HARNESSING BIG DATA TO MOBILIZE INVESTORS ON HUMAN RIGHTS

Looking back, looking ahead on a project to strengthen SASB Standards
Harnessing Big Data to Mobilize Investors on Human Rights

Looking back, looking ahead on a project to strengthen human rights in SASB standards

Rights CoLab
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This report was prepared by Joanne Bauer (Project Co-Director) with contributions from Paul Rissman (Project Co-Director) and Tanika West (Rights CoLab Program Officer). It draws together highlights of the materials produced during the first year of the project, which are available on the project website: https://rightscolab.org/project-harnessing-big-data/. For more information and to stay on top of project updates, readers are encouraged to visit the site and sign up for our newsletter.

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Introduction

The demand for investing that takes account of environmental, social, and governance impacts — or ESG investing — has grown dramatically. ESG investments currently outpace traditional equity investments and outperform them.¹ This demand is driven by large institutional investors seeking long-term sustainable returns, and by their millennial beneficiaries who want their pension funds and other investments to embrace ESG values and not contribute to human rights harms. It has spurred calls for rationalization of ESG disclosure standards to stem the confusion created by the array of existing standards and benchmarks.

Among those standards, one stands out as being particularly potent: the Sustainability Accounting Standards Board — or SASB. SASB is the only standard that aims to provide “market-informed, evidence-based,” financially material ESG accounting standards for companies. As such, it has the strong backing of institutional investors. There is just one problem: in their current form, SASB standards inadequately capture human rights risks.

To address this gap, in the fall of 2019 Rights CoLab, along with some of our collaborators,² approached SASB with an offer to build a coalition that could provide subject matter assistance in developing and defining a strengthened set of disclosure standards. SASB had just embarked on a process to update the standards, starting with human capital management, and welcomed our offer.

Our coalition consists of internationally recognized labor experts — our Expert Group — and, to help build the evidence base for the financial materiality of human rights, a group of data scientists from the Data for Good (DFG) program of the Data Science Institute of Columbia University. The Expert Group advises the data project and makes recommendations on how to incorporate relevant findings into revised SASB standards to benefit workers while reducing reputational, operational, and legal risks for companies. Together we are focused on improvements to the SASB standard that can drive real gains in human rights.

This report summarizes the progress made during the project’s first year. We begin by describing SASB’s evolving role in the ESG landscape, how those changes are affecting SASB’s approach to standard-setting, and the opportunities they present for better


² Present at the meetings together with Joanne Bauer and Paul Rissman of Rights CoLab were Andrew Behar of As You Sow, Meredith Block of Rockefeller Capital Management, Delilah Rothenberg of The Predistribution Initiative, David Schilling and Josh Zinner of ICCR, Sara Blackwell of the Investor Alliance for Human Rights, and Kevin Thomas of SHARE.
incorporating human rights into the standards. We then provide highlights of our work and a look ahead at prospects and next steps. We hope that this report will provide valuable insights for others seeking to collaborate with SASB or to use data science to promote improved ESG standards that investors can use to persuade companies to improve labor rights for both direct employees and workers in their supply chains.

The Playing Field

Why SASB?

In their February 2019 article “Rise of the Shadow ESG Regulators: Investment Advisers, Sustainability Accounting, and Their Effects on Corporate Social Responsibility,” Paul Rissman and Diana Kearny argued that the investor-backed SASB standards, published a few months earlier, were a potential game changer for corporate accountability. By linking financially material sustainability reporting to money managers’ fiduciary duty, SASB capitalizes on the rapidly changing interests and characteristics of large institutional investors, which had developed the motivation and the means to leverage their massive wealth-driven influence for good by demanding disclosure of, and action upon, financially material sustainability information.

SASB created evidence-based, financially material ESG disclosure standards for corporate filings for each of 77 industries. These standards have won the backing of the largest asset managers that dominate capital markets — backing critical both for its short-term validation effect and for its likely long-term impact on financial systems.

To test the potential of the SASB standards as a force for change, Rights CoLab, together with the shareholder advocacy organization As You Sow, filed shareholder resolutions for the 2020 proxy season requiring companies to report to SASB standards. The hypothesis that the resolutions would be widely supported, given the backing of the standards by institutional investors, proved to be correct. As Paul Rissman and Andy Behar reported:

The seven resolutions addressed climate-related water usage risks in the semiconductor and food processing industries, and human capital risks such as diversity and fair labor practices in the specialty retailers and distributors industry. One was withdrawn on a technicality. Of the other six, two received commitments to implement and were withdrawn, one was fully implemented after a shareholder vote of 11%, and the remaining three

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4 This work was supported by an OSF Fellowship to Paul Rissman.
earned overwhelming shareholder support of 61%, 66%, and 79% approval.\textsuperscript{5}

This result, combined with more public calls from large investors for corporate reporting consistent with SASB and the launch of the SASB revisions process pointed to an opportunity for civil society to leverage the standards to promote corporate accountability.

The Opportunity

Despite their great promise, the SASB standards launched in 2018 were disappointing from a human rights perspective. This was not a surprise since, to the extent that they were aware of them, business and human rights advocates had not put much effort into shaping them. The idea of financially material human rights standards — i.e., harmful activities of companies measured only in terms of company risk — is, after all, antithetical to the push of human rights advocates to focus on “salient” risks to workers, communities, and consumers. At the same time, with a small staff, already very stretched, SASB had made minimal efforts to engage business and human rights advocates and scholars in developing the standards.

In late 2019, as the SASB board began to approve a series of standards-updating projects, Rights CoLab saw an opportunity to influence the standards, making space for human rights in the concept of “dynamic materiality.” Popularized by the World Economic Forum,\textsuperscript{6} “dynamic materiality” encompasses the idea that identified risks to society may evolve over time to have financial consequences for enterprises and investors. We were confident that with the strong trend towards ESG investing, both measures that SASB uses to estimate financial materiality — investor interest in ESG issues and evidence of financial impact — had grown exponentially since the first set of standards. Moreover, by deploying data science research methods — including natural language processing and other newly developed machine learning techniques — we speculated that we could generate sufficient evidence of financial materiality of risky corporate practices to influence the revision of the standards in important ways.

