

Board Diversity and Shareholder Voting

Finance Working Paper N° 716/2020 April 2022 Ian D. Gow University of Melbourne

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We gratefully acknowledge the support of Stanford Rock Center for Corporate Governance, Stanford Graduate School of Business Research Hub and Data, Analytics & Research Computing (especially Mason Jiang), Melbourne Centre for Corporate Governance and Regulation (MCCGR), and Yale School of Management. We also thank Chuck Callan, Joseph Grundfest, Stefan Huber, Jonathan Kepler, Charles McClure, Maureen McNichols, Anya Nakhmurina, Aneesh Raghunandan, and Shawn Shi for their helpful comments and suggestions. This study has benefited substantially from the insights and data provided by David Chun and Courtney Yu at Equilar, and Paul Herman at HIP Investor

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Abstract

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Keywords: Board of directors; Diversity, Shareholder voting, Environmental, Social, and Governance (ESG)

JEL Classifications: G30, G34, G23, M14, J71

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Abstract

The lack of board diversity across gender and race has been one of the most controversial topics in corporate board governance in recent years. Given the central role that shareholders have in approving director appointments, we investigate whether shareholders value diversity on corporate boards by analyzing their voting patterns in director elections. Despite many shareholders' public commitments of supporting board diversity, we show that shareholders have not historically been proactive in using their votes to motivate companies to increase diversity among corporate boards. This finding persists over time and across key shareholders who have been some of the most outspoken proponents of board diversity.

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"We think the director vote is the most powerful mechanism to hold directors accountable..." — Ben Colton, Global Co-Head of Asset Stewardship at State Street Global Advisors (Financial Times Agenda, 2021)

1. Introduction

There are many outstanding concerns about the composition of the boards of directors of public corporations. Recent studies of U.S. corporate boards find that only 19% of corporate directors are women and only 10% are racially or ethnically diverse (Papadopoulos, 2019). While there have been recent improvements, a significant diversity gap remains in corporate board rooms.¹ A critical research question is understanding what factors enable these low levels of diversity to persist.

We provide evidence relevant to answering this question by studying shareholder voting behaviors towards board diversity in director elections. Given the central role that shareholders have in approving director appointments, understanding shareholder voting behavior is critical for this inquiry. Director elections are an essential avenue for shaping corporate boards and governance in the U.S. (e.g., Cai, Garner, and Walkling, 2009; Fos, Li, and Tsoutsoura, 2018; Aggarwal, Dahiya, and Prabhala, 2019), and investors have reportedly increasingly used their votes to address board diversity (e.g., Gerut, 2021). Moreover, as prior studies have shown that shareholder voting is a measure of shareholder preferences (e.g., Fischer, Gramlich, Miller, and White, 2009; Chen and Guay, 2019; Bolton, Li, Ravina, and Rosenthal, 2020), an analysis of voting behavior provides direct evidence on whether shareholders place value on board diversity.

It is ex-ante unclear how shareholders value board diversity in director elections. Many large shareholders have been extremely outspoken in their commitment to increasing board diversity (e.g., Krouse, 2018; Kerber, 2019). One reason for this public commitment may be because shareholders believe that such diversity improves corporate

¹For example, Spencer Stuart's 2020 board index reports that 59% of new directors appointed to boards in the past year were women or minority directors (SpencerStuart, 2020).

decision-making and firm performance.² They may also believe that board diversity is an important social issue that deserves their support consistent with increased emphasis on investments following environmental, social, and governance (ESG) principles, now estimated to be more than one-quarter of all assets under management globally (Bernow, Klempner, and Magnin, 2017). If social objectives such as board diversity are important to shareholders and/or board diversity improves firm financial performance, we should observe significantly higher voting support for diverse board candidates and boards when controlling for other factors.

Alternatively, it is possible that shareholders' public statements of supporting diversity is "cheap talk" and simply an attempt to increase assets under management or fees by marketing to new investors that have progressive objectives (e.g., Wursthorn, 2021). This possibility is highlighted by recent concerns voiced by regulators that many funds may be falsely advertising their commitment to sustainability (e.g., SEC, 2020b), as well recent studies which question whether shareholders are genuinely interested in promoting ESG issues (e.g., Kim and Yoon, 2021; Raghunandan and Rajgopal, 2021a; Gibson, Glossner, Krueger, Matos, and Steffen, 2021). In the context of director diversity specifically, both large shareholders (Arvedlund, 2019) and proxy advisors (Aston, 2020) have recently come under significant public scrutiny questioning the veracity of their outspoken commitments to board diversity. If shareholders are overstating their support for promoting board diversity, we would expect to see minimal additional voting support for diverse board candidates and boards when controlling for other factors

More concerning is there are reasons we might expect lower votes for diverse candidates relative to non-diverse candidates in director elections as extensive prior research finds overt discrimination in various labor market settings. This is a special concern in

²As discussed in Section 2, whether board diversity improves firm performance is a highly contentious debate. By studying investor voting patterns, we add evidence to this debate by showing how investors appear to perceive the value of board diversity. For instance, to the extent investors believe that diversity among board members is related to improvements in future firm performance, we would expect to find significant voting support in favor of board diversity.

the asset management and financial services sectors where it has been widely alleged that these companies exhibit pervasive sexism and racism (e.g., Jaekel and St-Onge, 2016; King and Liversidge, 2018; Flitter, 2019; SEC, 2020b). This conjecture is supported by the prior research on discrimination among financial market professionals (e.g., Girardone, Kokas, and Wood, 2021; de Andrés, Gimeno, and Mateos de Cabo, 2021; García Lara, García Osma, Mora, and Scapin, 2017) including director labor markets (e.g., Geiler and Renneboog, 2015; Friedman, 2019; Field, Souther, and Yore, 2020). Moreover, there has been persistent criticism of financial institutions regarding their internal lack of diversity (e.g., Reynolds, 2020; Raben, 2020), which may lead to a lack of support toward diverse directors by voting institutions that are typically run by non-diverse managers. Therefore, one potential source of the current lack of diversity on corporate boards may be bias against directors by mainly non-diverse investment professionals (e.g., Adams, de Haan, Terjesen, and van Ees, 2015; Hillman, 2015).

In order to provide insights into whether shareholders support or impede board diversity, we develop a broad sample of director elections from 2003 through 2018 where the diversity of candidates are likely to be known to shareholders at the time of voting. Our measure of race is primarily based on independent assessments of director photos found in proxy statements or other sources. As we show, these data are considerably more accurate in terms of race than other databases such as RiskMetrics or surname-based race assignment. Thus, our data enable us to accurately assess shareholders preferences for or against diverse directors.

Our initial analysis examines how shareholders value diverse (i.e., non-White or female) directors in director elections. We find that shareholder voting support for diverse directors is 0.30 to 0.57 percentage points higher than for other non-diverse directors when controlling for important director-level and firm-level characteristics. For institutional investors specifically, we find that the percentage of funds supporting diverse directors is, on average, 0.47 to 1.83 percentage points higher than for other directors.³ Thus, we do not find evidence consistent with overt discrimination against diverse candidates by shareholders. However, the estimated positive differential voting effects are very modest in magnitude which raises the important question of whether shareholders are genuinely committed to driving board structures to something that approaches gender and racial parity with the U.S. population.

After stratifying our sample by type of candidate diversity, we again find that a small diversity voting premiums exist for both gender and race.⁴ However, we also find empirical support to anecdotal worries that attention to gender diversity has overshadowed racial diversity in boardrooms (e.g., Barrett and Rodriguez, 2020).⁵ Specifically, we observe that the measured effects of diversity on votes for gender diversity is approximately 68 to 96% larger than those of racial diversity. In addition, we find that the increased voting support based on race is generally restricted to Black or African American directors as the measured effects for these directors are significantly larger than those of other non-White board members. These results are consistent with the allegations that directors of some races, such as Hispanic or Latino directors, have been "left behind" in the push for greater diversity (e.g., Green, 2020a).

An alternative approach to estimating shareholder voting preferences for diverse directors is to change the unit of analysis from the individual director level to the board

³Specifically, the percentage of individual mutual funds with a "For" vote in the N-PX database for the candidate is 0.47 to 1.83 percentage points higher for diverse candidates, after conditioning on other director and firm characteristics.

⁴For brevity in the exposition, we denote both race and ethnicity as one classification, which we refer to as "race." This is also consistent with how most Hispanic or Latino individuals identify based on survey evidence by the Pew Research Center (Parker, Menasce Horowitz, Morin, and Hugo Lopez, 2015). In assigning directors to a racial category, we follow the race and ethnicity standards determined by the U.S. Office of Management and Budget (OMB). For gender assignment, we utilize the classifications from Equilar (i.e., Male or Female), recognizing this may be limiting or inconsistent with some director self-assignment.

⁵One potential explanation for this is that investors perceive gender diversity as a more severe problem than ethnic and racial diversity. For instance, Green and Hand (2021) find evidence that whether racially or ethnically diverse groups are over or underrepresented depends on the benchmark used. They conclude that ethnically or racially diverse minorities are underrepresented among corporate executives if the benchmark used is the general population. However, these groups may be over represented if the benchmark used is instead the supply of candidates graduating from top U.S. colleges and universities.

level. Specifically, it is possible that shareholders express support for diversity by being more likely to support all directors on boards with greater diversity, as opposed to only the individual diverse directors. This alternative viewpoint on shareholders preferences for diversity is supported by the fact that several key market participants are adopting internal policies in which other members of the board, such as those on the nominating committee, are penalized for a firms lack of board diversity (e.g., Huber and Simpkins, 2019; Lublin and Krouse, 2017). This distinction is important because our initial tests examine the votes for diverse candidates relative to all other candidates, which will largely ignore variation related to additional voting support for the entire board.

We find that having one diverse director is associated with increased aggregate voting for the entire board by 0.62 percentage points, and an additional (or second) diverse director effectively doubles this to 1.19 percentage points. Similarly, for institutional investors, the first diverse director is associated with increases in the percentage of funds voting for the board by approximately 2.65 percentage points, and the inclusion of a second director increases this number to 4.65 percentage points. These findings provide additional evidence that while shareholders perceive value in having a diverse set of board members, the additional voting support from shareholders for diverse boards is economically small.

Our primary analyses, described above, pool data across a the time period from 2003 to 2018. While this approach provides powerful tests for average voting results, it does not provide insight into dynamic voting effects over time. For example, it is possible that shareholder voting patterns in early time periods were discriminatory, and in favor of diversity in later time periods. Our analyses indicate that support for board diversity has increased over time in both aggregate voting and institutional investor support, consistent with a growing focus on board diversity by shareholders. In early years, the estimated diversity voting effects were generally statistically indistinguishable from zero, but in later years we estimate statistically significant positive effects. However, while our findings show shareholders increasingly value diversity in corporate boards, these effects

remain economically marginal even in recent years.

