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Diversity Washing

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Abstract

We provide large-sample evidence on whether U.S. publicly traded corporations opportunistically use voluntary disclosures about their commitments to employee diversity. We document significant discrepancies between companies' disclosed commitments and their hiring practices and classify firms that discuss diversity more than their actual employee gender and racial diversity warrants as "diversity washers." We find diversity-washing firms obtain superior scores from environmental, social, and governance (ESG) rating organizations and attract investment from institutional investors with an ESG focus. These outcomes occur even though diversity-washing firms are more likely to incur discrimination violations and pay larger fines for these actions. Our study highlights the consequences of selective ESG disclosures on an important social dimension of employee diversity, equity, and inclusion.

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 either voluntary firm disclosures or commercial ratings developed from these disclosures to identify ESG constructs.[1] 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 limited understanding of the extent of these measurement problems in the present disclosure regime.

In this paper, we assess the adequacy of firms' external commitments to diversity, equity, and inclusion (DEI) in their financial filings by comparing their disclosures with a measure of their underlying employee diversity. We document a significant disconnect between the two and refer to instances where firms considerably overstate their DEI commitments relative to their actual DEI levels as "diversity washing." Our evidence indicates such overstatements have meaningful consequences for ESG stakeholders, including inflated ESG ratings and increased ownership by ESG-focused funds.

A distinguishing feature of our study is our ability to assess the accuracy of company

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[1]Recently, the SEC and other regulatory agencies have demonstrated an increased desire to bring enforcement actions for alleged greenwashing and social-washing activities. 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).

disclosures over a large sample of firms. Specifically, we utilize a comprehensive dataset of actual workplace diversity, which we compare to DEI commitment disclosures across financial documents for nearly all publicly traded U.S. firms. Most prior disclosure research cannot implement this type of assessment, because the object of interest is unobservable (e.g., comparing reported earnings with non-managed earnings). This feature makes our setting particularly powerful for identifying misrepresentations of ESG commitments in disclosures.

We begin by developing a DEI dictionary and calculating an index of the number of DEI-related terms in public firm disclosures. We find significant increases in the frequency with which firms discuss these issues over time, highlighting a heightened interest in DEI matters. We also show the intra-year dispersion in these discussions across firms has increased significantly over time, indicating significant divergence in firms' disclosure policies. These findings underscore the possibility of a growing prevalence of opportunistic DEI disclosures.

We next assess the association between a firm's diversity and its propensity to disclose DEI-related commitments. Similar to Liang, Lourie, Nekrasov, and Yoo (2022), we find a positive relationship between diversity and DEI commitment disclosures, indicating firms with better diversity discuss DEI more frequently. However, this relationship is weak, and substantial unexplained residual variation remains. This finding suggests some firms may opportunistically use selective voluntary DEI disclosures and thus engage in diversity washing.

To further explore the existence and consequences of diversity washing, we create a simple proxy based on the relative within-year ranks of its workplace diversity and the amount of DEI commitment disclosures. Our primary assumption in our calculation is that the expected amount of discussion related to DEI commitments should be ordinal to firms'

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underlying diversity, and any deviations are considered misrepresentations. We find identified diversity washers, on average, are larger with worse financial performance. These findings are consistent with large, high-profile companies attempting to boost their ESG profiles to lessen shareholder focus on poor financial performance.

We validate that our derived diversity washing measure is a proxy for DEI-related misrepresentation in several ways. First, we provide several analyses that suggest identified diversity washers are not committed to DEI. Specifically, using data on Equal Employment Opportunity Commission ("EEOC") penalties, we observe that diversity washers are more likely to incur violations and receive larger fines. These firms are also more likely to provide ESG policies without concrete goals, suggesting diversity washers do not enact meaningful changes to their ESG practices despite public assurances.

Second, given our diversity-washing proxy is based on contemporaneous diversity, which is a function of past hiring decisions, we address the concern that identified diversity washers might be committed to DEI, but it is not yet reflected in their current workforce demographics. However, we find diversity washing is not associated with subsequent improvements in underlying diversity. Finally, given the other disclosure venues available to firms, we show diversity washers' emphasis on DEI extends beyond financial-statement disclosures, by showing similar misrepresentations in corporate social responsibility (CSR) reports and Twitter.

In our final set of analyses, we provide evidence that this questionable DEI-disclosure behavior affects investors' perceptions of firms' ESG profiles. 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 a positive association between diversity washers' overall ESG and social ratings. Moreover, we find diversity washers experi-

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ence higher ownership levels by norm-constrained institutions, such as ESG-oriented mutual funds. Thus, misleading DEI-disclosure behavior by companies has an undesirable real impact on sustainable asset flows.

Our paper makes three contributions. First, we add to the literature on ESG disclosure (see Christensen, Hail, and Leuz, 2021 for a recent review), and particularly recent work related to human capital-related disclosures (e.g., Choi, Pacelli, Rennekamp, and Tomar, 2022; Bourveau, Chowdhury, Le, and Rouen, 2022).[2] We contribute to this literature by showing the propensity and consequences of firms exaggerating their commitments to DEI in a broad range of financial documents. Understanding the extent of this issue is critical, given a failure to adequately address deficiencies in DEI has real effects on firms, including costly ESG audits initiated by activist shareholders, increased scrutiny from regulators, and bad publicity that can negatively affect customer loyalty (Gerut and Amanda, 2022; Binham, 2018; Homburg, Stierl, and Bornemann, 2013; Park, Lee, and Kim, 2014).

Second, we also 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 around the Principles for Responsible Investment and Business Round Table signings (e.g., Raghunandan and Rajgopal, 2022; Kim and Yoon, 2021; Gibson, Glossner, Krueger, Matos, and Steffen, 2021) or gender pay gap disclosures (Bailey, Glaeser, Omartian, and Raghunandan, 2022). Our

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[2]Related to our study is contemporaneous work by Liang et al. (2022), which focuses on the managerial incentives for firms to disclose quantitative measures of gender diversity at firms and finds that firms with better gender diversity tend to disclose more about their DEI. Unlike Liang et al. (2022), we are interested in situations in which firms appear to mislead the public about their true commitments to DEI through their disclosures of "soft" information in financial statements.

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data's unique features permit us to compare firm disclosures with the underlying levels of diversity, providing large-scale evidence of DEI over-claiming in firms' financial filings. Our results provide support for the accusations of industry groups, litigants, and regulators that some firms appear to misrepresent their commitments to DEI, and ESG more broadly.[3]

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, 2021), 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 some firms appear to bias their ESG disclosures, thereby altering market perceptions of their ESG profile. This finding highlights existing concerns that socially responsible capital may not be invested in the appropriate companies (e.g., Bhagat, 2022; Wilkes, 2022). Although much of the focus by the SEC to date has been on false marketing by investment funds (e.g., Gary Gensler, 2022; Williamson, 2022), our evidence highlights that portfolio firms' management of investor expectations using selective disclosure may be partially responsible for this problem.

The remainder of the paper is organized as follows. Section 2 describes the data used in the study and the development of our DEI commitment measures, and presents descriptive statistics for our sample. Section 3 discusses the paper's main results related to DEI disclo-

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[3]For instance, see recent regulatory actions the SEC has taken against investment advisors and, more recently, companies, about misleading claims on ESG-related practices. As a result, the SEC is considering several proposals to combat misleading claims and has announced it is including ESG investing in its examination priorities for 2022. For instance, see `https://www.chapman.com/publication-sec-targets-greenwashing-and-other-misleading-esg-claims`.

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sures and firm diversity. Section 4 presents evidence that identified diversity washers are also associated with other negative DEI-related outcomes. Section 5 presents evidence of inaccurate market perceptions of diversity washers' underlying commitment to ESG. Concluding remarks are in section 6.

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 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.[4] We construct our primary measure of diversity as the fraction of U.S.-based employees who are female or non-white.[5]

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 (Revelio Labs, 2021).[6] Despite these efforts, Revelio Labs may not completely offset this bias. In this case, our diversity measures pri-

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[4]Revelio 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).

[5]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 firms' 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.

[6]For 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.