We approached SASB with our intention of convening a group of human rights experts to focus on SASB standards improvements and engaged them in conversations about how this group would relate to SASB. In a December 2019 meeting of Rights CoLab and some of its partners in New York with the newly appointed CEO Janine Guillot and SASB

\textsuperscript{5} Paul Rissman and Andrew Behar, “A Successful Season for SASB-Based Shareholder Resolutions,” Rights CoLab, 2020, \url{https://rightscolab.org/a-successful-season-for-sasb-based-shareholder-resolutions/}.

research staff, we decided that our effort should begin with a focus on “human rights at work.”

The Challenge

At first glance from a human rights perspective, the notion of financially material social standards seems deeply problematic. It suggests that as a fiduciary, the investor needs to consider a corporate harm to people and the environment only if that practice rebounds negatively on the business in the form of reduced returns. This is an especially thorny approach regarding workers in global supply chains since the original reason for outsourcing was for companies to profit from cheap labor in developing countries where enforcement of labor laws is weak.

Human rights advocates cite additional reasons for skepticism about the SASB standards:

a) They are backward looking in that evidence of financial loss from a corporate harm needs to be established for the corporate action to be deemed material;

b) They do not recognize risk to people and the environment as financially material;

c) They seek to be “cost effective,” which is often construed as meaning that the standards will reflect what companies are already reporting;

d) They separate “human capital management” from “supply chain management” into different “dimensions” of the SASB reporting “taxonomy,” thereby reinforcing the notion prevalent within the corporate sector that human capital concerns do not extend through their supply chains; and,

e) Even for human capital management issues such as diversity, equity, and inclusion, which are applicable across industries, they apply the standards on an “industry by industry” basis, with big gaps across industries in reporting requirements.

As our engagement with SASB began, these issues were top of mind, not just for us but also for the group of labor advocates we convened beginning in May 2020.7 What we did not realize at the time was the major assist we would get from the changing dynamics of the ESG landscape.

7 See Appendix 1 for a full list of members.
The Assist

On January 14, 2020, BlackRock CEO Larry Fink issued a pair of letters — one to BlackRock’s portfolio companies and the other to clients — in what some have deemed a “tipping point” in ESG investment. In addition to making the case that addressing climate change is an essential element of a company’s long-term outlook, Fink demanded that companies report against SASB. Two weeks later, the world’s fourth largest asset manager, State Street Global Advisors, did the same thing, warning companies that failing to report against SASB standards would mean that State Street would vote for shareholder proposals and against directors.

Even at that point, we did not anticipate either the revolutionary changes coming in the ESG landscape and SASB’s rise within that, nor the changes in standard-setting criteria that SASB would be incentivized to make as a result. As we documented in a blogpost, SASB’s rise in 2020 was remarkable. Robert Eccles noted in a Forbes opinion post that:

2020 was a remarkable year in ways that need no mention. It was also remarkable in a way that most people probably did not notice because it has to do with accounting. Last year witnessed the broad recognition in the investment, business, accounting, regulatory, and sustainability reporting communities that the time has come for mandated standards on sustainability reporting, just as we have for financial reporting.

The changes were fueled by growing recognition of the climate crisis, the COVID-19 pandemic, and the George Floyd murder, and by European regulatory developments that were already underway. Recognizing that a proliferation of reporting frameworks was hindering sustainable investing, in 2020 the European Commission committed to updating the 2014 Non-Financial Reporting Directive to improve comparability, reliability, and relevance of sustainability disclosure. The effort incentivized the leading standards bodies to come together in collaboration in what became known as “the Alliance.” Within the Alliance, which consists of SASB, the Global Reporting Initiative (GRI), Climate Disclosure Standards Board (CDSB), International Integrated Reporting Council (IIRC),

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and the Climate Disclosure Project, SASB’s role is to formulate financially material metrics for the investment audience.

Since SASB was constructed in the US for US companies, SASB now recognizes that it must globalize its standards to be relevant for company reporting around the world. Marking a major step in this direction, in November 2020, SASB announced that it would merge with the International Integrated Reporting Council (IIRC) to form the Values Reporting Foundation. SASB’s mission received another boost when the International Financial Reporting Standards Foundation (IFRS), the global accounting standard setter, and the International Organization of Securities Commissions (IOSCO) both emphasized building upon existing frameworks, financial materiality, and investor-centrism as the foundation of a new effort to construct globally applicable sustainability disclosure standards.

**The Project**

**Our Relationship with SASB**

Our relationship with SASB evolved out of conversations that we initiated in 2019 over our concern with the low representation of civil society in SASB advisory groups. SASB prioritizes investor engagement in its standards development, and there had previously been no established way for civil society to insert itself early in the process. In response, SASB suggested that we create a Civil Society Advisory Group (CSAG) as a parallel entity to the Investor Advisory Groups that SASB had already established. Although we initially adopted the term CSAG, we recognized that the name might lead to the false impression that we are formally a part of SASB. We therefore changed the name to “Expert Group” to emphasize the common attribute of its members of expertise in labor rights.

Since this project tracks — and is designed to influence — SASB’s Human Capital Management (HCM) project, coordination with SASB is critical. To this end, beginning in May 2020 we established a standing monthly meeting with the SASB’s Head of Research and its HCM project lead. These regular meetings have enabled us to closely track the progress of the HCM project and to identify potential opportunities to influence its development. Our collaboration with SASB has also involved SASB leading a seminar for our Expert Group at the start of the project on the standards-setting process and regular contact between our data science team and SASB’s to ensure coordination. SASB also provided us with its labeled Form 10-Ks data set, which was a big boost to our efforts to build a machine learning classifier, a process described below.

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In September 2020, we had two meetings with SASB leadership to update them on our project and to discuss our positioning: one with Board Chair Jeffrey Hales, and the other with CEO Janine Guillot. Both Jeff and Janine expressed support for the work and recommended that we formalize the partnership as a research collaboration through a memorandum of understanding, SASB’s first such research collaboration.

