

Diversity Washing

Finance Working Paper N° 868/2023

September 2023

Andrew C. Baker

UC Berkeley School of Law

David F. Larcker

Stanford University, Rock Center for Corporate
Governance and ECGI

Charles McClure

University of Chicago

Durgesh Saraph

Edward M. Watts

Yale University

© Andrew C. Baker, David F. Larcker, Charles McClure, Durgesh Saraph and Edward M. Watts 2023. All rights reserved. Short sections of text, not to exceed two paragraphs, may be quoted without explicit permission provided that full credit, including © notice, is given to the source.

This paper can be downloaded without charge from:
http://ssrn.com/abstract_id=4298626

www.ecgi.global/content/working-papers

ECGI Working Paper Series in Finance

Diversity Washing

Working Paper N° 868/2023

September 2023

Andrew C. Baker
David F. Larcker
Charles McClure
Durgesh Saraph
Edward M. Watts

We thank John Core (discussant), Fabrizio Ferri (discussant), Joseph Grundfest, Umit Gurun, Ken Li, Heidi Packard, Joseph Pacelli (discussant), Ethan Rouen (discussant), Shawn Shi, Jun Yang (discussant) and seminar participants at the London School of Economics, Drexel Corporate Governance Conference, Labor and Accounting Groups Conference, Corporate Governance Conference at the University of Chicago, the University of Connecticut Finance Conference, Annual Conference on Financial Market Regulation, Edinburgh Corporate Finance Conference, WFA Annual Conference, and Stanford Summer Camp for helpful feedback and comments. We gratefully acknowledge the support of Berkeley Law School, The University of Chicago, Stanford Graduate School of Business, and the Yale School of Management. Charles McClure is grateful for the support from the Liew Junior Faculty Fellowship and the Chookaszian Accounting Research Center. We also thank Esha Bhattacharya, Boyie Chen, Kalkidan Ayalew Kebede, Cameron Mejia, and Ozair Qureshi for excellent research assistance, and Ben Zweig and Reyhan Ayas for their guidance on the use of the Revelio Labs data, Aneesh Raghunandan for his help with the Goodjobsfirst data, and Lisa Liu for help with the US SIF data. We used ChatGPT to assign topic labels for our content analysis.

© Andrew C. Baker, David F. Larcker, Charles McClure, Durgesh Saraph and Edward M. Watts 2023. All rights reserved. Short sections of text, not to exceed two paragraphs, may be quoted without explicit permission provided that full credit, including © notice, is given to the source.

Abstract

We provide large-sample evidence on whether U.S. publicly traded corporations use voluntary disclosures about their commitments to employee diversity opportunistically. We document significant discrepancies between companies' external stances on diversity, equity, and inclusion (DEI) and their hiring practices. Firms that discuss DEI more than their actual employee gender and racial diversity ("diversity washers") obtain superior scores from environmental, social, and governance (ESG) rating organizations and attract more investment from institutional investors with an ESG focus. These outcomes occur even though diversity-washing firms are more likely to incur discrimination violations and have negative human-capital-related news events. Our study provides evidence consistent with growing allegations of misleading statements from firms about their DEI initiatives and highlights the potential consequences of selective ESG disclosures.

Keywords: Diversity disclosure; Human capital; Social washing; Environmental, social, and corporate governance (ESG)

JEL Classifications: G30, G34, G23, M14

Andrew C. Baker

Assistant Professor of Law
UC Berkeley School of Law
San Francisco CA, 94110, USA
e-mail: andrew.baker@berkeley.edu

David F. Larcker

The James Irvin Miller Professor of Accounting
Stanford University
655 Knight Way
Stanford, CA 94305–7298, United States
phone: +1 650 725 6159
e-mail: dlarcker@stanford.edu

Charles McClure*

Assistant Professor of Accounting
University of Chicago, Booth School of Business
5807 South Woodlawn Avenue
Chicago, IL 60637, United States
phone: +1 773 702 4885
e-mail: Charles.McClure@chicagobooth.edu

Durgesh Saraph

Edward M. Watts

Assistant Professor in Accounting
Yale University Yale School of Management
165 Whitney Avenue
New Haven, CT 06511-3729, USA
e-mail: edward.watts@yale.edu

*Corresponding Author

Working Paper No. 22-18

Diversity Washing

Andrew C. Baker
Berkeley Law School

David F. Larcker
Stanford University, Graduate School of Business
Hoover Institution
European Corporate Governance Institute (ECGI)

Charles G. McClure
University of Chicago Booth School of Business

Durgesh Saraph
Unaffiliated

Edward M. Watts
Yale School of Management

All rights reserved. Short sections of text, not to exceed two paragraphs, may be quoted without explicit permission, provided that full credit including © notice is given to the source.

This paper also can be downloaded without charge from the
Social Science Research Network Electronic Paper Collection:
<http://ssrn.com/abstract=4298626>

Diversity Washing

Andrew C. Baker^a, David F. Larcker^{b,c,d}, Charles G. McClure^e, Durgesh Saraph^f, and Edward M. Watts^{g,*}

^aBerkeley Law School

^bStanford University, Graduate School of Business

^cHoover Institution

^dEuropean Corporate Governance Institute (ECGI)

^eThe University of Chicago, Booth School of Business

^fUnaffiliated

^gYale School of Management

Draft: August 14, 2023

Abstract

We provide large-sample evidence on whether U.S. publicly traded corporations use voluntary disclosures about their commitments to employee diversity opportunistically. We document significant discrepancies between companies' external stances on diversity, equity, and inclusion (DEI) and their hiring practices. Firms that discuss DEI more than their actual employee gender and racial diversity ("diversity washers") obtain superior scores from environmental, social, and governance (ESG) rating organizations and attract more investment from institutional investors with an ESG focus. These outcomes occur even though diversity-washing firms are more likely to incur discrimination violations and have negative human-capital-related news events. Our study provides evidence consistent with growing allegations of misleading statements from firms about their DEI initiatives and highlights the potential consequences of selective ESG disclosures.

JEL classification: G30, G34, G23, M14

Keywords: Diversity disclosure; Human capital; Social washing; Environmental, social, and corporate governance (ESG)

We thank John Core (discussant), Fabrizio Ferri (discussant), Joseph Grundfest, Umit Gurun, Ken Li, Heidi Packard, Joseph Pacelli (discussant), Ethan Rouen (discussant), Shawn Shi, Jun Yang (discussant) and seminar participants at the London School of Economics, Drexel Corporate Governance Conference, Labor and Accounting Groups Conference, Corporate Governance Conference at the University of Chicago, the University of Connecticut Finance Conference, Annual Conference on Financial Market Regulation, Edinburgh Corporate Finance Conference, WFA Annual Conference, and Stanford Summer Camp for helpful feedback and comments. We gratefully acknowledge the support of Berkeley Law School, The University of Chicago, Stanford Graduate School of Business, and the Yale School of Management. Charles McClure is grateful for the support from the Liew Junior Faculty Fellowship and the Chookaszian Accounting Research Center. We also thank Esha Bhattacharya, Boyie Chen, Kalkidan Ayalew Kebede, Cameron Mejia, and Ozair Qureshi for excellent research assistance, and Ben Zweig and Reyhan Ayas for their guidance on the use of the Revelio Labs data, Aneesh Raghunandan for his help with the Goodjobsfirst data, and Lisa Liu for help with the US SIF data. We used ChatGPT to assign topic labels for our content analysis.

*Corresponding author.

Email: edward.watts@yale.edu

1. Introduction

A growing number of allegations suggest companies provide questionable portrayals of their environmental, social and governance (ESG) activities. Such misrepresentations, commonly referred to as “greenwashing” or “social washing,” are particularly concerning given the increasing number of ESG-focused shareholders and stakeholders who rely on voluntary firm disclosures, and commercial ratings developed from these disclosures, to identify ESG constructs. In the presence of these misrepresentations, investors, consumers, regulators, and other stakeholders have difficulty assessing the ESG performance of companies. Consequently, poor ESG information may adversely affect ESG-oriented stakeholders’ decision-making and lead ESG investors to misallocate their capital. Currently, we have a very limited understanding of the extent of these measurement problems.

In this paper, we assess the consistency of firms’ public commitments¹ to diversity, equity, and inclusion (DEI) in their financial filings with the underlying diversity of their employees. For a large fraction of firms in our sample, we document a significant disconnect between the two, which has been growing over time. In the cross-section, we show that these disconnects appear broadly consistent with “diversity washing” (i.e., firms misrepresenting their actual commitments to diversity). Our evidence also indicates that this behavior has meaningful consequences for corporations, including inflated ESG ratings and increased ownership by ESG-focused funds.

There is mounting concern among investors and regulators that firms are not truthfully representing their commitment to environmental and social issues. Such concerns have been accompanied by a growing number of shareholder lawsuits involving corporate DEI practices and disclosures (Hood, 2023). For instance, Meta (formerly Facebook) was recently sued for allegedly false and misleading claims in their proxy statement regarding their commitments to DEI, while Danaher Corporation was sued for publicly representing itself

¹We broadly define diversity commitments as statements made by firms related to diversity, equity, and inclusion. We label these statements as “commitments” because many of them are framed as firms’ efforts to promote diversity or highlighting past commitments to diversity.

“as a company that effectively promotes diversity throughout its ranks” while failing to appoint any African American board members. Although courts have consistently dismissed these lawsuits as “non-actionable,” there is a growing sentiment among market participants that firms are misreporting their commitment to DEI.²

Despite widespread accusations, the full extent to which firms are providing misleading DEI disclosures in their financial statements is unclear. The decision to misrepresent a firm’s commitment to DEI is a function of the perceived benefits and costs for firms and managers, as is the case of other financial misstatements. Many of the potential benefits appear evident, from attracting ESG-focused investors, who are expected to control a third of all institutional assets by 2025 ([Simpson, Rathi, and Kishan, 2021](#)), to appeasing other stakeholders (e.g., [Homburg, Stierl, and Bornemann, 2013](#); [Park, Lee, and Kim, 2014](#)).

At the same time, the direct costs of misleading DEI disclosures are significantly less clear but are perceived to be small. Verification through DEI audits, although increasing, remains rare, with just eight diversity audits receiving majority shareholder support in the Russell 3000 in 2022 ([The Conference Board, 2022](#)). Litigation costs have also been low, as courts have dismissed nearly all lawsuits against firms for failing to uphold disclosed DEI commitments as “non-actionable” corporate puffery ([LaCroix, 2021](#)). As a result, it remains unclear whether DEI disclosures are systematically inaccurate and whether stakeholders respond to any such obfuscation.³

To explore whether firms make misleading statements about diversity in their financial disclosures, we determine the amount of DEI discussion by developing a DEI dictionary and

²Past dismissals do not guarantee that future allegations will be dismissed as well. Anecdotal evidence suggests that providers of director and officer (D&O) insurance have recently become worried about future litigation costs related to firm diversity practices ([Smith, 2020](#)). Moreover, the SEC and other regulatory agencies have registered increasing concern about greenwashing and social-washing activities of firms. As one leading law firm commented in response to the increase in regulatory enforcement activity, “the corporate world will need to ensure that environmental and sustainability claims are clear, accurate and supported by objective evidence” ([Norton Rose Fulbright, 2022](#)).

³Firms incorporating statements about firm diversity in their financial filings likely need a strong investor-relation team to assess which statements to include. Although disclosing a commitment to DEI is typically unverifiable and non-binding, it can likely result in other indirect costs. For example, the repeated nature of interactions between the firm and its stakeholders would lead to reputation consequences for a firm found to consistently misreport its commitments to diversity (e.g., [Stocken, 2000](#)).

counting the frequency of DEI-related terms in financial documents (10-Ks, 8-Ks, and proxy statements). Our descriptive evidence shows that these discussions are most commonly related to employee diversity and equal opportunity in the workforce. In addition, firms frequently highlight the existence of policies to create equal opportunities for their workforce regardless of race or gender.

In the time series, we find a significant increase in the frequency of DEI-related discussions in financial statements, and most of this increase involves terms related to racial diversity and workplace culture. The intra-year dispersion of such discussions across firms has also increased significantly over time, indicating that the rise in firm disclosure policies and the amount of DEI discussions has far outpaced the growth in diversity. These basic descriptive facts suggest the possibility of a growing prevalence of opportunistic DEI disclosures by some firms.

We next assess the association between a firm's diversity and its propensity to disclose DEI-related commitments. We find a positive relationship between diversity and DEI commitment disclosures, indicating that firms with more diversity discuss DEI more frequently. However, this relationship is weak and explains less than 1% of the overall variation in these types of public commitments. The substantial amount of unexplained variation suggests that many firms may opportunistically use selective voluntary DEI disclosures to engage in diversity washing.

To examine the relation between corporate disclosure and diversity commitment behavior, we create a simple firm-year measure that compares the relative underlying diversity of firms with the relative amount of DEI discussion in their disclosures. In effect, we create a measure for the abnormal amount of DEI discussion, under the assumption that different firms should discuss DEI in similar amounts based on their underlying diversity. The logic behind this measure is similar to those used to test the role of managerial optimism in soft disclosures (e.g., [Rogers, Van Buskirk, and Zechman, 2011](#); [Huang, Teoh, and Zhang, 2014](#)) or the use of obfuscatory language to mislead investors ([Li, 2008](#); [Bushee, Gow, and Taylor,](#)

2018). This approach is also consistent with prior literature comparing the ESG activity of self-labeled ESG funds (e.g., [Raghunandan and Rajgopal, 2022](#); [Dikolli, Frank, Guo, and Lynch, 2022](#)). Specifically, we assess whether firms “walk the talk,” where larger differences between discussion and diversity are more likely to be indicative of “diversity washing.”

We validate that our diversity-washing measure is a proxy for DEI-related misrepresentation in several ways. First, using data on Equal Employment Opportunity Commission (“EEOC”) penalties, we observe that diversity washers are more likely to incur violations, both contemporaneously and in the future. Furthermore, we show that diversity-washing firms are more likely to have adverse news events related to ESG and human capital. The elevated frequency of these negative outcomes does not support the notion these firms are committed to DEI. Second, we find that diversity-washing firms are also more likely to provide ESG policies without concrete goals, suggesting that they do not enact meaningful changes to their ESG practices despite public assurances.

Third, given that we base our diversity-washing proxy on contemporaneous diversity, which is a function of past hiring decisions, we consider whether identified diversity washers are signaling future commitments to diverse hiring. However, we find that, if anything, diversity washers tend to hire fewer diverse candidates in the future, even among their most junior employee ranks. Finally, given the many other disclosure venues available to firms, we show that diversity washers’ emphasis on DEI extends beyond financial-statement disclosures by documenting similar patterns in misrepresentations in corporate social responsibility (CSR) reports and on Twitter.

An important consideration is whether this corporate disclosure behavior affects investor perception of ESG performance. Across two major commercial ESG data providers (Refinitiv and Sustainalytics), both of which use voluntary company disclosure as a primary input in their ratings, we find that diversity washers garner higher overall ESG and social ratings. Moreover, we find that diversity washers experience higher ownership levels by norm-constrained institutions, such as ESG-oriented mutual funds. Thus, misleading DEI-

disclosure behavior by companies appears to have an undesirable real impact on sustainable asset flows.

In our final set of analyses, we examine the content of DEI discussions. We find that diversity washers more frequently highlight workplace culture and equity, despite exhibiting less diverse hiring. We also find that diversity washers are more likely to include forward-looking language in their DEI discussions and that diversity-washing firms with more forward-looking language have worse future diversity. This finding is less consistent with truthful aspirations for future increases in diversity and more aligned with an effort to shift attention away from current shortcomings. Lastly, we disaggregate our DEI keywords into gender and ethnic keywords to examine whether firms strategically emphasize certain aspects of their diversity profiles. As in our main results, we find no evidence that firms with a disproportionate amount of race or gender-based DEI discussions subsequently improve hiring on those dimensions.

Our paper makes several contributions. First, we add to a growing literature on ESG disclosure (see [Christensen, Hail, and Leuz, 2021](#) for a review) by showing the propensity to exaggerate commitments to DEI in financial documents and its potential consequences. In doing so, we relate to several contemporaneous papers. [Liang, Lourie, Nekrasov, and Yoo \(2022\)](#) find that firms with better gender diversity tend to disclose gender statistics on Bloomberg, which is also mirrored in a recent study by [Bourveau, Flam, and Le \(2023\)](#) in the context of EEO-1 disclosures for federal contractors. [Cai, Chen, Rajgopal, and Yang \(2023\)](#) find that the limited number of firms providing diversity hiring targets hire more diverse employees, though much of this hiring is achieved before the target is set. Collectively, our studies highlight the selective nature of DEI disclosures made by U.S. companies.