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marily capture the demographics of white-collar workers. Given that most diversity debates revolve around high-paid white-collar jobs, we feel the data and the subsequent analysis are 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.[7] First, every publicly traded firm is required to file these 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). Second, these 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.[8] 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

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[7]Despite this focus, in section 4.4, we find diversity washers also discuss DEI more frequently in alternative information channels, namely, Twitter and CSR reports. This result suggests our findings are not an artifact of our focus on SEC filings.

[8]See https://www.sec.gov/rules/petitions/2022/petn4-787.pdf and https://www.sec.gov/news/press-release/2022-46.

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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 that have alternative, non-DEI meanings to mitigate the possibility we are inadvertently capturing non-DEI discussion. Our final dictionary is reported in Table 2 of Appendix B.

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. Furthermore, most firms' DEI efforts are not constrained to a particular aspect of DEI (e.g., only focus on gender diversity) but are broad 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 almost universally made with a positive tone and are nearly always about commitments to DEI. Thus, our measure effectively provides a proxy for DEI commitments found in the documents of interest. We present several examples of discussions extracted from financial statements in Appendix B.

2.3. Sample

We construct firm-level financial and equity characteristics from CRSP and Compustat. ESG ownership proxies are constructed 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. 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 12 (8), suggesting firms devote at least some discussion to DEI-related issues in their financial documents in a given year. The primary source of these discussions is the DEF 14A, which reflects the fact that it is the only document that has a required DEI discussion for most of our sample period.[9] Critical to our study, which focuses on heterogeneity in disclosure, we see significant variation in how much firms discuss diversity, because the standard deviation of aggregate DEI words is approximately 14.

Table 1 also reveals diverse employees are substantially under-represented in publicly traded U.S. companies, relative to their proportion in the broader population. For instance, the 41.2% female and 29.8% non-white employees are significantly lower than the 2016-2020

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[9]Specifically, proxy disclosure enhancements in 2009 require all companies to disclose if and how diversity is factored when considering candidates for board positions and any related policies (SEC, 2009).

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Census estimates of 50.5% and 40.7% for working-aged individuals.[10] All other statistics are in line with expectations.

In Panels B and C of Table 1, we present pairwise correlations of each 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 (Panel A) and standard deviation (Panel B) of DEI words over our sample period. Unsurprisingly, in Panel A, we observe a substantial increase in the average discussion of DEI commitments, likely because firms are responding to recent increased attention to DEI matters by shareholders and stakeholders. However, in Panel B, we also document a meaningful increase in the within-year standard deviation. Although this heightened variation may reflect firms choosing different diversity levels, the size of the standard-deviation increase suggests other factors, such as opportunistic DEI disclosures, may also be at play.

3. DEI Commitments and Actual 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 in the firm. This analysis examines whether firms are, on average, truthfully conveying their commitments to diversity. In Table 2, we estimate Poisson

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[10]See: `https://www.census.gov/quickfacts/fact/table/US/LFE046220`.

regressions of the quantity of DEI words in firms' financial disclosures on the percentage of female and non-white employees. We do so 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 when we include industry and year fixed effects to control for industry-specific and temporal variation in DEI disclosures.[11]

In both panels, we observe a positive and statistically significant relationship between the percent 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 in the aggregate amount of diversity discussion, but also in 10-Ks and DEF14As. We find similar results for the relation between the percentage of female employees and DEI words.[12] Overall, this table is consistent with the findings in Liang et al. (2022) that firms with more diversity are more likely to provide disclosures on diversity.

Although we find a positive relationship between firms' underlying diversity and the extent to which they discuss their commitments to these issues, we also see this relationship is substantively weak. For instance, in column 1 of Panel A, our estimates indicate a one-standard-deviation increase in the percentage of female employees (i.e., a 16% increase) is associated with less than a 4.5% increase in the number of DEI words across financial documents. Similarly, 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

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[11]Industry fixed effects are defined using the firms' two-digit SIC code.

[12]The exception is that we estimate an insignificant relationship in DEF14As but a significant relationship with DEI words in 8-Ks without fixed effects.

controlling for industry and year fixed effects, we find substantial variation is left unexplained by the actual underlying diversity of firms. 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 2. 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.[13] Figure 2 clearly illustrates 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 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 only tenuous.

Overall, our findings indicate companies that have greater workforce diversity are more likely to discuss their commitments to DEI. However, we also show these relationships are 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

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[13]In Figure 2, we plot the univariate relationships, but these trends look similar after partialling out fixed effects and controlling for the other diversity measure.

firms based on their discussion of DEI commitment and their underlying diversity. Specifically, we independently sort firms each year into quintiles of underlying diversity and the number of DEI words 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.[14] 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 nothing. 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 for a large number of firms. For example, approximately 3.1% of our sample are simultaneously categorized as firms with the lowest levels of diversity and highest levels of DEI commitment discussion.

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

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[14]We 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.

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 $13-15$ times more DEI words in their financial disclosures than firms in the lowest-disclosure quintile.

The results in Table 3 show 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 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 several measures of diversity washing based on the intra-year distance between the amount of DEI commitment discussion and actual diversity. Effectively, we assume the expected amount of discussion should be in line with the underlying diversity. We assume any deviation from the average relation across firms in a given year suggests a firm is misrepresenting its diversity.

We calculate these deviations as the difference between a firm's within-year DEI-commitment disclosure percentile and its diversity percentile.[15] Using within-year percentile ranks allows

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[15]For 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 are qualitatively the same when using differences in quintiles derived from Table 3.

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for comparisons across two differently scaled measures (i.e., counts of DEI words and diversity percentages). Furthermore, it also 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 1 if a firm's disclosure percentile is higher than its diversity percentile, and 0 otherwise, and label the resulting variable as *Diversity Washer*.

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) and the rest of the sample of non-diversity washers. We find diversity washers tend to be larger firms with higher book-to-market and profitability and lower asset growth and 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 with lower growth. However, after we control for size and other firm characteristics, diversity washers tend to be less profitable and have lower returns. These findings suggest large, well-established firms experiencing negative profits and returns may use diversity washing to shift the focus away from their worsening financial condition.[16] These findings provide some

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[16]We find nearly all of these inferences are unchanged when conditioning on industry and year-fixed effects. The one exception is that after we include industry and year fixed effects, we no longer find a significant difference in return volatility.

preliminary empirical support for regulators' concerns that firms use misleading discussions of their ESG commitments to shift the narrative away from their financial and stock-price performance.

4. Validation of the Diversity-Washing Measure

This section helps validate our diversity-washing measure. Validation is important in our setting because our diversity-washing measures are new, and disclosures are the result of a complex set of firm decisions that may result in firms we identify as diversity washers are instead responding to other factors. We validate our measure in three ways.

First, we examine whether diversity washers are correlated with negative DEI outcomes. This analysis is meant to show our measure represents firms' false commitments to diversity and not some positive aspect of diversity that is not captured in our employee diversity data. We perform this analysis by correlating our diversity-washing measure with Equal Employment Opportunity Commission ("EEOC") penalties and by examining whether diversity washers have a lower propensity to set targets for diversity, which is also indicative of diversity publicity without substance. Second, we test whether diversity-washing scores correlate with future hiring decisions and diversity. This analysis addresses the concern that firms identified as diversity washers may be committed to DEI, but it is not yet reflected in their current workforce demographics. Finally, we explore whether diversity washers exhibit similar disclosure patterns in other communication channels. This analysis mitigates the

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concern that results are an artifact of our focus on SEC documents.[17]

4.1. Equal Employment Opportunity Commission Violations

If our proxy for diversity washing accurately captures false commitments to diversity, we expect it is associated with other negative DEI-related outcomes. Moreover, if DEI-related issues are a function of poor human capital management (HCM), we would expect to see other negative HCM-related outcomes by 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.[18]

In Panel A, we present results from a logit regression on whether the firm received an EEOC violation in year t on its measure of diversity washing. In Panel B, we regress the total annual dollar amounts of EEOC-related penalties (in natural logarithms) on diversity washing. The first two columns of each panel 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 offenses most related to our measure of DEI. We include the covariates in Table 4 as controls and industry and year fixed effects for all specifications.

