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RESEARCH

Does Greater Diversity in Executive Race/Ethnicity Reliably Predict Better Future Firm Financial Performance?

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Abstract
In contrast to the equivocal findings in academic research, "the business case for diversity" is the dominant rhetorical paradigm for how US corporations debate actions and policies around racial/ethnic diversity. In this paper, we conduct an empirical test of the paradigm by gathering data on the race/ethnicity of the individuals shown on the leadership pages of S&P 500 firms' websites as of mid-2011, 2014, 2017, 2020, and 2021, and then determining if any of nine measures of the racial/ethnic diversity of these executives reliably predict cross-sectional variation in any of six measures of their firms' financial performance over the next fiscal year. We do not find reliable evidence that they do. As such, our results do not support the "business case for diversity" when the claim is assessed using 1-year-ahead financial performance metrics and multiple measures of the race/ethnicity of S&P 500 executives over the last decade.

Keywords Executive diversity · Race/ethnicity · Firm financial performance

JEL Classifications J01 · J15 · J29 · J71 · M12

Motivation and Theory

The prevailing academic views of the relations between the racial/ethnic diversity in firms and corporate business performance are complex and nuanced. In the context of top management teams, where tasks are complex and non-routine, racial/ethnic diversity has been shown to have a positive, negative, or zero effect on firm performance. On the one hand, the "value-in-diversity" hypothesis proposes that organizations with higher levels of racial/ethnic diversity may experience better firm-level outcomes via improved information processing, creativity, and problem solving (Cox and Blake 1991; Cox 1993; Williams and O'Reilly 1998; Ren and Wang 2011; Zhang 2020) and that these positive effects are amplified for senior leaders as they are tasked with making the firm's most strategically important decisions (Hambrick and Mason 1984; Mackey 2008; Hambrick and Quigley 2014). Conversely, differences within top management such as those arising from racial/ethnic diversity may lead to miscommunication and conflict that negatively impact firm performance (Miller et al 2022). The effects of racial/ethnic diversity on firm performance also depend on how key audiences perceive the firm (Solal and Snellman 2019). Lastly, microeconomic theory suggests that there will be no relation between the racial/ethnic diversity or firms' executives and aggregate firm-level financial performance since the presence of such a relation would mean that some firms were not profit-maximizing (Demsetz 1983; Demsetz and Lehn 1985).

As with theory, the extant empirical evidence finds positive, negative, and neutral associations between diversity and business outcomes (Certo et al. 2006; Roberson and Park 2007; Herring 2009). Studies that have examined the links among various aspects of top management team diversity and numerous outcome variables suggest that the effects of diversity on team performance depend on the nature of the diversity, the nature of the team, and the nature of the task (Bantel and Jackson 1989; Jeong and Harrison 2017;

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Margarethe and Bantel 1992; Roberson 2019). Many factors have been reported to be relevant, some positively and some negatively, spanning aspects such as team mechanisms (Boone and Hendriks 2009), environmental factors (Andrevski et al. 2014; Cannella et al. 2008; Qian et al. 2013), the diversity climate of the organization (Gonzalez and DeNisi 2009; Edmans et al. 2023), and the strategy of the firm (Richard 2000). Several meta-analyses about the link between top management team diversity and firm performance find that many studies show weak or inconclusive evidence (Jeong and Harrison 2017).

In contrast to the nuanced findings in academic research, "the business case for diversity" is the dominant rhetorical paradigm for how corporations discuss and debate issues around diversity. Consultants, business leaders, and activists principally promote the argument that a strong and settled business case exists about the financial benefits of greater racial/ethnic employee diversity.[1] A recent investigation found that 81% of companies in the Fortune 500 use business case reasoning to justify their position on diversity (Georgeac and Rattan 2023). This framing is also dominant amongst the management consulting industry that advises such firms. For example, McKinsey & Co. reports finding a statistically significant positive relation between the industry-adjusted EBIT margins of global sets of large public firms and the racial/ethnic diversity of their executives (McKinsey 2015, 2018, 2020). In discussing McKinsey's findings, Dame Vivian Hunt, McKinsey's managing partner in the UK and Ireland and a coauthor on all three McKinsey studies, states that:

> What our data shows is that companies that have more diverse leadership teams are more successful. And so the leading companies in our datasets are pursuing diversity because it's a business imperative and *driving real business results*.[2] *(emphasis added)*

In light of the conflicting findings among academics, consultants, business leaders, and activists, the goal of our paper is to provide fresh evidence on the social and business questions of whether and where greater diversity in executive race/ethnicity reliably leads to better future firm financial performance. The specific approach that we take is to gather data on the race/ethnicity of all the individuals shown on the leadership pages of S&P 500 firms' websites as mid-2011, 2014, 2017, 2020, and 2021, who we define as "executives," and then determine if any of nine measures of executives' racial/ethnic diversity predict cross-sectional variation in any of six measures of firms' financial performance over the subsequent fiscal year.

Despite using many combinations of racial/ethnic diversity and 1-year-ahead firm performance, we do not find evidence consistent with a statistically reliable presence of an association between them. This includes the full 11-year span of our data, as well as in the period following the 2020 murder of George Floyd. Of the total of 270 estimated coefficients on our nine measures of executive racial/ethnic diversity across each of our six measures of firm financial performance across the 1-year-ahead firm financial performance years 2012, 2015, 2018, 2021, and 2022, just under 5% are significantly non-zero at a 2-tailed level of $\alpha \leq 0.05$. The absence of statistically significant causal connections is also the case in a variety of robustness tests that we undertake. As such, we interpret our results as not supporting the commonly claimed "business case for diversity" when that claim is evaluated at the one-year-ahead overall firm level and with regard to the race/ethnicity of executives in S&P 500 firms over the past decade. Our results suggest that despite the imprimatur often given to influential non-academic studies, caution is warranted in relying on such findings to support the view that US publicly traded firms can create improved financial performance if they increase the racial/ethnic diversity of their executives.

Data

Where available, we gathered data as of the middle of calendar year $t = 2011$, 2014, 2017, 2020, 2021, 2022, and 2023 on the race/ethnicity and other key characteristics of the executives in the firms that were in the S&P 500 Index at December 31 of the previous calendar year $t-1$. We focus on S&P 500 firms because they account for about 80% of the total market cap of the US stock market.

Numbers of S&P 500 Firms and Their Industry and Financial Characteristics

Table 1 presents descriptive statistics on the S&P 500 firms for which we located executive data, with their industry composition and financial characteristics. Per panel A, the number of firms ranged from 303 in 2011 to 498 in 2023, with the average number of executives per firm

[1] Prototypical examples are Wittenberg (2017), Lorenzo and Reeves (2018), Lorenzo et al. (2017, 2018), Holger (2019), and Richard et al. (2020). Other examples include the statement from an executive chairman of a diversified multinational that "the business case for diversity in the workplace is now overwhelming" (World Economic Forum, 2019). Activist and DEI advocate Kim (2018a) states, "If your boss is still asking about the 'business case' for diversity, your company's in trouble … For the love of sweet baby goddess, stop wasting your precious time doing research that's been done too many times before." It is also the case that typing "Does greater racial diversity in executives improve firm financial performance?" into Microsoft Bing gives the one word answer in large font of "Yes."

[2] "How diversity brings positive change to business results." Bloomberg Television. September 6, 2018.

Table 1 Descriptive statistics on the S&P 500 firms in the full S&P 500 database

Panel A: Number of firms and executives

	2011	2014	2017	2020	2021	2022	2023	Avg. 2011-23
# firms	303	399	434	486	495	491	498	444
# executives	4097	5297	5777	7410	7620	8035	8108	6621
# execs/firm	13.5	13.3	13.3	15.2	15.4	16.4	16.3	14.8

Panel B: Distribution of firms by Fama-French 12 Industries

Fama-French 12 Industry	% firms
Business Equipment	17%
Chemicals and Allied Products	4%
Consumer Durables	2%
Consumer Nondurables	7%
Finance	20%
Healthcare, Medical Equipment, and Drugs	9%
Manufacturing	9%
Oil, Gas, and Coal	6%
Other	11%
Telephone and Television Transmission	2%
Utilities	7%
Wholesale, Retail, and Some Services	9%

Panel C: Key firm characteristics and measures of one-year-ahead firm financial performance FFP_{t+1}. FFP_{t+1} means are calculated after trimming at the 1st and 99th percentiles.

Firm characteristic	Label	Mean	1st pctile	25th pctile	Median	75th pctile	99th pctile
Market cap ($ mil)	MVE_t	$ 55,935	$ 2,389	$ 12,228	$ 22,934	$ 48,032	$ 470,569
Total assets ($ mil)	TA_t	$ 78,731	$ 1,962	$ 9,356	$ 20,317	$ 52,080	$ 1,155,953
Revenues ($ mil)	REV_t	$ 25,145	$ 1,010	$ 4,766	$ 10,159	$ 21,056	$ 238,068

Measure of one-year-ahead firm financial performance FFP_{t+1}	Label	Mean	1st pctile	25th pctile	Median	75th pctile	99th pctile
Sales growth %	$SALESGR_{t+1}$	8.2%	-42.2%	-0.5%	6.0%	14.4%	73.7%
Gross margin (% of REV)	GM_{t+1}	44.9%	3.4%	27.9%	42.0%	61.1%	96.3%
EBIT margin (% of REV)	$EBITM_{t+1}$	18.9%	-27.3%	10.7%	17.4%	26.0%	56.6%
Return on Assets %	ROA_{t+1}	6.8%	-11.4%	2.3%	5.7%	10.2%	29.0%
Return on Equity %	ROE_{t+1}	19.9%	-164.7%	7.8%	14.8%	26.7%	269.6%
Total shareholder return %	TSR_{t+1}	16.5%	-49.7%	-3.1%	13.2%	32.8%	120.7%

lying between 13.3 in 2017 and 16.4 in 2022. Panel B indicates that in terms of Fama–French 12 industries, S&P 500 firms are reasonably spread out, being most concentrated in finance (20%) and business equipment (17%), and least concentrated in consumer durables (2%) and telephone and television transmission (2%).

The upper portion of panel C reports the major percentiles on the key firm characteristics of market cap, total assets, and annual revenues for year *t*, the year the executive data was collected. The lower portion of panel C presents the major percentiles for the six measures of 1-year-ahead firm financial performance (FFP) that in our later cross-sectional regressions we project onto nine measures of executive racial/ethnic diversity.[3] We deliberately choose

[3] Most S&P firms have a calendar fiscal year. As such, there is usually a 6-month gap between when we measure the race/ethnicity of a firm's executives and the start of the "1-year-ahead" window over which we measure firm financial performance. One advantage to having this 6-month gap is that it provides time for any benefits from greater racial/ethnic diversity to manifest themselves in reliably better future firm financial performance.

FFP metrics that are commonly used in financial statement analysis and equity valuation to capture the main aspects of firms' fundamental and capital market performance. They are [1] sales growth % from year t to $t+1$, $SALESGR_{t+1}$; [2] gross margin % in year $t+1$, GM_{t+1}; [3] EBIT margin % in year $t+1$, $EBITM_{t+1}$; [4] return on assets % in year $t+1$, ROA_{t+1}; [5] return on equity % in year $t+1$, ROE_{t+1}; and [6] total shareholder return % in year $t+1$, TSR_{t+1}.[4] The observations that the statistics apply to is the pooled set of years 2011, 2014, 2017, 2020, and 2021 for which all six of our measures of 1-year-ahead firm financial performance in 2012, 2015, 2018, 2021, and 2022 were available per CRSP and Compustat, with each FFP measure being then winsorized at the 1st and 99th percentiles in the pooled data. Taken together, panel C confirms that conforming to a-priori economic expectations, S&P 500 firms are large, in strong financial positions, and perform well from both fundamental and capital market perspectives.

Executives and Their Judged Race/Ethnicity

We define an executive as any individual who is publicly disclosed by a firm to be on its leadership team, almost always per the firm's website.[5] This identification was done in real time mid-year for 2020, 2021, 2022, and 2023. For 2011, 2014, and 2017, we used the Internet Archive Wayback Machine (https://www.waybackmachine.org) to retrieve the firm's website, where available, as of approximately the middle of that year.

We classify an executive's race/ethnicity into one of eight categories: African ancestry or Black (aa or b), European (eur), Near Eastern (ne), East Asian (ea), South Asian (sa), Latino (lat), Native American or American Indian (na or ai), and Other (o), where Other comprises Pacific Islander (pi) or Alaska Native (an).[6] We did so by first evaluating the totality of each executive's photo and first and last names as displayed on their firm's leadership webpage. Where either of their photo or name(s) were not shown, we studied their website bio, LinkedIn page and other internet-accessible information such as their connections to organizations that are typically identified with a particular race/ethnicity. We classified an executive's gender as being male or female using the same approach. All classifications were done by RAs under the supervision of the lead author for the years 2011, 2014, and 2017, and by the lead author and a different RA mid-year in real time for the years 2020, 2021, 2022, and 2023. While no approach outside of self-reported identification by each executive would achieve perfect accuracy, and no database of the size of ours is ever likely to contain zero errors (and we make no representation to such perfect accuracy), we undertook several cross-checks to do our best to ensure that executive race/ethnicity were accurate, not only within each year but also for any given firm across years.[7]

Numbers and Densities of Executives in S&P 500 Firms in Total and by Race/Ethnicity

Table 2 reports descriptive statistics on the executives in our dataset. Per Panel A, which presents the numbers of executives by race/ethnicity, of the total number of 46,064 executive-year observations, the number of White executives (defined as European + Near Eastern executives) dwarfs those of all other races/ethnicities both within and across years, rising from 3601 in 2011 to 6469 in 2023, as compared to Latino executives, for example, who number 83 in 2011 and 292 in 2023. This said, it should be kept in mind that the number of firms for which we were able to locate their website and associated leadership page declines substantially as one goes back in time from mid-2020, the first year for which we collected data in real time. Wayback Machine has not or did not archive every S&P 500 firm's website, and increasingly so the further back in time one goes. However, assuming there is no correlation between the race/ethnicity of a firm's executives and whether or not Wayback Machine archives the firm's leadership page as of approximately the middle

[4] Gross margin % is revenue less cost of goods sold, as a percent of revenue. EBIT margin % is earnings before interest expense and income tax expense, as a percent of revenue. Return on assets (equity) is net income as a percent of total assets (total shareholder equity). Total shareholder return is the sum of dividends and capital appreciation.