Our final set of tests explore heterogeneity in shareholder preferences for board diversity, with a focus on investor types most relevant to promoting board diversity. First, consistent with prior findings in other settings (e.g., Matvos and Ostrovsky, 2010; Bolton et al., 2020), we find considerable heterogeneity across funds in their prevalence to support candidate diversity in elections with their voting support. Across the largest funds, however, these voting differences are relatively modest, and nearly all are economically small indicating few have provided significant additional voting support to diverse directors.

Second, we also analyze how the voting patterns of the so called "Big Three" asset managers (BlackRock, Vanguard, and State Street) differ from those of other funds. Collectively, the Big Three manage more than \$7.5 trillion in assets and have significant influence over corporate governance (Bebchuk, Cohen, and Hirst, 2017). In recent years, each of these firms has been extremely outspoken in their support and commitment to increasing board diversity (e.g., Lublin and Krouse, 2017; Krouse, 2018; Kerber, 2019). Related studies have also shown these funds to be significant proponents in promoting ESG factors (e.g., Azar, Duro, Kadach, and Ormazabal, 2021; Gormley, Gupta, Matsa, Mortal, and Yang, 2020). Despite this aggressive public activism, we find that not all of these funds have been the "diversity champions." Specifically, we show that BlackRock supports diverse boards less than the average fund, and BlackRock and Vanguard support diverse individuals less than the average fund, particularly so during the latter portion of our sample. In contrast, State Street exhibits greater support for individual diversity than the average fund, especially in the more recent period. Thus, there is some doubt regarding the commitment to board diversity by the Big Three funds, collectively.

Finally, we explore whether socially conscious fund families exhibit different patterns in voting for diversity. This analysis allows us to gain insight into whether these funds "practice what they preach" as measured by their voting behavior. This is a critical concern given recent concerns among regulators that some funds may be falsely advertising their commitment to sustainability (e.g., SEC, 2020b; Arvedlund, 2019). We show that fund families with larger holdings in companies with higher overall ESG scores, higher equality scores, and greater female employee representation show a stronger tendency to vote for board diversity (but not individual diversity). However, similar to our primary results, these voting differences are economically modest. These results provide evidence that more socially responsible funds support board diversity more than the average fund, but perhaps not as much as they claim in public statements and advertising materials.

Our paper provides new insights into the support that shareholders have for diverse individual directors and overall board diversity. While we do not observe overt discrimination, the small voting differential for diverse board candidates and diverse boards we document does not support the notion that shareholders believe that board diversity leads to improved future performance. These findings also raise questions about how committed shareholders truly are to fixing the board diversity issue in the U.S.⁶ Although challenging to examine entirely without insight into the confidential marketing strategies by institutional investors, our evidence suggests recent public statements supporting board diversity by many shareholders may be "cheap talk" in their effort increase assets under management and profitability.

The remainder of the paper is organized as follows. Section 2 provides a summary review of the related literature and the motivation for our study. Section 3 describes the data used in the study and presents descriptive statistics for our sample. Section 4 discusses the empirical strategy and provides the main results of the paper. Concluding remarks and limitations of our analyses are presented in Section 5.

⁶Our findings suggest that a "market solution," driven by shareholders, for moving boards to a structure that resembles the gender and race in the U.S. population is likely to be problematic. If this is the case and board diversity is deemed a serious issue by society, regulation-based solutions such as state legislation requiring diversity for companies headquartered or operating in their states (Landefeld, Sroufe, Handy, and Coffin, 2020; Steele, 2020), increased disclosure on board diversity (SEC, 2020a), or listing requirements by exchanges (McEnery, 2020) may be necessary.

2. Prior research and motivation

This paper is related to several strands of prior literature. Most directly, our paper relates to extant literature which shows differences in labor market outcomes for many groups across both race and ethnicity (e.g., Bertrand and Mullainathan, 2004; Arceo-Gomez and Campos-Vazquez, 2014) and gender (e.g., Neumark, Bank, and Van Nort, 1996; Blau and Kahn, 2000).⁷ While much of the academic literature has focused on the labor market outcomes of lower-level workers, there has been an increased focus on these issues among practitioners and regulators as it relates to corporate boards and executive leadership. This increased focus is evidenced by: the public calls for board diversity quotas (e.g., Lublin and Krouse, 2017; Krouse, 2018); major institutional asset managers actively supporting board diversity and committed to increasing board diversity (e.g., Lublin and Krouse, 2017; Krouse, 2018; Kerber, 2019); investment banks either encouraging or requiring board diversity for IPO firms (Green, 2020b); diversity requirements from proxy advisors (Huber and Simpkins, 2019); state legislation requiring gender or racial diversity for companies headquartered or operating in their states (Landefeld et al., 2020; Steele, 2020); and the fact that many directors now recognize board diversity as a primary concern (e.g., Akin Gump Strauss Hauer & Feld LLP, 2020).

Despite its importance for public policy, relatively little is known about the source of the persistent lack of diversity among corporate boards. One potential explanation for its source is related to the possible bias against (or lack of support for) diverse directors by historically non-diverse investment professionals (e.g., Adams et al., 2015; Hillman, 2015). This conjecture is supported by the persistent criticism of financial institutions regarding their internal lack of diversity (e.g., Reynolds, 2020; Raben, 2020) and pervasive allegations of sexism and racism in the financial industry (e.g., Jaekel and St-Onge, 2016; King and Liversidge, 2018; Flitter, 2019; SEC, 2020b). This idea is also supported by many

⁷For broad reviews on the topic of discrimination in labor markets, see: Darity and Mason (1998); Arrow (1998); Altonji and Blank (1999); Hersch (2006); Charles and Guryan (2011); Blau and Kahn (2017); Neumark (2018); Lang and Lehmann (2012).

academic studies which find evidence of discriminatory practices among financial market professionals (e.g., de Andrés et al., 2021; García Lara et al., 2017) including in director labor markets (e.g., Geiler and Renneboog, 2015; Field et al., 2020).⁸

We extend this prior research by examining shareholder voting behavior on diverse and non-diverse directors and boards. In the U.S., corporations form their boards through a two-step process at annual meetings. Typically, the board of directors nominate a slate of directors, and then shareholders subsequently vote either for each director candidate or withhold their vote (essentially voting against the candidate). By studying the voting patterns of shareholders, which are primarily institutional investors (e.g., Yermack, 2010), we provide insight into whether these investors are a catalyst or constraint for the social objective of increasing board diversity. While other studies have presented several explanations for this problem, such as the importance director connections (e.g., Agarwal et al., 2016; Matsa and Miller, 2011) and supply-side explanations (e.g., Lemayian, Pownall, and Short, 2020), the role that shareholders play in either advancing or impeding board diversity is largely unknown. Consistent with a growing number of studies in other ESG-related contexts (e.g., Gibson et al., 2021; Raghunandan and Rajgopal, 2021a,b; Kim and Yoon, 2021), our findings question the stated commitments of shareholders towards promoting the important social issue of board diversity.

Finally, since shareholder voting is a measure of shareholder preferences (e.g., Bolton et al., 2020; Chen and Guay, 2019; Fischer et al., 2009), we also provide new insights to the contentious debate on whether board diversity affects firm value. Many studies conclude that diversity adds value in corporate settings (e.g., Greene, Intintoli, and Kahle, 2020; Bernile, Bhagwat, and Yonker, 2018; Kim and Starks, 2016; Liu, Wei, and Xie, 2014;

⁸See also evidence of this in: housing markets (Yinger, 1986), mortgage lending (Tootell, 1996), crowdfunding (Younkin and Kuppuswamy, 2018), and securities issuances (Dougal, Gao, Mayew, and Parsons, 2019). Additionally, homophily may similarly lead to a lack of support toward diverse directors by voting institutions that non-diverse managers typically run. This possibility is supported by many studies that have found evidence of homophily in related contexts (e.g., Gompers, Mukharlyamov, and Xuan, 2016; Stolper and Walter, 2018; Lee, Nagy, and Zimmerman, 2019) in financial markets and Barrios, Bianchi, Isidro, and Nanda, 2021; Agarwal, Qian, Reeb, and Sing, 2016 in global director appointments).

Adams and Ferreira, 2009), whereas other studies present evidence to the contrary (e.g., Sila, Gonzalez, and Hagendorff, 2016; Ahern and Dittmar, 2012). If board diversity increases firm value, we would expect shareholders interested in the value of their equity holdings (e.g., institutional investors due to their fiduciary duties) to vote in favor of diversity. However, if shareholders do not use their votes in director elections to favor diverse candidates (or disfavor directors on boards that are not diverse), this suggests that there may be little perceived economic benefit associated with a diverse board of directors.

3. Data

3.1. *Sample creation*

We outline the steps taken in our primary sample of director elections for analyses in Table 1. We begin by obtaining shareholder voting data on U.S. companies from the ISS voting analytics data downloaded from Wharton Research Data Services (WRDS). These data include voting outcomes for all proposals listed on proxy statements for the Russell 3000, and all firms covered in ISS recommendations, beginning in 2003 through 2018. As shown, the data include 532,664 ballot items over 73,270 meetings and 11,043 companies. Filtering out observations related to non-director elections votes eliminates approximately 31% of the sample.

We then apply two data cleaning steps necessary for later data merges. First, we require that we can successfully extract director names from the ballot item description in the ISS data for later merges. Second, we exclude all observations with missing data for aggregate voting or where all voting-related variables are zero.

We match our cleaned voting data to the Equilar board of directors and executive data. Equilar provides director characteristics on all directors in the Russell 3000, and provides a broad sample of directors for our study.⁹ From this, we match these data to our diversity data described in Section 3.2, and firm-level data from Compustat. The primary sample used for our analyses contain 119,512 observations covering 32,844 meetings, 13,790 directors, and 4,699 companies.

Our merged data provides a comprehensive sample of director elections comparable with other recent papers that study director elections over a similar period (e.g., Agarwal et al., 2016; Field et al., 2020). Panel B of Table 1 presents our sample over time by race and gender. We see that our data are more expansive in recent years, which is the result of a combination of coverage in ISS and Equilar, and also because of our data collection process outlined in Section 3.2.¹⁰

Panel B of Table 1 also highlights the growth in board diversity over time, which we further show in Figure 1. While 14% of directors were female in 2008, this number grew to approximately 20% as of 2018. At the same time, while approximately 10% of directors were a racial minority in 2008, this number has only increased to 14% by 2018. Along with our empirical evidence provided in Section 4, this highlights that growth in racial minority board membership has lagged in the movement towards more diverse boards. These numbers also highlight the extent of under-representation of females and racial minorities on corporate boards.

3.2. Racial diversity data

Our individual director diversity data is constructed using a multistep process and includes 19,367 unique directors over the period from 2003 to 2018. The initial data collection step was to create a comprehensive database of director photographs for race assignment. We construct this from two sample sources. First, we scraped all EDGAR proxy statements (SEC Form DEF14A) for director photographs. It has become increasingly

⁹We match these data by company, director name, and to the closest recorded annual meeting date between the two databases. To reduce errors, we require that matched meeting dates are no more than 30 days apart.