In Panel A, we find a positive relation between diversity washing and the probability of having an EEOC penalty. Except for column 2, where the dependent variable is whether the firm received an EEOC penalty (not necessarily specific to discrimination), all columns

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[17]Another type of validation analysis that we explore is whether firms that are considered diversity washers (non-washers) in a given year remain as diversity washers (non-washers) in subsequent years. A reasonable expectation is that the strategic choice for DEI disclosure and actual diversity would exhibit a high level of serial correlation if our measure is valid. We find the serial correlation for *Diversity-Washing Level* is approximately 0.80.

[18]EEOC 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.

are statistically significant. In Panel B, we also find the size of EEOC penalties is larger for diversity washers. Across every specification, our estimates in Panel B are positive and statistically significant, suggesting diversity washers incur larger penalties for all EEOC fines (columns 1 and 2) and those specifically related to discrimination (columns 3 and 4). These findings indicate diversity washers exhibit significantly worse DEI performance as measured by the likelihood of receiving and the size of their EEOC violations. These outcomes are expected if our diversity-washing measure has convergent validity.

4.2. Other Questionable ESG Commitments

If diversity washing is part of a broader public-relations strategy on 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.[19] If ESG pledges do not also involve public targets to evaluate whether firms are achieving their goals, these 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 are more likely to provide policies without targets, because they may want the appearance of good corporate citizenship without exerting the effort to achieve quantifiable targets.

We examine this issue with ESG data from Refinitiv. Refinitiv provides data on whether firms provide explicit policies and targets for four ESG categories: diversity, energy, water, and emissions. In Table 6, we estimate 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 controls from Table 4 and industry and year

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[19]See, e.g., https://www.gobyinc.com/setting-esg-goals-that-create-value/.

fixed effects.

In Panel A, we find a statistically positive association between questionable diversity policies (columns 1 and 2) and our diversity-washing measure. Diversity washers are approximately 1.27 times more likely to have a questionable diversity policy. Except for emissions policies (columns 3 and 4 of Panel B), all estimates are statistically positive.[20] Similar to the results in Table 5, the analyses in Table 6 provide further evidence that supports the validity of our diversity-washing measure.

4.3. Future Diversity Hiring Decisions

One potential concern with our methodology is that we may misclassify firms with aspirational diversity goals that are not yet reflected in their actual diversity as diversity washers. Given our focus on contemporaneous diversity, which is a function of past hiring decisions, we ignore the possibility that DEI discussions in SEC documents relate to future hiring decisions rather than past decisions. If diversity washers' discussions are aspirational and meant to describe their ongoing efforts to improve diversity, we would expect future levels of diversity to improve. Alternatively, observing no effect or even a decline in diversity suggests diversity washers simply overstate their commitments, intending the discussions to boost the perception of diversity without changing the underlying levels.

In Table 7, we explore the relationship between diversity washing and subsequent changes in diversity. In Panel A, we explore the association between the change in diversity with our measures of diversity washing by estimating a regression of the percent change in diversity, $\Delta Diversity$, from year t to years $t + 1$ through $t + 3$ on our diversity-washing measures

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[20]In untabulated analyses, we find all estimates are statistically significant if we exclude the controls.

measured at time t. As before, we include the firm-level controls from Table 4 and include year fixed effects.[21]

Panel A reports the results. In year $t + 1$, we observe a significant decline in diversity, suggesting an inverse association between the level of DEI commitment disclosure and subsequent changes in employee diversity. In the percent changes through years $t + 2$ and $t + 3$, we find no evidence this trend reverses as we observe a negative and statistically insignificant association between diversity and our measures of diversity washing. These results are 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 as in Panel A but focus on diversity changes of senior-level employees.[22] We examine senior-level employees to better understand whether diversity washers improve actual diversity for certain types of employees. Given that we do not observe an increase in the overall level of diversity for diversity washers, an increase in senior employee diversity could suggest either appointing diverse "figureheads" or utilizing a "trickledown" approach to diversity (Cai, Dey, Grennan, Pacelli, and Qiu, 2022). Alternatively, observing no effect or a decline further contradicts the notion that firms labeled as

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[21]Unlike the other regression specifications, we do not include industry fixed effects in this model, because we are already doing a "within-firm" transformation by focusing on year-over-year changes in diversity. However, we find qualitatively similar results when including these fixed effects. Specifically, we find no evidence of a robust, statistically significant relationship between diversity washing and future diversity hiring across various horizons.

[22]The Revelio Labs data provide information on employee makeup for four levels of seniority. This panel examines the change in diversity for the most senior-level employees (i.e., level four). Employees at this level are not exclusively executives and members of C-suites. Instead, they are typically mid- to senior-level managers.

diversity washers are discussing aspirational changes to their employee workforce.

Similar to the results in Panel A, Panel B shows no correlation between the level of DEI commitment discussion and changes in future diversity measures. These results reinforce the notion that our diversity-washing measure is not simply capturing an aspirational DEI strategy by firms that is 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 validity concern, we explore two alternative channels that 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.[23]

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.[24] Because these voluntary disclosures directly relate to a firm's ESG activities, including DEI, a diversity washer may be more likely to also provide a CSR report. We also examine corporate Twitter disclosures, because Twitter is a disclosure mechanism that enables firms to disseminate timely information to a broad set of constituents other than shareholders by

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[23]As 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.

[24]Christensen, Hail, and Leuz (2019) provides a broad overview of CSR disclosures.

providing information directly to constituents and 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 commitment discussion.

We determine whether diversity washing is associated with CSR reporting and Twitter usage. In doing so, we investigate whether diversity washers 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 from Table 4 and industry and year fixed effects.

Panel A of Table 8 shows diversity washers are more likely to issue CSR reports and have a Twitter account. In Panel B, we examine whether diversity washers use these platforms to further discuss their DEI commitments. In these tests, we use the dictionary in Appendix B and count the number of DEI words appearing in CSR reports (columns 1 and 2) and the number of tweets containing DEI words (columns 3 and 4) in a given year. Like Panel A, we include the controls from Table 4 and industry and year fixed effects.

Panel B shows diversity washers discuss DEI more in CSR reports and tweets. The positive coefficients are statistically significant and economically meaningful. For example, in column 2 (4), diversity washers have 23% (17%) more DEI words in their CSR reports (tweets about DEI). In sum, Table 8 shows diversity washers do not constrain their DEI discussions to only financial statements. Thus, we do not believe our primary results are an

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artifact of using SEC documents.

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. For example, diversity washers may benefit from appearing more socially conscious than they actually are. 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; Białkowski 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, Rathi, and Kishan, 2021). Therefore, in our last set of analyses, 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, 2020; Berg et al., 2022), which is generally a combination of public, quasi-public, and proprietary data.[25] One

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[25]This 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).

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 raters 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 them to obtain higher ESG scores, which may also induce greater SRI ownership given these funds' reliance on ESG ratings.

We examine the relationship between ESG raters and diversity washers in Table 9. We consider the scores from two of the 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 the controls from Table 4 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).[27] In economic terms, diversity washers exhibit approximately a 13% higher ESG score both for the overall and social score, relative to non-diversity washers.[28] We also observe these relationships are increasing in the level of diversity, as shown in

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[26]Rating-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 Refintiv 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.

[27]Refinitiv scores range between 0 and 1, and Sustainalytics scores range from 0 to 100. This scale difference explains why the regression coefficients in Table 9 have very different magnitudes across Panels A and B.

[28]For the overall ESG score in column 2 in Panel A this statistic is calculated as the ratio of the coefficient divided by the average of the ESG score for non-diversity washers, i.e., $0.05/0.393 = 0.127$.

columns 1 and 3.

Panel B tabulates similar analyses for Sustainalytics ratings. Like Panel A, we find 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, as we estimate diversity washers have an approximately 2% higher rating than non-diversity washers, but again we find these effects are increasing in the magnitude of diversity washing.

The results in Table 9 suggest diversity washers tend to receive higher ESG ratings by commercial rating organizations, including social scores for which diversity is a principal input. This overrating likely reflects a combination of firms touting their DEI commitments in disclosures and the inability of shareholders and stakeholders to verify actual company diversity due to the absence of public 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 and Responsible Investment* (USSIF). Because USSIF's list only includes USSIF members, we also

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identify ESG mutual funds based on their names.[29] 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 the same controls and industry and year fixed effects as in Table 4.