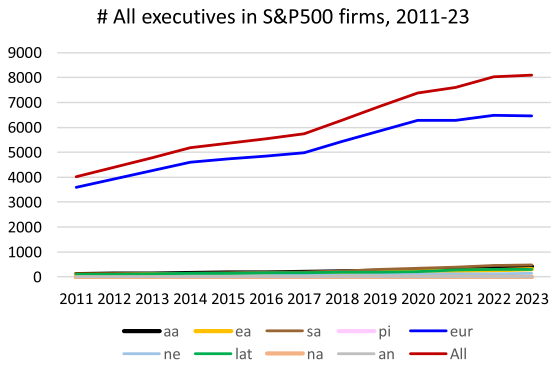
[5] Our approach is the same as that used by McKinsey (2015). In the very infrequent cases in which we found no executives on the firm's website, we took a firm's executives to be the employees listed on the firm's Bloomberg or Yahoo! Finance profile page, else the firm's annual report, else we judged them from among the employees on its comparably.com page. Yahoo! Finance's profile page lists up to five executives. Bloomberg's profile page typically lists 3–10 executives. Comparably.com lists up to 50 + people who work for the firm, only some of whom we judged to be executives.

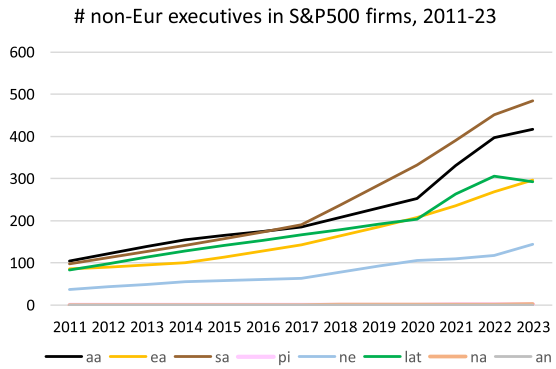
[6] We employ African ancestry and Black, and Native American and American Indian, so as to be inclusive of alternative representations of these races, and to accommodate the nomenclature used by the National Center for Educational Statistics' Integrated Postsecondary Education Data System (IPEDS), as we use data from IPEDS in one of our measures of the racial/ethnic diversity of a firm's executives.

[7] These included [1] cross-validating our classifications against those of the CEOs, CFOs, and COOs in S&P 500 firms in 2020, 2021, and 2022 that were generously provided to us by CristKolder Associates, and [2] obtaining the qualified assessment of an expert who is both fluent in Spanish and deeply involved in Latino culture for those executives where the uncertainty in classification lay in deciding between European and Latino. The latter was employed because our experience is that classifying between European and Latino is the hardest to accurately undertake.

Table 2 Numbers and densities of executives in S&P 500 firms 2011–2023 in total and by race/ethnicity and gender

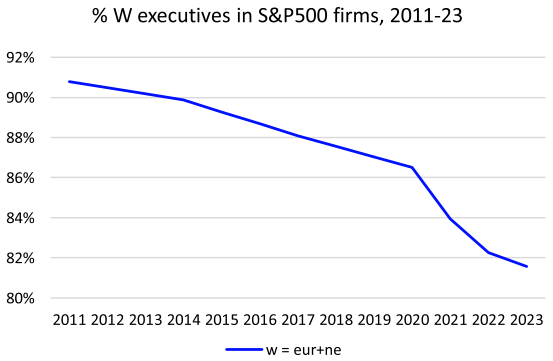
Panel A: Numbers of executives by race/ethnicity in the full S&P 500 database

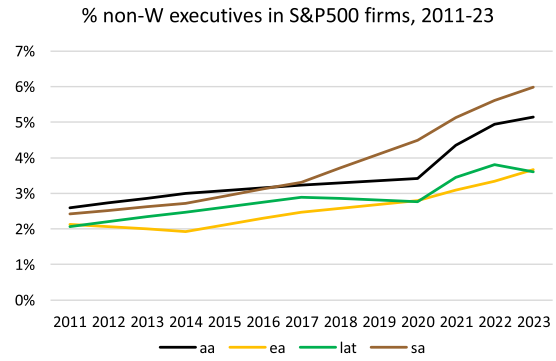




	2011	2014	2017	2020	2021	2022	2023	Avg. 11-23
aa	104	155	185	253	331	397	417	263
ea	85	100	142	207	235	268	297	191
sa	97	141	190	332	391	451	485	298
pi	0	0	0	0	2	2	2	1
eur	3601	4600	4988	6286	6282	6491	6469	5531
ne	37	55	63	106	109	117	144	90
lat	83	128	166	204	263	306	292	206
na	0	0	0	1	1	1	2	1
an	0	0	0	0	0	0	0	0
All	4007	5179	5734	7389	7614	8033	8108	6581

Panel B: Densities of executives by race/ethnicity in the full S&P 500 database





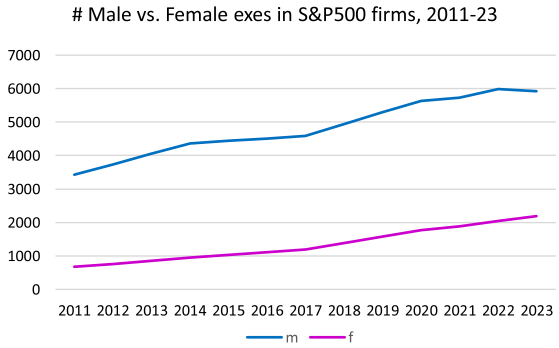
	2011	2014	2017	2020	2021	2022	2023	Avg. 11-23
aa	2.6%	3.0%	3.2%	3.4%	4.3%	4.9%	5.1%	3.8%
ea	2.1%	1.9%	2.5%	2.8%	3.1%	3.3%	3.7%	2.8%
sa	2.4%	2.7%	3.3%	4.5%	5.1%	5.6%	6.0%	4.2%
pi	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
eur	89.9%	88.8%	87.0%	85.1%	82.5%	80.8%	79.8%	84.8%
ne	0.9%	1.1%	1.1%	1.4%	1.4%	1.5%	1.8%	1.3%
lat	2.1%	2.5%	2.9%	2.8%	3.5%	3.8%	3.6%	3.0%
na	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
an	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
All	100%	100%	100%	100%	100%	100%	100%	100%

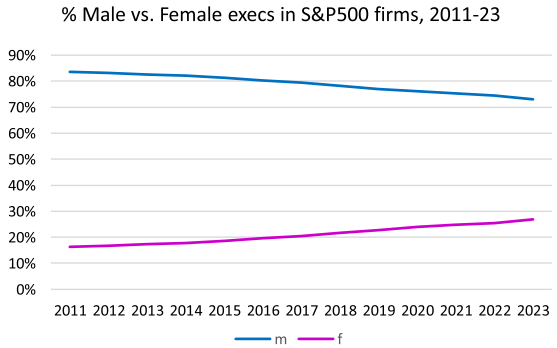
of a given year, there should be no biases in the densities of executives by race/ethnicity that we report in panels B and C of Table 2.

Inspection of panel B reveals several notable aspects of the racial/ethnic densities (RAEDs) of S&P 500 executives over the 13-year window 2011–2023. First, there is a downward trend in the density of White executives and an upward trend in the densities of all non-White executives. Second, the decline in the density of White executives markedly increased after 2020, which we attribute to the heightened public and corporate attention and emphasis paid to the general area of "Diversity, Equity and Inclusion (DEI)" following the death of George Floyd and the increased interest by many in corporate America in the Black Lives Matter movement. Third,

Table 2 (continued)

Panel C: Numbers and densities of executives by gender in the full S&P 500 database





	2011	2014	2017	2020	2021	2022	2023	Avg. 11-23
m	3429	4358	4590	5637	5734	5986	5924	5094
f	668	939	1187	1773	1886	2049	2184	1527
All	4097	5297	5777	7410	7620	8035	8108	6621

	2011	2014	2017	2020	2021	2022	2023	Avg. 11-23
m	83.7%	82.3%	79.5%	76.1%	75.2%	74.5%	73.1%	77.8%
f	16.3%	17.7%	20.5%	23.9%	24.8%	25.5%	26.9%	22.2%
All	100%	100%	100%	100%	100%	100%	100%	100%

consistent with this being the case, the largest increase in post-2020 RAEDs as compared to pre-2020 trends is with Black executives. Fourth, however, the greatest proportional increase in RAEDs between 2011 and 2023 is not with Black executives, whose RAED increases by 2×from 2.6% in 2011 to 5.1% in 2023, but with South Asian executives, whose RAED increases by 2.5×from 2.4% in 2011 to 6.0% in 2023. Fifth, the sharp increase in the densities of non-White executives starting in mid-2020 cannot per se be explained by firms simply increasing the number of individuals on their leadership teams, for example, by adding new roles such as that of a Chief DEI Officer. Per the data in panel A, the increase of 968 executives represented by the difference between the total of 7389 in place at mid-2020 and the 6421 in place at mid-2017, calculated on a basis that adjusts for there being 486 firms in our dataset at mid-2020 versus 434 at mid-2017 (6421 = 5734 × 486/434), far exceeds the estimated increase of 103 non-White executives between mid-2017 and mid-2020 (6421 × {87.0% + 1.1% − 85.1% − 1.4%}). Lastly, as of mid-2023, it remains true that the great majority of executives in S&P 500 firms are White (79.8%).[8]

In contrast to the sharp changes over time seen in executive RAEDs, particularly after 2020, panel C shows that the fraction of executives who are female has steadily increased in virtually a straight-line trend manner, with no discernible shift in the trend after 2020. Over the past 13 years, the fraction of executives who are female has almost doubled, rising from 16.3% in 2011 to 26.9% in 2023.

Algebraic Definitions of Racial/Ethnic Diversity

In this section, we present six algebraically defined measures of racial/ethnic diversity (RDIV). We provide a variety of RDIV measures not only because there is no uniformly agreed upon definition of racial/ethnic diversity (Harrison and Klein 2007) but because it is important for research to avoid the risk of finding one RDIV measure to be reliably related to future firm financial performance and highlighting that, while finding other RDIV measures to not be reliably related to future firm financial performance but not reporting or highlighting them. Algebraic definitions also help more tightly facilitate a

[8] As to why the fraction of executives has been and is today predominantly White, Green and Hand (2022) find evidence consistent with the "qualified supply pipeline" theory that profit-maximizing demand by US public companies for proto-executive talent will not lead them to hire in an unconditionally proportional manner from the US population. Instead, firms will hire the academically most talented individuals that are supplied to them into their proto-executive development pipelines by the top US colleges and universities, with the result that the RAEDs of firms' executives will mirror the RAEDs of top US colleges and universities some 30 years prior. Using the New York Times (NYT) list of the top 100 US 4-year colleges and universities to the measure the supply of top BA/BS qualified (TBQ) talent into firms' proto-executive pipelines, Green and Hand find that the magnitudes of the underrepresentations for Blacks and Hispanics and the overrepresentation for Whites are 10×+smaller when benchmarked against TBQ-based age-matched executive RAEDs than those that obtain when benchmarked instead against the US population.

critical assessment of each measure, such as determining at what level(s) or mix(es) of various races/ethnicities a given RDIV locally and/or globally maximizes or minimizes, thus better enabling the reader to determine whether the RDIV makes economic, intuitive, logical, or social sense.

In any and each year, $t \in \{2011, 2014, 2017, 2020, 2021, 2022, 2023\}$, let $i = 1$ to N be N mutually exclusive racial/ethnic groups into which an executive may be classified in terms of his/her race/ethnicity, and for any firm j let n_{ij} be the number of firm j's executives that are classified in racial/ethnic group i. Further let the racial/ethnic density of racial/ethnic group i in firm j be given by $RAED_{ij} = \frac{n_{ij}}{\sum_{i=1}^{N} n_{ij}}$. The six measures of racial/ethnic diversity of executives in a given S&P 500 firm that we use in our empirical analyses are shown in Eqs. (1) through (9). Each RDIV is constructed with the intention that it is at least locally increasing in the extent or degree of racial/ethnic diversity.

RDIV1. $0 \leq \text{NHHI8} \leq 1$. This is the inverse and normalized Herfindahl-Hirschman measure used by McKinsey (2018, 2020) applied to $N = 8 \equiv$ {African ancestry, European ancestry, Near Eastern, East Asian, South Asian, Latino, Native American, Other}[9]:

$$NHHI8_j = 1 - \frac{HHI8_j - N^{-1}}{1 - N^{-1}}, \text{ where } HHI8_j = \sum_{i=1}^{8} RAED_{ij}^2. \quad (1)$$

RDIV2. $0 \leq \text{NHHI5} \leq 1$. This is the inverse and normalized Herfindahl-Hirschman measure used by McKinsey (2018, 2020) applied to $N = 5 \equiv$ {African ancestry, Asian/Pacific Islander = East Asian + South Asian + Pacific Islander, Latino, White = European ancestry + Near Eastern, Other}[10]:

$$NHHI5_j = 1 - \frac{HHI5_j - N^{-1}}{1 - N^{-1}}, \text{ where } HHI5_j = \sum_{i=1}^{5} RAED_{ij}^2. \quad (2)$$

A strength of McKinsey's studies is that unlike most practitioners, they are careful to algebraically define their *HHNI* diversity measures in each of their 2015, 2018, and 2020 reports. This notwithstanding, the *HNNI8* and *HNNI5* definitions of executive racial/ethnic diversity per (1) and (2) have three weaknesses.

