similar call for exchanges to issue ESG guidance or listing standards.⁴¹ The initiative did not offer specific metrics like the WFE but instead referred to resources exchanges could draw upon to develop their own, many of which contain HC disclosure standards. As of the end of 2016, twelve exchanges had adopted formal ESG listing standards and another fifteen had provided guidance on the topic for listed companies.⁴²

Stock Indices

A growing number of stock market index providers have begun to offer another avenue through which investors can assess HC policies. Investors have been able to consider them through broader indices aimed at all ESG factors, including the Dow Jones Sustainability Index, based on the data analyzed in this paper. This has led to the creation of specialized indices which focus specifically on HC.

Tokyo Stock Exchange

For example, in April of 2016 Japan Exchange Group (JPX), which owns the Tokyo Stock Exchange, and S&P Dow Jones Indices introduced the JPX/S&P CAPEX & Human Capital Index.⁴³ Its aim is to track the performance of major Japanese companies based on their capital expenditure growth and efficiency, and on their investments in human capital. The latter are based on three criteria drawn from the same RobecoSAM Corporate Sustainability Assessment data used in this paper.⁴⁴

The first criterion covers HC development, meaning a company's ability "to quantify and proactively manage its investments in human capital."

The second includes talent attraction and retention, based on its employee turnover rate and its ability to demonstrate effective measures for evaluating employee performance; provide long-term employee incentives; and effectively maintain a relatively low turnover rate and retain talent over time.

The third encompasses labor practices and human rights, which includes:

- The retention of female employees from junior to senior management
- Relatively equitable levels of pay among male and female employees in similar roles
- Human rights due diligence processes incorporating the United Nations Guiding Principles on Human Rights

Each company in the index receives a score of 0-100 for each of the three criteria detailed above. Each score is then equally weighted to obtain an overall human capital score of 0-100 for each company. Those scores are combined with the capital expenditure scores to create a composite average used to construct the index.

The same month MSCI released the MSCI Japan Human and Physical Investment Index, also designed to track companies based on their physical and human capital expenditures.⁴⁵ The latter is measured along five dimensions: training and development, diversity, external recognition, compensation and benefits, and employee engagement. Companies are scored on a 0-10 scale for the human capital components, which are combined with a governance score and a quality score to create the index.

Thomson Reuters

Another HC-related index, launched in September of 2016 by Thomson Reuters, is called the Diversity & Inclusion (D&I) Index.⁴⁶ It ranks 100 companies listed on global exchanges according to four categories comprised of 24 indicators.⁴⁷ Seven of these cover diversity measures such as the percent of women employees, managers and directors. Five cover so-called inclusion measures such as flexible working hours, day care and the percent of employees with disabilities. Eight measure what is described as people development, including average hours of training per employee per year, career development policies and employee satisfaction. The remaining four cover workplace-related controversies reported in the media on topics such as workforce diversity, wages, discrimination and harassment.

Standard-setters

In addition to investors, national standard-setting bodies have begun to address HC reporting. In 2016 a set of HC disclosure metrics was released by the Geneva-based International Standardization Organization (ISO), an association with 163 members comprised of national standards entities.⁴⁸ The metrics consist of four standards designed for use by corporate human resource departments covering HC governance, recruitment, planning and vocabulary. Each offers suggestions for a common reporting template companies can use. For example, the governance standard proposes disclosure of the roles, responsibilities, commitment and accountability of the board, top management and operational management.

Although ISO standards are entirely voluntary, they are used as a reference point by national entities and often work their way through to adoption by many companies. The ISO is engaged in a multi-year process to add more HC standards covering topics such as hiring, turnover and retention.⁴⁹

Chief Financial Officers

Another British effort to address HC reporting came from a group that primarily involved corporate financial officers and their financial teams. In mid-2017, the Accounting for Sustainability Project published a guide to social and human capital accounting produced by the group's CFO Leadership Network.⁵⁰ It does not suggest metrics but instead offers a process companies can adopt to decide which ones are most relevant to them. The guide suggests companies first define which factors are the most material to them and company stakeholders by consulting key decision makers within the company and at external groups. They then can consider the appropriate measurement and data collection systems in light of other evaluation and reporting already undertaken across the company. This can include qualitative and quantitative risk assessments, trend impact analysis and scenario planning. The resulting metrics should be integrated into decision-making and risk analysis.

The guide offers several detailed case studies from some of the companies involved in the CFO network, including a commitment by Unilever to offer skills training to women to improve their job opportunities, and a British Land program to improve productivity and well-being in its offices.

Data

The data used in this study is derived from the Corporate Sustainability Assessment (CSA) undertaken by RobecoSAM for the 2016 Dow Jones Sustainability Indices.⁵¹ This is a survey of global corporations performed annually since 1999 that is used to select constituents of the Dow Jones Sustainability Indices (DJSI) as well as companies included in RobecoSAM's annual Sustainability Yearbook.⁵² The survey was sent to more than 3,400 publicly traded companies, of which the largest 2,500 by market capitalization were eligible for inclusion in the DJSI World.

The 2016 CSA analyzed data from nearly 2,000 of these companies.⁵³ The data used in this paper covers 1,968 of the firms, including 863 of those that responded to the survey and 1,105 others that did not and were assessed by RobecoSAM based on publicly available information.⁵⁴

Not all the CSA questions were sent to every company, nor did every respondent company answer every question. As a result, some questions have smaller sample sizes than others. However, all samples are large enough to constitute statistically valid representations. Two exceptions we include in this paper are OHS Governance Framework and OHS Governance Oversight, which were sent to a much smaller number of industries. We explain why this was the case in the results section below.

A key point in our findings involves the often large differences in disclosure by survey respondents compared with non-respondent companies assessed using public reporting. Our assumption is that some of the data from respondents is not public, a conclusion based primarily on conversations with RobecoSAM experts involved in the CSA process. However, RobecoSAM does not cross-reference respondent data with information those firms disclose publicly, so this conjecture is unconfirmed. Furthermore, it is entirely possible that some or even many non-respondents collect the metrics asked about in the CSA but do not report them publicly.⁵⁵

These unknowns affect our findings in several ways. The percent of non-respondents that collect data with respect to any metric may be higher than our results indicate, meaning the differences we find could be overstated. Similarly, some of the respondent data may be public, which would mean that the universe of public HC metrics is larger than our results imply.

In addition, the gaps between respondents and non-respondents could be at least partially the result of selection bias. This could be the case if companies chose to respond to the CSA because they already had collected some or a lot of the data required, or if non-respondents chose to ignore the survey because they do not collect it. Yet another possibility is that respondents generate some of the metrics spurred by the request by the CSA for that information. This could be for a number of reasons, such as sustainability and other staff using the CSA as an argument to convince higher-level management that producing such metrics is worth doing. Another and perhaps related possibility is that the companies wished to score well on the CSA, to improve their chances of inclusion in the DJSI and thus their visibility with investors concerned about sustainability.

The CSA itself sheds some light on the latter point. Companies spend an average of 100 hours each filling out the CSA, and more for first-time respondents. They also ask questions by phone and email via the RobecoSAM CSA Helpline. Some of these queries involve assistance with answering CSA questions for which the company did not already gather data or to confirm that its definition meets RobecoSAM's criteria.⁵⁶

Results

Our results focus on a dozen of the HC metrics assessed in the 2016 CSA.⁵⁷ We selected these based on their prominence in the literature on materiality we surveyed in 2015.⁵⁸ Chart 1 shows these metrics and the overall percent of companies that disclose them, either in response to the CSA or in public reports. Ten of the twelve metrics are reported by large minorities or majorities of companies. The other two reference materiality calculations companies themselves make, about the return they realize on their training and employee development expenditures and the quantitative benefits they receive from a specified employee development initiative. Both may be considerations many companies only recently have addressed. We discuss possible reasons for these lower percentages below.

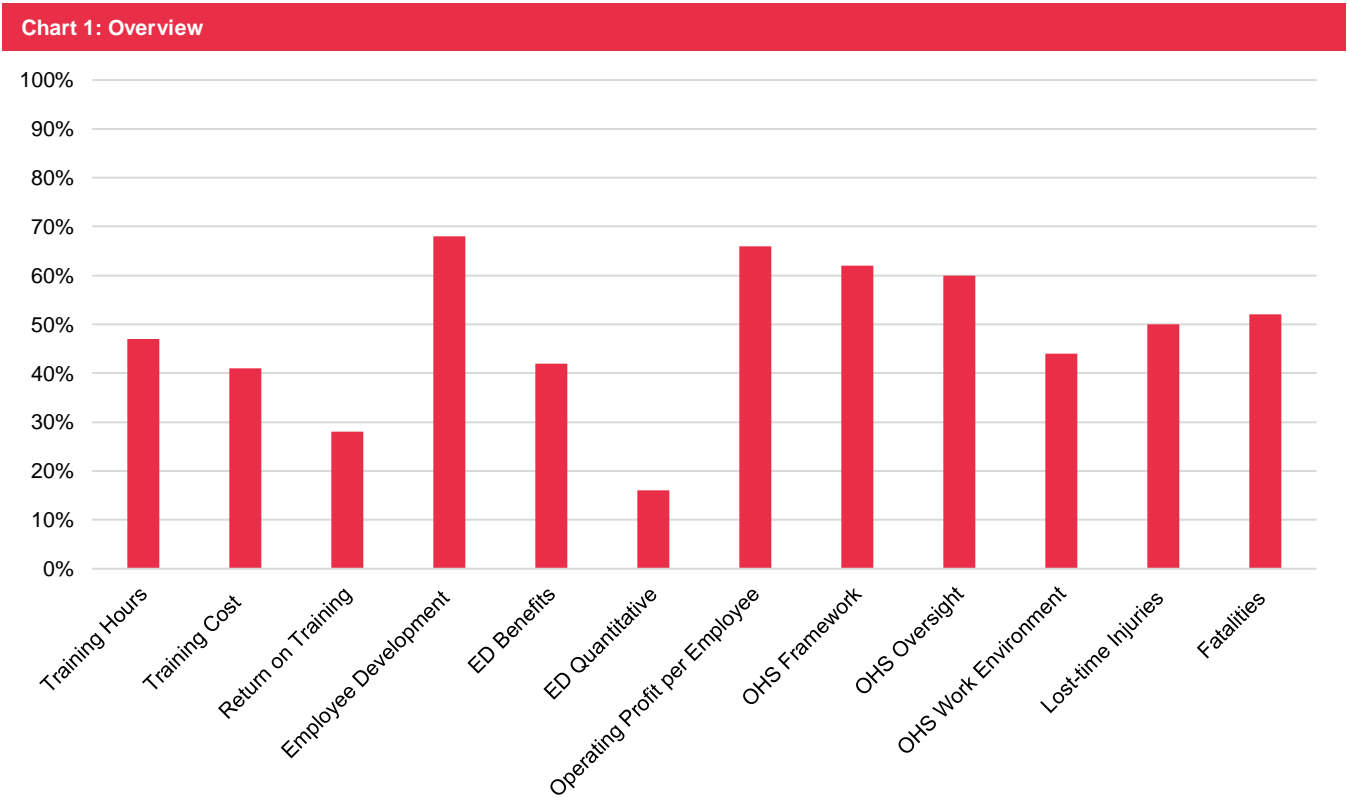
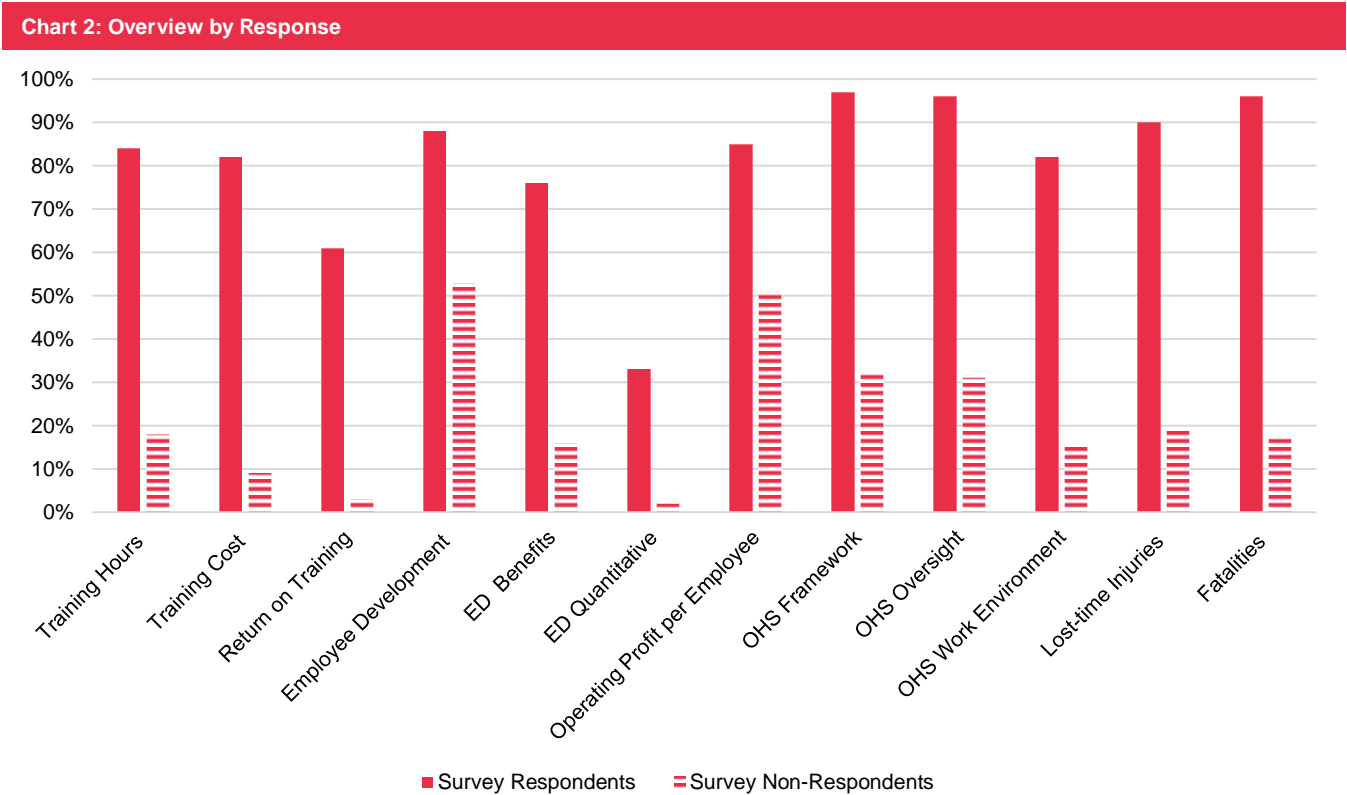


Chart 2 displays the percent of companies reporting each metric according to whether they responded to the CSA or were assessed by RobecoSAM based on their public reports. The results show significant majorities of respondents reporting on all metrics except for the quantitative benefit one and overwhelming majorities of close to or more than 90 percent on five. The corresponding percentages for publicly assessed firms are drastically lower across every metric.