**SASB’s Human Capital Management Project**

When the SASB board voted to update the standards on a project-by-project basis, the HCM Project was the first to be approved, a reflection of the high priority of HCM to investors. According to SASB,

> Human capital is a critical element of the SASB standards. As a thematic issue, it is the second most prevalent issue across the SASB standards, second only to climate risk. Despite this robust coverage of human capital issues across the SASB standards, the evolving body of evidence of the financial impacts of HCM as well as investor interest in the subject, has led to the initiation of SASB’s HCM Research Project.\(^\text{14}\)

SASB designed its HCM Project as an assessment of “the scope and prevalence of various HCM themes across SASB’s sectors and within its 77 industries to develop a solid evidenced-based view on this cross-cutting theme.”\(^\text{15}\) The output of this assessment, begun in December 2019 and concluding in June 2021, is an HCM Framework, the foundation for updating the standards. As such, the primary objective of our work in relation to the SASB HCM Project was to ensure that the resulting Framework would provide the basis for strong standard setting.

The project was timely; the COVID-19 pandemic exposed the risks posed to “essential workers” as well as worker risks within supply chains. It underscored the importance of considering workers in supply chains as part of HCM, such that good supply chain management is seen as an essential part of company resilience. The example of the Malaysian rubber glove manufacturer, Top Glove, which first faced reputational damage and financial loss stemming from allegations of migrant worker exploitation in 2018 and in 2020 fell afoul of US trade laws prohibiting the importation of goods made with forced labor, demonstrates the pandemic-era risk to workers in companies where demand for a product is high. And apparel brands triggering *force majeure* clauses to cancel orders in progress at supplier factories in Bangladesh and elsewhere demonstrates the precarity of supply chains themselves. In this environment, the SASB HCM project, could lead to improved disclosure standards that provide a better window on the resilience of

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companies as a whole, thereby revealing both material risks to investors and salient risks to the wellbeing of workers in the global economy.

Among our immediate concerns with the current SASB standards was the prospect that SASB might deem supply chains to be out of scope of the HCM project. This hazard stems from the structure of SASB’s typology. SASB organizes its disclosure topics in five broad sustainability dimensions, with Supply Chain Management located in the Business Models & Innovation dimension, and outside of HCM. In fact, early drafts of the framework SASB shared with investors during the HCM project’s “hypothesis tester” phase in mid-2020, did not include supply chains among the featured topics in the Summary of Conclusions based on a literature review.

In this way, we saw that the typology itself may be contributing to the weakness of the standards with respect to identifying and managing supply chain risks, including modern slavery risks. Because of the high investor support for improving indicators for HCM, incorporating supply chain indicators into that dimension would more likely result in the development of stronger indicators in the future. Moreover, there is no plan yet in place to revise the Business Models & Innovation dimension, so if the topic is not addressed at this stage, with SASB’s already full research load, it would be unlikely to be addressed any time soon.

If SASB were to exclude labor supply chains from its HCM standards, it would be obfuscating the reality of today’s supply chain–dependent business models. We raised these concerns in a comment letter on the exposure drafts of SASB’s revised Conceptual Framework, which sets out SASB’s standard-setting criteria and procedures:

To provide investors with a picture of the whole company necessitates addressing HCM issues across all aspects of the company, from product manufacturing, or in the case of agricultural products, growing, harvesting, and processing of crops, fishing operations, and meat production, through to marketing and sales — in other words seeing the supply chain as integral to the company. Yet within the five-dimension typology, risks related to global labor supply chains are scattered across four of the five sustainability dimensions: HCM (labor practices, employee health and safety), social capital (human rights & community relations), business models and innovation (supply chain management), and leadership and governance (management of the legal and regulatory environment, systemic risk)...

Rather than clarify sustainability, the typology creates roadblocks in three related ways. First, it reinforces a problem that worker rights advocates have long worked to combat: that companies treat their responsibility for workers in supply chains as a secondary concern to their direct workforce. For investors in particular, a company’s failure to adequately understand
and disclose its supply chain risks means that the company and its investors have only partial visibility into that company. Second, locating the issue of “supply chain management” in a separate dimension from human capital reflects an outdated notion that producing through integrated supply chains is a business model choice, rather than a commercial necessity as it has been for the past 20–30 years.\textsuperscript{16} As such, virtually every company depends upon a supply chain without which the business collapses. Third, by locating due diligence procedures in a separate “leadership and governance dimension,” SASB misses the opportunity to tie supply chain management to oversight of risk.\textsuperscript{17}

Moreover, sustainability frameworks of ESG data providers already include supply chains within HCM — for example, MSCI ESG ratings\textsuperscript{18} — suggesting that mistreatment of workers in supply chains is a financially material risk. Others offer specific resources to help companies identify labor risks in supply chains, including the FTSE4Good Index Series.\textsuperscript{19} A recent report by Refinitiv\textsuperscript{20} exposed a severe lack of due diligence on business supply chains, and highlighted the hidden dangers in supplier, distributor, and partner relationships.

A letter signed by all members of the Expert Group and endorsed by their institutions added to the argument for the inclusion of supply chains in the HCM project:

There are certain core characteristics of HCM, including worker well-being, fair and equitable pay, worker engagement, etc., that apply to all workers regardless of where they are situated, be it in headquarters or within supply chains... Their inclusion [in the HCM Framework] rightly broadens the scope of the workforce to reflect today’s business structures and paves the way for standard setting that can better capture HCM risks....

From an investor perspective, understanding how workers are treated within a company’s supply chain and in its alternative workforce is critical

\textsuperscript{16} For decades scholars have observed that supply chains are integral to the company. For example, in 2005 Spekman, Werhane, and Boyd wrote that the extended enterprise “is an attempt to link technology and trust whereby supply chain members share a common goal and vision, exchange sensitive information and data, and link processes to achieve competitive gains that could not be achieved if each supply chain member acted independently.” Robert E. Spekman, Patricia H. Werhane, and D. Eric Boyd, “Corporate Social Responsibility and Global Supply Chain Management: A Normative Perspective,” available at SSRN: http://dx.doi.org/10.2139/ssrn.655223.


to understanding the whole company. Companies themselves acknowledge that they have power over how workers in their supply chains are treated, and may be held jointly liable for supply chain practices or face regulatory changes extending their liability. Moreover, inclusion of supply chain labor practices as part of its HCM standards will bring SASB in step with new and emerging law in Europe and elsewhere on mandatory human rights due diligence, as well as international standards, such as the International Labour Organization’s (ILO) core labor standards, the UN Guiding Principles on Business and Human Rights, the OECD Guidelines on Multinational Enterprises, and the EU Action Plan on human rights and decent work in global supply chains.