¹⁰For instance, the number of director elections in the ISS voting data more than doubles from 2003 to 2018, and the number of unique companies covered increases over 90% in the same period.

common through the years for corporations to include profiles, with portraits, of their corporate boards in the proxy statements preceding director elections at the annual share-holder meeting. We supplement this photo database with director photographs available from Equilar, one of the leading providers of data on corporate executives, and heavily subscribed by institutional clients involved in the voting process. These photos allow us to build a broad database for the assignment of director race.

For each photograph, we asked a minimum of two respondents from MTurk to evaluate the director's race.¹¹ In cases where there was a split assignment (e.g., assigned as White/Caucasian by one respondent and Asian by another), a research assistant (RA) or one of the authors corrected the assignment based on a detailed web-search.¹² Of the 13,951 individual directors who were assigned a race using the above steps, approximately 7.3% fell into this category.

Finally, to ensure we have sufficient coverage over the largest U.S. firms, we supplement the above sample selection process with two data sources. First, we use handcollected data on the Standard & Poor's 500 and MidCap 400, which were otherwise uncovered by our initial data collection. An RA was assigned to collect data on these missing directors by searching for information from various web sources (e.g., corporate websites, Crunchbase, diversity networks) to classify these directors by race. A total of 3,388 directors were classified in this manner and in most cases sufficient data existed to make the classification with a high degree of confidence. Second, we include 929 directors from the Equilar diversity database who were otherwise uncovered by the above sources.

A final note on our measurement approach is that we decided to engage in primary data collection of directors' race and ethnicity because we were concerned about the accuracy of alternative data sources, particularly as it relates to how shareholders may per-

¹¹MTurk is an online platform increasingly used in economics and finance in various data collection settings (e.g., Huang, Vismara, and Wei, 2021; Choi and Robertson, 2020; Dellavigna, Berkeley, and Pope, 2018; Hartzmark and Sussman, 2019).

¹²These were typically assigned based on mentions of race in the media (e.g., *Latino Leaders Magazine* or *Black Enterprise*) or online bios (e.g., Bloomberg or the Notable Names Database).

ceive race. To illustrate this, in Appendix A, we conduct a comparative classification accuracy assessment for non-White directors for two popular race classifications, RiskMetrics data, and surname-based race assignment algorithms. Accuracy rates for non-White directors compared to our confirmed validation data based on difficult-to-assign directors are 54.26% and 69.95% for surname-based race assignment algorithms and RiskMetrics data, respectively. Thus, we believe our data are considerably more suited to study the impact of race and ethnicity on shareholder support for directors. Moreover, in studying potential prejudice or bias in director voting, it is crucial to understand how shareholders may classify each directors' race based on their appearance. As we generate most of our director race classifications from survey responses of how respondents viewed particular candidates based on photographs available to voters at the time of voting, we can be reasonably confident this is closer to a directors' perceived race by shareholders.¹³

3.3. Descriptives

In Table 2, we present descriptive statistics on the various characteristics and outcome variables used in this study. In Panel A of Table 2, we see that approximately 87% of director observations are from companies that have a diverse board, of which 82% have at least one female on their board. Further highlighting that racial board diversity has lagged gender board diversity, only 56% of observations have one underrepresented minority on the board. Similar to findings in prior studies (e.g., Cai et al., 2009; Aggarwal et al., 2019) aggregate voting support, institutional voting support, and average ISS support for directors is extremely high at 95.93%, 92.78%, and 92.04%, respectively. These statistics confirm that directors are generally approved by a wide margin.

In Panel B of Table 2, we present these mean characteristics grouped by non-diverse candidates and diverse candidates. Diverse candidates are, on average, younger, less tenured, less likely to be an insider, and serve on more boards. Previewing our subse-

¹³In untabulated analyses, we find our primary inferences are unchanged when restricting our sample to just those observations that were derived from MTurk responses.

quent results, we see statistically significant differences in the support for directors across market participant support. For instance, diverse candidates experience modestly higher voting support, on average, with differences of approximately 0.71 percentage points in aggregate voting support and 2.15 percentage points in the percentage of funds supporting the candidate. Similarly, diverse candidates are 2.92 percentage points more likely to have ISS support.

4. Main analyses

4.1. Shareholder voting and diversity support

We begin by investigating the effect of director candidate diversity on voting support by shareholders. To do so, we explore the relationship between directors' race and gender on two commonly used voting outcomes in the literature. Our main measure of shareholder voting support, Voting Support, measures the number of aggregate votes (all retail and institutional votes) in favor of a candidate as a percentage of its voting base. This measure is the primary determinant of whether the proposal is passed, and is the main measure used in most prior studies on shareholder voting (e.g., Duan, Jiao, and Tam, 2021; Malenko and Shen, 2016; Cai, Garner, and Walkling, 2013).

In addition to aggregate shareholder voting, we measure institutional voting support following Matvos and Ostrovsky (2010) and calculate the percentage of funds that cast "For" votes in director elections using the ISS N-PX data. While not all-encompassing, these data capture the voting support for a large portion of institutional ownership in the U.S. This measure allows us to explore the extent to which institutional investor preferences vary from the overall population of shareholders as it relates to supporting diverse candidates in director elections.¹⁴

¹⁴Retail shareholder voting data are not widely accessible to researchers and have only been used in prior studies on a limited basis using proprietary voting data (e.g., Brav, Cain, and Zytnick, 2022). While understanding how candidate diversity impacts individual investor voting is an interesting extension, institutions are the largest shareholders and primary activists during the time period of our study (e.g., Yermack, 2010).

Using the above shareholder voting measures and the sample described in Section 3, we estimate the effect of candidate diversity in director elections on shareholder voting. Specifically, we regress our shareholder voting proxies on indicators of whether a candidate is diverse, using several definitions of candidate diversity. To control for heterogeneity across from individual directors, we include in all specifications the following director-level characteristics: Age, Attendance Issues, # Boards, Insider, and Tenure.¹⁵ Construction of these measures is described in Appendix B and these variables are commonly used in studies on director elections (e.g., Cai et al., 2009; Aggarwal et al., 2019). In order to address time-varying firm-level heterogeneity, we control for several firm-level characteristics, defined in Appendix B, namely Asset Growth, Debt-Assets, Mkt. Cap., and ROA. We also include, depending on the specific specification, industry and year, or meeting-level industry effects to control for across industry and time or across meeting heterogeneity.

We present our primary findings in Table 3. In Panel A, we see that the estimated relationship between whether a candidate is diverse and aggregate shareholder voting is positive and statistically significant across all specifications.¹⁶ For instance, in Column 1, our estimates indicate that diverse directors (either female or non-White) experience 0.57 percentage points greater aggregate shareholder support than non-diverse directors. As we see in Columns 2 through 3, all estimates are positive and statistically significant at the 1% level of significance when including both firm and year and meeting-level fixed effects. As the latter of these specifications relies on variation within a particular firm across directors in the specific election, this gives strong support that this finding is not related to unobserved heterogeneity across firms, or elections.

¹⁵We exclude ISS recommendations as a control because we find in untabulated analyses that these recommendations are also affected by director diversity in a similar manner to shareholder voting. Importantly, in untabulated analyses, we also show that our primary inferences in this section remain unchanged when we include ISS support as a control variable.

¹⁶Coefficient estimates for all control variables are generally in line with expectations. For instance, directors with attendance problems (Attendance) receive significantly fewer "For" votes, and there is a similar negative association between directors being busy (# Boards) and investor voting support. We also find that directors with longer tenure receive significantly greater voting support.

In Columns 4 through 6, we re-estimate our primary result breaking out diversity into racial diversity and gender diversity. This allows us to compare the relative importance of different types of diversity and separately estimate their effects on voting. Interestingly, we see that gender diversity is significantly more important to shareholders than racial diversity. While all empirical estimates show a positive coefficient and are statistically significant for racial diversity, the estimated effects of being female are approximately 68% to 96% larger, depending on specification. These differences are statistically significant across all specifications at the 5% level of significance at least, which gives empirical support to the conjectures that racial diversity has historically been less important to shareholders than gender diversity (e.g., Creary, McDonnell, Ghai, and Scruggs, 2019; Barrett and Rodriguez, 2020).

In Panel B of Table 3, we present our empirical evidence on institutional shareholder voting support, which confirms our results generated with aggregate voting. Diverse candidates experience approximately 1.83 percentage points more funds voting in favor of diverse candidates relative to non-diverse candidates. These estimates are statistically significant at the 1% level across all three specifications in Columns 1 through 3, and support the notion that institutional investors reward diverse candidates with voting support. Similar to our results in Panel A, the additional support for females is significantly larger than that of racial minorities. For instance, in Column 1, our estimates show an effect of 2.04 percentage points of additional funds voting for female candidates (relative to non-diverse candidates), which is significantly larger than our measured estimates of 1.03 percentage points for racial minorities. As before, these differences are statistically significant at conventional levels, and support the notion that females experience more support, relative to non-diverse candidates, than racial minorities.

Overall, we find strong statistical support that shareholders, rather than biasing against diversity, provide diverse candidates with additional shareholder votes in director elections. However, while we find consistent statistical support for these interpretations, the estimated voting effect size appears to be economically modest, and unlikely to lead to meaningful differences in the outcomes of director elections (e.g., Armstrong, Gow, and Larcker, 2013).¹⁷ Consistent with extant concerns by various groups, we also observe that the estimated voting effects are significantly larger for female candidates, suggesting racial minorities have not historically received the same amount of attention by investors in electing directors.

4.2. *Types of ethnic and racial diversity*

At this point, we show that shareholders provide modest additional support to diverse candidates in director elections. In this section, we explore whether there exists heterogeneity in the estimated effects of racial diversity across different races. Understanding these issues are important for two reasons. First, in light of recent events (e.g., Black Lives Matter), there has been an increased focus on discrimination toward Black or African American directors, specifically (e.g., Sully, 2020; Needleman, 2020). Therefore, it is important to explore whether these allegations present themselves in shareholder voting towards Black or African American directors. Second, increasingly, there have also been allegations that specific racial groups have been "left behind." For instance, as described in Barrett and Rodriguez (2020), while Latinos make up approximately 18% of the U.S. population, only 2.7% of board seats are filled by Latinos in the Fortune 1000. Similarly, Barrett (2020) notes that it is a "misperception that Asians are well represented in the corporate boardroom," and that only 38% of Fortune 1000 boards contain Asian representation.

To provide insight into this issue, we refine our analyses presented in the previous section by exploring heterogeneity in the estimated effects of racial diversity split between the most represented racial minority on boards, Black or African American directors, and directors of other racial classifications. We consider this split to ensure there are sufficient

¹⁷We confirm this in untabulated analyses and find no meaningful difference in the probability a director is elected based on either racial or gender diversity.

directors in each group to measure their differential effects accurately, and also given recent focus on discrimination against Black or African American directors in particular. However, we note that our overall inferences are identical when including a more refined split (e.g., separating between Latino or Hispanic, Asian, etc.).¹⁸ Following the methodology outlined in the previous section, we explore the effect of different racial diversity types on voting support in director elections.