Training

The data series starts with employee training because of the preponderance of evidence for its materiality to corporate financial performance. Our 2015 review found a broad consensus in the research literature that the strongest links to materiality occur when companies adopt mutually reinforcing policies that function as a system, which is often referred to as a bundle of policies. This makes it difficult to conclude decisively that a particular HC metric has a direct link to the corporate bottom line on a stand-alone basis. However, training proved to be an exception, with dozens of studies in multiple industries and countries concluding that well-run employee training programs correlate directly to financial outcomes. These studies typically measured the hours of training companies devote to training or the total cost of the training. Both approaches yielded analogous correlations to positive financial outcomes. The CSA explains RobecoSAM's rationale for these questions by stating: "For many industries, human capital development is one of the most financially material sustainability factors. The quality of employees that companies are able to attract and retain differentiates those that are well-positioned to succeed in their respective industries from those that are not, so strong human capital development practices are considered an important source of competitive advantage."⁵⁹

The CSA asks about both average hours per full-time equivalent employee and average expenditures per full-time equivalent employee related to “training, development and internal mobility.”⁶⁰ The survey specifies that basic compliance and safety training should be excluded from the calculations. It asks instead for a program focused on the development of an employee’s skills, such as a leadership program or interpersonal communication course. Chart 3 shows that 47 percent of all companies surveyed report hours of training, while 41 percent report training costs per employee as seen on Chart 5. The United States is the outlier on both scores, with 26 percent of firms reporting hours and just 18 percent reporting costs, both considerably lower than Europe, Asia Pacific and Great Britain.⁶¹ This geographic pattern is repeated across all twelve metrics and likely reflects the presence in other regions of stronger regulations and social norms regarding corporate ESG disclosures.

Not surprisingly, larger firms are more likely to report training data than medium-sized and smaller ones, since large companies typically have more resources to devote to a measurement and tracking system.⁶²

Chart 3: Training Hours per Employee

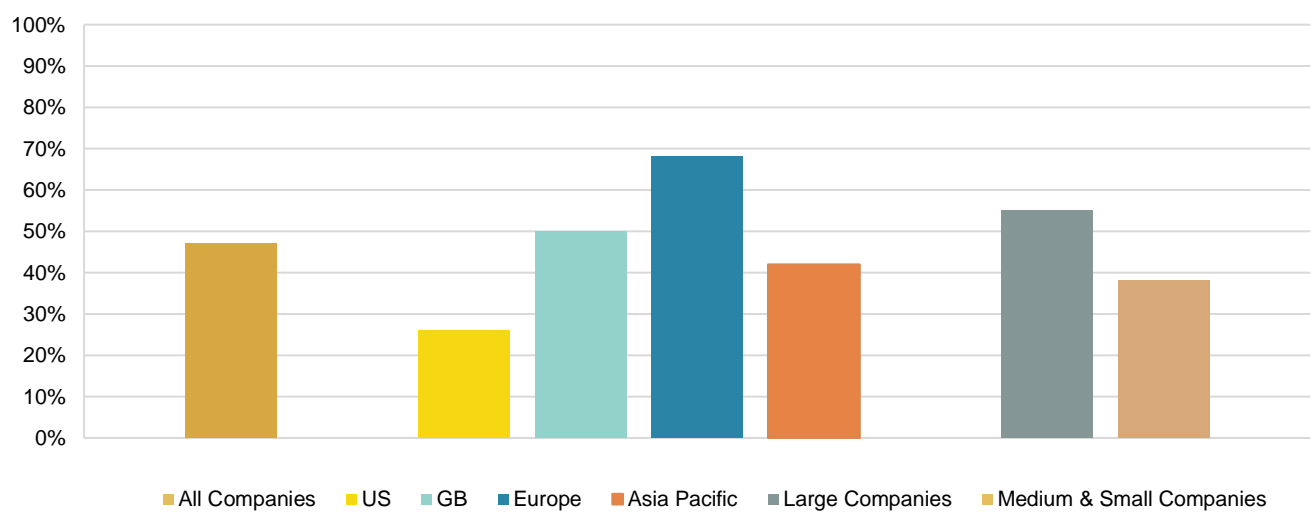
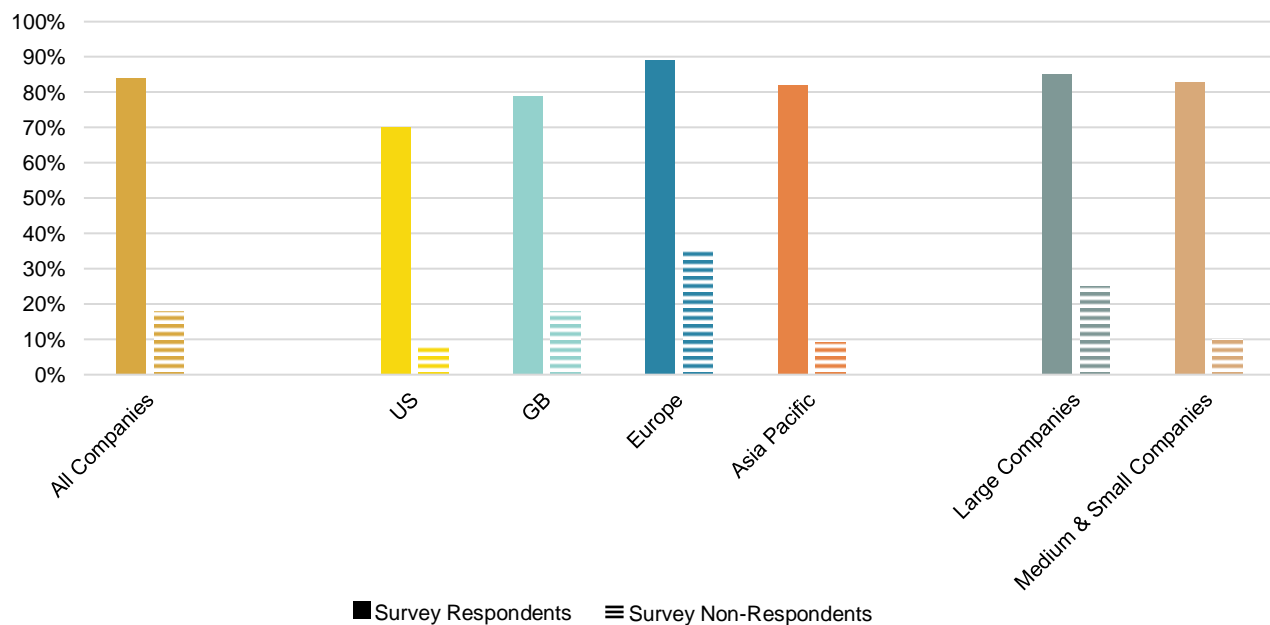
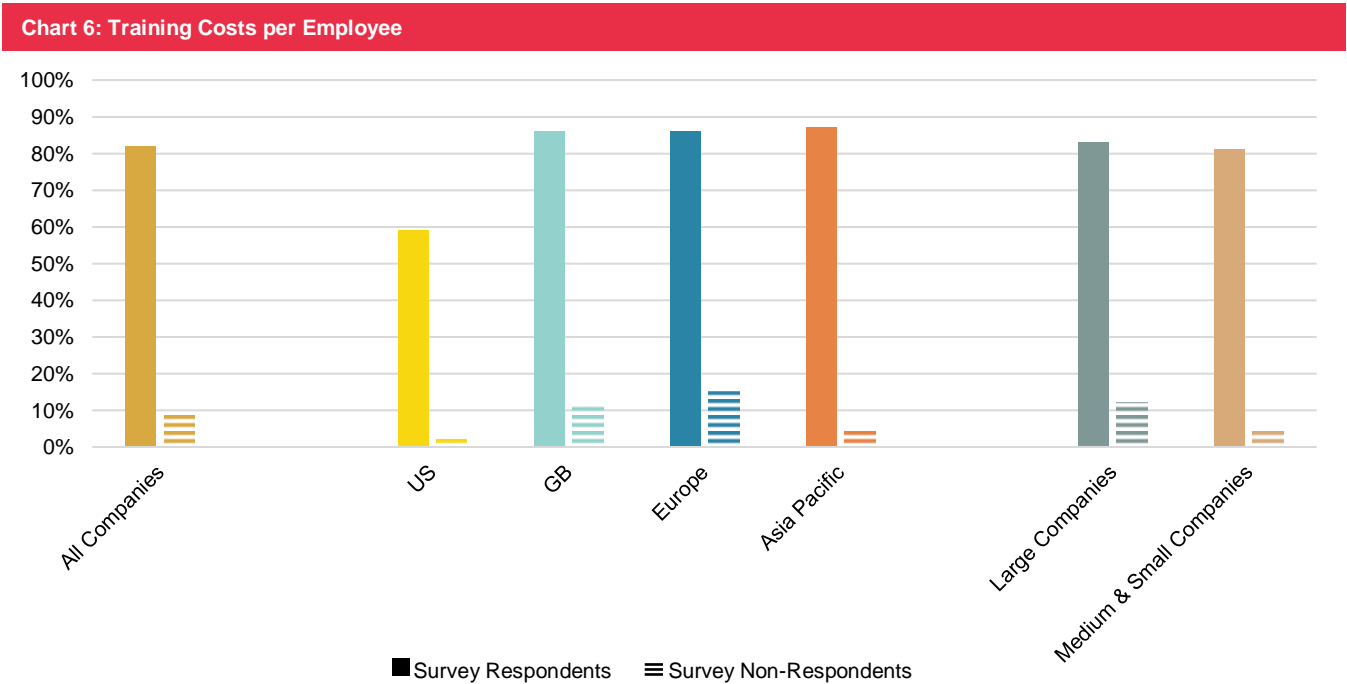
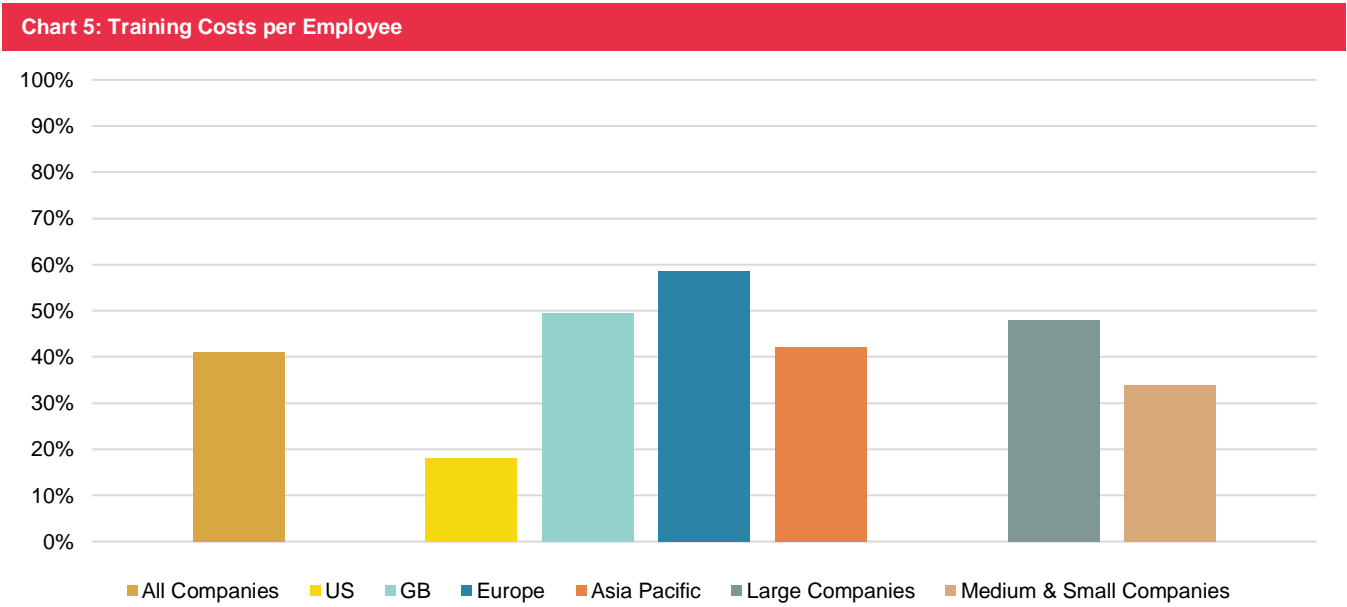


Chart 4: Training Hours per Employee



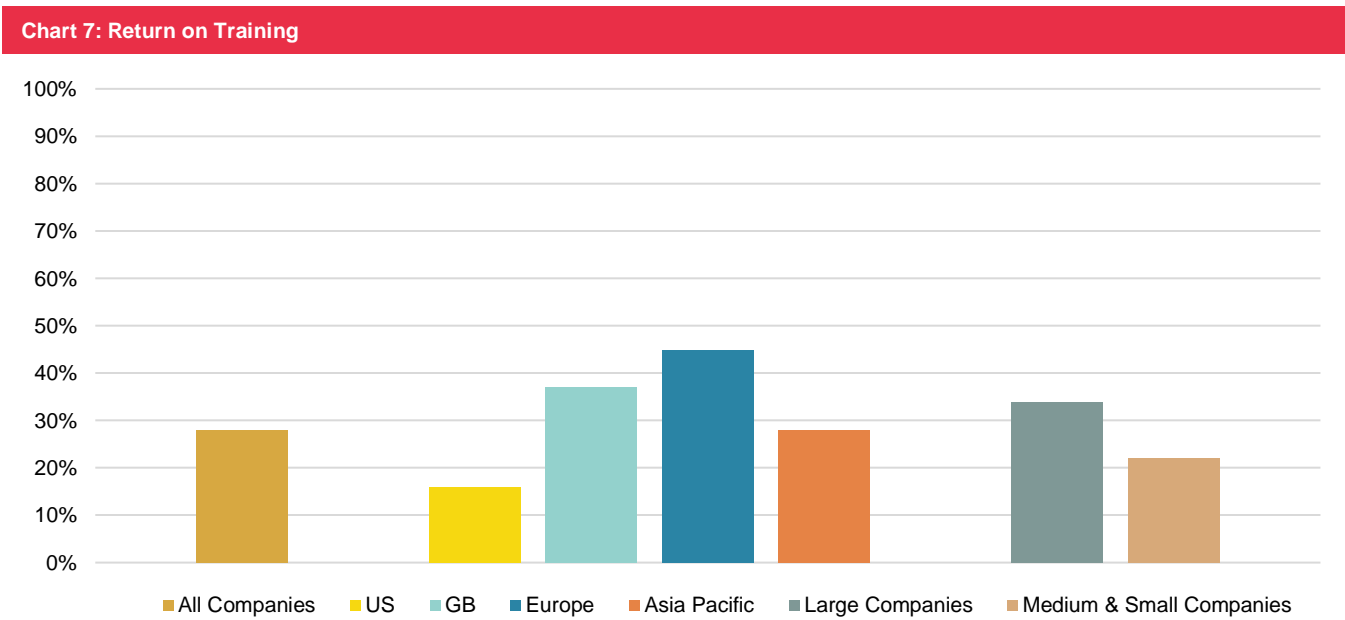
The differentials between survey respondents and non-respondents with respect to training costs are just as large as they are for training hours.⁶³ As can be seen in Charts 5 and 6, the range for respondents runs from 59 percent for the US to 87 percent for Asia Pacific on costs. For non-respondents, it extends from 2 percent for the US to 15 percent for Europe. The low levels for non-respondents are especially striking given the decades of attention to the need for training in many markets, particularly the US and Britain. The voluminous literature on the topic suggests a majority of companies train a significant portion of employees in virtually every industry and market. Non-respondents almost certainly do likewise and may simply decide not to make the information public; whether many would do so if investors asked for it has not been tested.