Panel A shows SRI funds have larger positions in diversity washers. Relative to non-diversity washers, firms that diversity wash have approximately 9.4% more SRI fund ownership.[30] Furthermore, the positive and statistically significant relationship between *Diversity Washing Level* and SRI mutual fund ownership (columns 1 and 2), suggests 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.

Overall, the evidence in Table 10 suggests that despite exhibiting significantly lower outcomes for DEI-related issues, a larger fraction of diversity washers' shares are held by socially conscious investors. These findings highlight that sustainable asset flows may be distorted by firms' manipulation of their perceived ESG profile. This potential manipulation is an economic benefit to diversity-washing companies and an economic and social loss for investors with an ESG focus.

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

[30]This is calculated as the coefficient from column 4, divided by the unconditional mean of SRI shares held by non-diversity-washing funds, which is 55.8 bps.

6. Conclusion

We provide large-sample evidence showing many firms have significant discrepancies between their disclosed commitments to diversity and their actual hiring practices. Consistent with such firms making misleading commitments to DEI, we find diversity washers have less workplace diversity, experience future outflows of diverse employees, and are subject to higher diversity-related fines. Despite these negative DEI outcomes, we show diversity washers receive higher ESG scores from commercial rating organizations and attract more investment from ESG-focused institutional investors, suggesting these disclosures mislead outside stakeholders and investors.

In interpreting our findings, we acknowledge they are 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). The decision to diversity wash is an endogenous choice by the firm, likely correlated with other strategic decisions, such as the propensity to invest heavily in investor relations. This is an important limitation of our study.

Despite this caveat, our data offer the opportunity to study an important component of ESG—employee diversity—and compare it with a firm's disclosure. Our evidence suggests some firms provide misleading disclosures about their ESG commitments when shareholders and stakeholders often have difficulty verifying whether the disclosure is factually correct. This behavior is costly to shareholders and stakeholders because neither commercial ESG rating organizations nor ESG-focused investors appear to adjust for this opportunistic disclosure behavior by firms. Without a mechanism to hold firms accountable for reporting their

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ESG activities truthfully, investors and regulators should interpret disclosures cautiously.

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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), 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)
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 Tweets	Number of DEI-based Tweets for firm i in year t. (CR)
DEI Words$^{\text{Agg.}}$	Number of DEI-based words across 10-K, 8-K, and DEF 14A disclosures for firm i in year t. (EDGAR)
DEI Words$^{\text{8-K}}$	Number of DEI-based words across 8-K disclosures for firm i in year t. (EDGAR)
DEI Words$^{\text{10-K}}$	Number of DEI-based words across 10-K disclosures for firm i in year t. (EDGAR)
DEI Words$^{\text{DEF14A}}$	Number of DEI-based words across DEF 14A disclosures for firm i in year t. (EDGAR)
DEI Words$^{\text{CSR}}$	Number of DEI-based words across DEF 14A disclosures for firm i in year t. (CR)
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 Washing Level	The difference between a firm's DEI disclosure rank and its workforce diversity rank or firm i in year t. (RL, 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 Ownership$^{\text{Name-based}}$	ESG fund ownership for firm i in year t based on holdings of mutual funds with ESG-related names. (CRSP)
ESG Ownership$^{\text{US SIF}}$	ESG fund ownership for firm i in year t based on holdings of mutual funds listed in USSIF. (CRSP)
ESG Score$^{\text{Refinitiv}}$	Overall ESG rating provided by Refinitiv for firm i in year t. (TR)
ESG Score$^{\text{Sustainalytics}}$	Overall ESG rating provided by Sustainalytics for firm i in year t. (SUSTAIN)
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$^{\text{Refinitiv}}$	Social rating provided by Refinitiv for firm i in year t. (TR)
Social Score$^{\text{Sustainalytics}}$	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).
\$ Penalties	The total dollar amount of Equal Employment Opportunity Commission penalties for for firm i in year t. (GJF)
\$ Penalties$^{\text{Discrimination}}$	The total dollar amount of discrimination-related Equal Employment Opportunity Commission penalties for for firm i in year t. (GJF)
% Diversity	The percentage of U.S.-based employees that are female or non-white 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)
% Δ Diversity$_{t+k}$	The percent change in diverse employees for firm i from year t to $t+k$. (RL)
% Δ Diversity$_{t+k}^{Senior}$	The percent change in diverse employees for firm i from year t to $t+k$. (RL)

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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 133 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 University[31] and the University of Alaska Fairbanks DEI Dictionary.[32] We further supplemented these glossaries with terms from the UN's Sustainable Development Goals (SDG) related to DEI.[33] 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. To avoid inadvertently capturing these alternative meanings, we filter or modify terms in the comprehensive list. In particular, for each term in this aggregate list, we extract the text around each term for a random sample of documents and read the snippets to confirm the majority of cases relate to DEI. If it does not, we remove the term from our dictionary or modify it to better reflect a DEI context. For example, the word "veteran" often refers to employees with significant experience (e.g., "industry veterans") instead of the hiring or employment of military veterans. In this case, we condition the word "veteran" with a branch of the military (e.g., "army veterans") to eliminate instances unrelated to DEI. After this iterative process, our final sample includes 133 terms.

Table B-1 reports the 30 most common DEI terms across our corpus based on raw counts. We tabulate the full list of DEI phrases in Table B-2. Table B-3 reports the terms we dropped and replaced with more definitive bigrams.

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[31]See https://foster.uw.edu/about-foster-school/fostering-diversity/dei-glossary.

[32]See https://uaf.edu/diversity/files/DEI%20Dictionary%20v.01.2022.pdf.

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

Table B-1

Diversity, Equity and Inclusion Dictionary

Keyword	10K	DEF14A	8K
equal employment opportunity	0.111	0.021	0.159
equal pay	0.094	0.020	0.110
scholarship	0.078	0.044	0.029
affirmative action	0.044	0.018	0.102
special needs	0.036	0.004	0.016
sexual orientation	0.035	0.071	0.046
equal opportunity	0.035	0.023	0.054
pay equity	0.028	0.246	0.021
empowerment	0.027	0.016	0.021
racial	0.022	0.072	0.017
ethnicity	0.020	0.179	0.016
diverse workforce	0.016	0.022	0.011
united way	0.015	0.076	0.024
against discrimination	0.009	0.001	0.012
gender identity	0.008	0.021	0.006
african american	0.008	0.024	0.015
equal opportunity employer	0.007	0.004	0.005
food bank	0.006	0.013	0.009
female employee	0.006	0.004	0.002
homeless	0.006	0.013	0.007
lgbt	0.006	0.007	0.004
board diversity	0.005	0.151	0.009
mentally disabled	0.005	0.002	0.006
racis	0.005	0.003	0.001
workforce diversity	0.004	0.030	0.006
people of color	0.004	0.012	0.002
employment equality	0.004	0.000	0.003
gender discrimination	0.004	0.000	0.001
sex discrimination	0.004	0.000	0.003
unconscious bias	0.004	0.009	0.002

This table presents the 30 most frequent words in the diversity, equity, and inclusion dictionary we use to generate measures of the amount of DEI discussions in firms' financial documents. In the first column, we present the main dictionary of keywords sourced from various DEI dictionaries described in Appendix B. For each keyword, we present the average representation in each firm-year financial document in our sample, which we describe in section 2. For cases in which the keyword has alternative meanings in the context of the document type, we remove the keyword from our financial measures. We indicate these words with an "NA" in the table.