Second, we add to the literature on whether firms publicly misrepresent their ESG activities. Recent work investigates these concerns across various settings, providing mixed evidence for whether firms “walk the talk.” Many studies focus on narrow contexts and industries, such as greenwashing behavior among investment advisors (e.g., [Raghunandan](#)

and Rajgopal, 2022; Dikolli et al., 2022; Kim and Yoon, 2021) or bank lending activities (Basu, Vitanza, Wang, and Zhu, 2022; Giannetti, Jasova, Loumiotis, and Mendicino, 2023). The unique features of our data allow for a comparison of firm disclosures with the underlying actual levels of diversity, providing large-scale evidence of DEI over-claiming in financial filings. Our results support the accusations of industry groups, litigants, and regulators that some firms appear to misrepresent their commitments to DEI and ESG more broadly.⁴

Finally, our paper has implications for commercial ESG ratings and sustainable asset flows. Recent studies highlight inherent noise and disagreements in ESG ratings (e.g., Berg, Kölbel, and Rigobon, 2022; Larcker, Pomorski, Tayan, and Watts, 2022; Berg, Koelbel, Pavlova, and Rigobon, 2021b), part of which is related to disclosure choices (Christensen, Serafeim, and Sikochi, 2022). Uncertainty regarding “true” firm ESG profiles can significantly affect asset flows and pricing (e.g., Avramov, Cheng, Lioui, and Tarelli, 2022; Serafeim and Yoon, 2022). Our evidence suggests that some firms appear to bias their ESG disclosures, thereby altering market perceptions of their ESG profile. This finding highlights concerns that socially responsible capital may not be invested in the appropriate companies (e.g., Bhagat, 2022; Wilkes, 2022). Although much of the SEC’s focus to date has been on false marketing by investment funds (e.g., SEC, 2022b; Williamson, 2022), our evidence highlights that portfolio firms’ management of investor expectations using selective disclosure may be partially responsible for this problem.

2. Data Sources, Measurement Choices, and Sample

2.1. Diversity data

We leverage novel data from Revelio Labs to measure underlying corporate diversity for a large sample of public U.S. firms. Revelio Labs collects and standardizes hundreds

⁴For instance, see recent regulatory actions the SEC has taken against investment advisors and, more recently, companies regarding misleading claims on ESG-related practices. As a result, the SEC is considering several proposals to combat misleading claims and has announced that it is including ESG investing in its examination priorities (e.g., see Chapman, 2022).

of millions of online public profiles and resumes to construct aggregate measures of historical workforce composition. Critical to our study, they assemble detailed data on gender and racial diversity for over 5,000 public companies in the U.S.⁵ We construct our primary measure of diversity as the fraction of U.S.-based employees who are female or non-white.⁶

Using online profiles, such as LinkedIn, can skew the Revelio Labs sample toward white-collar workers. Revelio Labs addresses this potential bias by re-weighting profiles to approximate the underlying population of employees.⁷ Despite these efforts, Revelio Labs may not completely offset this bias. In that case, our diversity measures might be more representative of the demographics of white-collar workers. Given that most diversity debates revolve around high-paid white-collar jobs, our subsequent analysis is highly relevant to the contemporary debate on DEI issues.

2.2. *Firm-level DEI commitment measures*

We develop our DEI-commitment measure using DEI discussions contained in three primary SEC filings: annual reports (10-K), current reports (8-K), and proxy statements (DEF14A), which we obtain from WRDS SEC EDGAR filings database. Although these documents are not the only channels through which firms can communicate their commitments to DEI, we focus on them for three reasons. First, every publicly traded firm is required to file SEC documents annually. This requirement allows us to examine a broad sample of firms and mitigates concerns regarding selection bias associated with a focus restricted to only voluntary disclosure channels (e.g., CSR reports) or voluntary diversity targets, as only a small fraction of firms commit to any diversity target (Cai et al., 2023). Second, these

⁵Revelio Labs derives these measures using prediction-based algorithms comparing employee names and locations with social security, census, and voter registration data. Such name-based algorithms are a common feature in many studies and are found to be accurate in large samples (e.g., Imai and Khanna, 2016).

⁶We use data from Revelio Labs' Workforce Dynamics database, which provides probability-weighted counts of employees based on their gender and ethnicity. We focus on U.S.-based diversity for two reasons. First, diversity issues have been particularly acute in the U.S. Second, we do not want our measures to mechanically relate to the demographics of a firm's international locations. For example, if a firm has a large presence in Central America, we would expect it to have a large fraction of Hispanic employees.

⁷For example, if a U.S.-based engineer has a 90% chance of having an online profile, one profile of a U.S.-based engineer counts as 1.1 people. See: <https://www.reveliolabs.com/faq/>.

filings are an increasingly essential avenue of communication for a firm's ESG-related activities, which is reflected in the SEC's recent push to include human capital and climate change disclosures (e.g., [SEC, 2022a](#); [Gampher and Goldstein, 2022](#)). Third, shareholders and stakeholders have become increasingly concerned about the veracity of DEI disclosures in financial documents, as evidenced by recent investigations and legal proceedings related to false diversity commitments in firms' financial disclosures (e.g., [Moreno and Staskiewicz, 2021](#)).

We use a dictionary-based algorithm on the text of SEC filings to identify firm-level disclosures related to DEI commitments. Our approach is similar to many prior studies that use a dictionary to identify topics such as the complexity of financial documents and the underlying tone of the document (e.g., [Li, 2008](#); [Loughran and McDonald, 2011, 2014](#)). We provide a detailed explanation of our linguistic approach in Appendix B. To summarize, we construct a dictionary of DEI-related words from several online DEI dictionaries and remove terms with alternative, non-DEI meanings to mitigate the possibility of inadvertently capturing non-DEI discussion.

Most of our dictionary words relate to racial and gender diversity, which has been the focus of many high-profile DEI efforts (e.g., #MeToo) and corresponds to our underlying measure of diversity. However, several words pertain to DEI objectives distinct from racial and gender equity, such as sexual orientation and disabilities. To minimize researcher discretion on the measurement construction, we keep all words from the online dictionaries that do not have alternative meanings that are unrelated to DEI, regardless of whether they specifically relate to gender and racial diversity. For instances where a keyword has an alternate meaning, we collect all the bigrams with that keyword from our corpus and have research assistants read sentences with the bigram to determine whether it relates to DEI and include those that do. We take this holistic approach and include DEI keywords from a broad set of DEI topics because most firms' DEI efforts are not constrained to a particular aspect of DEI (e.g., only focus on gender diversity) but are more general efforts to welcome

employees from diverse backgrounds. As a result, our DEI dictionary, at worst, only adds (presumably random) noise to our measure of DEI commitment.

At a high level, our measure captures the quantity of discussion that firms allocate to DEI in their financial statements. Such discussions are often about commitments to DEI, highlighting their current (or past) efforts to promote an inclusive work environment or general language on being an inclusive employer. Thus, our measure provides a proxy for DEI commitments found in the documents of interest.

2.3. Sample

We construct firm-level financial and equity characteristics from CRSP and Compustat. ESG ownership proxies are acquired from CRSP mutual fund holdings data. We obtain firm misconduct information from Goodjobsfirst Violation Tracker data and include several measures on aggregate ESG and social ratings from Refinitiv and Sustainalytics. In subsequent analyses, we analyze DEI-related discussions on Twitter, accessed via their API, and in firms' CSR reports, which we obtain from the comprehensive Corporate Register database. Our dataset covers nearly all U.S. public corporations from 2008 through 2021 in the CRSP-Compustat universe and approximately 1.4 million financial documents. All continuous variables are winsorized at the 1st and 99th percentiles to mitigate the impact of outliers.

In Panel A of Table 1, we present descriptives for all primary measures used in our analyses. The average (median) number of aggregate DEI-related words in our sample of firm-year observations is approximately 7 (3), suggesting firms devote at least some discussion to DEI-related issues in their financial documents in a given year.⁸ The primary source of these discussions is the DEF 14A, which reflects that it is the only document with a required

⁸The count of DEI terms reflects the trade-off between a more expansive dictionary that may induce false positives and a more conservative dictionary that may miss some DEI discussion. We utilize a more conservative dictionary to avoid false positives. We chose this because we believe the bigger concern is mislabeling firms as diversity washers because of false positives. Our results are qualitatively unchanged with a more expansive dictionary of 1,132 terms and when only using unigrams.

DEI discussion for most of our sample period, because in 2009 the SEC required all firms to disclose if and how diversity factored into board positions (SEC, 2009). Critical to our study, which focuses on heterogeneity in disclosure, we see significant variation in how much firms discuss diversity, with the standard deviation of aggregate DEI terms being approximately 10.

Table 1 also reveals diverse employees are under-represented in publicly traded U.S. companies relative to their proportion in the broader population. For instance, the 41.7% female and 29.8% non-white employees are substantially lower than the 2016-2020 Census estimates of 50.5% and 40.7% for working-aged individuals.⁹ All other statistics are in line with the expectation that our sample broadly reflects the Compustat-CRSP universe.

We match underlying diversity for a calendar year to the DEI discussion in documents released in that calendar year because it best aligns diversity with DEI discussion.¹⁰ In Panels B and C of Table 1, we present pairwise correlations of our DEI-disclosure and diversity measures, respectively. Both tables highlight that, although all variables are positively correlated, substantial variation exists within the DEI count and diversity measures. This result suggests each measure captures a different aspect of externally communicated and realized DEI commitments.

Figure 1 plots the trend in the average (black line) and standard deviation (white bar) of firm-level diversity (left panel) and DEI words (right panel) over our sample period. The left panel shows only a modest increase in firms' average diversity, but there is substantial within-year variation in firms' diversity. The right panel examines the DEI word count in the financial documents.¹¹ This plot shows a substantial increase in the average amount of DEI discussion over our sample period. This five-fold increase is far greater than the increase in average diversity and likely reflects firms' responses to recent increased attention to DEI

⁹See: <https://www.census.gov/quickfacts/fact/table/US/LFE046220>.

¹⁰In untabulated analyses, our results are robust to various timing specifications, such as using lagged or next year's diversity data.

¹¹The correlation between the number of DEI words in a firm-year and the number of words in DEI sentences is 0.845. Consequently, all of our results are qualitatively similar if we use the number of words in sentences with DEI keywords as a measure of DEI discussion.

matters by shareholders and stakeholders. Like the underlying diversity in the left panel, we also observe substantial variation in the DEI discussion. Although some of this variation may reflect the variation in the underlying diversity, it may also reflect that other factors, such as opportunistic DEI disclosures, may also be at play.

To help understand the content of firms' DEI commitments and how this changes over our sample period, we plot the frequency of the most common keywords for each year in Figure 2. Although we see a sizeable increase in overall counts, we observe it is primarily driven by a subset of terms. The increase in DEI discussion relates to the discussion of ethnic diversity, as terms like “diversity and inclusion”, “ethnicity”, “racial” and “board diversity” substantially increase in frequency in the second half of our sample. This finding contrasts with terms related to equity, such as “pay equity” and “equal employment opportunity”, which remains relatively constant over our sample period. Figure 2 suggests that the increase in DEI discussion stems from an expansion in a discussion of ethnic diversity.

We further investigate how firms discuss DEI by examining the topics arising in sentences with DEI keywords using a method based on BERT. Briefly, BERT is a transformer-based neural network that examines the context of words by considering the co-occurrence of words around them to infer meaning.¹² We use an extension of BERT, **sentenceBERT**, which is pre-trained on over 1 billion sentences and is intended to examine the context of sentences instead of individual words. We use **sentenceBERT** because most DEI sentences involve one topic, and this method is better suited for sentence-level classification.¹³ We set the number of topics to 20 and have ChatGPT assign labels to each topic based on a sample of sentences. Following Dyer, Lang, and Stice-Lawrence (2016), we organize these topics into interpretable

¹²This natural-language approach is pre-trained on Wikipedia and therefore embeds meaning on nearly any topic. BERT and derivative methods have been used in accounting (Huang, Wang, and Yang, 2023; Kim and Nikolaev, 2023) to identify topics in corporate disclosures. For additional details on BERT, see Devlin, Chang, Lee, and Toutanova (2019).

¹³For more information on **sentenceBERT** see Reimers and Gurevych (2019).

categories and report the four categories that most directly relate to DEI issues.¹⁴ Appendix C describes our approach in greater detail and the mapping between topics and categories.

Figure 3 reports the sentence counts of each category. This figure shows that earlier in our sample, DEI sentences are predominately related to employment and compensation. However, the number of sentences related to these categories remains steady, whereas there is a substantial increase in DEI sentences related to corporate governance and, more drastically, workplace culture. Figure 3 shows that these two topics dominate much of the DEI discussion towards the end of our sample. This may reflect firms' discussions of how culture and governance mechanisms foster a more inclusive workplace following the #MeToo and Black Lives Matter movements. Discussion of compensation and employment practices are likely less germane to these events, as they reflect general purpose governance practices.

3. DEI Commitments and Firm Diversity

3.1. *DEI Discussions in Financial Documents and Diversity*

We first explore the relationship between a firm's discussion of DEI commitment and the actual level of diversity at the firm. This analysis examines whether firms with more diversity discuss diversity more. In Table 2, we estimate Poisson regressions of the quantity of DEI terms in firms' financial disclosures on the percentage of female and non-white employees. We do this for the aggregate number of DEI words disclosed by the firm (i.e., DEI Words^{Agg.}) and for each type of EDGAR disclosure (e.g., 10-Ks). Panel A reports results without fixed effects, and Panel B reports results with industry (by two-digit SIC code) and year fixed effects to control for industry-specific and temporal variation in DEI

¹⁴We do not report the category labeled as "Other". As Appendix C shows, the topics in this category do not easily fit into DEI-related topics and are often industry-specific. For instance, the topic "Healthcare, Medical Research, and Accessibility Services" often discusses treatments for diseases prevalent among certain ethnic populations or a medical company's efforts to increase access to care for certain demographics. Similarly, "Real Estate Law and Financial Regulation" describes the efforts of companies with real estate or retail stores to open locations in underprivileged neighborhoods.

disclosures. We use industry fixed effects, instead of firm fixed effects, to exploit across-firm variation to identify how diversity washing firms differ from others.¹⁵

In both panels, we observe a positive and statistically significant relationship between the percentage of non-white employees and the number of DEI words in the disclosures. This finding suggests firms with more non-white employees highlight their diversity in financial disclosures. This result holds not only for the aggregate amount of diversity discussion but also for each document type. We find similar results for the relation between the percentage of female employees and DEI words for most specifications. Overall, this table is consistent with the findings in [Liang et al. \(2022\)](#) and [Bourveau et al. \(2023\)](#), who find that firms with more diversity are more likely to disclose diversity in different contexts. Although we find a positive relationship between underlying diversity and the extent to which firms discuss their commitments to these issues, we also see that this relationship is substantively weak. For instance, in column 1 of Panel A, our estimates indicate that a one-standard-deviation increase in the percentage of female employees (i.e., a 16% increase) is associated with less than a 3.5% increase in the number of DEI words across financial documents. Relatedly, depending on the specification, the percentage of variation in DEI discussions explained by the underlying diversity at firms is only 0.1% to 0.7%. Even when controlling for industry and year fixed effects, we find substantial variation is left unexplained. Thus, the effect size and the explanatory power of these models are, at best, modest.

Another way to visualize the relationship is through the box plots presented in Figure 4. In the top panel, we present the distribution of aggregate DEI word count (i.e., discussions of DEI commitments across firm financial filings) by within-year decile of firms ranked by their percentage of female employees. The bottom panel presents the same distribution but broken down by within-year decile of non-white employee share. Figure 4 clearly illustrates

¹⁵Many of our results become insignificant when we replace industry with firm fixed effects. This is unsurprising because our diversity-washing measures mainly capture across-firm variation to identify how diversity washers differ from other firms. Our choice to exploit inter-firm variation is consistent with other areas of accounting research, including the nature of corporate boards ([Anderson, Mansi, and Reeb, 2004](#)), discretionary accruals ([Hribar and Nichols, 2007](#)), and disclosure quality ([Rogers, 2008](#)).

the weak relationship between various diversity measures and DEI commentary in financial disclosures. Specifically, although we see a modest increase in the median word count as we move across diversity deciles, the distribution of DEI discussions within diversity deciles is similar across the range of diversity scores, suggesting the relationship between firms' underlying diversity and their DEI discussions is tenuous.

Overall, our findings indicate that companies with greater workforce diversity are more likely to discuss their commitments to DEI. However, we also show that this relationship is economically small, and substantial unexplained variation exists among firms even when controlling for industry characteristics and time trends.

3.2. Identifying Diversity Washers

We now explore the extent to which firms have a disconnect between their DEI commitment discussions and their actual diversity. We approach this issue using bivariate sorts of firms based on their discussion of DEI commitment and their underlying diversity. Specifically, each year we independently sort firms into percentiles of both underlying diversity and the number of DEI terms aggregated across all disclosures. This approach isolates firms that, relative to other firms in a calendar year, discuss DEI excessively relative to their actual diversity.¹⁶ Table 3 reports summary statistics related to each group of firms. The within-year ranks of DEI discussion are presented in the columns, and the within-year ranks of underlying diversity are presented in the rows. Panel A reports the number of firm-year observations for each bin in the 5×5 matrix. Two aspects of the distribution are worth noting. First, a chi-squared test rejects the null hypothesis that this binning is random. Instead, this panel suggests a weakly positive relation between firms' DEI discussions and underlying diversity, which is consistent with the results in Table 2. Second, and more importantly, we see a meaningful disparity between the extent of DEI discussion and the underlying diversity

¹⁶We measure diversity washing using within-year sorts to hold constant the overall level of DEI discussion and ensure our measure is not affected by the increasing time-series trend in DEI discussions. Our results are robust to sorting within the full panel (i.e., not by year).

for a large number of firms as nearly 40% of observations are classified in a higher discussion quintile than their underlying diversity.