To strengthen our case, alongside our data science effort, we built a repository of evidence of financially material risks within supply chains by manually tracking news sources, expert commentaries and guidelines, client alerts of leading law firms advising corporate clients on emerging risk, and lawsuits. Each of these sources pointed to one or more of the following supply chain risks: 1) regulatory, 2) reputational, and 3) operational. To align with SASB’s industry-specific approach to standard setting, the repository is organized by risks that surfaced for companies according to SASB’s industry classification system.

In the end, SASB decided to include the topic of Labor Conditions in Supply Chains in the Preliminary Framework released for public consultation in December 2020. That publication references our repository of supply chain risks to justify the inclusion of the topic. Having done so, we believe SASB has a much stronger basis for devising disclosure metrics that will capture this HCM risk. At its board meeting in May 2021, it announced that alongside Employee Engagement, Diversity & Inclusion, Labor Conditions in Supply Chains would be a priority topic for standard setting.

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Beyond advocating for the inclusion of the Labor Conditions in Supply Chains topic within HCM, the Expert Group’s letter sets out four priority standard-setting projects across the SASB standards:

1. Addition of metrics related to high-risk labor practices;
2. Extension and improvement of disclosure metrics related to collective bargaining across all industries and workforces;
3. Disaggregation by gender and race throughout HCM metrics; and,

With attention to these priorities, which are discussed further below, the data science team is expanding its algorithmic models to capture the evidence base for their inclusion. Meanwhile, we are coming to see SASB’s standard-setting priorities converge with our recommendations.

**Data Science Work**

To identify new relationships between labor-related human rights risks and financial materiality, Rights CoLab teamed up with the Data for Good Scholars (DfG) program of Columbia University’s Data Science Institute to apply machine learning methods to supplement SASB’s research efforts.28

In consultation with the Expert Group and other data scientists29 working at the intersection of AI and human rights, we identified two workstreams to address gaps in SASB’s prior data collection — what we came to call the “Extension Workstream” and the “Addition Workstream.” Each workstream examines a different criterion of SASB’s definition of financial materiality: financial impact and investor interest. The Extension Workstream examines investor interest through Form 10-Ks, proxy statements, earnings calls, and other company communications. The Addition Workstream examines the financial impact of corporate labor-related practices derived primarily from news sources.

The Extension Workstream seeks to extend SASB HCM topics and metrics that currently apply only to some SASB industries to a broader range of industries. The plan is to demonstrate investor interest in the topics for those industries not currently containing that indicator, as indicated by the white spaces in SASB’s materiality map, reproduced

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28 See the Appendix for a list of data scientists who have contributed to the project.
29 Rights CoLab and the data team are grateful for the suggestions of Michael Hamby and Mahdu Mathew of SASB; Ryan Roser and Yang Ruan of Factset’s TruValue Labs; Adriana Bora, Yolanda Lannquist, Nicolas Miallhe, and Nyasha Weinberg of the Bingham Centre for the Rule of Law; and Arianne Griffith, Hannah Lerigo-Stephens, and Emily Wyman of Rights Lab.
below. For example, currently only 12 of 77 industries have a standard for Engagement, Diversity & Inclusion.

The Addition Workstream seeks to create new metrics with more precision. Like the industry gaps that the Extension Workstream addresses, we see illogical gaps in the metrics themselves. For the Apparel, Accessories, and Footwear industry standard, for example, only two quantitative metrics apply to supply chains — apparel companies are not obliged to report on HCM topics for direct workforce — and both are based on social audits:

a) Percentage of Tier 1 supplier facilities and supplier facilities beyond Tier 1 that have been audited to a labor code of conduct, [and] percentage of total audits conducted by a third-party auditor

b) Priority non-conformance rate and associated corrective action rate for suppliers’ labor code of conduct audits

Likewise, the standard for agricultural products relies on third-party certification and similar metrics. Labor advocates have long railed against ineffective social audits and the
certification schemes that depend on them. Audits do not adequately capture corporate performance on the treatment of workers in their supply chains, rendering them of limited use to investors and issuers, thus causing this metric to fail SASB’s own criteria for inclusion. By contrast, researchers have demonstrated that other supply chain metrics are financially material, such as the degree of visibility of the supply chain.

It is noteworthy that, unlike financial accounting metrics such as revenue and net income, SASB metrics are not, strictly speaking, required to be financially material. Topics such as “Labor Conditions in the Supply Chain” are deemed financially material for a given industry, but SASB’s Conceptual Framework requires that a metric meet different criteria. The metric must fairly represent corporate performance on the topic and be comparable, verifiable, and useful to investors and issuers alike.

Below we provide highlights of the methods and findings to date of these two workstreams.

**Extension Workstream**

SASB determines the financial materiality of sustainability topics from a wide variety of sources. Therefore, in making a compelling case for inclusion of a human rights topic into the standard, we set out to build a classifier that could do the same. As a starting point, the researchers first applied classification methods to two types of company reports: 1) Form 10-Ks, the financial data publicly listed companies must file with the US Securities and Exchange Commission (SEC); and 2) proxy statements, the statements the SEC requires companies to provide to investors at annual shareholder meetings. Once the model is developed, researchers will apply the methods to other company sources including no-action requests, proxy voting guidelines, 10-Qs, quarterly earnings calls, and sell-side reports.

Form 10-Ks offer a good starting point for this research for three reasons:

1. 10-Ks are in a single format on EDGAR (Electronic Data Gathering, Analysis, and Retrieval), the database of company filings maintained by the SEC, making it easy to retrieve a wide sample of filings, including across industries and going back in time;

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32 A more complete documentation of the two workstreams, which will be regularly updated, can be found on the project website at https://rightscolab.org/project-harnessing-big-data/.