The question addressed in Charts 7 and 8, though focused on “employee development programs,” is largely concerned with training and is an attempt to solicit information on how companies themselves view HC materiality. The CSA asks whether the firm has “a global metric to quantitatively measure the benefits from your investments in employee development programs? By investment in employee development programs, we mean expenses related to education, training, incentive programs, etc. This does not include base salary or standard benefits (e.g. vacation, insurance, etc.).”

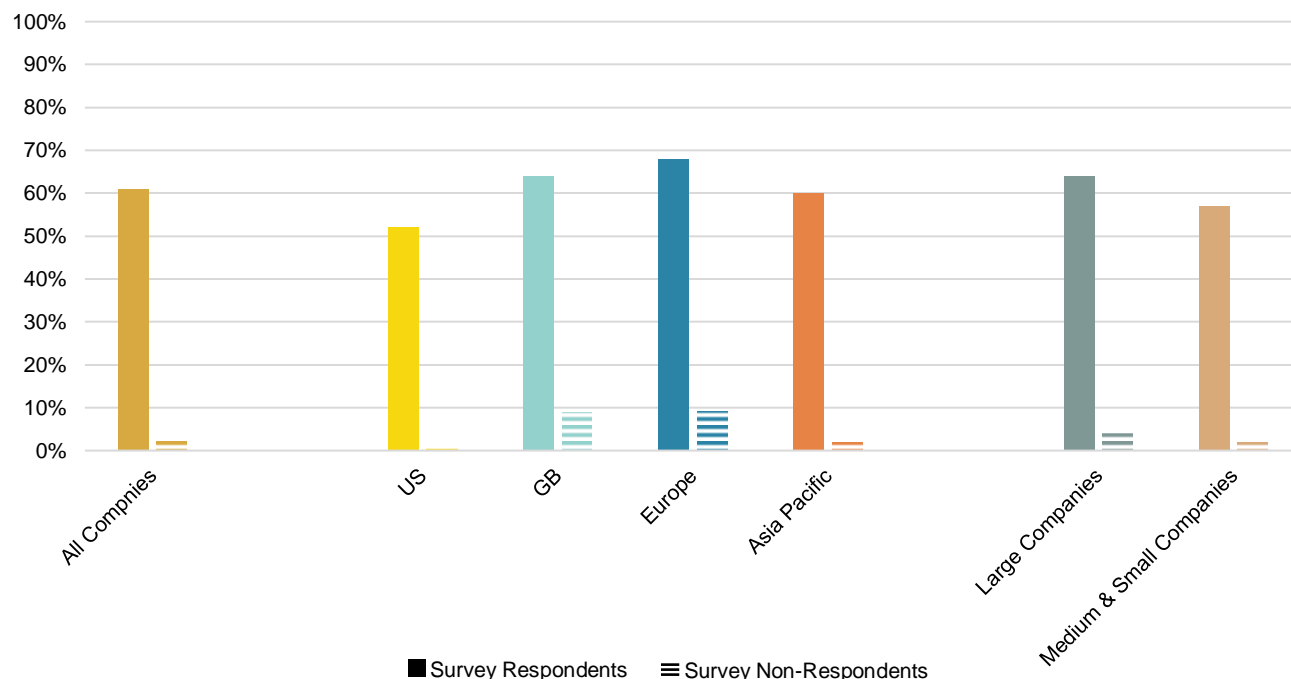
The CSA defines the quantitative benefits it is looking for as “either monetary benefits such as increases in sales, increases in profits or profitability, World Class Manufacturing (WCM) savings, etc. directly linked to the programs, or changes in other metrics such as employee engagement, employee retention, absenteeism, etc. RobecoSAM is explicitly looking for the link between the employee development investment and the quantitative benefits.”

Corporate returns to training and education efforts have been a central focus of the academic literature, as well as of the consulting industry, that has assisted companies on the issue for decades in most countries. However, such calculations often may be performed only once, or periodically, given the time and effort needed to collect and track the data across large numbers of employees and employment sites, particularly at larger firms. Given that, it is not entirely surprising that this metric shows one of the lowest response rates among the twelve addressed in this paper. Overall, Chart 7 indicates that only 28 percent of firms were found to have calculated the returns they reaped from employee development programs. This average includes companies that do not track a global metric across the entire firm but do keep one for a specific program.



The differences between respondent and non-respondent firms seen in Chart 8 are the widest among the twelve metrics. While 61 percent of the former report that they calculate training returns, just 3 percent on the latter do. The pattern is replicated across regions and company size, with respondents falling between 52 percent in the US to 68 percent in Europe, compared with a mere 1 percent of US non-respondents and 9 percent in Britain and Europe. The difficulty of answering the question suggests that some or perhaps even many respondents only began to calculate such returns after facing the request from the CSA.

Chart 8: Return on Training



The next results shown in Charts 9 through 14 tackle HC materiality from a second perspective. The question requests examples of specific employee development programs, to measure “how and to what degree companies are able to measure the benefits to their business of their investments in human capital.” This is essentially a deeper dive on training that asks for a wide range of programs aimed at improving worker skills. The survey asks firms to exclude those offering training on basic skills or OHS and other compliance requirements. Examples it gives include “leadership or management development programs, young talent development programs, sales training for sales executives, advanced occupational health and safety training, green or black belt certifications and project management training.”

As see in Chart 9, solid majorities of companies report at least one such example. This is unsurprising given that almost every company undertakes some kind of training or development effort, even if it covers only a small number of employees. The results are even greater for respondents in Chart 10, with well over 80 percent response rates in every category. Many non-respondents offer examples publicly, including three-quarters of firms in Britain and Europe.

Chart 9: Employee Development Programs

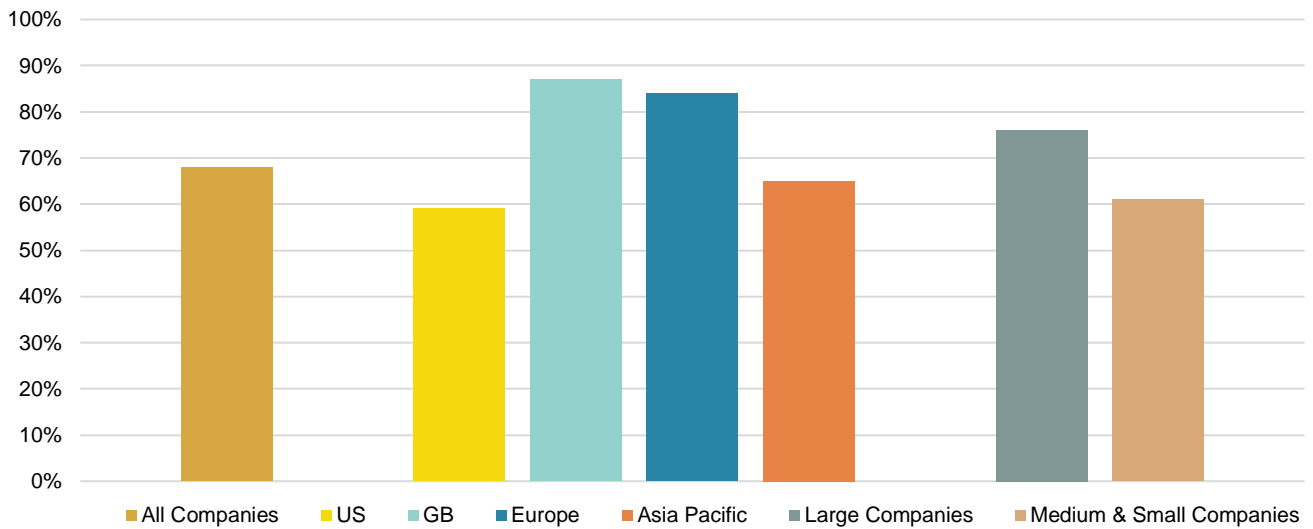
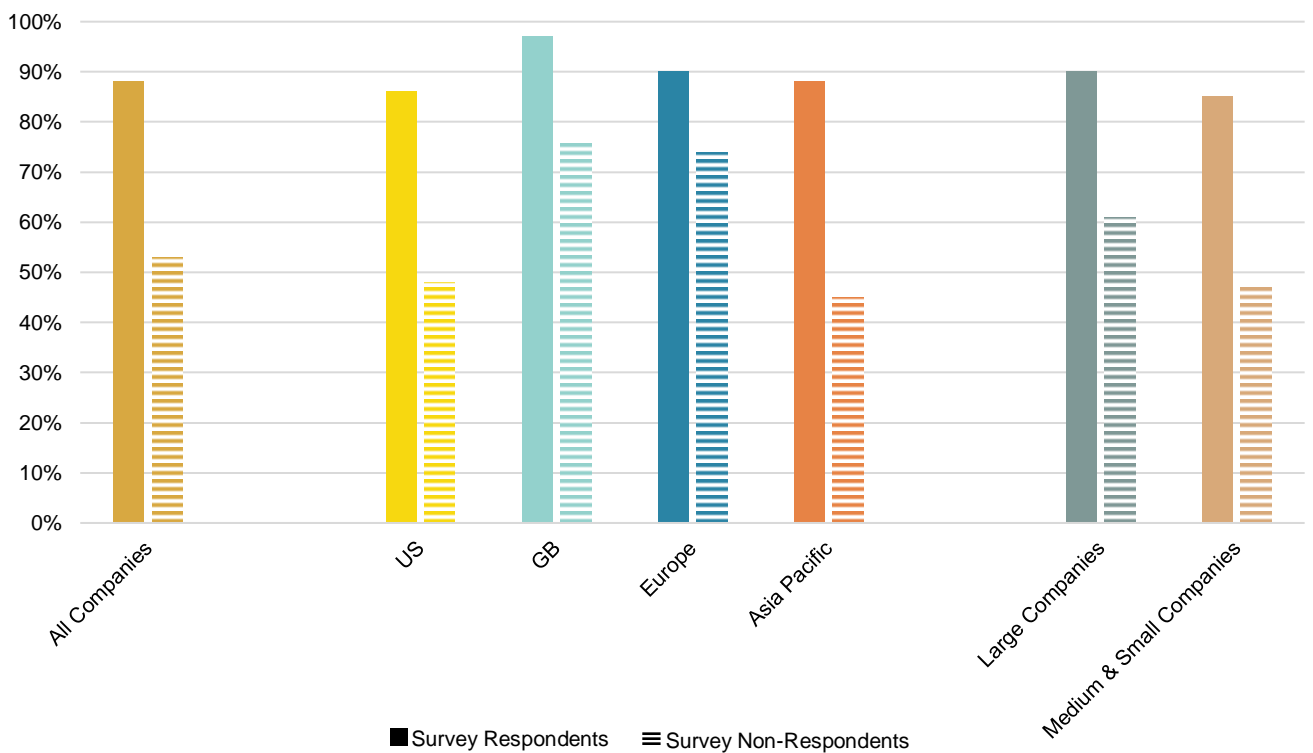


Chart 10: Employee Development Programs



The question becomes more challenging when companies are asked to describe the business benefits they derive from the program. They are instructed to explain the impact on the company’s overall performance or strategic targets, excluding any benefit to the employees being trained. The results drop off sharply as seen in Chart 11, although that is largely driven by non-respondents, as is apparent in Chart 12.⁶⁴ Still, respondent rates are lower as well, suggesting that some companies struggle to specify the exact payoff from development efforts. The much lower non-respondent rate likely reflects this challenge as well, combined with the possibility that some companies may not bother to report publicly on benefits that may seem self-explanatory.

Conagra offers one example of a firm that provides a public description of the business benefits it sees from several such programs. These include Managing People Essentials, a management development program involving game-based learning designed to “deliver a consistent methodology to all new and existing managers with direct reports.”⁶⁵ Others include: a three-year Brand Leadership Development Program that is “a rotational program designed to build brand general management capability through job experiences, formal training and senior leader mentorship;” a Financial Development Program “designed to provide an exceptional foundation for a career in Finance/Accounting, with broad exposure to the organization via three one-year rotational assignments;” a Research, Quality & Innovation Development Program that aims to increase knowledge and technical skills; and a Certified Sales Program “for our direct-from-campus retail representatives. The program provides structure for building professional sales capabilities and is designed as an online certification, containing eLearning, reading material, interactive quizzes and activities.”⁶⁶

Conagra characterized what it termed the key impacts of these programs by saying: “Employees may be lured away to other opportunities in a competitive job market if they don’t feel they have adequate professional development and career advancement opportunities. Under-investing in people may increase our turnover rate and hinder recruiting efforts. Investing in our employees’ professional development and celebrating their diversity improves employee satisfaction and retention and enhances our recruiting success.”⁶⁷