Panel B reports the average percent of diversity for firms in each quintile. By construction, as we move down the rows, average diversity increases. Comparing across columns, we see the differences in diversity between the lowest and highest discussion quintiles are mostly statistically significant and positive, highlighting the finding that firms with more diversity tend to have more discussion about DEI-based commitments. In general, after conditioning on overall levels of diversity, we find the DEI-based disclosure strategies of firms are largely disjoint from their underlying diversity. Panel C reports the average number of aggregate DEI words in each bin. As expected, as we increase the disclosure quintile (i.e., move across columns), DEI words increase. The magnitude of the change across quintiles is drastic—holding fixed the diversity quintile, firms in the highest-disclosure quintile have approximately 37–45 times more DEI words in their financial disclosures than firms in the lowest-disclosure quintile.

The results in Table 3 show that the decision by firms to disclose DEI-related issues appears largely unrelated to their underlying diversity. Despite an on-average positive relation between diversity and DEI discussions, we demonstrate significant variation in the relation exists. Collectively, we find that firms have significant discretion in how they discuss diversity in their SEC documents. We leverage this variation to identify firms that appear to be diversity washers.

3.3. *Constructing Firm-Specific Diversity-Washing Measures*

We construct two measures of diversity washing based on the intra-year distance between the amount of DEI commitment discussion and actual diversity. Effectively, we assume that the expected amount of discussion should be proportional to underlying diversity, and any deviation from the average relation across firms in a given year suggests a firm may be misrepresenting its diversity.

We calculate these deviations as the difference between a firm's within-year DEI-commitment disclosure percentile and its diversity percentile.¹⁷ Using within-year percentile ranks allows for comparisons across two differently-scaled measures (i.e., counts of DEI words and diversity percentages). Furthermore, it mitigates the impact of outliers and measurement errors in the data. Comparing observations within a year controls for any time-variant common changes in these discussions, such as the general increase in firms' DEI discussions. We label the difference in the disclosure and actual diversity percentiles as the *Diversity-Washing Level*. We also construct a binary variable that equals one if a firm's disclosure percentile is higher than its diversity percentile, and 0 otherwise, and label the resulting variable as *Diversity Washer*.¹⁸

In Table 4, Panel A, we report univariate differences in firm characteristics between diversity washers (those firms for which *Diversity Washer* is equal to 1, which equates to approximately half of our sample) and the rest of the sample of non-diversity washers. We find diversity washers tend to be larger firms with higher profitability and lower volatility. Although these differences are statistically significant, they are economically modest, suggesting our subsequent results are less likely to be confounded by these differences. Panel B performs a multivariate regression on the determinants of diversity washing. Columns 1 and 2 have *Diversity-Washing Level* as the dependent variable, and columns 3 and 4 have *Diversity Washer*.

Like the univariate results in Panel A, diversity washers tend to be larger firms. However, after we control for size and other firm characteristics, diversity washers tend

¹⁷For example, a firm in the highest disclosure percentile (i.e., 100) and lowest diversity percentile (i.e., 1), would receive a score of +99. All findings throughout the paper are qualitatively the same when using differences in quintiles (as in Table 3), quartiles, or deciles.

¹⁸ The omitted category for the binary indicator, *Diversity Washers*, contains firms that talk about DEI in similar relative amounts to their underlying diversity, as well as firms that talk about diversity *less* than is justified by their hiring practices (i.e., firms that hide their diversity). In untabulated results, we find that the coefficient on the indicator for "diversity hiding" firms is of the opposite sign of those reported for diversity washers. These firms are typically smaller and have higher than normal profitability, suggesting that their incentive to obfuscate through soft disclosures is likely much smaller. In other untabulated analyses, we define *Diversity-Washing Level* and *Diversity Washer* using within industry-year deciles, and our results are qualitatively unchanged.

to be less profitable, have lower returns, and have higher book-to-market and volatility.¹⁹ These findings suggest that large, well-established firms experiencing negative profits and returns may use diversity discussion to shift the focus away from their worsening financial condition. By contrast, smaller, more profitable firms likely have much less incentive to shift the narrative away from their superior financial performance. Collectively, these findings provide some preliminary empirical support for regulators' concerns that firms use misleading discussions of their ESG commitments.

4. Validation of the Diversity-Washing Measure

This section provides validation analyses for our diversity-washing measures. We first provide evidence that diversity-washing firms are more likely to be associated with other negative DEI- and ESG-related outcomes. Specifically, we highlight that our proxy is positively correlated with Equal Employment Opportunity Commission ("EEOC") penalties and negative ESG and human-capital news. We also show that our proxy is also positively correlated with questionable diversity and ESG-related activities, as reflected by the presence of policies without numeric targets. We provide further evidence that diversity-washing firms also hire less diverse candidates in the future, confirming that their DEI discussions do not appear to be aspirational in nature. Finally, we find that diversity washers exhibit similar disclosure patterns in other communication channels, such as Twitter, suggesting that the discussions in financial reports are broadly representative of their general stance on these

¹⁹Although we observe in untabulated analysis meaningful differences in the fraction of firms within different industries classified as diversity washers, the explanatory power of industry fixed effects is modest. This result suggests that firms' differing levels of diversity washing occur for reasons other than their industry. Relatedly, it is possible that firms located in more diverse locations will have better diversity and, thus, less likely to diversity wash. However, headquarter-state fixed effects have little explanatory power, suggesting that firms' operations are too disparate for a headquarter-state fixed effect to capture the pool of employees or that diversity and DEI discussion are jointly determined.

issues.²⁰

4.1. *DEI-related outcomes*

If our proxy for diversity washing accurately captures false commitments to diversity, we expect it to be associated with other negative DEI-related outcomes. Moreover, if DEI-related issues are a function of poor human capital management (HCM), we would expect other negative HCM-related outcomes for diversity washers. We examine whether diversity washers have other adverse human-capital outcomes in Table 5, where we correlate our diversity-washing measure with EEOC violations (Panel A) and negative ESG-related news from RepRisk (Panel B).²¹ In both panels, we include the covariates in Table 4 as control variables, as well as industry and year fixed effects for all specifications.²²

In Panel A, we present results from a logit regression of whether the firm received an EEOC violation in year t on its measure of diversity washing. The first two columns show the association between diversity washing and all EEOC violations. In the last two columns, we narrow our focus to discrimination-related violations because they are the offenses most related to our measure of DEI. This panel shows a positive relation between diversity washing and the probability of having an EEOC penalty, and all columns are statistically significant.

In Panel B, we present results from a logit regression of whether the firm has negative ESG and human capital news during the year. Columns 1 and 2 show the relation between diversity washing and negative ESG news. The last two columns focus specifically on human-capital news. All four columns in Panel B are positive and statistically significant, indicating

²⁰Another type of validation analysis that we explore is whether diversity washers (non-washers) in a given year remain diversity washers (non-washers) in subsequent years. A reasonable expectation here is that the strategic choice for DEI disclosure and actual diversity should exhibit a high level of serial correlation if our measure is valid. The serial correlation for *Diversity-Washing Level* is approximately 0.79, indicating that the recent focus on DEI did not alter firms' propensity to diversity wash.

²¹EEOC violations occur if a firm is found to discriminate against a job applicant because of the person's race, color, religion, sex, national origin, age, or disability. For background information on EEOCs, see <https://www.eeoc.gov/overview>. RepRisk provides measures of reputational risk based on public disclosures, which exclude self-disclosures, for over 230,000 companies worldwide. See <https://www.reprisk.com/> for more information.

²²In all subsequent analyses, we include the covariates from Table 4 as control variables.

that diversity washers are more likely to have negative human-capital and discrimination news. This suggests that diversity washing may function as a way to use DEI discussions in financial disclosures to overcome negative news related to DEI and ESG. Collectively, the findings in Table 5 show that diversity washers exhibit significantly worse DEI performance, as measured by the likelihood of receiving an EEOC violation and having negative DEI news. These outcomes are expected if our diversity-washing measure has convergent validity.

In untabulated analyses, we perform similar regressions to those in Table 5, but instead examine the correlation with negative human-capital outcomes in the two years prior and two years following, our measurement of diversity washing. We find that diversity-washing firms have more EEOC violations and negative ESG and human-capital news both before and after classification as a diversity washer. This evidence is inconsistent with diversity-washing firms using the disclosure channel to respond earnestly to a negative firm event. It also does not suggest diversity washers are genuinely aspirational in their desire to improve diversity and their treatment of employees. Rather, diversity washers appear to have persistent negative human-capital outcomes and large amounts of DEI discussion in their financial documents. These results suggest a less-than-constructive rationale for discussing diversity for this subset of firms.

4.2. Other Questionable ESG Commitments

If diversity washing is part of a broader public-relations strategy for ESG issues, we expect our measure to correlate with other questionable ESG commitments. One such commitment relates to firms adopting an ESG policy that does not have quantitative targets (e.g., Nelson, 2021). If ESG pledges do not also involve targets to evaluate whether firms are achieving their goals, the associated policies may amount to little more than posturing, with little substance concerning how or whether a firm will achieve its goals. We expect diversity washers to be more likely to provide policies without targets because they want the appearance of good corporate citizenship without exerting the effort to achieve quantifiable

targets.

We examine this issue with ESG data from Refinitiv, which provides data on whether firms provide explicit policies and targets for four ESG categories: diversity, energy, water, and emissions. In Table 6, we examine the association between whether a firm provides a questionable ESG policy (i.e., a policy without a target) and our diversity-washing measure by estimating a logit regression that includes the controls, as well as industry and year fixed effects. In Panel A, we find a statistically positive association between questionable diversity policies (columns 1 and 2) and our diversity washing measures. Diversity washers are approximately 1.21 times more likely to have a questionable diversity policy. Except for emissions policies (columns 3 and 4 of Panel B) and energy policies with *Diversity Washers* as the variable of interest (column 4 of Panel A), all estimates are statistically significant and positive. These results suggest that diversity washers do not increase disclosure to discuss actionable changes or quantifiable targets, as in Cai et al. (2023). Rather, the analyses in Table 6, in conjunction with Table 5, provide further evidence supporting the validity of our diversity-washing measure.

4.3. *Future Diversity Hiring Decisions*

A potential concern with our measurement strategy is that we may misclassify firms with aspirational diversity goals that are not yet reflected in their actual diversity. Given our focus on contemporaneous diversity, which is a function of past hiring decisions, DEI discussion that relates to future hiring may be erroneously ascribed to misreporting. If these discussions are aspirational in nature and meant to describe ongoing efforts to improve diversity, we would expect future levels of diversity to improve. Alternatively, observing no effect, or even a decline in diversity, would suggest that diversity washers overstate their commitments. Such overstatement may be intended to influence the market's perception of firms' diversity practices.

In Table 7, we explore the relationship between diversity washing and subsequent

changes in diversity. In Panel A, we explore the association between changes in diversity and our measures of diversity washing by estimating regressions of the percent of employees who are diverse, *% Diversity*, in years $t + 1$ through $t + 3$, on our diversity-washing measures measured at time t . As before, we include the firm-level controls and industry and year fixed effects. In these estimations, we also control for the contemporaneous level of firm diversity to measure the relative changes over time.²³

Panel A reports the results. In years $t + 1$ and $t + 2$, we observe a statistically significant decline in diversity (the coefficient remains negative and similar in economic magnitude but insignificant in $t + 3$), which is inconsistent with the notion that diversity-washing firms signal their commitment to diversity in advance of actual changes in hiring practices. Rather, our results suggest diversity washers have elevated discussions on diversity commitments without enacting meaningful changes in their subsequent employee makeup.

In Panel B, we perform the same analysis but focus on changes in diversity levels for senior employees, representing mid- to senior-level managers. Even though we do not observe an increase in the overall level of diversity for diversity washers, an increase in senior employee diversity could suggest firms' attempting to utilize a "trickledown" approach to diversity (Cai, Dey, Grennan, Pacelli, and Qiu, 2022). Alternatively, observing no correlation, or a decline in diversity, further contradicts the notion that firms labeled as diversity washers are discussing aspirational changes to their employee workforce. Similar to the results in Panel A, Panel B shows a negative and significant correlation between the level of DEI commitment discussion and changes in future diversity measures.

Panel C examines how diversity changes for the most junior level of employees. We examine junior employees because of potential pipeline issues in many industries (e.g., Rivera, 2012), suggesting it may be easiest for firms to address deficiencies in employee diversity by hiring junior candidates. If we observe that diversity washers increase junior-employee diversity, it could suggest diversity washers are committed to improving diversity but face

²³This analysis is robust to several alternative specifications, including examining year-over-year growth in diversity or replacing industry fixed effects with firm fixed effects and removing current year diversity.

barriers to effectively increasing diversity at the aggregate level. However, Panel C again reveals a significant decline in the diversity of junior employees, which is inconsistent with diversity-washing firms being committed to increasing diversity through hiring practices. In untabulated analyses, we examine the diversity of overall, senior, and junior employees up to five years after our diversity-washing measurement year and continue to observe negative and largely significant declines. Overall, the results in Table 7 reinforce the notion that our diversity-washing measure is not capturing an aspirational DEI strategy by firms that has yet to manifest in their workforce demographics.

4.4. *Alternative DEI-Disclosure Channels*

We measure diversity washers based on their DEI discussions in mandated financial disclosures, but this communication channel is just one of many available to firms. An implicit assumption in our approach is that the DEI information released in alternative channels is consistent with what is contained in SEC documents. To examine this assumption, we explore two alternative channels firms commonly use to communicate their ESG-related efforts: CSR reports and Twitter. This analysis allows us to assess whether our diversity-washing measure and results are an artifact of the focus on financial disclosures.²⁴ It also may indicate that diversity washers are responding to the demand of stakeholders for diversity information.

We examine CSR reports because they are the primary platform where firms can discuss a wide range of CSR-related topics that may affect a firm's financial and operating conditions (e.g., see Christensen, Hail, and Leuz, 2019 for an overview of these disclosures). Because these voluntary disclosures directly relate to a firm's ESG activities, including DEI, a diversity washer may be more likely also to provide a CSR report. We also examine corporate Twitter disclosures because Twitter is a forum for firms to disseminate timely information

²⁴As we discuss in section 2.2, we focus on SEC documents in part because they are mandatory disclosures, which allows us to examine a broad sample of firms. We elected not to include CSR reports and Twitter in our main corpus of documents because doing so significantly restricts the sample of firms in our sample, particularly in earlier years.

directly to a broad set of constituents other than shareholders, bypassing traditional media outlets (e.g., Blankespoor, deHaan, and Marinovic, 2020; Miller and Skinner, 2015). Given Twitter's direct-access feature, diversity washers may use it to further amplify their DEI discussions.

We determine whether diversity washing is associated with CSR reporting and Twitter usage. Evidence of more usage by diversity washers can indicate they are more likely to engage with shareholders and stakeholders on issues unrelated to financial issues, such as diversity. In Panel A of Table 8, we estimate a logit regression where the dependent variable is an indicator for whether a firm issues a CSR report (columns 1 and 2) or has a Twitter handle (columns 3 and 4) on our two measures for diversity washing, *Diversity-Washing Level* and *Diversity Washer*. We also include the control variables and industry and year fixed effects. Panel A of Table 8 shows that diversity washers are more likely to issue CSR reports and have a Twitter account.

Panel B examines whether diversity washers use these platforms to discuss their DEI commitments. In these tests, we use the dictionary in Appendix B and count the number of DEI terms appearing in CSR reports (columns 1 and 2) and the number of tweets containing DEI terms (columns 3 and 4) in a given year. Panel B shows that diversity washers discuss DEI more frequently in CSR reports and tweets. The positive coefficients are statistically significant and economically meaningful. For example, in column 2 (4), diversity washers have 19.0% (28.1%) more DEI words in their CSR reports (tweets about DEI). In sum, Table 8 shows that diversity washers do not constrain their DEI discussions to financial statements.

5. Market Perceptions of Diversity Washers

Diversity washing is likely associated with a broader push within an organization to influence the market perception of the company. In doing so, diversity washers may benefit from appearing more socially conscious than their actual social behavior. This disclosure

tactic may be especially appealing for mature, low-performing firms because they can attract socially responsible investment (SRI) funds, which tend to be less sensitive to firm performance (Benson and Humphrey, 2008; Renneboog, Ter Horst, and Zhang, 2011; Biłkowski and Starks, 2016) and have less volatile asset flows than non-SRI funds (e.g., Bollen, 2007). Furthermore, SRI funds are an increasingly large sector of the investment community (Simpson et al., 2021). Therefore, we examine whether diversity washers succeed in biasing the perceptions of ESG-conscious market participants.

5.1. *Diversity Washing and Commercial ESG Ratings*

As the primary information source for investors on sustainability issues, commercial ESG-rating providers are an important information intermediary in public markets. These rating agencies have also recently faced heightened scrutiny over the quality of the underlying data used to construct their measures (e.g., Berg, Fabisik, and Sautner, 2021a; Berg et al., 2022), which is generally a combination of public, quasi-public, and sometimes proprietary data.²⁵ One important data source for rating agencies is a firm’s own disclosures (DE Shaw, 2022), which are difficult to verify because outside stakeholders and ESG rating agencies do not typically have access to the underlying data. Furthermore, ESG rating agencies tend to interpret and use these disclosures inconsistently (Christensen et al., 2022).²⁶ These features highlight the possibility that ESG raters may be misled by firms’ ESG disclosures or disingenuous actions (see section 4.2). To the extent this occurs for diversity washers, we expect such firms to obtain higher ESG scores.