Table B-2 keywords used in the dictionary

keywords used	
accessibility for the disabled	homosexual
affirmative action	inclusive culture
african american	inclusive environment
against discrimination	inclusive leadership
air force veteran	inclusive work
	Continued on next page

Table B-2 – continued from previous page

keywords used	
allyship	inclusive work environment
army veteran	inclusive workforce
being an ally	inclusive workplace
bigotry	intersectionality
bipoc	justice, equity, diversity and inclusion
bisexual	latinx
black, indigenous, and people of color	lgbt
board diversity	marginalization
bullying	mentally disabled
cisgender	mentally handicapped
cultural appropriation	microaggression
cultural diversity	military veteran
cultural identity	minority employees
culture diversity	minority managers
de&i	minority representation
disability support	multicultural environment
disabled employees	multicultural workforce
disabled veteran	multicultural workplace
discriminate against	multiracial
diverse board	navy veteran
diverse culture	neurodiversity
diverse workforce	nonbinary
diverse workplace	pay equality
diversity & inclusion	pay equity
diversity and inclusion	pay gap
diversity in the workforce	pay inequity
diversity in the workplace	people of color
diversity of board	physically disabled
diversity training	positive work environment
diversity, equity & inclusion	promotion of women
diversity, equity, and inclusion	racial
diversity, inclusion and belonging	racis
dynamic culture	religion and belief
eeo.1	religious belief
eeo1	religious of belief
eligible veteran	returning veteran
employee with disability/disabilities	scholarship
empowerment	sex discrimination
equal employment opportunity	sexual identity
equal opportunity	sexual minority
equal pay	sexual orientation
equal work	social equity
	Continued on next page

Table B-2 – continued from previous page

keywords used	
ethnic diversity	social identity
ethnic minority	special needs
ethnicity	special olympics
female director	stereotypes
female employee	systemic inequit
female manager	transgender
food bank	unconscious bias
food pantry	underrepresented employees
foster diversity	underrepresented genders
gender bias	underrepresented groups
gender discrimination	underrepresented minority
gender diversity	underrepresented people
gender equality	united way
gender equity	white privilege
gender identity	women empowerment
gender minority	women in leadership
gender orientation	workforce diversity
heterosexism	workforce inclusion
homeless	workplace inclusion
homophobia	

Table B-3 keywords dropped from the dictionary

keywords dropped	
ableism	indigenous people
ally	internal equity
black empowerment	latino
culture	multicultural
disabilit	multigenerational
disabled	nondiscrimination
economic empowerment	oppression
equality	physically handicapped
equity	prejudice
female equality	race
gay	religio
gender	underrepresented
handicapped	urm
hispanic	value diversity in
inclusion	veteran
indigenous	

Being a Great Place to Work

Central to sustainable Responsible Growth are the actions we take to be the best place to work for our team. Our culture reflects how we run our company every day. We put the customer first, emphasize integrity and responsibility, and actively encourage all employees to bring their whole selves to work. When we create a workplace where our colleagues are engaged, empowered, and committed for the long term, we are better positioned to help our clients improve their financial lives.

> ### Growing our **Diverse & Inclusive Workforce**
>
> - Our **Global Diversity & Inclusion Council**, chaired by our CEO, is responsible for setting and upholding diversity and inclusion goals and practices
>
> - We are a **diverse and inclusive company.** Currently, our global workforce is more than **50% female**; and **more than 40% of the U.S.-based workforce is racially or ethnically diverse**. Our **senior leadership is also diverse**; six of our CEO's 12 direct reports and seven of our 15 Board members are women and/or persons of color
>
> - Our most recent campus recruiting class in the U.S. was **more than 50% diverse**, as we focus on building the next generation of leaders
>
> - Our **Courageous Conversations program** provides space for difficult but vital dialogues. These group discussions, which encourage employees to have open dialogue on topics that are important to them, promote inclusion, understanding, and positive action by creating awareness of employees' experiences and perspectives related to differences in background, experience or viewpoints (e.g. class, age, gender, gender identification and expression, sexual orientation, ethnicity, and disabilities)
>
> - Our company is recognized by *Fortune Magazine* on its **100 Best Workplaces for Diversity List**

(a) Bank of America's 2018 DEF14 A

Being a great place to work

Being a diverse and inclusive workplace

Creating an inclusive environment starts at the top and extends to all teammates. Our Board, its committees and our CEO play a key role in the oversight of our culture, holding management accountable for ethical and professional conduct and a commitment to being a great place to work.

Our Board and its committees, among other things:

Oversee our human capital management strategies, programs, and practices, including the progress on our diversity and inclusion (D&I) goals

Oversee our establishment, maintenance, and administration of appropriately designed compensation programs and plans

Review our annual Employee Engagement Survey results, including our Engagement and D&I indices

50% diverse(1)

6 Women directors

2 African-American directors

1 Hispanic director

Bank of America was

1 of only 5

S&P 100 companies with 6 or more women on the board(2)

(b) Bank of America's 2021 DEF14 A

Fig. B-1 DEI Language in EDGAR Filings: Bank of America DEF 14 A Filings. This figure presents examples from Bank of America's DEF-14A filings, which include DEI-based language. Panel (a) presents select excerpts from Bank of America's 2018 filing, and Panel (b) presents select excerpts from their 2021 filing.

Corporate Responsibility. Diversity and inclusion are integral parts of Intel's competitive strategy and vision. In January 2015, Intel announced the Diversity in Technology initiative, setting a goal to achieve higher representation of women and underrepresented minorities in Intel's U.S. workforce by 2020. We are also investing $300 million to help build the STEM pipeline, to support hiring and retaining more women and underrepresented minorities, and to fund programs to support more positive representation within the technology and gaming industries. We are committed to empowering people and expanding economic opportunity through education and technology, driven by our corporate and Intel Foundation programs, policy leadership, and collaborative engagements. In addition, we strive to cultivate an inclusive work environment in which engaged, energized employees can thrive in their jobs and in their communities. We work to develop energy-efficient technology solutions that can be used to address major global problems while reducing our environmental impact. We have also led the industry on the "conflict minerals" issue and have worked extensively since 2008 to put in place processes and systems to develop ethical sourcing of tin, tantalum, tungsten, and gold for Intel and to prevent profits from the sale of those minerals from funding conflict in the Democratic Republic of the Congo (DRC) and adjoining countries.

(a) Intel's 2015 10-K

Human Capital

Culture is critically important to Intel's success. We are re-energizing our culture to deliver on our corporate purpose and to attract, develop, and retain top talent needed to build transformative products and services that help our customers succeed in an increasingly data-driven world. We invest in our highly-skilled global workforce of 110,600 people by seeking to create a diverse, inclusive, and safe work environment where our employees can learn, innovate, and deliver their workplace best every day.

Our values—fearless, inclusion, customer-obsessed, one Intel, truth and transparency, and quality—guide how we make decisions, treat each other, and serve our customers. All employees are responsible for upholding these values, the Intel Code of Conduct, and Intel's Global Human Rights Principles, which form the foundation of our policies and practices and ethical business culture.
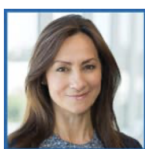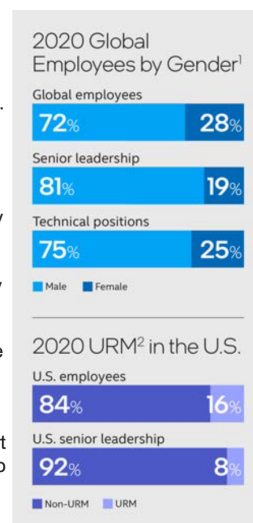
"People with diverse perspectives, experiences, and input are critical to Intel's innovation, playing important roles in key projects and programs across the company. An essential element of our growth strategy is to build a culture that empowers and inspires employees to collaborate and create, as we strive to become the most inclusive workplace on the planet."

—**Sandra Rivera**, Executive Vice President and Chief People Officer

Inclusion

Diversity and inclusion are core to Intel's values and instrumental in driving innovation and delivering stronger business growth. We achieved our 2020 goal of full representation in our U.S. workforce two years ahead of schedule, the result of an integrated strategy focused on hiring, retention, and progression. We are proud of what we have accomplished to advance diversity and inclusion, but we recognize we still have work to do, including beyond the walls of Intel. Our RISE strategy and 2030 goals set our global ambitions for the next decade, including doubling the number of women in senior leadership; exceeding 40% female representation in technical roles, including engineering positions and other roles with technical job requirements; increasing the percentage of employees who self-identify as having a disability to 10%; and ensuring accountability for embedding inclusive leadership practices across our business. Our goals also include doubling the number of underrepresented minorities in U.S. senior leadership. To drive accountability, we continue to link a portion of our executive and employee compensation to diversity and inclusion metrics.

Today's greatest challenges require a shared commitment to a plan and meaningful action. That is why we have committed our scale, expertise, and reach through our comprehensive RISE strategy to work with customers and other stakeholders to accelerate the adoption of inclusive business practices across industries. We are creating and implementing a Global Inclusion Index and convening a coalition of companies to focus on unified goals and metrics that will be shared through the index. This collective effort will allow the industry to more clearly identify actions needed to advance progress. We will also continue to collaborate on initiatives that expand the diverse pipeline of talent for our industry, advance social equity, make technology fully inclusive, and expand digital readiness for millions of people around the world.