33 Extension team researchers are Isha Shah (project coordinator), Montsie Guerrero, Lawrence Lai, Emily Wang, and Emmanuel Murunge Mwebaze.
2. SASB itself deems 10-Ks to be a highly valuable measure of investor interest; therefore, SASB is likely to be persuaded by this evidence;

3. SASB has a labeled data set of Form 10-Ks, which it shared with us.

Since we are looking to identify gaps in SASB’s materiality map that relate to labor rights, we focused on three SASB General Issue Categories (GICs): Labor Practices; Engagement, Diversity & Inclusion; and Supply Chain Management. Through pre-processing steps on the training data, testing different classification methods, and tuning parameters, researchers improved the model, and some interesting findings began to emerge.

The following charts illustrate the classifier that we built to compare 2013–2019 disclosure activities on the topics of Labor Practices and Employee Engagement, Diversity & Inclusion by industries for which that topic in the current standard is not deemed financially material (White Space Industries) against the disclosure activities over this same time period on these same topics by industries, which already have such a reporting requirement (Benchmark Industries) — in other words, for the industries where SASB originally determined that topics are financial materiality.

GIC 310 Labor Practices: Corporate Disclosures for "White Space Industries" against Corporate Disclosures of "Benchmark Industries," 2013-2019
The bars represent the relevant disclosure activities for certain White Space Industries by year evaluated against the disclosure activities for Benchmark Industries by year, represented by the white dotted line. Any White Space Industries with more relevant disclosure activities than the Benchmark Industries are of interest because they reveal opportunities to improve the SASB Materiality Map (and our classifier) by pointing to new industries where the HCM topic can potentially be considered financially material. As the visualization shows, researchers were able to identify many more industries for which SASB’s Labor Practices and Engagement, Diversity & Inclusion topics are likely to be financially material than appear in the current standards.

Currently, our Form 10-K classifier can identify paragraphs that contain HCM-related disclosures with close to 80% accuracy. Once the classifier is able to reliably detect labor-related disclosures in Form 10-Ks, researchers will apply the refined classifier to new Form 10-Ks and eventually other corpuses and label each paragraph according to the Labor Practices; Employee Health and Safety; Employee Engagement, Diversity & Inclusion; Supply Chain Management; and Business Model Resilience GICs.

Complementing this classifier approach, we also used a heuristic-based approach to identify mentions of specific terms, or n-grams, that might point to financially material

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34 An “n-gram” is a contiguous sequence of n tokens (i.e., words). It represents how a text is broken down for analysis. For example, consider the following sentence: “The company has a union.” Using a 1-gram (“unigram”)
metrics. Researchers developed the heuristics by first performing a logistic regression on the words in the paragraphs of SASB’s labeled dataset to determine the terms most likely to appear in paragraphs related to each GIC in the HCM dimension. Then they used an unsupervised k-means algorithm to cluster the sentences in paragraphs that SASB labeled “relevant” to the Labor Practices GIC in its Form 10-K dataset. In examining two clusters against the language contained in the SASB metrics in the Labor Practices GIC, a heuristic emerged. SASB requires that companies in certain industries report the percentage of their workforce covered by collective bargaining agreements — for example, Accounting Metric 310a.1 for the Coal Operations industry. The clusters output shows that the words “union,” “agreement,” and “bargaining” are among the terms that most strongly suggest that the paragraph is relevant to the Labor Practices GIC, thereby matching the k-means clustering.

On this basis, researchers experimented with the term “collective bargaining” with the goal of identifying all paragraphs in Form 10-Ks pertaining to “collective bargaining,” as well as related terms such as “union,” “CBA,” “organized labor” or any other variations. By comparing the share of companies in each White Space Industry with any of these terms to the same share of companies in the Benchmark Industries, researchers identified industries whose Form 10-Ks contain significantly more discussion of collective bargaining.

treats each word as a unit (“The,” “company,” “has,” “a,” “union”). Using a 2-gram (“bigram”) treats a pair of words as a unit (“The company,” “company has,” “has a,” “a union”). Using a 3-gram (“trigram”) treats a trio of words as a unit (“The company has,” “company has a,” “has a union”). The purpose is to make sure that we capture any terms that span more than one word in our text (e.g., “collective bargaining agreement”). Unigrams, bigrams, and trigrams were used for the analysis referenced here.
and related terms. This finding suggests that SASB could create a collective bargaining metric for those industries.

In the next iterations, researchers will develop heuristics for identifying potential metrics in Form 10-Ks by searching for their corresponding keywords, such as the number and duration of “strikes” and “work stoppages,” the number of employees that are “independent contractors,” and “labor law violations,” among others.

**Addition Workstream**

For the Addition Workstream, we aim to identify relationships between potential labor rights metrics that are not currently accounted for in the SASB standard, and financial impact across a broad range of industries. Our methodology involves collecting and analyzing news articles that mention certain labor-related corporate practices (e.g., “debt bondage,” “modern slavery,” etc.) to see if they are associated with mentions of financial impact (e.g., “lawsuits,” “strikes,” etc.) The Expert Group proposed the practice and financial risk terms, indicated below, that researchers used to retrieve articles.