²⁵This scrutiny has led to increasing concern among regulators and market commentators that the focus on ESG ratings may be misleading indicators of underlying ESG activities (Financial Conduct Authority, 2022; Temple-West, 2022). Highlighting this possibility, and in line with our findings, Cornaggia and Cornaggia (2023) shows that firms “manage” their ESG ratings by improving cosmetically along dimensions ESG rating providers weigh more heavily in their ratings.

²⁶Rating-agency practices vary, with some ratings setting non-disclosing firms to the industry average, and others assuming the worst performance (Larcker et al., 2022). For instance, Thompson Reuters Refinitiv describes in their methodology guide that “not reporting on ‘highly material’ data points will negatively affect a company’s score” (Refinitiv, 2021). Therefore, firms are often heavily incentivized to disclose something about ESG if they care about their ratings, but it is very difficult for ESG rating agencies to verify the quality of these disclosures.

We examine the relationship between ESG ratings and diversity washers in Table 9. We consider the scores from two top ESG rating providers: Thompson Reuters Refinitiv (Panel A) and Sustainalytics (Panel B). We consider each provider's overall assigned ESG rating (columns 1 and 2) and their social ratings (columns 3 and 4). As in prior analyses, we include firm-level controls and industry and year fixed effects. Panel A shows ESG scores provided by Refinitiv are higher for diversity-washing firms, which is the case for both the overall ESG rating (columns 1 and 2) and the social rating (columns 3 and 4). In economic terms, diversity washers exhibit approximately a 12% higher ESG score both for the overall and social score relative to non-diversity washers (which have a mean ESG score of 0.393). We also observe that these relationships are increasing in the level of diversity washing, as shown in columns 1 and 3.

Panel B tabulates similar analyses for Sustainalytics ratings. Like Panel A, we find that diversity washers have higher average ESG ratings for both the overall rating (columns 1 and 2) and social rating (columns 3 and 4), as shown by the positive and statistically significant coefficients. Economic significance is smaller than in Panel A, with diversity-washing firms having approximately 1.5% and 1.9% higher overall and social ratings than non-diversity washers, and again, these effects are increasing in the magnitude of diversity-washing.

The incentive to disclose DEI data to satisfy ESG raters may induce a mechanical relation between diversity washing and ESG rating coverage. To explore this possibility, in untabulated analysis, we estimate year-by-year regressions of Panel A, Table 9, because Refinitiv expanded its coverage beginning in 2017 from the Russell 1000 to the Russell 3000. If a mechanical relation exists, we should observe a change in the coefficient on our diversity washing measures that coincides with this expansion. However, we observe a consistently positive and significant relation that steadily increases over our sample period. Thus, it does

not appear that our findings result from ESG rating coverage.²⁷

To further emphasize how ESG ratings strongly relate to DEI disclosures instead of underlying diversity, in Panels A through D of Figure 5, we plot the ESG ratings across bivariate decile sorts of DEI discussion and underlying diversity. If ratings were solely based on underlying diversity, we expect lighter shades on the left of the plots and darker shades to the right and no significant variation along the vertical dimension. Conversely, if ratings are based on disclosures, we expect darker shades toward the top of the plots and lighter shades toward the bottom. Consistent with the latter scenario, Panels A and C show that the overall Refinitiv and Sustainalytics scores are strongly correlated with DEI discussion and have no discernible relation with underlying diversity. We observe a similar pattern when focusing on Refinitiv and Sustainalytics social scores (Panels B and D).

The results in Table 9 and Figure 5 show that diversity washers receive higher ESG ratings by commercial rating organizations, including their social scores, for which diversity is a principal input. This overrating likely arises from a combination of public promotion of commitments to DEI in disclosures, as well as the inability of ESG rating agencies to verify actual company diversity due to a lack of available data.

5.2. Diversity Washing and Asset Flows

Given our finding that diversity washers receive ESG ratings that may be biased upwards, ESG-focused investors may be misled into making poor asset allocation decisions. In Table 10, we test this conjecture by examining whether diversity washing is associated with greater ownership by institutional investors who value ESG. We use two methods to identify funds with an ESG focus. In Panel A, we follow Christensen, Floyd, Liu, and Maffett (2017) and examine ownership by SRI mutual funds as listed by *The Forum for Sustainable*

²⁷Additional research-design choices and evidence also suggest Refinitiv's expansion does not meaningfully influence our results. First, all of our tests include year fixed effects, so we control for year-level variation. Second, our result that diversity washers receive a higher rating holds when Sustainalytics is the rating agency (i.e., Table 9, Panel B). Sustainalytics did not expand coverage during the same period. Thus, it is unlikely Refinitiv's coverage expansion is driving these results. Results from this table are also robust to switching from 2-digit SIC code to the industry definitions provided by Refinitiv and Sustainalytics.

and Responsible Investment (USSIF). Because USSIF's list only includes USSIF members, in Panel B, we also identify ESG mutual funds based on their names.²⁸ In both panels, we measure ownership as the percentage of shares held by these investors for the year based on mutual fund holdings from the CRSP mutual fund database. As in prior analyses, we include firm-level controls and industry and year-fixed effects.

Panel A shows that SRI funds have larger positions in diversity washers. Firms that appear to engage in diversity washing have approximately 10.4% more SRI fund ownership (relative to the unconditional mean of 0.56% for non-diversity-washing firms). Furthermore, the positive and statistically significant relationship between *Diversity Washing Level* and SRI mutual fund ownership (columns 1 and 2) suggests that ownership increases in the level of diversity washing. In Panel B, we explore the relationship between diversity washing and ownership by ESG mutual fund ownership based on fund names. As in Panel A, we find a positive and statistically significant relationship between diversity washing and ESG asset ownership across all specifications.

Panels E and F of Figure 5 report the heat maps of ESG ownership as determined by USSIF membership and fund name. These plots are based on bivariate decile sorts of DEI discussion and underlying diversity. If ESG ownership is based on underlying diversity, we expect the ownership gradient to increase horizontally across the plots, with darker regions (i.e., higher ownership) as you move to the right. Alternatively, if ESG ownership is based more on DEI discussion, we expect the gradient to increase vertically across the plots, with darker regions toward the top of the plots. Panel E reports darker regions towards the top of the plot, implying that SRI ownership is more strongly associated with DEI discussion than underlying diversity. Panel F reports SRI ownership based on fund name and reveals no discernible relation between underlying diversity and ownership by funds whose names relate to ESG.

Overall, the evidence in Table 10 and Figure 5 suggests that socially conscious in-

²⁸Specifically, we identify all funds that contain the following search terms in their name: sustain, social, ESG, impact, gender, diversity, and diverse.

vestors hold a larger fraction of diversity washers' shares despite exhibiting significantly lower outcomes for DEI-related issues. These findings highlight that opportunistic ESG profiles of public firms may distort sustainability-oriented asset flows. This potential manipulation benefits diversity-washing companies and is an economic and social loss for investors with an ESG focus.

6. Content Analyses

In our primary analyses, we measure the extent of DEI discussions in financial statements based on the count of DEI keywords. However, this approach does not consider how firms discuss diversity and whether diversity-washing firms discuss DEI differently than other firms. Therefore, in this section, we examine the content of DEI discussions to understand how diversity-washing firms differ in their discussions and whether the nature of these discussions is predictive of future hiring behaviors.

6.1. *Diversity Washing and Topics*

In this subsection, we explore whether diversity-washing firms differ in their discussion of DEI. We test differences across the four broad topic categories presented in Figure 3 by regressing the fraction of DEI sentences assigned to a category on our two diversity-washing measures, firm-level controls, and industry and year fixed effects.

We report the results in Table 11, and our findings suggest that diversity washers discuss DEI differently in several important directions. First, as seen in columns 1 and 2 of Panel A, diversity washers highlight corporate culture and equity more frequently, despite having less diversity. Our findings in column 1 demonstrate that as the level of diversity washing increases, the proportion of discussion allocated to this topic also increases. These differences are economically significant, with diversity washers having approximately 36.0% more discussion related to these topics as a fraction of their total DEI discussions, as

measured in column 2 (relative to the non-diversity washer average of 12.28%). Overall, this further highlights how firms may be misleading stakeholders and shareholders.

In columns 3 and 4 of Panel A, we also find that diversity washers discuss corporate governance less frequently, which suggests that they may have weaker governance structures to foster improved diversity.²⁹ Relatedly, columns 1 and 2 of Panel B show that diversity washers allocate more time discussing employment law and regulation, which likely reflects efforts to control the damage resulting from their more frequent adverse DEI outcomes, such as EEOC violations. This may also be partially explained by an increased propensity to provide boilerplate language regarding compliance with existing employment laws or to protect themselves in the case of a lawsuit.

6.2. *Forward-looking Discussions*

Related to our prior analyses in Section 4.3, some DEI discussion likely relates to commitments to future diversity. For instance, diversity washers may provide more forward-looking discussions when they are serious about improving substandard DEI practices. Alternatively, these forward-looking discussions may represent cheap talk or efforts to mitigate current DEI concerns among shareholders and other stakeholders.

To examine whether diversity washers have more forward-looking statements, we examine sentences containing one of our DEI terms and count the number of forward-looking terms based on the forward-looking keyword dictionary in [Bozanic, Roulstone, and Van Buskirk \(2018\)](#). Using this measure, we conduct two analyses to explore how diversity-washing firms differ in their usage of forward-looking statements and whether it is associated with their future activities.

First, we establish that diversity washers tend to use more forward-looking terms by estimating a Poisson regression of forward-looking statements on our diversity washing measures, firm-level controls, and fixed effects. Table 12, Panel A, shows positive and significant

²⁹For instance, [Cai et al. \(2022\)](#) highlight the critical influence that diverse directors have in hiring diversity, more generally, throughout the firm.

coefficients on *Diversity Washing Level* (columns 1 and 2) and *Diversity Washer* (columns 3 and 4). This result provides evidence that diversity washers have more forward-looking statements in their DEI discussion.

In Panel B, we examine whether diversity washers appear to use forward-looking statements for aspirational purposes or rather to shift the focus away from current diversity issues. To disentangle these two possibilities, we explore how diversity washers differ in their future hiring practices when using more forward-looking statements. Following Table 7, we regress firm diversity in year $t + 1$ on our two measures of diversity washing, the number of forward-looking statements and their interaction terms, and year t diversity.³⁰

Consistent with forward-looking statements being used by diversity-washing firms to shift the narrative from current issues, across all columns in Panel B, estimated coefficients are negative and mostly significant at conventional levels. In other words, diversity washers that use more forward-looking statements are, if anything, less likely to increase diversity hiring in subsequent years. These findings further support the notion that diversity-washing discussions are not honest commitments to improving their diversity profiles in the future.

6.3. *Gender vs. Ethnic and Racial Diversity*

Throughout much of the paper, we do not distinguish between different forms of diversity washing because many of the diversity-related statements made by firms cannot be easily categorized (e.g., being an “equal opportunity employer”). However, this may discount cases where firms exhibit diversity along one dimension (e.g., gender) while lacking it in another. It also ignores differences in the discussions related to different types of diversity among their workforce. Some firms may diversity wash by emphasizing the form of diversity they have the most of while de-emphasizing areas where they are deficient. Moreover, examining gender and ethnic diversity separately allows us to assess whether

³⁰In untabulated analyses, we reestimate Panel B but use the percent diversity in years $t + 2$ and $t + 3$ as the dependent variables. The coefficients on the interaction terms remain negative and are statistically significant in seven of the twelve regressions.

firms that more frequently discuss a form of diversity that they do not exhibit are signaling future aspirations to improve along this dimension.

To investigate this potential heterogeneity, we had research assistants manually categorize our DEI keywords as either relating to gender, ethnicity, both, or neither. Using the segments of the dictionary focused on gender and ethnicity, we then performed two analyses. In Panel A of Table 13, we re-estimate the association between the frequency of DEI terms and the percentage of female and non-white employees. Columns 1 and 2 show that gender keywords are positively associated with the percentage of female employees (as expected) and also the percentage of non-white employees. The fact that gender keywords are strongly associated with non-white employees potentially reflects the high correlation between the use of gender and ethnic keywords. Columns 3 and 4 show that the number of race-based keywords is positively related to the percentage of non-white employees, but we observe no corresponding relation with the percentage of female employees. Thus, these analyses show some modest evidence for a specific form of strategic disclosure (highlighting their strengths and de-emphasizing their weaknesses) in relation to ethnic diversity for firms.

We next explore whether firms with heightened discussion but with hiring deficiencies along one dimension of diversity become more diverse in the future. We construct measures of diversity washing based on bivariate sorts using underlying diversity and keywords related to that specific form of diversity. For instance, we define *Diversity Washing Level^{Gender}* as the difference between discussion of gender diversity specifically and the fraction of female employees based on within-year percentile sorts.

We use these diversity washing measures in panels B and C to replicate the analysis in Table 7. Specifically, we regress next-period gender (Panel B) and non-white (Panel C) diversity on these diversity washing measures, firm-level controls, and industry and year fixed effects. We observe an insignificant relation between gender and ethnic diversity washing and underlying measures of female and non-white employees. These results contradict the notion that firms discussing a particular form of diversity are signaling future aspirations

towards diversity and largely align with our findings in Table 7.³¹

7. Conclusion

We provide large-sample evidence consistent with firms having significant discrepancies between their disclosed commitments to diversity and their actual hiring practices. Consistent with these discrepancies being indicative of diversity washing, we show such firms exhibit more outflows of diverse employees, more discrimination-related fines, and adverse human capital events. Despite these negative DEI outcomes, diversity-washing firms receive higher ESG scores from commercial rating organizations and attract more investment from ESG-focused institutional investors, suggesting these diversity disclosures mislead outside stakeholders and investors.

Our findings are inherently descriptive in nature. This feature is common in studies on disclosure (e.g., [Leuz and Wysocki, 2016](#)), especially those focused on voluntary disclosure in the ESG setting (e.g., [Christensen et al., 2021](#)). Moreover, a firm's decision to diversity wash is an endogenous choice, likely correlated with other strategic decisions. For instance, our evidence shows that a firm's propensity to diversity wash is correlated with its propensity to have other misleading ESG policies. Our evidence also suggests that diversity washers invest more heavily in their investor and public relations departments. Like all descriptive studies, our inability to confirm a strong causal explanation is a limitation of our study.

Our large sample evidence speaks to behavior on average and cannot address individual instances of misbehavior. We do not claim that a firm classified as a diversity washer is misreporting its commitment to diversity with absolute certainty, as many aspects of DEI-related activity and intent are unobservable. Instead, our inferences depend on the aggregate properties of our measures, which are consistently correlated with other observable misleading ESG behaviors and capital market benefits. This reliance on the cross-sectional

³¹In untabulated analyses, we also replicated all our results using these gender and ethnic diversity-washing measures. In both cases, our results are similar to those reported in the paper, which uses an aggregate measure of diversity washing.

properties of firm-level proxies for managerial opportunism is common in the empirical accounting literature (e.g., [Dechow, Ge, and Schrand, 2010](#)).

Despite these caveats, the data in this paper offer a unique opportunity to study an essential component of ESG—employee diversity—and compare it with firm disclosures related to these issues. ESG investing has grown rapidly in scale and importance even though most ESG activities are unobservable and self-reported, making it difficult to verify disclosures of the actual underlying activity for most firms. Our collective evidence highlights that many firms may be providing misleading disclosures about their ESG commitments, leading to potentially mistaken inferences among investors and other market participants. Collectively, our findings support the need for ongoing regulation and enforcement to hold firms accountable for reporting their ESG activities truthfully.