2020 Global Employees by Gender[1]

Global employees: 72% Male, 28% Female
Senior leadership: 81% Male, 19% Female
Technical positions: 75% Male, 25% Female

■ Male ■ Female

2020 URM[2] in the U.S.

U.S. employees: 84% Non-URM, 16% URM
U.S. senior leadership: 92% Non-URM, 8% URM

■ Non-URM ■ URM

(b) Intel's 2020 10-K

Fig. B-2 DEI Language in EDGAR Filings: Intel's 10-K Filings. This figure presents examples from Intel's 10-K filings, which include DEI-based language. Panel (a) presents select excerpts from Intel's 2015 year-end filing, and Panel (b) presents select excerpts from their 2020 year-end filing.
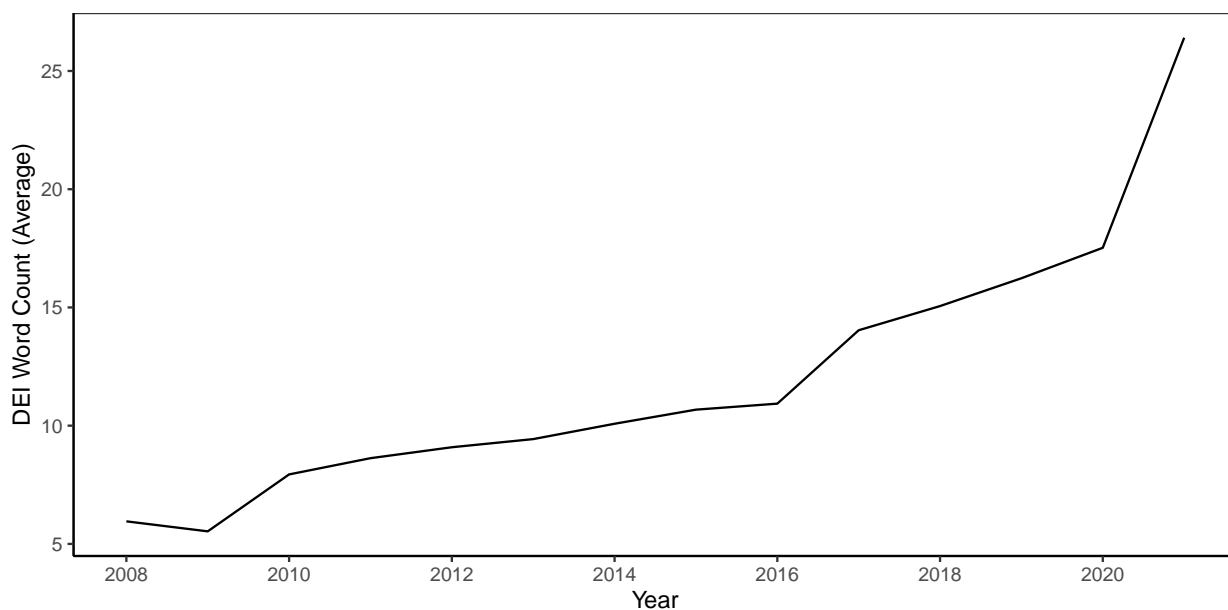
(a) Average
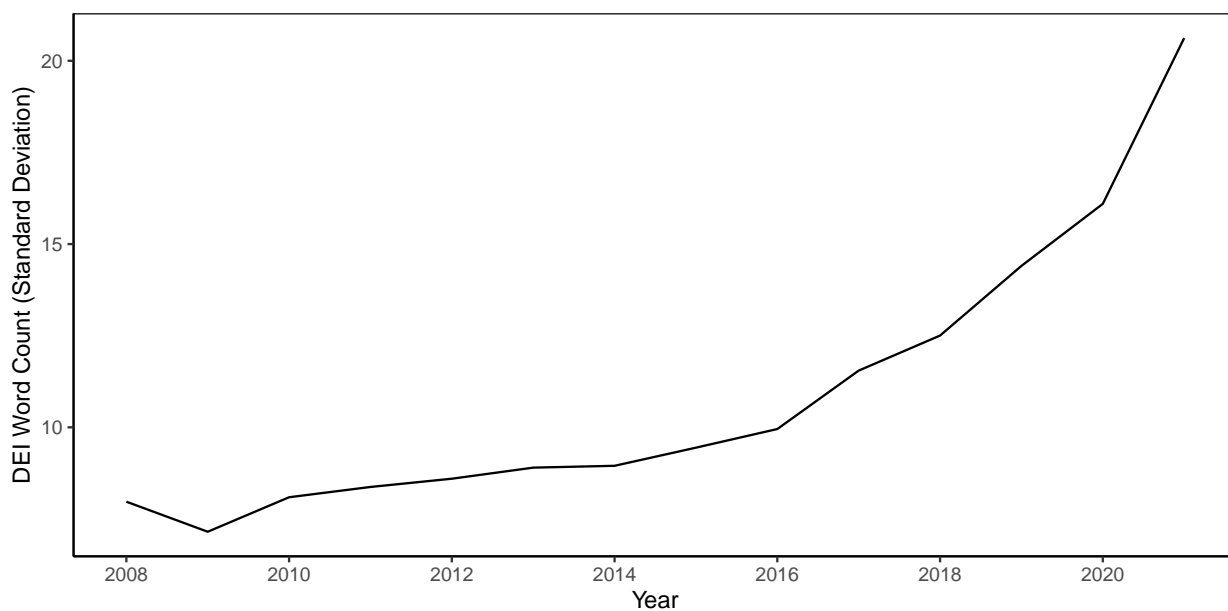
(b) Standard Deviation

Fig. 1 Time-series of DEI Discussion in Financial Discussions. This figure presents the time series on statistics related to the number of DEI-related words found in financial filings. Panel (a) presents the average across all firms in our sample by year. Panel (b) presents the standard deviation across firms by year. All measures are derived from the full sample described in section 2.

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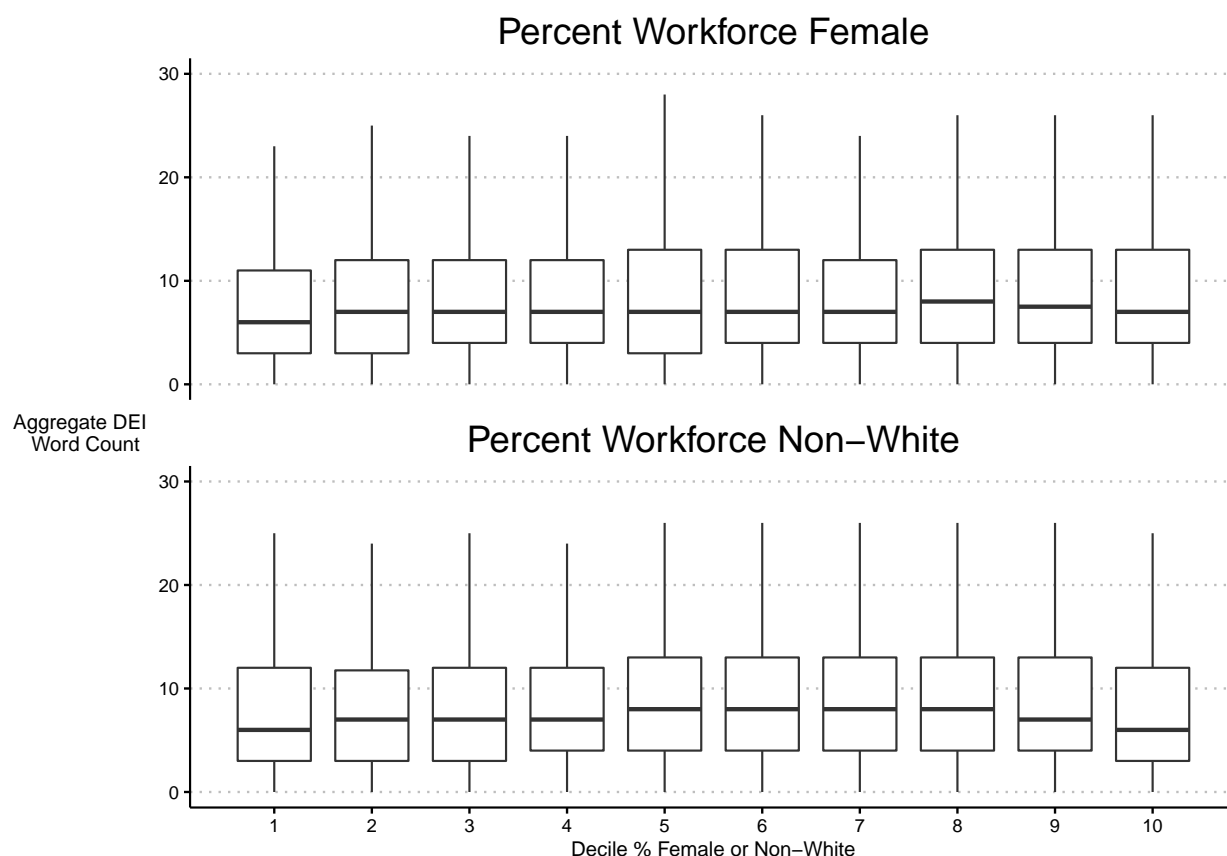
Fig. 2 Distribution of DEI Discussion in Financial Disclosures by Decile of Diversity Measure.
This figure presents box plots of the distribution of DEI-related words in our corpus of SEC documents,
broken down by the decile of underlying diversity, as measured by the percentage of a firm's workforce 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.