<table>
<thead>
<tr>
<th>Corporate Practice and Corporate Risk Terms Used to Retrieve News Articles</th>
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<tbody>
<tr>
<td><strong>Practice Terms:</strong> HCM Practices of Companies</td>
</tr>
<tr>
<td>contingent worker(s)</td>
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<tr>
<td>contract labor</td>
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<tr>
<td>contract worker</td>
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<tr>
<td>contractor labor</td>
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<tr>
<td>debt bondage</td>
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<tr>
<td>discrimination</td>
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<tr>
<td>disrupting labor organizing</td>
</tr>
<tr>
<td>factory turnover</td>
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<tr>
<td>forced labor</td>
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<tr>
<td>freelance</td>
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<tr>
<td>health and safety</td>
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<tr>
<td>labor broker</td>
</tr>
<tr>
<td>living income/wage</td>
</tr>
</tbody>
</table>

35 The principal researcher for this research is Alexander Jermann, who further developed it as an independent study. This section is adapted from Alex’s independent study paper entitled, “The Cost of Human Rights Violations: Using Natural Language Processing to Improve Labor Rights Disclosures,” and the Engaging SASB project data science update, which can be found on the project site: [https://rightscolab.org/project-harnessing-big-data/](https://rightscolab.org/project-harnessing-big-data/). Jason Kao and Archit Matta also contributed to this research.
To test the viability of this approach, researchers started with a small sample of news articles from *The New York Times* that matched any of the defined risk and/or practice terms and found a co-occurrence between risk and practice terms. Researchers then scaled the retrieval of news articles across a wider range of *New York Times* articles and created an additional corpus from *The Guardian*, which is known for its global reporting on human rights. In total, researchers retrieved 265,851 articles from *The New York Times* and 143,841 from *The Guardian* for the period 1 January 2008 to 1 January 2021. With this, they used natural language processing (NLP), a subfield of machine learning, to align the articles. They then built co-occurrence tables to understand how practices and risks correlated.

The first set of charts, below, shows how often a risk term appears in the news articles retrieved. Comparing the two matrices, the term “fine” co-occurs with news article retrieved using practice terms at a similar rate of around 7% in both papers with “wage theft” being an outlier in *The New York Times* at around 21%. “Protest,” “penalty,” “fine,” and “strike” all co-occur at a relatively higher rate than the terms “litigation,” “sanction,” and “reimbursement.” The term “lawsuit” is inconclusive in this test since the co-occurrence rate varies by news source and the specific practice.
The second set of charts (below) are similar, the key difference being that researchers retrieved articles using the risk terms across the two news sources. For The Guardian, the terms “forced labor,” “wage theft,” and “union bust” co-occur at relatively similar rates, while “modern slavery” and “living wage” both co-occur at low rates. It is significant that for The Guardian, over 5% of articles pulled for the risk term “litigation” also contain the term “forced labor.” For The New York Times, on the other hand, only “forced labor” is significant, with the percentage of other practice terms being quite low.

36 Each column and row on the matrix includes the singular and plural versions of the terms (e.g., “lawsuit” and “lawsuits”).
Next, researchers used an odds ratio test — a measure of association commonly used in clinical trials for rare diseases to study whether, for example, the exposure to a certain virus leads to disease or not. For our purpose, the company practice terms can be analogized to exposure to a virus, whereas the financial risk terms can be seen as the disease or outcome. As the name suggests, the odds ratio measures the ratio between two odds; the odds of a risk term appearing when “exposed” to a practice term is first calculated. Then, to create a control group, the odds of a risk term appearing when there is no “exposure” to a practice term is calculated. The higher the value, the more likely the relationship between exposure and effect is correlated, such that:
• 1.0 indicates the odds of exposure to labor practices are the same or close to the same as those for articles that had a financial risk term and those that did not have a financial risk term. The exposure is thus likely to lead to financial impact.
• Greater than 1.0 indicates that the odds of exposure to labor practices are greater for articles that had a financial risk term as compared to those that did not have a financial risk term. The exposure might thus lead to financial impact.
• Less than 1.0 indicates that the odds of exposure to labor practices are lower for articles that had a financial risk term as compared to those that did not have a financial risk term. The exposure might thus prevent financial impact.

The charts below show the results of the odds ratio tests. Several values are above 1.0 and some are slightly below. For example, the odds ratio between “modern slavery” and “litigation” is 9. That means that the odds of the term “modern slavery” appearing in an article is nine times higher among articles with a mention of “litigation” than articles without a mention of “litigation.” Other strong associations are “modern slavery / reimbursement” and “wage theft / lawsuit.” Note that for The New York Times odds ratio matrix, some cells are empty, indicating insufficient co-occurrence between the two terms.

**Odds Ratio Test: Results from The Guardian**
To clarify the meaning of the pair associations, we will combine the matrices, extend the corpus to *The Financial Times* and *Reuters*, and seek access to local newspapers in high-risk contexts. Ultimately, we hope to make this matrix interactive so that our audience can more easily locate examples of news articles in which the given terms co-occur.

We are also using the API of the Business & Human Rights Resource Centre (BHRRC). Since 2003, BHRRC has tracked the human rights conduct of over 10,000 companies by compiling and tagging a broad range of NGO reports and English and foreign language news sources, both international and local. Because all the items on the site concern corporate human rights impacts, it can help us to refine a labor rights–specific vocabulary for retrieving news articles. The BHRRC API provides the ability to extract organizational names using named entity recognition and thereby provides a way to identify the relevant industry associated with the practice and risk, which is valuable for the next step of classifying news articles by industry in line with SASB standards.

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37 Business & Human Rights Resource Centre: [https://www.business-humanrights.org/en/](https://www.business-humanrights.org/en/). API, or application programming interface, is software that allows two applications to talk to each other.
Looking Ahead

The Challenge Ahead for SASB

In crafting its role as a global standard-setting organization, SASB has identified its distinctive competency among standard setters of providing financially material disclosure to investors, lenders, and underwriters. In the draft of the revision to the Conceptual Framework sent out for public comment, SASB articulates its role in providing one part of the information needs:

SASB’s role in this ecosystem is to develop sustainability disclosure standards that meet the needs of capital markets participants for decision-useful information connected to long-term enterprise value creation.38

At the same time recognizing that “external stakeholders have, at times, misinterpreted SASB’s approach to financially materiality as a short-term time horizon, which is not the Board’s intent,”39 SASB has been at pains to clarify its support of long-term value creation, including in the way it defines “financial materiality.” It has acknowledged that certain sustainability topics not currently documented as financially material may nevertheless be “pre-financially material,” and it has endorsed the related concept of dynamic materiality.40 In the joint publication issued in September 2020 with its standard-setting peers, “Summary of alignment discussions among leading sustainability and integrated reporting organizations CDP, CDSB, GRI, IIRC and SASB,”41 SASB asserts dynamic materiality as the lynchpin for collaboration to rationalize the ESG corporate reporting system. In the draft revised Conceptual Framework, SASB reproduced the following diagram from that report, which represents the respective roles of these organizations and references dynamic materiality with the phrase, “Sustainability topics are dynamic.”42