First, *HNNI* maximizes at $1/N$ when in the firm there are equal numbers of executives from each race/ethnicity. This is problematic because neither the US population nor the US labor force has equal numbers of each race/ethnicity. *HNNI* can therefore only be at its maximum in a subset of US firms, not in all US firms. Second, *HNNI* yields the result that any set of RAEDs different from equal densities is less diverse than is equal densities. This runs counter to the intuition that a firm whose executive RAEDs are equal to the US population (USPopRAED) is more racially/ethnically diverse than a firm whose executives RAEDs are equal across all N races/ethnicities.[11] Third, *HNNI* also yields the counter-intuition that firm ABC with RAEDs equal to USPopRAED is equally as diverse as firm XYZ that has the same RAEDs as USPopRAED except that its race/ethnicity densities are spread out "oppositely" or in some other way different from USPopRAED.[12] We think it unlikely that business leaders, employees, consultants, and activists will view a firm whose executives are 61.2% American Indian/Alaska Native, 18.5% Asian/Pacific Islander, 13.0% Black, 6.4% Latino, and 1.0% White (the inverse of USPopRAED in 2019) to be equally as racially/ethnically diverse as a firm whose executives are 1.0% American Indian/Alaska Native, 6.4% Asian/Pacific Islander, 13.0% Black, 18.5% Latino, and 61.2% White.

RDIV3. $0 \leq \text{NONW} \leq 1$. This is the percentage of a firm's executives who are not White:

$$NONW_j = 1 - RAED_{Wj} \quad (3)$$

While the strength of *NONW* is that it captures the total representation of all non-White races/ethnicities, this is also

[9] McKinsey defines the general N form of *NHHI* per Eq. (1) in their 2018, 2020 studies (pp. 37, 49, respectively). In their 2015 study, McKinsey defines $NHHI_j = \frac{HHI_j - N^{-1}}{1 - N^{-1}}$, that is, without applying an inverse by subtracting from one. McKinsey applies an inversion in their 2018 and 2020 studies in order that, per intuition, $NHHI = 0$ indicates a firm whose executives are all in the same racial/ethnic group, and $NHHI_j = 1$ indicates that firm j's executives are exactly equally spread out across the N racial/ethnic groups $s_{ij} = N^{-1} \forall i$. The result of this inversion is that *NHHI* in Eq. (1) is increasing in McKinsey's definition of the degree of racial/ethnic diversity in a firm's executives.

[10] In their 2018 and 2020 studies, McKinsey uses $N = 5$ for US geography firms (White/European ancestry, Black/African ancestry, Latino/Hispanic of any race, Asian/Asian ancestry, and Other* including mixed race, pp. 37, 49, respectively).

[11] This concern is amplified in that the number of races/ethnicities N is undefined. For a given set of M executives and N racial/ethnic groups with an equal number of M/N executives in each group and thus $HNNI\_N = 1$, diversity as measured by *HNNI* can decrease to $HNNI\_N^* < 1$ if the number of racial/ethnic groups is reduced to $N^* < N$. The reverse is also true, that diversity per *HNNI* can decrease when one starts with M executives, N^* racial/ethnic groups and an equal number of M/N^* executives in each group, so $HNNI\_N^* = 1$, but then reclassifies the executives into $N > N^*$ groups.

[12] For example, the 2019 USPopRAEDs are American Indian/Alaska Native = 1.0%, Asian/Pacific Islander = 6.4%, Black = 13.0%, Hispanic = 18.5%, and White = 61.2%. Based on these, *HNNI* (aian, api, b, h, w) = *HNNI* (1.0%, 6.4%, 13.0%, 18.5%, 61.2%) = 0.77 = *HNNI* (61.2%, 18.5%, 13.0%, 6.4%, 1.0%) = *HNNI* (6.4%, 18.5%, 61.2%, 13.0%, 1.0%), etc.

a weakness because *NONW* does not distinguish among non-White race/ethnicities.[13] Of more concern is that NONW maximizes when the number of White executives in a firm is zero. We propose that conceptually, a measure of racial/ethnic diversity that maximizes when one or more races/ethnicities is zero runs counter to the (we propose) predominantly accepted idea that a positive amount of diversity requires a positive amount of heterogeneity rather than 100% homogeneity.

RDIV4. $0 \leq$ SHANNEN. This is the Shannon entropy measure used by Posch et al. (2023):

$$SHANNEN_j = -\sum_{i=1}^{N} (RAED_{ij} \times log_2 RAED_{ij}) \quad (4)$$

Applied in our setting to executives, *SHANNEN* captures the idea from information theory (Shannon 1948) that when executives from different racial/ethnic groups interact, their average informational content can be represented by Eq. (4), where $\log_2 RAED_{ij}$ is the information content embedded in executive *i*. *SHANNEN* is therefore a version of Shannon entropy, which is used in many scientific disciplines. The strengths of *SHANNEN* are that it provides an information theory–based way of measuring the racial/ethnic diversity of executives, where more diverse executive teams are informationally more informative than less diverse executive teams. Its weakness is that like *RDIV1* = *NHHI*8 and *RDIV2* = *NHHI*5, it maximizes at 1/*N* when there are equal numbers of executives from each race/ethnicity in the firm. This is problematic because neither the US population nor the US labor force contains equal numbers of each race/ethnicity. From a real-world point of view, *HNNI* can therefore likely only be at its maximum in a subset of US firms, not in all US firms.

RDIV5. $0 \leq$ TBQD. This is the top BA/BS qualified proto-executive pipeline diversity measure of executive racial/ethnic diversity proposed by Green and Hand (2022):

$$TBQD_j = 1 - \sum_{i=1}^{N} (RAED_{ij} - ERAED_{ij})^2 \quad (5)$$

where for all *j*, we take $ERAED_{ij}$ to be the racial/ethnic density of the individuals graduating with a BA/BS from the New York Times' ranking of the Top 100 Colleges and Universities in the same year as the executive.[14] Per Green and Hand (2022; Table 4 panel B), these are {*B* = 3.9%, *EA* = 4.3%, *LAT* = 3.3%, *SA* = 3.3%, *W* = 85.1%, *OTH* = 0.0%}. The strength of *TBQD* is that it conceptually and empirically accords with a plausible labor supply /qualified human capital pipeline view of the racial/ethnic diversity of executives in large US public companies, maximizing when the RAEDs of each race/ethnicity exactly match that of the assumed pool of top BA/BS talent available to firms when they first hired the executive into their proto-executive talent pipelines. At the same time, however, this is also its weakness, as it limits its view of racial/ethnic diversity solely to a labor supply perspective.

RDIV6 – RDIV9. The vector of individual RAEDs, viz. for *RAETH* = {*B*, *EA*, *LAT*, *SA*}:

$$RAED_j^{RAETH} = \frac{n_{Xj}}{\sum_{i=1}^{N} n_{ij}} \quad (6) \text{ thru } (9)$$

The strength of making *RDIV* multidimensional through a vector of individual RAEDs, one per firm for each race/ethnicity, in our situation $\{RAED_j^B, RAED_j^{EA}, RAED_j^{LAT}, RAED_j^{SA}, RAED_j^W\}$, is that it allows each race/ethnicity to be separately presented and assessed in terms of its impact on future firm financial performance. In our regression analyses, we do not include *OTH* due to the extremely small number of executives judged to be in the races/ethnicities that comprise *OTH*, and by virtue of the essentially 100% collinearity of $\{RAED_j^B, RAED_j^{EA}, RAED_j^{LAT}, RAED_j^{SA}, RAED_j^W\}$, we do not include $RAED_j^W$.

In panel A of Table 3, we provide descriptive statistics on our *RDIV* measures *RDIV1–RDIV9*, and in panel B, we do the same for *FEM*, the fraction of a firm's executives in a given year *t* who are female. Noting that the observations the statistics apply to is the pooled set of years 2011, 2014, 2017, 2020, and 2021 for which all six of our measures of 1-year-ahead firm financial performance in 2012, 2015, 2018, 2021, and 2022 were available per CRSP and Compustat, and not the unrestricted total set of firms reported in panel A of Table 1, inspection of Table 3 indicates that the *RDIV* and *FEM* measures are distributed across their percentiles as expected and in accordance with those of the full dataset as detailed in Table 2.

[13] Thus, the same value of *NONW* obtains in firm ABC with a White executive density of 50% and non-White executive densities of 0% Asian/Pacific Islander, 0% American Indian/Alaska Native, 0% Black, and 50% Latino as in firm XYZ with a White executive density of 50% and non-White executive densities of 49% Asian/Pacific Islander, 1% American Indian/Alaska Native, 0% Black, and 0% Latino.

[14] We use only the 2020 RAEDs and not the RAEDs in any other year because the 2020 RAEDs are publicly available from Green and Hand (2022) and because the cost in terms of time, effort and expense of gathering the data needed to compute the RAEDS in 2011, 2014, 2017, and 2021 were judged to be so high as to make them out of the authors' reach in this paper. However, we believe that the likely high persistence over time in the historical RAEDs of BA/BS students in the top 100 US four-year colleges and universities means that using Green and Hand's 2020 RAEDs will result in a low degree of any bias and noise in *TBQD* in 2011, 2014, 2017, and 2021.

Table 3 Descriptive statistics on measures of the racial/ethnic and gender diversity of execu) ves in S&P 500 firms, pooled over the years 2011, 2014, 2017, 2020 and 2021.

Panel A: Descriptive statistics on alternative measures of executive racial/ethnic diversity, as defined in equations (1) through (9) in the main text

Race/ethnicity			Percentile						
RDIV measure	Mean	Min.	5th	25th	Median	75th	95th	Max.	Std. dev.
NHHI8	0.23	0	0	0	0.22	0.38	0.58	1.00	0.19
NHHI5	0.21	0	0	0	0.20	0.34	0.53	1.00	0.18
NONW	0.12	0	0	0	0.10	0.19	0.33	0.82	0.12
SHANNEN	0.49	0	0	0	0.47	0.81	1.18	1.83	0.41
TBQD	0.97	0.13	0.90	0.98	0.98	0.99	0.99	1.00	0.05
B	3.1%	0%	0%	0%	0%	6%	14%	33%	5%
EA	2.4%	0%	0%	0%	0%	3%	13%	50%	5%
LAT	2.6%	0%	0%	0%	0%	3%	13%	70%	6%
SA	3.8%	0%	0%	0%	0%	7%	17%	56%	7%
W	88%	18%	67%	81%	90%	100%	100%	100%	12%

Panel B: Descriptive statistics on executive gender diversity, defined as the fraction of a firm's executives in a given year who are female

Gender DIV			Percentile						
measure	Mean	Min.	5th	25th	Median	75th	95th	Max.	Std. dev.
FEM	20%	0%	0%	13%	20%	28%	40%	73%	12%

Lastly, before our regressions, in Table 4, we report the Pearson and Spearman correlations in our dataset between the contemporaneous and 1-year-ahead *FFP* measures of firm financial performance, *DIV* and *FEM*, for our data when pooled over 2011, 2014, 2017, 2020, and 2021. We note the following, emphasizing that the correlations are simple bivariate, and thus not necessarily indicative of what will be found when year, industry, past financial performance, and other firm characteristics are controlled for. First, the fundamental measures of firm financial performance are all positively correlated with each other, but negatively correlated with *TSR*. Second, RDIVs are all strongly positively correlated with each other, although negatively correlated with the fraction of executives who are White (as expected given how the measures are constructed and that Whites are the predominant race of the executives in our S&P 500 dataset). Third, *RDIV1–RDIV5* all have small positive correlations with each of the measures of 1-year-ahead firm financial performance. In contrast, among individual RAEDs, those for Black, Latino, and White (East Asian, South Asian) have small negative (positive) correlations with 1-year-ahead firm financial performance.

Regression Analyses

Regression Specification

In this section, we report the results of evaluating the extent to which each of our nine measures of executive racial/ethnic diversity *RDIV1–RDIV9* per the Algebraic Definitions of Racial/Ethnic Diversity section reliably predict cross-sectional variation in the $M=6$ measures of $FFP^{M}_{j,t+1}$, the 1-year-ahead firm financial performance of firm j per the Numbers of S&P 500 Firms and Their Industry and Financial Characteristics section. The econometric approach we take is straightforward in that in each of the years $t=2011$, 2014, 2017, 2020, and 2021, for each of *RDIVN*, $N=1$–9, we estimate the following cross-sectional OLS regression:

$$FFP^{M}_{j,t+1} = \alpha_t + \beta_t RDIVN_{jt} + \gamma_t FEM_{jt} + OtherControls_t + FF12Ind\_FEs_t + e_{jt} \quad (10)$$

We control for FEM_{jt} to prevent misestimating β_t due to correlated omitted variable bias on $RDIVN_{jt}$ that might come from FEM_{jt} were it to be excluded, as well as including three other controls: [1] FFP^{M}_{jt} to take into account the persistence in firms' financial performance, [2] $LnMVE_{jt}$ the natural log of firm equity market cap at the end of year t to take into account that large cap firms may have higher market power and thus better financial performance, and [3] $LnNExecs_{jt}$ the natural log of the number of the firm's executives in year t to take into account that a larger leadership team may enable the firm to perform better because a greater number of synergies in experience and expertise are created by the team. We include industry fixed effects via dummy variables that span the Fama–French 12-Industries Classification to control for systematic industry-specific differences in the mean $FFP^{M}_{j,t+1}$ due to unmodeled economic and/or accounting firm characteristics.