We present these analyses in Table 4 for both aggregate voting and institutional support for funds. A striking finding emerges – the positive effects of racial diversity on director voting support seems to be entirely driven by Black or African American directors. Specifically, while we estimate a statistically significant effect of Black or African American directors receiving approximately 0.62 percentage points (1.95 percentage points) additional voting support (percentage of funds supporting a candidate), we find no such effect among other racially diverse directors overall. Moreover, the difference in coefficients between Black or African American directors and those of other races is both positive and statistically significant, indicating that voters have historically allocated more of a voting premium to Black or African American directors. Interestingly, when comparing the effects of gender to racial diversity, our previous findings that gender diversity is more important to voting shareholders seems to be driven by non-Black or African American minorities. Specifically, as we see in Table 4, the difference between the measured effects of Female and Black or African American is both small and statistically insignificant.

These results highlight that the overall effect of race in the director election process is highly nuanced. While Black or African American directors experience additional voting support and percentage of funds supporting the candidate, there seems to be little effect for directors of other non-White races. These results support the concerns that some racial groups have been overlooked more than others by shareholders in their support in

¹⁸Specifically, while we find a positive and statistically significant voting premium occasionally for some non-Black or African American minority directors, these relationships are statistically unreliable across most specifications. Moreover, similar to what we observe in Table 4, in nearly every specification the estimated coefficient for Black and African American directors is significantly larger.

boardrooms. Similar to our primary findings, the additional voting support provided by shareholders is economically limited for all diverse groups.

4.3. Board diversity versus candidate diversity

Our next set of tests explores how investors view the importance of individual candidate diversity versus the diversity of the board as a whole. One possibility is that shareholders express their support for diverse directors by being more likely to support individual diverse directors. Another possibility is that directors instead express support for diverse boards by being more likely to support all directors on boards that have greater diversity. To explore this issue, we add board-level diversity indicators to the specifications described in our main analyses in Section 4.1.¹⁹ We present these results in Table 5.

Our estimates indicate that board diversity is more important than individual diversity to shareholders. For instance, in Column 1 of Panel A, while diverse directors are allocated 0.37 percentage points in additional votes in director elections, all candidates receive 1.16 percentage points additional votes when there is at least one diverse board member on the slate. This difference of 0.79 percentage points is statistically significant at the 1% level of significance and indicates that overall board diversity has a significantly more important effect on voting behavior than individual diversity. However, similar to our findings in prior sections, the estimated additional support for diverse boards appears economically limited.

It appears the importance of board diversity relative to individual diversity is more pronounced for institutional voting support. For instance, in Column 1 of Panel B, the economic magnitude of the measured effect of board diversity versus candidate diversity is more than four times larger. While the economic magnitudes of these differences vary

¹⁹Specifically, we add indicators of whether a candidate is on a board that contains *any* diversity, using various diversity definitions. We note that in doing so, we generally have the complete gender makeup of boards from Equilar. The overall racial makeup of the board is subject to the limitations of our data coverage. However, we have little reason to believe this would significantly impact our inferences made in this section.

across specification and definitions of candidate diversity, all differences are statistically significant at the 1% level of significance.

In Table 5, we characterize a board as diverse in a simple manner – whether or not they have at least one diverse director on the board. However, it is of interest to see if including additional diverse directors lead to incrementally more favorable voting. To estimate these effects, we replace our board-level diversity indicator with indicators on whether the board of directors contains a certain number of diverse members (e.g., two diverse board members). As before, we include director-level and firm characteristics to control for across director heterogeneity and estimate these effects using varying definitions of diversity as before. We present these coefficient estimates for board director fixed effects up to five diverse members, along with 95% confidence intervals, in Figure 2.

These figures support the notion that investors value additional board members. While the first diverse board member results in approximately 0.62 percentage points more in aggregate voting (2.65 percentage points in the percentage of funds supporting the candidate), each additional diverse candidate results in incremental votes for the entire board. For instance, based on these estimates, the next diverse director results in an additional 0.57 percentage points in aggregate votes (2.01 percentage points in the percentage of funds supporting a candidate) for all candidates on the board, holding all else constant. These differences are statistically significant at the 1% level of significance. These results suggest that shareholders provide additional support to boards when they are more balanced in terms of gender and race.²⁰

Similar to our finding in the previous section, these results also support the notion that gender diversity is more important than race to shareholders for director voting. Across aggregate voting support and institutional fund support, the economic magnitudes of having female candidates is significantly larger across all levels of diversity. Moreover, we

²⁰In untabulated tests, we also find that the chairs of the Nomination and Governance committees receive additional votes when there exists diversity on the board as a whole. However, we note, their additional support appears similar to all other members being voted on by shareholders.

see the incremental effects increase substantially more for gender board diversity relative to racial board diversity.

This section shows that shareholders in director elections value overall board diversity in director elections significantly more than individual candidate diversity. While a diverse board member experiences additional voting support from investors (relative to non-diverse candidates), all other candidates on the board also experience additional support. However, despite the larger estimated effects relative to individual candidate diversity, the overall effect of board-level diversity on shareholder voting appears economically limited in the aggregate.

4.4. Time-series heterogeneity in estimated effects

Given the growth in board diversity over time and the increased focus by market participants on board diversity, we might expect our measured voting effects to also grow over time. Such a finding is important to document for three reasons. First, it is plausible that additional voting support in later periods, offsets evidence of discrimination in earlier periods. Second, if we find increasing effects over time, it suggests market participants have recognized issues related to board under representation and taken the initiative to drive social change through their votes. Third, to the extent we find significant increases in measured effects over time, it suggests the relatively modest average economic effects of some of our estimates in Section 4 may be significantly more important in more recent time periods.

To explore these possibilities, we estimate our main specifications related to individual and board-level diversity described in Section 4.3 for four equal time-periods in our sample (we have data for 16 years).²¹ For presentation purposes, we plot our primary coefficients of interest in Figures 3 and 4, along with their 95% confidence intervals.

Focusing on candidate diversity in Figure 3, we see there has been significant growth

²¹In untabulated analyses, we also estimate the specification presented in Column (1) of Table 5 for each dependent variable of interest and for each year. The results are very similar to patterns tabulated here, but with wider confidence intervals.

in support for diverse board members over time. While the measured effects in early sample years are statistically indistinguishable from zero, and economically small, they grow exponentially over the sample period. For instance, from the earliest sample period to the latest, the measured effects for aggregate voting increases over 300% (from 0.14 percentage points to 0.64 percentage points). Similarly, the estimated effects for institutional voting support increase over 100% (from 0.63 percentage points to 1.37 percentage points of additional fund support). While additional support granted to diverse directors relative to non-diverse directors remains economically small, we see definite time trends upward in the propensity for voters to support diverse candidates.

In Figure 4, we examine the temporal voting effects for board-level diversity. As before, these coefficient estimates tell us the additional support experienced by all members of the board if there is a diverse candidate on the board, holding constant director characteristics. Our estimate for aggregate voting is 0.26 percentage points at the beginning of the sample period. However, by the end of our sample period the comparable estimate is more than seven times larger to approximately 2.02 percentage points. Similar results are observed for institutional voting support where our estimated effects are 2.77 percentage points of additional fund support in the early sample years, but this effect grows to 6.61 percentage points by the end of the sample time period.

Thus, there has been substantial growth in voting and support for diversity over the time period from 2003 to 2018. While effect sizes were statistically indistinguishable from zero in the early years, there is statistically robust market participant support for diversity in the latter portion of our sample. Crtically, whether these temporal increases provide a substantial economic motivation for corporate boards to increase diversity appears un-likely.

4.5. Investor heterogeneity in support of diversity on boards

In Section 4.1, we explored whether shareholders in aggregate value diverse candidates in director elections. However, we know from prior studies that there is significant heterogeneity in investors' voting patterns (e.g., Matvos and Ostrovsky, 2010; Bolton et al., 2020). In this section, we explore the extent of heterogeneity in investor preferences for diversity in shareholder voting across major institutional investors.

Using ISS N-PX data, and following Bolton et al. (2020), we aggregate all voting to the fund-family level.²² As noted in Bolton et al. (2020), and elsewhere (e.g., Bioy, Bryan, Choy, Garcia-Zarate, and Johnson, 2019), while funds have a fiduciary responsibility to vote, they nearly always vote the same within the same fund-family. We then merge these fund-family data with our director characteristic data described in Section 3.

In terms of analysis, we estimate a linear probability model of whether a fund votes for a candidate on whether the director is diverse interacted with a fund-family fixed effects, their lower-order effects, and the director-level and firm controls. Each fund fixed effect can be interpreted as the additional probability (in percentage terms) that a fund will vote "For" a diverse director (relative to a non-diverse director). Within our sample, there are 683 fund families for which there is sufficient data to obtain estimates of the fund-family level diversity fixed effect.

Across all 683 fund families, the average diversity effect is 0.70% with a standard deviation of 5%. While this indicates fairly significant heterogeneity across funds (e.g., a high relative standard deviation), we note much of this is driven by some outlier funds, many of which are smaller. For the top 100 fund families, the average effect for additional support to diverse candidates is significantly higher, at 1.64%, with a lower standard deviation of 3.05%. A more reasonable metric to consider might be a metric based on the upper and lower quantiles of firms, such as the interquartile range (i.e., the difference between the 75% and 25% quartile fund effects), of 1.71 percentage points across all funds.²³ Thus, there is some evidence of funding voting heterogeneity, but significantly less so for the largest funds in the sample.

²²Specifically, if more than 50% of funds within a family vote for a director, we consider the fund-family as supporting the candidate.

 $^{^{23}}$ The 75% quartile diversity voting coefficient is 1.61 percentage points, while the 25% quartile is -0.11 percentage points.

To further illustrate the above, we present rankings of the top 100 fund families by size in Table 6, along with their base voting percentages (for non-diverse candidates).²⁴ Unsurprisingly, given our primary findings, nearly all large funds allocate additional voting support toward diverse directors. With a few exceptions, as shown, we find modest heterogeneity across top fund families in their propensity to provide additional voting support for candidates. As might be expected, some of the top funds with large diversity effects are in-line with their stated mission. For instance, while Bridgeway Capital Management (#1) is not an impact fund in investment style, it is heavily committed to sustainability, donating 50% of its profits to charitable causes. Similarly, Calvert Group (#2) specializes in ESG investing. However, as we also show, these appear to be the exception. We explore these ideas further in Section 4.7.