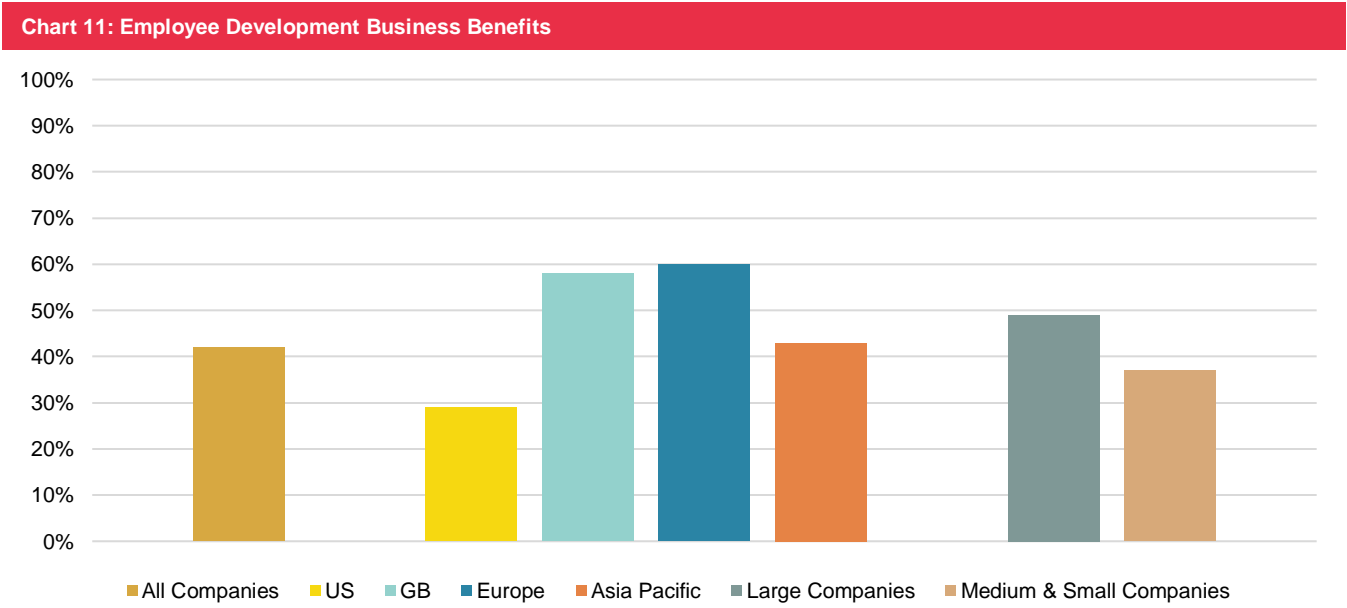
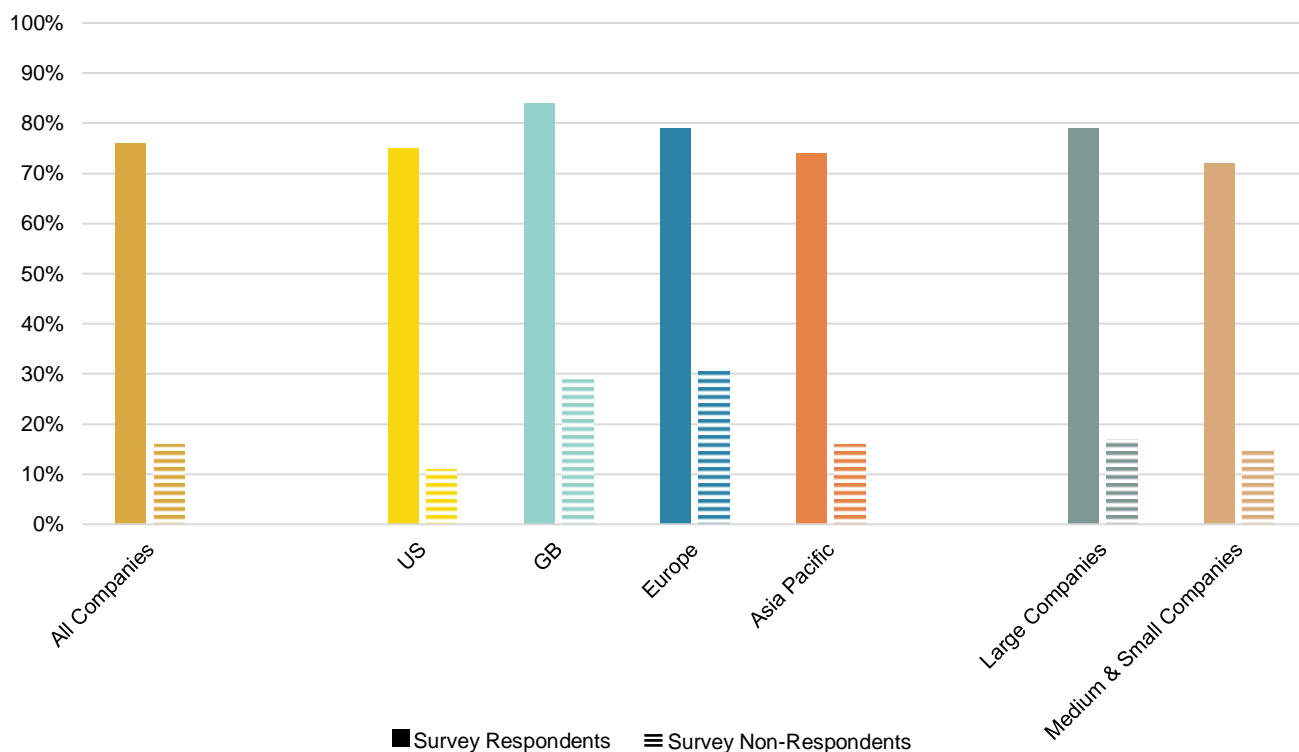


Chart 12: Employee Development Business Benefits



The third part of the employee development question presents an even greater challenge by asking whether companies quantify the benefit the program brings. As can be seen in Charts 13 and 14, few do, an average of only 16 percent overall.⁶⁸ Even among European respondents, only 38 percent of those that could describe the business benefit took the next step of quantifying that benefit. The drop-off is virtually identical among large firms. RobecoSAM accepts a wide range of methods companies might use to quantify benefits, including non-monetary ones such as “employee engagement, decreased turnover, efficiency gains, output gains, revenue generation, and cost savings.” However, it does ask that any of these be linked directly to the program specified. For example, some companies measure employee retention before and after an employee development program has been carried out, while others take a before and after gauge of customer satisfaction.⁶⁹ The low results among respondents indicate that companies do not routinely make such calculations. Still, the relatively high European and large company response rates suggest companies can figure out how to quantify such benefits when asked to do so.

Chart 13: Employee Development Quantitative Impact

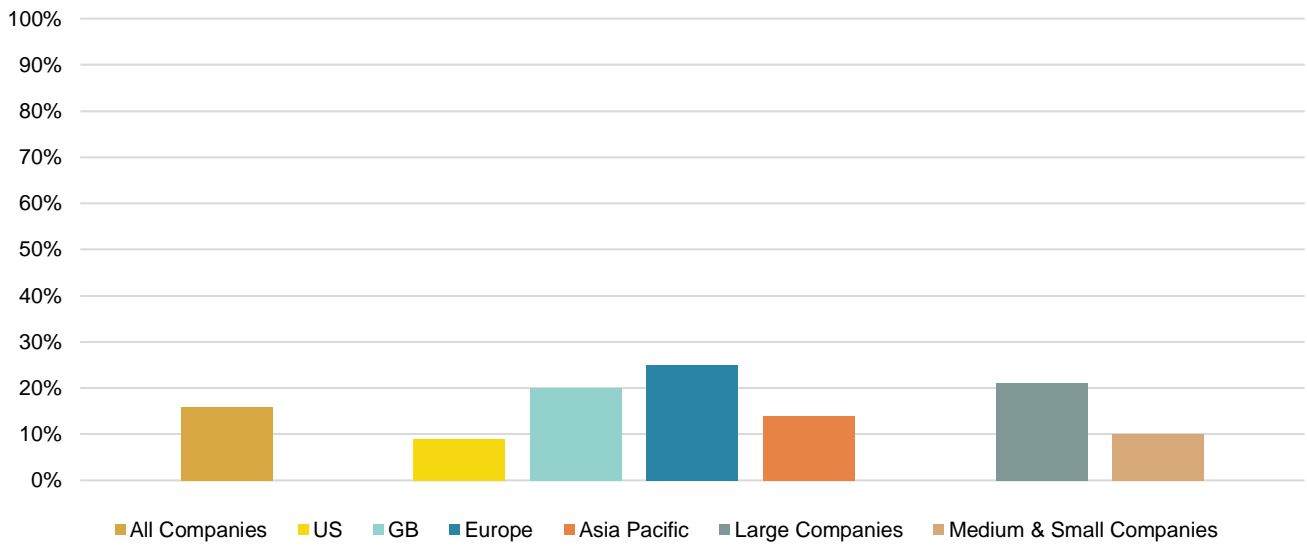
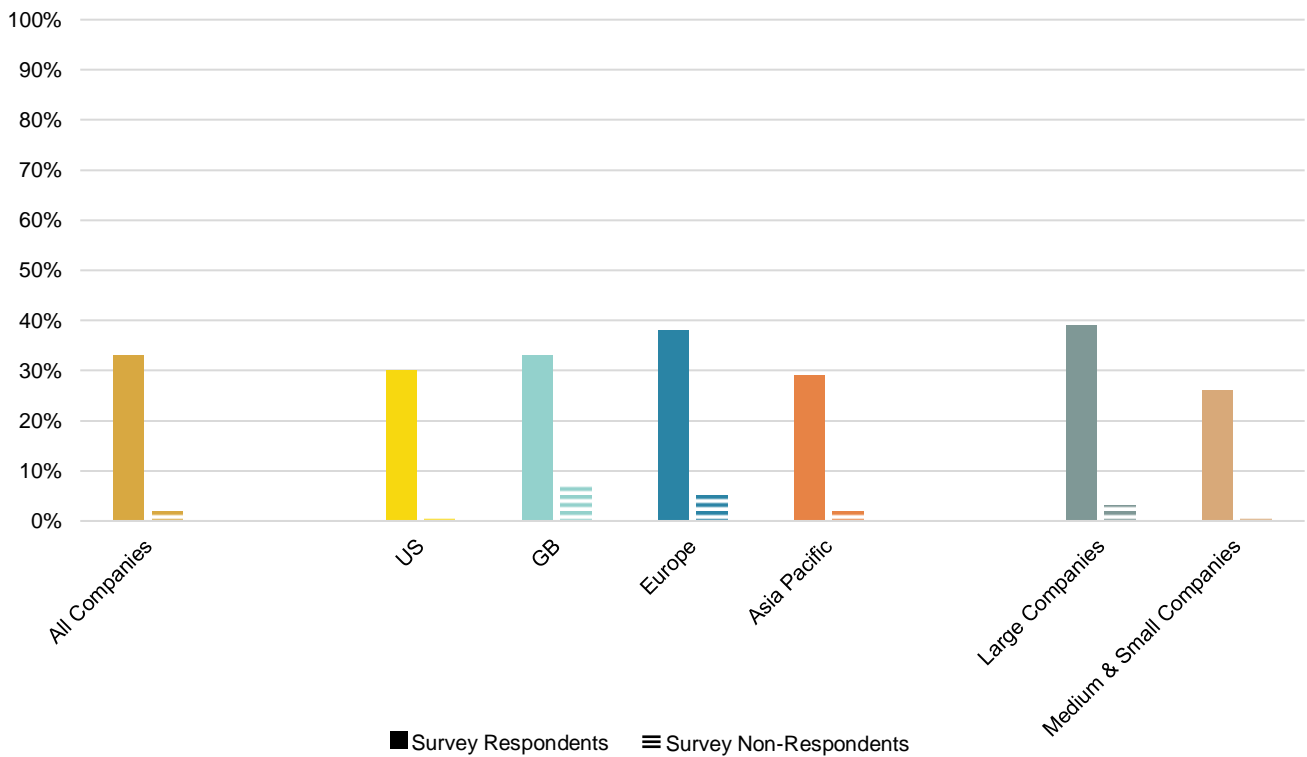


Chart 14: Employee Development Quantitative Impact



The results in Charts 15 and 16 capture reporting on operating profits in relation to total employee costs, which is one way to assess the return a company derives from all of its HC investments. The survey asks for profits divided by all spending on salary and benefits, including all training and development costs, as well as the number of full-time employees.⁷⁰ Fully two-thirds of companies report this data, most of which is standard information that can be found in many corporate financial statements. RobecoSAM describes this data point as the return on HC investment, which is probably most useful to investors as a means of comparing companies within the same industry. For example, capital-intensive industries such as steel typically spend much less on HC than labor-intensive ones such as retailing. However, such comparisons need to consider companies that make greater use of subcontract and supply-chain employees, neither of which are included here and may mask sharp differences in outcomes.

Operating profit per employee costs also may be useful for spotting changes in a company's HC investment over time. For example, the Portuguese energy firm Galp, which has close to 6,500 employees, published this data for 2013, 2014 and 2015, using the same terminology employed by RobecoSAM. It offered both the total euros spent on its HC investment as well as its human capital ROI per employee, along with a brief explanation saying: "As one can conclude from the two previous charts, the ROI trend is not due to significant variations in the HR operating expenses: it is due to changes in the operating incomes and non-HR operating expenses."⁷¹