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39 Ibid.
40 SASB, “Response of the Sustainability Accounting Standards Board to the Public Consultation on the Revision of the Non-Financial Reporting Directive,” 2020, https://www.sasb.org/wp-content/uploads/2020/06/SASB_NFRDWhitepaper_FINAL-005.pdf: “We also observe that the double materiality concept usefully recognises the dynamic nature of materiality in the context of sustainable business practices — that is, the idea that an issue that is material solely from a social or environmental impact perspective can also become financially material over time,” pp. 1–2.
As we noted in our comment letter to SASB on the Conceptual Framework Exposure Draft, SASB’s aspiration to be a setter of standards concerning “long-term enterprise value creation” implies consideration of investor concern for potential financial impact. Moreover, the concept of “dynamic materiality” suggests, however, that there is no clear line between risk to the investor and risk to people and the planet.

This situation presents several issues that SASB must grapple with in its standard setting:

- What is the basis for deciding what is most likely to be material in the future?
- How do potential risks cross the barrier from “Information that is material for sustainable development” to “Information that is also material for [long-term] enterprise value creation”?
- Assuming the determination rests upon SASB’s commitment to “market-informed” standards setting, as SASB expands its global reach, how must the meaning of “market-informed” shift to reach beyond the narrow US legal notion of the “reasonable investor”? 43

We have struggled with this ambiguity in our work to find evidence that meets SASB’s standard of financial materiality with respect to worker rights — and in particular with respect to modern slavery, a risk present in the supply chains of every industry. 44 In drawing attention to evidence of past harms and financial loss, the repository we created

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suggests that societal harm *and* financial cost can be avoided by promoting indicators of foreseeable risks for which there may not yet be clear evidence of financial impact. A focus only on financial impact can make it difficult to see the forest through the trees — in other words, to assess how harms to people and the planet can rebound on long-term enterprise value creation.

The EU has determined that the best way to anticipate this type of financially material enterprise risk is to mandate human rights due diligence, a process that companies can use "to proactively manage potential and actual adverse human rights impacts with which they are involved." Since 2017 when the French Parliament adopted the French Duty of Vigilance law, cross-sectoral mandatory human rights and environmental due diligence legislation has passed or is being deliberated in 16 European states (plus the UK). In March 2020, the European Commission committed to introducing legislation at the EU level. Failure to comply with mandated human rights due diligence can result in reputational risk, as well as financial penalty.

This regulatory trend towards mandatory human rights and environmental due diligence poses a further question SASB will need to address: Does SASB consider the trend towards human rights due diligence far enough along that a company that fails to conduct it can be said to already present a material financial risk? As a global initiative that connects decision-useful information to long-term value creation, in our view SASB needs to provide investors with a disclosure standard that is future proof by including leading indicators that are market-informed, such as human rights due diligence.

**Project Next Steps**

SASB's HCM standard-setting priorities will drive our own project priorities in the months ahead. As noted above, at its May 2021 board meeting, SASB staff proposed that

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46 This law (Loi n° 2017-399 du 27 mars 2017 relative au devoir de vigilance des sociétés mères et des entreprises donneuses d’ordre) requires companies with at least 5,000 employees in France or 10,000 employees worldwide (including subsidiaries) to adopt and implement a vigilance plan to prevent and mitigate human rights and environmental risks that occur through their business operations. Subsequent proposed and passed legislation across several European states has varied in scope, provisions, and penalties.


“Diversity, Inclusion and Engagement” (the content of a “Workplace Culture tranche”) followed by “Labor Conditions in Supply Chains” are priority concerns for investors and should therefore be the first HCM standard-setting projects.

We conclude with an outline, below, of the key issues for each of these standard-setting projects as we shift into metrics development, build our machine learning models so that they are capable of generating evidence across all human capital topics, and make the case for their incorporation into the standard. To speed up the data work, we are discussing collaborations with initiatives such as The GDELT Project and the Business and Conflict Barometer, as well as commercial data providers.

**Metrics that Account for “Equity”**

“Diversity, Inclusion, and Engagement,” a permutation on the “Employee Engagement, Diversity & Inclusion” GIC in the existing Standard, is missing the concept of “equity.” “Inclusion,” as distinct from “equity,” refers to creating a workplace culture where everyone in the workplace feels that they can thrive, meaning that there is an absence of discriminatory practices regarding race, gender, ethnicity, disability, sexual orientation, and other factors. “Equity,” on the other hand, acknowledges real-world structural imbalances. It requires companies to institute policies that guarantee the fundamental rights of workers. For this reason, it has become standard practice to include “equity” in this topic. In strengthening its metrics, SASB ought to follow suit.

**Metrics that Account for Context**

At the board meeting, SASB signaled its openness to considering certain “fundamental” human capital issues on an industry-agnostic basis so that the topic would apply across all 77 industry standards. In their presentation to the board, staff suggested that the theme of “Workforce Composition” could apply across the standards. We agree that the core characteristics of HCM are common to all workforces in all industries. At the same time, SASB metrics on this topic need to be designed with contextual needs in mind, in particular, the situations of workers in supply chains and across geographies.

For example, a metric of “percentage of female employees,” which could be appropriate for company headquarters, is meaningless in the context of garment factory workers, where women constitute upwards of 80% of the workforce. On the other hand, a metric

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51 The GDELT Project: https://www.gdeltproject.org/.

from the Global Reporting Initiative — such as GRI 405-2, “Ratio of basic salary and remuneration of women to men” — could apply across diverse contexts. Similarly, SHARE asks companies to disclose gender–pay equity analysis conducted and disclosed by level of work, including promotion and advancement.53

Recognizing the intersectionality of race and gender, SASB metrics also need to account for differing risks across geographies. Diversity has different meanings in different geographic contexts with different histories, including for workers from minority or historically disadvantaged groups themselves. For example, in the United States, there is growing solidarity among people of color and increasing self-identification as BIPOC (Black, Indigenous, People of Color). Self-identification in Europe and elsewhere, by contrast, tends to be along ethnic and religious lines. To support our efforts, we will recruit new members to the Expert Group who have specific expertise in diversity, equity, and inclusion (DEI) from a wide range of geographical contexts.