4.6. "Big Three" asset managers

We next explore the different voting patterns of the so-called "Big Three" asset managers (BlackRock, Vanguard, and State Street). Understanding how these funds vote is essential because they collectively hold more than \$7.5 trillion in assets under management, and therefore they have a significant influence on corporate governance (Bebchuk et al., 2017). Moreover, these funds have also been some of the most outspoken proponents for board diversity in recent years (e.g., Lublin and Krouse, 2017; Krouse, 2018; Kerber, 2019). Thus, it is important to assess whether these funds have historically been committed to board diversity and how their voting behavior has shifted with their more recent diversity activism.²⁵

We first assess whether the Big Three asset managers' voting patterns have changed over time in Figure 5. Specifically, similar to our tests in Section 4.4, we consider whether the voting premiums placed on candidate and board diversity have increased over time for each asset manager. We then compare each of the Big Three asset managers voting

²⁴We retain the naming conventions found in ISS N-PX data for presentation purposes.

²⁵Media sources have also highlighted concerns about this possibility (e.g., Arvedlund, 2019).

support for diversity *relative* to all other funds in our sample in Table 7. This analysis provides evidence on whether the Big Three asset managers value diversity more, or less, than the average fund.

Our results suggest that support for board diversity has grown over time for the Big Three asset managers, although Vanguard is an exception. Specifically, in Panels (a) and (b) of Figure 5, we see significant growth in BlackRock's diversity support across both individual and board diversity. In the early years, the estimated effects were small or nonexistent. By the end of our sample period, the increases in voting support were positive and statistically significant for both board and individual diversity. State Street, shown in Panels (e) and (f) of Figure 5, also exhibits significant increases in its commitment to board diversity. Their voting shows steady upward growth in supporting individual diversity from early to later years and exponential growth in supporting board diversity. Similar to BlackRock, the estimated effect was almost zero for board diversity in the earliest years of the sample period. However, in the most recent years of the sample period (2015-2018), State Street is nearly 15 percentage points more likely to vote for a diverse board relative to a non-diverse board. In contrast to BlackRock and State Street, we show no such growth over time in diversity support for Vanguard, as shown in Panels (c) and (d).²⁶

While our results in Figure 5 suggest that board diversity support has grown over time for the Big Three asset managers, our estimates related to their relative voting patterns, in Table 7, are less impressive. Notably, our evidence suggests that the Big Three firms generally support diversity less than the average fund with the exception of State Street. As seen in Panel A of Table 7, despite its reported commitment towards ESG issues (Fink, 2018), BlackRock has historically shown a 2.68 percentage point (0.56 percentage point) lower likelihood of voting for diverse boards (diverse candidates) than other fund families. While Vanguard has historically shown approximately a 0.42 percentage point lower

²⁶To be fair to Vanguard, while our estimates do not indicate meaningful growth in voting support to board or candidate diversity, it has shown a higher prevalence of supporting board diversity throughout the earlier years of the sample.

probability of voting for diverse candidates (relative to the average fund), it has shown a 0.99 percentage point greater likelihood of voting for all candidates on diverse boards over the entire sample period. In the most recent years of our sample, BlackRock and Vanguard both seem to lag other funds as it relates to supporting diversity with their votes in director elections (Panel B).

In contrast, State Street has shown a higher propensity to vote for diverse candidates than other funds over our entire sample period, with measured effects ranging from a 1.12 to 1.19 percentage point higher tendency to vote for individual candidates in the full sample (Panel A of Table 7). We also see (in Panel B) that State Street supports both diverse candidates and diverse boards significantly more than the average fund in more recent years. Specifically, from 2014 through 2018, State Street was 6.55 to 6.67 percentage points more likely to vote for directors on diverse boards, and 2.10 to 2.20 percentage points more likely to support diverse candidates than the average fund. These results suggest that while the Big Three funds claim to be strong supporters of ESG at firms, their track record on these issues is somewhat mixed. BlackRock and State Street have shown growth in their prevalence to support diversity in director elections over time, but Vanguard exhibits no such trends. Only State Street has historically supported candidates with their support more than the average fund, and their voting for diversity has grown significantly over time. In contrast, BlackRock and Vanguard actually support diversity less than the average fund-family.

4.7. Socially responsible fund families

Finally, we explore the extent to which socially responsible fund families, as measured by the ESG attributes of their individual equity holdings, are more likely to support diversity. As discussed in Edmans (2014), shareholders can exert influence on governance via their voting behavior ("voice") and/or trading their shares ("exit"). Similarly, socially responsible funds should be expected to support their stated investment objectives through both their underlying holdings (for example, by refraining from purchasing shares in certain companies), and/or their voting patterns. We would expect socially responsible funds to aggressively vote for diverse boards and directors. However, if we do not observe this behavior, it would provide relevant evidence to the SEC's recent concerns that some funds may be falsely advertising their commitment to sustainability (e.g., SEC, 2020b; Arvedlund, 2019). As these funds are likely to be the most significant advocates of diversity, such a finding would also add evidence to the modest support that shareholders have historically had towards board diversity.

We begin by identifying socially responsible fund families with high ESG preferences based on their underlying holdings. To do so, we use the comprehensive ESG data complied by HIP Investor.²⁷ We use three HIP ratings in our analysis – overall HIP ESG score, score related to equality, and score related to the prevalence of female representation among the work force. For each year, we compute a fund-family ESG score (ranging from a low of 0 to a high of 100) by averaging the ESG scores of the underlying holdings of each unique fund-company observation present in the ISS NPX voting data. Using this measure of fund-family ESG and the fund-family voting data described in Section 4.5, we then explore whether more socially responsible funds are associated with a higher propensity to support diversity in director elections.

In Table 8, we find that funds with higher ESG preferences are more likely to support diversity in their voting. Related to earlier results, higher-ESG funds only provide additional support for diverse boards, rather than just to diverse candidates. Across all specifications, we find that higher-ESG funds are more likely to vote for diverse boards, and these differences are statistically significant at the 1% level of significance.²⁸

The above noted, it is also important to point out that the estimated ESG effect sizes

²⁷Founded in 2006, HIP Investor is one of the leading providers of ESG data to investors. Importantly, they provide data on approximately 9,000 corporations worldwide across a broad set of ESG issues during our entire sample period. HIP data has been used in other studies on ESG issues such as in Larcker and Watts (2020).

²⁸Although it is complicated to interpret main effects when higher order interactions are present, the statistically negative coefficient for fund ESG rating is an interesting result. We believe that this result occurs because funds with an ESG focus are more careful in determining their votes for directors, and they are more likely to vote against directors of all types.

in Table 8 are very modest. This is partially attributable to the limited variation in ESG holdings across funds (e.g., see Mackintosh, 2020), but also suggests some funds may be falsely advertising their commitment to sustainability (e.g., SEC, 2020b; Arvedlund, 2019). Specifically, while these funds hold higher ESG securities, they may not actively support diversity in their voting. For instance, results in Column 1 (2) of Table 8 imply a one standard deviation increase in Fund ESG Rating based on the overall ESG score from HIP Investor, 4.26%, leads to an increase in the likelihood a fund supports candidates on diverse boards by 0.73 (0.22) percentage points.²⁹ Similarly, Columns 5 (6) imply a one standard deviation increase in the Fund ESG Rating based on female representations scores from HIP Investor, 7.01%, leads to an increase in the likelihood a fund-family supports a candidate by an economically modest 0.80 (0.19) percentage points.

The results in this section show that fund families that support ESG and diversity, as measured by their holdings, are also more likely to support board diversity. While our measured effects are statistically robust across several specifications and measures of fund-family ESG support, they are also economically small. Thus, we observe some heterogeneity in institutional investor diversity voting depending on the extent of the ESG investment focus of funds. However, as is the case with our primary findings, the additional diversity support measured here is economically modest.

5. Conclusion

This paper explores shareholders voting patterns for board diversity based on their voting behavior during the director election process. Using primary data collection to develop a comprehensive database of gender and race measures for individual corporate directors, we show that shareholders place a slight voting premium on board diversity. Specifically, diverse candidates and all candidates on diverse boards experience economi-

²⁹For instance, given the standard deviation of 4.26% for Fund ESG Rating (based on the HIP Overall score) in the entire sample, and a coefficient of 17.18 in Column 1 of Table 8, this is calculated as $17.18 \times .0426 \approx 0.73$ percentage points.

cally modest additional shareholder support during director elections at the annual shareholder meeting. In our empirical extensions, we provide evidence that this additional voting support from shareholders varies across both diversity and shareholder types, as well as across time.

Overall, our evidence strongly supports the notion that shareholders have historically done little to advance board diversity with their voting in director elections. Encouragingly, we find no evidence of overt discrimination despite the prevalence of this concern within the asset management and financial services sectors. At the same time, our findings question the veracity of shareholders' outspoken commitments to promoting the important social objective of corporate diversity, a topic of significant concern among regulators recently. Our findings also highlight the limited economic benefit of diverse boards perceived by shareholders historically, adding new evidence to a contentious debate in the academic literature. Finally, although we cannot *directly* address whether the lack of shareholder voting support for diverse boards is responsible for the historically low levels of board diversity, it is quite conceivable that it is a critical explanation of this pervasive problem.

As with virtually all corporate governance studies, it is important to acknowledge important limitations to the analyses. Primarily, we cannot randomly assign race or gender to a particular candidate, which confounds any causal interpretation of our results. While we control for various director and firm characteristics and rely on within meeting variation in estimating many of our effects, we cannot entirely rule out alternative explanations. Subject to this important concern, our findings provide novel evidence on shareholders' true perceptions of board diversity's economic benefit to firm value and the existence of overt discrimination in the financial services and asset management sectors.

Appendix A. Comparative assessment of our diversity data

In Table A-1, we compare our dataset on director race with two commonly used alternative approaches to assigning executive or director race: RiskMetrics data (e.g., Bernile et al., 2018; Field et al., 2020) and surname-based assignment (e.g., Ellahie, Tahoun, and Tuna, 2017; Giannetti and Zhao, 2019).³⁰ In Panel A of Table A-1, we present the overall distribution of the 11,135 individual directors who we can match across all datasets. Panels B and C of Table A-1 compares RiskMetrics and surname-based assignment to our dataset of directors who we were able to match across databases. Panels D and E of Table A-1 compares RiskMetrics and surname-based assignment to a validation dataset of directors who were particularly challenging to categorize by survey respondents in our data collection process. Specifically, we base these validation data on the hand-classified directors described in Section 3.2 who were assigned race based on in-depth web search because they were assigned more than one race categorization by respondents. As described before, RAs typically assigned race for these directors based on media mentions (e.g., Latino Leaders Magazine or Black Enterprise) or online bios (e.g., Bloomberg or the Notable Names Database). Therefore, we have high confidence in the quality of these assignments.

While the overall distribution of our data is similar to alternative classification methods, substantial inconsistencies are observed with the alternative classification approaches. In Panels B through Panel E of Table A-1, we show error rates for these alternative data may be quite high for non-White race assignments. Assuming our data are correct, accuracy rates for non-White directors compared to our confirmed validation data range from 45.76% to 79.82% for surname-based race assignment algorithms and RiskMetrics data.These inaccuracies are also particularly severe for surname-based race assignment algorithms, highlighting this assignment method's shortcomings, and for challenging to assign directors (as shown in Panels D and E).