The results of estimating Eq. (10) are shown in panels A–F of Table 5. Each panel consists of six sets of regressions, one

Table 4 Pearson and Spearman correlation matrix of [1] the year t and year $t+1$ measures of firm financial performance and [2] the measures of racial/ethnic diversity of executives in S&P 500 firms pooled over the years 2011, 2014, 2017, 2020, and 2021

Pearson → ↓ Spearman	SGR_t	GM_t	$EBITM_t$	ROA_t	ROE_t	TSR_t	SGR_{t+1}	GM_{t+1}	$EBITM_{t+1}$	ROA_{t+1}	ROE_{t+1}	$TSRt_{+1}$	$NHHI8_t$	$NHHI5_t$	$NONW_t$	$SHANNEN_t$	$TBQD_t$	B_t	EA_t	LAT_t	SA_t	W_t	FEM_t
SGR_t		0.15	0.24	0.36	0.13	0.39	0.07	0.06	0.06	0.20	0.02	-0.14	0.01	0.01	0.01	-0.01	-0.04	-0.07	0.05	-0.02	0.06	-0.01	-0.06
GM_t	0.13		0.64	0.26	0.04	0.12	-0.06	0.87	0.44	0.14	0.01	-0.03	0.09	0.06	0.06	0.03	-0.08	-0.04	0.08	-0.05	0.12	-0.06	0.03
$EBITM_t$	0.12	0.66		0.40	0.10	0.19	-0.19	0.48	0.61	0.20	0.02	-0.08	0.03	0.01	0.02	0.00	-0.05	-0.04	0.05	-0.02	0.04	-0.02	-0.01
ROA_t	0.34	0.22	0.29		0.28	0.29	-0.07	0.19	0.22	0.67	0.17	-0.07	0.07	0.06	0.06	0.03	-0.09	-0.06	0.12	-0.02	0.09	-0.06	-0.06
ROEt	0.28	0.10	0.20	0.73		0.13	-0.02	0.03	0.05	0.20	0.20	-0.04	0.07	0.07	0.07	0.07	-0.03	0.05	0.04	0.00	0.06	-0.07	0.05
TSR_t	0.35	0.10	0.16	0.26	0.24		0.18	0.13	0.18	0.30	0.07	-0.10	0.08	0.08	0.08	0.05	-0.08	-0.05	0.10	-0.01	0.12	-0.08	0.02
SGR_{t+1}	0.15	0.03	-0.03	0.02	0.01	0.26		0.09	0.16	0.23	0.08	0.33	0.05	0.05	0.05	0.04	-0.03	-0.04	0.04	0.04	0.06	-0.05	0.06
GM_{t+1}	0.09	0.95	0.60	0.19	0.07	0.11	0.09		0.68	0.26	0.05	0.08	0.10	0.07	0.07	0.04	-0.07	-0.04	0.09	-0.05	0.13	-0.07	0.04
$EBITM_{t+1}$	0.04	0.60	0.87	0.19	0.12	0.18	0.11	0.66		0.42	0.10	0.16	0.06	0.05	0.04	0.03	-0.04	-0.02	0.07	-0.02	0.05	-0.04	0.03
ROA_{t+1}	0.22	0.16	0.17	0.74	0.50	0.27	0.25	0.20	0.29		0.28	0.22	0.08	0.07	0.08	0.05	-0.09	-0.05	0.13	-0.02	0.10	-0.08	-0.04
ROE_{t+1}	0.11	0.05	0.09	0.47	0.62	0.20	0.23	0.10	0.20	0.71		0.10	0.08	0.08	0.07	0.08	0.00	0.05	0.06	0.02	0.02	-0.07	0.07
TSR_{t+1}	-0.17	-0.03	-0.01	-0.02	-0.05	-0.11	0.27	0.03	0.11	0.19	0.17		-0.01	-0.02	-0.02	-0.02	0.00	-0.04	0.03	-0.01	-0.01	0.02	-0.02
$NHHI8_t$	0.01	0.09	0.05	0.05	0.08	0.08	0.05	0.09	0.05	0.08	0.10	-0.02		0.95	0.93	0.93	-0.46	0.41	0.47	0.42	0.56	-0.93	0.19
$NHHI5_t$	0.01	0.06	0.03	0.05	0.07	0.08	0.05	0.06	0.03	0.07	0.10	-0.02	0.96		0.97	0.97	-0.47	0.45	0.47	0.46	0.56	-0.97	0.19
$NONW_t$	0.01	0.06	0.03	0.05	0.07	0.08	0.05	0.06	0.03	0.07	0.10	-0.02	0.96	1.00		0.94	-0.66	0.42	0.47	0.52	0.59	-1.00	0.18
$SHANNEN_t$	0.00	0.04	0.02	0.04	0.08	0.06	0.04	0.04	0.02	0.06	0.10	-0.02	0.94	0.98	0.99		-0.37	0.49	0.41	0.48	0.50	-0.94	0.22
$TBQD_t$	-0.10	-0.12	-0.05	-0.12	-0.04	-0.10	-0.05	-0.11	-0.04	-0.12	-0.05	-0.01	-0.21	-0.21	-0.21	-0.13		-0.05	-0.34	-0.42	-0.48	0.65	0.00
B_t	-0.08	-0.06	-0.04	-0.06	0.04	-0.04	-0.04	-0.07	-0.05	-0.05	0.04	-0.04	0.42	0.46	0.46	0.51	0.24		-0.04	0.05	-0.08	-0.42	0.16
EA_t	0.04	0.06	0.06	0.10	0.08	0.07	0.03	0.07	0.07	0.09	0.10	0.00	0.46	0.45	0.46	0.45	-0.19	0.00		-0.01	0.10	-0.47	0.07
LAT_t	-0.03	-0.06	-0.02	0.01	0.03	-0.01	0.01	-0.06	-0.03	0.02	0.03	0.00	0.44	0.47	0.46	0.52	0.08	0.10	0.08		0.01	-0.52	0.08
SA_t	0.04	0.10	0.01	0.05	0.03	0.08	0.09	0.11	0.03	0.07	0.06	0.00	0.58	0.59	0.59	0.58	-0.27	-0.01	0.17	0.06		-0.59	0.06
W_t	-0.01	-0.06	-0.03	-0.05	-0.07	-0.08	-0.05	-0.06	-0.03	-0.07	-0.10	0.02	-0.96	-1.00	-1.00	-0.99	0.21	-0.46	-0.46	-0.46	-0.59		-0.17
FEM_t	-0.09	0.01	-0.02	-0.08	0.01	0.02	0.06	0.01	-0.02	-0.06	0.05	-0.02	0.19	0.20	0.20	0.21	0.05	0.20	0.11	0.11	0.09	-0.20	

set for each of the 5 years 2011, 2014, 2017, 2020, and 2021 for the $FFP^{M}_{j,t+1}$ being analyzed, for a total of 30 regressions per panel and 180 regressions across all six panels combined. For ease of view, we highlight the coefficient estimates and their t-statistics (shown in italics in parentheses) by boxing them. We bold-face coefficients when they are estimated to be statistically significant as defined by their t-statistic having a 2-tailed p-value ≤ 0.05 given the relevant d.f.

Regression Results

Simply put, we find that neither individually nor as a set do the measures of the racial/ethnicity diversity of executives in S&P 500 companies that we evaluate for the years 2011, 2014, 2017, 2020, and 2021 consistently and reliably predict any of the six measures of 1-year-ahead firm financial performance, neither over the full 11-year span of our data, nor in the key post-Black-Lives-Matter years of 2021 and 2022. This can be seen by inspection of each panel in Table 5 and across all panels in total.[15]

In Table 6, we summarize the absence of predictability of *RDIV* by reporting the numbers and signs of the 270 individually estimated *RDIV* coefficients that are statistically significant.[16] Table 6 shows that just 9 of the 270 coefficients—that is, 3.3%—are significant, a fraction that is close to the 5% figure that would be expected by chance alone.[17] The overall lack of statistical significance leads us to conclude that in S&P 500 firms in 2011–2021, greater race/ethnicity diversity in their executives does not reliably predict better future 1-year-ahead firm financial performance.

Robustness Tests

We undertook several robustness tests, the results of which we summarize here. First, if we replace our *RDIV* measures with the dummy variable *CDEIO* set to one if the firm had an executive with any of the words "diversity," "equity," or "inclusion" in their title, only one of the 30 estimated coefficients on *CDEIO* is reliably non-zero (and it is negative). Second, including controls for the R&D/intangible-intensity of the firm as well as for its dividend-paying status does not materially affect the coefficients on *RDIV* and *FEM* in Table 5. Third, industry-mean-adjusting each of our *FFP* measures does not materially affect the coefficients on *RDIV*. Fourth, evaluating asymmetries between increases and decreases in *RDIV* by breaking $RDIV_t$ into $RDIV_{t-1}$, $[RDIV_t - RDIV_{t-1}] > 0$ and $[RDIV_t - RDIV_{t-1}] \leq 0$ has immaterial impacts on the *RDIV* coefficients. Lastly, quantile regressions reveal little in the way of consistently non-zero relations between the conditional 10th, 25th, 50th, 75th, and 90th percentiles of *FFP* and *RDIV*.

[15] This is not to say that none of the estimated coefficients on RDIV are ever significant. For example, the coefficient on $NHHI8_t$ is reliably positive in 2017 when the measure of 1-year-ahead firm financial performance is ROE_{t+1}, and in panel F where *RDIV* flexibly consists of the vector of one-per-race/ethnicity RAEDs {*B*, *EA*, *LAT*, *SA*}, four coefficients are significantly positive and two are significantly negative. However, these are the exception rather than the rule.

[16] There are 270 individually estimated *RDIV* coefficients because while there are 180 separate regressions in Table 6, whereas each regression in panels A–E yields one estimated *RDIV* coefficient, the regressions in panel F each yield four estimated *RDIV* coefficients.

[17] We note that the regressions we estimate are not independent of each other, meaning that in our regressions, the fraction of estimated coefficients expected to be significant may be different than 5%.

Table 5 Annual cross-sectional regressions of the 1-year-ahead financial performance (*FFP*) of S&P 500 firms on measures of the racial/ethnic diversity of their executives at mid-year *t* $RDIV_t$, and control variables the density of female executives FEM_t, firm market cap $LnMVE_t$, and the number of executives $LnNExecs_t$ in year *t*. FFP_{t+1} is one of 6 measures, each of which is winsorized at the 1st and 99th percentiles: Year-over-year % growth in revenue (*SALESGR*), gross margin as a percent of revenue (*GM*), earnings before interest and taxes as a percent of revenue (*EBITM*), return on assets % (*ROA*), return on equity % (*ROE*), and total shareholder return % (*TSR*). Years are $t = 2011$, 2014, 2017, 2020, and 2021. All regressions include fixed effects for Fama–French 12 industries (FF12 FEs). *t*-stats are in (italics) and colored green [red] if estimated coeffiicent > 0 [< 0] and *t*-statistic has a 2-tailed $\alpha \leq 0.05$ given the relevant rvidd.f

Panel A: RDIV = NHHI8

Dependent variable: $SALESGR_{t+1}$					
Year t =	2011	2014	2017	2020	2021
Intercept	0.04	0.04	-0.04	0.13	0.19
	(0.6)	*(0.6)*	*(-0.8)*	*(1.1)*	*(1.7)*
RDIV = $NHHI8_t$	-0.04	-0.01	-0.01	0.01	0.06
	(-1.0)	*(-0.1)*	*(-0.5)*	*(0.2)*	*(1.0)*
FEM_t	0.12	-0.06	0.01	-0.14	0.07
	(2.0)	*(-1.0)*	*(0.3)*	*(-1.5)*	*(0.7)*
$SALESGR_t$	0.22	0.25	0.36	-0.26	0.15
	(4.7)	*(5.1)*	*(8.2)*	*(-4.2)*	*(3.4)*
$LnMVE_t$	0.00	0.00	0.01	0.01	-0.01
	(0.0)	*(-0.2)*	*(2.3)*	*(1.1)*	*(-1.4)*
$LnNExecs_t$	-0.01	-0.01	0.00	-0.02	0.00
	(-0.7)	*(-1.1)*	*(-0.1)*	*(-0.8)*	*(0.1)*
FF12 FEs	Yes	Yes	Yes	Yes	Yes
d.f.	266	360	393	455	457
Adj. R^2	10.1%	44.5%	26.1%	22.1%	19.4%

Dependent variable: GM_{t+1}					
Year t =	2011	2014	2017	2020	2021
Intercept	-0.03	-0.02	0.04	0.11	0.05
	(-0.9)	*(-0.2)*	*(2.1)*	*(2.3)*	*(1.9)*
RDIV = $NHHI8_t$	-0.01	0.07	0.00	-0.02	0.00
	(-0.4)	*(1.2)*	*(0.4)*	*(-0.9)*	*(0.1)*
FEM_t	-0.04	0.01	0.00	0.04	0.00
	(-1.2)	*(0.1)*	*(-0.3)*	*(1.1)*	*(0.0)*
GM_t	0.97	0.79	0.96	0.92	0.91
	(57.4)	*(15.8)*	*(100.3)*	*(43.7)*	*(76.5)*
$LnMVE_t$	0.01	0.02	0.00	-0.01	0.00
	(1.4)	*(2.4)*	*(-0.5)*	*(-2.0)*	*(-0.6)*
$LnNExecs_t$	0.00	-0.04	0.00	0.02	0.01
	(0.1)	*(-1.8)*	*(-0.3)*	*(1.9)*	*(1.3)*
FF12 FEs	Yes	Yes	Yes	Yes	Yes
d.f.	266	360	393	455	457
Adj. R^2	94.1%	61.0%	97.2%	85.2%	94.7%