Addressing gender, race, and other vulnerabilities in the workplace, especially in supply chains, needs to be understood as vital to disclosure topics other than DEI, such as workplace health and safety standards. In the agricultural context, for example, it has been documented that the absence of washrooms in the fields can lead to gender harassment and violence.54 It is also important to examine how the differential impacts of company policies on gender and race tie back to the importance of worker empowerment, where all workers have a safe channel to express grievances to management. As such, in conducting research for these new metrics, we recommend that SASB provide for disaggregation by gender and race across the HCM standards.

**Metrics that Assess the Right to Collective Bargaining Across All Industries and For All Workforces**

As SASB considers an “industry agnostic” approach, a strong starting point would be the fundamental right of all workers to collective bargaining. The ILO deems it to be a core labor right for all workers regardless of industry, and under the UN Guiding Principles on Business and Human Rights, establishing an effective grievance mechanism is a responsibility of all companies, regardless of industry.55 In the current formulation of the Labor Relations topic within the Standards, there is just one metric related to worker organizing, “Percentage of active workforce covered under collective bargaining

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agreements” (310a.1). Currently, this metric applies to only 6 of 77 industries and only to the direct workforce rather than the entire supply chain, in sharp contrast to other emergent frameworks.56

When workers are able to raise concerns without fear — through unions, effective grievance mechanisms, and other means of enabling worker voice — companies gain critical knowledge about potential and recurring workplace harms. Effective grievance mechanisms are also essential to worker wellbeing, for both employees and contingent workers. Therefore, worker organizing can be seen as a source of company resilience and long-term value creation; the denial of such organizing rights creates risk, not the inverse.

Because union organizing is constrained in many parts of the world, SASB metrics on collective bargaining must be constructed to include alternative forms of worker representation and mechanisms to give workers a voice, while not undermining unions. We recommend that SASB revisit the characterization of this disclosure topic and extend a decision-useful metric on worker agency across all of its industry standards.

*Metrics that Account for Leading — Not Lagging — Indicators*

Company disclosures on the conditions for all its workers — including those in supply chains and contingent (temporary) workforces — provides a means for investors and stakeholders to understand high-risk labor practices that vulnerable workers are subject to. SASB’s inclusion of these topics in its HCM standards revision, therefore, is a significant breakthrough. The current Standards do account for high-risk practices, but the metrics are based almost entirely on social auditing and certification schemes. As already noted, certifications, and the audits upon which they depend, are not — and were never intended to be — sufficient on their own. As the Expert Group letter notes,

> A more effective means for investors to assess supply chain risks is through well-crafted metrics that reveal underlying conditions that are likely to produce negative impact and yield material risks. SASB metrics should address supply chain competency gaps, labor contracting models, and sourcing practices that are well-documented to have a direct effect on the treatment of workers in supply chains, and more fundamentally, changes in workforce structure. (p. 4)

In short, SASB can rectify a weakness in the current standards, which emphasize evidence of past harms, or lagging indicators, by incorporating leading indicators that reveal the underlying conditions of upholding or denying fundamental rights.

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56 SASB, “SASB Human Capital Management Bulletin,” 2020, p. 6, https://www.sasb.org/knowledgehub/sasb-human-capital-bulletin/. By contrast, for example, World Economic Forum’s extended metric list includes freedom of association and collective bargaining. The World Benchmarking Alliance has also put this into its core social indicator list for all companies.
**Metrics that Assess the Quality and Extent of Human Rights Due Diligence**

Governments, investors, and businesses alike increasingly understand that having an effective human rights due diligence process is essential to identifying and reducing risks to workers and companies. A failure to identify risks through a human rights due diligence process with scope across a company’s operations including its supply chain is not only a risk to portfolio companies, but also to investors who face potential liability when human rights due diligence is absent. In the HCM Preliminary Framework’s Appendix of Supporting Evidence, SASB itself acknowledges that supply chain risk has also become an interest of investors. Human rights due diligence should therefore be considered foundational to robust financially material disclosure standards.

SASB currently has one metric for due diligence within the Human Rights and Community Relations GIC. It only applies, however, to a few extractive industries and refers to due diligence for community impacts only, not impacts on workers. In filling this gap for HCM, it is important to devise metrics that assess the quality of human rights due diligence by companies. SASB can draw from the efforts of a number of organization — several of which are represented by our Expert Group — to develop such standards.

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57 Among the most recent examples, on May 20, 2021, the Netherlands National Contact point made an initial ruling on investor due diligence in a case involving sexual harassment in McDonald’s around the world. Available at: [https://www.oesorichtlijnen.nl/documenten/publicatie/2021/05/20/eerste-evaluatie-4-vakbonden-vs-apg](https://www.oesorichtlijnen.nl/documenten/publicatie/2021/05/20/eerste-evaluatie-4-vakbonden-vs-apg).
Appendix: Expert Group and Data Project Team

Expert Group

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Sif Thorgeirsson, Fair Labor Association
James Cockayne, Finance Against Slavery and Trafficking
Larry Beeferman, Harvard Labor Worklife Program
Sam Jones, Heartland Initiative
David Schilling, Interfaith Center on Corporate Responsibility
Josh Zinner, Interfaith Center on Corporate Responsibility
Casey O’Connor-Willis, NYU Stern Center for Human Rights and Business

Andy Hall, Migrant Labor Rights Specialist
Sharmeen Contractor, Oxfam-America
Delilah Rothenberg, The Pre-distribution Initiative
Meredith Block, Rockefeller Capital Management
Hugues Létourneau, Committee on Workers’ Capital, SHARE
Jane Hwang, Social Accountability International
Shawn MacDonald, Verité
Katharine Bryant, Walk Free, Minderoo Foundation
Charlotte Lush, Workforce Disclosure Initiative
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