References

- Anderson, R. C., Mansi, S. A., Reeb, D. M., 2004. Board characteristics, accounting report integrity, and the cost of debt. *Journal of Accounting and Economics* 37, 315–342.
- Avramov, D., Cheng, S., Lioui, A., Tarelli, A., 2022. Sustainable investing with ESG rating uncertainty. *Journal of Financial Economics* 145, 642–664.
- Basu, S., Vitanza, J., Wang, W., Zhu, X. R., 2022. Walking the walk? Bank ESG disclosures and home mortgage lending. *Review of Accounting Studies* 27, 779–821.
- Benson, K. L., Humphrey, J. E., 2008. Socially responsible investment funds: Investor reaction to current and past returns. *Journal of Banking and Finance* 32, 1850–1859.
- Berg, F., Fabisik, K., Sautner, Z., 2021a. Is History Repeating Itself? The (Un)Predictable Past of ESG Ratings. Unpublished working paper. MIT Sloan School of Management and Frankfurt School of Finance and Management.
- Berg, F., Koelbel, J. F., Pavlova, A., Rigobon, R., 2021b. ESG Confusion and Stock Returns: Tackling the Problem of Noise. Unpublished working paper. MIT Sloan School of Management, University of Zurich, and London Business School.
- Berg, F., Kölbel, J. F., Rigobon, R., 2022. Aggregate Confusion: The Divergence of ESG Ratings*. *Review of Finance* 26, 1315–1344.
- Bhagat, S., 2022. An Inconvenient Truth About ESG Investing. *Harvard Business Review*.
- Białkowski, J., Starks, L. T., 2016. SRI Funds: Investor Demand, Exogenous Shocks and ESG Profiles. Unpublished working paper pp. 1–47.
- Blankespoor, E., deHaan, E., Marinovic, I., 2020. Disclosure processing costs, investors' information choice, and equity market outcomes: A review. *Journal of Accounting and Economics* 70.
- Bollen, N. P., 2007. Mutual fund attributes and investor behavior. *Journal of Financial and Quantitative Analysis* 42, 683–708.
- Bourveau, T., Flam, R., Le, A., 2023. Behind the EEO Curtain. Unpublished working paper. Columbia Business School and London Business School.
- Bozanic, Z., Roulstone, D. T., Van Buskirk, A., 2018. Management earnings forecasts and other forward-looking statements. *Journal of Accounting and Economics* 65, 1–20.
- Bushee, B. J., Gow, I. D., Taylor, D. J., 2018. Linguistic Complexity in Firm Disclosures: Obfuscation or Information? *Journal of Accounting Research* 56, 85–121.
- Cai, W., Chen, Y., Rajgopal, S., Yang, L., 2023. Diversity Targets. Unpublished working paper. Columbia Business School.

- Cai, W., Dey, A., Grennan, J., Pacelli, J., Qiu, L., 2022. Do Diverse Directors Influence DEI. Unpublished working paper. Columbia Business School, Harvard Business School, UC Berkeley, and Purdue University.
- Chapman, 2022. SEC Targets Greenwashing and Other Misleading ESG Claims.
- Christensen, D. M., Serafeim, G., Sikochi, A., 2022. Why is Corporate Virtue in the Eye of The Beholder? The Case of ESG Ratings. *The Accounting Review* 97, 147–175.
- Christensen, H. B., Floyd, E., Liu, L. Y., Maffett, M., 2017. The real effects of mandated information on social responsibility in financial reports: Evidence from mine-safety records. *Journal of Accounting and Economics* 64, 284–304.
- Christensen, H. B., Hail, L., Leuz, C., 2019. Economic Analysis of Widespread Adoption of CSR and Sustainability Reporting Standards. *SSRN Electronic Journal* .
- Christensen, H. B., Hail, L., Leuz, C., 2021. Mandatory CSR and Sustainability Reporting: Economic Analysis and Literature Review. *Review of Accounting Studies* 53, 1689–1699.
- Cornaggia, J., Cornaggia, K., 2023. ESG Ratings Management. Unpublished working paper. Pennsylvania State University.
- DE Shaw, 2022. Keep the Change: Analyzing the Increase in ESG Rating for U.S Equities.
- Dechow, P., Ge, W., Schrand, C., 2010. Understanding earnings quality: A review of the proxies, their determinants and their consequences. *Journal of Accounting and Economics* 50, 344–401.
- Devlin, J., Chang, M. W., Lee, K., Toutanova, K., 2019. BERT: Pre-training of deep bidirectional transformers for language understanding. *arXiv preprint arXiv:1810.04805* .
- Dikolli, S. S., Frank, M. M., Guo, Z. M., Lynch, L. J., 2022. Walk the talk: ESG mutual fund voting on shareholder proposals. *Review of Accounting Studies* 27, 864–896.
- Dyer, T., Lang, M., Stice-Lawrence, L., 2016. Do managers really guide through the fog? On the challenges in assessing the causes of voluntary disclosure. *Journal of Accounting and Economics* 62, 270–276.
- Financial Conduct Authority, 2022. ESG integration in UK capital markets: Feedback to CP21 / 18. June, Financial Conduct Authority.
- Gampher, A., Goldstein, D., 2022. A New SEC Human Capital Rule Is Coming—So Is Pushback. *Bloomberg Law*.
- Giannetti, M., Jasova, M., Loumiotis, M., Mendicino, C., 2023. "Glossy Green" Banks: The Disconnect Between Sustainability Reporting and Lending Activities. Unpublished working paper. Stockholm School of Economics, Columbia University, and UT Dallas.

- Homburg, C., Stierl, M., Bornemann, T., 2013. Corporate social responsibility in business-to-business markets: How organizational customers account for supplier corporate social responsibility engagement. *Journal of Marketing* 77, 54–72.
- Hood, D., 2023. Lawsuits Challenge Corporate Diversity Pledges After Floyd. *Bloomberg Law*.
- Hribar, P., Nichols, D., 2007. The Use of Unsigned Earnings Quality Measures in Tests of Earnings Management. *Journal of Accounting Research* 45, 1017–1053.
- Huang, A. H., Wang, H., Yang, Y., 2023. FinBERT: A Large Language Model for Extracting Information from Financial Text. *Contemporary Accounting Research* 40, 806–841.
- Huang, X., Teoh, S. H., Zhang, Y., 2014. Tone management. *Accounting Review* 89, 1083–1113.
- Imai, K., Khanna, K., 2016. Improving ecological inference by predicting individual ethnicity from voter registration records. *Political Analysis* 24, 263–272.
- Kim, A. G., Nikolaev, V. V., 2023. Context-Based Interpretation of Financial Information. Unpublished working paper. University of Chicago.
- Kim, S., Yoon, A., 2021. Analyzing Active Managers' Commitment to ESG: Evidence from United Nations Principles for Responsible Investment. *Management Science*. In Press.
- LaCroix, K., 2021. Two More Board Diversity Lawsuits Dismissed. *The D & O Diary*.
- Larcker, D. F., Pomorski, L., Tayan, B., Watts, E. M., 2022. ESG ratings: A Compass without direction (Stanford Business) pp. 1–16.
- Leuz, C., Wysocki, P. D., 2016. The Economics of Disclosure and Financial Reporting Regulation: Evidence and Suggestions for Future Research. *Journal of Accounting Research* 54, 525–622.
- Li, F., 2008. Annual report readability, current earnings, and earnings persistence. *Journal of Accounting and Economics* 45, 221–247.
- Liang, C., Lourie, B., Nekrasov, A., Yoo, I. S., 2022. Voluntary Disclosure of Workforce Gender Diversity. Unpublished working paper. University of California Irvine and University of Illinois Chicago.
- Loughran, T., McDonald, B., 2011. When Is a Liability Not a Liability? Textual Analysis, Dictionaries, and 10-Ks. *Journal of Finance* 66, 35–65.
- Loughran, T., McDonald, B., 2014. Measuring readability in financial disclosures. *Journal of Finance* 69, 1643–1671.
- Miller, G. S., Skinner, D. J., 2015. The evolving disclosure landscape: How changes in technology, the media, and capital markets are affecting disclosure. *Journal of Accounting Research* 53, 221–239.

- Moreno, A., Staskiewicz, C., 2021. Facebook Defeats Shareholder Suit Challenging Alleged Failures In Its Diversity and Inclusion Practices. *National Law Review* XIII.
- Nelson, R., 2021. Setting challenging ESG goals that create value. *Conservice ESG*.
- Norton Rose Fulbright, 2022. Greenwashing disputes on the rise.
- Park, J., Lee, H., Kim, C., 2014. Corporate social responsibilities, consumer trust and corporate reputation: South Korean consumers' perspectives. *Journal of Business Research* 67, 295–302.
- Raghunandan, A., Rajgopal, S., 2022. Do ESG funds make stakeholder-friendly investments? *Review of Accounting Studies* 27, 822–863.
- Refinitiv, 2021. Environmental, Social, and governance (ESG) scores from Refinitiv. February.
- Reimers, N., Gurevych, I., 2019. Sentence-BERT: Sentence embeddings using siamese BERT-networks. *arXiv preprint arXiv:1908.10084*.
- Renneboog, L., Ter Horst, J., Zhang, C., 2011. Is ethical money financially smart? Non-financial attributes and money flows of socially responsible investment funds. *Journal of Financial Intermediation* 20, 562–588.
- Rivera, L. A., 2012. Diversity within Reach: Recruitment versus Hiring in Elite Firms. *The Annals of the American Academy of Political and Social Science* 639, 71–90.
- Rogers, J. L., 2008. Disclosure quality and management trading incentives. *Journal of Accounting Research* 46, 1265–1296.
- Rogers, J. L., Van Buskirk, A., Zechman, S. L., 2011. Disclosure tone and shareholder litigation. *Accounting Review* 86, 2155–2183.
- SEC, 2009. Proxy Disclosure Enhancements, Rel. No. 33-9089.
- SEC, 2022a. SEC Proposes Rules to Enhance and Standardize Climate-Related Disclosures for Investors.
- SEC, 2022b. Statement on ESG Disclosures Proposal.
- Serafeim, G., Yoon, A., 2022. Stock price reactions to ESG news: the role of ESG ratings and disagreement. *Review of Accounting Studies* In Press.
- Simpson, C., Rathi, A., Kishan, S., 2021. The ESG Mirage. *Bloomberg Business Week*.
- Smith, R., 2020. Facing a barrage of lawsuits, insurers make diversity changes. *Insurance Business Magazine*.
- Stocken, P. C., 2000. Credibility of Voluntary Disclosure. *The RAND Journal of Economics* 31, 359–374.

Temple-West, P., 2022. FCA to regulate ESG ratings businesses. Financial Times.

The Conference Board, 2022. In the 2022 Proxy Season, Proposals on Climate Disclosures and Racial Equity Audits Gained Significant Momentum. PR Newswire pp. 1–7.

Wilkes, T. R., 2022. 'Sustainable' funds are no more green than traditional products, study finds. Reuters.

Williamson, G., 2022. ESG and the SEC: Where Are We Now? Perkins Coie.

Appendix A. Variable Definitions

This table contains descriptions of the primary variables used throughout this paper. Sources include Revelio Labs (RL), the WRDS SEC EDGAR Filings database (EDGAR), Compustat (COMP), the Center for Research in Security Prices (CRSP), Good Jobs First (GJF), Corporate Register (CR), Twitter (TWTR), Sustainalytics (SUSTAIN), RepRisk (RRISK), and Thomson Reuters (TR).

Variable	Description
Ann. Return	Annualized return for firm i in year t . (CRSP)
Ann. Volatility	Annualized volatility for firm i in year t . (CRSP)
Asset Growth	Year-over-year asset growth for firm i from in year t . (COMP)
Book-Market	Book value of equity scaled by market value of equity. (COMP)
Compensation & Pay Equity	The percentage of sentences classified in the topic “Compensation & Pay Equity” within all DEI discussions in 8-K, 10-K, and DEF 14A disclosures. (EDGAR)
Corporate Governance	The percentage of sentences classified in the topic “Corporate Governance” within all DEI discussions in 8-K, 10-K, and DEF 14A disclosures. (EDGAR)
CSR Report	An indicator that takes a value of 1 for firm i in year t if the firm releases a CSR report. (CR)
DEI FLT ^{Agg.}	Number of forward-looking terms showing up in 10-K, 8K, and DEF 14A documents for firm i in year t . The forward-looking terms are defined following the approach of Bozanic et al. (2018). (EDGAR)
DEI Tweets	Number of DEI-based Tweets for firm i in year t . (CR)
DEI Words ^{Agg.}	Number of DEI-based words across 10-K, 8-K, and DEF 14A disclosures for firm i in year t . (EDGAR)
DEI Words ^{8-K}	Number of DEI-based words across 8-K disclosures for firm i in year t . (EDGAR)
DEI Words ^{10-K}	Number of DEI-based words across 10-K disclosures for firm i in year t . (EDGAR)
DEI Words ^{DEF14A}	Number of DEI-based words across DEF 14A disclosures for firm i in year t . (EDGAR)
DEI Words ^{CSR}	Number of DEI-based words across DEF 14A disclosures for firm i in year t . (CR)
DEI Words ^{Gender}	Number of DEI-based words related to gender across 8-K, 10-K, and DEF 14A disclosures for firm i in year t . (EDGAR)
DEI Words ^{Ethnic}	Number of DEI-based words related to ethnicity across 8-K, 10-K, and DEF 14A disclosures for firm i in year t . (EDGAR)

Discrimination Penalty	An indicator that takes a value of 1 for firm i in year t if the firm receives a discrimination-related Equal Employment Opportunity Commission Penalty (GJF)
Diversity Washer	An indicator variable that takes a value of 1 for firm i in year t if the firms' DEI disclosure rank is above their workforce diversity rank. (RL, EDGAR)
Diversity Washer ^{Ethnic}	An indicator variable that takes a value of 1 for firm i in year t if the firms' ethnic DEI disclosure rank is above their non-white workforce diversity rank. (RL, EDGAR)
Diversity Washer ^{Gender}	An indicator variable that takes a value of 1 for firm i in year t if the firms' gender DEI disclosure rank is above their female workforce diversity rank. (RL, EDGAR)
Diversity Washing Level	The difference between a firm's DEI disclosure rank and its workforce diversity rank or firm i in year t . (RL, EDGAR)
Diversity Washing Level ^{Ethnic}	The difference between a firm's ethnic DEI disclosure rank and its non-white workforce diversity rank or firm i in year t . (RL, EDGAR)
Diversity Washing Level ^{Gender}	The difference between a firm's gender DEI disclosure rank and its female workforce diversity rank or firm i in year t . (RL, EDGAR)
Employment Law & Regulations	The percentage of sentences classified in the topic "Employment Law & Regulations" within all DEI discussions in 8-K, 10-K, and DEF 14A disclosures. (EDGAR)
Employment Penalty	An indicator that takes a value of 1 for firm i in year t if the firm receives an Equal Employment Opportunity Commission Penalty. (GJF)
ESG-related News	Indicator for whether firm i had negative ESG-related news arising in year t . (RRISK)
ESG Ownership ^{Name-based}	ESG fund ownership for firm i in year t based on holdings of mutual funds with ESG-related names. (CRSP)
ESG Ownership ^{US SIF}	ESG fund ownership for firm i in year t based on holdings of mutual funds listed in USSIF. (CRSP)
ESG Score ^{Refinitiv}	Overall ESG rating provided by Refinitiv for firm i in year t . (TR)
ESG Score ^{Sustainalytics}	Overall ESG rating provided by Sustainalytics for firm i in year t . (SUSTAIN)
Human Capital-related News	Indicator for whether firm i had negative human capital-related news arising in year t . (RRISK)
Market Cap.	Market capitalization of equity for firm i in year t . (COMP)

Questionable Diversity Policy	An indicator that takes a value of 1 for firm i in year t if the firm has a diversity policy but not a “target” (TR)
Questionable Emissions Policy	An indicator that takes a value of 1 for firm i in year t if the firm has an emissions policy but not a “target” (TR)
Questionable Energy Policy	An indicator that takes a value of 1 for firm i in year t if the firm has a energy policy but not a “target” (TR)
Questionable Water Policy	An indicator that takes a value of 1 for firm i in year t if the firm has a water policy but not a “target” (TR)
Return on Assets	Return on assets for firm i in year t . (COMP)
Social Score ^{Refinitiv}	Social rating provided by Refinitiv for firm i in year t . (TR)
Social Score ^{Sustainalytics}	Social rating provided by Sustainalytics for firm i in year t . (SUSTAIN)
Twitter Acct.	An indicator that takes the value of 1 for firm i if the firm has an active Twitter account (TWTR).
Workplace Culture & Equity	The percentage of sentences classified in the topic “Workplace Culture & Equity” within all DEI discussions in 8-K, 10-K, and DEF 14A disclosures. (EDGAR)
% Diversity	The percentage of U.S.-based employees that are female or non-white for firm i in year t . (RL)
% Diversity ^{Junior}	The percent in diverse employees categorized as the most junior for firm i in year t . (RL)
% Diversity ^{Senior}	The percent in diverse employees categorized as the most senior for firm i in year t . (RL)
% Female	The percentage of U.S.-based employees that are female for firm i in year t . (RL)
% Non-White	The percentage of U.S.-based employees that are non-white for firm i in year t . (RL)

Appendix B. Identifying DEI Discussion in Financial Disclosures

We use a dictionary-based approach to identify instances in which firms discuss DEI in their financial disclosures. We create a dictionary of 989 terms related to DEI and use counts of these terms as a measure of DEI discussion.

The basis for our DEI terms comes from two DEI glossaries, the DEI Glossary from the Foster School of Business, Washington University³² and the University of Alaska Fairbanks DEI Dictionary.³³ We further supplemented these glossaries with terms from the UN's Sustainable Development Goals (SDG) related to DEI.³⁴ Although these two glossaries and the SDG have substantial overlap, we combine them into a single, comprehensive list.

However, several of these DEI terms have multiple meanings within the financial-reporting context of SEC documents. For instance, “equity” in a financial-reporting context can refer to shareholders’ equity, whereas “equity” in a DEI context can refer to fostering a community that ensures all employees can thrive. To avoid inadvertently capturing these alternative meanings, we extract the text around each term for a random sample of documents and have research assistants read the excerpts to confirm most cases related to DEI. If it does, we include the keyword as-is. If it does not, we remove the term from our dictionary and extract all the bigrams that include that keyword.³⁵ We then have research assistants read sentences with those bigrams to determine whether those bigrams relate to DEI. We keep the bigrams that the research assistants determined related to DEI. After this iterative process, our final sample includes 989 terms.