Dependent variable: $EBITM_{t+1}$					
Year t =	2011	2014	2017	2020	2021
Intercept	-0.06	-0.15	0.00	0.07	-0.01
	(-2.3)	*(-1.5)*	*(-0.1)*	*(1.3)*	*(-0.3)*
RDIV = $NHHI8_t$	-0.01	0.07	-0.01	0.00	0.00
	(-0.7)	*(1.2)*	*(-0.5)*	*(-0.2)*	*(0.0)*
FEM_t	-0.02	-0.05	0.01	-0.04	-0.01
	(-1.0)	*(-0.5)*	*(0.6)*	*(-0.9)*	*(-0.5)*
$EBITM_t$	0.89	0.70	0.94	0.46	0.83
	(35.8)	*(7.1)*	*(52.4)*	*(17.3)*	*(34.9)*
$LnMVE_t$	0.01	0.03	0.00	0.01	0.00
	(2.4)	*(2.5)*	*(1.1)*	*(1.4)*	*(0.2)*
$LnNExecs_t$	0.00	-0.02	0.00	0.00	0.02
	(0.1)	*(-1.1)*	*(0.2)*	*(0.4)*	*(2.6)*
FF12 FEs	Yes	Yes	Yes	Yes	Yes
d.f.	266	360	393	455	457
Adj. R^2	86.9%	49.5%	90.8%	53.4%	78.1%

Dependent variable: ROA_{t+1}					
Year t =	2011	2014	2017	2020	2021
Intercept	0.00	-0.06	-0.02	0.07	-0.06
	(0.1)	*(-2.3)*	*(-0.9)*	*(2.7)*	*(-1.9)*
RDIV = $NHHI8_t$	-0.01	0.01	0.01	0.00	0.01
	(-0.4)	*(0.4)*	*(0.7)*	*(0.4)*	*(0.9)*
FEM_t	0.00	-0.02	0.02	-0.03	-0.04
	(0.2)	*(-0.9)*	*(1.1)*	*(-1.3)*	*(-1.8)*
ROA_t	0.82	0.80	0.78	0.66	0.68
	(19.5)	*(14.4)*	*(18.0)*	*(21.4)*	*(19.1)*
$LnMVE_t$	0.00	0.01	0.01	0.00	0.01
	(0.7)	*(2.9)*	*(2.4)*	*(-0.2)*	*(2.2)*
$LnNExecs_t$	-0.01	0.00	0.00	0.00	0.00
	(-1.9)	*(-0.3)*	*(-0.2)*	*(-0.7)*	*(0.2)*
FF12 FEs	Yes	Yes	Yes	Yes	Yes
d.f.	266	360	393	455	457
Adj. R^2	66.9%	57.3%	54.7%	58.8%	55.1%

Dependent variable: ROE_{t+1}					
Year t =	2011	2014	2017	2020	2021
Intercept	-0.33	-0.41	-0.37	-0.67	0.12
	(-2.6)	*(-3.5)*	*(-2.0)*	*(-1.8)*	*(0.3)*
RDIV = $NHHI8_t$	0.07	0.05	**0.23**	0.22	0.11
	(0.9)	*(0.8)*	***(2.3)***	*(1.1)*	*(0.5)*
FEM_t	0.02	-0.04	0.26	0.20	0.45
	(0.2)	*(-0.3)*	*(1.5)*	*(0.6)*	*(1.2)*
ROE_t	0.33	1.04	0.55	0.13	0.08
	(11.9)	*(16.3)*	*(13.5)*	*(3.0)*	*(1.5)*
$LnMVE_t$	0.05	0.04	0.03	0.07	-0.01
	(3.8)	*(3.7)*	*(1.7)*	*(2.2)*	*(-0.1)*
$LnNExecs_t$	-0.05	-0.01	0.03	0.02	-0.05
	(-1.8)	*(-0.4)*	*(0.9)*	*(0.3)*	*(-0.6)*
FF12 FEs	Yes	Yes	Yes	Yes	Yes
d.f.	266	360	393	455	457
Adj. R^2	37.1%	53.3%	35.8%	3.3%	-0.5%

Dependent variable: TSR_{t+1}					
Year t =	2011	2014	2017	2020	2021
Intercept	0.15	-0.10	-0.17	0.58	-0.27
	(1.0)	*(-0.8)*	*(-1.5)*	*(3.7)*	*(-2.4)*
RDIV = $NHHI8_t$	-0.11	0.05	0.02	0.07	0.00
	(-1.3)	*(0.7)*	*(0.3)*	*(0.8)*	*(-0.0)*
FEM_t	0.01	-0.07	-0.14	-0.17	0.01
	(0.1)	*(-0.6)*	*(-1.3)*	*(-1.3)*	*(0.2)*
TSR_t	-0.04	0.24	0.00	-0.07	-0.16
	(-0.6)	*(4.2)*	*(0.0)*	*(-1.3)*	*(-4.9)*
$LnMVE_t$	0.00	0.01	0.02	-0.03	0.01
	(-0.3)	*(0.8)*	*(1.3)*	*(-1.9)*	*(0.9)*
$LnNExecs_t$	0.01	-0.01	0.04	0.00	0.00
	(0.3)	*(-0.5)*	*(1.7)*	*(0.0)*	*(0.1)*
FF12 FEs	Yes	Yes	Yes	Yes	Yes
d.f.	266	360	393	455	457
Adj. R^2	2.7%	11.4%	11.4%	13.1%	37.9%

Panel B: RDIV = NHHI5

Dependent variable: $SALESGR_{t+1}$					
Year t =	2011	2014	2017	2020	2021
Intercept	0.04	0.04	-0.04	0.13	0.19
	(0.6)	*(0.6)*	*(-0.8)*	*(1.1)*	*(1.7)*
RDIV = $NHHI5_t$	-0.03	-0.01	-0.02	0.02	0.09
	(-0.8)	*(-0.3)*	*(-0.7)*	*(0.3)*	*(1.5)*
FEM_t	0.12	-0.06	0.01	-0.14	0.06
	(2.0)	*(-1.0)*	*(0.3)*	*(-1.5)*	*(0.6)*
$SALESGR_t$	0.22	0.25	0.36	-0.26	0.15
	(4.7)	*(5.0)*	*(8.2)*	*(-4.2)*	*(3.4)*
$LnMVE_t$	0.00	0.00	0.01	0.01	-0.02
	(-0.0)	*(-0.2)*	*(2.3)*	*(1.1)*	*(-1.5)*
$LnNExecs_t$	-0.01	-0.01	0.00	-0.02	0.00
	(-0.7)	*(-1.0)*	*(-0.1)*	*(-0.8)*	*(0.0)*
FF12 FEs	Yes	Yes	Yes	Yes	Yes
d.f.	266	360	393	455	457
Adj. R^2	10.0%	44.5%	26.2%	22.1%	19.6%

Dependent variable: GM_{t+1}					
Year t =	2011	2014	2017	2020	2021
Intercept	-0.03	-0.02	0.04	0.11	0.05
	(-0.9)	*(-0.2)*	*(2.1)*	*(2.3)*	*(1.9)*
RDIV = $NHHI5_t$	-0.01	0.05	0.01	-0.02	0.00
	(-0.6)	*(0.8)*	*(0.6)*	*(-0.8)*	*(-0.2)*
FEM_t	-0.04	0.01	-0.01	0.04	0.00
	(-1.2)	*(0.1)*	*(-0.3)*	*(1.0)*	*(0.1)*
GM_t	0.97	0.79	0.96	0.92	0.91
	(57.4)	*(15.8)*	*(100.2)*	*(43.5)*	*(76.4)*
$LnMVE_t$	0.01	0.02	0.00	-0.01	0.00
	(1.5)	*(2.4)*	*(-0.5)*	*(-2.0)*	*(-0.6)*
$LnNExecs_t$	0.00	-0.04	0.00	0.02	0.01
	(0.1)	*(-1.8)*	*(-0.4)*	*(1.9)*	*(1.3)*
FF12 FEs	Yes	Yes	Yes	Yes	Yes
d.f.	266	360	393	455	457
Adj. R^2	94.1%	60.9%	97.2%	85.2%	94.7%

Dependent variable: $EBITM_{t+1}$					
Year t =	2011	2014	2017	2020	2021
Intercept	-0.06	-0.15	0.00	0.07	-0.01
	(-2.3)	*(-1.5)*	*(-0.1)*	*(1.3)*	*(-0.3)*
RDIV = $NHHI5_t$	-0.01	0.05	0.00	-0.01	0.00
	(-0.8)	*(0.8)*	*(-0.2)*	*(-0.4)*	*(0.1)*
FEM_t	-0.02	-0.05	0.01	-0.04	-0.01
	(-0.9)	*(-0.5)*	*(0.6)*	*(-0.9)*	*(-0.5)*
$EBITM_t$	0.89	0.70	0.94	0.46	0.83
	(35.8)	*(7.1)*	*(52.4)*	*(17.3)*	*(34.8)*
$LnMVE_t$	0.01	0.03	0.00	0.01	0.00
	(2.5)	*(2.6)*	*(1.1)*	*(1.4)*	*(0.2)*
$LnNExecs_t$	0.00	-0.02	0.00	0.00	0.01
	(0.2)	*(-1.1)*	*(0.1)*	*(0.4)*	*(2.6)*
FF12 FEs	Yes	Yes	Yes	Yes	Yes
d.f.	266	360	393	455	457
Adj. R^2	86.9%	49.4%	90.8%	53.4%	78.1%

Dependent variable: ROA_{t+1}					
Year t =	2011	2014	2017	2020	2021
Intercept	0.00	-0.06	-0.02	0.07	-0.06
	(0.1)	*(-2.3)*	*(-0.9)*	*(2.7)*	*(-2.0)*
RDIV = $NHHI5_t$	-0.01	0.00	0.01	0.00	0.01
	(-0.4)	*(0.1)*	*(0.8)*	*(0.1)*	*(0.8)*
FEM_t	0.00	-0.02	0.02	-0.03	-0.04
	(0.2)	*(-0.9)*	*(1.0)*	*(-1.3)*	*(-1.8)*
ROA_t	0.82	0.79	0.78	0.66	0.68
	(19.5)	*(14.4)*	*(18.0)*	*(21.4)*	*(19.1)*
$LnMVE_t$	0.00	0.01	0.01	0.00	0.01
	(0.7)	*(2.9)*	*(2.4)*	*(-0.2)*	*(2.2)*
$LnNExecs_t$	-0.01	0.00	0.00	0.00	0.00
	(-1.9)	*(-0.3)*	*(-0.2)*	*(-0.7)*	*(0.2)*
FF12 FEs	Yes	Yes	Yes	Yes	Yes
d.f.	266	360	393	455	457
Adj. R^2	66.9%	57.2%	54.7%	58.8%	55.1%

Dependent variable: ROE_{t+1}					
Year t =	2011	2014	2017	2020	2021
Intercept	-0.33	-0.41	-0.37	-0.68	0.12
	(-2.6)	*(-3.5)*	*(-2.0)*	*(-1.8)*	*(0.3)*
RDIV = $NHHI5_t$	0.03	0.05	**0.22**	0.16	0.13
	(0.4)	*(0.7)*	***(2.1)***	*(0.8)*	*(0.5)*
FEM_t	0.02	-0.04	0.25	0.22	0.45
	(0.2)	*(-0.3)*	*(1.5)*	*(0.7)*	*(1.2)*
ROE_t	0.33	1.04	0.55	0.13	0.08
	(11.9)	*(16.3)*	*(13.5)*	*(3.0)*	*(1.6)*
$LnMVE_t$	0.05	0.04	0.03	0.08	-0.01
	(3.9)	*(3.7)*	*(1.7)*	*(2.3)*	*(-0.1)*
$LnNExecs_t$	-0.05	-0.01	0.03	0.02	-0.05
	(-1.8)	*(-0.4)*	*(0.9)*	*(0.3)*	*(-0.6)*
FF12 FEs	Yes	Yes	Yes	Yes	Yes
d.f.	266	360	393	455	457
Adj. R^2	36.9%	53.3%	35.7%	3.2%	-0.5%

Dependent variable: TSR_{t+1}					
Year t =	2011	2014	2017	2020	2021
Intercept	0.15	-0.11	-0.17	0.58	-0.27
	(1.0)	*(-0.8)*	*(-1.5)*	*(3.7)*	*(-2.4)*
RDIV = $NHHI5_t$	-0.11	0.01	0.04	0.06	0.00
	(-1.2)	*(0.2)*	*(0.5)*	*(0.7)*	*(-0.1)*
FEM_t	0.02	-0.07	-0.14	-0.17	0.01
	(0.1)	*(-0.6)*	*(-1.3)*	*(-1.3)*	*(0.2)*
TSR_t	-0.03	0.24	0.00	-0.07	-0.16
	(-0.6)	*(4.1)*	*(0.0)*	*(-1.3)*	*(-4.9)*
$LnMVE_t$	0.00	0.01	0.02	-0.03	0.01
	(-0.3)	*(0.9)*	*(1.3)*	*(-1.8)*	*(1.0)*
$LnNExecs_t$	0.01	-0.01	0.04	0.00	0.00
	(0.4)	*(-0.4)*	*(1.6)*	*(0.0)*	*(0.1)*
FF12 FEs	Yes	Yes	Yes	Yes	Yes
d.f.	266	360	393	455	457
Adj. R^2	2.6%	11.2%	11.4%	13.1%	37.9%

Table 5 (continued)

Panel C: RDIV = NONW

Dependent variable: $SALESGR_{t+1}$					
Year t =	2011	2014	2017	2020	2021
Intercept	0.04	0.04	-0.04	0.13	0.19
	(0.6)	*(0.6)*	*(-0.8)*	*(1.1)*	*(1.7)*
$RDIV = NONW_t$	-0.03	-0.02	-0.03	0.00	0.12
	(-0.5)	*(-0.3)*	*(-0.6)*	*(0.1)*	*(1.4)*
FEM_t	0.12	-0.06	0.01	-0.14	0.07
	(2.0)	*(-1.0)*	*(0.3)*	*(-1.5)*	*(0.7)*
$SALESGR_t$	0.22	0.25	0.36	-0.26	0.15
	(4.7)	*(5.0)*	*(8.2)*	*(-4.2)*	*(3.4)*
$LnMVE_t$	0.00	0.00	0.01	0.01	-0.01
	(-0.1)	*(-0.2)*	*(2.3)*	*(1.1)*	*(-1.5)*
$LnNExecs_t$	-0.01	-0.01	0.00	-0.02	0.00
	(-0.7)	*(-1.0)*	*(-0.1)*	*(-0.8)*	*(0.0)*
FF12 FEs	Yes	Yes	Yes	Yes	Yes
d.f.	266	360	393	455	457
Adj. R^2	9.9%	44.6%	26.2%	22.0%	19.5%