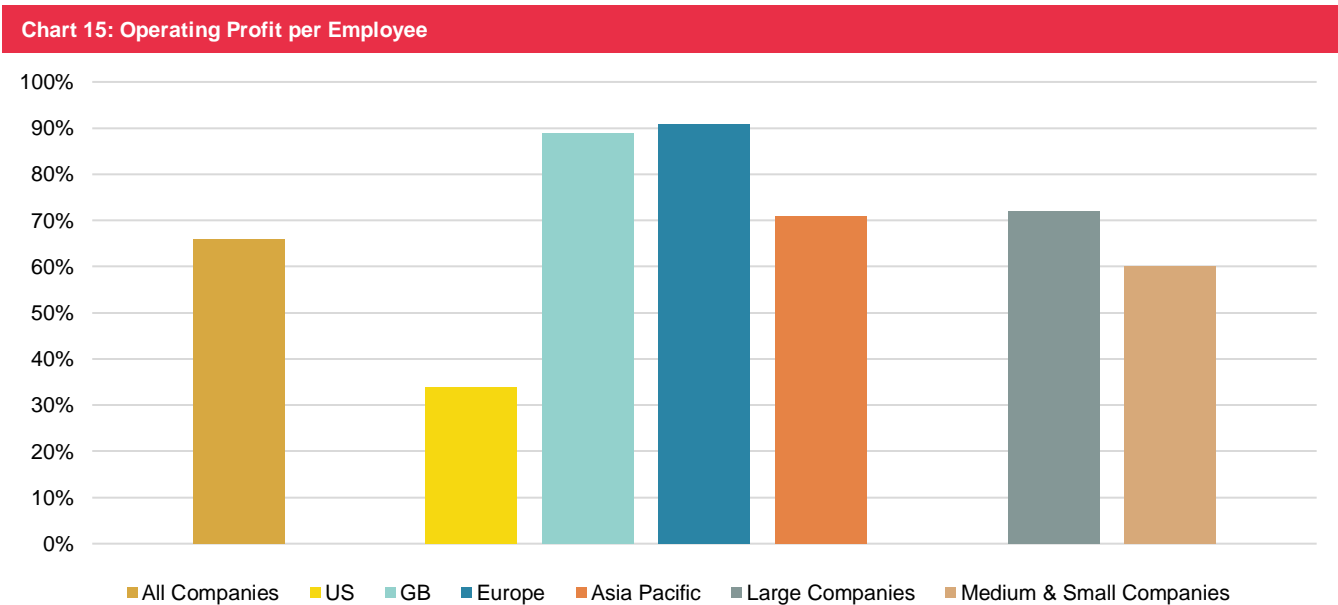
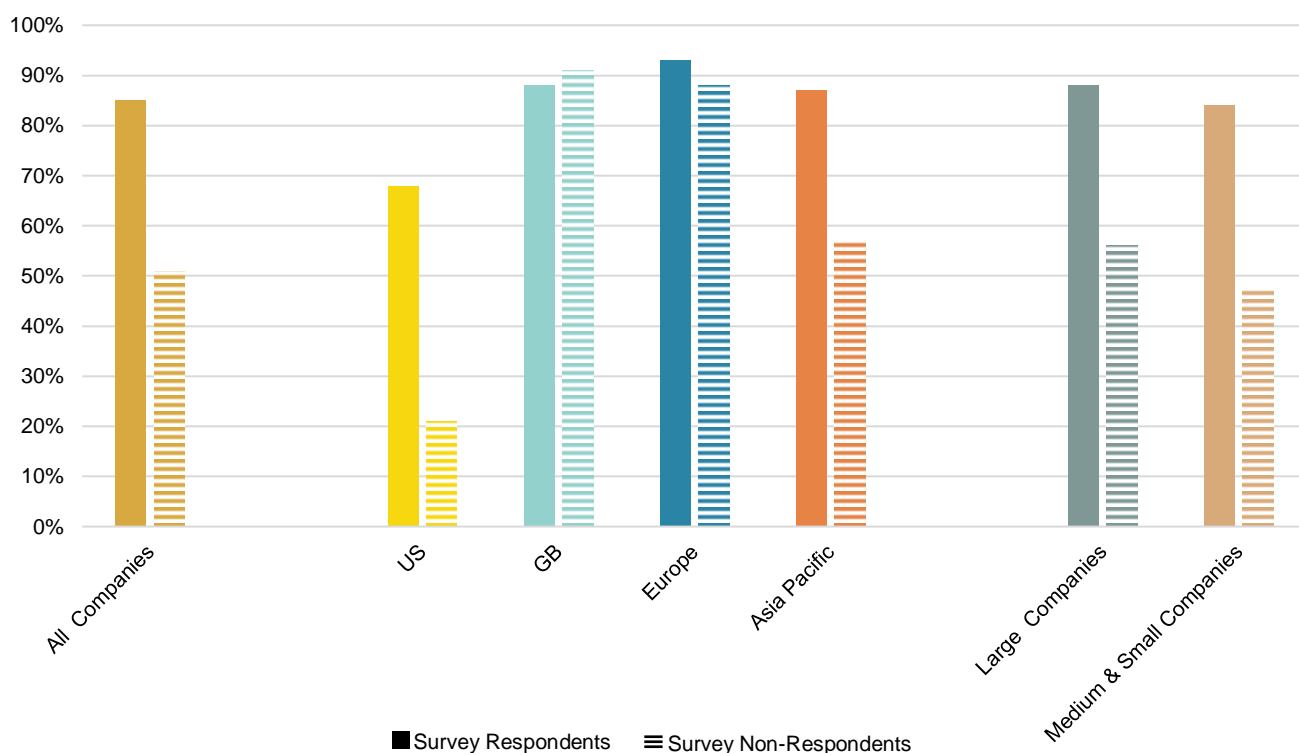


Chart 16: Operating Profit per Employee



Occupational Health and Safety

Occupational health and safety (OHS) has long been a distinct subset of HC, with its own regulations, legal frameworks and governmental oversight. The reasons are fairly straightforward: employee, and sometimes non-employee, well-being and lives are at stake, which can entail legal consequences and punishing reputational damage to companies that fall short. However, OHS is important in different ways across industries, for example, those where employees are engaged in physical labor. As a result, RobecoSAM only includes these questions in surveys sent to a portion of the 60 industries canvassed by the CSA. Three of the five OHS questions in our charts went to 40 industries and thus reached about 60 percent of all 1,968 companies in our sample. These were on health, safety and well-being; lost-time injuries; and fatalities. The other two, on governance framework and oversight, were directed at industries where such an approach was deemed most significant and therefore went to even fewer companies, as we detail below.

The question about OHS governance framework was sent to 21 industries such as autos, construction, retail and textiles, as well as the finance, insurance and real estate industries, where ergonomic and other OHS considerations have come increasingly to the fore in recent years.⁷² The question asks if the company has a management system to track and identify work-related risks. It also inquires about how frequently risk assessments take place, whether there is a database with work-related injuries and documentation on work-related risks as well as what percent of the firm is covered. As can be seen in Charts 17 and 18, a majority of companies have some kind of OHS data collection system, a figure that jumps to 97 percent for respondents. This is the highest number among all 12 metrics and suggests that OHS statistics are likely gathered by most companies, whether they report that fact publicly or not. Nonetheless, the results show the same disparities between respondents and non-respondents and the United States as a laggard found with respect to other metrics. The other differences are relatively modest.

However, the prevalence varies significantly by industry. Oversight frameworks are found in 80 percent or more of firms in each of six industries.⁷³ But less than half of firms have them in four industries, including leisure equipment, restaurants and other leisure facilities, textiles, apparel and luxury goods, and retailing, which brings up the rear with just 37 percent.

The OHS governance oversight question asks what measures the company employs to ensure effective management of OHS risks, a query that applies only to those that said they have a framework to measure them.⁷⁴ Oversight systems can include action plans with quantified targets for business managers, regular discussion of issues and risks between human resource and business unit managers, evaluations of progress toward targets and internal inspections and/or external verifications of OSH standards and commitments. A significant majority of these firms, 60 percent, report taking one or more of these steps to ensure effective OHS oversight. As can be seen in Chart 19, such companies are a majority across regions and company size with the exception of U.S. firms, which are again low-lying outliers. Hyundai Engineering & Construction offers public explanations of its OHS framework and oversight in the firm's annual sustainability report. A "monthly safety campaign" is held at "at all sites around the world with the top management attending," where compliance is checked with its health and safety "standards and the status of inspection for risk factors." A "Comprehensive Safety Meeting" is held quarterly where top executives establish OHS "strategies by analyzing the corporate-wide safety performance, preparing measures, and sharing key plans for each business division. Additionally, we provided the safety leadership training to the top executives in 2015 where a total of 76 people, including the CEO and executives, participated."⁷⁵

Oversight systems differ by industry along largely the same lines as OHS frameworks—not surprising since the two are closely linked. (Disclosure with respect to other OHS-related metrics canvassed here evidences similar kinds of variation across industries.)

Chart 20 shows that the gap between respondents and non-respondents is remarkably wide, particularly for the United States, with 89 percent for the former and 19 percent for the latter. These differences are even more challenging to interpret than for other metrics. It would seem improbable that companies would go to all the trouble of constructing an elaborate OHS governance system solely to boost their chances of being included in the DJSI. More likely the gaps stem from a combination of selection bias in favor of respondents and a lack of public disclosure on the part of non-respondents, some of whom may have governance oversight systems that they do not report publicly.