³⁰While surname-based algorithms vary from study to study we follow Imai and Khanna (2016), which assigns race based on Bayes' rule applied to U.S. Census data. We choose this method given its easy implementation through the *wru* R package. Other studies, such as Law and Mills (2019), use a similar approach.

Table A-1Comparison of race and ethnicity data

Race	Our sample	RiskMetrics	Surname-based algorithm
Asian	3.83	3.66	3.54
Black or African American	5.45	4.91	1.91
Hispanic or Latino	2.81	1.81	2.68
Other	0.07	0.03	0.03
White	87.83	86.96	91.85
Missing	0.00	1.12	0.00
Multiple Ethnic Classifications	0.00	1.52	0.00

Panel A: Comparison of race distributions

Panel B: RiskMetrics vs. our sample confusion matrix

	Data used in this study					
	Asian	Black	Latino	Multiple	Other	White
Asian	3.42	0.00	0.02	0.00	0.04	0.22
Black	0.03	4.79	0.00	0.00	0.00	0.15
Latino	0.02	0.00	1.55	0.00	0.00	0.25
Multiple	0.20	0.37	0.36	0.00	0.00	0.60
Other	0.00	0.01	0.00	0.00	0.01	0.01
White	0.20	0.31	0.89	0.00	0.03	86.52
	0	verall Accura	cy: 96.29% (noi	n-White Accurac	y: 79.82%)	

Panel C: Surname-based algorithm vs. our sample confusion matrix

	Data used in this study					
	Asian	Black	Latino	Multiple	Other	White
Asian	2.82	0.03	0.05	0.00	0.02	0.62
Black	0.05	0.75	0.02	0.00	0.01	1.09
Latino	0.02	0.03	2.00	0.00	0.00	0.63
Multiple	0.00	0.00	0.00	0.00	0.00	0.00
Other	0.00	0.00	0.02	0.00	0.00	0.01
White	0.94	4.65	0.72	0.00	0.04	85.49
	0	verall Accura	cy: 91.06% (no)	n-White Accurac	y: 45.76%)	

Panel D: RiskMetrics vs. validation data confusion matrix

			V	alidation data		
	Asian	Black	Latino	Multiple	Other	White
Asian	16.62	0.00	0.15	0.00	0.30	1.34
Black	0.15	10.53	0.00	0.00	0.00	0.15
Latino	0.15	0.00	11.87	0.00	0.00	0.45
Multiple	2.23	3.41	3.56	0.00	0.00	1.63
Other	0.00	0.15	0.00	0.00	0.00	0.15
White	1.19	1.34	3.71	0.00	0.45	40.50
	0	verall Accura	c y: 79.53% (no)	n-White Accurac	y: 69.95%)	

Panel E: Surname-based algorithm vs. validation data confusion matrix

			V	alidation data		
	Asian	Black	Latino	Multiple	Other	White
Asian	13.61	0.00	0.15	0.00	0.15	1.18
Black	0.30	1.92	0.30	0.00	0.00	0.00
Latino	0.15	0.15	14.64	0.00	0.00	0.89
Multiple	0.00	0.00	0.00	0.00	0.00	0.00
Other	0.00	0.00	0.15	0.00	0.00	0.00
White	6.21	13.31	3.99	0.00	0.59	42.31
	0	verall Accura	cy: 72.49% (no	n-White Accurac	y: 54.26%)	

This table reports summary statistics on our directors' sample of race versus two popular alternative data sources for director race. In Panel A, we present sample distributions for all data sets across 11,135 directors matched across all data sets. Panel B (Panel C) presents a confusion matrix for the RiskMetrics (Surname-based algorithm) race data versus our full sample of matched data. Panel D (Panel E) presents a confusion matrix for the RiskMetrics (Surname-based algorithm) race data versus difficult to categorize directors described in Section 3.2. All tables are presented in percentages.

Appendix B. Variable definitions

This table contains descriptions of the variables used throughout this paper. These include director's characteristics and diversity data, and director voting data. Each entry includes the variable name, a description of the variable, and sources used in its calculation included in parentheses. Sources include: Equilar (EQ), HIP Investor Inc. (HIP), our diversity data for director race or ethnicity (DIV), Compustat (COMP), and Institutional Shareholder Services voting analytics data (ISS).

Variable	Description
	Board and Director characteristics
Age	Director age. (EQ)
Attendance Issues	An indicator of whether the director had attendance issues. (EQ)
# Boards	Number of boards the director served on in the meeting year. (EQ)
Board Diversity	An indicator of whether there was any diverse member (i.e., a female or non-White director) present on the proposed board. The definition de- pends on the regression (i.e., racially diverse vs. gender diversity), and is explicitly stated in the table. (EQ, DIV)
Diverse	An indicator of whether the director is either a racial minority (i.e., non-White) or female. (EQ, DIV)
Female	An indicator of whether the director is female. (EQ)
Individual Diversity	An indicator of whether the director is considered diverse. The definition
	depends on the regression (i.e., racial vs. gender diversity), and is explic-
	itly stated in the table. (EQ, DIV)
Insider	An indicator of whether the director is an insider. (EQ)
Racially Diverse	An indicator of whether the director is a minority (i.e., non-White). (DIV)
Tenure	Director tenure. (EQ)
	Firm characteristics
Asset Growth	Total asset growth over last fiscal year. (COMP)
Debt-Assets	Total debt as a fraction of total assets. (COMP)
Mkt. Cap.	The market value of the firm. (COMP)
ROA	Return on assets. (COMP)
	Fund characteristics
Fund	An indicator for a specific fund family. The definition depends on the regression (i.e., BlackRock vs. State Street), and is explicitly stated in the table. (ISS)
ESG Fund Rating	A fund family-year rating on the average ESG score for a given fund in a given year based on its underlying holdings. (HIP, ISS)
	Voting outcomes
Fund Support	An indicator of whether majority of the votes for each fund family are in favor of the director. (ISS)
Institutional Voting Support	Percentage of funds (in the NPX database) voting "For" a candidate. (ISS)
ISS Support	An indicator of whether ISS provides a "For" recommendation. (ISS)
Voting Support	Total aggregate votes in favor of the director as a fraction of the voting base. (ISS)
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Fig. 1 Growth in director diversity over time. This figure presents the percentage of directors, by year, who are diverse as a total of total directors. The solid red line presents the percentage of directors who are either non-White or female. The dotted green line presents the percentage of directors who are female. The dashed blue line presents the percentage of directors who are racial minorities (non-White).



(b) Institutional Voting Support

Fig. 2 The effect of incremental diverse board members on director voting support. Panel (a) presents estimates of the incremental effect of an additional diverse board member on aggregate voting percentages for candidates. Panel (b) presents estimates of the incremental effect of an additional diverse board member on the percentage of funds voting in favor of a candidate. Coefficient estimates (dots) and 95% confidence intervals (lines) are presented for overall diversity, ethnic or racial diversity, and gender diversity. All regressions are run on the full sample of observations as described in Section 3.





Fig. 3 The estimated effect of individual director diversity over time. This figure presents the estimated effect of individual candidate diversity (Individual Diversity) over different calculation periods. Panel (a) and (b) present these estimates effects of candidate diversity on aggregate voting and institutional voting support, respectively. Coefficient estimates (shapes) and 95% confidence intervals (lines) for each estimate. All regressions are run on the full sample of observations as described in Sections 3.



(b) Institutional Voting Support

Fig. 4 The estimated effect of board-level diversity over time. This figure presents the estimated effect of board-level diversity (Board Diversity) over different calculation periods. Panel (a) and (b) present these estimates effects of candidate diversity on aggregate voting and institutional voting support, respectively. Coefficient estimates (shapes) and 95% confidence intervals (lines) are presented for each estimate. All regressions are run on the full sample of observations as described in Section 3.



Fig. 5 The estimated effect diversity on voting among the Big 3 asset managers over time. This figure presents the estimated effect of individual (Individual Diversity) and board-level diversity (Board Diversity) over different calculation periods. Panels (a), (c), and (e) ((b), (d), and (f)) present the estimated effects of individual director (board-level) diversity on director support for BlackRock, Vanguard, and State Street, respectively. Coefficient estimates (shapes) and 95% confidence intervals (lines) are presented for each estimate. All regressions are run on the full sample of observations as described in Section 3.

Table 1Sample selection and composition over time

	Observations	Meetings	Directors	Companies
All ISS voting analytics data	532,664	73,270	-	11,043
Include only director elections	365,274	65,160	-	9,925
Extract director names	363,341	64,961	-	9,915
Remove missing voting data	307,095	54,723	-	7,876
Equilar match	244,993	47,561	46,742	6,269
Race data match	120,342	33,168	13,831	4,699
Compustat match	119,512	32,844	13,790	4,670

Panel A: Sample construction

Panel B: Sample over time

Year	Obs.	White	Black	Asian	Latino	Other	М	F
2003	3,973	3,591	249	67	65	1	3,505	468
2004	4,106	3,717	239	64	86	0	3,592	514
2005	4,764	4,294	288	80	101	1	4,133	631
2006	5,132	4,610	319	99	102	2	4,448	684
2007	5,554	4,957	345	124	126	2	4,776	778
2008	6,074	5,439	365	140	128	2	5,211	863
2009	6,617	5,922	386	166	141	2	5,709	908
2010	7,214	6,444	402	198	168	2	6,168	1,046
2011	7,748	6,900	431	220	195	2	6,612	1,136
2012	8,671	7,733	453	263	218	4	7,388	1,283
2013	9,282	8,262	490	295	230	5	7,828	1,454
2014	9 <i>,</i> 888	8,796	513	330	243	6	8,255	1,633
2015	10,354	9,143	562	363	278	8	8,581	1,773
2016	10,508	9,271	579	353	296	9	8,603	1,905
2017	10,076	8,799	595	362	313	7	8,157	1,919
2018	9,546	8,221	619	387	311	8	7,629	1,917

Panel A describes the sample construction process. We begin with the comprehensive ISS voting analytics data set on proxy voting outcomes, and then eliminate all observations related proxy votes outside of director elections. Next, we extract director names using Perl and remove any observations with missing voting data. The Equilar match step matches our voting data with a comprehensive sample of director characteristics. We then match these data with our comprehensive data on director race. Finally, we merge our compiled data of director voting and characteristics with Compustat data on firm fundamentals. A discussion of the details of our sample creation, and data, can be found in Section 3.1. Panel B presents the coverage of our final sample coverage over time, by race and gender (M/F). Race categorizations include: White (White), Black or African American (Black), Hispanic or Latino (Latino), Asian, Native Hawaiian/Pacific Islander or American Indian/Alaska Native (Other).