Dependent variable: GM_{t+1}					
Year t =	2011	2014	2017	2020	2021
Intercept	-0.03	-0.02	0.04	0.11	0.05
	(-0.9)	*(-0.2)*	*(2.1)*	*(2.3)*	*(1.9)*
$RDIV = NONW_t$	-0.02	0.07	0.01	-0.03	0.00
	(-0.6)	*(0.7)*	*(0.5)*	*(-0.9)*	*(-0.1)*
FEM_t	-0.04	0.01	-0.01	0.04	0.00
	(-1.2)	*(0.1)*	*(-0.3)*	*(1.0)*	*(0.1)*
GM_t	0.97	0.79	0.96	0.92	0.91
	(57.4)	*(15.8)*	*(100.1)*	*(43.6)*	*(76.5)*
$LnMVE_t$	0.01	0.02	0.00	-0.01	0.00
	(1.5)	*(2.4)*	*(-0.5)*	*(-2.0)*	*(-0.6)*
$LnNExecs_t$	0.00	-0.04	0.00	0.02	0.01
	(0.1)	*(-1.8)*	*(-0.3)*	*(1.9)*	*(1.3)*
FF12 FEs	Yes	Yes	Yes	Yes	Yes
d.f.	266	360	393	455	457
Adj. R^2	94.1%	60.9%	97.2%	85.2%	94.7%

Dependent variable: $EBITM_{t+1}$					
Year t =	2011	2014	2017	2020	2021
Intercept	-0.06	-0.15	0.00	0.07	-0.01
	(-2.2)	*(-1.5)*	*(-0.1)*	*(1.3)*	*(-0.3)*
$RDIV = NONW_t$	-0.02	0.08	0.00	-0.02	0.01
	(-0.8)	*(0.8)*	*(-0.1)*	*(-0.4)*	*(0.2)*
FEM_t	-0.02	-0.05	0.01	-0.04	-0.01
	(-1.0)	*(-0.5)*	*(0.6)*	*(-0.9)*	*(-0.5)*
$EBITM_t$	0.89	0.70	0.94	0.46	0.83
	(36.0)	*(7.1)*	*(52.4)*	*(17.3)*	*(34.9)*
$LnMVE_t$	0.01	0.03	0.00	0.01	0.00
	(2.4)	*(2.6)*	*(1.0)*	*(1.4)*	*(0.2)*
$LnNExecs_t$	0.00	-0.02	0.00	0.00	0.01
	(0.1)	*(-1.1)*	*(0.1)*	*(0.4)*	*(2.6)*
FF12 FEs	Yes	Yes	Yes	Yes	Yes
d.f.	266	360	393	455	457
Adj. R^2	87.0%	49.4%	90.8%	53.4%	78.1%

Dependent variable: ROA_{t+1}					
Year t =	2011	2014	2017	2020	2021
Intercept	0.00	-0.06	-0.02	0.07	-0.06
	(0.1)	*(-2.3)*	*(-0.8)*	*(2.7)*	*(-1.9)*
$RDIV = NONW_t$	0.00	0.00	0.02	-0.01	0.02
	(-0.1)	*(0.1)*	*(0.9)*	*(-0.3)*	*(0.9)*
FEM_t	0.00	-0.02	0.02	-0.03	-0.04
	(0.2)	*(-0.9)*	*(1.0)*	*(-1.3)*	*(-1.8)*
ROA_t	0.82	0.79	0.78	0.66	0.68
	(19.0)	*(14.4)*	*(18.0)*	*(21.4)*	*(19.1)*
$LnMVE_t$	0.00	0.01	0.01	0.00	0.01
	(0.7)	*(2.9)*	*(2.4)*	*(-0.1)*	*(2.2)*
$LnNExecs_t$	-0.01	0.00	0.00	0.00	0.00
	(-1.9)	*(-0.3)*	*(-0.3)*	*(-0.7)*	*(0.2)*
FF12 FEs	Yes	Yes	Yes	Yes	Yes
d.f.	266	360	393	455	457
Adj. R^2	66.0%	57.3%	54.7%	58.8%	55.1%

Dependent variable: ROE_{t+1}					
Year t =	2011	2014	2017	2020	2021
Intercept	-0.41	-0.41	-0.35	-0.67	0.11
	(-2.3)	*(-3.5)*	*(-1.9)*	*(-1.8)*	*(0.2)*
$RDIV = NONW_t$	0.14	0.08	**0.40**	0.19	0.06
	(0.7)	*(0.6)*	***(2.3)***	*(0.6)*	*(0.2)*
FEM_t	-0.05	-0.04	0.25	0.23	0.48
	(-0.3)	*(-0.3)*	*(1.5)*	*(0.7)*	*(1.3)*
ROE_t	0.42	1.04	0.55	0.13	0.08
	(11.1)	*(16.3)*	*(13.5)*	*(3.0)*	*(1.6)*
$LnMVE_t$	0.06	0.04	0.03	0.08	0.00
	(3.1)	*(3.7)*	*(1.7)*	*(2.3)*	*(-0.1)*
$LnNExecs_t$	-0.05	-0.01	0.03	0.02	-0.05
	(-1.4)	*(-0.4)*	*(0.9)*	*(0.3)*	*(-0.6)*
FF12 FEs	Yes	Yes	Yes	Yes	Yes
d.f.	266	360	393	455	457
Adj. R^2	32.4%	53.4%	35.8%	3.2%	-0.5%

Dependent variable: TSR_{t+1}					
Year t =	2011	2014	2017	2020	2021
Intercept	0.15	-0.11	-0.17	0.58	-0.26
	(1.0)	*(-0.8)*	*(-1.5)*	*(3.7)*	*(-2.4)*
$RDIV = NONW_t$	-0.17	0.02	0.04	0.10	0.02
	(-1.1)	*(0.2)*	*(0.3)*	*(0.8)*	*(0.3)*
FEM_t	0.01	-0.07	-0.14	-0.17	0.01
	(0.1)	*(-0.6)*	*(-1.3)*	*(-1.3)*	*(0.1)*
TSR_t	-0.03	0.24	0.00	-0.07	-0.16
	(-0.6)	*(4.2)*	*(0.0)*	*(-1.3)*	*(-4.9)*
$LnMVE_t$	0.00	0.01	0.02	-0.03	0.01
	(-0.3)	*(0.9)*	*(1.3)*	*(-1.9)*	*(0.9)*
$LnNExecs_t$	0.01	-0.01	0.04	0.00	0.00
	(0.3)	*(-0.4)*	*(1.7)*	*(0.0)*	*(0.1)*
FF12 FEs	Yes	Yes	Yes	Yes	Yes
d.f.	266	360	393	455	457
Adj. R^2	2.5%	11.3%	11.4%	13.1%	38.0%

Panel D: RDIV = SHANNEN

Dependent variable: $SALESGR_{t+1}$					
Year t =	2011	2014	2017	2020	2021
Intercept	0.03	0.04	-0.05	0.13	0.20
	(0.6)	*(0.6)*	*(-0.9)*	*(1.1)*	*(1.8)*
$RDIV = SHANNEN_t$	-0.01	-0.01	-0.01	0.00	0.04
	(-0.6)	*(-0.5)*	*(-1.0)*	*(-0.1)*	*(1.4)*
FEM_t	0.12	-0.06	0.01	-0.14	0.06
	(2.0)	*(-1.0)*	*(0.3)*	*(-1.4)*	*(0.7)*
$SALESGR_t$	0.22	0.25	0.36	-0.26	0.16
	(4.7)	*(5.0)*	*(8.2)*	*(-4.2)*	*(3.5)*
$LnMVE_t$	0.00	0.00	0.01	0.01	-0.02
	(-0.0)	*(-0.1)*	*(2.3)*	*(1.1)*	*(-1.5)*
$LnNExecs_t$	-0.01	-0.01	0.00	-0.02	0.00
	(-0.6)	*(-0.9)*	*(0.1)*	*(-0.8)*	*(-0.2)*
FF12 FEs	Yes	Yes	Yes	Yes	Yes
d.f.	266	360	393	455	457
Adj. R^2	9.9%	44.6%	26.3%	22.0%	19.5%

Dependent variable: GM_{t+1}					
Year t =	2011	2014	2017	2020	2021
Intercept	-0.03	-0.01	0.04	0.11	0.05
	(-0.9)	*(-0.1)*	*(2.1)*	*(2.3)*	*(1.8)*
$RDIV = SHANNEN_t$	0.00	0.03	0.00	-0.01	0.00
	(-0.5)	*(1.0)*	*(0.4)*	*(-0.9)*	*(-0.5)*
FEM_t	-0.04	0.01	-0.01	0.04	0.00
	(-1.2)	*(0.1)*	*(-0.3)*	*(1.1)*	*(0.1)*
GM_t	0.97	0.79	0.96	0.92	0.91
	(57.4)	*(15.9)*	*(100.1)*	*(43.4)*	*(76.3)*
$LnMVE_t$	0.01	0.02	0.00	-0.01	0.00
	(1.5)	*(2.4)*	*(-0.5)*	*(-2.0)*	*(-0.5)*
$LnNExecs_t$	0.00	-0.04	0.00	0.02	0.01
	(0.1)	*(-1.9)*	*(-0.4)*	*(2.1)*	*(1.4)*
FF12 FEs	Yes	Yes	Yes	Yes	Yes
d.f.	266	360	393	455	457
Adj. R^2	94.1%	60.9%	97.2%	85.2%	94.7%

Dependent variable: $EBITM_{t+1}$					
Year t =	2011	2014	2017	2020	2021
Intercept	-0.06	-0.14	0.00	0.06	-0.01
	(-2.2)	*(-1.4)*	*(-0.1)*	*(1.3)*	*(-0.3)*
$RDIV = SHANNEN_t$	-0.01	0.03	0.00	-0.01	0.00
	(-0.7)	*(1.0)*	*(-0.4)*	*(-0.9)*	*(-0.0)*
FEM_t	-0.02	-0.05	0.01	-0.04	-0.01
	(-1.0)	*(-0.5)*	*(0.6)*	*(-0.9)*	*(-0.5)*
$EBITM_t$	0.89	0.70	0.94	0.46	0.83
	(35.9)	*(7.1)*	*(52.3)*	*(17.3)*	*(34.8)*
$LnMVE_t$	0.01	0.03	0.00	0.01	0.00
	(2.4)	*(2.5)*	*(1.1)*	*(1.5)*	*(0.2)*
$LnNExecs_t$	0.00	-0.03	0.00	0.00	0.02
	(0.2)	*(-1.2)*	*(0.2)*	*(0.5)*	*(2.6)*
FF12 FEs	Yes	Yes	Yes	Yes	Yes
d.f.	266	360	393	455	457
Adj. R^2	87.0%	49.4%	90.8%	53.4%	78.1%

Dependent variable: ROA_{t+1}					
Year t =	2011	2014	2017	2020	2021
Intercept	0.00	-0.06	-0.02	0.07	-0.06
	(0.0)	*(-2.3)*	*(-0.8)*	*(2.7)*	*(-2.0)*
$RDIV = SHANNEN_t$	0.00	0.00	0.00	0.00	0.00
	(-0.4)	*(0.1)*	*(0.7)*	*(-0.2)*	*(0.3)*
FEM_t	0.00	-0.02	0.02	-0.03	-0.04
	(0.2)	*(-0.9)*	*(1.0)*	*(-1.3)*	*(-1.7)*
ROA_t	0.82	0.79	0.78	0.66	0.68
	(19.1)	*(14.4)*	*(18.0)*	*(21.4)*	*(19.0)*
$LnMVE_t$	0.00	0.01	0.01	0.00	0.01
	(0.8)	*(2.9)*	*(2.4)*	*(-0.1)*	*(2.3)*
$LnNExecs_t$	-0.01	0.00	0.00	0.00	0.00
	(-1.8)	*(-0.3)*	*(-0.3)*	*(-0.6)*	*(0.2)*
FF12 FEs	Yes	Yes	Yes	Yes	Yes
d.f.	266	360	393	455	457
Adj. R^2	66.0%	57.3%	54.7%	58.8%	55.0%

Dependent variable: ROE_{t+1}					
Year t =	2011	2014	2017	2020	2021
Intercept	-0.40	-0.41	-0.34	-0.65	0.17
	(-2.3)	*(-3.5)*	*(-1.8)*	*(-1.7)*	*(0.4)*
$RDIV = SHANNEN_t$	0.03	0.01	**0.10**	0.07	0.09
	(0.7)	*(0.4)*	***(2.1)***	*(0.7)*	*(0.8)*
FEM_t	-0.06	-0.03	0.25	0.22	0.43
	(-0.3)	*(-0.3)*	*(1.5)*	*(0.7)*	*(1.2)*
ROE_t	0.42	1.04	0.55	0.13	0.08
	(11.1)	*(16.3)*	*(13.5)*	*(3.0)*	*(1.6)*
$LnMVE_t$	0.06	0.04	0.03	0.08	-0.01
	(3.1)	*(3.8)*	*(1.7)*	*(2.2)*	*(-0.2)*
$LnNExecs_t$	-0.05	-0.01	0.02	0.01	-0.06
	(-1.4)	*(-0.4)*	*(0.6)*	*(0.2)*	*(-0.8)*
FF12 FEs	Yes	Yes	Yes	Yes	Yes
d.f.	266	360	393	455	457
Adj. R^2	32.4%	53.3%	35.7%	3.2%	-0.4%

Dependent variable: TSR_{t+1}					
Year t =	2011	2014	2017	2020	2021
Intercept	0.13	-0.11	-0.16	0.58	-0.27
	(0.9)	*(-0.8)*	*(-1.4)*	*(3.7)*	*(-2.3)*
$RDIV = SHANNEN_t$	-0.05	0.00	0.02	0.00	0.00
	(-1.2)	*(0.0)*	*(0.7)*	*(0.0)*	*(0.0)*
FEM_t	0.02	-0.07	-0.14	-0.16	0.01
	(0.2)	*(-0.5)*	*(-1.3)*	*(-1.2)*	*(0.1)*
TSR_t	-0.04	0.24	0.00	-0.07	-0.16
	(-0.6)	*(4.1)*	*(0.0)*	*(-1.3)*	*(-4.8)*
$LnMVE_t$	0.00	0.01	0.01	-0.03	0.01
	(-0.3)	*(0.9)*	*(1.3)*	*(-1.7)*	*(0.9)*
$LnNExecs_t$	0.01	-0.01	0.03	0.00	0.00
	(0.5)	*(-0.4)*	*(1.5)*	*(0.0)*	*(0.1)*
FF12 FEs	Yes	Yes	Yes	Yes	Yes
d.f.	266	360	393	455	457
Adj. R^2	2.6%	11.2%	11.5%	13.0%	37.9%

Limitations and Future Directions

In this section, we discuss certain aspects of our study and its findings, partly to set our work in an appropriate context, and partly to suggest avenues that may be valuable for future research to explore. We do so recognizing that the investigation of race/ethnicity in organizations is a topic that is much discussed and often hotly debated, and we believe it is appropriate to indicate the specific limitations of our findings to limit any potential misrepresentations.