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Table 1

Descriptive statistics

Panel A: Summary statistics

	Mean	StDev	p$^{25\%}$	p$^{50\%}$	p$^{75\%}$	Obs.
Disclosure-based DEI measures						
DEI Words$^{\text{Agg.}}$	12.053	13.972	4.000	8.000	15.000	46,384
DEI Words$^{\text{10-K}}$	3.477	5.295	0.000	1.000	5.000	46,384
DEI Words$^{\text{DEF14A}}$	5.792	8.463	2.000	3.000	6.000	46,384
DEI Words$^{\text{8-K}}$	2.475	4.969	0.000	0.000	3.000	46,384
DEI Words$^{\text{CSR}}$	47.532	52.739	11.000	30.000	66.000	4,910
DEI Tweets	2.468	6.835	0.000	0.000	1.000	17,239
Diversity measures						
% Diversity	0.584	0.143	0.488	0.586	0.683	46,384
% Female	0.417	0.160	0.299	0.402	0.529	46,384
% Non-White	0.298	0.129	0.216	0.285	0.362	46,384
Firm characteristics						
Ann. Return	0.121	0.579	-0.214	0.064	0.338	46,044
Ann. Volatility	0.462	0.309	0.253	0.378	0.575	46,178
Asset Growth	0.111	0.386	-0.039	0.043	0.151	46,312
log(Book-Market)	-0.712	0.925	-1.241	-0.594	-0.093	44,060
log(Market Cap.)	6.498	2.162	4.939	6.504	8.002	46,374
Return on Assets	-0.052	0.248	-0.044	0.014	0.061	46,306
Other outcome variables						
% Δ Diversity$_{t+1}$	5.161	14.689	-0.331	2.850	7.196	40,591
$log(1 + \$ \text{ Penalties}^{\text{Discrimination}})$	0.333	1.992	0.000	0.000	0.000	16,751
$log(1 + \$ \text{ Penalties})$	1.469	4.113	0.000	0.000	0.000	16,751
CSR Report	0.106	0.308	0.000	0.000	0.000	46,384
Diversity Washer	0.503	0.500	0.000	1.000	1.000	46,384
Diversity Washing Level	0.041	39.355	-28.000	1.000	28.000	46,384
ESG Ownership$^{\text{US SIF}}$	26.059	90.375	0.000	0.000	8.700	46,384
ESG Score$^{\text{Refinitiv}}$	0.488	0.299	0.207	0.426	0.791	19,919
ESG Score$^{\text{Sustainalytics}}$	53.912	8.212	47.778	52.000	59.000	10,290
Questionable Diversity Policy	0.760	0.427	1.000	1.000	1.000	19,815
Social Score$^{\text{Refinitiv}}$	0.413	0.288	0.149	0.332	0.672	19,919
Social Score$^{\text{Sustainalytics}}$	53.922	9.994	46.405	53.000	60.763	8,798
Twitter Acct.	0.372	0.483	0.000	0.000	1.000	46,384

Panel B: DEI disclosure measures correlation table

	[1]	[2]	[3]	[4]
[1] DEI Words$^{\text{Agg.}}$		0.036	0.168	0.063
[2] DEI Words$^{\text{10-K}}$	0.021		0.219	0.124
[3] DEI Words$^{\text{DEF14A}}$	0.145	0.263		0.135
[4] DEI Words$^{\text{8-K}}$	0.036	0.131	0.137	

Panel C: Firm diversity proxy correlation table

	[1]	[2]	[3]
[1] % Diversity		0.834	0.499
[2] % Female	0.826		0.058
[3] % Non-White	0.543	0.038	

This table reports descriptive statistics on 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$^{10\text{-}K}$ (2)	DEI Words^{DEF14A} (3)	DEI Words$^{8\text{-}K}$ (4)
Constant	2.242***	0.794***	1.608***	0.755***
	(62.602)	(16.997)	(37.657)	(13.750)
% Female	0.269***	0.660***	-0.022	0.334***
	(4.332)	(8.341)	(-0.301)	(3.428)
% Non-White	0.446***	0.565***	0.522***	0.036
	(6.164)	(6.140)	(5.981)	(0.309)
Pseudo R^2	0.004	0.007	0.003	0.001
Observations	46,384	46,384	46,384	46,384

Panel B: Industry and year fixed effects

	DEI Words$^{Agg.}$ (1)	DEI Words$^{10\text{-}K}$ (2)	DEI Words^{DEF14A} (3)	DEI Words$^{8\text{-}K}$ (4)
% Female	0.157**	0.296***	0.104	0.074
	(2.083)	(3.075)	(1.095)	(0.660)
% Non-White	0.435***	0.563***	0.449***	0.131
	(6.134)	(6.505)	(4.975)	(1.102)
Year fixed effects	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes
Pseudo R^2	0.186	0.124	0.215	0.029
Observations	46,384	46,371	46,384	46,384

This table presents analysis on the relation between employee diversity measures and DEI disclosures from a Poisson regression. 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.

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Table 3

Identifying diversity washing

Panel A: Sample composition

	DEI Words$^{\text{Agg.}}$				
% Diversity	1	2	3	4	5
1	2,184	1,814	1,897	1,643	1,441
2	1,892	1,866	1,899	1,974	1,900
3	1,735	1,885	1,948	1,911	1,987
4	1,699	1,822	1,819	1,991	2,119
5	1,741	1,899	1,747	1,813	1,758

$\chi^2 = 263.27(\text{DF} = 16)$, p-value $< .001$

Panel B: Average firm diversity

	DEI Words$^{\text{Agg.}}$						
% Diversity	1	2	3	4	5	(5) - (1)	t-stat
1	0.434	0.446	0.452	0.454	0.453	0.019***	5.417
2	0.554	0.556	0.559	0.559	0.56	0.006***	2.881
3	0.62	0.62	0.62	0.623	0.627	0.007***	3.867
4	0.681	0.685	0.684	0.685	0.69	0.008***	4.929
5	0.788	0.786	0.785	0.784	0.783	-0.005*	-1.907
(5) - (1)	0.354***	0.341***	0.332***	0.33***	0.33***		
t-stat	117.482	116.651	116.755	115.317	110.029		

Panel C: Average DEI word count

	DEI Words$^{\text{Agg.}}$						
% Diversity	1	2	3	4	5	(5) - (1)	t-stat
1	2.072	5.193	8.607	13.858	29.517	27.445***	55.988
2	2.079	5.243	8.604	13.685	30.469	28.39***	64.816
3	2.117	5.266	8.467	13.722	31.436	29.319***	64.516
4	2.244	5.278	8.557	13.679	31.578	29.333***	65.152
5	2.14	5.019	8.493	13.638	30.594	28.454***	60.834
(5) - (1)	0.068	-0.175**	-0.113	-0.22	1.077		
t-stat	1.357	-2.046	-0.79	-0.877	1.594		