Table 2	
Full sample	e descriptives

Panel A: Sample descriptives

	Mean	StDev	$p^{25\%}$	$p^{50\%}$	$p^{75\%}$	Obs.
Age	60.59	8.20	55.00	61.00	66.00	119,385
Attendance Issues	0.00	0.05	0.00	0.00	0.00	119,329
Diverse Board	0.87	0.34	1.00	1.00	1.00	119,507
Gender Diverse Board	0.82	0.38	1.00	1.00	1.00	119,507
Insider	0.17	0.37	0.00	0.00	0.00	119,507
Institutional Voting Support	92.78	14.48	94.59	98.12	99.29	113,285
ISS Support	92.04	27.07	100.00	100.00	100.00	119,495
# Boards	2.01	1.16	1.00	2.00	3.00	119,507
Racially Diverse Board	0.56	0.50	0.00	1.00	1.00	119,507
Tenure	9.64	7.90	3.60	7.90	13.40	117,787
Voting Support	95.93	6.96	95.97	98.31	99.35	119,474

Panel B: Descriptives by director diversity

	Non-Diverse	Diverse	Racially Diverse	Gender Diverse
Age	61.24	58.57***	58.69***	58.26***
Attendance Issues	0.00	0.00	0.00^{*}	0.00
Diverse Board	0.82	1.00***	1.00^{***}	1.00^{***}
Gender Diverse Board	0.78	0.95***	0.90***	1.00^{***}
Insider	0.20	0.07***	0.09***	0.05***
Institutional Voting Support	92.26	94.40***	94.10***	94.81***
ISS Support	91.33	94.24***	93.88***	94.79***
# Boards	1.98	2.10***	2.18***	2.08***
Racially Diverse Board	0.50	0.78***	1.00***	0.66***
Tenure	10.13	8.09***	8.09***	7.96***
Voting Support	95.76	96.47***	96.39***	96.61***

This table reports summary statistics on our sample of director elections. In Panel A, we present aggregate statistics across all directors in our entire constructed sample described in Section 3. In Panel B, we present mean sample characteristics across Non-Diverse (White and Male), Diverse (non-White or Female), Racially Diverse (non-White), and Gender Diverse (Female) candidates. All variables as defined in Appendix B. Statistical tests of differences in sample means between our Non-Diverse subsample and our respective subsamples of diverse directors were performed using a standard two-sided t-test. Levels of significance are presented as follows: $p<0.1^*$; $p<0.05^{**}$; $p<0.01^{***}$.

Table 3Candidate diversity and shareholder voting support

Panel A: Aggregate voting support

			Dependen	ıt variable:			
	Voting Support						
	(1)	(2)	(3)	(4)	(5)	(6)	
Diverse	0.57*** (7.53)	0.55*** (7.35)	0.30*** (5.27)				
Racially Diverse (A)				0.33*** (3.27)	0.32*** (3.22)	0.19** (2.38)	
Female (B)				0.65*** (8.00)	0.64*** (7.85)	0.32*** (5.17)	
Coef. Diff. (A) - (B)	_	-	-	-0.32***	-0.32***	-0.13**	
Controls	Yes	Yes	Yes	Yes	Yes	Yes	
Industry, year fixed effects	No	Yes	No	No	Yes	No	
Meeting fixed effects	No	No	Yes	No	No	Yes	
Observations	116,829	116,829	118,278	116,829	116,829	118,278	
\mathbb{R}^2	0.02	0.06	0.71	0.02	0.06	0.71	

Panel B: Institutional investor voting support

			Depender	ıt variable:		
]	Institutional V	/oting Suppor	:t	
	(1)	(2)	(3)	(4)	(5)	(6)
Diverse	1.83*** (10.05)	1.63*** (8.95)	0.47*** (3.71)			
Racially Diverse (A)				1.03*** (4.31)	0.96*** (4.10)	0.27 (1.59)
Female (B)				2.04*** (10.50)	1.81*** (9.33)	0.59*** (4.52)
Coef. Diff. (A) - (B)	-	-	-	-1.02***	-0.85***	-0.32**
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Industry, year fixed effects	No	Yes	No	No	Yes	No
Meeting fixed effects	No	No	Yes	No	No	Yes
Observations	110,853	110,853	112,129	110,853	110,853	112,129
\mathbb{R}^2	0.03	0.06	0.71	0.03	0.06	0.71

This table examines the effect of director diversity on shareholder support for directors. Panel A presents regressions of aggregate voting (as a percentage of the voting base) for directors on director diversity characteristics. Panel B presents regressions of average fund support for directors on director diversity characteristics. The independent variables Racially Diverse, Female, and Diverse are indicators of whether the director is non-White, female, or either categorization. Director and firm time-varying controls, as described in Section 4.1 and the Appendix, include: Age, Attendance Issues, # Boards, Insider, Tenure, Asset Growth, Debt-Assets, Mkt. Cap., and ROA. All regressions are estimated using the full sample observations described in Section 3, subject to data availability. Cluster robust t-statistics, by director, are included in parentheses. Tests of differences in coefficients between Racially Diverse and Female are presented with p-values based on F-tests using a cluster robust covariance matrix (by director). Levels of significance are presented as follows: *p<0.1; **p<0.05; ***p<0.01.

			Dependen	t variable:		
	V	/oting Suppo	rt	Inst	. Voting Sup	port
	(1)	(2)	(3)	(4)	(5)	(6)
Female (A)	0.64***	0.63***	0.32***	2.02***	1.79***	0.59***
	(7.93)	(7.79)	(5.17)	(10.41)	(9.24)	(4.50)
Black or African American (B)	0.62***	0.54***	0.21**	1.95***	1.83***	0.42**
	(4.86)	(4.32)	(2.11)	(7.59)	(7.33)	(2.15)
Other (C)	0.04	0.09	0.16	0.09	0.08	0.09
	(0.25)	(0.63)	(1.37)	(0.23)	(0.21)	(0.34)
Coef. Diff. (A) - (B)	0.03	0.09	0.11	0.07	-0.04	0.16
Coef. Diff. (B) - (C)	0.58***	0.45***	0.05	1.87***	1.75***	0.33*
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Industry, year fixed effects	No	Yes	No	No	Yes	No
Meeting fixed effects	No	No	Yes	No	No	Yes
Observations	116,829	116,829	118,278	110,853	110,853	112,129
R ²	0.02	0.06	0.71	0.03	0.06	0.71

Table 4 Candidate diversity and shareholder voting support: Breakdown by race

This table examines the effect of director diversity on director voting support. Columns 1 through 3 present regressions of aggregate voting (as a percentage of the voting base) for directors on director diversity characteristics. Columns 4 through 6 present regressions of the percentage of funds supporting a director on director diversity characteristics. Female is an indicator that takes a value of one if the director is female, and Black or African American takes a value of one if the director is characterized as Black or African American. Other is an indicator of whether the director is a non-Black or African American racial minority. Director and firm time-varying controls, as described in Section 4.1 and the Appendix, include: Age, Attendance Issues, # Boards, Insider, Tenure, Asset Growth, Debt-Assets, Mkt. Cap., and ROA. All regressions are estimated using the full sample observations described in Section 3, subject to data availability. Cluster robust t-statistics, by director, are included in parentheses. Tests of differences in coefficients between candidate diversity coefficients are presented with p-values based on F-tests using a cluster robust covariance matrix (by director). Levels of significance are presented as follows: *p<0.1; **p<0.05; ***p<0.01.

Table 5 Shareholder support: Individual versus board-level diversity

			Depende	ent variable:		
			Voting	g Support		
	Dive	ersity	Racial I	Diversity	Gender Diversity	
	(1)	(2)	(3)	(4)	(5)	(6)
Board Diversity (A)	1.16***	1.09***	0.84***	0.81***	1.34***	1.26***
	(11.57)	(10.75)	(12.61)	(12.26)	(14.85)	(13.65)
Individual Diversity (B)	0.37***	0.40***	-0.02	0.01	0.39***	0.43***
	(4.90)	(5.27)	(-0.18)	(0.07)	(4.83)	(5.37)
Coef. Diff. (A) - (B)	0.79***	0.70***	0.86***	0.81***	0.95***	0.82***
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Industry, year fixed effects	No	Yes	No	Yes	No	Yes
Observations	116,829	116,829	116,829	116,829	116,829	116,829
R ²	0.02	0.06	0.02	0.06	0.03	0.07

Panel A: Aggregate voting support

Panel B: Institutional investor voting support

			Depende	ent variable:			
			Institutional	Voting Supp	ort		
	Dive	ersity	Racial I	Diversity	Gender	Gender Diversity	
	(1)	(2)	(3)	(4)	(5)	(6)	
Board Diversity (A)	4.60***	4.37***	3.40***	3.30***	4.91***	4.66***	
	(17.51)	(16.43)	(21.25)	(19.65)	(20.46)	(18.97)	
Individual Diversity (B)	1.04***	1.00***	-0.43*	-0.35	1.09***	1.05***	
	(5.67)	(5.49)	(-1.76)	(-1.46)	(5.60)	(5.45)	
Coef. Diff. (A) - (B)	3.56***	3.37***	3.83***	3.65***	3.82***	3.61***	
Controls	Yes	Yes	Yes	Yes	Yes	Yes	
Industry, year fixed effects	No	Yes	No	Yes	No	Yes	
Observations	110,853	110,853	110,853	110,853	110,853	110,853	
R ²	0.04	0.07	0.04	0.06	0.05	0.07	

This table examines the effect of overall board diversity and individual director diversity on shareholder support for directors. Panel A (Panel B) presents regressions of aggregate voting percentage (percentage of funds voting) for directors on board-level and director-level diversity. The independent variables Board Diversity and Individual Diversity indicate whether there was at least one diverse director on the board and whether the individual director is diverse, respectively. Columns (1) and (2) explore the importance of board vs. individual level diversity across both gender and race. Columns (3) and (4) explore the importance of board vs. individual level racial diversity. Columns (5) and (6) explore the importance of board vs. individual level gender diversity. Director and firm time-varying controls, as described in Section 4.1 and the Appendix, include: Age, Attendance Issues, # Boards, Insider, Tenure, Asset Growth, Debt-Assets, Mkt. Cap., and ROA. All regressions are estimated using the full sample observations described in Section 3, subject to data availability. Cluster robust t-statistics, by director, are included in parentheses. Tests of differences in coefficients between Board Diversity and Individual Diversity are presented with p-values based on F-tests using a cluster robust covariance matrix (by director). Levels of significance are presented as follows: *p<0.1; **p<0.05; ***p<0.01.