³²See <https://foster.uw.edu/about-foster-school/fostering-diversity/dei-glossary>.

³³See <https://www.uaf.edu/diversity/strategic-plan/dictionary.php>.

³⁴We focused on subgoals including Gender Equity, Reduced Inequalities, and Partnership for the Goals. See <https://sdgs.un.org/goals>.

³⁵Many of the terms in the DEI glossaries are unigrams. In some instances, the keywords are n-grams. In those cases, we create “n+1”-grams to refine our dictionary.

Appendix C. Topics of DEI discussion

This section describes our approach to identifying categories of DEI sentences. First, we extract all sentences that contain at least one DEI keyword and tokenize the words. We then use `sentenceBERT` to create sentence-level embeddings for each DEI sentence.³⁶ The resulting embeddings result in each sentence being represented as a vector. We use KMeans to assign each sentence to one of 20 available clusters. We label each cluster by giving 30 sentences from that cluster to ChatGPT and asking it to label the cluster as a topic. After the topics are identified and labeled, we manually inspect example sentences from them and group them into five categories: Workplace Culture and Equity, Corporate Governance, Employment Law and Regulation, Compensation and Pay Equity, and Other. The succeeding table reports the labels of the 20 topics and the names of the five categories to which the topics are assigned. This table also reports the fraction of sentences assigned to each topic.

Topic	Fraction (%)
Workplace Culture and Equity	
Anti-Discrimination Policies and Equal Opportunity in Employment	4.637
Corporate Social Responsibility and Workplace Culture	2.899
Diversity, Inclusion, and Social Equity	1.759
Gender and Racial Diversity in Business Leadership	1.618
Workplace Diversity and Inclusion	3.712
Corporate Governance	
Board Diversity and Corporate Governance Policies	15.640
Corporate Board Diversity and Nomination Process	11.223
Corporate Governance and Board Diversity	3.946
Executive Biographies and Professional Achievements	5.263
Employment Law and Regulations	
Age Discrimination Laws and Releases in Employment Agreements	4.590
Employment Law and Discrimination Legislation	2.702
Employment Law and Regulations	7.645
Gender Neutrality in Legal and Contractual Language	0.171
Workplace Safety Regulations and Compliance	3.359
Compensation and Pay Equity	
Employee Compensation, Benefits, and Corporate Financial Transactions	3.253
Executive Compensation and Internal Pay Equity	9.283
Other	
Business and Finance	5.743
Healthcare, Medical Research, and Accessibility Services	2.682
Legal Language Related to Stock Warrants and Liabilities	2.401
Real Estate Law and Financial Regulation	5.493

³⁶Details on the Python package that implements `sentenceBERT` can be found at <https://www.sbert.net>.

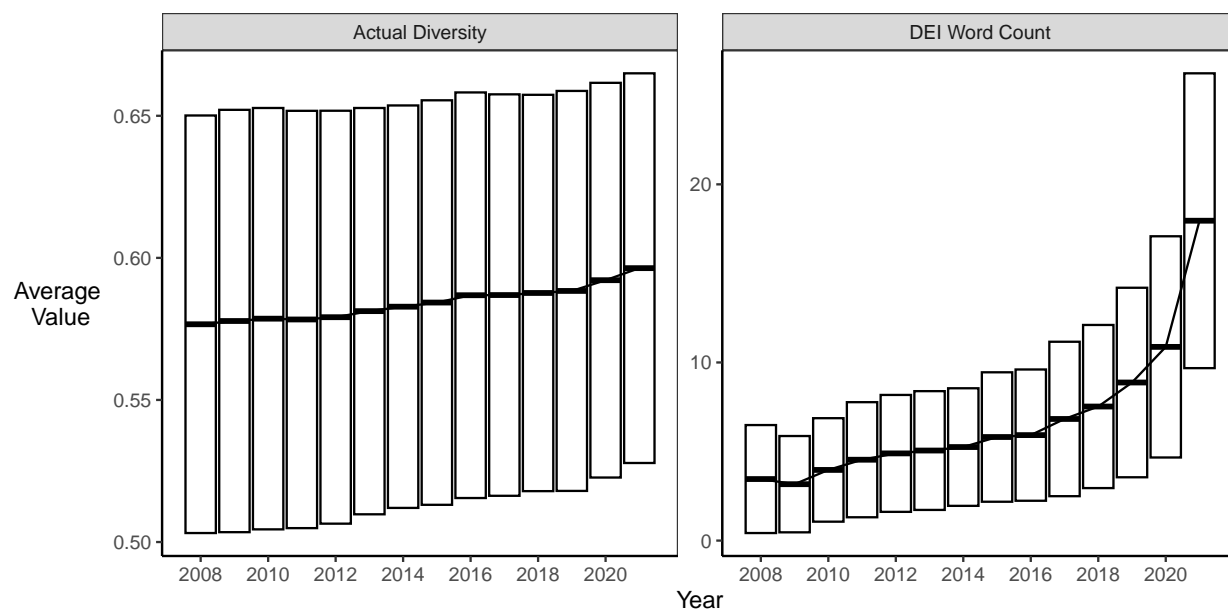


Fig. 1 Time-series of Diversity and DEI Discussion in Financial Discussions. This figure presents the time series for Revelio Labs' diversity measure (left panel) and the number of DEI-related terms found in financial filings (right panel). The annual mean of each measure is captured by the horizontal black line, and the white boxes represent the standard deviation. All measures are derived from the full sample described in Section 2.

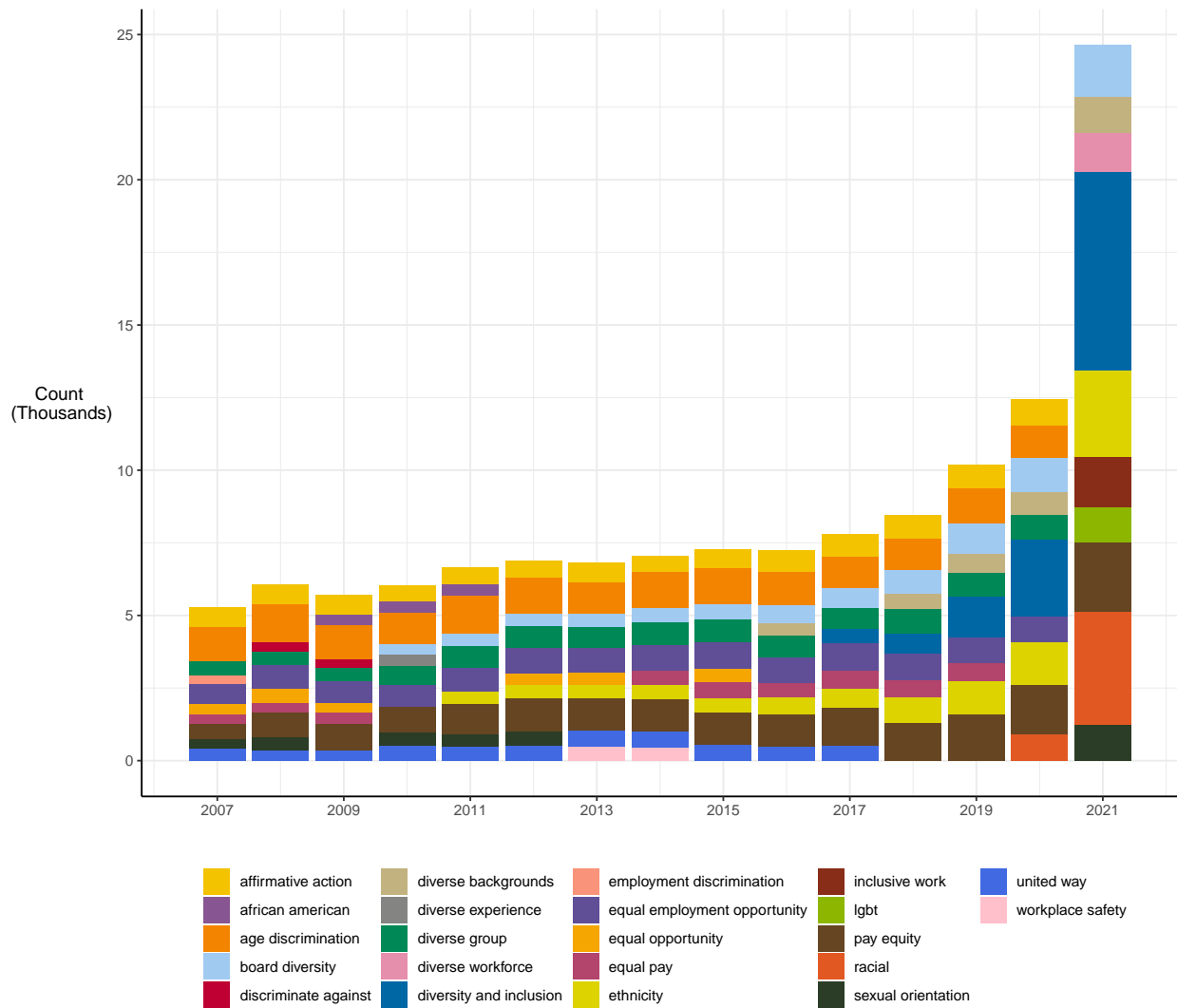


Fig. 2 Time-series of Top DEI Words. This figure presents the frequency of the top ten DEI keywords for each year over the sample period. All measures are derived from the full sample described in Section 2.

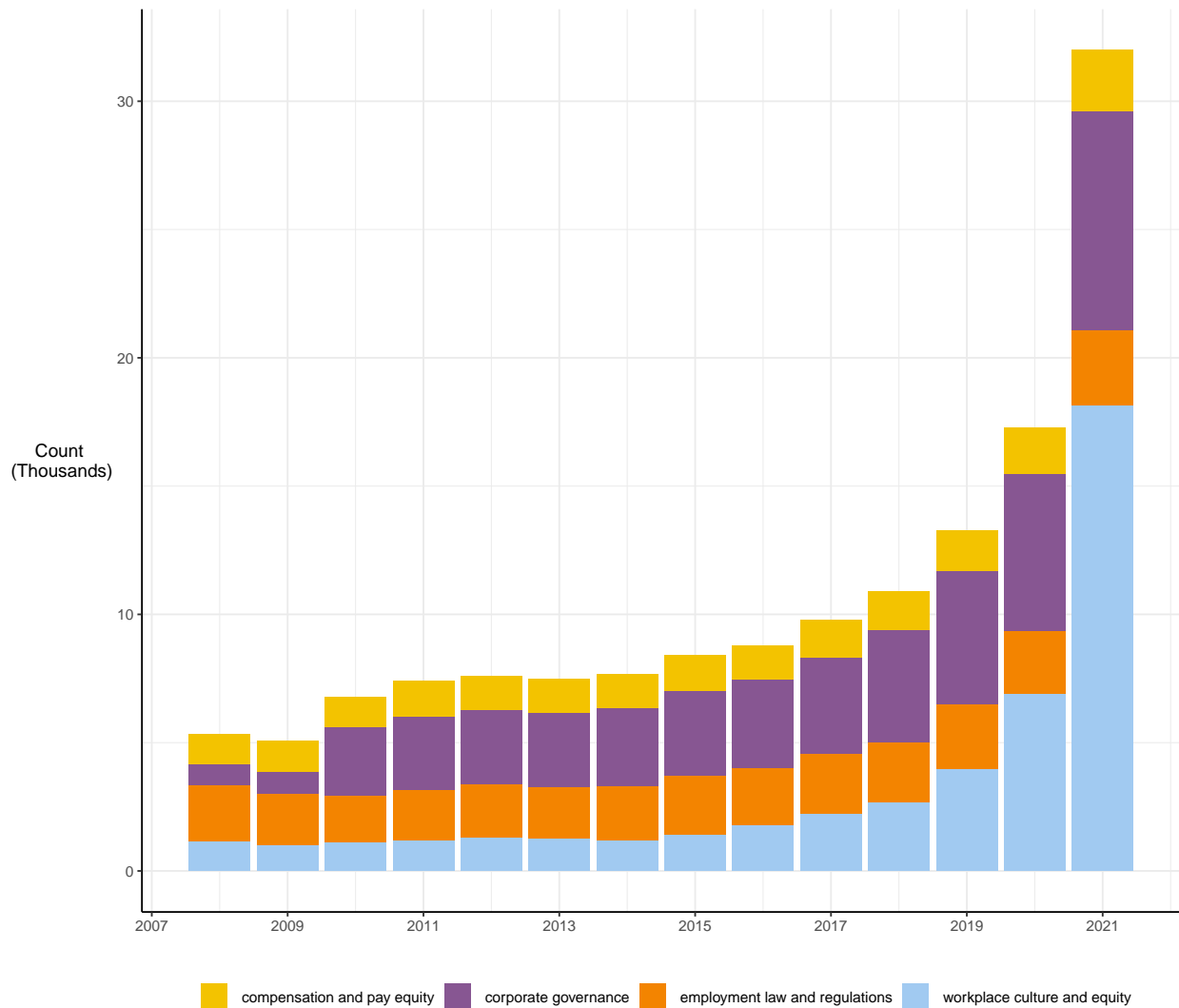


Fig. 3 Time-series of DEI Categories This figure presents the frequency of the four DEI categories each year over the sample period. Counts are based on the number of DEI sentences assigned to topics within that category. All measures are derived from the full sample described in Section 2.

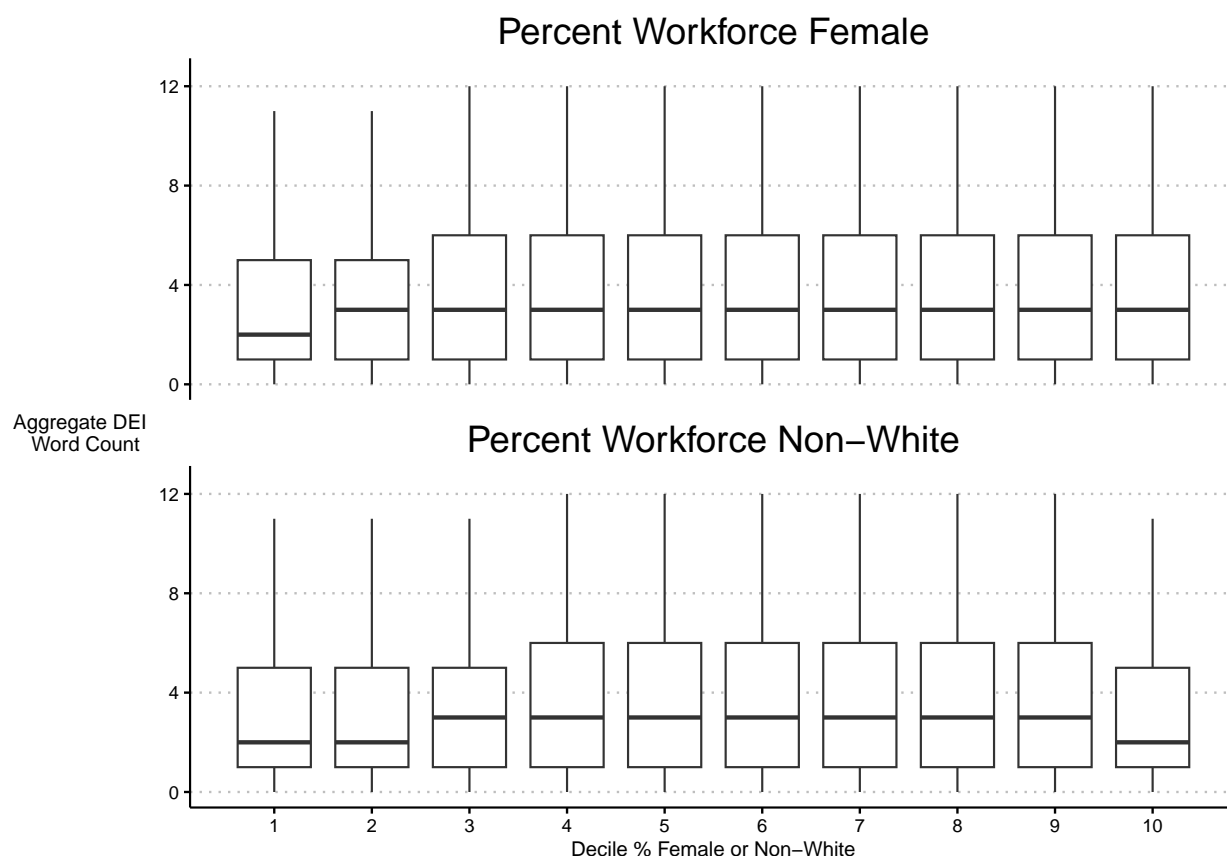


Fig. 4 Distribution of DEI Discussion in Financial Disclosures by Decile of Diversity Measure.