This table explores disagreements in DEI external 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. 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.)	6.94	6.06	0.88***	44.77
Asset Growth	0.11	0.12	-0.01**	-2.50
log(Book-Market)	-0.69	-0.73	0.04***	3.98
Return on Assets	-0.03	-0.07	0.04***	15.71
Ann. Return	0.12	0.12	-0.01	-0.95
Ann. Volatility	0.44	0.48	-0.03***	-11.80

Panel B: Multivariate analyses of differences

	Diversity-Washing Level		Diversity Washers	
	(1)	(2)	(3)	(4)
Constant	-37.590***		0.089***	
	(-19.872)		(4.215)	
log(Market Cap.)	5.969***	5.053***	0.065***	0.056***
	(22.882)	(20.308)	(23.113)	(19.376)
Asset Growth	-2.983***	-0.860*	-0.030***	-0.007
	(-5.396)	(-1.646)	(-4.311)	(-1.085)
log(Book-Market)	5.379***	5.070***	0.059***	0.058***
	(11.168)	(10.735)	(10.802)	(10.295)
Return on Assets	-3.371*	-10.012***	-0.040*	-0.109***
	(-1.808)	(-5.302)	(-1.919)	(-5.042)
Ann. Return	-1.820***	-1.025***	-0.020***	-0.011**
	(-4.980)	(-2.672)	(-4.232)	(-2.196)
Ann. Volatility	6.438***	1.606	0.073***	0.018
	(5.736)	(1.479)	(5.580)	(1.363)
Industry fixed effects	No	Yes	No	Yes
Year fixed effects	No	Yes	No	Yes
R^2	0.078	0.238	0.058	0.164
Observations	43,721	43,721	43,721	43,721

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.

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Table 5

Diversity washing and employment violations

Panel A: Number of violations

	Employment Penalty		Discrimination Penalty	
	(1)	(2)	(3)	(4)
Diversity-Washing Level	0.003***		0.005**	
	(2.690)		(2.187)	
Diversity Washers		0.129		0.263*
		(1.631)		(1.825)
Controls	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes
Pseudo R^2	0.150	0.149	0.187	0.187
Observations	15,979	15,979	14,899	14,899

Panel B: Total dollar amounts of penalties

	log(1 + $ Penalties)		log(1 + $ Penalties$^{\text{Discrimination}}$)	
	(1)	(2)	(3)	(4)
Diversity-Washing Level	0.004***		0.002***	
	(3.311)		(3.222)	
Diversity Washers		0.245***		0.132***
		(2.708)		(3.077)
Controls	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes
R^2	0.117	0.117	0.065	0.065
Observations	16,067	16,067	16,067	16,067

This table presents analysis relating diversity washing to diversity-related violations and penalties. Panel A regresses the number of penalties (columns 1 and 2) and the number of discrimination-related penalties (columns 3 and 4) in a calendar year on our two measures of diversity washing, *Diversity-Washing Level* and *Diversity Washers*. Panel B regresses the dollar amount of penalties (in natural logs) 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	0.004***		0.002**	
	(4.217)		(2.238)	
Diversity Washers		0.238***		0.123*
		(3.926)		(1.880)
Controls	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes
Pseudo R^2	0.063	0.062	0.128	0.127
Observations	18,531	18,531	18,395	18,395

Panel B: Water and emissions

	Questionable Water Policy		Questionable Emissions Policy	
	(1)	(2)	(3)	(4)
Diversity-Washing Level	0.005***		0.001	
	(4.130)		(0.501)	
Diversity Washers		0.311***		0.074
		(3.942)		(0.976)
Controls	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes
Pseudo R^2	0.174	0.173	0.082	0.082
Observations	18,287	18,287	18,334	18,334

This table presents results from a logit regression on 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.

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Table 7

Diversity washing and employee outcomes

Panel A: Changes in diversity

	% Δ Diversity$_{t+1}$		% Δ Diversity$_{t+2}$		% Δ Diversity$_{t+3}$	
	(1)	(2)	(3)	(4)	(5)	(6)
Diversity -ashing Level	-0.006**		-0.001		-0.004	
	(-2.143)		(-0.221)		(-1.445)	
Diversity Washers		-0.397**		-0.054		-0.104
		(-2.197)		(-0.293)		(-0.558)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
R^2	0.121	0.121	0.067	0.067	0.039	0.038
Observations	38,977	38,977	33,932	33,932	29,296	29,296

Panel B: Changes in senior-level diversity

	% Δ Diversity$_{t+1}^{\text{Senior}}$		% Δ Diversity$_{t+2}^{\text{Senior}}$		% Δ Diversity$_{t+3}^{\text{Senior}}$	
	(1)	(2)	(3)	(4)	(5)	(6)
Diversity-Washing Level	-0.006		-0.003		-0.003	
	(-1.612)		(-0.921)		(-0.675)	
Diversity Washers		-0.318		0.006		0.076
		(-1.222)		(0.022)		(0.296)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
R^2	0.065	0.065	0.043	0.043	0.031	0.031
Observations	38,483	38,483	33,552	33,552	29,006	29,006

This table presents analysis of diversity washing on employee outcomes. Panel A reports the relation between the percent change in diverse employees and our two measures of diversity washing, *Diversity-Washing Level* and *Diversity Washers*. Panel B reports similar analyses on the number of diverse 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 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	0.008***		0.003***	
	(7.819)		(3.832)	
Diversity Washers		0.522***		0.133***
		(7.581)		(2.633)
Controls	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes
Pseudo R^2	0.405	0.404	0.096	0.095
Observations	36,850	36,850	43,681	43,681

Panel B: DEI disclosure in alternative platforms

	DEI Words$^{\text{CSR}}$		DEI Tweets	
	(1)	(2)	(3)	(4)
Diversity-Washing Level	0.003***		0.002***	
	(3.288)		(2.678)	
Diversity Washers		0.208***		0.159**
		(4.001)		(2.426)
Controls	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes
Pseudo R^2	0.275	0.275	0.358	0.358
Observations	4,741	4,741	16,321	16,321

This table presents analysis on the relation between identified diversity washers and DEI disclosures in alternative communication platforms. In Panel A, we estimate a logit regression 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***		0.001***	
	(10.339)		(8.853)	
Diversity Washers		0.050***		0.042***
		(8.720)		(7.177)
Controls	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes
R^2	0.555	0.552	0.512	0.508
Observations	19,053	19,053	19,053	19,053

Panel B: Sustainalytics

	ESG Score[Sustainalytics]		Social Score[Sustainalytics]	
	(1)	(2)	(3)	(4)
Diversity-Washing Level	0.022***		0.025***	
	(5.394)		(4.227)	
Diversity Washers		1.013***		0.818**
		(3.747)		(2.130)
Controls	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes
R^2	0.397	0.392	0.321	0.317
Observations	9,872	9,872	8,466	8,466

This table presents analysis on the relation between diversity washing and commercial ESG scores. Panel A reports results when ESG scores from Refinitiv are the dependent variables. Panel B reports results when ESG scores from Sustainalytics are 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$^{\text{US SIF}}$ (bps) | | | |
	(1)	(2)	(3)	(4)
Diversity-Washing Level	0.098***	0.080***		
	(4.740)	(4.048)		
Diversity Washers			6.652***	5.272***
			(4.598)	(3.761)
Controls	Yes	Yes	Yes	Yes
Year fixed effects	No	Yes	No	Yes
Industry fixed effects	No	Yes	No	Yes
R^2	0.064	0.087	0.063	0.087
Observations	43,721	43,721	43,721	43,721

Panel B: ESG investor ownership, identified by MF names

| | ESG Ownership$^{\text{Name-based}}$ (bps) | | | |
	(1)	(2)	(3)	(4)
Diversity-Washing Level	0.022**	0.019**		
	(2.572)	(2.113)		
Diversity Washers			1.525**	1.219**
			(2.531)	(1.987)
Controls	Yes	Yes	Yes	Yes
Year fixed effects	No	Yes	No	Yes
Industry fixed effects	No	Yes	No	Yes
R^2	0.077	0.109	0.077	0.109
Observations	43,721	43,721	43,721	43,721

This table presents analysis on 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 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.

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