First, we caution against making inferences from our study that extend beyond the convex hull of our data and results. Our empirical framework and results do not seek to identify or measure the below-total-firm-level causal mechanisms that have been proposed in previous diversity research. Our aim has been to empirically evaluate and assess in a careful and

Table 5 (continued)

Panel E: RDIV = TBQD

Dependent variable: $SALESGR_{t+1}$					
Year t =	2011	2014	2017	2020	2021
Intercept	0.09	0.10	-0.01	0.13	0.26
	(0.6)	*(0.5)*	*(-0.1)*	*(0.7)*	*(1.4)*
RDIV = $TBQD_t$	-0.05	-0.07	-0.03	0.00	-0.08
	(-0.3)	*(-0.3)*	*(-0.3)*	*(0.0)*	*(-0.6)*
FEM_t	0.12	-0.07	0.01	-0.14	0.09
	(2.0)	*(-1.0)*	*(0.2)*	*(-1.5)*	*(1.0)*
$SALESGR_t$	0.22	0.25	0.36	-0.26	0.15
	(4.7)	*(5.1)*	*(8.2)*	*(-4.2)*	*(3.4)*
$LnMVE_t$	0.00	0.00	0.01	0.01	-0.01
	(-0.1)	*(-0.2)*	*(2.2)*	*(1.1)*	*(-1.3)*
$LnNExecs_t$	-0.01	-0.01	0.00	-0.02	0.00
	(-0.7)	*(-1.1)*	*(-0.2)*	*(-0.8)*	*(0.2)*
FF12 FEs	Yes	Yes	Yes	Yes	Yes
d.f.	266	360	393	455	457
Adj. R^2	9.8%	44.5%	26.1%	22.0%	19.2%

Dependent variable: GM_{t+1}					
Year t =	2011	2014	2017	2020	2021
Intercept	-0.07	-0.16	0.04	0.07	0.06
	(-0.9)	*(-0.5)*	*(0.8)*	*(0.9)*	*(1.3)*
RDIV = $TBQD_t$	0.05	0.14	0.00	0.04	-0.01
	(0.6)	*(0.4)*	*(-0.0)*	*(0.6)*	*(-0.2)*
FEM_t	-0.04	0.01	0.00	0.04	0.00
	(-1.3)	*(0.2)*	*(-0.3)*	*(0.9)*	*(0.0)*
GM_t	0.97	0.79	0.96	0.92	0.91
	(57.4)	*(15.9)*	*(100.2)*	*(43.6)*	*(76.6)*
$LnMVE_t$	0.01	0.02	0.00	-0.01	0.00
	(1.5)	*(2.5)*	*(-0.4)*	*(-2.1)*	*(-0.6)*
$LnNExecs_t$	0.00	-0.04	0.00	0.01	0.01
	(-0.1)	*(-1.7)*	*(-0.3)*	*(1.8)*	*(1.3)*
FF12 FEs	Yes	Yes	Yes	Yes	Yes
d.f.	266	360	393	455	457
Adj. R^2	94.1%	60.8%	97.2%	85.2%	94.7%

Dependent variable: $EBITM_{t+1}$					
Year t =	2011	2014	2017	2020	2021
Intercept	-0.08	-0.20	0.03	0.08	0.00
	(-1.3)	*(-0.6)*	*(0.5)*	*(1.0)*	*(-0.0)*
RDIV = $TBQD_t$	0.03	0.04	-0.03	-0.01	-0.01
	(0.4)	*(0.1)*	*(-0.6)*	*(-0.2)*	*(-0.3)*
FEM_t	-0.02	-0.04	0.01	-0.04	-0.01
	(-1.0)	*(-0.4)*	*(0.5)*	*(-1.0)*	*(-0.5)*
$EBITM_t$	0.90	0.71	0.94	0.46	0.83
	(36.0)	*(7.1)*	*(52.4)*	*(17.3)*	*(34.9)*
$LnMVE_t$	0.01	0.03	0.00	0.01	0.00
	(2.4)	*(2.7)*	*(1.0)*	*(1.3)*	*(0.2)*
$LnNExecs_t$	0.00	-0.02	0.00	0.00	0.02
	(0.0)	*(-1.0)*	*(0.2)*	*(0.4)*	*(2.7)*
FF12 FEs	Yes	Yes	Yes	Yes	Yes
d.f.	266	360	393	455	457
Adj. R^2	86.9%	49.3%	90.8%	53.4%	78.1%

Dependent variable: ROA_{t+1}					
Year t =	2011	2014	2017	2020	2021
Intercept	0.04	-0.07	0.01	0.04	-0.01
	(0.8)	*(-0.8)*	*(0.2)*	*(1.0)*	*(-0.3)*
RDIV = $TBQD_t$	-0.04	0.01	-0.04	0.03	-0.04
	(-0.8)	*(0.1)*	*(-0.6)*	*(0.8)*	*(-1.2)*
FEM_t	0.01	-0.02	0.03	-0.03	-0.04
	(0.3)	*(-0.9)*	*(1.1)*	*(-1.3)*	*(-1.7)*
ROA_t	0.81	0.79	0.78	0.66	0.68
	(19.3)	*(14.4)*	*(18.0)*	*(21.4)*	*(19.1)*
$LnMVE_t$	0.00	0.01	0.01	0.00	0.01
	(0.7)	*(3.0)*	*(2.5)*	*(-0.1)*	*(2.4)*
$LnNExecs_t$	-0.01	0.00	0.00	0.00	0.00
	(-1.8)	*(-0.3)*	*(-0.1)*	*(-0.8)*	*(0.3)*
FF12 FEs	Yes	Yes	Yes	Yes	Yes
d.f.	266	360	393	455	457
Adj. R^2	67.0%	57.2%	54.7%	58.9%	55.2%

Dependent variable: ROE_{t+1}					
Year t =	2011	2014	2017	2020	2021
Intercept	-0.15	-0.21	0.36	-0.80	-0.34
	(-0.5)	*(-0.5)*	*(0.8)*	*(-1.3)*	*(-0.5)*
RDIV = $TBQD_t$	-0.20	-0.21	-0.77	0.14	0.45
	(-0.6)	*(-0.5)*	*(-1.7)*	*(0.3)*	*(0.8)*
FEM_t	0.03	-0.03	0.27	0.25	0.50
	(0.3)	*(-0.3)*	*(1.6)*	*(0.8)*	*(1.4)*
ROE_t	0.33	1.04	0.55	0.13	0.08
	(11.9)	*(16.3)*	*(13.5)*	*(3.0)*	*(1.6)*
$LnMVE_t$	0.05	0.04	0.03	0.08	0.00
	(3.9)	*(3.8)*	*(1.8)*	*(2.4)*	*(0.1)*
$LnNExecs_t$	-0.04	-0.01	0.05	0.02	-0.05
	(-1.6)	*(-0.3)*	*(1.4)*	*(0.3)*	*(-0.7)*
FF12 FEs	Yes	Yes	Yes	Yes	Yes
d.f.	266	360	393	455	457
Adj. R^2	37.0%	53.3%	35.4%	3.1%	-0.4%

Dependent variable: TSR_{t+1}					
Year t =	2011	2014	2017	2020	2021
Intercept	0.14	0.08	-0.43	0.83	-0.17
	(0.4)	*(0.2)*	*(-1.4)*	*(3.2)*	*(-0.9)*
RDIV = $TBQD_t$	0.02	-0.20	0.26	-0.26	-0.10
	(0.1)	*(-0.5)*	*(0.9)*	*(-1.2)*	*(-0.7)*
FEM_t	0.01	-0.07	-0.13	-0.16	0.01
	(0.1)	*(-0.6)*	*(-1.2)*	*(-1.2)*	*(0.1)*
TSR_t	-0.03	0.24	0.00	-0.07	-0.16
	(-0.5)	*(4.1)*	*(0.0)*	*(-1.4)*	*(-4.9)*
$LnMVE_t$	-0.01	0.01	0.02	-0.03	0.01
	(-0.5)	*(0.9)*	*(1.5)*	*(-1.8)*	*(0.9)*
$LnNExecs_t$	0.01	-0.01	0.03	0.01	0.00
	(0.2)	*(-0.4)*	*(1.6)*	*(0.2)*	*(0.1)*
FF12 FEs	Yes	Yes	Yes	Yes	Yes
d.f.	266	360	393	455	457
Adj. R^2	2.1%	11.3%	11.5%	13.3%	38.0%

Panel F: RDIV = B, EA, LAT, SA included separately, with the coefficient on each capturing the increment relative to the coefficient on W

Dependent variable: $SALESGR_{t+1}$					
Year t =	2011	2014	2017	2020	2021
Intercept	0.05	0.04	-0.04	0.06	0.20
	(0.8)	*(0.5)*	*(-0.8)*	*(0.5)*	*(1.7)*
RDIV = B_t	0.09	-0.05	-0.01	**-0.62**	-0.02
	(0.7)	*(-0.4)*	*(-0.1)*	***(-2.9)***	*(-0.1)*
RDIV = EA_t	-0.27	0.01	-0.05	0.25	-0.01
	(-1.8)	*(0.1)*	*(-0.5)*	*(1.4)*	*(-0.0)*
RDIV = LAT_t	-0.01	-0.08	-0.05	-0.06	0.44
	(-0.1)	*(-0.5)*	*(-0.6)*	*(-0.4)*	*(2.8)*
RDIV = SA_t	-0.01	0.03	-0.01	0.16	-0.01
	(-0.1)	*(0.2)*	*(-0.1)*	*(1.1)*	*(-0.1)*
FEM_t	0.12	-0.06	0.01	-0.12	0.08
	(2.0)	*(-1.0)*	*(0.3)*	*(-1.2)*	*(0.9)*
$SALESGR_t$	0.23	0.25	0.36	-0.27	0.16
	(4.9)	*(5.0)*	*(8.1)*	*(-4.4)*	*(3.4)*
$LnMVE_t$	0.00	0.00	0.01	0.02	-0.01
	(-0.2)	*(-0.1)*	*(2.3)*	*(1.5)*	*(-1.4)*
$LnNExecs_t$	-0.01	-0.01	0.00	-0.01	0.00
	(-0.7)	*(-1.0)*	*(-0.1)*	*(-0.5)*	*(0.0)*
FF12 FEs	Yes	Yes	Yes	Yes	Yes
d.f.	263	357	390	452	454
Adj. R^2	10.0%	44.2%	25.6%	23.7%	20.1%

Dependent variable: GM_{t+1}					
Year t =	2011	2014	2017	2020	2021
Intercept	-0.03	-0.03	0.04	0.11	0.04
	(-0.9)	*(-0.3)*	*(1.9)*	*(2.3)*	*(1.5)*
RDIV = B_t	-0.03	0.07	0.00	-0.04	-0.08
	(-0.4)	*(0.4)*	*(0.1)*	*(-0.4)*	*(-1.6)*
RDIV = EA_t	-0.03	-0.08	0.04	0.00	0.05
	(-0.4)	*(-0.3)*	*(1.0)*	*(0.0)*	*(1.0)*
RDIV = LAT_t	0.01	-0.06	-0.03	-0.05	-0.02
	(0.2)	*(-0.3)*	*(-0.9)*	*(-0.7)*	*(-0.4)*
RDIV = SA_t	-0.03	0.25	0.03	-0.04	0.01
	(-0.5)	*(1.3)*	*(0.9)*	*(-0.7)*	*(0.3)*
FEM_t	-0.04	0.02	-0.01	0.04	0.01
	(-1.2)	*(0.2)*	*(-0.3)*	*(1.0)*	*(0.2)*
GM_t	0.97	0.78	0.96	0.92	0.91
	(56.8)	*(15.7)*	*(99.8)*	*(43.2)*	*(76.2)*
$LnMVE_t$	0.01	0.02	0.00	-0.01	0.00
	(1.5)	*(2.4)*	*(-0.4)*	*(-2.0)*	*(-0.3)*
$LnNExecs_t$	0.00	-0.04	0.00	0.02	0.01
	(0.1)	*(-1.7)*	*(-0.3)*	*(1.9)*	*(1.4)*
FF12 FEs	Yes	Yes	Yes	Yes	Yes
d.f.	263	357	390	452	454
Adj. R^2	94.1%	60.7%	97.2%	85.1%	94.7%