This figure presents box plots of the distribution of DEI-related words in our corpus of SEC documents, broken down by the decile of underlying diversity, as measured by the percentage of a firm’s workforce that is either female or non-white. The deciles are calculated within year, and all measures are derived from the full sample described in Section 2. In the box plot, the horizontal line represents the median aggregate disclosure amount within the decile, with the upper and lower hinges (the top and bottom ends of the box) representing the 25th and 75th percentile. The upper “whisker” extends from the upper hinge to the largest value no greater than 1.5 times the interquartile range (IQR, or distance between the first and third quartiles) from the hinge. The lower whisker extends from the lower hinge to the smallest value greater than 1.5 times the IQR in the opposite direction.

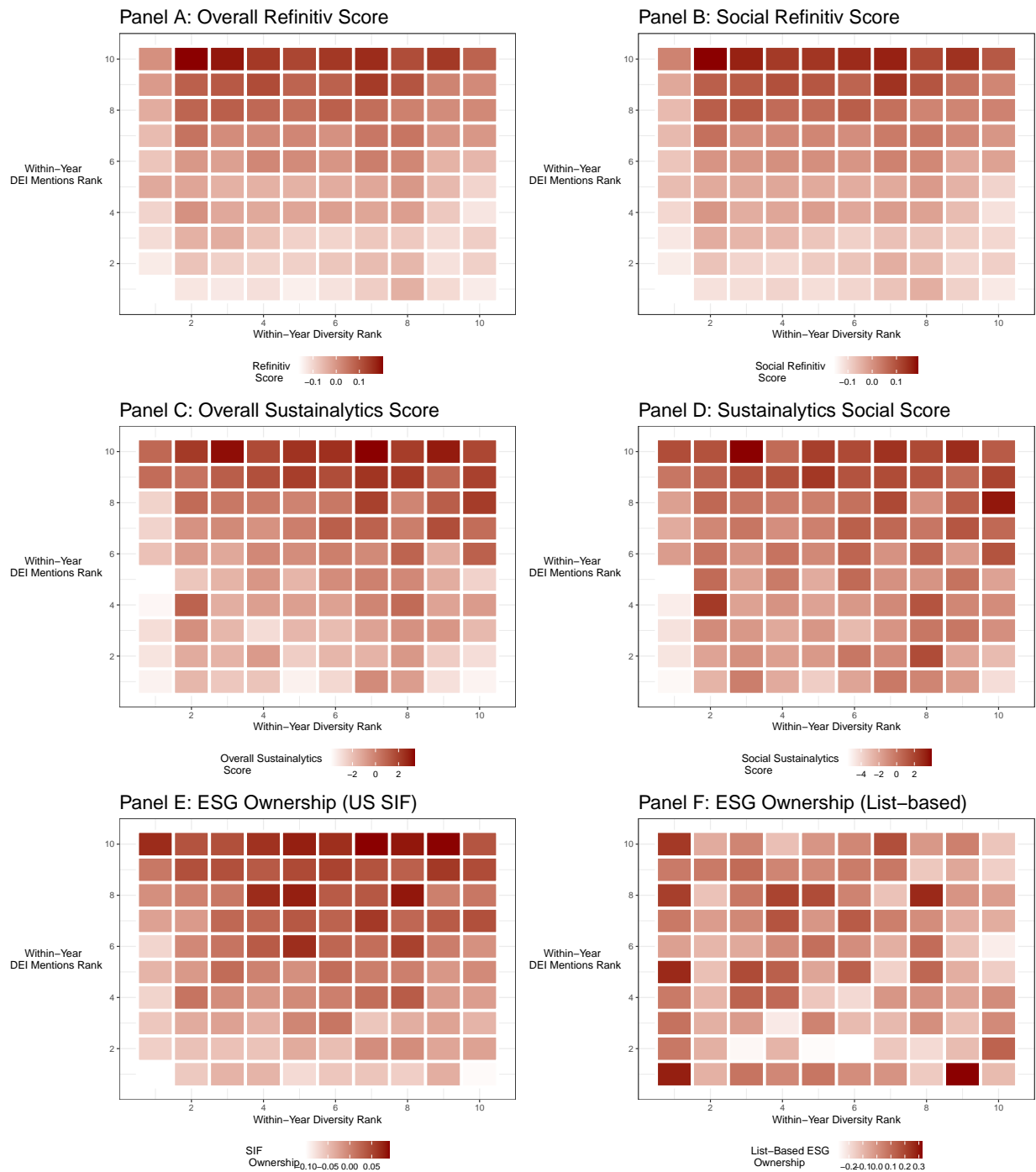


Fig. 5 Non-parametric Summary of ESG Outcomes by DEI Discussion and Diversity Ranks. This figure presents the average of Refinitiv's Overall Score (Panel A), Refinitiv's Social Score (Panel B), Sustainalytics Overall Score (Panel C), Sustainalytics Social Score (Panel D), Ownership by US SIF funds (Panel E), and Ownership by ESG funds, based on the fund name (Panel F). Each heat map is broken down by the decile of DEI discussion (measured by the overall amount of DEI discussion in our corpus of SEC documents), and the decile of underlying diversity (measured by the percentage of a firm's US-based workforce that is either female or non-white). The deciles are calculated within year, and all measures are derived from the full sample described in Section 2.

Table 1
Descriptive statistics

Panel A: Summary statistics

	Mean	StDev	p ^{25%}	p ^{50%}	p ^{75%}	Obs.
Disclosure-based DEI measures						
DEI Words ^{Agg.}	6.689	9.526	1.000	3.000	8.000	47,334
DEI Words ^{10-K}	1.930	3.533	0.000	0.000	2.000	47,334
DEI Words ^{DEF14A}	2.829	5.550	0.000	1.000	3.000	47,334
DEI Words ^{8-K}	1.728	3.642	0.000	0.000	2.000	47,334
DEI Words ^{CSR}	48.757	53.855	11.000	31.000	67.750	5,102
DEI Tweets	2.588	7.039	0.000	0.000	2.000	17,637
DEI FLT ^{Agg.}	2.508	4.140	0.000	1.000	3.000	47,334
Diversity measures						
% Diversity	0.584	0.143	0.488	0.586	0.683	47,334
% Female	0.417	0.160	0.299	0.402	0.528	47,334
% Non-White	0.298	0.129	0.216	0.285	0.363	47,334
Firm characteristics						
Ann. Return	0.122	0.581	-0.214	0.064	0.339	46,982
Ann. Volatility	0.463	0.311	0.253	0.378	0.576	47,119
Asset Growth	0.114	0.391	-0.039	0.043	0.153	47,262
log(Book-Market)	-0.718	0.927	-1.246	-0.600	-0.096	44,947
log(Market Cap.)	6.501	2.166	4.935	6.504	8.008	47,323
Return on Assets	-0.052	0.249	-0.045	0.014	0.061	47,254
Other outcome variables						
% Diversity _{t+1}	0.585	0.141	0.489	0.587	0.683	41,184
% Diversity _{t+1} ^{Junior}	0.674	0.170	0.568	0.683	0.793	40,012
% Diversity _{t+1} ^{Senior}	0.473	0.157	0.374	0.468	0.568	40,658
CSR Report	0.108	0.310	0.000	0.000	0.000	47,334
Discrimination Penalty	0.026	0.159	0.000	0.000	0.000	19,544
Diversity Washer	0.499	0.500	0.000	0.000	1.000	47,334
Diversity Washing Level	0.052	39.584	-28.000	0.000	28.000	47,334
Employment Penalty	0.115	0.319	0.000	0.000	0.000	19,544
ESG-related News	0.205	0.404	0.000	0.000	0.000	47,334
ESG Ownership ^{Name-based}	17.842	41.677	0.000	1.200	16.200	47,334
ESG Ownership ^{US SIF}	26.444	91.375	0.000	0.000	8.900	47,334
ESG Score ^{Refinitiv}	0.488	0.299	0.207	0.426	0.791	20,276
ESG Score ^{Sustainalytics}	53.913	8.213	47.778	52.000	59.000	10,291
Human capital-related News	0.092	0.289	0.000	0.000	0.000	47,334
Questionable Diversity Policy	0.761	0.427	1.000	1.000	1.000	20,172
Social Score ^{Refinitiv}	0.413	0.288	0.148	0.332	0.671	20,276
Social Score ^{Sustainalytics}	53.924	9.996	46.407	53.000	60.767	8,799
Twitter Acct.	0.373	0.484	0.000	0.000	1.000	47,334

Panel B: DEI disclosure measures correlation table

	[1]	[2]	[3]	[4]
[1] DEI Words ^{Agg.}		0.616	0.652	0.566
[2] DEI Words ^{10-K}	0.640		0.219	0.128
[3] DEI Words ^{DEF14A}	0.782	0.288		0.133
[4] DEI Words ^{8-K}	0.563	0.154	0.146	

Panel C: Firm diversity proxy correlation table

	[1]	[2]	[3]
[1] % Diversity		0.833	0.501
[2] % Female	0.824		0.058
[3] % Non-White	0.546	0.038	

This table reports descriptive statistics for the disclosure-based DEI commitment data used throughout this study. Panel A presents summary statistics on the primary measures used in this study. Panel B provides the pairwise Spearman (Pearson) correlations for disclosure-based DEI variables in the upper (lower) triangular region. Panel C provides the pairwise Spearman (Pearson) correlations for firm-level diversity proxies in the upper (lower) triangular region. All variable definitions are as described in Appendix A, and all statistics are calculated from the full set of data described in Section 2.

Table 2
Firm DEI disclosures and diversity

Panel A: No fixed effects

	DEI Words ^{Agg.} (1)	DEI Words ^{10-K} (2)	DEI Words ^{DEF14A} (3)	DEI Words ^{8-K} (4)
Constant	1.608*** (35.920)	0.176*** (2.773)	0.853*** (15.450)	0.309*** (5.254)
% Female	0.221*** (2.938)	0.533*** (5.294)	-0.076 (-0.776)	0.350*** (3.563)
% Non-White	0.657*** (7.142)	0.835*** (6.782)	0.716*** (6.323)	0.301** (2.209)
Pseudo R ²	0.005	0.007	0.003	0.001
Observations	47,334	47,334	47,334	47,334

Panel B: Industry and year fixed effects

	DEI Words ^{Agg.} (1)	DEI Words ^{10-K} (2)	DEI Words ^{DEF14A} (3)	DEI Words ^{8-K} (4)
% Female	0.230** (2.493)	0.407*** (3.311)	0.185 (1.475)	0.128 (1.070)
% Non-White	0.578*** (5.937)	0.821*** (6.387)	0.560*** (4.775)	0.258* (1.681)
Year fixed effects	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes
Pseudo R ²	0.173	0.107	0.210	0.033
Observations	47,334	47,334	47,334	47,334

This table presents analysis on the relation between employee diversity measures and DEI disclosures from Poisson regressions. In columns 1 through 4, the dependent variables represent the amount of DEI-related discussion across all documents, across 10-Ks, across DEF 14As, and across 8-Ks, respectively. All variables are defined in Appendix A. Panel A (B) reports the results without (with) industry and year fixed effects. All estimates are based on the full sample of observations, described in Section 2. Test statistics are clustered by firm, and included in parentheses. Levels of significance are presented as follows: *p<0.1; **p<0.05; ***p<0.01.

Table 3
Identifying diversity washing

Panel A: Sample composition

% Diversity	DEI Words ^{Agg.}				
	1	2	3	4	5
1	2,183	1,917	1,796	1,709	1,570
2	1,940	1,889	1,935	1,983	1,998
3	1,841	1,921	2,026	1,915	1,966
4	1,743	1,879	1,855	2,050	2,095
5	1,807	1,819	1,877	1,807	1,813

$\chi^2 = 175.99$ (DF= 16), p-value < .001

Panel B: Average firm diversity

% Diversity	DEI Words ^{Agg.}					(5) - (1)	t-stat
	1	2	3	4	5		
1	0.439	0.444	0.443	0.454	0.459	0.02***	2.673
2	0.554	0.556	0.558	0.562	0.561	0.006	1.428
3	0.62	0.621	0.621	0.623	0.626	0.007*	1.805
4	0.683	0.683	0.686	0.686	0.69	0.007**	2.192
5	0.787	0.787	0.783	0.782	0.789	0.002	0.323
(5) - (1)	0.348***	0.343***	0.34***	0.329***	0.33***		
t-stat	51.524	66.006	69.684	61.601	55.115		

Panel C: Average DEI word count

% Diversity	DEI Words ^{Agg.}					(5) - (1)	t-stat
	1	2	3	4	5		
1	0.485	2.109	4.041	7.668	18.427	17.942***	42.896
2	0.428	2.072	4.183	7.667	18.843	18.415***	41.549
3	0.439	2.019	4.094	7.627	19.919	19.48***	40.757
4	0.471	1.961	4.201	7.459	19.807	19.336***	41.306
5	0.425	1.934	4.069	7.488	19.434	19.009***	34.510
(5) - (1)	-0.06*	-0.175***	0.029	-0.18	1.007		
t-stat	-1.849	-2.802	0.274	-0.992	1.457		

This table explores disagreements in DEI commitments and underlying diversity at firms. Each panel presents statistics on unconditional bivariate sorts across disclosure-based DEI variables and underlying diversity variables (sorted across firms within each year). In each panel, the rows are sorts of the level of diversity. The columns are sorts of the total number of DEI words, summed across a firm's 10-K, 8-Ks, and DEF14A for the year. For both rows and columns, 1 represents the lowest amount and 5 represents the highest. Panel A reports the number of firm-year observations in each quintile. Panel B reports the average employee diversity within each group. Panel C reports the average total of DEI words. In Panels B and C, differences between the first and last quintile are reported, along with t-statistics, clustered by firm. Untabulated controls include the natural log of market capitalization, asset growth, the natural log of book-to-market, return on assets, annual return, and annual volatility. All variables are defined in Appendix A. Levels of significance are presented as follows: *p<0.1; **p<0.05; ***p<0.01.

Table 4

Firm characteristics of diversity washers

Panel A: Univariate analyses of differences

	Diversity Washers	Rest of Sample	Diff.	t-stat
log(Market Cap.)	6.90	6.10	0.80***	40.92
Asset Growth	0.11	0.12	-0.01**	-2.22
log(Book-Market)	-0.72	-0.72	0.00	0.32
Return on Assets	-0.04	-0.06	0.02***	10.77
Ann. Return	0.12	0.13	-0.01**	-2.09
Ann. Volatility	0.45	0.47	-0.02***	-8.07

Panel B: Multivariate analyses of differences

	Diversity Washing Level		Diversity Washers	
	(1)	(2)	(3)	(4)
Constant	-37.372*** (-19.463)		0.100*** (4.699)	
log(Market Cap.)	5.701*** (21.693)	4.778*** (18.976)	0.061*** (21.440)	0.051*** (17.255)
Asset Growth	-2.461*** (-4.554)	-0.277 (-0.543)	-0.029*** (-4.209)	-0.008 (-1.195)
log(Book-Market)	4.432*** (9.150)	4.695*** (9.886)	0.046*** (8.462)	0.050*** (8.959)
Return on Assets	-5.639*** (-3.054)	-12.370*** (-6.530)	-0.060*** (-2.853)	-0.120*** (-5.437)
Ann. Return	-2.285*** (-6.239)	-1.320*** (-3.431)	-0.026*** (-5.771)	-0.017*** (-3.492)
Ann. Volatility	8.124*** (7.196)	2.056* (1.915)	0.089*** (6.781)	0.026** (1.999)
Industry fixed effects	No	Yes	No	Yes
Year fixed effects	No	Yes	No	Yes
R ²	0.066	0.232	0.047	0.158
Observations	44,598	44,598	44,598	44,598

This table presents the characteristics of diversity washers. Panel A reports summary statistics of diversity washers and other firms. Column 1 (2) reports mean firm characteristics for diversity washers (other firms). Column 3 reports the mean difference between diversity washers and other firms, and column 4 reports the test statistics for the difference. Panel B reports the determinants model for becoming a diversity washer. In columns 1 and 2, the dependent variable is *Diversity Washing Level* and in columns 3 and 4, it is an indicator for whether a firm is a diversity washer, *Diversity Washer*. Untabulated controls include the natural log of market capitalization, asset growth, the natural log of book-to-market, return on assets, annual return, and annual volatility. All variables are defined in Appendix A. Test statistics are clustered by firm, and included in parentheses. Levels of significance are presented as follows: *p<0.1; **p<0.05; ***p<0.01.

Table 5

Diversity washing and negative ESG outcomes

Panel A: EEOC violations

	Employment Penalty		Discrimination Penalty	
	(1)	(2)	(3)	(4)
Diversity Washing Level	0.004*** (3.398)		0.005** (2.504)	
Diversity Washers		0.158** (2.106)		0.325** (2.200)
Controls	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes
Pseudo R ²	0.159	0.158	0.187	0.187
Observations	18,624	18,624	17,399	17,399

Panel B: Negative ESG and human-capital related news

	ESG-related News		Human capital-related News	
	(1)	(2)	(3)	(4)
Diversity Washing Level	0.003*** (4.613)		0.003*** (3.147)	
Diversity Washers		0.167*** (3.519)		0.121* (1.888)
Controls	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes
Pseudo R ²	0.374	0.374	0.402	0.402
Observations	44,549	44,549	44,535	44,535

This table presents analyses exploring the relationship between diversity washing and diversity and human capital-related violations and penalties. Panel A presents logit regressions for whether the firm received an employment penalty (columns 1 and 2) or a discrimination-related penalty (columns 3 and 4) in a calendar year on our two measures of diversity washing, *Diversity-Washing Level* and *Diversity Washers*. Panel B presents logit regressions for if the firm-year observation has negative news related to ESG (columns 1 and 2) and human-capital activities (columns 3 and 4) on the two diversity-washing measures. Untabulated controls include the natural log of market capitalization, asset growth, the natural log of book-to-market, return on assets, annual return, and annual volatility. All variables are defined in Appendix A. Test statistics are clustered by firm, and included in parentheses. Levels of significance are presented as follows: *p<0.1; **p<0.05; ***p<0.01.