Chart 17: OHS Governance Framework

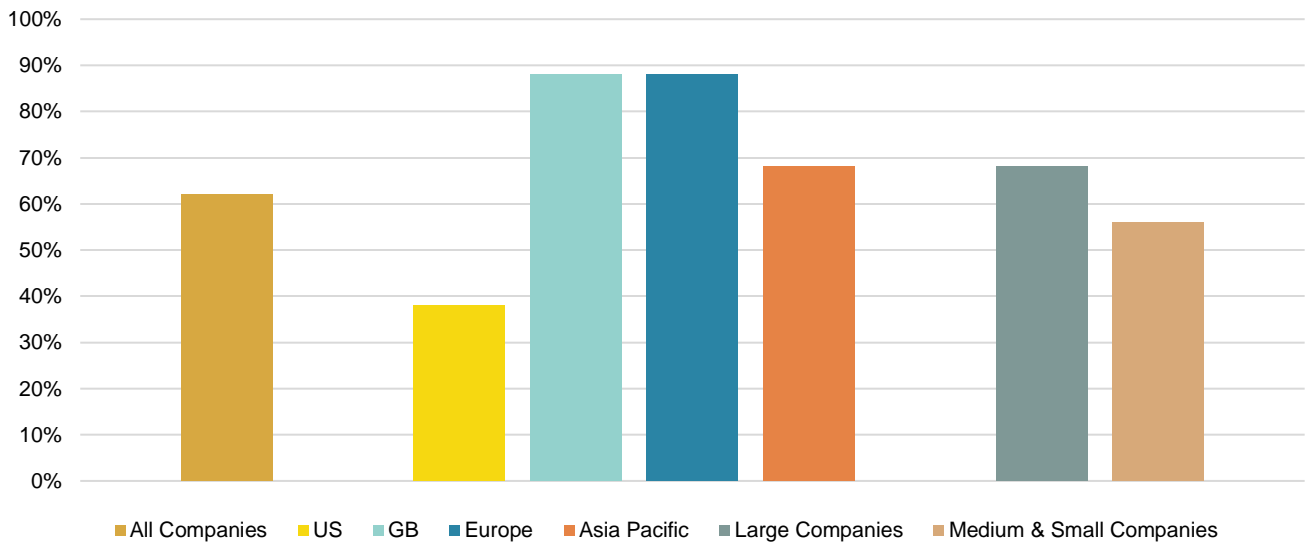


Chart 18: OHS Governance Framework

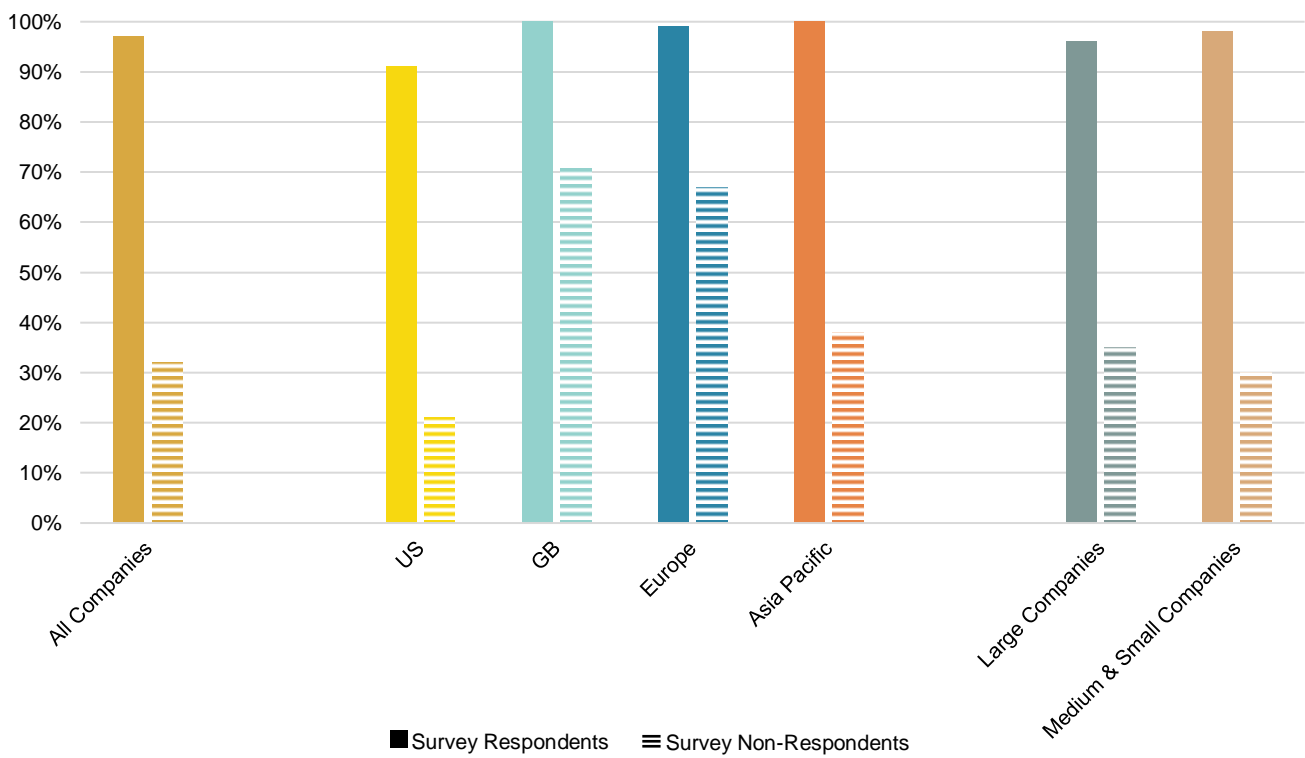


Chart 19: OHS Governance Oversight

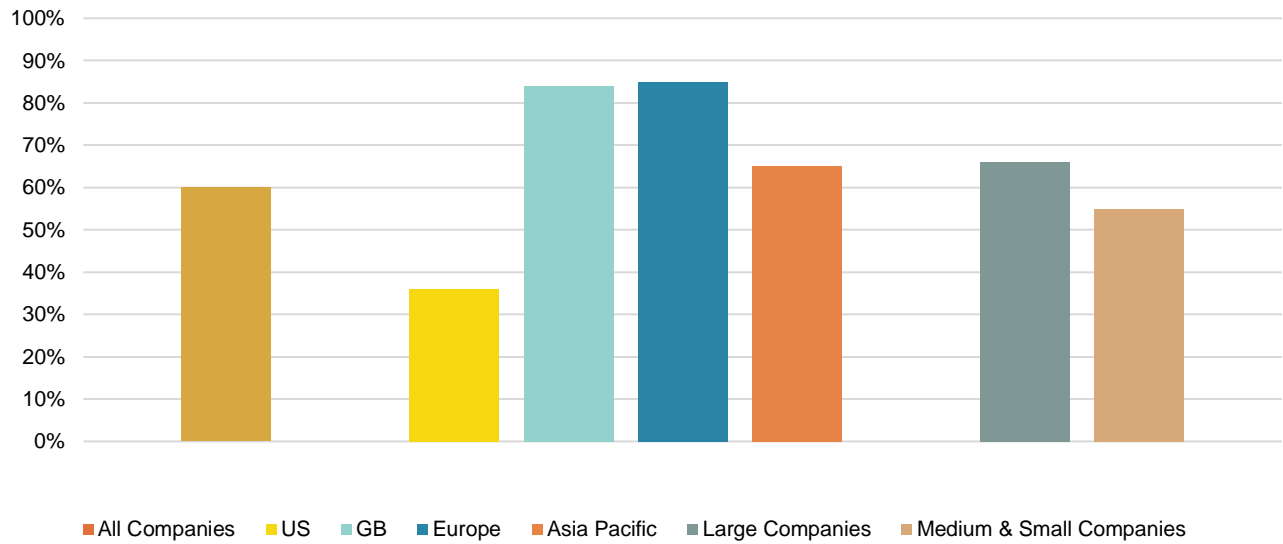
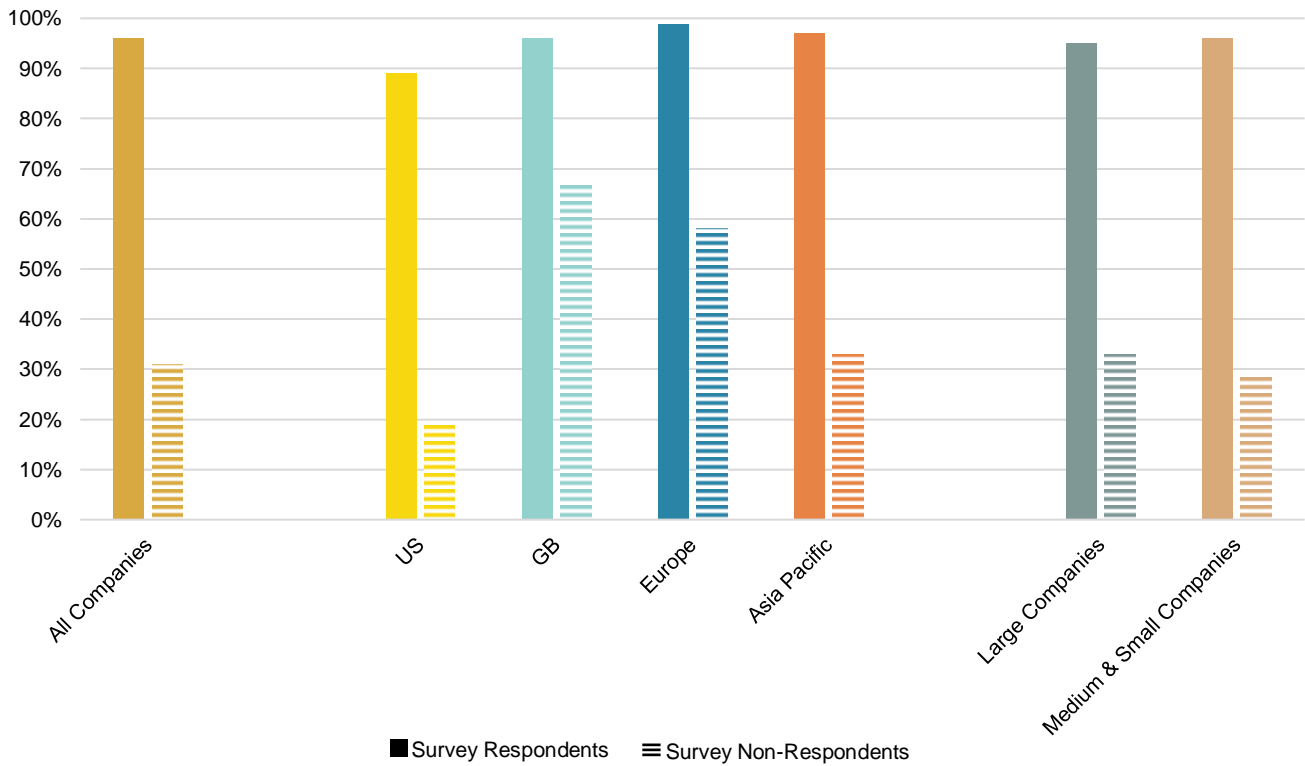


Chart 20: OHS Governance Oversight



The question on OHS work environment is nested in a broader query about company efforts on employee health, safety and well-being that addresses both an aspect of special training as well as other measures the company has taken to foster employee health and well-being. The CSA asks about any company action in eight specific areas, as well as the business units or regions covered by them:

- Mental health & wellbeing:
 - Work-related stress management
 - Non-work-related stress management
- Physical health & wellbeing:
 - Fitness facilities
 - Healthy and safe working environment
 - Health/nutrition
- Work-life balance:
 - Flexible work
 - Child care
 - Elder care

The intention is to judge the company’s approach to avoiding OHS problems than can have “a direct negative impact on labor costs through lower productivity. Lower performance not only poses a threat to company’s reputation and staff morale but also results in increased operating costs in form of fines and other contingent liabilities.” RobecoSAM deems this of wider import than the prior two questions on OHS governance frameworks and oversight and includes it in surveys sent to 32 industries.

We focus only on the work environment aspect of the question, which we chose as the most pertinent to broad OHS concerns. It inquires about company efforts directed at topics such as ergonomics, illumination, noise, indoor air quality, humidity and temperature.

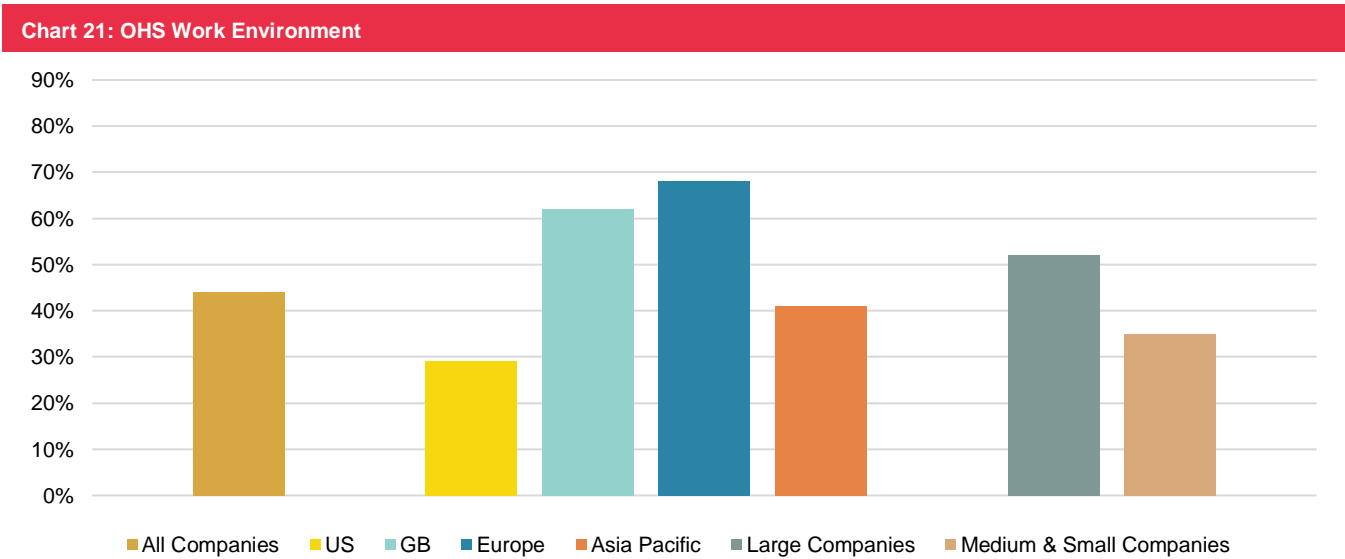
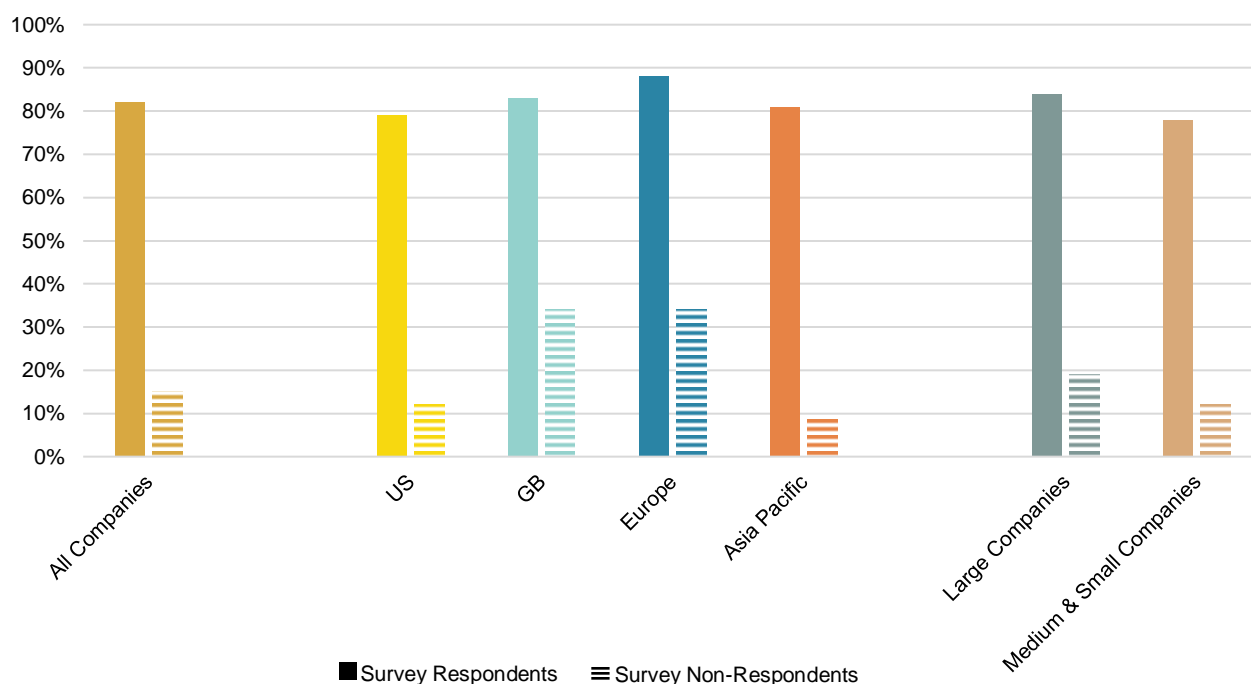


Chart 22: OHS Work Environment



The 44 percent average for all companies is relatively low, with the US even lower, although Britain and Europe both exceed 60 percent. There are several probable explanations. Some firms may consider such issues to be the responsibility of building management companies if they lease facilities. Others may simply see them as routine concerns of little interest to investors or other stakeholders. Many measures also may be required by law or regulation, which a company may not see as relevant to public disclosure. Such factors may help explain the wide gaps between respondents, at 82 percent, and the 15 percent among non-respondents.

The lost-time injury rate in Charts 23 and 24 is another OHS problem. Beyond the harm caused to workers, it can undercut employee morale and productivity, lift costs and trigger fines or reputational damage. The CSA defines the metric as the number of lost-time injuries per million hours worked, and asks if the data is verified by a third party. The 50 percent overall average seen in Chart 23 again masks wide variations between respondents and non-respondents in Chart 24, 90 percent vs. 19 percent. One likely interpretation of this difference is that most companies track such vital data but do not typically make it public. One surprise here is the low reporting rate by British respondents, which is the only metric in our series where they lag. British respondents even fall behind the U.S., although non-respondents are much higher as is the norm for the other metrics. Many countries require companies to track injuries, but they typically are reported to a government agency and not required to be disclosed publicly. Because we lack an analysis of public reporting by respondents, it is difficult to determine whether the high rates across most regions is a result of companies' willingness to disclose such sensitive data in a confidential survey. Still, some respondents do report lost-time injury rates publicly. For example, BASF has said that it cut the lost-time injury rate per million hours worked from 3.3 in 2002 to 1.4 in 2016. The chemical company has set a goal to reduce that to 0.5 by 2025 and described measures adopted to that end, including 118,000 "enrollments in occupational safety training courses worldwide in 2016."⁷⁶

Chart 23: Lost-time Injuries

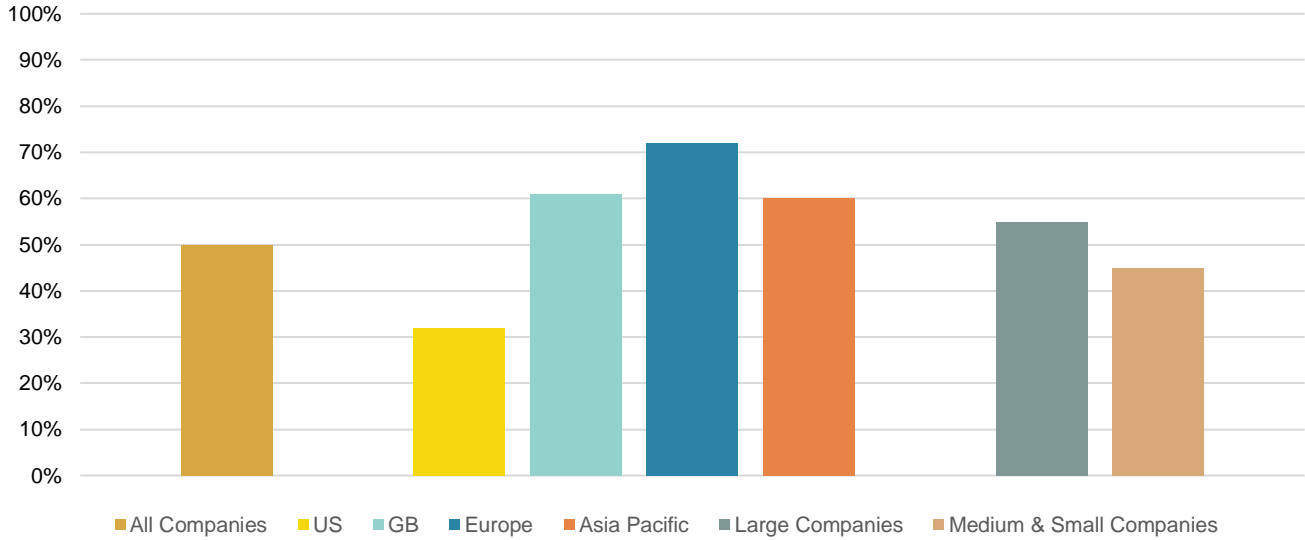
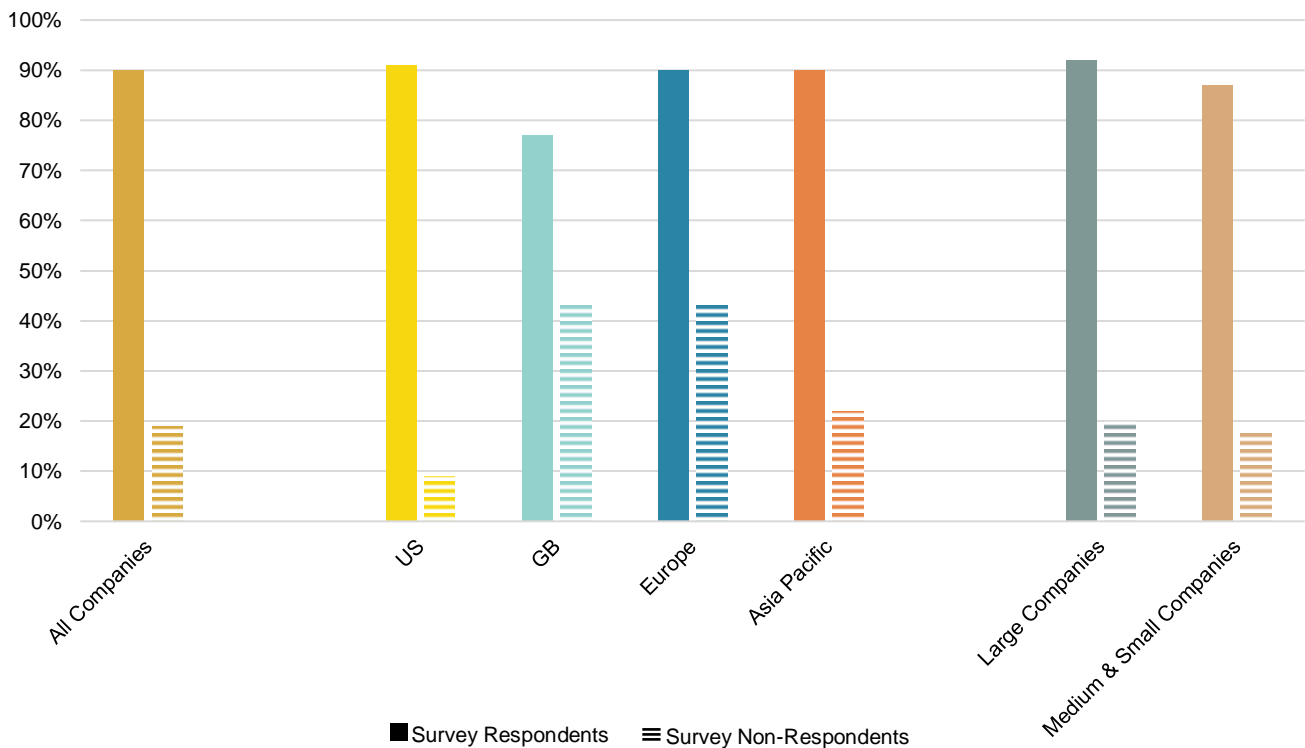


Chart 24: Lost-time Injuries



Work-related fatalities are perhaps the most serious concern for workers among the twelve metrics and follow a similar pattern to injuries. RobecoSAM employs a fairly rigorous definition intended to flag “problematic and/or dangerous operations” and safety measures that can be improved.