Dependent variable: $EBITM_{t+1}$					
Year t =	2011	2014	2017	2020	2021
Intercept	-0.05	-0.15	-0.01	0.06	-0.02
	(-2.1)	*(-1.5)*	*(-0.3)*	*(1.1)*	*(-0.6)*
RDIV = B_t	-0.01	0.12	-0.02	-0.09	-0.07
	(-0.2)	*(0.6)*	*(-0.4)*	*(-0.9)*	*(-1.1)*
RDIV = EA_t	-0.03	0.01	0.05	0.11	0.07
	(-0.5)	*(0.0)*	*(1.4)*	*(1.3)*	*(1.3)*
RDIV = LAT_t	0.01	0.05	-0.04	-0.07	0.00
	(0.2)	*(0.2)*	*(-1.2)*	*(-1.0)*	*(0.1)*
RDIV = SA_t	-0.04	0.11	0.01	-0.03	-0.01
	(-0.9)	*(0.6)*	*(0.4)*	*(-0.4)*	*(-0.2)*
FEM_t	-0.02	-0.05	0.01	-0.04	-0.01
	(-1.0)	*(-0.5)*	*(0.5)*	*(-0.9)*	*(-0.4)*
$EBITM_t$	0.89	0.70	0.94	0.45	0.83
	(35.3)	*(7.1)*	*(52.4)*	*(17.2)*	*(34.8)*
$LnMVE_t$	0.01	0.03	0.00	0.01	0.00
	(2.4)	*(2.5)*	*(1.1)*	*(1.5)*	*(0.4)*
$LnNExecs_t$	0.00	-0.02	0.00	0.00	0.02
	(0.1)	*(-1.0)*	*(0.2)*	*(0.4)*	*(2.7)*
FF12 FEs	Yes	Yes	Yes	Yes	Yes
d.f.	263	357	390	452	454
Adj. R^2	86.8%	48.9%	90.8%	53.4%	78.1%

Dependent variable: ROA_{t+1}					
Year t =	2011	2014	2017	2020	2021
Intercept	0.00	-0.06	-0.03	0.06	-0.07
	(-0.0)	*(-2.1)*	*(-1.1)*	*(2.4)*	*(-2.3)*
RDIV = B_t	-0.02	0.04	-0.01	-0.02	-0.05
	(-0.3)	*(0.8)*	*(-0.3)*	*(-0.5)*	*(-1.0)*
RDIV = EA_t	0.02	-0.05	0.08	**0.08**	0.10
	(0.4)	*(-0.7)*	*(1.7)*	***(2.1)***	*(2.0)*
RDIV = LAT_t	0.01	0.03	-0.04	**-0.09**	-0.03
	(0.2)	*(0.5)*	*(-0.9)*	***(-2.5)***	*(-0.7)*
RDIV = SA_t	-0.02	-0.02	0.06	0.01	0.04
	(-0.4)	*(-0.4)*	*(1.4)*	*(0.4)*	*(1.2)*
FEM_t	0.00	-0.02	0.02	-0.03	-0.04
	(0.2)	*(-0.9)*	*(1.0)*	*(-1.3)*	*(-1.7)*
ROA_t	0.81	0.80	0.77	0.65	0.67
	(18.4)	*(14.4)*	*(17.8)*	*(21.0)*	*(18.5)*
$LnMVE_t$	0.00	0.01	0.01	0.00	0.01
	(0.8)	*(2.8)*	*(2.5)*	*(0.1)*	*(2.5)*
$LnNExecs_t$	-0.01	0.00	0.00	0.00	0.00
	(-1.9)	*(-0.3)*	*(-0.2)*	*(-0.7)*	*(0.3)*
FF12 FEs	Yes	Yes	Yes	Yes	Yes
d.f.	263	357	390	452	454
Adj. R^2	65.6%	57.1%	55.0%	59.5%	55.5%

Dependent variable: ROE_{t+1}					
Year t =	2011	2014	2017	2020	2021
Intercept	-0.43	-0.39	-0.38	-0.59	0.04
	(-2.4)	*(-3.3)*	*(-2.0)*	*(-1.5)*	*(0.1)*
RDIV = B_t	-0.12	0.27	0.45	1.05	-0.20
	(-0.3)	*(1.2)*	*(1.3)*	*(1.5)*	*(-0.3)*
RDIV = EA_t	0.45	-0.04	**0.73**	-0.04	1.41
	(1.0)	*(-0.1)*	***(2.0)***	*(-0.1)*	*(1.8)*
RDIV = LAT_t	0.13	0.09	0.10	0.14	-0.15
	(0.3)	*(0.3)*	*(0.3)*	*(0.2)*	*(-0.2)*
RDIV = SA_t	0.13	-0.02	0.44	0.02	-0.54
	(0.4)	*(-0.1)*	*(1.4)*	*(0.0)*	*(-1.0)*
FEM_t	-0.05	-0.04	0.25	0.20	0.50
	(-0.3)	*(-0.3)*	*(1.5)*	*(0.6)*	*(1.4)*
ROE_t	0.42	1.03	0.54	0.13	0.08
	(11.0)	*(16.2)*	*(13.2)*	*(3.0)*	*(1.5)*
$LnMVE_t$	0.06	0.04	0.03	0.07	0.00
	(3.1)	*(3.6)*	*(1.7)*	*(2.1)*	*(0.1)*
$LnNExecs_t$	-0.05	-0.01	0.03	0.01	-0.05
	(-1.3)	*(-0.4)*	*(0.9)*	*(0.2)*	*(-0.7)*
FF12 FEs	Yes	Yes	Yes	Yes	Yes
d.f.	263	357	390	452	454
Adj. R^2	31.9%	53.1%	35.6%	2.9%	-0.3%

Dependent variable: TSR_{t+1}					
Year t =	2011	2014	2017	2020	2021
Intercept	0.14	-0.11	-0.16	0.50	-0.28
	(1.0)	*(-0.9)*	*(-1.4)*	*(3.2)*	*(-2.5)*
RDIV = B_t	-0.30	0.09	0.09	-0.48	-0.26
	(-1.0)	*(0.3)*	*(0.4)*	*(-1.6)*	*(-1.3)*
RDIV = EA_t	-0.40	0.25	-0.07	**0.68**	0.06
	(-1.1)	*(0.8)*	*(-0.3)*	***(2.7)***	*(0.3)*
RDIV = LAT_t	0.18	-0.23	0.08	-0.26	0.26
	(0.5)	*(-0.8)*	*(0.4)*	*(-1.1)*	*(1.7)*
RDIV = SA_t	-0.19	0.01	0.03	0.26	-0.09
	(-0.7)	*(0.1)*	*(0.1)*	*(1.3)*	*(-0.7)*
FEM_t	0.03	-0.07	-0.14	-0.15	0.03
	(0.2)	*(-0.6)*	*(-1.3)*	*(-1.2)*	*(0.3)*
TSR_t	-0.03	0.23	0.00	-0.08	-0.16
	(-0.5)	*(4.0)*	*(0.1)*	*(-1.7)*	*(-4.9)*
$LnMVE_t$	0.00	0.01	0.02	-0.02	0.01
	(-0.3)	*(0.9)*	*(1.3)*	*(-1.5)*	*(1.1)*
$LnNExecs_t$	0.01	-0.01	0.04	0.01	0.00
	(0.4)	*(-0.4)*	*(1.7)*	*(0.2)*	*(0.1)*
FF12 FEs	Yes	Yes	Yes	Yes	Yes
d.f.	263	357	390	452	454
Adj. R^2	2.0%	10.8%	10.8%	15.0%	38.2%

Table 6 Summary of the results of Table 5's annual cross-sectional regressions of the 1-year-ahead financial performance FFP_{t+1} of S&P 500 firms on measures of the racial/ethnic diversity of their executives at mid-year t $RDIV_t$, the density of female executives FEM_t, and other control variables FFP_t, firm market cap $LnMVE_t$, and number of executives $LnNExecs_t$. FFP_{t+1} is one of 6 measures, each of which is winsorized at the 1st and 99th percentiles: Year-over-year % growth in revenue SALESGR, gross margin as a percent of revenue GM, earnings before interest and taxes as a percent of revenue EBITM, return on assets % ROA, return on equity % ROE, and total shareholder return % TSR. Years are $t = 2011$, 2014, 2017, 2020, and 2021. All regressions include fixed effects for Fama–French 12 industries. Plus-minus signs denote the number of estimated coefficients in the five (six) sets of annual regressions pertaining to $RDIV_t$ (FEM_t) that are reliably positive/negative. The fraction of estimated coefficients that are significantly non-zero at a two-tailed level of $\alpha \leq 0.05$ is in the bottom-most right hand corner

	↓ Measure of firm financial performance$_{t+1}$						Sum of rows	Total # estim. coefs =
↓ RDIV$_t$	SALESGR	GM	EBITM	ROA	ROE	TSR		
NHHI8	0	0	0	0	+	0	1	30
NHHI5	0	0	0	0	+	0	1	30
NONW	0	0	0	0	+	0	1	30
SHANNEN	0	0	0	0	+	0	1	30
TBQD	0	0	0	0	0	0	0	30
B	–	0	0	0	0	0	1	30
EA	0	0	0	+	+	+	3	30
LAT	0	0	0	–	0	0	1	30
SA	0	0	0	0	0	0	0	30
# signif. coefs.	1	0	0	2	5	1	9	270
Fraction of estimated coefficients that are significantly non-zero at 2-tailed $\alpha < 0.05$ →								3.3%

rigorous manner the "business case for diversity" hypotheses in S&P 500 firms. As such, we focus on firm-level financial performance as our dependent variable. Thus, while we do not find evidence in support of "the business case for diversity" arguments, our findings do not speak to more proximate outcomes of top management team dynamics such as information processing and strategic decision-making.

Second, the measures of race/ethnicity that we employ are subjectively coded and may contain errors. This is unavoidable outside of obtaining self-reported identification by each executive. While we make no representation to perfect accuracy, we undertook a number of steps to verify that executive race/ethnicity classifications were of the highest quality, both within each year and for any given firm across years. Future research may explore alternative methods of classifying the race/ethnicity of executives, such as using List Service Direct's names-based approach, or the DeepFace facial recognition system created by a research group at Facebook that uses digital images of human faces to make predictions about age, gender, facial expression and race/ethnicity, to determine whether the inferences we have made change using such alternative methods of classifying executives' race/ethnicity.

Third, while they account for 80%+ of the market capitalization of all US public firms, because we study only S&P 500 firms, our results do not necessarily speak to start-ups, small public firms, private firms, non-US firms, partnerships, or governmental entities. Each of these types of entity likely warrant their own longitudinal and cross-sectional analyses, and we encourage research along these lines.

Fourth, the focus of our study is on the racial/ethnic diversity of executives. Our results do not therefore necessarily extrapolate to outcomes connected to the racial/ethnic diversity of other stakeholder groups such as middle managers, front-line employees, and boards of directors. Future research could combine data on executive racial/ethnic diversity with similar types of diversity data in other stakeholder groups to assess whether our results for executives generalize to such groups. One example of the dividends from this kind of an approach is found in Post and Byron (2015), who report higher (lower) gender diversity in a firm's board of directors in countries with greater (smaller) gender parity, suggesting that the value of representation from an under-represented group might be contingent on the representation of a larger stakeholder group (e.g., employees, board of directors, customers, etc.). Research of this synergistic kind would help integrate prior work in the area of executive diversity (Jeong and Harrison 2017) with prior work having to do with workforce diversity (Herring 2009).

Conclusions

In light of the often-conflicting views of academics, activists, business leaders, and consultants, our paper has sought to provide fresh evidence on the question of whether greater diversity in executive race/ethnicity reliably predicts better future firm financial performance. The approach we took was to gather data on the race/ethnicity of the individuals on the leadership pages of S&P 500 firms' websites as mid-2011,

2014, 2017, 2020, and 2021, who we define to be executives, and determine if any of nine measures of executives' racial/ethnic diversity reliably predict cross-sectional variation in any of six measures of firm financial performance over the next fiscal year.

We find that they do not, neither over the full 11-year span of our data nor in the period of America's "awakening" to systematic racism after the George Floyd murder in 2020 (Parks 2021). Of the total of 270 estimated coefficients on our nine measures of executive racial/ethnic diversity across our six measures of 1-year-ahead firm financial performance over the years 2012, 2015, 2018, 2021, and 2022, we find that just under 4% are significantly non-zero at a 2-tailed level of $\alpha \leq 0.05$. We also observe a lack of statistically reliable causal connections in a variety of robustness tests. As such, our results do not support the popularly claimed "business case for diversity" when the claim is assessed using 1-year-ahead aggregate firm-level financial performance metrics and the race/ethnicity of S&P 500 executives over the last decade. Our results also suggest that caution is warranted in relying on the findings of premier practitioner studies such as McKinsey (2015, 2018, 2020) to support the view that US publicly traded firms can causally deliver improved financial performance if they increase the racial/ethnic diversity of their executives. Instead, our evidence is consistent with the microeconomic argument made by Demsetz (1983) and Demsetz and Lehn (1985) that there will be no relation between the racial/ethnic diversity of executives and business performance, since such a relation would mean that some firms were not profit-maximizing.

Lastly, we note that as is the case in the unusual and atypical set of The Best (US) Companies to Work For studied by Edmans et al. (2023), our null findings for the predictive power of racial/ethnic diversity for future financial performance and valuation do not necessarily speak to or fully overlap with the academic, business, and social constructs of diversity, equity, and inclusion. For this and other reasons pertaining to the limitations of any one study, we caution that our results should not be extended beyond the convex hull of our data. At the same time, however, we propose that research based on extending our dataset and/or that of other scholars to include a larger number of dimensions of the diversities in firms' human capital and evaluate the causes and consequences of such diversities will pay significant dividends.

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Data Availability The datasets generated and analyzed in the current study are not publicly available because they constitute an excerpt of research in progress. They may be made available from the corresponding author on reasonable request.

Declarations

Ethics Approval and Consent to Participate Not applicable.

Human and Animal Ethics Not applicable.

Consent for Publication Is hereby provided by all three authors.

Competing Interests The authors declare no competing interests.

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