Table 6

Diversity washing and questionable ESG policies: “Policies” vs. “Targets”

Panel A: Diversity and energy

	Questionable Diversity Policy		Questionable Energy Policy	
	(1)	(2)	(3)	(4)
Diversity Washing Level	0.003*** (3.587)		0.002* (1.908)	
Diversity Washers		0.188*** (3.183)		0.095 (1.475)
Controls	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes
Pseudo R ²	0.061	0.060	0.127	0.126
Observations	19,268	19,268	19,127	19,127

Panel B: Water and emissions

	Questionable Water Policy		Questionable Emissions Policy	
	(1)	(2)	(3)	(4)
Diversity Washing Level	0.004*** (2.979)		0.000 (0.288)	
Diversity Washers		0.207*** (2.677)		0.058 (0.824)
Controls	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes
Pseudo R ²	0.171	0.170	0.083	0.083
Observations	19,054	19,054	19,064	19,064

This table presents results from logit regressions of the relation between diversity washers and questionable ESG policies, which we define as those policies without a target. In Panel A, the dependent variable is an indicator variable that takes a value of 1 when a company has a diversity and energy policy, but no target. In Panel B, the dependent variable is an indicator variable that takes a value of 1 when a company has a water and emissions policy, but no target. Untabulated controls include the natural log of market capitalization, asset growth, the natural log of book-to-market, return on assets, annual return, and annual volatility. All variables are defined in Appendix A. Test statistics are clustered by firm, and included in parentheses. Levels of significance are presented as follows: *p<0.1; **p<0.05; ***p<0.01.

Table 7

Diversity washing and employee outcomes

Panel A: Changes in diversity

	% Diversity _{t+1} (1)	% Diversity _{t+1} (2)	% Diversity _{t+2} (3)	% Diversity _{t+2} (4)	% Diversity _{t+3} (5)	% Diversity _{t+3} (6)
Diversity Washing Level	-0.002*** (-2.735)		-0.002** (-2.065)		-0.002 (-1.479)	
Diversity Washers		-0.070** (-2.159)		-0.104** (-2.044)		-0.073 (-1.105)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
R ²	0.966	0.966	0.930	0.930	0.905	0.905
Observations	39,118	39,118	33,918	33,918	29,289	29,289

Panel B: Changes in senior-level diversity

	% Diversity ^{Senior} _{t+1} (1)	% Diversity ^{Senior} _{t+1} (2)	% Diversity ^{Senior} _{t+2} (3)	% Diversity ^{Senior} _{t+2} (4)	% Diversity ^{Senior} _{t+3} (5)	% Diversity ^{Senior} _{t+3} (6)
Diversity Washing Level	-0.006*** (-7.073)		-0.011*** (-7.858)		-0.015*** (-7.823)	
Diversity Washers		-0.301*** (-5.727)		-0.550*** (-6.437)		-0.674*** (-6.081)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
R ²	0.940	0.940	0.880	0.880	0.838	0.837
Observations	38,570	38,570	33,453	33,453	28,898	28,898

Panel C: Changes in junior-level diversity

	% Diversity ^{Junior} _{t+1} (1)	% Diversity ^{Junior} _{t+1} (2)	% Diversity ^{Junior} _{t+2} (3)	% Diversity ^{Junior} _{t+2} (4)	% Diversity ^{Junior} _{t+3} (5)	% Diversity ^{Junior} _{t+3} (6)
Diversity Washing Level	-0.014*** (-11.476)		-0.023*** (-11.603)		-0.029*** (-11.230)	
Diversity Washers		-0.716*** (-8.672)		-1.198*** (-9.155)		-1.402*** (-8.698)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
R ²	0.891	0.891	0.822	0.821	0.785	0.784
Observations	37,922	37,922	32,914	32,914	28,466	28,466

This table correlates diversity washing with future firm diversity. Panel A reports the relation between the future percent of diverse employees and our two measures of diversity washing, *Diversity-Washing Level* and *Diversity Washers*. Panel B (C) reports similar analyses on the number of diverse senior (junior) employees. Untabulated controls include contemporaneous diversity, the natural log of market capitalization, asset growth, the natural log of book-to-market, return on assets, annual return, and annual volatility. All variables are defined in the Appendix A. Test statistics are clustered by firm, and included in parentheses. Levels of significance are presented as follows: *p<0.1; **p<0.05; ***p<0.01.

Table 8

Diversity washing and DEI-commitments via other communication channels

Panel A: Alternative stakeholder communication platforms

	CSR Report		Twitter Acct.	
	(1)	(2)	(3)	(4)
Diversity Washing Level	0.007*** (7.199)		0.002*** (2.908)	
Diversity Washers		0.396*** (5.828)		0.120** (2.446)
Controls	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes
Pseudo R ²	0.404	0.402	0.095	0.095
Observations	37,726	37,726	44,556	44,556

Panel B: DEI disclosure in alternative platforms

	DEI Words ^{CSR}		DEI Tweets	
	(1)	(2)	(3)	(4)
Diversity Washing Level	0.002** (2.315)		0.003*** (3.527)	
Diversity Washers		0.174*** (3.354)		0.248*** (3.977)
Controls	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes
Pseudo R ²	0.281	0.283	0.369	0.369
Observations	4,922	4,922	16,685	16,685

This table presents analysis on the relation between identified diversity washers and DEI disclosures in alternative communication platforms. In Panel A, we estimate logit regressions where the dependent variable represents indicators of whether a firm filed a CSR report (columns 1 and 2) or had a Twitter account (columns 3 and 4). In Panel B, we estimate Poisson regressions where the dependent variable represents the number of DEI-related words in the firms CSR reports (the number of DEI-related tweets) in columns 1 and 2 (3 and 4). Untabulated controls include the natural log of market capitalization, asset growth, the natural log of book-to-market, return on assets, annual return, and annual volatility. All variables are defined in Appendix A. Panel A (B) reports the results without (with) industry and year fixed effects. Test statistics are clustered by firm, and included in parentheses. Levels of significance are presented as follows: *p<0.1; **p<0.05; ***p<0.01.

Table 9
Diversity washing and ESG ratings

Panel A: Refinitiv

	ESG Score ^{Refinitiv}		Social Score ^{Refinitiv}	
	(1)	(2)	(3)	(4)
Diversity Washing Level	0.001*** (9.510)		0.001*** (8.077)	
Diversity Washers		0.047*** (8.513)		0.041*** (7.320)
Controls	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes
R ²	0.552	0.549	0.509	0.507
Observations	19,390	19,390	19,390	19,390

Panel B: Sustainalytics

	ESG Score ^{Sustainalytics}		Social Score ^{Sustainalytics}	
	(1)	(2)	(3)	(4)
Diversity Washing Level	0.020*** (4.945)		0.022*** (3.900)	
Diversity Washers		1.009*** (3.971)		0.723** (2.049)
Controls	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes
R ²	0.396	0.393	0.319	0.314
Observations	9,873	9,873	8,467	8,467

This table tests the relation between diversity washing and commercial ESG scores. Panel A reports results with ESG scores from Refinitiv as the dependent variables. Panel B reports results with ESG scores from Sustainalytics as the dependent variables. In both panels, the dependent variable in columns 1 and 2 is the overall ESG scores, and the ESG social score in columns 3 and 4. Untabulated controls include the natural log of market capitalization, asset growth, the natural log of book-to-market, return on assets, annual return, and annual volatility. All variables are defined in Appendix A. Test statistics are clustered by firm, and included in parentheses. Levels of significance are presented as follows: *p<0.1; **p<0.05; ***p<0.01.

Table 10

Diversity washing and asset ownership

Panel A: ESG investor ownership, identified by US SIF

	ESG Ownership ^{US SIF} (bps)			
	(1)	(2)	(3)	(4)
Diversity Washing Level	0.092*** (4.501)	0.078*** (3.758)		
Diversity Washers			7.102*** (4.882)	5.798*** (4.125)
Controls	Yes	Yes	Yes	Yes
Year fixed effects	No	Yes	No	Yes
Industry fixed effects	No	Yes	No	Yes
R ²	0.065	0.090	0.065	0.090
Observations	44,598	44,598	44,598	44,598

Panel B: ESG investor ownership, identified by fund names

	ESG Ownership ^{Name-based} (bps)			
	(1)	(2)	(3)	(4)
Diversity Washing Level	0.024*** (2.904)	0.021** (2.396)		
Diversity Washers			1.795*** (3.036)	1.451** (2.403)
Controls	Yes	Yes	Yes	Yes
Year fixed effects	No	Yes	No	Yes
Industry fixed effects	No	Yes	No	Yes
R ²	0.078	0.109	0.078	0.109
Observations	44,598	44,598	44,598	44,598

This table tests the relation between diversity washing and institutional ownership. The dependent variable in Panel A is the fraction of shares held by ESG investors, which are identified by The Forum for Sustainable and Responsible Investment (US SIF), and the dependent variable in Panel B is the fraction of shares held by mutual funds with an ESG focus, which are identified by the name of the mutual fund. Untabulated controls include the natural log of market capitalization, asset growth, the natural log of book-to-market, return on assets, annual return, and annual volatility. All variables are defined in Appendix A. Test statistics are clustered by firm, and included in parentheses. Levels of significance are presented as follows: *p<0.1; **p<0.05; ***p<0.01.

Table 11

DEI discussion and diversity washers

Panel A: Workplace culture and corporate Governance categories

	Workplace Culture & Equity		Corporate Governance	
	(1)	(2)	(3)	(4)
Diversity Washing Level	0.071*** (10.774)		-0.172*** (-13.671)	
Diversity Washers		4.418*** (10.042)		-9.095*** (-11.248)
Controls	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes
R ²	0.198	0.196	0.096	0.086
Observations	35,534	35,534	35,534	35,534

Panel B: Employment law and compensation categories

	Employment Law & Regulations		Compensation & Pay Equity	
	(1)	(2)	(3)	(4)
Diversity Washing Level	0.157*** (18.093)		0.000 (-0.048)	
Diversity Washers		8.268*** (14.901)		-0.032 (-0.056)
Controls	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes
R ²	0.081	0.069	0.036	0.036
Observations	35,534	35,534	35,534	35,534

This table presents regressions of the proportion (in percentages) of DEI discussion dedicated to each of the four DEI categories on our measures of diversity washing. Panel A examines the relation with the Workplace Culture and Equity category (columns 1 and 2) and the Corporate Governance category (columns 3 and 4). Panel B examines the relation with the Employment Law and Regulation category (columns 1 and 2) and the Compensation and Pay Equity category (columns 3 and 4). Untabulated controls include the natural log of market capitalization, asset growth, the natural log of book-to-market, return on assets, annual return, and annual volatility. All variables are defined in Appendix A. Test statistics are clustered by firm, and included in parentheses. Levels of significance are presented as follows: *p<0.1; **p<0.05; ***p<0.01.

Table 12

DEI discussion by diversity washers and its relation to future diversity hiring

Panel A: Diversity washing and DEI discussion

	DEI FLT ^{Agg.}			
	(1)	(2)	(3)	(4)
Diversity Washing Level	0.012*** (35.255)	0.015*** (40.637)		
Diversity Washers			0.776*** (29.206)	0.851*** (33.451)
Controls	Yes	Yes	Yes	Yes
Year fixed effects	No	Yes	No	Yes
Industry fixed effects	No	Yes	No	Yes
Pseudo R ²	0.181	0.298	0.158	0.265
Observations	44,598	44,598	44,598	44,598

Panel B: Interaction with the number of forward-looking terms

	% Diversity _{t+1}		% Diversity _{t+1} ^{Junior}		% Diversity _{t+1} ^{Senior}	
	(1)	(2)	(3)	(4)	(5)	(6)
Diversity Washing Level × DEI FLT ^{Agg.}	-0.0003*** (-2.8296)		-0.0007*** (-3.9235)		-0.0005*** (-3.0855)	
Diversity Washers × DEI FLT ^{Agg.}		-0.0148* (-1.6501)		-0.0134 (-0.7859)		-0.0349** (-2.3320)
Lower-order coefficients	Yes	Yes	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
R ²	0.9656	0.9656	0.8911	0.8906	0.9397	0.9396
Observations	39,118	39,118	37,922	37,922	38,570	38,570

This table presents analyses on the DEI discussion by diversity washers and future diversity hiring. In Panel A, the dependent variable is the number of forward-looking terms in sentences with a diversity keyword and is based on a Poisson regression. In Panel B, the dependent variable is percent diversity in year $t + 1$, which is regressed on our diversity washing measures, the number of forward-looking terms and their interactions. In this panel, the dependent variable in columns 1 and 2 is overall diversity, columns 3 and 4 is diversity for junior employees, and columns 5 and 6 is diversity for senior employees. Untabulated controls include the natural log of market capitalization, asset growth, the natural log of book-to-market, return on assets, annual return, and annual volatility. All variables are defined in Appendix A. Test statistics are clustered by firm, and included in parentheses. Levels of significance are presented as follows: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

Table 13

DEI disclosures and diversity on gender and ethnic related keywords

Panel A: Aggregate counts of gender/ethnic keywords

	DEI Words ^{Gender}		DEI Words ^{Ethnic}	
	(1)	(2)	(3)	(4)
Constant	0.394*** (8.110)		0.632*** (11.672)	
% Female	0.208** (2.322)	0.284*** (2.668)	0.080 (0.938)	0.121 (1.174)
% Non-White	0.889*** (8.607)	0.613*** (5.334)	0.814*** (6.698)	0.691*** (5.118)
Year fixed effects	No	Yes	No	Yes
Industry fixed effects	No	Yes	No	Yes
Pseudo R ²	0.006	0.115	0.005	0.148
Observations	47,334	47,334	47,334	47,334

Panel B: Gender

	(1)	(2)	(3)	(4)
		% Female _{t+1}		
Diversity Washing Level ^{Gender}	0.000 (-0.850)			
Diversity Washers ^{Gender}		0.028 (0.919)		
Diversity Washing Level ^{Ethnic}			-0.001 (-1.338)	
Diversity Washers ^{Ethnic}				-0.038 (-1.332)
Controls	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes
R ²	0.970	0.970	0.970	0.970
Observations	39,118	39,118	39,118	39,118

Panel C: Ethnic

	(1)	(2)	(3)	(4)
		% Non-White _{t+1}		
Diversity Washing Level ^{Ethnic}	0.000 (-0.573)			
Diversity Washers ^{Ethnic}		0.005 (0.193)		
Diversity Washing Level ^{Gender}			0.000 (0.888)	
Diversity Washers ^{Gender}				0.040 (1.590)
Controls	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes
R ²	0.972	0.972	0.972	0.972
Observations	39,118	39,118	39,118	39,118

Panel A re-estimates the first column of Panels A and B of Table 2 using counts of only gender (columns 1 and 2) or ethnic (columns 3 and 4) keywords as the dependent variables. Columns 1 and 3 report results without fixed effects, and columns 2 and 4 report results with industry and year fixed effects. Panels B and C re-estimate portions of Table 7 using future gender or ethnic diversity. Untabulated controls in Panels B and C include the natural log of market capitalization, asset growth, the natural log of book-to-market, return on assets, annual return, and annual volatility. All variables are defined in Appendix A. All estimates are based on the full sample of observations, described in section 2. Test statistics are clustered by firm, and included in parentheses. Levels of significance are presented as follows: *p<0.1; **p<0.05; ***p<0.01.

about ECGI

The European Corporate Governance Institute has been established to improve *corporate governance through fostering independent scientific research and related activities*.

The ECGI will produce and disseminate high quality research while remaining close to the concerns and interests of corporate, financial and public policy makers. It will draw on the expertise of scholars from numerous countries and bring together a critical mass of expertise and interest to bear on this important subject.

The views expressed in this working paper are those of the authors, not those of the ECGI or its members.

ECGI Working Paper Series in Finance

Editorial Board

Editor	Mike Burkart, Professor of Finance, London School of Economics and Political Science
Consulting Editors	Renée Adams, Professor of Finance, University of Oxford Franklin Allen, Nippon Life Professor of Finance, Professor of Economics, The Wharton School of the University of Pennsylvania Julian Franks, Professor of Finance, London Business School Mireia Giné, Associate Professor, IESE Business School Marco Pagano, Professor of Economics, Facoltà di Economia Università di Napoli Federico II
Editorial Assistant	Asif Malik, Working Paper Series Manager

Electronic Access to the Working Paper Series

The full set of ECGI working papers can be accessed through the Institute's Web-site (www.ecgi.global/content/working-papers) or SSRN:

Finance Paper Series	http://www.ssrn.com/link/ECGI-Fin.html
Law Paper Series	http://www.ssrn.com/link/ECGI-Law.html