As Charts 25 and 26 illustrate, only a bare majority of overall firms report. But this figure masks respondents reporting above 90 percent across the board, including by U.S. firms, but low or even very low reporting by non-respondents (especially in the U.S. and the Asia Pacific region). These low non-respondent rates may stem from the potentially sensitive nature of the data.

Chart 25: Fatalities

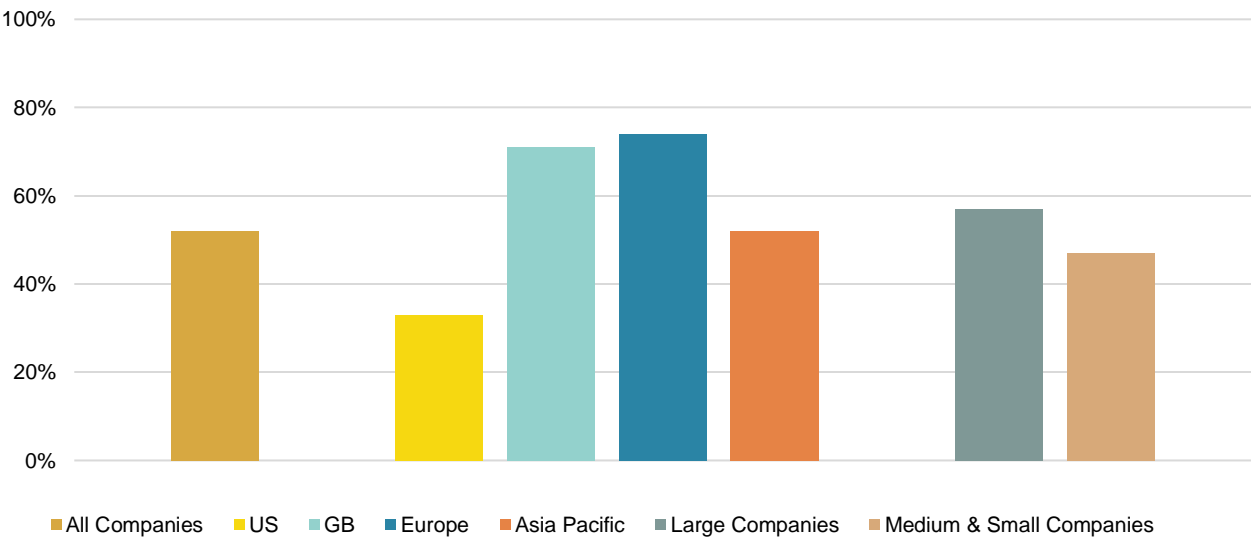
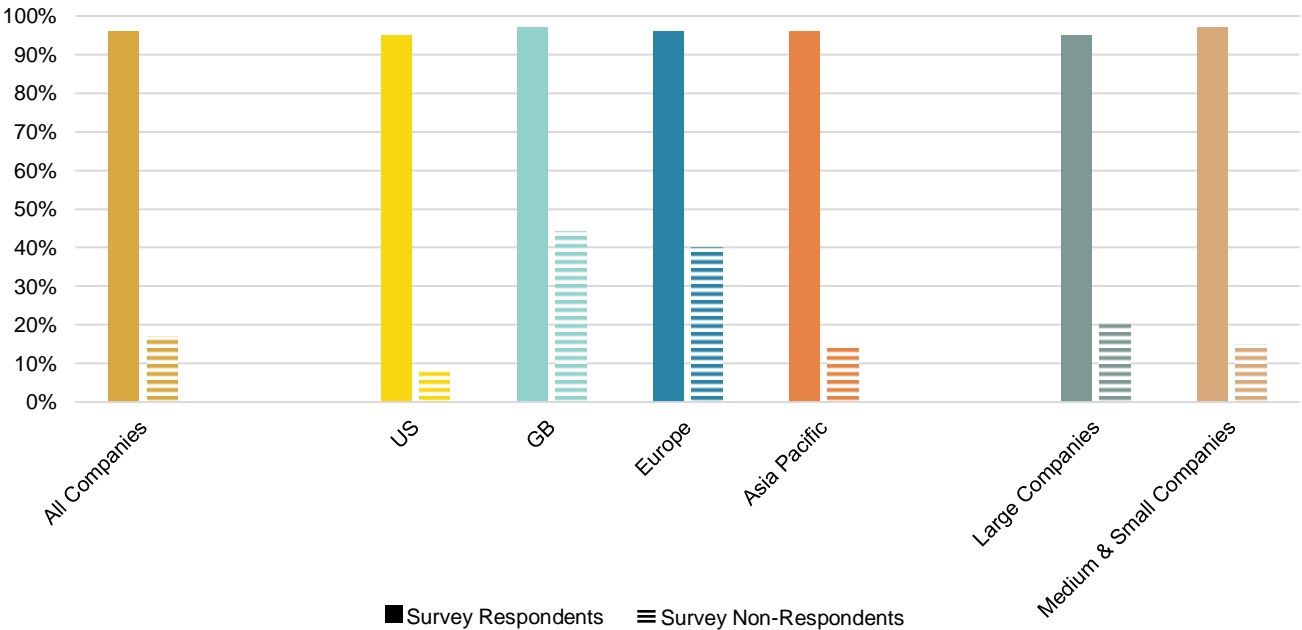


Chart 26: Fatalities



Conclusion

This study, which draws on data from an annual survey of nearly 2,000 of the largest companies traded on global exchanges, finds that majorities or significant minorities of these firms collect information about HC metrics of increasing interest to institutional investors. However, it also shows a sharp dichotomy: non-respondent firms disclose far less publicly than what respondent companies report in the survey. Moreover, firms in Europe—and Great Britain in particular—generally report far more frequently than those in the Asian Pacific region, and those in the United States often lag far behind. In addition, larger firms typically disclose information somewhat more often than smaller ones.

These findings establish a firm basis on which investors can press corporations for more comprehensive HC disclosure. Companies typically and understandably respond to disclosure requests by citing the additional burdens that would be imposed. Depending on the nature of the data, experts would need to be hired or contracted to develop the necessary data collection systems and reporting frameworks and staff would be required to implement and maintain them. However, our results indicate that a critical mass of global companies already carry out such tasks.

The findings on survey respondents make this point even more clearly. They show significant majorities reporting on all but one metric and overwhelming majorities of close to 90 percent or greater on five. The respondent group includes almost 45 percent of the nearly 2,000 companies surveyed as well as representative samples of every region, industry and company size. It seems possible and perhaps even likely that more non-respondents than our results indicate may have developed the capacity to generate HC metrics but do not disclose them publicly. Even if that is not the case, the fact that so many respondent firms have developed the HC policies and reporting systems required to produce such metrics suggests that it would not be unduly burdensome on other companies to do likewise.

Our 2015 paper found a broad consensus that the use of HC metrics brings benefits to companies that extend beyond any desire to respond to investors. For example, Boston Consulting Group surveys of corporate HR policies of 3,500-plus companies in 101 countries found that firms with higher operating margins or sales growth were more likely to use HC key performance indicators.⁷⁷ As a *Harvard Business Review* report put it: “Workforce analytics is a set of integrated capabilities (technologies, metrics, data, and processes) to measure and improve workforce performance.” Companies that “are more effective at leveraging their workforce see significantly better business results: they enjoy higher quality, productivity, customer satisfaction, and market share—and they’re more profitable, too.”⁷⁸

The twelve metrics canvassed in this study are not an exhaustive list of those thought to be material to corporate financial performance. Our 2015 paper found a range of other HC measures with such links, such as those relating to employee compensation and input into job decision making. At a broader level, the strongest connections to materiality have been found at companies with mutually reinforcing policies that function as a cohesive system integrated into the company’s broader business strategy. As a result, investors would be best served by a narrative account of a company’s HC approach, and its relation to that strategy and, in turn, its business strategy, buttressed by specific metrics such as those addressed here which detail that approach and assess its effectiveness.

Endnotes

¹ What is termed “human capital” is variously defined. We believe human capital considerations relate to all the people connected with the development, production and supply of an organization’s goods and services: who they are, their capabilities, roles, and contributions with respect to achievement of the values to which the organization is committed and what those roles and contributions mean for them at work and in their lives.

² Bernstein, Aaron and Larry Beeferman, The Materiality of Human Capital to Corporate Financial Performance, Pensions and Capital Stewardship Project, Labor and Worklife Program, Harvard Law School, 2015 at: <http://www.law.harvard.edu/programs/lwp/pensions/publications/FINAL%20Human%20Capital%20Materiality%20April%2023%202015.pdf>.

³ International Integrated Reporting Council, 2016. Creating Value: The value of human capital reporting, at: http://integratedreporting.org/wp-content/uploads/2015/12/CreatingValueHumanCapitalReporting_IIRC06_16.pdf.

⁴ SASB, 2016. State of Disclosure Report–2016, at: <https://library.sasb.org/state-of-disclosure-annual-report/>.

⁵ Disclosure of some HC metrics such as corporate health and safety policies for supply chains was benchmarked in earlier studies by the authors, including: Bernstein, Aaron and Christopher Greenwald, Benchmarking Corporate Policies on Labor and Human Rights in Global Supply Chains, Pensions and Capital Stewardship Project, Labor and Worklife Program, Harvard Law School, 2015 at: <http://www.law.harvard.edu/programs/lwp/pensions/publications/occpapers/occasionalpapers5.pdf>; and: Bernstein, Aaron and Larry Beeferman, Supply-Chain Labour and Human Rights, Pensions and Capital Stewardship Project, Labor and Worklife Program, Harvard Law School, 2011, at: http://www.law.harvard.edu/programs/lwp/pensions/publications/11_supply-chain_labour_and_human_rights_research_paper_-_final.pdf.

⁶ An overview of ESG data providers can be found here: <http://ratesustainability.org/hub/index.php/search>.

⁷ PRI, 2014. PRI-Coordinated Engagement On Employee Relations Research On Company Disclosure And Practices – Abridged Version, available here: https://www.unpri.org/download_report/4092.

⁸ PRI, 2016. Investor Guide To Engaging Retailers On Employee Relations, available at: https://www.unpri.org/download_report/8533.

⁹ Available here: https://www.business-humanrights.org/sites/default/files/documents/CWC_Guidelines-Workers%27%20Human%20Rights%20and%20Labour%20Standards_final_May17%281%29.pdf, along with a press release here: http://www.workerscapital.org/images/uploads/CWC_Guidelines_PressRelease_final.pdf.

¹⁰ See: <http://workerscapital.org/taskforce-on-sustainability-ratings>.

¹¹ See: <https://shareaction.org/wdi/>; and: <https://shareaction.org/wdi-faq/>.

¹² See: <https://shareaction.org/press-release/7-9-trillion-investor-coalition-pushes-companies-for-disclosure-on-global-workforces/>.

¹³ We have canvassed supply-chain workforce reporting in several papers that address the issue from the perspective of labor and human rights, which tend to be the key concerns for indirect employment. Those papers are available at: http://www.law.harvard.edu/programs/lwp/LWPPensions_publications.html.

¹⁴ http://www.plsa.co.uk/PressCentre/Press_releases/0523a-PLSA-calls-on-ftse-350-chairs-to-improve-reporting-about-their-workforce.aspx.

¹⁵ See: http://www.plsa.co.uk/PolicyandResearch/DocumentLibrary/~/_media/Policy/Documents/0591-Understanding-the-worth-of-the-workforce-a-stewardship-toolkit-for-pension-funds.pdf.

¹⁶ See: http://www.plsa.co.uk/PolicyandResearch/DocumentLibrary/~/_media/Policy/Documents/0439-Where-is-the-workforce-in-corporate-reporting-An-NAPF-discussion-paper.pdf.

¹⁷ See: <https://shareaction.org/wdi-faq/>.

¹⁸ See: <http://www.theinvestmentassociation.org/media-centre/press-releases/2015/press-release-2015-11-16.html>.

¹⁹ The program was part of a Productivity Action Plan the IA announced “to boost the UK economy through long-term investment.” See here: <http://www.theinvestmentassociation.org/investment-industry-information/current-initiatives/productivity-action-plan/>; and here: <http://www.theinvestmentassociation.org/assets/files/press/2016/20160322-supportingukproductivity.pdf>.

²⁰ The report is available here: [https://www.theinvestmentassociation.org/assets/files/press/2017/Long%20Term%20Reporting%20Guidance%20\(v1\).pdf](https://www.theinvestmentassociation.org/assets/files/press/2017/Long%20Term%20Reporting%20Guidance%20(v1).pdf).

²¹ Information about IVIS can be found on its website at: <https://www.ivis.co.uk/>.

²² Information about the Coalition can be found here: <http://uawtrust.org/hcmc>.

²³ Available at: <http://iri.hks.harvard.edu/files/iri/files/hcm-coalition-questions.pdf>

²⁴ McCann, David, *Big Leap Forward for Human Capital Disclosure*, cfo.com, May 20, 2016, at: <http://www2.cfo.com/disclosure/2016/05/big-leap-forward-human-capital-disclosure/>.