Table 6

Fund family level effects: Top and bottom diversity performers

Top 50 funds

Bottom 50 funds

Fund family	Base	Diversity Fund family	Base	Diversity
Bridgeway Capital Management, In	39.09	22.34 Ohio National Investments, Inc.	46.51	-7.27
Calvert Research and Management	39.55	20.73 Rydex Investments	89.17	-0.21
SSgA Funds Management, Inc	80.66	4.60 Mutual of America Capital Manage	88.28	-0.20
Norges Bank (NBIM)*	80.15	4.33 Federated Equity Management Comp	81.47	-0.10
ALLIANZ GLOBAL INVESTORS FUND MA	75.27	3.77 GAMCO Investors	88.65	-0.02
State Street Global Advisors	82.27	2.79 Steward Funds	88.25	0.03
Independence Capital Management,	81.48	2.73 Capital Research & Management Co	87.90	0.05
Jackson National Asset Managemen	77.48	2.65 Deutsche Asset Management	87.83	0.31
MMA Capital Management	76.80	2.55 BNY Investment Advisors	85.94	0.31
John Hancock Funds, LLC	81.94	2.39 PNC Capital Advisors, LLC	87.27	0.36
Optique Capital Management, Inc.	83.12	2.33 Dreyfus Investment Advisors, Inc	83.97	0.47
ProShare Advisors LLC	81.89	2.23 Schroder Investment Management N	84.59	0.58
Dimensional Fund Advisors, Inc.	81.14	2.20 Morgan Stanley Investment Manage	84.65	0.61
Cambiar Investors, LLC	78.55	2.20 Eaton Vance Management, Inc.	81.67	0.62
Principal Management Corporation	82.60	2.19 RS Investment Management Co. LLC	85.26	0.64
WisdomTree Asset Management	76.03	2.16 AXA Rosenberg Investment Managem	83.93	0.65
SEI Investments Management Corpo	82.76	2.12 Victory Capital Management, Inc.	86.21	0.65
AIG SunAmerica Asset Management	80.13	2.05 Northern Trust Global Investment	86.63	0.69
OppenheimerFunds, Inc.	79.03	2.04 Pacific Life Fund Advisors	84.47	0.70
Fidelity	81.82	1.99 Hartford Investment Financial Se	85.95	0.71
Prudential Financial	83.37	1.96 CPP Investment Board*	85.81	0.74
CIBC Asset Management*	83.16	1.96 Wilshire Associates Incorporated	76.81	0.75
Rafferty Asset Management, LLC	83.05	1.88 VTL Associates, LLC	86.17	0.75
Managers Investment Group LLC	82.48	1.82 EQ ADVISORS TRUST	84.46	0.75
Shelton Capital Management	82.69	1.79 Boston Management and Research	84.25	0.79
First Trust Advisors L.P.	83.63	1.78 BlackRock Advisors, Inc.	85.10	0.80
Nuveen Asset Management	84.36	1.74 Legg Mason Capital Management, I	85.45	0.80
Variable Annuity Life Insurance	82.94	1.73 Leader Capital Corporation	75.18	0.84
	79.91	1.72 GuideStone Capital Management, I	85.94	0.84
Claymore Advisors, LLC Franklin Advisers, Inc.	80.30	1.72 Guidestone Capital Management, 1 1.71 Lord Abbett & Co. LLC	86.75	0.80
Thrivent Investment Management,	83.76 82.50	1.70 Goldman Sachs Asset Management L	85.19 86.02	0.89 0.90
Columbia Management Advisors, In		1.66 Grantham, Mayo, Van Otterloo LLC	85.33	0.90
Charles Schwab Investment Manage	81.19	1.64 AllianceBernstein LP		
USAA Investment Management Compa	83.44	1.63 Massachusetts Financial Services	84.60	0.97
AIG Global Investment Group	83.41	1.63 American Century Investment Mana	84.98	1.00
Natixis Asset Management Advisor	81.38	1.62 Olive Street Investment Advisers	84.97	1.01
ProFund Advisors LLC	83.19	1.61 Advantus Capital Management, Inc	84.86	1.01
Vanguard Group, Inc.	84.43	1.60 MassMutual Financial Group	85.60	1.06
Wells Fargo Funds Management, LL	84.24	1.60 Janus Capital Management LLC	82.19	1.07
TIAA-CREF Asset Management LLC	85.05	1.57 Nationwide Fund Advisors	83.94	1.08
Russell Investment Group	82.04	1.55 Delaware Investment Advisers	83.40	1.12
Exchange Traded Concepts, LLC	82.46	1.54 Pioneer Investments	85.54	1.13
AXA Equitable Funds Management G	85.47	1.51 General Electric Asset Managemen	84.75	1.15
Putnam Investment Management, In	79.50	1.45 Voya Investment Management, LLC	85.56	1.16
MTB Investment Advisors	83.70	1.44 Northwestern Mutual Funds	84.32	1.17
The Dreyfus Corporation	81.62	1.43 Allianz Funds	82.83	1.22
New York Life Investment Managem	83.71	1.43 JPMorgan Asset Management, Inc.	83.12	1.25
INVESCO Institutional (N.A.), In	84.64	1.41 Transamerica Funds	83.98	1.31
T. Rowe Price Associates, Inc. (83.05	1.37 Security Investors, LLC	84.25	1.33
American Beacon Funds	83.17	1.36 PowerShares Capital Management L	84.85	1.34

This table examines heterogeneity in fund voting patterns for diverse directors by fund family. As described in Section 4.5, we regress whether a fund family voted for a director in each election on fund family level indicators, an indicator of whether the candidate is diverse, their interactions, and a vector of director and firm controls. The coefficients for the fund family-level fixed effect for diverse directors and base coefficients for non-diverse director voting are presented for the top 100 funds in terms of size in the NPX universe as described in Section 4.5. From these we organize and present the fund families most (top 50) and least (bottom 50) likely to given diverse candidates additional voting support. The "Big Three" asset managers are highlighted in bold lettering.

Table 7

Fund family	cross-sectional heterogeneity: Big Three asset managers
j	

Panel A: Full sample

			,	t variable:			
		Fund Family Support					
	BlackRock		Vanguard		State Street		
	(1)	(2)	(3)	(4)	(5)	(6)	
Board Diversity \times Fund	-2.68***	-2.85***	0.99***	1.00***	-0.53	-0.59	
	(-8.15)	(-9.35)	(2.78)	(2.94)	(-1.21)	(-1.35)	
Individual Diversity \times Fund	-0.56***	-0.70***	-0.42**	-0.56***	1.19***	1.12***	
	(-2.76)	(-3.54)	(-2.15)	(-3.04)	(5.02)	(4.78)	
Controls	Yes	Yes	Yes	Yes	Yes	Yes	
Lower-order effects	Yes	Yes	Yes	Yes	Yes	Yes	
Meeting fixed effects	No	Yes	No	Yes	No	Yes	
Observations	8,170,336	8,170,336	8,170,336	8,170,336	8,170,336	8,170,336	
R ²	0.01	0.17	0.01	0.17	0.01	0.17	

Panel B: Late sample (2015 – 2018)

			Depender	ıt variable:		
	Fund Family Support					
	BlackRock		Vanguard		State Street	
	(1)	(2)	(3)	(4)	(5)	(6)
Board Diversity \times Fund	-4.08^{***} (-6.50)	-4.52*** (-7.74)	-2.94*** (-4.77)	-3.20*** (-5.26)	6.67*** (6.62)	6.55*** (6.53)
Individual Diversity \times Fund	-0.37 (-1.42)	-0.49^{*} (-1.90)	-1.03^{***} (-4.67)	-1.14^{***} (-5.36)	2.20*** (6.60)	2.10*** (6.31)
Controls Lower-order effects Meeting fixed effects	Yes Yes No	Yes Yes Yes	Yes Yes No	Yes Yes Yes	Yes Yes No	Yes Yes Yes
Observations R ²	3,650,939 0.01	3,650,939 0.15	3,650,939 0.01	3,650,939 0.15	3,650,939 0.01	3,650,939 0.15

This table examines heterogeneity in fund voting patterns for the "Big Three" asset managers. The dependent variable, Fund Support, is an indicator variable that takes the value of one if the fund votes in favor of the director. The independent variables Board Diversity and Individual Diversity indicate whether there was at least one diverse director on the board and whether the individual director is diverse, respectively. Fund is an indicator variable that takes a value of one if the observation is voting on a director by Black-Rock, Vanguard, or State Street as specified by the column headers. Director and firm time-varying controls, as described in Section 4.1 and the Appendix, include: Age, Attendance Issues, # Boards, Insider, Tenure, Asset Growth, Debt-Assets, Mkt. Cap., and ROA. In Panel A, all regressions are estimated using the full sample observations described in Section 3, subject to data availability. In Panel B, we limit the sample to just those observations in meeting years 2015 through 2018. Cluster robust t-statistics, by director, are included in parentheses. Levels of significance are presented as follows: *p<0.1; **p<0.05; ***p<0.01.

Table 8
Fund family cross-sectional heterogeneity in ESG preferences

	Dependent variable:					
	Fund Family Support					
	HIP Overall		HIP Equality		Female Employees	
	(1)	(2)	(3)	(4)	(5)	(6)
Board Diversity	-1.29 (-1.01)		1.64* (1.84)		2.77*** (7.38)	
Fund ESG Rating	-14.39*** (-3.96)	-27.62*** (-15.39)		-20.05*** (-14.68)		-10.67*** (-11.51)
Individual Diversity	1.22 (1.57)	0.65 (1.23)	1.31** (2.44)	0.60* (1.66)	1.26*** (4.74)	0.57*** (3.21)
Board Diversity \times Fund ESG Rating	17.18*** (4.62)	5.19*** (2.79)	10.15*** (3.44)	4.03*** (2.85)	11.41*** (5.75)	2.67*** (2.79)
Individual Diversity \times Fund ESG Rating	-0.57 (-0.28)	-0.60 (-0.44)	-0.92 (-0.61)	-0.55 (-0.54)	-1.26 (-1.31)	-0.74 (-1.13)
Controls Meeting fixed effects	Yes No	Yes Yes	Yes No	Yes Yes	Yes No	Yes Yes
Observations R ²	7,283,528 0.01	7,283,528 0.17	7,283,528 0.01	7,283,528 0.17	7,283,528 0.01	7,283,528 0.17

This table examines heterogeneity in fund voting patterns for diverse boards and candidates and funds underlying ESG preferences. The dependent variable, Fund Support, is an indicator variable that takes the value of one if the fund votes in favor of the director. The independent variables Board Diversity and Individual Diversity indicate whether there was at least one diverse director on the board and whether the individual director is diverse, respectively. Fund ESG Rating is the average ESG score of a funds' holdings, as described in Section 4.7. ESG ratings are constructed using overall average overall ESG scores, average equality scores, and scores based on female representation of companies' workforce. Director and firm time-varying controls, as described in Section 4.1 and the Appendix, include: Age, Attendance Issues, # Boards, Insider, Tenure, Asset Growth, Debt-Assets, Mkt. Cap., and ROA. All regressions are estimated using the full sample observations described in Section 3, subject to data availability. Cluster robust t-statistics, by director, are included in parentheses. Levels of significance are presented as follows: *p<0.1; **p<0.05; ***p<0.01.

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