²⁵ The petition is available here: <https://www.sec.gov/rules/petitions/2017/petn4-711.pdf>. A press release is here: <http://uawtrust.org/AdminCenter/Library.Files/Media/501/Press%20Releases/2017/17julyhcmcsecrelease.pdf>

- ²⁶ CalPERS, 2016. CalPERS Beliefs: Our Views Guiding Us into the Future, at: <https://www.calpers.ca.gov/docs/forms-publications/calpers-beliefs.pdf>.
- ²⁷ CalPERS, 2016. Investment Committee Agenda Item 10b at: <https://www.calpers.ca.gov/docs/board-agendas/201604/invest/item10b-00.pdf>; and Item 10b, Attachment 1, Review of ESG Strategy Social Theme: Human Capital at: <https://www.calpers.ca.gov/docs/board-agendas/201604/invest/item10b-01.pdf>.
- ²⁸ CalPERS, 2016. Global Governance Strategy Review at: <https://www.calpers.ca.gov/docs/board-agendas/201608/invest/item05a-01.pdf>. A press release is available at: <https://www.calpers.ca.gov/page/newsroom/calpers-news/2016/esg-five-year-strategic-plan>.
- ²⁹ CalPERS, 2016. Letter to the SEC at: <https://www.sec.gov/comments/s7-06-16/s70616-267.pdf>.
- ³⁰ Here and throughout the paper we adopt RobecoSAM's use of the phrase Occupational Health and Safety rather than the convention in the United States, where Occupational Safety and Health is more common.
- ³¹ OSHA, 2016. OSHA's final rule to 'nudge' employers to prevent workplace injuries, illnesses, available at: https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=NEWS_RELEASES&p_id=31860. See also: <https://www.osha.gov/recordkeeping/finalrule/index.html>.
- ³² See: <https://www.congress.gov/bill/115th-congress/house-joint-resolution/83/all-actions?overview=closed#tabs>.
- ³³ OSHA, 2016. OSHA releases updated recommended practices to encourage workplace safety and health programs, at: https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=NEWS_RELEASES&p_id=33312.
- ³⁴ Center for Safety and Health Sustainability, 2013. Current Practices in Occupational Health & Safety Sustainability Reporting, available at: http://www.centershhs.org/assets/docs/CSHS_SustainReport_2013_FinalZ.pdf. Corporate Knights is a Canadian magazine available at: <http://www.corporateknights.com/>.
- ³⁵ Center for Safety and Health Sustainability, 2015. The Accounting Revolution and the New Sustainability: Implications for the OSH Professional, at: http://www.centershhs.org/assets/docs/CSHS_2015_Accounting_Revolution_and_the_New_Sustainability.pdf.
- ³⁶ Center for Safety and Health Sustainability, 2015. CSHS Best Practice Guide for Occupational Health and Safety in Sustainability Reports, at: http://www.centershhs.org/assets/docs/CSHS_Best_Practice_Guide_Final.pdf.
- ³⁷ Occupational Safety and Health Administration, 2016. Sustainability in the Workplace: A New Approach for Advancing Worker Safety and Health, at: https://www.osha.gov/sustainability/docs/OSHA_sustainability_paper.pdf.
- ³⁸ Center for Safety and Health Sustainability, 2017. The Need for Standardized Sustainability Reporting Practices: Issues Relating to Corporate Disclosure of Information on Occupational Health & Safety Performance, at: <http://www.centershhs.org/assets/docs/NeedForSustainabilityReporting-Final-August.pdf>.
- ³⁹ The Vitality Institute, 2016. Reporting On Health: A Roadmap for Investors, Companies, and Reporting Platforms, at: <http://thevitalityinstitute.org/site/wp-content/uploads/2016/01/Vitality-HealthMetricsReportingRoadmap22Jan2016.pdf>. See also: <http://thevitalityinstitute.org/projects/health-metrics-reporting/>.
- ⁴⁰ Press release at: <http://www.world-exchanges.org/home/index.php/news/world-exchange-news/world-exchanges-agree-enhanced-sustainability-guidance>. The guidance is here: <https://docs.google.com/viewer?url=http%3A%2F%2Fwww.world-exchanges.org%2Fhome%2Findex.php%2Ffiles%2F18%2FStudies+-+Reports%2F287%2FWFE+ESG+Recommendation+Guidance+and+Metrics+Oct+2015.pdf%3Ftoken%3Df49399f96cf951976aeaaf95117bc14%26preview%3D1&embedded=true>.
- ⁴¹ Available at: <http://www.sseinitiative.org/wp-content/uploads/2015/10/SSE-Model-Guidance-on-Reporting-ESG.pdf>.
- ⁴² Update available at: <http://www.sseinitiative.org/2016rop/>.
- ⁴³ Press release at: http://us.spindices.com/documents/index-news-and-announcements/20160427-jpx-sp-capex-human-capital-index-launch-en.pdf?force_download=true.
- ⁴⁴ This description was taken from the methodology at: <http://us.spindices.com/indices/strategy/jpx-sp-capex-human-capital-index> and at: http://us.spindices.com/documents/methodologies/methodology-jpx-sp-capex-and-human-capital-index.pdf?force_download=true.
- ⁴⁵ A description can be found at: https://www.msci.com/eqb/methodology/meth_docs/JP_Human_Physical_Investment.pdf.
- ⁴⁶ Press release at: <http://thomsonreuters.com/en/press-releases/2016/september/thomson-reuters-launches-di-index-reveals-top-100-most-diverse-inclusive-organizations-globally.html>.
- ⁴⁷ This description was taken from the methodology at: <http://financial.thomsonreuters.com/content/dam/openweb/documents/pdf/financial/diversity-and-inclusion-index-methodology.pdf>.
- ⁴⁸ Naden, Clare, National Standards Organization, 2016. Improve the bottom line with a new range of human resource management standards, at: http://www.iso.org/iso/home/news_index/news_archive/news.htm?refid=Ref2111.
- ⁴⁹ See: http://www.iso.org/iso/home/news_index/news_archive/news.htm?refid=Ref2111.

⁵⁰ Accounting for Sustainability, 2017. "A4S Essential Guide to Social and Human Capital Accounting," available at: <https://www.accountingforsustainability.org/content/dam/a4s/corporate/home/KnowledgeHub/Guide-pdf/A4S%20Essential%20Guide%20to%20Social%20and%20Human%20Capital%20Accounting.pdf.downloadasset.pdf>.

⁵¹ RobecoSAM describes itself as "an investment specialist focused exclusively on Sustainability Investing... offer[ing] asset management, indices, impact analysis and investing, sustainability assessments, and benchmarking services." RobecoSAM "is a sister company of Robeco, the Dutch investment management firm founded in 1929. Both entities are subsidiaries of the Robeco Group, whose shareholder is ORIX Corporation." <http://www.robecosam.com/en/about-us/about-robecosam.jsp>

⁵² A description of the assessment can be found at: <http://www.robecosam.com/en/sustainability-insights/about-sustainability/corporate-sustainability-assessment/index.jsp>; and at: <http://www.robecosam.com/en/sustainability-insights/about-sustainability/corporate-sustainability-assessment/review.jsp>. Information about the DJSI can be found at: <http://www.sustainability-indices.com/index-family-overview/djsi-family-overview/index.jsp>. Information about the Sustainability Yearbook can be found at: <http://yearbook.robecosam.com/>.

⁵³ An overview of the 2016 CSA can be found here: <http://www.robecosam.com/images/review-presentation-2016.pdf>.

⁵⁴ The 2016 CSA included 1,986 companies but 20 were omitted from our data for which most of the HC questions were not applicable, such as holding companies with few employees.

⁵⁵ Another possibility is that some companies report HC metrics but not in English, which is the only language RobecoSAM uses in its CSA analysis.

⁵⁶ This information comes from RobecoSAM staff.

⁵⁷ The survey also asks about issues such as performance appraisals, incentive plans and turnover.

⁵⁸ Bernstein and Beeferman, op. cit.

⁵⁹ The CSA is comprised of 60 different surveys, each tailored to the ESG metrics RobecoSAM deems more relevant to a specific industry. The first seven questions discussed in this paper can be found in an overview here: <http://www.sustainability-indices.com/images/RobecoSAM-Corporate-Sustainability-Assessment-Companion.pdf>. The five OHS questions can be found in two industry-specific samples for diversified consumer services and for the metals and mining industry: <http://www.robecosam.com/en/sustainability-insights/about-sustainability/corporate-sustainability-assessment/sample-questionnaire.jsp>. The citations we use throughout the paper may vary slightly from these public versions due to variations among the 60 surveys.

⁶⁰ Throughout the paper our results define employee as full-time equivalent employee per RobecoSAM's definition.

⁶¹ Great Britain is included in RobecoSAM's data for Europe. We did not remove it from the Europe results in this paper. The United States is part of the North American region, but given the great size and importance of the United States market we have chosen to focus only on it.

⁶² RobecoSAM uses the definitions of company size employed in the S&P Dow Jones Indices, which divide Large Cap, MidCap and SmallCap firms by ranking companies according to their total market capitalization relative to the cumulative market capitalization of each country. A complete explanation can be found here:

<https://us.spindices.com/documents/methodologies/methodology-sp-global-bmi-sp-ifci-indices.pdf>. Throughout the paper we combine results for MidCap and SmallCap firms because we found relatively small differences between the two groups.

⁶³ RobecoSAM defines training and development expenditures as the total amount spent in the last fiscal year divided by the total number of FTEs. This excludes indirect costs some experts include, such as lost work hours or the cost of filling in for employees while they are trained.

⁶⁴ The results here show the percent of all companies that describe a business benefit, rather than the percent of those that already gave an example of an employee development program.

⁶⁵ ConAgra 2015 Citizenship Report, page 57, available at: http://www.conagrabrands.com/sites/g/files/qyurlu371/files/2016-10/ConAgra_Foods_Citizenship_Report_2015_0.pdf.

⁶⁶ Ibid., page 58.

⁶⁷ Ibid., page 102.

⁶⁸ As with the business benefits charts, these results show the percent of all companies that say they quantify the business benefits of an employee development program, not the percent of those that gave such an example or that described its business benefit.

⁶⁹ These examples were provided by RobecoSAM.

⁷⁰ The exact formulation RobecoSAM looks for is total operating expenses minus all salaries and benefits, including training and development costs, which yields total HC spending. This is subtracted from total revenue to get operating profits, which is divided by total HC spending. RobecoSAM also asks for the number of full-time employees. It does not go on to ask that the total spending figure be divided by full-time employees to yield operating profit per employee, although that can be calculated for companies responding to this question. The salary and benefit data includes all employee-related expenses, including stock options, pensions, etc., which may skew results for companies with high executive compensation relative to peers. However, it excludes all non-executive director compensation.

⁷¹ Galp 2015 Sustainability Report, page 109, available at: http://www.galpenergia.com/EN/Investidor/Relatorios-e-resultados/relatorios-anuais/Documents/Sustainability_Report_2015.pdf.

⁷² RobecoSAM uses two sets of similar questions, one sent to companies in a group of 17 industries and another to a group of four financial industries. Both focus on management of OHS type risks but RobecoSAM frames them somewhat differently reflecting its judgment about the OHS issues relevant to each group. For example, the question to the group of 17 refers to “work-related risks” and “accidents”; the financial one to “health risks/issues” and “health, safety and well-being.” We have consolidated the results given our focus on whether those surveyed have a management system.

⁷³ The six include automobiles, construction and engineering, construction materials, containers and packaging, electric utilities, and water utilities.

⁷⁴ The oversight question was not included in surveys sent to three of the 21 industries that received the framework question: containers and packaging, household durables, and leisure, equipment.

⁷⁵ Hyundai Construction & Engineering 2016 Sustainability Report, pages 58-59, available at: <http://en.hdec.kr/EN/Sustainability/Global.aspx#.WQ4pTrzyul0>.

⁷⁶ BASF Report 2016, page 98, available at: https://www.basf.com/documents/corp/en/about-us/publications/reports/2017/BASF_Report_2016.pdf.

⁷⁷ Strack, Rainer, et. al. 2014. Creating People Advantage 2014-2015. The Boston Consulting Group, pp. 5 and 19, available at: http://www.wfpma.com/sites/wfpma.com/files/BCG_Creating_People_Advantage_2014-2015.pdf.

⁷⁸ Harvard Business Review, 2013. Connecting Workforce Analytics to Better Business Results, pp. 1 and 2, available at: <https://hbr.org/resources/pdfs/comm/sumtotal/hbr-sumtotal-report-aug.pdf>.

Metric	Total	US	GB	Europe	Asia Pacific	Large Companies	Medium & Small Companies
Training Hours Per Employee	47%	26%	50%	68%	42%	55%	38%
Respondents	84%	70%	79%	89%	82%	85%	83%
Non-Respondents	18%	8%	18%	35%	9%	25%	10%
Training Cost Per Employee	41%	18%	50%	59%	42%	48%	34%
Respondents	82%	59%	86%	86%	87%	83%	81%
Non-Respondents	9%	2%	11%	15%	5%	12%	5%
Return on Training	28%	16%	37%	45%	28%	34%	22%
Respondents	61%	52%	64%	68%	60%	64%	57%
Non-Respondents	3%	1%	9%	9%	2%	4%	2%
Employee Development Example	68%	59%	87%	84%	65%	76%	61%
Respondents	88%	86%	97%	90%	88%	90%	85%
Non-Respondents	53%	48%	76%	74%	45%	61%	47%
Employee Development Business Benefits	42%	29%	58%	60%	43%	49%	37%
Respondents	76%	75%	84%	79%	74%	79%	72%
Non-Respondents	16%	11%	29%	31%	16%	17%	15%
Employee Development Quantitative Impact	16%	9%	20%	25%	14%	21%	10%
Respondents	33%	30%	33%	38%	29%	39%	26%
Non-Respondents	2%	1%	7%	5%	2%	3%	1%
Operating Profit per Employee	66%	34%	89%	91%	71%	72%	60%
Respondents	85%	68%	88%	93%	87%	88%	80%
Non-Respondents	51%	21%	91%	88%	57%	56%	47%
OHS Governance Framework	62%	38%	88%	88%	68%	68%	56%
Respondents	97%	91%	100%	99%	100%	96%	98%
Non-Respondents	32%	21%	71%	67%	38%	35%	30%
OHS Governance Oversight	60%	36%	84%	85%	65%	66%	55%
Respondents	96%	89%	96%	99%	97%	95%	96%
Non-Respondents	31%	19%	67%	58%	33%	33%	29%
OHS Work Environment	44%	29%	62%	68%	41%	52%	35%
Respondents	82%	79%	83%	88%	81%	84%	78%
Non-Respondents	15%	12%	34%	34%	9%	19%	12%
Lost-time Injuries	50%	32%	61%	72%	60%	55%	45%
Respondents	90%	91%	77%	90%	90%	92%	87%
Non-Respondents	19%	9%	43%	43%	22%	20%	18%
Fatalities	52%	33%	71%	74%	52%	57%	47%
Respondents	96%	95%	97%	96%	96%	95%	97%
Non-Respondents	17%	8%	44%	40%	14%	21%	15%